CITY OF DELAND
REGULAR MEETING OF THE CITY COMMISSION
OCTOBER 6, 2025 AT 7:00 PM
CITY HALL, COMMISSION CHAMBERS
120 SOUTH FLORIDA AVENUE

AGENDA

CALL TO ORDER

INVOCATION- Pastor Mark Schrade, City Sanctuary Church

PLEDGE OF ALLEGIANCE

ROLL CALL

PRESENTATIONS

1. City of DeLand, Super Star Students of the Month.
2. Presentation re Hometown Heros.
3. Proclamation, Hispanic Heritage Month.
4. Proclamation, Fire Prevention Week.
5. Proclamation, National Community Planning Month.
6. Employee Years of Service Awards.
7. Promotion Ceremony: Dylan Scott, Officer to Corporal.

CONSENT AGENDA

1. Consideration re Managed Services Agreement for Gray Quarter.

   It is recommended that the City Commission approve the managed services agreement with Gray Quarter.

2. Consideration re State Revolving Fund Amendment #2 to Loan Agreement WW641120 for Wastewater Treatment Facility Construction.

   Staff recommends that the City Commission approve the Loan Agreement Amendment #2 Contract # WW641120 between the State of Florida Department of Environmental Protection and the City of DeLand's for the Wiley M. Nash Water Reclamation Plant project.

3. Consideration re Contract Renewal for the ePermitHub Subscription Service.

   Consideration of a renewal of a contract for ePermitHub.

4. Consideration re Utility Service Agreement and Fair Share Agreement for Rich Fern Village Subdivision.

Staff recommends that the City Commission approve the Utility Service and Fair Share Agreements for the Rich Fern Village subdivision.

5. Consideration re Grant of Easement to Duke Energy, DeLand Airport T-Hangar Electrical Site at 1500 Flightline Boulevard.

   Staff recommends that the City Commission approve the easement granting Duke Energy the right to install upgrade power service to the three T-Hangar units located at 1500 Flightline Boulevard.

6. Consideration re Acceptance of Sidewalk Easement Located Along West Volusia Avenue.

   Consideration of agreement and easement for ingress and egress along West Volusia Avenue on property located at 742 South Sans Souci Avenue in DeLand.

PETITIONS AND REQUESTS FROM THE PUBLIC PRESENT

OLD BUSINESS

1. First Reading of Ordinance Changing the Zoning for ±7.35 Acres of Property, Located on South Woodland Boulevard from Mainstreet Townhomes PD to C-2 (General Commercial).

   Request to rezone ±7.35 acres of property from Mainstreet Townhomes PD to C-2 (general commercial).

NEW BUSINESS

1. First Reading of Ordinance Amending Land Development Regulations, Sections 33-17, 33-19.15, and 33-12, Regarding Tiny Home Communities.

   City-Initiated Land Development Regulations Text Amendments to modify Sections 33-17, 33-19.15, and 33-12 , to clarify where Tiny Home Communities are permitted by conditional use and associated performance standards and definitions.

2. First Reading of Ordinance Amending Section 7-2, "Local Supplements to the Florida Building Code, Administration," Subsection 101.2.3(4), to Add Appendix Q.

   First Reading of Ordinance Amending Chapter 7 - Building and Housing Codes.

3. First Reading of Ordinance Changing the Land Use for ±1.3 Acres of Property, Located at 955 West New York Avenue, from Mixed Office/Residential To Mixed Commercial (With Historic Core Overlay).

   This request is to amend the Land Use designation for approximately ±1.3 acres of property, located at 955 West New York Avenue from Mixed Office/ Residential to Mixed Commercial (with Historic Core overlay).

4. First Reading of Ordinance Changing the Zoning for ±1.3 Acres of Property Located at 955 West New York Ave, from P-1 (Professional-Residential) to C-1 (Neighborhood Commercial).

   The City Commission is requested to approve the rezoning of this parcel from P-1 (Professional Residential) to C-1 (Neighborhood Commercial).

5. First Reading of Ordinance Changing the Zoning for ±15.50 Acres of Property Located at the Northwest Corner of South Blue Lake Avenue and East Beresford Avenue, from Volusia County R-3 (Single-Family) to City of DeLand R-1A (Single-Family).

   This is a request to rezone ±15.50 acres of property from VC R-3 to City of DeLand R-1A, for the future development of a single-family residential subdivision.

6. First Reading of Ordinance Annexing ±20.13 Acres of Property, Located at 210 North Ridgewood Avenue (DeLand Reserve).

   This request is for approval to annex ±20.13 acres of property into the City of DeLand to develop a residential project with a subsequent land use amendment to Medium Density Residential and a rezone request to the DeLand Reserve Planned Development.

7. First Reading of Ordinance Changing the Land Use for ±20.13 Acres of Property, Located at 210 N Ridgewood Avenue, from Volusia County Rural to City of DeLand Medium-Density Residential (MDR).

   This request is for approval to change the land use of the subject property from Volusia County Rural to City of DeLand Medium-Density Residential (MDR), on first reading, and direct staff to transmit the amendment to the Volusia Growth Management Commission. The second reading should be delayed until the application is reviewed by the Volusia Growth Management Commission.

8. First Reading of Ordinance Changing the Zoning for ±20.13 Acres of Property, Located at 210 North Ridgewood Avenue, from Volusia County A-3C (Transitional Agricultural with Thoroughfare Overlay Zone) to DeLand Reserve PD (Planned Development).

   First Reading of Ordinance Changing the Zoning for ±20.13 Acres of Property, Located at 210 North Ridgewood Avenue, from Volusia County A-3C (Transitional Agricultural with Thoroughfare Overlay Zone) to DeLand Reserve PD (Planned Development).

9. First Reading of Ordinance Annexing ±41.41 Acres of Property, Located North of SR 472 and East of South Blue Lake Avenue.

   This is a request for annexation of ± 41.41 acres of property into the City limits of DeLand.

10. First Reading of Ordinance Changing the Land Use for ±39.24 Acres of Property, Located North of SR 472 and East of South Blue Lake Avenue, from Volusia County Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce) to City Of Deland Low Density Residential (LDR).

    This is a request for changing the future land use for ±39.24 Acres of property.

11. First Reading of Ordinance Changing the Zoning for ±39.24 Acres of Property, Located North of SR 472 and East of South Blue Lake Avenue, from Volusia County Southwest Activity Center Community (SWR) and Volusia County Southwest Activity Center Commerce (SWC) to Canopy Preserve PD (Planned Development).

    This is a request for changing the zoning for ±39.24 Acres of property.

12. Resolution Approving the Preliminary Plat for Taylor Ridge, Located at the Northwest Corner of South Blue Lake Avenue and East Taylor Avenue.

The applicant is seeking approval of a preliminary plat to develop a 63-lot single-family residential subdivision.

13. Request to Continue Resolution Approving a Special Exception for a Bed and Breakfast Homestay, Located at 302 South Hayden Avenue.

    Request to Continue Resolution Approving a Special Exception for a Bed and Breakfast Homestay, located at 302 South Hayden Avenue.

CITY COMMISSION REPORTS

1. Report re Elected Officials Round Table.

2. Report re Volusia-Flagler TPO.

3. Report re River of Lakes Heritage Corridor.

CITY MANAGER REPORT

CITY ATTORNEY REPORT

CITY CLERK REPORT

CITY COMMISSION

ADJOURNMENT

The DeLand City Commission holds its regular meetings on the first and third Mondays of each month at 7:00 p.m. in the DeLand City Commission Chambers, 120 South Florida Avenue, DeLand. Notice of special meetings, workshops, changes in dates, times or locations are provided by separate Public Notices, which are posted at City Hall and on the City's web site.

The City of DeLand may take action on any matter during this meeting, including items that are not set forth within this agenda.

Public participation is encouraged on any matter on the agenda. If you desire to be recognized by the Mayor, please fill out a Speaker's Card and present it to the City Clerk.

Minutes of the DeLand City Commission meetings are not transcribed verbatim. If any person decides to appeal a decision made by the City Commission with respect to any matter considered at a public meeting or hearing, he/she will need a record of the proceedings including all testimony and evidence upon which the appeal is to be based. To that end, such person will want to ensure that a verbatim record of the proceedings is made by a court reporter, at the person's own expense.

In accordance with the American Disabilities Act, persons needing a special accommodation in order to participate in the proceedings should notify the City Clerk's Office at least 48 hours in advance of the meeting: 626-7132.

Assisted Listening System receivers are available for the hearing impaired, and can be obtained from the City Clerk.

If you wish to obtain information regarding the City Commission's Agenda, please call the City Clerk's Office: 626-7132.

We respectfully request that all pagers and cell phones be turned OFF during City Commission meetings.

Electronic Information! City Commission agendas and short form minutes are now available on the City's web page: www.deland.org.

CITY MANAGER'S OFFICE
MEMORANDUM

TO: Julia Hewitt, Deputy City Clerk

FROM: Teri Byrnes, Executive Assistant to the City Manager

DATE: September 26, 2025

SUBJECT: City of DeLand Super Star Student of the Month - October

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For the October 6, 2025 agenda, the City of DeLand Super Star Student of the Month recognizes:

Blue Lake Elementary: FAITH MOORE

Chisholm Community Center After School Program: DANIEL BOWMAN

Citrus Grove Elementary: JACOB WREN

DeLand High School: NO SUBMISSION

DeLand Middle School: KALEB SANDBERG

DeLand PAL: NO SUBMISSION

DeLand Police Cadet: NO SUBMISSION

DeLand Preparatory Academy: PERLA LOPEZ

Freedom Elementary: KARSTEN SMITH

George Marks Elementary: KAMILA ROSADO PENA

Southwestern Middle School: GIANA RICHARD

St. Barnabas: JACK LEVINGS

St. Peter's Catholic School: CAMERYN KURTZ

Starke Elementary: MATTHEW DAGUE

Stetson Baptist: ADDISON BROWN

TOP Academy: DENIM HARRIS

Woodward Avenue: JAIDEN MUNIZ

The CITY OF DELAND
Volusia County, Florida

Proclamación

Considerando que, *el Mes de la Herencia Hispana, que se celebra cada año del 15 de septiembre al 15 de octubre, es un momento para honrar las historias, culturas y contribuciones de los estadounidenses cuyos antepasados vinieron de España, México, el Caribe, América Central y América del Sur; y*

Considerando que, *el tema de 2025, «Herencia Colectivo: Honrando el Pasado, Inspirando el Futuro», destaca la importancia de preservar el patrimonio al tiempo que se configura el futuro; y*

Considerando que, *los hispanos y latinoamericanos han desempeñado un papel vital en la formación de nuestra identidad nacional y el fortalecimiento del tejido de nuestra comunidad local a través de sus contribuciones en los negocios, la educación, la medicina, las artes y el servicio público; y*

Considerando que, *la Cámara de Comercio Hispana de Florida Central trabaja incansablemente para empoderar a los profesionales, las empresas y la fuerza laboral hispana fomentando el crecimiento económico, el entendimiento cultural y la participación comunitaria; y*

Considerando que, *nuestra ciudad se enorgullece de reconocer y celebrar los logros de los líderes empresariales hispanos cuya visión, determinación y trabajo duro continúan inspirando a las generaciones futuras.*

Ahora, por lo tanto, *yo, Christopher M. Cloudman, Alcalde de la Ciudad de DeLand, por la presente reconozco y proclamo del 15 de septiembre al 15 de octubre de 2025 como*

Mes de la Herencia Hispana

en la Ciudad de DeLand, y animo a todos los residentes a celebrar el impacto duradero de la cultura, la herencia y los negocios hispanos en la fortaleza y el éxito de nuestra ciudad.

Hecho y proclamado *este día 6 de octubre de 2025.*

_____
Christopher M. Cloudman, Alcalde

Dar fe:

_____
Julie Hennesy, Secretaria Municipal - Auditora

The CITY OF DELAND

Volusia County, Florida

Proclamation

Whereas, *Hispanic Heritage Month, observed each year from September 15th through October 15th, is a time to honor the histories, cultures, and contributions of Americans whose ancestors came from Spain, Mexico, the Caribbean, Central America, and South America; and*

Whereas, *the 2025 theme "Collective Heritage: Honoring the Past, Inspiring the Future", highlights the importance of preserving heritage while shaping the future; and*

Whereas, *Hispanic and Latino Americans have played a vital role in shaping our national identity and strengthening the fabric of our local community through their contributions in business, education, medicine, the arts, and public service; and*

Whereas, *the Hispanic Chamber of Commerce of Central Florida works tirelessly to empower Hispanic professionals, businesses, and the workforce, fostering economic growth, cultural understanding, and community engagement; and*

Whereas, *our city is proud to recognize and celebrate the achievements of Hispanic business leaders whose vision, determination, and hard work continue to inspire future generations.*

Now, therefore, *I, Christopher M. Cloudman, Mayor of the City of DeLand, do hereby recognize and proclaim September 15th to October 15th, 2025, as*

Hispanic Heritage Month

in the City of DeLand, and encourage all residents to celebrate the lasting impact of Hispanic culture, heritage, and business on the strength and success of our city.

Done and proclaimed *this 6th day of October 2025*

_____

Christopher M. Cloudman, Mayor

Attest:

_____

Julie A. Hennessy, City Clerk - Auditor

The CITY OF DELAND

Volusia County, Florida

Proclamation

***Whereas**, the National Fire Protection Association has sponsored the public observance of Fire Prevention Week since 1922, making it the longest-running public health observance in the United States of America; and*

***Whereas,** the City of DeLand Fire Department, in partnership with the National Fire Protection Association, is steadfastly committed to ensuring the safety and security of all those residing in and visiting DeLand, Florida; and*

***Whereas,** Fire Prevention Week is observed each year during the week of October 9th in commemoration of the Great Chicago Fire which began on October 8, 1871 and caused devastating damage. This horrific conflagration killed more than 250 people, left 100,000 homeless, destroyed more than 17,400 structures, and burned more than 2,000 acres of land; and*

***Whereas,** the 2025 Fire Prevention Week theme; "Charge into Fire Safety, Lithium-Ion Batteries in Your Home™" effectively serves to remind us that we need to take personal steps to increase our safety from fire; and*

***Whereas,** in 2023, more than 2,890 citizens across our country lost their lives due to residential fires and Fire Departments across the United States responded to 344,600 home fires; and*

***Whereas,** during Fire Prevention Week, children, adults, and educators learn to stay safe in case of a fire and Firefighters provide lifesaving public outreach in an effort to drastically decrease casualties caused by fire.*

***Now, Therefore,** I, Mayor Chris Cloudman, by virtue of the authority vested in me as Mayor of the City of DeLand, do hereby proclaim October 5-11, 2025, as*

"Fire Prevention Week"

in the City of DeLand and urge all citizens to remember "Charge into Fire Safety, Lithium-Ion Batteries in Your Home™" to remind us that we need to take personal steps to increase our safety from fire.

***Done and proclaimed** this 6th day of October 2025.*

_____

Christopher M. Cloudman, Mayor

Attest:

_____

Julie A. Hennessy, City Clerk - Auditor

The CITY OF DELAND

Volusia County, Florida

Proclamation

Whereas, *planning is the process of envisioning, mapping or otherwise conceiving how a community will look, grow, and define itself; and*

Whereas*, change is constant and impacts all cities, towns, suburbs, rural areas, and other communities and planners can help navigate this change with data-driven insights and expertise that provide better choices for how people live, work, and play; and*

Whereas, *community planning provides an opportunity for all residents to be meaningfully involved in making choices that determine the future of their community, and effective planning requires public officials and citizens who understand, support, and demand excellence in planning and plan implementation; and*

Whereas*, the month of October is designated as Community Planning Month throughout the United States of America and its territories the American Planning Association endorses it as an opportunity to highlight how planning is essential to every community, and how planners are uniquely positioned to identify solutions to communities' most difficult housing, transportation, and land use questions, and*

Whereas*, the celebration of National Community Planning Month provides the opportunity to publicly recognize the participation, dedication and valuable contributions by members of the City Commission, Planning Board, Technical Review Committee, City Planners, and professional community, whose time, expertise, and continued commitment to public service have greatly contributed to the improvement of the City of DeLand; and*

Whereas, *October is National Community Planning Month, and in recognition of this month, the Planning Division plans to celebrate by continuing the full update to the Land Development Regulations with public outreach events, including community surveys and open houses.*

Now, Therefore*, I, Christopher M. Cloudman, Mayor of the City of DeLand, do hereby proclaim October 2025 as:*

"Community Planning Month"

in the City of DeLand in conjunction with the celebration of National Community Planning Month.

Done and proclaimed *this 6th day of October 2025.*

_____

Christopher M. Cloudman, Mayor

Attest:

_____

Julie A. Hennessy, City Clerk - Auditor

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Employee Years of Service Awards.

DEPARTMENT: Human Resources

PREPARED BY: Jeremy Wiggins, HR Director

ATTACHMENTS:

APPROVED BY: Michael Pleus, City Manager, September 29, 2025

SUMMARY/HIGHLIGHT:

The City of DeLand is honored to be able to celebrate the dedicated service from City employees who have spent their career serving our community. At this time, the City of DeLand is proud to recognize the following individuals for their years of service.

10 Years of Service

Christopher Jackson, Arborist Technician Inspector I, Public Works
Eddie Torres, Maintenance Worker III, Parks and Recreation Department

20 Years of Service

Michael Grebosz, Assistant City Manager, Administration Department

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

N/A

SUSTAINABILITY:

N/A

FISCAL IMPACT:

None

RECOMMENDATION:

It is recommended the City Commission present the service awards.

BACKGROUND/DISCUSSION:

N/A

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Consideration re Managed Services Agreement for Gray Quarter.

DEPARTMENT: Information Technology

PREPARED BY: Alberto Cirelli, IT Director

ATTACHMENTS: GrayQuarter92700.00Quote

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:
The city currently utilizes the services of Gray Quarter(GQ) to perform advanced software scripting and updates on a project-by-project basis. GQ recently released a managed services program which would provide greater resources and timelier response times. The enhanced managed services will provide for:

- Contractual SLA-based response and resolution times driven by client-entered ticket severity designations
- Monthly Governance Meeting that leverages continuous improvement with knowledge transfer of tickets closed to empower client Tier 1 team

• Evolution from addressing reactive "parking lot" items to a proactive technology roadmap fostering with solution-centric team
• Leads to higher ROI with funding initiatives due to a consistent support team with intimate knowledge of architecture, configuration, and integrations
• Focus on the empowerment of citizens and making doing business with the client more efficient and seamless

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

High Value Government

SUSTAINABILITY:

NA

FISCAL IMPACT:

The annual costs of $92,700.00 for the managed services agreement are included in the adopted budget for 2025/2026.

RECOMMENDATION:

It is recommended that the City Commission approve the managed services agreement with Gray Quarter.

BACKGROUND/DISCUSSION:

The Community Development Department has utilized the Accela Civic Platform since 2017 as a cloud-based land management software solution for automating the permit process. Gray Quarter has been a partner with the

City since the implementation of Accela to ensure the operational soundness of the online permitting system and its accessibility for city residents and the development community.

TruePoint Solutions
950 East State Highway 114, Suite 105
Southlake
Texas
United States 76092
accounts@truepointsolutions.com

Quote

Valid Until: Dec 31, 2025
Quote Number: 6401714000004605057

BILL TO:	SHIP TO:
DeLand, FL	**DeLand, FL** FL

Account Name:	**DeLand, FL**	Quote Stage:	**Draft**
Contact Name:	**Deborah Glick**		

S.No.	Product Details	Quantity	List Price	Total
1	**Tier 2 Managed Services Lite Subscription** Year 2 Renewal	1	$ 92,700.00	$ 92,700.00

Sub Total	**$ 92,700.00**
Discount	**$ 0.00**
Tax	$ 0.00
Adjustment	$ 0.00
Grand Total	**$ 92,700.00**

Terms and Conditions

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Consideration re State Revolving Fund Amendment #2 to Loan Agreement WW641120 for Wastewater Treatment Facility Construction.

DEPARTMENT: Utilities

PREPARED BY: Jim Ailes, Deputy Public Serv. Director/Utilities Director

ATTACHMENTS: Loan Agreement Amendment #2 Contract #WW641120

APPROVED BY: Michael Pleus, City Manager, September 29, 2025

SUMMARY/HIGHLIGHT:

In the prior fiscal years, the City Commission authorized a loan agreement and an amendment with the State of Florida Department of Environmental Protection for the construction upgrade and expansion of the Wiley M. Nash Water Reclamation Plant. This project has completed the second year of construction and is currently at 82% of completion.

The original loan agreement awarded to the city $20,000,000 dollars toward the construction upgrade and expansion of the plant and amendment #1 awarded an additional amount of $20,000,000 dollars to continue the funding of the construction project, bringing the borrowed amount up to $40,000,000 dollars. The amendment #2 awards the final amount of $13,000,000 dollars to complete the final funding of the construction project, bringing the borrowed amount up to $53,000,000. This agreement needs City Commission approval for the mayor to proceed to sign and give city approval to the state.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Sustainability

SUSTAINABILITY:

Natural Resource Limits.

FISCAL IMPACT:

An additional impact for $13,000,000 dollars is expected for this project and future Capitalized Interest. The first semiannual loan payment shall be due May 15, 2027 in the amount of $1,126,419 dollars and has not changed.

RECOMMENDATION:

Staff recommends that the City Commission approve the Loan Agreement Amendment #2 Contract # WW641120 between the State of Florida Department of Environmental Protection and the City of DeLand's for the Wiley M. Nash Water Reclamation Plant project.

BACKGROUND/DISCUSSION:

N/A

STATE REVOLVING FUND
AMENDMENT 2 TO LOAN AGREEMENT WW641120
CITY OF DELAND

This amendment is executed by the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (Department) and the CITY OF DELAND, FLORIDA, (the "Local Government") existing as a local governmental entity under the laws of the State of Florida. Collectively, the Department and the Local Government shall be referred to as "Parties" or individually as "Party".

The Department and the Local Government entered into a Clean Water State Revolving Fund Loan Agreement, Number WW641120, as amended, authorizing a Loan amount of $40,000,000, excluding Capitalized Interest; and

The Local Government is entitled to additional financing of $13,000,000, excluding Capitalized Interest; and

Certain provisions of the Agreement need revision.

The Parties hereto agree as follows:

1. Subsection 2.03(1) of the Agreement is deleted and replaced as follows:

(1) The financial assistance authorized pursuant to this Loan Agreement consists of the following:

State Resources Awarded to the Local Government Pursuant to this Agreement Consist of the Following Resources Subject to Section 215.97, F.S.:					
State Program Number	Funding Source	CSFA Number	CSFA Title or Fund Source Description	Funding Amount	State Appropriation Category
Original Agreement	Wastewater Treatment and Stormwater Management TF	37.077	Wastewater Treatment Facility Construction	$53,000,000	140131

2. Section 8.09 of the Agreement is deleted and replaced as follows:

8.09. DAVIS-BACON AND RELATED ACTS REQUIREMENTS.

(1) The Local Government shall periodically interview 10% of the work force entitled to Davis-Bacon prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. Local Governments shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. As provided in 29 CFR 5.6(a)(5) all interviews must be conducted in confidence. The Local Government must use

Standard Form 1445 or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(2) The Local Government shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The Local Government shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with Davis-Bacon posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date of the contract or subcontract. Local Governments must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with Davis-Bacon. In addition, during the examinations the Local Government shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(3) The Local Government shall periodically review contractors' and subcontractors' use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor (DOL) or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of laborers, trainees, and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in items (1) and (2) above.

(4) Local Governments must immediately report potential violations of the Davis-Bacon prevailing wage requirements to the appropriate DOL Wage and Hour District Office listed at http://www.dol.gov/whd/america2.htm and to the EPA Region 4 Water Division/Grants and Infrastructure Section by calling 404-562-9345. Additional information on Davis-Bacon guidance is located on the EPA website at: https://www.epa.gov/grants/davis-bacon-and-related-acts-dbra.

3. Section 8.15 of the Agreement is deleted and replaced as follows:

8.15. CIVIL RIGHTS.

The Local Government shall comply with all Title VI requirements of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975 and Section 13 of the Federal Water Pollution Control Act Amendments of 1972 which prohibit activities that are intentionally discriminatory and/or have a discriminatory effect based on race, color, national origin (including limited English proficiency), age, disability, or sex.

4. Article IX of the Agreement is deleted and replaced as follows:

ARTICLE IX – CONTRACTS AND INSURANCE

9.01. CONTRACTS.

(1) The following documentation is required to receive the Department's authorization to award construction contracts:

(a) Proof of advertising.

(b) Award recommendation, bid proposal, and bid tabulation (certified by the responsible engineer).

(c) Certification of compliance with the conditions of the Department's approval of competitively or non-competitively negotiated procurement, if applicable.

(d) Certification Regarding Disbarment, Suspension, Ineligibility and Voluntary Exclusion.

(e) Certification that the Local Government and contractors are in compliance with labor standards, including prevailing wage rates established for its locality by the DOL under the Davis-Bacon Act for Project construction.

(f) Certification that all procurement is in compliance with Section 8.10 which states that all iron and steel products used in the Project must be produced in the United States unless (a) a waiver is provided to the Local Government by the EPA or (b) compliance would be inconsistent with United States obligations under international agreements.

9.02. SUBMITTAL OF CONTRACT DOCUMENTS.

(1) After the Department's authorization to award construction contracts has been received, the Local Government shall submit the following documents:

(a) Contractor insurance certifications.

(b) Executed Contract(s).

(c) Notices to proceed with construction.

(2) After the Local Government has awarded the professional services contract(s), the Local Government shall submit the following documents:

(a) Executed Contract(s).

(b) Professional Services Procurement Certification.

9.03. INSURANCE REQUIRED.

The Local Government shall cause the Project, as each part thereof is certified by the engineer responsible for overseeing construction as completed, and the Utility System (hereafter referred to as "Revenue Producing Facilities") to be insured by an insurance company or companies licensed to do business in the State of Florida against such damage and destruction risks as are customary for the operation of utility systems of like size, type and location to the extent such insurance is obtainable from time to time against any one or more of such risks.

The proceeds of insurance policies received as a result of damage to, or destruction of, the Project or the other Revenue Producing Facilities, shall be used to restore or replace damaged

portions of the facilities. If such proceeds are insufficient, the Local Government shall provide additional funds to restore or replace the damaged portions of the facilities. Repair, construction or replacement shall be promptly completed.

5. Additional financing in the amount of $13,000,000, excluding Capitalized Interest, is hereby awarded to the Local Government.

6. Section 10.01 of the Agreement is deleted and replaced as follows:

10.01. PRINCIPAL AMOUNT OF LOAN.

The estimated principal amount of the Loan is $53,490,400, which consists of $53,000,000 to be disbursed to the Local Government and $490,400 of Capitalized Interest.

Capitalized Interest is not disbursed to the Local Government, but is amortized via periodic Loan repayments to the Department as if it were actually disbursed. Capitalized Interest is computed at the Financing Rate, or rates, set for the Loan. It accrues and is compounded annually from the time when disbursements are made until six months before the first Semiannual Loan Payment is due. Capitalized Interest is estimated prior to establishing the schedule of actual disbursements.

This project is a Segmented Project. Additional State Revolving Fund financing for the Project is dependent upon the availability of additional funds. The current funding limitations and future funding priority entitlement for Segmented Projects are set forth in the Chapter 62-503 of the Florida Administrative Code.

7. A Financing Rate of 0.88 percent per annum is established for the additional financing amount awarded in this amendment. Individually, the interest rate is 0.88 percent per annum and the Grant Allocation Assessment rate is 0 percent per annum.

8. An additional Loan Service Fee in the amount of $260,000, for a total of $1,060,000, is hereby estimated. The fee represents two percent of the Loan amount excluding Capitalized Interest, that is, two percent of $53,000,000.

9. The Semiannual Loan Payment amount is hereby revised and shall be in the amount of $1,490,280. Such payments shall be paid to, and must be received by, the Department beginning on May 15, 2027 and semiannually thereafter on November 15 and May 15 of each year until all amounts due hereunder have been fully paid. Until this Agreement is further amended, each Semiannual Loan Payment will be proportionally applied toward repayment of the amounts owed on each incremental Loan amount at the date such payment is due.

The Semiannual Loan Payment amount is based on the total amount owed of $54,550,400, which consists of the Loan principal plus the estimated Loan Service Fee.

10. Section 10.06 of the Agreement is revised as follows:

The Local Government and the Department acknowledge that the actual Project costs have not been determined as of the effective date of this agreement. Project cost adjustments may be made as a result of Project changes agreed upon by the Department. Capitalized Interest

will be recalculated based on actual dates and amounts of Loan disbursements. If the Local Government receives other governmental financial assistance for this Project, the costs funded by such other governmental assistance will not be financed by this Loan. The Department shall establish the final Project costs after its final inspection of the Project records. Changes in Project costs may also occur as a result of an audit.

Funds disbursed in accordance with Section 4.08 of this Agreement shall be disbursed in the order in which they have been obligated without respect to budgetary line item estimates. All disbursements shall be made from the original Loan amount until that amount has been disbursed; the Financing Rate established for the original Loan amount shall apply to such disbursements for the purpose of determining the associated Capitalized Interest and repayment amount. The Financing Rate established for any additional increment of Loan financing shall be used to determine the Capitalized Interest and repayment amount associated with the funds disbursed from that increment.

The estimated Project costs are revised as follows:

CATEGORY	PROJECT COSTS ($)	AUTHORIZED LOAN AMOUNT ($) TO DATE
Construction and Demolition	89,999,715	*Line items may vary*
Technical Services After Bid Opening	2,218,000	*based on Actual*
Less WG124 funding	(38,000,000)	*Disbursements*
SUBTOTAL (Loan Amount)	54,217,715	53,000,000
Capitalized Interest	490,400	490,400
TOTAL (Loan Principal Amount)	54,708,115	53,490,400

11. Subsection 10.07(4) of the Agreement is revised as follows:

(4) The first Semiannual Loan Payment in the amount of $1,490,280 shall be due May 15, 2027.

12. All other terms and provisions of the Loan Agreement shall remain in effect.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

This Amendment 2 to Loan Agreement WW641120 may be executed in two or more counterparts, any of which shall be regarded as an original and all of which constitute but one and the same instrument.

IN WITNESS WHEREOF, the Department has caused this amendment to the Loan Agreement to be executed on its behalf by the Secretary or Designee and the Local Government has caused this amendment to be executed on its behalf by its Authorized Representative and by its affixed seal. The effective date of this amendment shall be as set forth below by the Department.

for
CITY OF DELAND

_____
Mayor

Attest:

_____
City Clerk

SEAL

Approved as to form and legal sufficiency:

_____
City Attorney

for
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____
Secretary or Designee

_____
Date

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Consideration re Contract Renewal for the ePermitHub Subscription Service.

DEPARTMENT: Community Development

PREPARED BY: Rick Werbiskis, Community Dev. Director

ATTACHMENTS: OF - Renewal - DeLand FL - City - ePH 12.1.25-5.8.30 (aligned with current SaaS term)_kn1 (PE)

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The Community Development Department initiated the implementation of the ePermitHub plan review software to facilitate electronic submission and review of plans for all City permitting agencies in December 2020. The contract with ePermitRocket Software, LLC for the electronic plan review software was originally approved by the City Commission on March 18, 2019 and renewed on December 19, 2022. Accela recently acquired the ePermitHub software and has proposed a 5-year renewal agreement subject to a 4% annual increase. Based upon current and anticipated projects, staff recommends renewal of the subscription service as proposed to provide a five-year established cost for enhanced budget forecasting.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

High Value Government.

SUSTAINABILITY:

N/A

FISCAL IMPACT:

A 5-year renewal of the subscription service will result in a total cost of $335,996.86 to be paid from the Permits & Inspections fund.

RECOMMENDATION:

It is staff's recommendation that the City Commission approve the renewal of the subscription service for ePermitHub.

BACKGROUND/DISCUSSION:

The contract with ePermitRocket Software, LLC for the electronic plan review software was originally approved by the City Commission on March 18, 2019 and renewed on December 19, 2022. Accela recently acquired the ePermitHub software and has proposed a 5-year renewal agreement subject to a 4% annual increase.

9110 Alcosta Blvd, Suite H #3030
San Ramon, CA, 94583

Proposed by: Kristine Nelson
Contact Phone: 212.430.4767
Contact Email: knelson@accela.com
Quote ID: Q-37061
Valid Through: 10/10/2025
Currency: USD

Renewal Order Form

Address Information

Bill To:
City of DeLand, FL
120 South Florida Ave.
DeLand, Florida, 32720
United States

Ship To:
City of DeLand, FL
120 South Florida Ave.
DeLand, Florida32720
United States

Billing Name: Leslie Kirkpatrick
Billing Phone: 386-626-7084
Billing Email: kirkpatrickl@deland.org

Services	Year	Start Date	End Date	Term (Months)	Price	Qty	Net Total
ePermitHub Digital Plan Room	Year 1	12/01/2025	05/08/2026	5	$71,716.84	1	$31,453.89
						TOTAL:	$31,453.89

Services	Year	Start Date	End Date	Term (Months)	Price	Qty	Net Total
ePermitHub Digital Plan Room	Year 2	05/09/2026	05/08/2027	12	$71,716.84	1	$71,716.84
						TOTAL:	$71,716.84

Services	Year	Start Date	End Date	Term (Months)	Price	Qty	Net Total
ePermitHub Digital Plan Room	Year 3	05/09/2027	05/08/2028	12	$74,585.51	1	$74,585.51
						TOTAL:	$74,585.51

Services	Year	Start Date	End Date	Term (Months)	Price	Qty	Net Total
ePermitHub Digital Plan Room	Year 4	05/09/2028	05/08/2029	12	$77,568.93	1	$77,568.93
						TOTAL:	$77,568.93

Services	Year	Start Date	End Date	Term (Months)	Price	Qty	Net Total

ePermitHub Digital Plan Room	Year 5	05/09/2029	05/08/2030	12	$80,671.69	1	$80,671.69
						TOTAL:	$80,671.69

Pricing Summary

Period	Net Total
Year 1	$31,453.89
Year 2	$71,716.84
Year 3	$74,585.51
Year 4	$77,568.93
Year 5	$80,671.69
Total	**$335,996.86**

Renewal Terms/Information:

1. Notwithstanding anything to the contrary, this Order Form for Subscription Services, Enhanced Reporting Database (ERD), and Managed Application Services (MAS) is governed by the applicable terms and conditions at www.accela.com/terms/ (collectively, the “Agreement”).

2. No additional or conflicting terms or conditions stated in Customer’s order documentation, including, without limitation, purchase orders, will be incorporated into or form any part of this Order Form or the governing agreement, and all such terms or conditions will be null and void.

3. For Software Licenses, Accela may terminate this Order Form in the event the Software is phased out across Accela’s customer base. In such event, Accela will provide Customer sufficient advance notice and the parties will mutually agree to a migration plan for converting Customer to another Accela generally-available offering with comparable functionality.

4. Subscriptions continue from the Order Start Date through the number of months listed in this Order Form (or if not listed, twelve (12) months). Thereafter Subscriptions automatically renew annually as calculated from Order Start Date of Customer’s first Subscription purchase.

5. All Software Licenses, Maintenance, and Subscription purchases are non-cancelable and non-refundable.

6. Pricing is based upon payment by ACH and check. Payment by credit card (including Purchase Cards) for product and services in this Order Form will be subject to a service charge of 3%. There is no service charge for ACH or check payment.

7. Customer may purchase additional licenses at the same price and for the same term as the licenses in this Order Form. Additional licenses purchased in this way will have the same annual price applicable for the purchase period and will have the same uplift and term dates as Customer’s existing licenses.

Signatures			
Accela, Inc.		**Customer**	
Signature:	Signed by: Michael E Gigliello 73668EE5EB274C8...	Signature:	
Print Name:	Michael E Gigliello	Print Name:	
Title:	Controller	Title:	
Date:	Sep-23-2025	Date:	

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Consideration re Utility Service Agreement and Fair Share Agreement for Rich Fern Village Subdivision.

DEPARTMENT: Utilities

PREPARED BY: Jim Ailes, Deputy Public Serv. Director/Utilities Director

ATTACHMENTS: Utility Service Agreement, Fair Share Agreement, Rich Fern Village Exhibit A 2025

APPROVED BY: Michael Pleus, City Manager, September 29, 2025

SUMMARY/HIGHLIGHT:

The Rich Fern Village subdivision project is located at the south east corner of the intersection of west Plymouth Avenue and Rich Fern Road in the county. The proposed subdivision will equate to seventy-eight (78) residential units. The attached Utility Service Agreement contains the usual terms and conditions required by the City for utility service. No reimbursement for oversizing of offsite utilities is provided. As is consistent with City policy, the developer has executed this agreement for the use and planned improvements to allow increased density in proportion to the capacity of such utilities used by the developer.

The project is also in the West Side Interceptor Force Main service area. Thus, as is consistent with City policy, the developer has executed a West Side Interceptor Force Main Concurrency and Fair Share Agreement which is intended to compensate the City for use of the West Side Interceptor Force Main in proportion to the capacity of that pipeline used by the developer.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

High Value Government

SUSTAINABILITY:

Infrastructure

FISCAL IMPACT:

At buildout, the City will receive water and impact fees and ongoing utility revenue from the seventy-eight (78) equivalent residential units constructed. In addition, the city will receive payment for the West Side Interceptor Fair Share contribution in the amount of $70,122 ($899 per unit x 78 units).

RECOMMENDATION:

Staff recommends that the City Commission approve the attached Utility Service and Fair Share Agreements for the Rich Fern Village subdivision.

BACKGROUND/DISCUSSION:

N/A

UTILITY SERVICE AGREEMENT
FOR
RICH FERN VILLAGE

THIS AGREEMENT is entered into this ____ day of _____, 2025, between the City of DeLand (City) and PLYMOUTH ROAD LLC (Developer) regarding utility service for the, RICH FERN project. In consideration of the mutual covenants and conditions in this Agreement, and subject to any necessary approval by any other governmental agency having jurisdiction, the parties agree as follows:

Section 1. City to furnish service. Upon the terms and conditions in this Agreement, and in accordance with the City's rules and regulations, the City shall provide and shall have the exclusive right to furnish potable water, domestic sewer and reuse irrigation services to the real property located at South East Corner of Rich Fern Road and West Plymouth Ave DeLand, FL and described as:

TAX PARCEL NUMBERS

7901010001000

12-17-29 W 867 FT OF N 384 FT OF LOT 10 SUB GOVT LOT 1 MB 2 PG 29 EXC RD PER OR 3917 PG 1230 PER OR 8513 PG 1351 PER OR 8534 PG 4445

790101000110

12-17-29 W 867 FT OF LOTS 10 11 & 12 EXC N 384 FT OF LOT 10 SUB GOV LOT 1 MB 2 PG 29 PER OR 3917 PG 1230 PER OR 8534 PG 4445

790101000092

12-17-29 S 685.36 FT MEAS ON E/L OF W 20 FT LOTS 9 & 10 MEAS ON N/L & INC E 445.94 FT MEAS ON N/L OF LOTS 10 11 & 12 ASSRS SUB GOVT LOT 4 SEC 1 & GOVT LOT 1 SEC 12 MB 14 PG 184 PER OR 3917 PG 1230 PER OR 8534 PG 4445

Section 2. Service conditioned on construction and acceptance of systems. No water, wastewater or reuse service shall be provided to any part of the property, and no connections to such systems shall be allowed, until the Developer has installed system facilities and improvements in accordance with approved plans and specifications and the City has accepted the conveyance of the systems in writing. The Developer shall apply in writing to the City Engineer for acceptance of the systems. Upon acceptance of the systems, all construction guarantees in favor of the City shall be released.

Section 3. Installation of improvements. The Developer shall install, at its own initial cost and expense (including engineering costs), all lines, pipes, manholes, lift stations, generators, RTU, machinery and other facilities which may be required on and off Developer's property to provide the buildings and occupants with water, wastewater or reuse service and to connect the property to existing City facilities and systems. Upon completion, all off-site and onsite utility improvements shall be conveyed and dedicated to the City. The improvements to be constructed by the Developer off the Developer's property (off-site improvements) shall include:

- The potable water will require a connection to an existing 8" stub out and extension west of approximately 1,200 +/- LF of 8" HDPE or PVC piping to entrance. This will require

installing one 8" x 8" sleeve, five 8" X 8" 45's, one 8" X 8" X 8" tee, three 8" Gate Valves, one 2" Gate Valve with blow off.

- The sanitary sewer connection to the existing 16" force main will require one 16" X 16" X 4" stainless steel tapping sleeve, eight 4" X 4" 45's, two 4" Gate Valves, and approximately 2,600 +/- LF of 4" HDPE or PVC piping to entrance.
- The reclamation connection to the existing 12" reclamation main will require one 12" X 12" X 6" tapping sleeve, two 6" Gate Valves, six 6" X 6" 45's, and approximately 2,525 +/- LF of 6" HDPE or PVC piping to entrance.
- All connections to City facilities shall be made at Developer's expense. All water and reuse meters 2" and below will be installed by the city at the Developer's expense.
- Any other installations required in accordance with the plans and specifications for the subject development or which are otherwise required in accordance with sound utility engineering practices.

Section 4. Approval of design and plans. The design and construction of all facilities to be transferred to and owned and operated by the City shall be subject to prior approval by the City Engineer. The Developer's engineer shall incorporate all applicable standards and specifications of the City into the Developer's engineering design, plans and specifications. The City shall provide assistance to the Developer's engineers as to design and construction requirements and must approve all construction plans and specifications in writing prior to any construction being commenced. The Developer shall obtain all necessary state, county and local permits required for construction, acceptance and operation of the improvements.

Section 5. Access to construction; approval of work and materials. The City may inspect the construction to ensure compliance with the approved plans and specifications and shall retain the power of final approval of work and materials.

Section 6. Testing during and after construction. The Developer's engineer shall properly supervise construction and shall certify to the City Engineer that the systems are installed in accordance with the approved design plans and specifications. The Developer shall conduct at its own expense whatever tests are deemed by the City Engineer to be necessary and reasonable to ensure that the systems are being constructed in accordance with the approved engineering plans and specifications.

Section 7. Conveyance of easements and improvements. The Developer shall at its expense grant to the City adequate transferable easements for water, sewer and reuse lines, for access to lift stations and water stations and related appurtenances as may be deemed necessary by the City.

Section 8. Evidence of conveyance of facilities. By this Agreement Developer hereby transfers to the City the title to the water, wastewater and reuse systems, facilities and improvements to be installed pursuant to this Agreement, effective without further action upon the completion and acceptance by the City of the installation of those systems. As further evidence of this transfer of title, the Developer shall provide to the City a copy of the recorded plat, if any; a bill of sale for the facilities; written easements; deeds to the land on which lift stations, water stations or similar facilities are located; and other evidences of conveyance required by the City.

Section 9. Additional documents to be provided before acceptance of facilities. In addition to the documents of title listed in the previous paragraph, the Developer shall provide to the City the following documents prior to acceptance of the facilities: As-built drawings of utility improvements, (one hard copy signed and sealed, one PDF and one AUTOCAD delivered on a USB drive) furnished one week prior to final inspection; an accounting of the actual costs

(schedule of values) for on-site and off-site construction; letters of acceptance from the appropriate regulatory agency for the systems; certification by the design engineer that the system was constructed as designed; and right-of-way use permits and other permits and licenses obtained from applicable government agencies.

Section 10. Uninterrupted supply not guaranteed. The city does not guarantee an uninterrupted supply of water or reuse at any particular pressure, nor does it assume any duty or obligation to furnish water for extinguishing fires. The City reserves the right to shut off the water in its mains temporarily for necessary purposes. The City shall not be responsible for any damage caused by low pressure, interruption of service or variations in water quality or content.

Section 11. Connections subject to rates and fees. All connections to the water, wastewater and reuse systems shall be subject to the continuing operating rules and regulations of the City including, without limitation, the periodic payment of water, wastewater and reuse charges and fees as provided in the City's rate schedule, and payment of all deposits, meter charges and other fees, rates and charges, including development fees. The rates charged by the City for water, sewer, or reuse service shall be in accordance with its rate schedule, which shall be subject to change from time to time.

Section 12. Reimbursement for oversizing of off-site improvements. This Section Not Used

Section 13. Surcharge for non-domestic waste. The terms wastewater or sanitary sewage used in this agreement are meant to include only human waste, including liquids and solid matter carried from plumbing fixtures normally carried off by drains and sewers, and, except where specifically excluded, bath and toilet wastes, laundry wastes, kitchen wastes and other similar wastes. This service agreement, and any charges contained in this agreement, is based on normal domestic sewage, defined herein as containing not more than two hundred (200) parts per million biochemical oxygen demand or two hundred (200) parts per million suspended solids. Whenever water which contains more than these amounts is to be admitted to the sewers the City and all other pollution control agencies must specifically agree to the connection and an additional charge shall be imposed in accordance with City regulations.

Section 14. Developer to obtain permits. The Developer shall obtain all governmental approvals, licenses and permits necessary for the design, routing, construction, connection and use of the water, wastewater and reuse systems to be installed under this agreement. The City shall render assistance to the Developer in obtaining these approvals, licenses and permits.

Section 15. Service of other properties. The City reserves the right to service other properties through the facilities conveyed by the Developer, and nothing in this Agreement shall be deemed to prohibit or prevent the City from extending its water, wastewater or reuse facilities to any other area.

Section 16. Default by Developer. The Developer's failure to carry out any provision in this agreement shall relieve the City from its obligation to provide water, wastewater or reuse service to the property.

Section 17. Covenant to support annexation. As a condition of supplying potable water, sanitary sewer or reuse service to the proposed Rich Fern Village, Developer agrees to sign a covenant to support annexation to the City of DeLand. This covenant shall be recorded and shall be binding upon all successors and assigns.

Section 18. Entire Agreement; amendment. It is expressly agreed and understood that this is the entire Agreement between the Developer and the City, and that there are no other written or verbal agreements applicable to the subject of this Agreement between the Developer and the City. This Agreement may be amended and modified from time to time by written agreement of the parties.

Section 19. Miscellaneous.

A. Successors. This Agreement shall be binding on the parties hereto, their heirs, administrators, executors, successors in interest and assigns.

B. Binding Nature and Covenants Running with the Land. The provisions of this Agreement shall be binding upon the parties hereto, and upon all successors in interest in the subject real property. And further, the provisions of this Agreement shall constitute covenants running with the land applicable to all of the subject real property comprising the Project.

C. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. The delivery by email copy of an executed copy of this Agreement shall be deemed valid as if an original signature was delivered.

D. Governing Law; Venue. This Agreement shall be construed and interpreted according to the laws of the State of Florida, and all duly adopted ordinances, regulations, and policies of the City now in effect and those hereinafter adopted. The location for settlement of any and all claims, controversies, or disputes, arising out of or relating to any part of this Agreement, or any breach hereof, shall be Volusia County, Florida.

E. Severability. If any word, phrase, sentence, paragraph or other portion of this Agreement is finally determined by a court of competent jurisdiction to be void or unenforceable then such word, phrase, sentence, paragraph or other portion shall be severed from this Agreement and the balance shall remain in full force and effect to the greatest extent permitted by law.

F. Effective Date. The effective date of this agreement shall be the date that it is last executed by a party as set forth below.

PLYMOUTH ROAD LLC

Name: Tony H. Roper
Title: Manager

ATTEST:

Name: _____
Secretary

Witness Bonnie Phelps

Witness Gary Cwaballa

CITY OF DELAND

Christopher M. Cloudman
Mayor

ATTEST:

Julie A. Hennessy
City Clerk - Auditor

Witness

Witness

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 2025 by Christopher M. Cloudman, Mayor-Commissioner of the City of DeLand, Florida who is ☐ personally known to me or ☐ who has produced, _____ as identification

Notary Public - State of Florida

Name: _____
My Commission expires: _____

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 15 day of September 2025 by Tony Roper, the Manager of PLYMOUTH ROAD LLC who is ☐ personally known to me or ☐ who has produced, Florida Driver License as identification.

ANNABELLE NGUYEN
Notary Public - State of Florida
Commission # HH 360694
My Comm. Expires Feb 9, 2027
Bonded through National Notary Assn.

Notary Public - State of Florida

Name: Annabelle Nguyen
My Commission expires: Feb 9, 2027

WESTSIDE INTERCEPTOR FORCE MAIN
CONCURRENCY AND FAIR SHARE AGREEMENT
FOR
RICH FERN VILLAGE

This Westside Interceptor Force Main Concurrency and Fair Share Agreement (the "Agreement") is made and entered into this ____ day of _____, 2025, by and between the City of DeLand, Florida, a Chartered Florida Municipality located in Volusia County, Florida, ("City") and PLYMOUTH ROAD LLC with its principal office located at 456 Wrangler Road, Winter Garden, Florida 34787 ("Developer").

Tax Parcel ID. Numbers:

7901010001000
12-17-29 W 867 FT OF N 384 FT OF LOT 10 SUB GOVT LOT 1 MB 2 PG 29 EXC RD PER OR 3917 PG 1230 PER OR 8513 PG 1351 PER OR 8534 PG 4445

790101000110
12-17-29 W 867 FT OF LOTS 10 11 & 12 EXC N 384 FT OF LOT 10 SUB GOV LOT 1 MB 2 PG 29 PER OR 3917 PG 1230 PER OR 8534 PG 4445

790101000092
12-17-29 S 685.36 FT MEAS ON E/L OF W 20 FT LOTS 9 & 10 MEAS ON N/L & INC E 445.94 FT MEAS ON N/L OF LOTS 10 11 & 12 ASSRS SUB GOVT LOT 4 SEC 1 & GOVT LOT 1 SEC 12 MB 14 PG 184 PER OR 3917 PG 1230 PER OR 8534 PG 4445

RECITALS

WHEREAS, attached to this Concurrency and Fair Share Agreement ("Agreement"), are exhibits describing in greater detail the parties hereto, real property, Westside Force Main and Master Pump Station Impact Fee Surcharge Study and the sanitary sewer utility improvements which are referenced throughout this Agreement. The parties agree that all attached exhibits have been reviewed by the parties and their respective professional consultants, and all information set forth or otherwise referenced therein is deemed incorporated herein by reference; and

WHEREAS, unless otherwise stated, the Developer is the owner of the real property described in the attached Exhibit "A." Developer desires to permit, develop and, if appropriate, plat the real property for an approximately 29.17-acre single-family subdivision (RICH FERN VILLAGE); and, in addition to other requirements, is seeking to comply with the City's concurrency requirements for wastewater utilities; and

WHEREAS, the City would not have sufficient wastewater transmission lines in the vicinity of the Project without the installation of the Westside Interceptor Force Main such that the Project could not be built without the Westside Interceptor Force Main; and

WHEREAS, the Westside Interceptor Force Main, as more particularly described in the attached Exhibits, is required in order for the Project to meet minimum concurrency requirements for wastewater to support the proposed Project; and

WHEREAS, it would not be feasible for the Developer to install the entire Westside Interceptor Force Main at its sole expense; and

WHEREAS, the Westside Interceptor Force Main will provide sanitary sewer transmission capacity to other developments in the vicinity of the Project such that it is more practical and fairer that the City install the Westside Interceptor Force Main and collect from the Developer only its fair share cost of the said Westside Interceptor Force Main; and

WHEREAS, the City is desirous of including the Concurrency Improvements described below in the City's Comprehensive Plan Capital Improvement Element in the next annual amendment; and

WHEREAS, the City and the Developer desire to enter into this Agreement in order to utilize the provisions of Section 163.3180(11) Florida Statutes (2005) to implement the "fair share" process.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, the City and Developer, hereby agree as follows:

1. **Incorporation of Recitals**. The presumptions and facts stated above in the recitals are incorporated by reference herein and deemed by the parties to be true, correct and constitute a material part of this Agreement.

2. **Construction.** The City agrees to construct, or to have constructed, the Westside Interceptor Force Main in accordance with the plans and specifications for the said project, which plans may be amended from time to time in the normal course of construction. Construction of the Westside Interceptor Force Main will commence and be complete to meet concurrency requirements, unless delay is caused for reasons outside of City's control, in which case construction will commence or recommence as soon as is reasonably practical. For purposes of this Agreement, "reasons outside of City's control" shall mean: delays or stoppage caused by acts of God, war, inability to obtain labor or materials or reasonable substitutes therefore, inability to receive governmental permits and approvals newly enacted governmental regulations or controls, the application of existing regulations or controls in a manner which City could not have foreseen or other similar matters or causes.

3. **Payment of Fair Share Assessment Amount**. In connection with the City's construction of the Westside Interceptor Force Main and as a requirement for receiving preliminary plat approval for the Project(s), Developer shall pay to the City a fair share assessment, ("Fair Share Payment"). The Fair Share Payment shall be an amount determined by multiplying the number of lots/units in the subdivision or equivalent residential units for a non-

residential project times $899.00 which is the per residential dwelling unit determined by the Westside Force Main and Master Pump Impact Fee Surcharge Study attached hereto as Exhibit "B". For this project, the number of equivalent residential units is mutually agreed to be 78. The Developer shall be required to make payment for the total amount of its Fair Share Payment at the time of approval of the preliminary plat or site plan for the Project, and must be received by the City prior to issuance of any development permits by the City. The requirement to make the Fair Share Payment shall be deemed to be a condition of approval of the preliminary plat or site plan for the project, regardless of whether any resolution or other action of the City evidencing approval of the preliminary plat or site plan specifically references such condition. In the event that the actual number of lots approved by way of approval of the final plat exceeds those approved in preliminary plat, then Developer shall pay, as a condition of approval of the final plat, the additional fee for those lots, or be entitled to a refund, as the case may be.

4. **Vested Rights in Wastewater Concurrency**. The City agrees that by paying the City the Fair Share Payment, and by receiving a Development Order for the Project, Developer will be deemed to have satisfied the City's wastewater concurrency requirements for the Project and that the Project shall be fully vested with wastewater concurrency for purposes of development and related Project construction, subject only to the requirement to pay sewer impact fees which become due and payable in accordance with the City's wastewater impact fee ordinance, as the same may be amended from time to time.

5. **No Entitlement to Impact Fee Credits**. Nothing herein is intended to entitle the Developer to any credit toward, or to otherwise reduce its obligation to pay sewer impact fees pursuant to the City's sewer impact fee ordinance, as the same may be amended from time to time.

6. **Miscellaneous.**

A. Attorney's Fees. In the event of litigation to enforce the terms of this Agreement, the prevailing party shall be entitled to collect from the other party reasonable attorney's fees and costs of suit.

B. Venue and Choice of Law. In the event of litigation regarding the terms of this Agreement or documents executed as a result of this Agreement, venue of the action shall be in Volusia County and Florida law shall apply. Trial shall be non-jury for any issues subject to trial.

C. Waiver. The waiver by a party of any terms or conditions of this Agreement or any breach hereof shall not constitute a waiver of any other term or condition or any subsequent breach of this Agreement.

D. Successors. This Agreement shall be binding on the parties hereto, their heirs, administrators, executors, successors in interest and assigns.

E. Construction of Contract. The parties hereto agree that they have all participated in the drafting of this Agreement. Therefore, the presumption that any ambiguity or

vagueness in the construction of this Agreement shall be construed against the drafter shall not apply. The terms and provisions of the Agreement shall be applied equally to each party and the interpretation of the Agreement shall be guided by the express intent of the parties as determined by the overall effect of the provisions herein.

G. Amendments. Amendment to this Agreement shall not be effective unless in writing and signed by all record title property owners of the land for which the amendment is to be applied (but excluding the record title property owners for land that is unaffected by the amendment), and the City. Before amending this Agreement, the City shall conduct at least one public hearing. At the City's option, one of these public hearings may be held by the City Planning Board.

i. Notice of intent to consider an amendment to this Agreement shall be published by the City at the Developer's expense in a newspaper of general circulation and readership in Volusia County, Florida.

ii. If applicable, notice of intent to consider an amendment shall comply with the requirements of Section 166.041(3)(c), Florida Statutes (2005), as amended from time to time.

iii. Notices of intent to consider an amendment shall specify the location of the Property subject to the proposed amendment, the nature of the proposed amendment and such other information as the City Staff shall reasonably deem pertinent and appropriate.

iv. All notices shall specify a place where a copy of the proposed amendment can be obtained.

H. Conflicts. Developer agrees to be bound by all City codes and ordinances that are not in conflict with the provisions of this Agreement.

I. Recording. This Agreement shall be recorded by the City in the Public Records of Volusia County, Florida.

J. Binding Nature and Covenants Running with the Land. The provisions of this Agreement shall be binding upon the parties hereto, and upon all successors in interest in the subject real property. And further, the provisions of this Agreement shall constitute covenants running with the land applicable to all of the subject real property comprising the Project.

K. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. The delivery by facsimile of an executed copy of this Agreement shall be deemed valid as if an original signature was delivered.

IN WITNESS WHEREOF, the parties affix their signatures and seals on the dates set forth below:

WITNESSES:

_____
Printed Name: _____

_____
Printed Name: _____

_____
Printed Name: _____

_____
Printed Name: _____

CITY OF DELAND, a Florida Municipal Corporation

Printed Name: _____
Christopher M. Cloudman, Mayor

Attest: _____
Julie A. Hennessey, City Clerk

Date: _____

(*Corporate Seal*)

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this _____day of _____, 2025, by Christopher M. Cloudman and Julie A. Hennessey, as Mayor and City Clerk, respectively, of the City of DeLand, a Florida municipality, on behalf of the City. They are personally known to me or have produced as _____ identification.

_____
Notary Public, State of Florida at Large Commission Number

WITNESSES:

Printed Name: Bonnie Phelps

Printed Name: Gary Ceraballo

Printed Name: _____

Printed Name: _____

PLYMOUTH ROAD LLC

By: _____, MANAGER
Tony Roper

Attest: _____
Name/Title: _____

Date: _____

STATE OF Florida
COUNTY OF Orange

The foregoing instrument was acknowledged before me this 15 day of September, 2025, by Tony Roper and _____, in their respective official capacities as Manager and _____, respectively, on behalf of Plymouth Road LLC, a Florida limited liability company. They are [ ] personally known to me, or [X] have produced Florida Driver License as identification.

ANNABELLE NGUYEN
Notary Public - State of Florida
Commission # HH 360694
My Comm. Expires Feb 9, 2027
Bonded through National Notary Assn.

NOTARY PUBLIC: _____
Notary Public, State of Florida at Large
Seal, Term Expiration and Commission Number

Rich Fern Village Exhibit "A"

7901010001000

12-17-29 W 867 FT OF N 384 FT OF LOT 10 SUB GOVT LOT 1 MB 2 PG 29 EXC RD PER OR 3917 PG 1230 PER OR 8513 PG 1351 PER OR 8534 PG 4445

790101000110

12-17-29 W 867 FT OF LOTS 10 11 & 12 EXC N 384 FT OF LOT 10 SUB GOV LOT 1 MB 2 PG 29 PER OR 3917 PG 1230 PER OR 8534 PG 4445

790101000092

12-17-29 S 685.36 FT MEAS ON E/L OF W 20 FT LOTS 9 & 10 MEAS ON N/L & INC E 445.94 FT MEAS ON N/L OF LOTS 10 11 & 12 ASSRS SUB GOVT LOT 4 SEC 1 & GOVT LOT 1 SEC 12 MB 14 PG 184 PER OR 3917 PG 1230 PER OR 8534 PG 4445



CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Consideration re Grant of Easement to Duke Energy, DeLand Airport T-Hangar Electrical Site at 1500 Flightline Boulevard.

DEPARTMENT: Airport

PREPARED BY: Mindy Considine, Admin Coordinator

ATTACHMENTS: Duke Temporary Easement 1500 Flightline, MAXUNC-WORKORDER-57902882-WO57902882_Construction_PDF

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The attached easement, if approved, will allow Duke Energy to install upgrades to electrical services to three of Airport T-Hangar units. In February 2025, the Airport received a Florida Department of Transportation (FDOT) grant to upgrade the electrical services in three T-Hangars units which were built in the 1960s. This main power electrical upgrade is the final stage of the project. Duke Energy will not supply upgraded power without this easement. Once the power lines and related infrastructure is installed, the City will hire a surveyor to survey the lines and provide a written sketch and legal description.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Sustainability

SUSTAINABILITY:

N/A

FISCAL IMPACT:

Granting this easement to Duke Energy has no fiscal impact.

RECOMMENDATION:

Staff recommends that the City Commission approve the attached easement granting Duke Energy the right to install upgrade power service to the three T-Hangar units located at 1500 Flightline Blvd.

BACKGROUND/DISCUSSION:

Staff notes that the subject documents are “blanket easements” which allow Duke Energy to run its lines anywhere on the parcels. The documents provide, however that they can be replaced with “descriptive easements” each of whose width will be five feet on either side of the power lines installed.

TEMPORARY ELECTRIC UTILITY EASEMENT – [*1500 Flightline Blvd*]

THIS EASEMENT ("**Easement**") from **CITY OF DELAND**, **a Florida municipal corporation**, 120 South Florida Avenue, 32720 ("**GRANTOR**" whether one or more) to **DUKE ENERGY, FLORIDA, LLC**, **a Florida Limited Liability Company, d/b/a DUKE ENERGY**, Post Office Box 14042, St. Petersburg, Florida 33733, and its successors, lessees, licensees, transferees, permittees, apportionees, and assigns ("**GRANTEE**").

WITNESSETH:

THAT **GRANTOR**, for and in consideration of the sum of ONE DOLLAR ($1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant unto **GRANTEE**, the perpetual right, privilege, and easement to install, operate, and maintain in perpetuity such facilities as may be necessary or desirable for providing electric energy and for communication purposes over, under, upon, across, through and within, the following described lands in Volusia County, Florida, and referred to hereinafter as the Easement Area to wit:

An Easement Area being more particularly described and shown on the attached Exhibit "A", as prepared by Adam Sharick, dated 7/11/2025, consisting of one (1) page, attached hereto and incorporated herein by this reference.

Tax Parcel Number: 603400000174 (Altkey:5158403)

THIS EASEMENT WILL BE REPLACED with a Descriptive Easement five feet (5.00') on either side of all facilities installed by GRANTEE, as will be shown on a certified surveyed sketch of description to be provided by the GRANTOR within ninety (90) days after the installation of facilities by GRANTEE. If the sketch of description is not provided by GRANTOR within ninety (90) days after completion of installation, GRANTEE will record this easement.

The rights herein granted to **GRANTEE** by **GRANTOR** specifically include the right: (a) for **GRANTEE** to patrol, inspect, repair, rebuild, and remove said facilities; (b) for GRANTEE to increase or decrease the voltage and to change the quantity and type of facilities; (c) ingress and egress over the Easement Area and over portions of **GRANTOR's** adjoining property for the purpose of exercising the rights herein granted which must be granted in advance by **GRANTOR**

in order to prevent interference with baseball games and other events taking place at the stadium at which the facilities are located; (d) and all other rights and privileges reasonably necessary or convenient for **GRANTEE's** safe, reliable and efficient installation, operation, and maintenance of the facilities and for the enjoyment and use of the Easement for the purposes described herein. Failure to exercise the rights herein granted to GRANTEE shall not constitute a waiver or abandonment.

GRANTOR shall have the right to use the Easement Area in any manner that is consistent with the rights granted to **GRANTEE** herein; provided however, without the prior written consent of **GRANTEE,** which consent shall not be unreasonably withheld, **GRANTOR** shall not (a) place, or permit the placement of, any obstructions within the Easement Area including but not limited to, any building, house, or other above-ground or underground structure, or portion thereof; If obstructions are installed adjacent to the Easement Area, they shall be placed so as to allow ready access to **GRANTEE's** facilities and provide a working space of not less than ten (10) feet on the opening side, six (6) feet on the back for working space and three (3) feet on all other sides of any pad mounted equipment; (b) excavate or place, or permit the excavation or placement of any dirt or other material upon or below the Easement Area; or (c) cause, by excavation or placement of material, either on or off the Easement Area, a pond, lake, or similar containment vehicle that would result in the retention of water in any manner within the Easement Area. Excluding removal of vegetation and obstructions as provided herein, any physical damage to the surface of the Easement Area and/or **GRANTOR's** adjoining property caused by **GRANTEE** or its contractors shall be repaired to a condition reasonably close to the previous condition at **GRANTOR'S** expense. The rights and easement herein granted are exclusive as to entities engaged in the provision of electric energy service and **GRANTOR** reserves the right to grant rights to others affecting said Easement Area provided that such rights do not create an unsafe condition or conflict with the rights granted to **GRANTEE** herein.

GRANTOR hereby warrants and covenants (a) that **GRANTOR** is the owner of the fee simple title to the premises in which the above described Easement Area is located, (b) that **GRANTOR** has full right and lawful authority to grant and convey this easement to **GRANTEE**, and (c) that **GRANTEE** shall have quiet and peaceful possession, use and enjoyment of this easement. All covenants, terms, provisions and conditions herein contained shall inure and extend to and be obligatory upon the heirs, successors, lessees and assigns of the respective parties hereto.

THIS EASEMENT SHALL NOT be recorded in the Official Records of Volusia County unless GRANTOR does not provide the required sketch of description as provided above, although the GRANTEE may record the Descriptive Easement (Permanent Easement) at its discretion.

[SIGNATURES ON FOLLOWIG PAGE]

IN WITNESS WHEREOF, this Easement has been executed by Grantor on this _____ day of _____, 20____, and is effective as of the Effective Date herein.

GRANTOR:

CITY OF DELAND,
a Florida municipal corporation

ATTEST:

_____
Julie A. Hennessy
City Clerk-Auditor

_____
Christopher M. Cloudman
Mayor-Commissioner

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:

_____
Signature

_____
Print or Type Name of Witness

_____
Signature

_____
Print or Type Name of Witness

Grantor(s) mailing address:

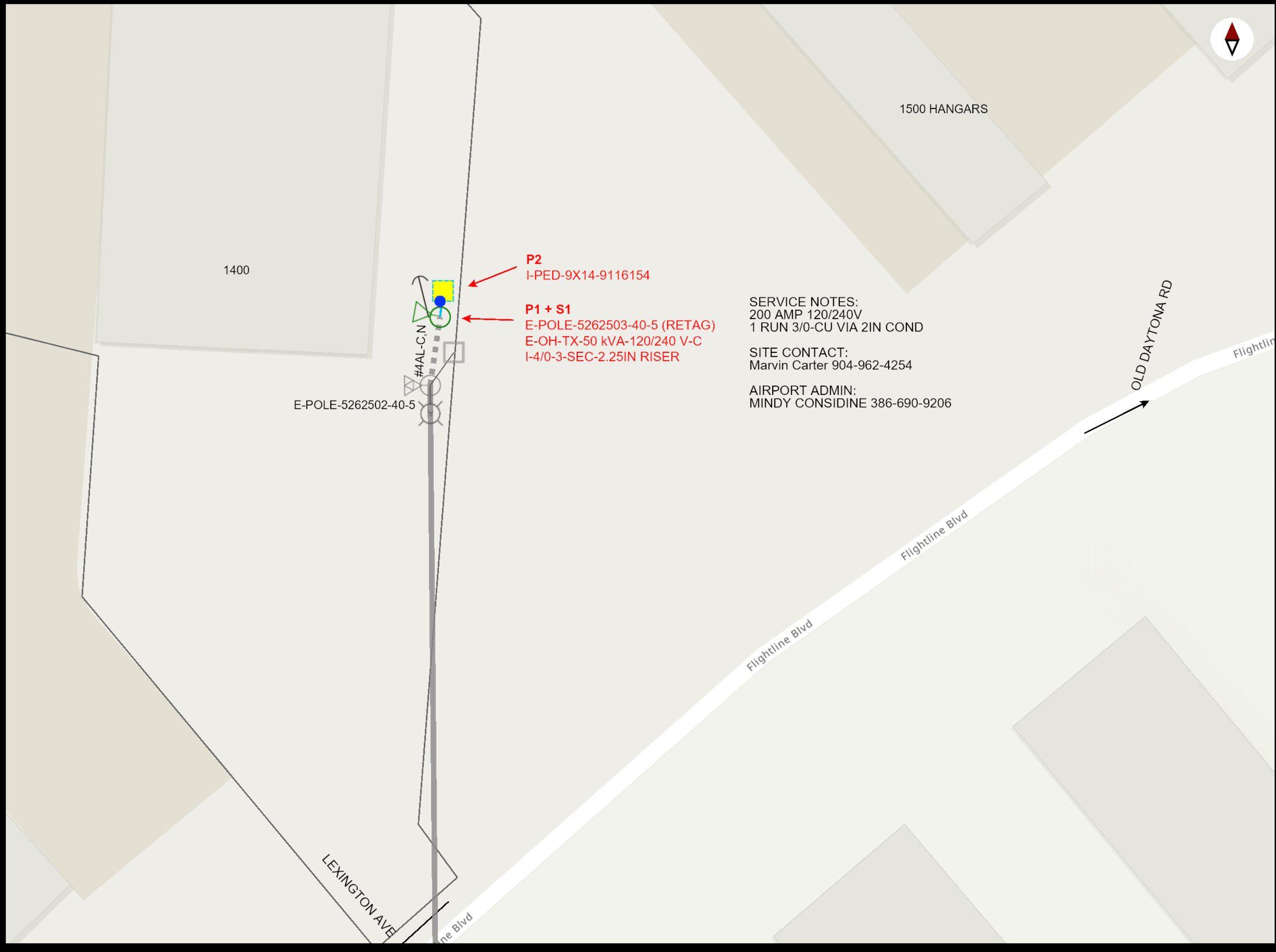
120 South Florida Avenue
DeLand, Florida 32720

STATE OF _____)
) ss
COUNTY OF _____)

The foregoing Easement was acknowledged before me before me by means of ☐ physical presence or ☐ online notarization, on this _____ day of _____, 20__, by Christopher M. Cloudman and Julie A Hennessy, its Mayor and City Clerk, respectively of **CITY OF DELAND**, **a Florida municipal corporation,** who are personally known to me or who has/have produced _____ as identification.

NOTARY SEAL

_____
Name:
Notary Public
Serial Number:
My Commission Expires:



DUKE ENERGY

Scope of Work

INSTALL RISER/PED FOR COMMERCIAL UPGRADE/VOLTAGE CHANGE

Construction Notes

AIRPORT - CALL SITE CONTACT FOR ACCESS

Date **Page 1/1**
7/11/2025
Work Order #
57902882
Job Site Address
1500 FLIGHT LINE BLVD, DELAND, FL, 32724, USA
Designer Name
ADAM SHARICK
Designer Phone
386-507-3490
Customer Name
CITY OF DELAND
Customer Phone
386-252-0573
Feeder/Circuit ID
W1104
Primary Voltage
12.47/7.2kV

Upstream Protective Devices

Fuse 5262311-1
Circuit W1104

Permits

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Consideration re Acceptance of Sidewalk Easement Located Along West Volusia Avenue.

DEPARTMENT: Legal

PREPARED BY: Darren Elkind, City Attorney

ATTACHMENTS: Grant of Easement for Sidewalk

APPROVED BY: Michael Pleus, City Manager, September 29, 2025

SUMMARY/HIGHLIGHT:

The City is constructing a sidewalk along the portion of West Volusia Avenue on property located at 742 South Sans Souci Avenue that is owned by DeLand Healthcare Investors, LLC. The City has requested and DeLand Healthcare Investors, LLC has agreed to grant an easement measuring 6' for the purpose of ingress and egress.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

High value government.

SUSTAINABILITY:

Makes for more walkable community in the area of the project.

FISCAL IMPACT:

There is no charge for the easement. There is a $27.00 fee to record the easement.

RECOMMENDATION:

It is recommended that the City Commission approve the attached easement.

BACKGROUND/DISCUSSION:

The City has requested that the property owner at 742 South Sans Souci Avenue (the Alliance Community) grant an easement for ingress and egress along West Volusia Avenue. The City will be responsible for the installation and maintenance of a 6' sidewalk on the easement. This installation is part of a broader CDBG funded sidewalk project.

GRANT OF EASEMENT FOR SIDEWALK

STATE OF FLORIDA
COUNTY OF VOLUSIA

THIS INDENTURE IS MADE AND ENTERED INTO THIS ___ day of August, 2025, between **DELAND HEALTHCARE INVESTORS, LLC**, with a mailing address of 5270 North U.S. Highway 1, Suite 101, Palm Shores, FL 32940 (hereinafter the "**GRANTOR"),** and the **CITY OF DELAND**, a municipal corporation organized and existing under the laws of Florida, with a mailing address of 120 South Florida Avenue, DeLand, Florida 32720, (hereinafter the "**GRANTEE**").

WHEREAS, GRANTOR is seized in fee simple and in possession of that certain parcel of real estate bearing Parcel Identification Number 700902390021 and having a street address of 742 S Sans Souci Avenue, DeLand, FL 32720, (hereinafter the "Property"); and

WHEREAS, the City of DeLand is constructing a 6' sidewalk on the right of way of West Volusia Avenue in DeLand, Florida; and

WHEREAS, GRANTEE has requested that **GRANTOR** grant an easement on the Property so that **GRANTEE** can install and maintain a sidewalk for ingress and egress; and

WHEREAS, GRANTEE is requesting the **GRANTOR** to grant an easement over the Property which is depicted and specifically described by legal description in the attached Exhibit "A" (hereinafter the "Easement Area"); and

WHEREAS, GRANTOR and **GRANTEE** each recognize and understand that the **GRANTEE** will exercise full dominion and control over the sidewalk to be installed by the **GRANTEE** within the Easement Area and, as such, **GRANTEE** and not **GRANTOR** will by operation of law be the party responsible for any claims of third parties arising out of the **GRANTEE'S** use of the Easement Area.

NOW THIS INDENTURE WITNESSETH:

That for and in consideration of the Sum of One and No/hundreds ($1.00) Dollars in hand paid and other valuable considerations, the receipt of which is hereby acknowledged, **GRANTOR** has this day granted unto **GRANTEE** an easement on, over, under, through and across the Easement Area, including but not limited to the right to enter upon the Easement Area, for the purpose of constructing and maintaining a public, paved sidewalk. **GRANTOR** shall not construct any structures nor install any landscaping within the Easement Area, nor otherwise place any fences or other obstructions within the Easement Area. **GRANTEE** shall have the right to remove trees, brushes, undergrowth, and other obstructions from the Easement Area. **GRANTEE** shall be solely responsible for the ongoing maintenance of the Easement Area and **GRANTEE** shall otherwise exercise full dominion and control over the sidewalk installed by **GRANTEE** within the Easement Area, such that by operation of law **GRANTOR** shall not be liable for damages or claims by third parties arising from such sidewalk or otherwise arising from **GRANTEE'S** use of the Easement Area.

GRANTOR does hereby covenant with **GRANTEE** that it is lawfully seized and possessed of the real estate above described, that **GRANTOR** has a good and lawful right to grant this easement.

WITNESSES:

Printed Name: Desiree Rodriguez
Address: 5270 N US Hwy 1
Palm Shores, FL 32940

Printed Name: Bonnie Defoe
Address: 5270 N US Hwy 1 Ste 101
Palm Shores, FL 32940

GRANTOR:
DELAND HEALTHCARE INVESTORS, LLC,
a Florida limited liability company

By:
Printed Name: Geoffrey Fraser
Title: Owner

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization, this 13th day of August, 2025, by Geoffrey Fraser, as Owner of DELAND HEALTHCARE INVESTORS, LLC, on behalf of the company, who is personally known to me or who has produced _____ as identification.

[NOTARIAL SEAL]

BONNIE J. DEFOE
MY COMMISSION # HH 606154
EXPIRES: December 2, 2028

NOTARY PUBLIC, STATE OF FLORIDA

GRANTEE:
CITY OF DELAND

By:
Christopher M. Cloudman
Mayor-Commissioner

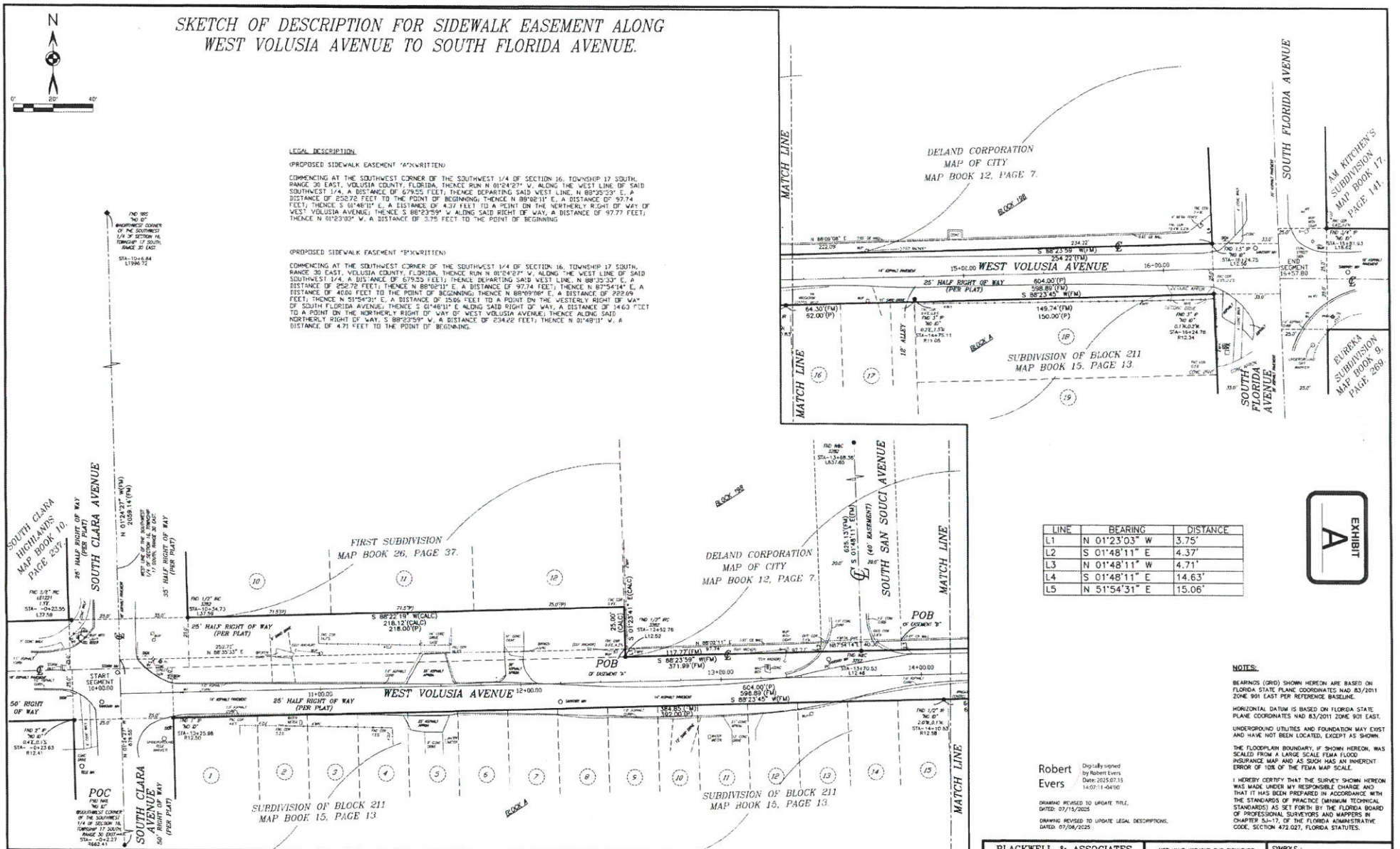
ATTEST:

Julie A. Hennessy
City Clerk – Auditor

APPROVED AS TO FORM AND LEGALITY:

Darren J. Elkind, City Attorney

SKETCH OF DESCRIPTION FOR SIDEWALK EASEMENT ALONG WEST VOLUSIA AVENUE TO SOUTH FLORIDA AVENUE.



LEGAL DESCRIPTION

(PROPOSED SIDEWALK EASEMENT "A"WRITTEN)

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 16, TOWNSHIP 17 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA, THENCE RUN N 01°24'27" W, ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, A DISTANCE OF 679.55 FEET; THENCE DEPARTING SAID WEST LINE, N 88°35'33" E, A DISTANCE OF 252.72 FEET TO THE POINT OF BEGINNING; THENCE N 88°02'11" E, A DISTANCE OF 97.74 FEET; THENCE S 01°48'11" E, A DISTANCE OF 4.37 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY OF WEST VOLUSIA AVENUE; THENCE S 88°23'59" W ALONG SAID RIGHT OF WAY, A DISTANCE OF 97.77 FEET; THENCE N 01°23'03" W, A DISTANCE OF 3.75 FEET TO THE POINT OF BEGINNING.

(PROPOSED SIDEWALK EASEMENT "B"WRITTEN)

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 16, TOWNSHIP 17 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA, THENCE RUN N 01°24'27" W, ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, A DISTANCE OF 679.55 FEET; THENCE DEPARTING SAID WEST LINE, N 88°35'33" E, A DISTANCE OF 252.72 FEET; THENCE N 88°02'11" E, A DISTANCE OF 97.74 FEET; THENCE N 87°54'14" E, A DISTANCE OF 40.66 FEET TO THE POINT OF BEGINNING; THENCE N 88°09'08" E, A DISTANCE OF 222.09 FEET; THENCE N 51°54'31" E, A DISTANCE OF 15.06 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY OF SOUTH FLORIDA AVENUE; THENCE S 01°48'11" E ALONG SAID RIGHT OF WAY, A DISTANCE OF 14.63 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY OF WEST VOLUSIA AVENUE; THENCE ALONG SAID NORTHERLY RIGHT OF WAY, S 88°23'59" W, A DISTANCE OF 234.22 FEET; THENCE N 01°48'11" W, A DISTANCE OF 4.71 FEET TO THE POINT OF BEGINNING.

LINE	BEARING	DISTANCE
L1	N 01°23'03" W	3.75'
L2	S 01°48'11" E	4.37'
L3	N 01°48'11" W	4.71'
L4	S 01°48'11" E	14.63'
L5	N 51°54'31" E	15.06'

EXHIBIT A

NOTES:

BEARINGS (GRID) SHOWN HEREON ARE BASED ON FLORIDA STATE PLANE COORDINATES NAD 83/2011 ZONE 901 EAST PER REFERENCE BASELINE.

HORIZONTAL DATUM IS BASED ON FLORIDA STATE PLANE COORDINATES NAD 83/2011 ZONE 901 EAST.

UNDERGROUND UTILITIES AND FOUNDATION MAY EXIST AND HAVE NOT BEEN LOCATED, EXCEPT AS SHOWN.

THE FLOODPLAIN BOUNDARY, IF SHOWN HEREON, WAS SCALED FROM A LARGE SCALE FEMA FLOOD INSURANCE MAP AND AS SUCH HAS AN INHERENT ERROR OF 10% OF THE FEMA MAP SCALE.

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE UNDER MY RESPONSIBLE CHARGE AND THAT IT HAS BEEN PREPARED IN ACCORDANCE WITH THE STANDARDS OF PRACTICE (MINIMUM TECHNICAL STANDARDS) AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, OF THE FLORIDA ADMINISTRATIVE CODE, SECTION 472.027, FLORIDA STATUTES.

Robert Evers
Digitally signed by Robert Evers
Date: 2025.07.15 14:07:11-04'00'

DRAWING REVISED TO UPDATE TITLE, DATED: 07/15/2025

DRAWING REVISED TO UPDATE LEGAL DESCRIPTIONS, DATED: 07/08/2025

ABBREVIATIONS

NOTE:
This Plat of Survey is certified to and prepared for the sole and exclusive benefit of the entities and or individuals shown hereon, valid on the most current date shown hereon, and shall not be relied upon by any other entity or individual whatsoever.

This Survey / Sketch has been prepared without benefit of abstract or title search unless otherwise noted hereon

There may be additional restrictions and/or other matters of record not shown on this Survey / Sketch that may be found in the Public Records of the county or counties within the Title Commitment.

FLOOD CERTIFICATION:
(For map dated FEBRUARY, 19 2014)
This is to certify that I have consulted the Federal Insurance Flood Hazard Boundary Map and found the ABOVE named Property IS NOT located in a special flood hazard area, according to Community Panel Map No. 12127C-0470-H Map Panel 470 of 930, Zone "X".

SKETCH OF DESCRIPTION FOR:

CITY OF DELAND

BLACKWELL & ASSOCIATES LAND SURVEYORS, INC
WWW.BLACKWELLSURVEYING.COM
1190 W. VOLUSIA AVE. • DELAND, FL • PH: (386)-734-8050
CERTIFICATE OF AUTHORIZATION NUMBER LB 2791

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

BLACKWELL & ASSOCIATES LAND SURVEYORS, INC. CERT. # LB 2791
BY: ROBERT F. EVERS, PROFESSIONAL SURVEYOR AND MAPPER, STATE OF FLORIDA
ROBERT F. EVERS, FLORIDA CERTIFICATE NO. 5675

SYMBOLS

- ● = IRON FOUND (SIZE SHOWN HEREON)
- ○ = 1/2" IRON # OR SET
- ⊙ = 5/8" CONCRETE MONUMENT # OR SET
- ■ = CONCRETE MONUMENT FOUND (SIZE SHOWN HEREON)
- ▲ = N.G.S. DISC/MAG SET
- △ = N.G.S. DISC/MAG FOUND (SIZE SHOWN HEREON)
- ◆ = IRON PIPE FOUND (SIZE SHOWN HEREON)
- ◇ = RAILROAD SPIKE FOUND
- ▪ = BOLT FOUND (SIZE SHOWN HEREON)
- ▫ = TACK AND TAG FOUND

DATE	10/06/2025
FIELD BK.	83-126-N
DRAWN BY	FTB
FIELD BOOK	94/21-R
ORDER NO. / TKT No.	83-126-24

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Zoning for ±7.35 Acres of Property, Located on South Woodland Boulevard from Mainstreet Townhomes PD to C-2 (General Commercial).

DEPARTMENT: Planning

PREPARED BY: Kendall Story, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A, Z25-079 Staff Report, Z25-079 Project Narrative, Z25-079 Aerial, Z25-079 Zoning

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The subject property is located directly south of the West Volusia Shopping Center, across from Firehouse Rd. It was previously rezoned from C-2, General Commercial, to the Mainstreet Townhomes Planned Development (PD) on August 7, 2006. The Mainstreet Townhomes PD approved 66 multi-family townhome units, but the project was abandoned after the rezoning was approved.

The C-2 zoning district allows for a range of commercial uses such as office/medical uses, personal service uses, hospitality uses as well as vehicular service uses and multi-family uses. The C-2 zoned district differs from the Mainstreet Townhomes PD which only allows multi-family townhomes as a permitted use.

On June 11, 2025, the Planning Board voted 3-1 to recommend denial of the rezone request. At the meeting, both citizens and Board members voiced concern over the uncertainty of future development and impacts upon the neighboring Wellington Woods residential subdivision located directly to the east of the subject property.

On July 21, 2025, the City Commission voted to continue the request to the August 18, 2025, City Commission meeting.

On August 18, 2025, the City Commission voted to continue the request to the October 6, 2025, City Commission meeting.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Institute Smart Growth Principles.

SUSTAINABILITY:

N/A

FISCAL IMPACT:

Rezoning of the subject property to C-2 would allow for a multitude of general commercial uses and provide opportunity for development of the parcel, as the current Mainstreet Townhomes PD only allows for multi-family townhome use.

RECOMMENDATION:

Staff recommends that the City Commission approve the requested rezoning, on first reading.

BACKGROUND/DISCUSSION:

According to the 2050 Vision, the parcel is located within Category 2, “Urban Core”. The Urban Core is described as being a location where the majority of new growth will take place.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, CHANGING THE ZONING FROM MAINSTREET TOWNHOMES PLANNED DEVELOPMENT (PD) TO C-2, GENERAL COMMERCIAL, ON PROPERTY LOCATED ON SOUTH WOODLAND BOULEVARD, MAKING FINDINGS OF CONSISTENCY WITH THE COMPREHENSIVE LAND USE PLAN FOR THE CITY OF DELAND; DIRECTING CHANGE IN THE COMPREHENSIVE ZONING MAP; CONDITIONING FINAL DEVELOPMENT ORDERS ON A DETERMINATION OF CAPACITY; AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the property located on South Woodland Boulevard and more particularly described in the attached Exhibit "A", is currently zoned as Mainstreet Townhomes Planned Development (PD), pursuant to City of DeLand's Zoning Ordinances; and

WHEREAS, the property currently has a Land Use Designation of Highway Commercial pursuant to the City of DeLand's Land Use Plan; and

WHEREAS, a proper and complete application has been received requesting that the zoning be changed to C-2, General Commercial; and

WHEREAS, the C-2, General Commercial zoning designation is consistent with the Comprehensive Plan of the City of DeLand.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission has held a public hearing on the application for a change of zoning from Mainstreet Townhomes, Planned Development (PD) to C-2, General Commercial zoning designation, on the following described property:

See legal description attached hereto as Exhibit "A"

Tax Parcel Identification No. 70330800002B

Section 2. The City Commission hereby finds that the City of DeLand's C-2, General Commercial zoning designation is consistent with the property's Highway Commercial future land use designation.

Section 3. Pursuant to the determination made at public hearing, the City Commission hereby amends the Comprehensive Zoning Map of the City of DeLand and changes the zoning from Mainstreet Townhomes Planned Development (PD) to C-2, General Commercial zoning designation on the parcel described in Section 1.

Section 4. The Planning Director is hereby directed to change the Comprehensive Zoning Map of the City of DeLand to conform with the change of zoning enacted in this Ordinance.

Section 5. No rights to obtain final development orders nor any rights to develop the property have been granted or implied by this Ordinance. Final development orders for the property including, but not limited to building permits and site plan approval shall be subject to a determination of capacity.

Section 6. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 7. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ___day of _____.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

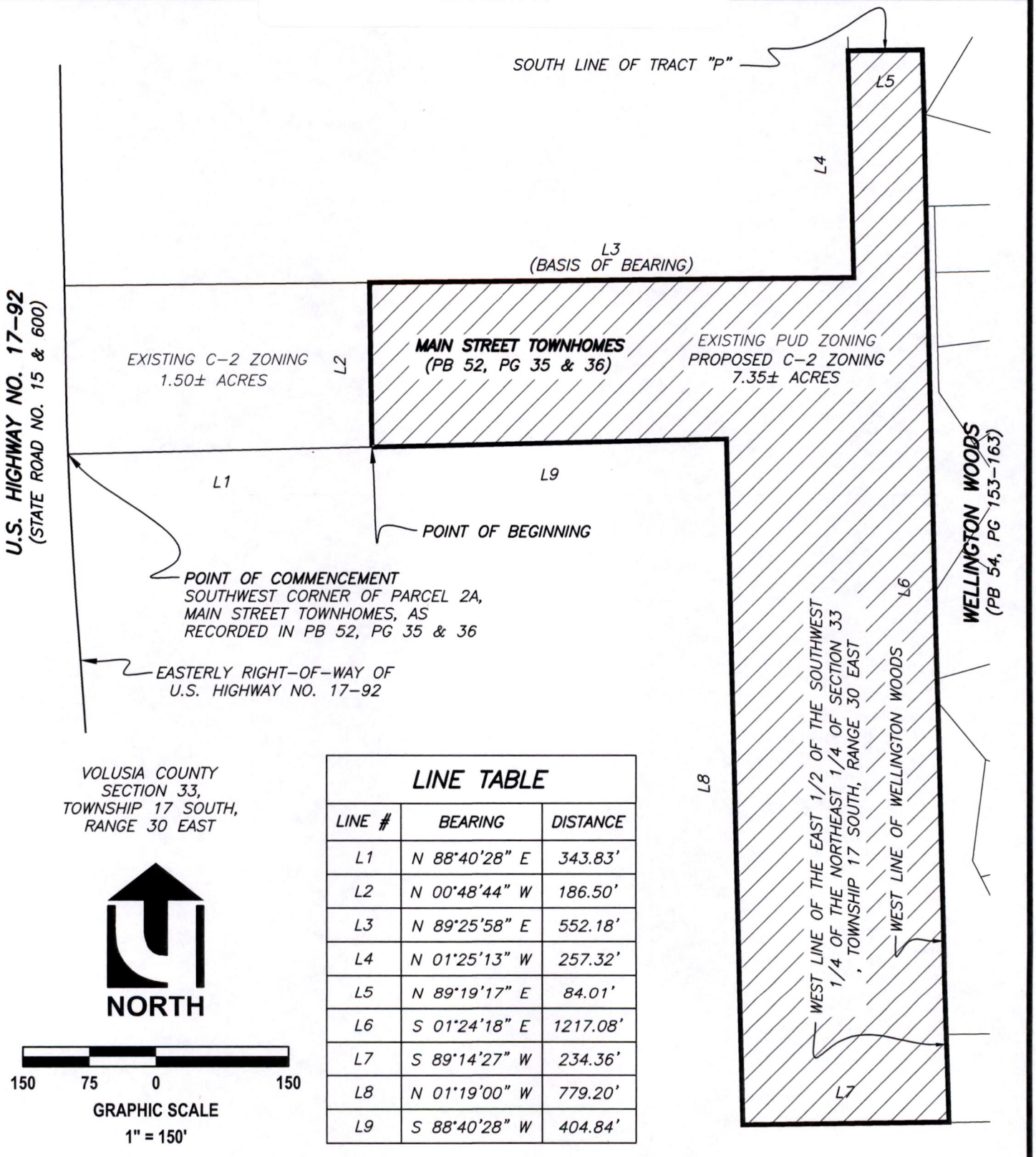
_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

"EXHIBIT A"



VOLUSIA COUNTY
SECTION 33,
TOWNSHIP 17 SOUTH,
RANGE 30 EAST

NORTH

150 75 0 150

GRAPHIC SCALE
1" = 150'

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	N 88°40'28" E	343.83'
L2	N 00°48'44" W	186.50'
L3	N 89°25'58" E	552.18'
L4	N 01°25'13" W	257.32'
L5	N 89°19'17" E	84.01'
L6	S 01°24'18" E	1217.08'
L7	S 89°14'27" W	234.36'
L8	N 01°19'00" W	779.20'
L9	S 88°40'28" W	404.84'

NOT A SURVEY

SHEET 1 OF 2

SEE SHEET 2 OF 2 FOR CERTIFICATION AND SURVEYOR'S SIGNATURE

LOCATION No: 17-30-33	SKETCH
PROJECT No: 230914	
DATE: 08/20/2025	
CHECKED BY: CKV	
DRAFTED BY: WRW	

UPHAM INC
CIVIL ENGINEERING · SURVEYING · LANDSCAPE ARCHITECTURE
265 Kenilworth Avenue · Ormond Beach · Florida 32174
Voice: 386.672.9515 · Fax: 386.673.6554 · uphaminc.com
LB # 0003612 LC # 0000357

DESCRIPTION:

A PORTION OF PARCEL 2A AND ALL OF PARCEL 2B, MAIN STREET TOWNHOMES, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 52, PAGES 35 AND 36, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF PARCEL 2A, MAIN STREET TOWNHOMES, AS RECORDED IN PLAT BOOK 52, PAGES 35 AND 36, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, SAID POINT ALSO BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 17-92; THENCE DEPARTING SAID RIGHT-OF-WAY, N 88°40'28" E, FOR A DISTANCE OF 343.83 FEET FOR A POINT OF BEGINNING; THENCE N 00°48'44" W, FOR A DISTANCE OF 186.50 FEET; THENCE N 89°25'58" E, FOR A DISTANCE OF 552.18 FEET; THENCE N 01°25'13" W, FOR A DISTANCE OF 257.32 FEET TO A POINT ON THE SOUTH LINE OF TRACT "P", WELLINGTON WOODS, PLAT BOOK 54, PAGE 153 THROUGH 163, OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE ALONG SAID SOUTH LINE, N 89°19'17" E, FOR A DISTANCE OF 84.01 FEET TO A POINT ON THE WEST LINE OF AFORESAID PLAT ALSO BEING THE WEST LINE OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33, TOWNSHIP 17 SOUTH, RANGE 30 EAST, CITY OF DELAND, VOLUSIA COUNTY, FLORIDA; THENCE DEPARTING SAID SOUTH LINE AND ALONG SAID WEST LINE, S 01°24'18" E, FOR A DISTANCE OF 1217.08 FEET; THENCE DEPARTING SAID WEST LINE, S 89°14'27" W, FOR A DISTANCE OF 234.36 FEET; THENCE N 01°19'00" W, FOR A DISTANCE OF 779.20 FEET; THENCE S 88°40'28" W, FOR A DISTANCE OF 404.84 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIPTION CONTAINS 7.35 ± ACRES

GENERAL NOTES:

1. BEARINGS AS SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE GRID, NORTH AMERICAN DATUM OF 1983 (NAD83) WITH 2011 ADJUSTMENT AS DERIVED FROM THE LENGEMANN NETWORK, A TOPCON GNSS NETWORK. AS A REFERENCE FOR THIS SKETCH AND DESCRIPTION, ALONG THE NORTH LINE OF THE PLAT OF MAIN STREET TOWNHOMES, AS RECORDED IN PLAT BOOK 52, PAGE 35, HAVING A BEARING OF (N 89°25'58" E).

2. LEGAL DESCRIPTION PREPARED BY UPHAM, INC. AUGUST 20, 2025 AT CLIENTS REQUEST.

ABBREVIATIONS / LEGEND

INC ... INCORPORATED
L ... LINE
LB ... LICENSED BUSINESS
PSM ... PROFESSIONAL SURVEY MAPPER
PB ... PLAT BOOK
PG ... PAGE

NOT A SURVEY

THE FOREGOING SKETCH AND DESCRIPTION IS CERTIFIED TO MEET THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS, EFFECTIVE DATE JULY 1, 2018, AS PURSUANT TO SECTION 5J-17.051, FLORIDA ADMINISTRATIVE CODE. NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND THE RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. FLORIDA ADMINISTRATIVE CODE 5J-17.062 (2)

BY: Clyde O Van Kleeck Jr. Digitally signed by Clyde O Van Kleeck Jr. Date: 2025.08.21 13:22:54 -04'00'

C. O. VAN KLEECK, JR., PSM No. 6149

LOCATION No: 17-30-33	DESCRIPTION
PROJECT No: 230914	
DATE: 08/20/2025	
CHECKED BY: CKV	
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LB # 0003612 LC # 0000357

THIS ITEM HAS BEEN SIGNED AND SEALED ON THE DATE AND TIME AS SHOWN HEREON; WHEN SIGNED AND SEALED BY AN ELECTRONIC SIGNATURE, PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED & SEALED AND THE SIGNATURE & SEAL MUST BE VERIFIED ON ALL ELECTRONIC COPIES.

PLANNING DEPARTMENT STAFF REPORT
TO
PLANNING BOARD

June 11, 2025

A. APPLICATION NO.: Z25-079

STAFF PLANNER: Kendall Story

APPLICANT: Jessica Gow, CobbCole

REQUEST: Rezone from Mainstreet Townhomes Planned Development, to City C-2 (General Commercial)

APPLICABLE REGULATIONS:

Article XII ADMINISTRATION AND ENFORCEMENT
Sec. 33-135 – Procedure for text amendments & rezoning.

B. SITE FACTORS:

Location:	S. Woodland Blvd., east of Firehouse Rd.
Size:	±7.35 acres
Land Use:	HC (Highway Commercial)
Existing Zoning:	Mainstreet Townhomes PD
Existing Use:	Vacant

	SURROUNDING LAND USE:	SURROUNDING ZONING:
North:	HC (Highway Commercial)	C-2 (General Commercial)
South:	VC: COM (Commercial)/HC (Highway Commercial)	VC: B-3 (Shopping Center)/C-2 (General Commercial)
East:	LDR (Low Density Residential)	Wellington Woods PD
West:	VC: COM (Commercial)	VC: B-4C (General Commercial)

C. ANALYSIS:

The subject property is located directly south of the West Volusia Shopping Center, across from Firehouse Rd. It was previously rezoned from C-2, General Commercial, to the Mainstreet Townhomes Planned Development (PD) on August 7, 2006. The Mainstreet Townhomes PD approved 66 multi-family townhome units, but the project was abandoned after the rezoning was approved. At this time, the applicant is proposing a carwash on both parcels 2A & 2B which will be replatted prior to a site plan submittal.

The first ±344 feet of property make up parcel 2A of the Mainstreet Townhomes subdivision. Parcel 2A fronts on Woodland Blvd. and is currently zoned C-2. Parcel 2B of the Mainstreet Townhome subdivision, which is east of parcel 2A, is zoned PD.

The C-2 zoning district allows for a range of commercial uses such as office/medical uses, personal service uses, hospitality uses as well as vehicular service uses and multi-family uses. The C-2 zoned district differs from the Mainstreet Townhomes PD which only allows multi-family townhomes as a permitted use. Below is a table comparing the development standards of the proposed C-2 district, with the current Mainstreet Townhomes PD.

DEVELOPMENT STANDARDS		
	C-2 REQUIRED	**MAINSTREET TOWNHOMES PD**
MIN. LOT AREA	9,000 sq. ft./Lot	900 sq. ft./Unit
FRONT YARD SETBACK (PERIMETER)	20'/30' Landscape buffer	30'/30' Landscape buffer
REAR YARD SETBACK (PERIMETER)	25'	20'
SIDE YAR SETBACK (PERIMETER)	10'	20'
LOT WIDTH	75'	20'
MAX. IMPERVIOUS (TOTAL SITE)	70%	46.82%

Section 33-135 of the Land Development Regulations provides the following criteria, which the Planning Board and City Commission shall utilize in reviewing a rezoning request:

1. **Is the proposed rezoning consistent with the Comprehensive Land Use Plan, the land use, zoning pattern and character of the surrounding area?**

   The proposed zoning of C-2 (General Commercial) is consistent with the Comprehensive Plan with an underlying land use designation of HC (Highway Commercial). The HC land use designation is considered compatible with the C-2 zoning district, per the Comprehensive Plan.

2. **Will the proposed rezoning have an impact upon the environment or natural resources?**

   The subject site is heavily wooded and any development will reduce the tree coverage significantly. However, when a site plan is submitted, the development standards will ensure that tree preservation areas and landscape buffering both meet the requirements of the Land Development Regulations. Additionally, because the property is greater than 5 acres, the code will require a survey of all endangered or threatened species and may require a habitat management plan.

3. **Will the proposed rezoning have an impact upon the economy of the affected area?**

   If developed, the rezoning of the property will have an impact on the local economy as it will no longer be restricted to residential uses only and will allow a range of commercial uses as well.

4. **Will the proposed rezoning have an impact upon governmental services?**

   The subject property will have access to existing services, such as police and fire, are already available. The effect upon governmental services will depend upon the use of the

property when it is developed, as multi-family townhomes will still be allowed, but the site may develop as a commercial use instead. The availability of services and traffic impacts will be evaluated at the time of site plan.

5. Are there changes in the circumstances or conditions affecting the area since the original assignment of zoning that will support the proposed zoning?

Since the original approval of the Mainstreet Townhomes PD in 2006, there have been changes in the market and demand of the area, as both residential and commercial developments have been established, such as the Huntington Downs residential development and the build-out of the Woodland Crossings shopping center. With this rezoning, multi-family uses will still be permitted, however, additional commercial uses will also be allowed.

6. Was there a mistake in the original classification?

There was no known mistake in the original zoning classification. Following 2006, when the property was originally rezoned from C-2 to the Mainstreet Townhomes PD, the economy and development demands shifted due to the recession. The applicant requests to restore the original zoning of C-2.

7. Will the proposed rezoning have any effect upon the use or value of the affected area?

The proposed rezoning would allow the operation of a commercial use which should have a positive impact upon the city's economy, as the property would no longer be undeveloped and vacant.

8. Will the proposed rezoning have an impact upon public health, safety and welfare?

There will not be any adverse impacts upon public health, safety, or welfare as a result of this zoning change. This rezoning would be consistent with the commercial uses of the surrounding area.

D. CONCLUSION:

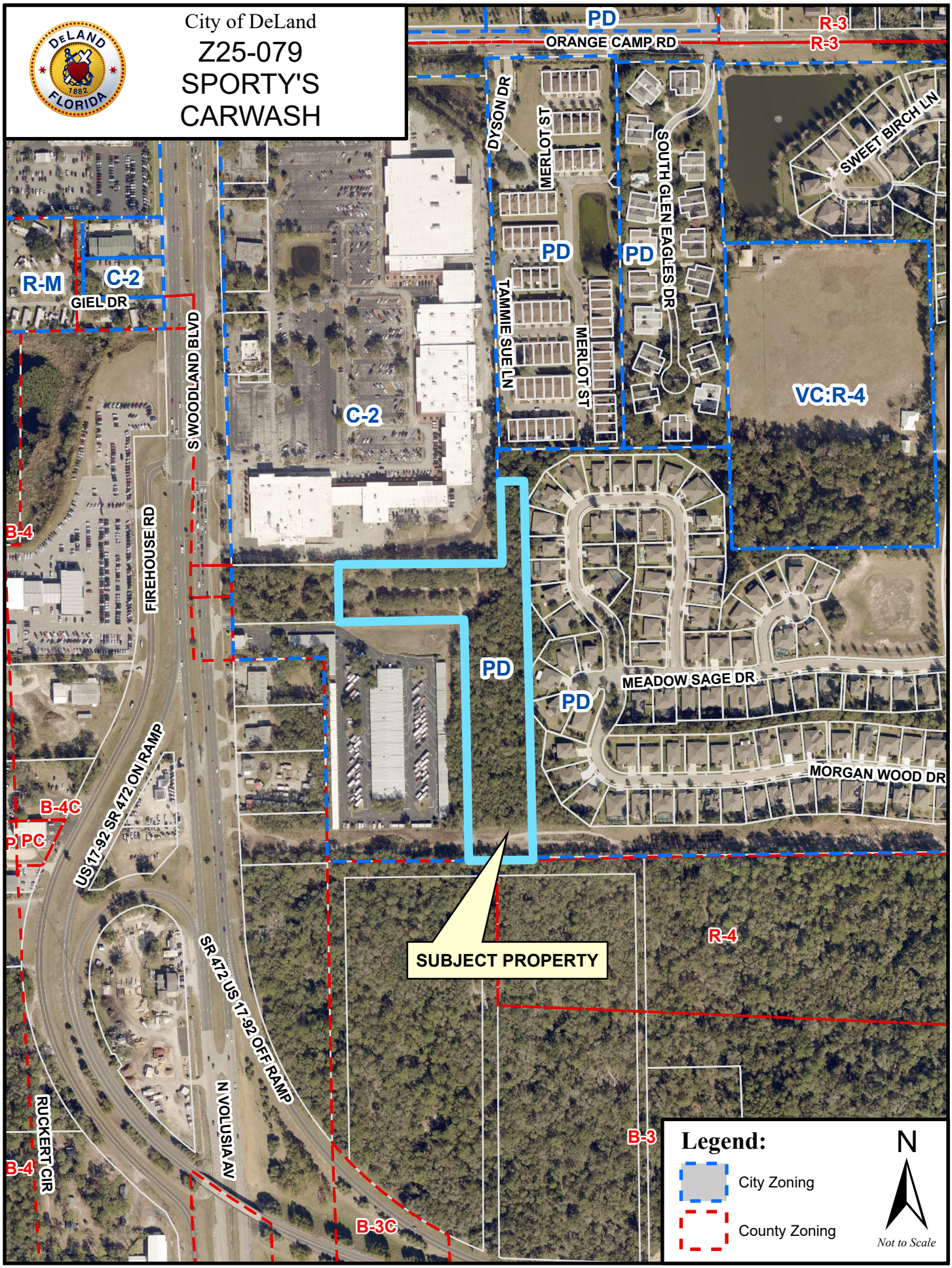
The applicant is proposing to rezone the subject property from the Mainstreet Townhomes PD , back to its original C-2 zoning district, which is compatible with the HC (Highway Commercial) future land use designation and the Redevelopment Overlay.

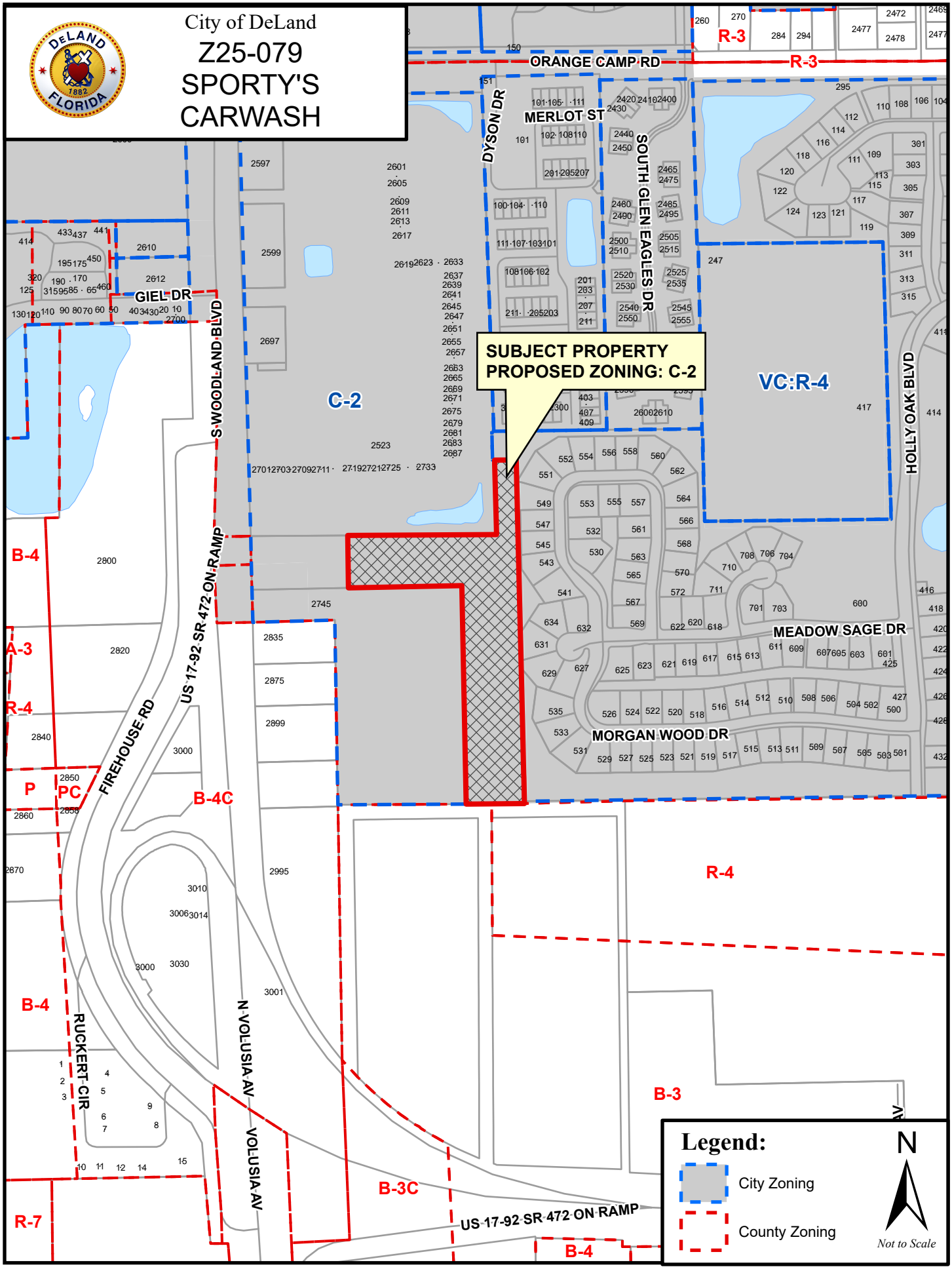
E. STAFF RECOMMENDATION:

Staff recommends that the Planning Board forward the application to the City Commission with a recommendation of approval for the request to rezone from the Mainstreet PD to C-2 (General Commercial).

Project Narrative – Rezoning to C-2 Zoning District

The Applicant is requesting a rezoning back to the C-2 Zoning District as contemplated under the Mainstreet Townhomes Residential Planned District. The former Planned District, adopted in 2006, included a provision on reverter, noting that the City Commission may rezone any portion of the project which has not secured a final development order on or before 5 years from its effective date. This Property did not receive a final development order within the time frame set out above, and the Applicant is requesting the rezoning of the site to permit its orderly development through two commercial parcels.


City of DeLand
Z25-079
SPORTY'S
CARWASH
PD
ORANGE CAMP RD
R-3
R-3
DYSON DR
MERLOT ST
SOUTH GLEN EAGLES DR
SWEET BIRCH LN
PD
PD
TAMMIE SUE LN
MERLOT ST
VC:R-4
R-M
C-2
GIEL DR
S WOODLAND BLVD
C-2
FIREHOUSE RD
B-4
PD
PD
MEADOW SAGE DR
MORGAN WOOD DR
B-4C
P PC
US 17-92 SR 472 ON RAMP
SUBJECT PROPERTY
R-4
SR 472 US 17-92 OFF RAMP
N VOLUSIA AV
RUCKERT CIR
B-4
B-3C
B-3
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
Z25-079
SPORTY'S
CARWASH
SUBJECT PROPERTY
PROPOSED ZONING: C-2
ORANGE CAMP RD
MERLOT ST
DYSON DR
SOUTH GLEN EAGLES DR
GIEL DR
S WOODLAND BLVD
US 17-92 SR 472 ON RAMP
FIREHOUSE RD
HOLLY OAK BLVD
MEADOW SAGE DR
MORGAN WOOD DR
RUCKERT CIR
N VOLUSIA AV
VOLUSIA AV
US 17-92 SR 472 ON RAMP
C-2
VC:R-4
R-3
R-4
B-4
A-3
P
PC
B-4C
B-3C
R-7
B-3
Legend:
City Zoning
County Zoning
N
Not to Scale

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Amending Land Development Regulations, Sections 33-17, 33-19.15, and 33-12, Regarding Tiny Home Communities.

DEPARTMENT: Planning

PREPARED BY: Christopher Carson, Senior Planner

ATTACHMENTS: Ordinance, Draft Regulations, LDR25-136 Staff Report - TinyHomes, Tiny Home Community Survey Results Summary, Tiny Home Community Survey Results 2025 Original, Tiny Home Community Design Book - Draft, Business Impact Estimate - Tiny Home Community

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

In 2023, the City Commission directed staff to research and explore how Tiny Home Communities could function within City limits as the City's current Land Development Regulations (LDRs) do not provide for Tiny Home Communities. In 2024, staff presented findings to both the City Commission and Planning Board and revised the proposed ordinance based on City Commission and Planning Board feedback. In August 2025, staff hosted an open house with the public and conducted an online survey to gather further input. Public feedback at the open house was overwhelmingly positive with an overall sentiment that tiny homes are an appropriate housing option. The survey confirmed this sentiment with 83 % of the 253 total responses in favor of allowing Tiny Home Communities.

As such, staff is recommending revisions to the Land Development Regulations related to Tiny Home Communities. The draft regulations and Design Book are attached to this Commission packet. The design book to be adopted by reference will include sample elevations and designs for stakeholders to utilize as inspiration for potential projects.

At the September 10, 2025, Planning Board meeting, the Board voted unanimously (5-0) to recommend adoption of the proposed regulations as presented. The request will go before the City Commission on October 20, 2025, for second reading.

In conjunction with the code update, to allow for tiny homes to be permitted under the Florida Building Code, the City must adopt Appendix Q — Tiny Houses, which is part of the Florida Building Code.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Institute Smart Growth Principles

SUSTAINABILITY:

Tiny homes consume less energy than typical single-family homes. Only being permitted in the core area with access to goods and amenities will allow for more efficient mobility. Therefore, the Ordinance is consistent with the City's Sustainability Action Plan.

FISCAL IMPACT:

There is no fiscal impact to the City by adoption of this ordinance.

RECOMMENDATION:

Staff recommends approval of First Reading of this ordinance related to Tiny Home Communities.

BACKGROUND/DISCUSSION:

Staff finds that the proposed revisions to allow Tiny Home Communities will provide an additional housing option, while maintaining and complementing existing neighborhoods within the core area. It is important to note that these standards are not intended to override or supersede any homeowners association or Planned Development (PD) standards.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, AMENDING THE CODE OF ORDINANCES OF THE CITY OF DELAND LAND DEVELOPMENT REGULATIONS BY AMENDING SECTION 33-12 "DEFINITIONS"; BY AMENDING SECTION 33-17 "ZONING DISTRICTS"; AND BY AMENDING SECTION 33-19 "SPECIAL REQUIREMENTS APPLICABLE TO CONDITIONAL USES" BY ADDING A NEW SUB-SECTION 33-19.15 "TINY HOME COMMUNITY PERFORMANCE STANDARDS AND CONDITIONS"; PROVIDING FOR CONFLICTS, CODIFICATION, SEVERABILITY AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, it is necessary to amend Chapter 33 "Land Development Regulations" of the Code of Ordinances of the City of DeLand in order to update the regulations regarding Tiny Home Communities; and

WHEREAS, staff finds that the proposed revisions to allow Tiny Home Communities will provide additional housing option, while maintaining and complementing existing housing neighborhoods within the core area; and

WHEREAS, the revisions set forth in this ordinance will be beneficial to the efficient administration of Chapter 33 of the Code of Ordinances of the City of DeLand.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. Chapter 33 of the Code of Ordinances of the City of DeLand is hereby amended by amending Section 33-12, "Definitions" by adding the new underlined language alphabetically into the existing definitions, to be read in full as follows

****

Tiny Home – means an attached or detached residential dwelling with a minimum 200 square feet to a maximum of 600 square feet under heat and air, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system, meets all applicable Florida Building Code standards. The structures must be site built or of modular construction.

Tiny Home Community – means a single development of 3 or more Tiny Homes on a single lot or parcel.

Tiny Home Community Building – means a structure designed to serve a Tiny Home Community which may contain, but are not limited to, a club house, common dining area, kitchen, bathroom, laundry facilities, and/or storage.

Manufactured Modular Home means a structure or building module as defined by statute and under the jurisdiction and control of the Florida Department of Community Affairs, installed

and used as a residence, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system. The term does not include a mobile home. Modular homes must comply with the standards of the Florida Building Commission, be constructed off-site, and possess a Department of Business and Professional Regulation (DBPR) Insignia label. The term may include a Tiny Home (see Tiny Home).

Transitional Housing - means a Tiny Home Community linked to support services that are offered, for a period less than 24 months, to transition into independent living and permanent housing for persons with low incomes, experiencing homelessness or at imminent risk of homelessness. Support services may include meals, child care, counseling, vocational rehabilitation and other similar services. Transitional Housing shall be managed by a non-profit, religious, institutional, or other quasi-government entity.

Transit Stop – means a designated location or facility where City-recognized public transportation operators pick up and drop off passengers**.**

Section 2. Chapter 33 of the Code of Ordinances of the City of DeLand is hereby amended by amending the chart for Section 33-17 "Zoning Districts." by adding the new underlined language (to be inserted into the existing chart) to be read in full as follows:

***

USES	R-R	R-R1	R-1AA	R-1A	R-1B	R-1	R-1C	R-2	R-8	R-12	R-16	R-M	E-1
Tiny Home Community										**C**	**C**		

Section 3. Chapter 33 of the Code of Ordinances of the City of DeLand is hereby amended by amending Section 33-19 "Special Requirements applicable to conditional uses." by adding the new underlined sub-section 33-19.15 "Tiny Home Community Performance Standards and Conditions", to be read in full as follows:

Sec 33-19. – Special requirements applicable to conditional uses.

***

33-19.15. *Tiny Home Community Performance Standards and Conditions*.

a) *Intent.* A Tiny Home Community is intended to provide affordable housing options and opportunities for infill development within the City's Core Gateway Overlay, with site designs that minimize the impact on adjacent properties and promote development patterns that are compatible with the surrounding areas.

b) General regulations and restrictions Tiny Home Communities are allowed in the R-12, R-16, C-1 and C-2 zoning districts, provided the following standards and conditions are met:

1. Locational Standards
    i. A Tiny Home Community shall be located only within the Core Gateway Overlay.
    ii. A Tiny Home Community shall not be located on lots or parcels abutting or with direct access on New York Avenue or Woodland Boulevard.

2. Maximum Density
    i. A maximum of 20 Tiny Home units per acre.
    ii. For purposes of calculating density, each Tiny Home unit shall be calculated as 0.5 dwelling units.

3. Dimensional Standards
    i. Maximum lot or project size 2 acres.

4. Setbacks
    i. Perimeter – 10 feet.
    ii. Street – 20 feet.
    iii. Vehicle use separation setback is 5 feet. The vehicle use separation area may encroach up to a maximum of 5 feet into the perimeter landscape buffer area.

5. Minimum separation between structures
    i. 10 feet

6. Maximum Impervious Surface Area
    i. 60%

7. Maximum Building Height
    i. 35 feet

8. Parking
    i. All parking shall be clustered or grouped to maximize open space and common areas.
    ii. 1 space per unit
    iii. 0.25 guest spaces per unit

9. Bicycle Parking
    i. 0.5 bicycle parking spaces per Tiny Home.
    ii. Bicycle parking shall be secure, covered, and centrally located.

10. Landscape buffers Landscaping shall be provided to minimize impact to surrounding properties and to create a cohesive site.
    i. A minimum Class B landscape buffer is required along the street frontage.

ii. A minimum of a 10-foot landscape buffer shall be provided along the perimeter, and shall contain a minimum of 1 tree and 5 shrubs every 50 linear feet.

11. Tree Protection Area

i. Fifteen (15) percent of the square footage of the Tiny Home Community shall be designated for the protection of trees.

12. Design Standards

i. Front facades shall include a covered porch, deck, or patio.
ii. Facades oriented toward public rights-of-way shall include a covered stoop or other type of wall articulation to provide interest and variety.
iii. Pitched roofs are encouraged.
iv. A variety of architectural styles and rooflines are required:

0-16 tiny home units	2 styles
17-30 tiny home units	3 styles
> 30 tiny home units	4 styles

13. Common Area

i. All Tiny Homes should face the common area or common walkways.
ii. The common area shall be usable and may include gathering spaces, common green space, community gardens, recreational areas, play areas, and plazas.
iii. An internal paved sidewalk system shall be included to connect all Tiny Homes to the common open space area and group/clustered 4 parking areas as well as any on-site amenities such as covered bike parking area(s), recreation areas, community gardens, passive park(s), or dog park(s), etc.

14. Tiny Home Community Building

i. No more than two (2) Tiny Home Community Building(s), with a cumulative area of up to 1,200 square feet, shall be allowed in any single Tiny Home Community.

15. Maintenance

i. Each Tiny Home Community shall be responsible for maintaining all common areas, trash areas, common landscaping, stormwater facilities, buffers, parking areas, lighting, shared utility buildings, sidewalks, emergency vehicle access, and internal drives.

16. Alternative Standards for Transitional Housing Development Tiny Home Communities consisting of Transitional Housing may apply the following standards:

i. Parking shall be provided at 0.5 parking spaces per Tiny Home unit. A fifty (50) percent reduction is applied if any of the following conditions apply:
   a. The development is within 0.25 miles of a transit stop;
   b. Shared parking is available within 660' and a shared parking agreement is approved by the Technical Review Committee, Planning Board, or the City Commission, as applicable, and recorded prior to issuance of a development order. Said shared parking agreement shall be in place for a minimum of 10 years which agreement is binding upon the shared parking location and is recorded in the public records.

ii. A maximum of two (2) independent living areas within a Tiny Home shall be permitted to share a common cooking facility.

iii. A Tiny Home Community Building may be located on an adjacent site with approval by the Technical Review Committee, Planning Board, or the City Commission, as applicable.

Section 4. Severability. If any section, sentence, phrase, word or portion of this Ordinance is determined to be invalid, unlawful or unconstitutional, said determination shall not be held to invalidate or impair the validity, force or effect of any other section, sentence, phrase, word or portion of this Ordinance not otherwise determined to be invalid, unlawful or unconstitutional.

Section 5. Codification; Directions to Code Codifier; Correction of Scrivener's Errors.

(a). The provisions of Sections of this Ordinance shall become and be made a part of the Code of Ordinances of the City of DeLand and the Sections of this Ordinance may be renumbered or re-lettered to accomplish such intention and the word "Ordinance", or similar words, may be changed to "Section," "Article", or other appropriate word; provided, however, that Sections 4 and 5 shall not be codified.

(b). The Code codifier shall instruct the Municipal Code Corporation to make all changes necessary in the Code of Ordinances of the City of DeLand to implement the provisions of this Ordinance and is granted liberal authority to codify the provisions of this Ordinance in such manner and in such places as deemed advisable.

(c). In accordance with the City's ongoing codification program; the City Clerk, in conjunction with the City Attorney, may make corrections to the provisions of this Ordinance relative to Scrivener's errors of whatever type or nature.

Section 6. Effective Date. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ___ day of _____, 2025.

_____
Christopher M. Cloudman
Mayor–Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

The following draft regulations are proposed to be added to Article 1 and 2 of the Land Development Regulations:

33-12. Definitions

Tiny Home – means an attached or detached residential dwelling with a minimum 200 square feet to a maximum of 600 square feet under heat and air, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system, meets all applicable Florida Building Code standards. The structures must be site built or of modular construction.

Tiny Home Community – means a single development of 3 or more Tiny Homes on a single lot or parcel.

Tiny Home Community Building – means a structure designed to serve a Tiny Home Community which may contain, but are not limited to, a club house, common dining area, kitchen, bathroom, laundry facilities, and/or storage.

Manufactured Modular Home means a structure or building module as defined by statute and under the jurisdiction and control of the Florida Department of Community Affairs, installed and used as a residence, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system. The term does not include a mobile home. Modular homes must comply with the standards of the Florida Building Commission, be constructed off-site, and possess a Department of Business and Professional Regulation (DBPR) Insignia label. The term may include a Tiny Home (see **Tiny Home)**.

Transitional Housing - means a Tiny Home Community linked to support services that are offered, for a period less than 24 months, to transition into independent living and permanent housing for persons with low incomes, experiencing homelessness or at imminent risk of homelessness. Support services may include meals, child care, counseling, vocational rehabilitation and other similar services. Transitional Housing shall be managed by a non-profit, religious, institutional, or other quasi-government entity.

Transit Stop – means a designated location or facility where City-recognized public transportation operators pick up and drop off passengers.

33-17 Zoning districts

33-17 Allowed uses in residential zoning districts

	R-R	R-R1	R-1AA	R-1A	R-1B	R-1	R-1C	R-2	R-8	R-12	R-16	R-M	E-1
Tiny Home Community										C	C		

33-17.23 Allowed uses in commercial zoning districts

DRAFT - August 2025

	P-1	BR	C-1	C-2	C-2A	C-2AC	C-3	C-4	M-1
Tiny Home Community			C	C					

33-19. – Special requirements applicable to conditional uses. (the following subsection will be added)

33-19.15. Tiny Home Community Performance Standards and Conditions

a) *Intent*. A Tiny Home Community is intended to provide affordable housing options and opportunities for infill development within the City's Core Gateway Overlay, with site designs that minimize the impact on adjacent properties and promote development patterns that are compatible with the surrounding areas.

b) *General regulations and restrictions*
Tiny Home Communities are allowed in the R-12, R-16, C-1 and C-2 zoning districts, provided the following standards and conditions are met:

1. Locational Standards
   i. A Tiny Home Community shall be located only within the Core Gateway Overlay.
   ii. A Tiny Home Community shall not be located on lots or parcels abutting or with direct access on New York Avenue or Woodland Boulevard.

2. *Maximum Density*
   i. A maximum of 20 Tiny Home units per acre.
   ii. For purposes of calculating density, each Tiny Home unit shall be calculated as 0.5 dwelling units.

3. *Dimensional Standards*
   i. Maximum lot or project size 2 acres.

4. *Setbacks*
   i. Perimeter – 10 feet
   ii. Street – 20 feet
   iii. Vehicle use separation setback is 5 feet. The vehicle use separation area may encroach up to a maximum of 5 feet into the perimeter landscape buffer area.

5. *Minimum separation between structures*
   i. 10 feet

6. *Maximum Impervious Surface Area*
   i. 60%

7. *Maximum Building Height*
   i. 35 feet

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8. *Parking*
    i. All parking shall be clustered or grouped to maximize open space and common areas.
    ii. 1 space per unit
    iii. 0.25 guest spaces per unit

9. *Bicycle Parking*
    i. 0.5 bicycle parking spaces per Tiny Home.
    ii. Bicycle parking shall be secure, covered, and centrally located.

10. *Landscape buffers*
    Landscaping shall be provided to minimize impact to surrounding properties and to create a cohesive site.

    i. A minimum Class B landscape buffer is required along the street frontage.
    ii. A minimum of a 10-foot landscape buffer shall be provided along the perimeter, and shall contain a minimum of 1 tree and 5 shrubs every 50 linear feet.

11. Tree Protection Area
    i. Fifteen (15) percent of the square footage of the Tiny Home Community shall be designated for the protection of trees.

12. *Design Standards*
    i. Front facades shall include a covered porch, deck, or patio.
    ii. Facades oriented toward public rights-of-way shall include a covered stoop or other type of wall articulation to provide interest and variety.
    iii. Pitched roofs are encouraged.
    iv. A variety of architectural styles and rooflines are required:

0-16 tiny home units	2 styles
17-30 tiny home units	3 styles
> 30 tiny home units	4 styles

13. *Common Area*
    i. All Tiny Homes should face the common area or common walkways.
    ii. The common area shall be usable and may include gathering spaces, common green space, community gardens, recreational areas, play areas, and plazas.
    iii. An internal paved sidewalk system shall be included to connect all Tiny Homes to the common open space area and group/clustered

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parking areas as well as any on-site amenities such as covered bike parking area(s), recreation areas, community gardens, passive park(s), or dog park(s), etc.

14. *Tiny Home Community Building*
    i. No more than two (2) Tiny Home Community Building(s), with a cumulative area of up to 1,200 square feet, shall be allowed in any single Tiny Home Community.

15. *Maintenance*
    i. Each Tiny Home Community shall be responsible for maintaining all common areas, trash areas, common landscaping, stormwater facilities, buffers, parking areas, lighting, shared utility buildings, sidewalks, emergency vehicle access, and internal drives.

16. Alternative Standards for Transitional Housing Development
    Tiny Home Communities consisting of Transitional Housing may apply the following standards:

    i. Parking shall be provided at 0.5 parking spaces per Tiny Home unit. A fifty (50) percent reduction is applied if any of the following conditions apply:
        a. The development is within 0.25 miles of a transit stop;
        b. Shared parking is available within 660' and a shared parking agreement is approved by the Technical Review Committee, Planning Board, or the City Commission, as applicable, and recorded prior to issuance of a development order. Said shared parking agreement shall be in place for a minimum of 10 years which agreement is binding upon the shared parking location and is recorded in the public records.
    ii. A maximum of two (2) independent living areas within a Tiny Home shall be permitted to share a common cooking facility.
    iii. A Tiny Home Community Building may be located on an adjacent site with approval by the Technical Review Committee, Planning Board, or the City Commission, as applicable.

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PLANNING STAFF REPORT
CITY OF DELAND PLANNING BOARD
September 10, 2025

APPLICATION NO: LDR25-136 Text Amendment to Land Development Regulations

APPLICANT: City of DeLand

STAFF PLANNER: Chris Carson, AICP, Senior Planner

REQUEST: City-Initiated Land Development Regulations Text Amendment to Modify Section 33-17 – Zoning Districts, to clarify where Tiny Home Communities are permitted by conditional use; add a new Section, 33-19.15 titled Tiny Home Community Performance Standards and Conditions to allow Tiny Home Communities in some of the single-family residential and commercial zoning districts, add specific performance standards for the tiny home communities; and amend Section 33-12, Definitions, to include several new definitions pertaining to Tiny Home Communities.

APPLICABLE ORDINANCES: *Sec. 33-135. Procedure for text amendments.*

> *33-135.01(a)* Amendments to the text of this chapter may be initiated by the city or upon application of any interested person.
>
> *33-135.12(b)* The Planning Board shall review proposed changes in this chapter, which shall make a recommendation to the City Commission prior to final action adopting or not adopting the amendment. However, at the request of the Planning Board or the City Commission, or in the discretion of the City Manager, proposed amendments may be taken directly to the City Commission for action.

LOCATION: City-wide

STAFF SUMMARY:
In 2023, the Mayor and City Commission directed staff to research and explore how Tiny Home Communities could function in City limits as the City's current Land Development Regulations (LDRs) do not allow Tiny Home Communities. In 2024, staff presented findings to both City Commission and Planning Board to gather feedback. Staff then outlined code revisions based on City Commission and Planning Board feedback. In August, 2025, staff hosted an open house with the public and conducted an online survey to gather further input. Public feedback at the open house was overwhelmingly positive with an overall sentiment that tiny homes are an appropriate housing option. The survey confirmed this sentiment with 83 % of the 253 total responses in favor of allowing Tiny Home Communities.

As such, staff is proposing the following revisions to the Land Development Regulations:

The following draft regulations are proposed to be added to Article 1 and 2 of the Land Development Regulations:

33-12. Definitions

Tiny Home – means an attached or detached residential dwelling with a minimum 200 square feet to a maximum of 600 square feet under heat and air, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system, meets all applicable Florida Building Code standards. The structures must be site built or of modular construction.

Tiny Home Community – means a single development of 3 or more Tiny Homes on a single lot or parcel.

Tiny Home Community Building – means a structure designed to serve a Tiny Home Community which may contain, but are not limited to, a club house, common dining area, kitchen, bathroom, laundry facilities, and/or storage.

Manufactured Modular Home means a structure or building module as defined by statute and under the jurisdiction and control of the Florida Department of Community Affairs, installed and used as a residence, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system. The term does not include a mobile home. Modular homes must comply with the standards of the Florida Building Commission, be constructed off-site, and possess a Department of Business and Professional Regulation (DBPR) Insignia label. The term may include a Tiny Home (see **Tiny Home)**.

Transitional Housing - means a Tiny Home Community linked to support services that are offered, for a period less than 24 months, to transition into independent living and permanent housing for persons with low incomes, experiencing homelessness or at imminent risk of homelessness. Support services may include meals, child care, counseling, vocational rehabilitation and other similar services. Transitional Housing shall be managed by a non-profit, religious, institutional, or other quasi-government entity.

Transit Stop – means a designated location or facility where City-recognized public transportation operators pick up and drop off passengers.

33-17 Zoning districts

33-17 Allowed uses in residential zoning districts

	R-R	R-R1	R-1AA	R-1A	R-1B	R-1	R-1C	R-2	R-8	R-12	R-16	R-M	E-1
Tiny Home Community										C	C		

33-17.23 Allowed uses in commercial zoning districts

	P-1	BR	C-1	C-2	C-2A	C-2AC	C-3	C-4	M-1
Tiny Home Community			C	C					

33-19. – Special requirements applicable to conditional uses. (the following subsection will be added)

33-19.15. Tiny Home Community Performance Standards and Conditions

a) *Intent*. A Tiny Home Community is intended to provide affordable housing options and opportunities for infill development within the City's Core Gateway Overlay, with site designs that minimize the impact on adjacent properties and promote development patterns that are compatible with the surrounding areas.

b) *General regulations and restrictions*
Tiny Home Communities are allowed in the R-12, R-16, C-1 and C-2 zoning districts, provided the following standards and conditions are met:

1. Locational Standards
    i. A Tiny Home Community shall be located only within the Core Gateway Overlay.
    ii. A Tiny Home Community shall not be located on lots or parcels abutting or with direct access on New York Avenue or Woodland Boulevard.

2. *Maximum Density*
    i. A maximum of 20 Tiny Home units per acre.
    ii. For purposes of calculating density, each Tiny Home unit shall be calculated as 0.5 dwelling units.

3. *Dimensional Standards*
    i. Maximum lot or project size 2 acres.

4. *Setbacks*
    i. Perimeter – 10 feet
    ii. Street – 20 feet
    iii. Vehicle use separation setback is 5 feet. The vehicle use separation area may encroach up to a maximum of 5 feet into the perimeter landscape buffer area.

5. *Minimum separation between structures*
    i. 10 feet

6. *Maximum Impervious Surface Area*
    i. 60%

7. *Maximum Building Height*

i. 35 feet

8. *Parking*
   i. All parking shall be clustered or grouped to maximize open space and common areas.
   ii. 1 space per unit
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   i. 0.5 bicycle parking spaces per Tiny Home.
   ii. Bicycle parking shall be secure, covered, and centrally located.

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    Landscaping shall be provided to minimize impact to surrounding properties and to create a cohesive site.

    i. A minimum Class B landscape buffer is required along the street frontage.
    ii. A minimum of a 10-foot landscape buffer shall be provided along the perimeter, and shall contain a minimum of 1 tree and 5 shrubs every 50 linear feet.

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    i. Fifteen (15) percent of the square footage of the Tiny Home Community shall be designated for the protection of trees.

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        a. The development is within 0.25 miles of a transit stop;
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    ii. A maximum of two (2) independent living areas within a Tiny Home shall be permitted to share a common cooking facility.
    iii. A Tiny Home Community Building may be located on an adjacent site with approval by the Technical Review Committee, Planning Board, or the City Commission, as applicable.

STAFF ANALYSIS AND FINDINGS: Staff finds that these revisions will provide an additional housing option, while maintaining and complementing existing neighborhoods within the core area. It is important to note that these standards are not intended to override or supersede any home owners' association or Planned Development (PD) standards.

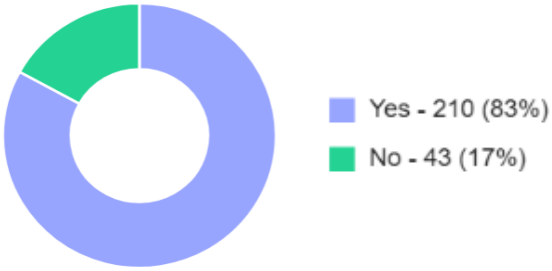
Next Steps: The request will go before the City Commission on October 6, 2025 for first reading, and on October 20, 2025 for second reading.

STAFF RECOMMENDATION: Staff recommends that the Planning Board forward these proposed text amendments, project number LDR25-136, to Modify Section 33-17 – Zoning Districts, to clarify where Tiny Home Communities are permitted by conditional use; add a new Section, 33-19.15 titled Tiny Home Community Performance Standards and Conditions to allow Tiny Home Communities in some of the single-family residential and commercial zoning districts, add specific performance standards for the tiny home communities; and amend Section 33-12, Definitions, to include several new definitions pertaining to Tiny Home Communities; to the City Commission for review and approval.

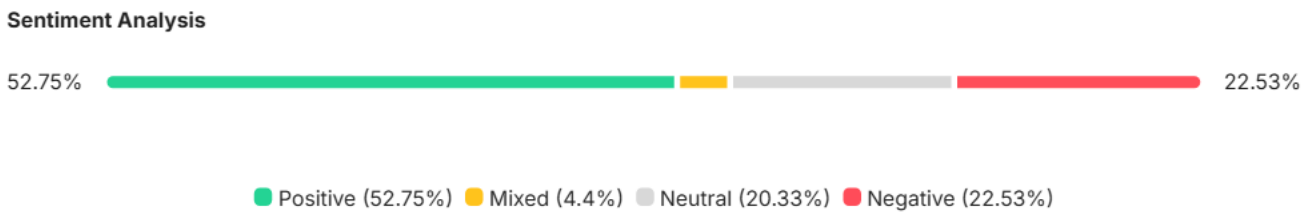
City of DeLand – Land Development Regulations Update
Tiny Home Community Survey – August 2025
August 14, 2025 - 02:30 PM – August 21, 2025 - 11:59 PM

Submissions Started	With at least one response	Submission Completes	Completion Rate
501	253	149	29.74%

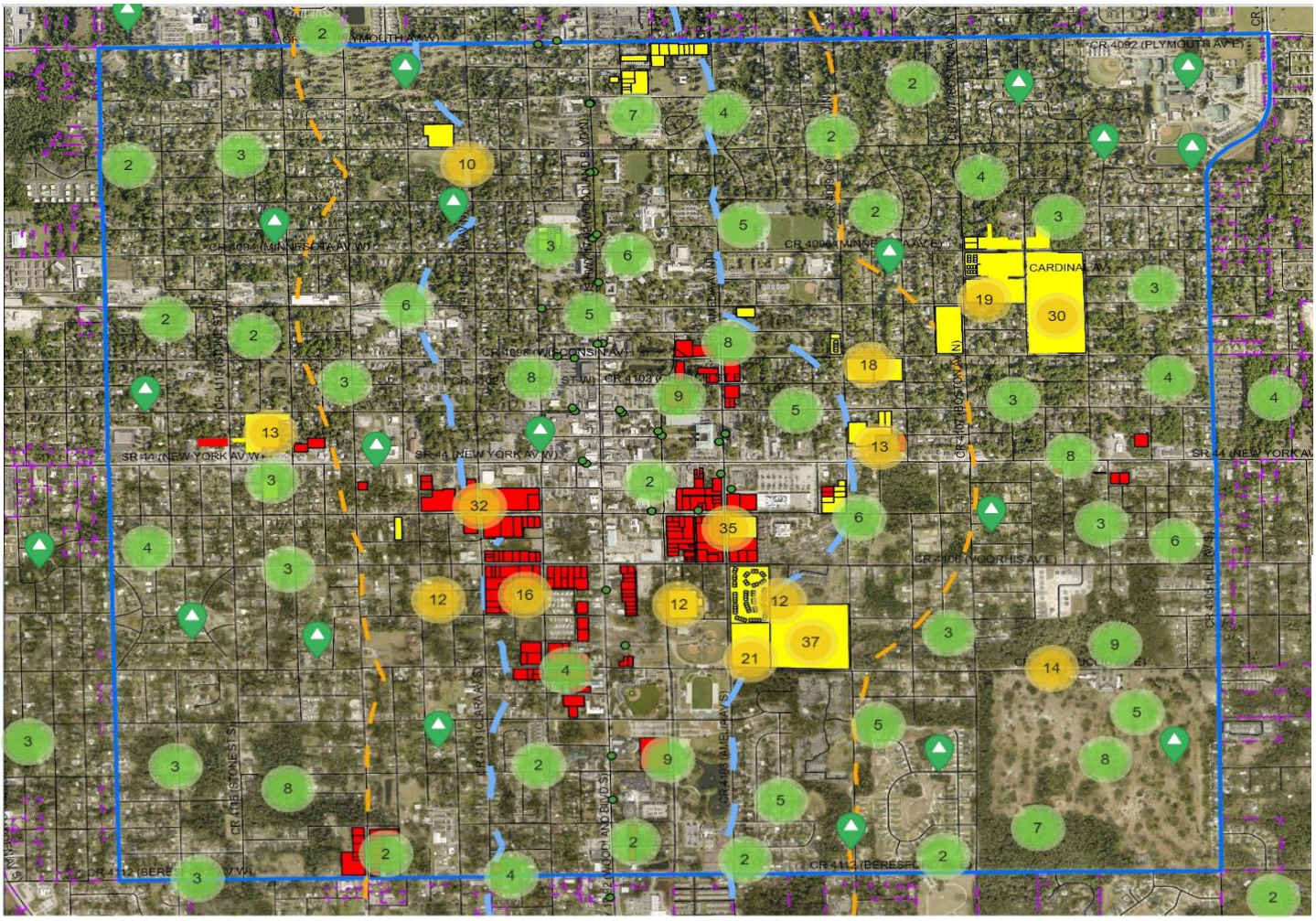
Q1: Do you think the City of DeLand should allow Tiny Home communities? *(253/253)*



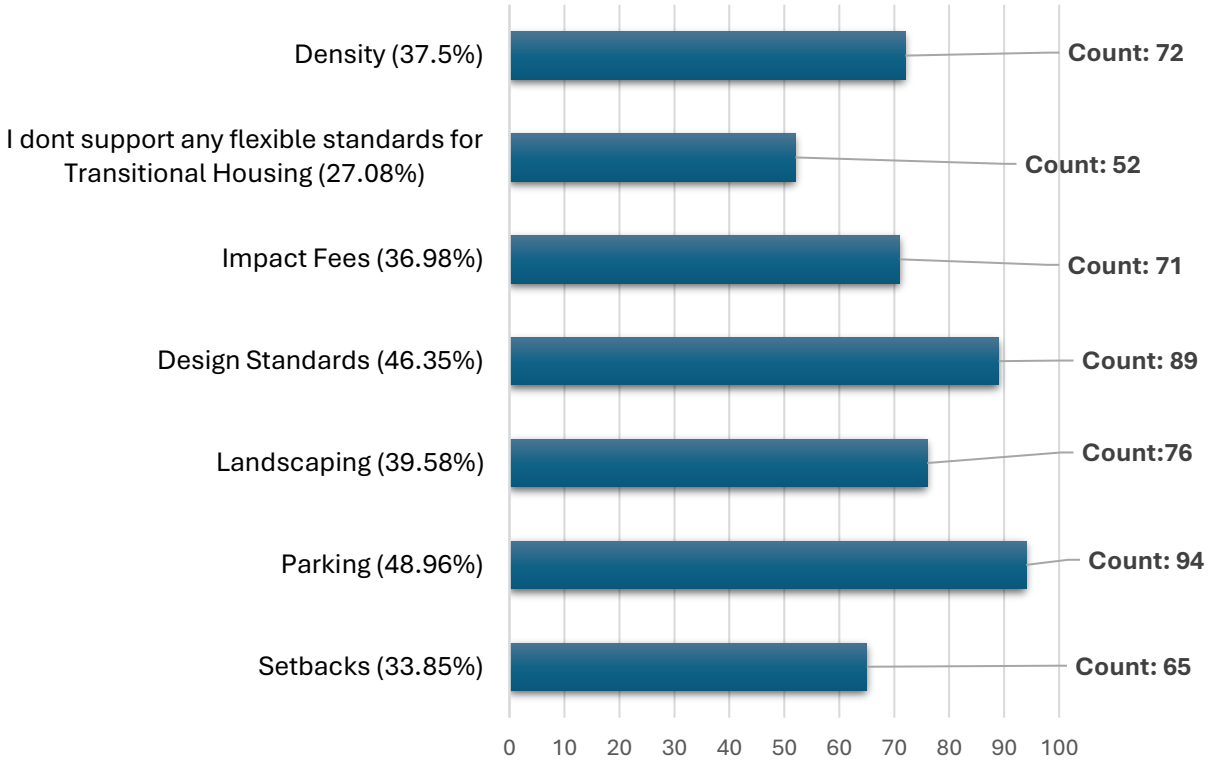
Q2: Tell us why the City of DeLand should/should not allow Tiny Home communities.
(182/253)



Q3: If Tiny Home Communities would be allowed, where would they best fit? Drop pins on the map below, where you think they'd fit best. *(101/253)*



Q4: Do you support flexibility for any of the following standards for Transitional Housing? Select all that apply. *(192/253)*



Q5: Which Tiny Home Designs do you like best? Drop a corresponding pin on each image (click the image and drag to see all images) *(117/253)*



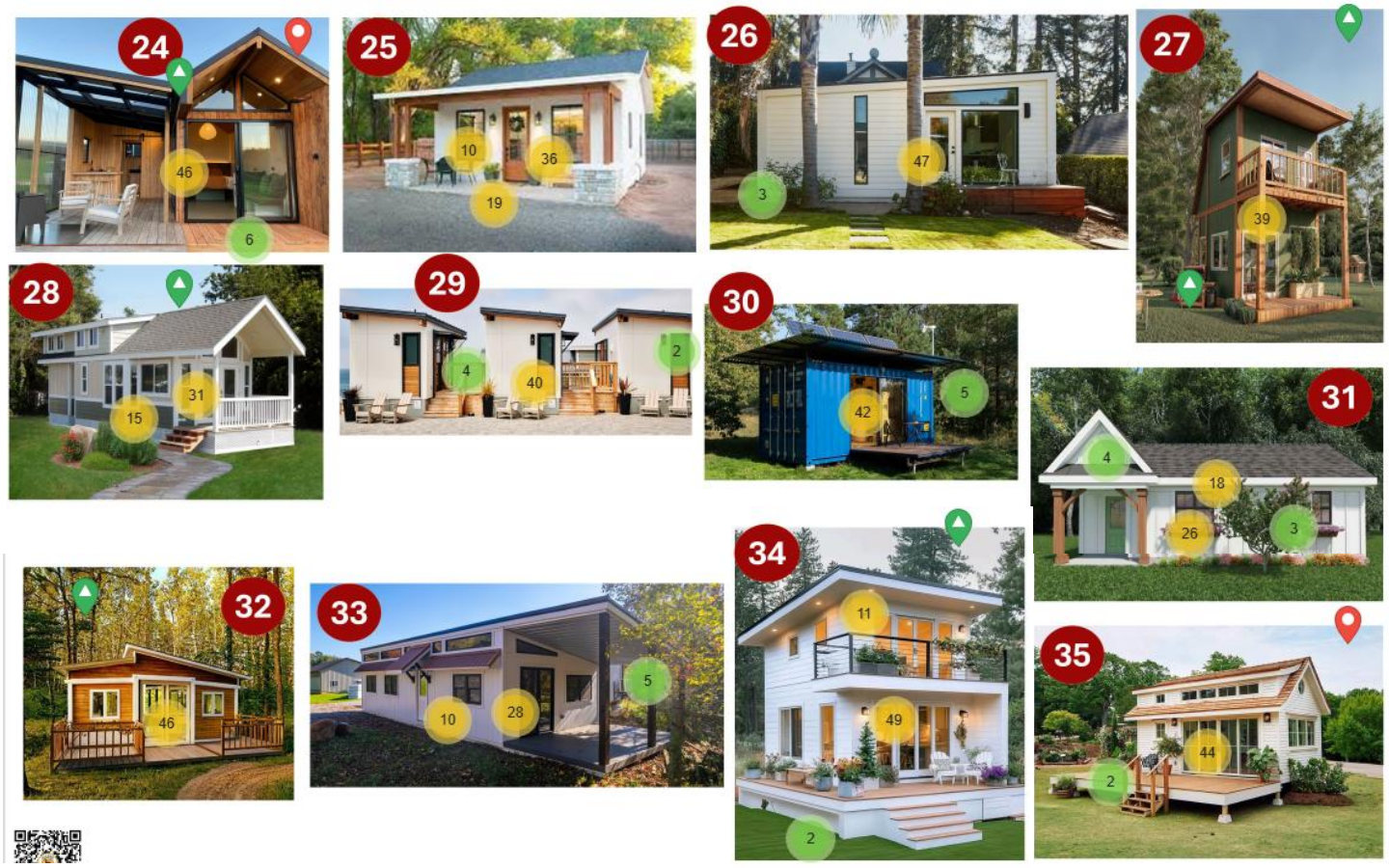
Pin	Count	%
Dislike!	255	31.64%
Like!	551	68.36%

Q6: Which Tiny Home Designs do you like best? Drop a corresponding pin on each image (click the image and drag to see all images) *(99/253)*



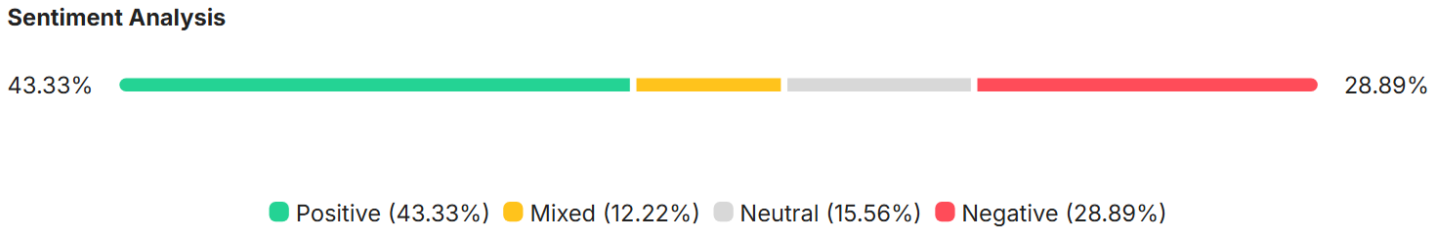
Pin	Count	%
Dislike!	172	29.81%
Like!	405	70.19%

Q7: Which Tiny Home Designs do you like best? Drop a corresponding pin on each image (click the image and drag to see all images) *(88/253)*



Pin	Count	%
Dislike	148	24.46%
Like!	457	75.54%

Q8: Please share any additional thoughts, concerns, or suggestions you have regarding Tiny Home communities in DeLand. *(90/253)*



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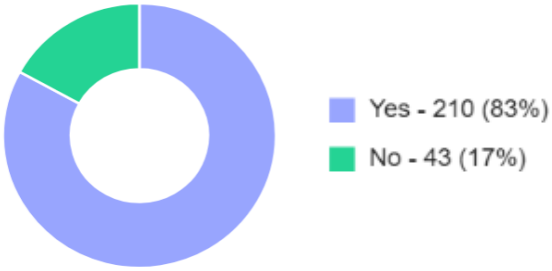
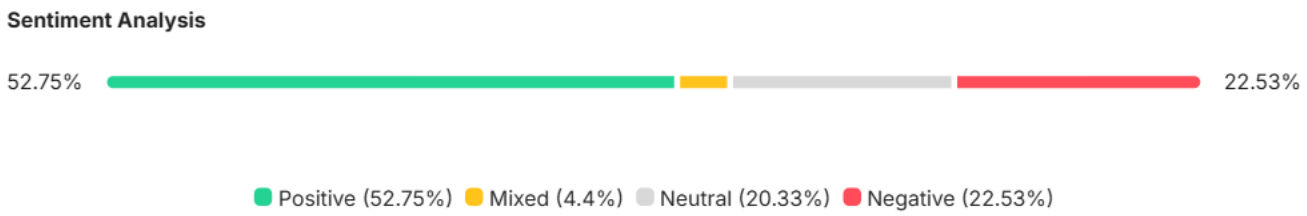


Q2: Tell us why the City of DeLand should/should not allow Tiny Home communities.

(182/253)



Sentiment Analysis provided by ZenCity uses artificial intelligence to group participants responses into positive/mixed/neutral/negative buckets, as sorted below:

Mixed:

- More affordable homes available. But I think there should be restrictions so as to keep out ruff raf. Personally, I would love to purchase property and put a tiny home 399 square feet on it, please update zoning?
- As long as they are controlled, also not a monopoly by certain companies that pay the most to the city. Everyone should be allowed if zoned for it to have the same chance.
- While I do support the construction and development of tiny homes, allowing tiny hime communities is yet another invitation for non local developers to exploit our land and resources. Planned developments of

current scale are significantly contributing to ecosystem risks and infrastructure failures. These massive developments should be discouraged, with smaller developed acreage limitations.

- Housing is a national crisis but taken acres of trees down to make another subdivision for families who can't even afford to get a mortgage is insane. Tiny communities would have a smaller foot print, smaller impact on the land and could house more long term and still be affordable. The American dream can still be realized just not at the cost of $200K or working your whole life just to survive and have a roof over you head.
- I think people should be allowed to build whatever type of house they wish to. If they by land they should be able to build whatever house they want to live in. A container house would be awesome! Safer then most of these houses being built now a days! We're tired of seeing these copy and paste houses that the city is building. And expecting people to pay 350-450k for You can easily buy 2-3 containers and build your own dream house on a lot. For much less.
- As their own communities yes, as an addition to current residences, with vast limitations. While we like the idea of adding tiny homes to land to allow family to spread out in space, as in the case of mother in law suites, or pool houses. What we don't want to see is single family plots adding tiny homes and renting them out, making mini neighborhoods out of plots in between single family homes. I don't want my 4 neighbors to be 12 neighbors with one driveway.
- Not everyone can afford a full size home. Owners take better care of their property. We need to incentivize young adults to stay and make a life in DeLand.
- They should ALLOW tiny homes. There is a need for affordable housing for low income, homeless and the elderly. There is already a huge base for seniors in the area who are being priced out of traditional housing. Many, such as myself, would love and can afford to buy a small parcel of land, have an affordable "tiny home" placed on it, to live out the rest of our golden years knowing landlords aren't draining every dime with lot increases, rent increases, etc.....Praying this passes and other parts of Florida follows!!!!

Neutral:

- 1.Affordable Housing Solutions -Tiny homes can help address housing shortages and provide more attainable housing for low- and moderate-income residents. -Lower building and utility costs make them an attractive option for people priced out of traditional homes. 2.Environmental Benefits -Smaller homes require fewer resources to build and maintain. -They often have lower energy consumption and carbon footprints. 3.Efficient Land Use -When clustered in well-planned communities, tiny homes can utilize space effectively while maintaining green areas. 4. Lifestyle Flexibility -They appeal to retirees, minimalists, and people who value mobility or downsized living. -Can be used for transitional housing or workforce housing near job centers. 5. Community Development - Can foster tight-knit, intentional communities that encourage shared resources and social interaction.
- Affordability
- I don't feel we need tiny homes, wealready have apartments .
- Affordability and feasibility for many populations.
- We need affordable options for entry level homeowners and those of us that may not be entry level but don't need 1,500 square feet. These homes should be smaller versions of existing homes, not cheap prefabricated mobile homes.
- Smaller foot print
- We need more affordable housing for seniors, veterans and young adults.
- There needs to be affordable housing, especially for those who don't qualify for assistance.

- Affordability and access to home ownership is a huge issue across the nation
- More people need affordable places to live
- Affordability
- They should define what a tiny hole is and is not, and then decide if they are clustered together in their own neighborhood and/or if they will be allowed as ADUs on existing sf properties.
- Not all families are large families
- I would not mind it but I would like to know where and how it would be implemented. Would the developers be allowed to construct developments communities of tiny homes or would individuals be allowed to purchase large plots and develop them? Would the communities be allowed within the city limits and within the historical district? What is the lot size for tiny homes?
- Small footprint home developments/ also the ability for residents to add tiny homes to their own property. Not trailers or converted sheds. Tiny homes on trailers that would be movable and custom built tiny homes.
- We need affordable housing for senior citizens who need to downsize. A beginning home for young families and pur Veterans
- Housing is getting expensive and extremely hard for those trying to rebuild their lives after SUD, or DV type situations. Tiny homes would help house some of the population struggling with affordable housing.
- To many people,no roads to move all these cars now
- Affordable housing option.
- Because the cost of a single family home is out of reach for a lot of people. If a tiny home subdivision is allowed there will be options and maybe less homeless.
- We have less space, and more people in need of options. We also didn't allow new mother in laws to be built, so there is less small housing than would normally be here.
- Affordability options
- To allow all different income and housing options available
- I'd like to these types of communities for limited income families, vs section 8
- Better more affordable housing especially for seniors. Also lower income family. Even with all the senior HUD apartments in Volusia we seniors still can't afford apartments. They want 2.5 income mthly. Thats an average of 2,700 to over 3,000 a month income. And thats is not the average for a native Florida resident. Most are single women seniors. Also most section 8 building are old buildings with health issues like too much moisture mold and mildew due to old code windows, roofs and exterior walls need billion dollar repairs cost. There is not enough section 8 to support senior housing in the State of Florida. We need a better housing affordable safe and health hazard free. We also need rent control at least for seniors and disabled people. Should be mandatory for all rental apartments luxury and otherwise. United States is the only country that doesn't take care of their seniors housing as a priority. Our rents go up every month but our monthly Social Security checks do not. What ever little they give for cost of living they raise the rent exactly that amount or more. 2024 we got hit really bad. If I could buy or rent to own a tiny house that would help a whole lot. Cause don't have to worry of rent increase and being evicted. Homeless like I fear every year. Like I was for 3 years waiting for hud apartment. Paying almost 1,000 rent. And I'm just one of hundreds.
- Opportunity
- Need for different types of housing

- As a property appraiser, I believe in order to have a health housing market their needs to be options at all sizes and price points to reflect the different needs of the community. Is a missed opportunity for housing for people that may be stuck in the rental cycle that want a home but not a large home.
- Give choice on size of homes. Seniors don't want large homes. I'm looking into some now.
- It would be affordable housing
- affordable housing
- Affordability, homelessness
- Like every other housing community in DeLand it will not be regulated. For example, the Neighborhood Center wanting to use shipping containers.
- First of all Thanks to the powers that be, there are No Trees for our Wildlife to live and trees collect Water during floods. You will need a Biat underneath the house attached and stilts.
- People need more affordable housing.

Negative:

- The city is overpopulated and development is not slowing down. Infrastructure cannot handle it.
- No more development in general. Overall congestion and flooding which appear to never be effectively addressed. Hurricane Milton made it clear to all that development needs to stop.
- There are very limited options for seniors with lower incomes, tiny houses would be a great option .
- It will ruin our city
- Stop building everywhere in deland your killing out wild life homes
- your destroying deland building to much
- Too much development
- You will have the same issues as other places where they concentrate on growing the population without growing the infrastructure to support the population. Look at Riverview, FL as an example on what has happened in the past 7 years. Not enough schools, traffic everywhere, higher crime. It took 5 years to get a new highway project made to alleviate traffic created by the influx of new community making without proper infrastructure. Current DeLand citizens + new citizens will all be negatively affected by this. You will also have other issues like flooding which are already happening in Volusia County.
- To much development in Deland. Please stop it
- The city is too congested now. There is an obvious theft and drug problem downtown. Why make it worse with low income housing?
- Only if it's not going to be a glorified trailer park
- To much development going on.
- Not everyone wants to live in an apartment who want minimal living space. And not everyone wants a huge A typical size house.
- For a more affordable option
- There's already too much traffic all over town and the schools are already overcrowded. Cutting down more trees and clearing more land will only make flooding even worse than it already is and will force more wild animals into surrounding neighborhoods.
- It to much building already going on and to crowded
- It lowers the quality of our community. We should be encouraging better quality of new homes.
- Squeezing in more people with multiple cars is already causing issues that is spoiling the best part of living here. The roads don't get any larger, the traffic is now as bad as the area I left to come here, everything is

crowded and I haven't spent any time downtown in years because parking is a bigger hassle than ever before. More congestion is very unappealing.

- too expensive to build big homes
- Because we have a homeless epidemic. We are living in multiple generational homes because we cannot afford our own. If you rent you need 4 room mates just to make rent. Everyone is one paycheck away from being kicked out. The banks have stolen homes from people. The government can spend trillions on war and ballrooms and parades, but cannot help us with this epidemic. So we need to work on it at a local level.
- Mortgages and even rent have become unattainable for the younger generations. They will just move elsewhere if there aren't more affordable housing options.
- It will devalue the city.
- Too much housing - too much development, lack of infrastructure
- Tiny homes should be allowed on land without HOAs, but a tiny home development downtown is asking to become a ghetto, and add to the traffic.
- Barely better than a homeless encampment. Waste of space, resources and other states prove these get bad fast.
- The potential to be poorly constructed and maintained. Stop the development
- From California and seen the tiny homes movement. Doesn't work for homeless as the homes are not maintained or kept clean and become a health concern. I can imagine with humidity it would be much worse.
- Affordable housing is now a misnomer in this town. Tiny Homes would allow more people to be housed appropriately.
- Not enough schools or roads to accommodate more residents.
- not safe
- so people can afford housing! people are being priced out of having a roof over their heads
- Theres already too much development in DeLand, plus they would be worth a fortune and would not benefit DeLand's homeless population.
- 1, the price of home ownership is ever increasing due to property taxes, land values, cost of materials, utilities, interest rates and etc. Apartments are nearly $2k/ month and you don't own anything. Hard to save money. Owning a tiny home allows for saving money, reduced costs of ownership, and sell able later for further home ownership. 2. Most people who are young do not need a 3/2, 4/3, 5/4, or anything similar. Also, lets me honest, nobody wants to live in a trailer park. Having the ability to build a real brick and mortar <800sqft 1/1 or 2/1 property allows for more appropriate living conditions for a single owner. 3. allows for a good path to homesteading. I know multiple people that own vacant lot but then put a trailer / RV down, which is legal. The intent is that someday they can build their dream home on their own property. But, owning a vacant lot and constructing a tiny home is illegal. Makes no sense. That tiny home today could become an ADU / MIL suite later after an additional structure is build. 4. Building codes are to ensure safety, not stifle creativity.
- Renting costs are killing the economy. My rent was raised $300 in 2 years. Needless to say I didn't get a $300 raise from work to compensate for the increase. I can't afford to live by myself anymore. $1200/month is absurd for a single person in a 1 bedroom. Tiny homes are more affordable and perfect for single and even elderly people to live in without causing severe credit card debt. If you're interested in boosting the revenue into DeLand, making housing affordable is necessary.
- There is a desperate need for homeless to find "affordable" housing. No developers, just people to people.

- Too many Americans cannot afford to live any other way.
- Price for rent are to hight and there is no privacy in the rooms land lord lives with Tennant mostly not respectful
- This is going to further increase population density which can barely handle the lowered lot lines from new developments that have gotten exceptions and the apartments downtown plus what will go in the Putnam. Our hospital can't even handle the current load and traffic is difficult and the schools are all under construction to meet current demand.
- please stop destroying this town with ANY type of development. Wildlife will eventually have nowhere to go!
- It brings more riffraff and drugs. That's the last thing Deland needs. CD
- This would possibly lower property values in surrounding neighborhoods. This is not the aesthetic of Deland. I am not confident the restrictions on the units would be cohesive with surrounding areas. Not enough information currently to make me vote yes.

Positive:

- Because like myself that am on disability and only make $1521 a month I need affordable housing and a small place with minimal area but still comfortable. A tiny home would be an great option and a blessing for senior citizens, young adults and citizens on limited income.
- More affordable and great for singles, couples and small families.
- To provide more options for buyers and renters
-
- Affordability and desire for simplicity are important drivers.
- I feel like tiny homes will benefit single people,single mothers and elder people who are by themselves. I feel like it would be more affordable for single people to afford.
- My is would be good for elderly that is on a fixed income and only need a small space. Also for young adults that are transitioning from home with no kids
- Because affordable, it gives the city a new and nice look
- We need to make affordable housing for the many low wage workers who are employed throughout our thriving city. Workers who live closer, will have more disposable income. They will likely drive less, improving commuting times for all. They will also generate property tax revenue.
- I think this is a more affordable option for families that are struggling with rising costs of living.
- It is the responsible thing to do in today's housing market where someone may be able to afford the property, but not a single family house this way they could
- I think this is a great affordable housing option and could also benefit the non profit I work for, Foundations to Freedom. It would give our graduates and families an affordable option once they leave our program. We could have a tiny home community and we as a non profit could oversee it.
- I believe that it should be allowed - as far as a community goes , I believe that's an option but I would really appreciate if homeowners who chose a tiny home could build it wherever.
- With the current real estate market, it can be very difficult for new families to afford their own home. I, as a real estate agent, believe this concept could help new families with affordability issues. I can see tiny home communities being an integral part of or city.
- Creating more opportunities for housing should include as many creative ways to do that including tiny homes. There are dozens of homes in our community already that are less than 700sf.
- For single/ two person residents who cannot afford a larger home to live in a house - like environment. We singles deserve to own our own home too!!

- Seniors who think they can retire on social security are going to have a very tough time. Having tiny houses allows ADUs-which can help seniors make some money with a renter in the backyard plus have an affordable housing option. It also reduces the loneliness of aging in place. Tiny house communities allow people the dignity of their own subsection the huge cost in money and energy off taking care of a larger space.
- It would be an affordable housing solution for older , single people and small families.I think it is an awesome idea
- More affordable for people to buy instead of renting
- It is the latest and best solution for single folks to own a home...I have at least 23 friends in this city that have talked about wanting to establish a tiny home community so we could look after one another (most in our 70s)
- Should to allow for affordable housing for families and those working to make ends meet
- I think they should. Young adults and seniors could really benefit from this option as tiny homes could be built on already owned land
- Everyone deserves a home regardless of size
- Affordable alternative much like the early Mackel Brother homes in Deltona during the 60s. You can put square footage limitations such as between 350 and 500 square feet so they aren't tiny tiny homes with no future.
- We need smaller home choices that are more affordable. Cost less for up keep. Great idea for older people.
- It would allow other housing options for lower incomes.
- Great opportunity for lower income people to afford housing. Lots of plenty don't need or want an entire single-family home and so many apartments are either wait listed (especially low income ones) or entirely unaffordable for average renters.
- Yes, yes, yes to missing middle housing options. We should stop subsidizing suburban housing and encourage highest densities feasible. This will create a more sustainable and walkable community helping everyone. Tiny housing gives affordable options and provides an alternative to traditional multifamily housing for it to transition from higher to lower density. I support tiny housing anywhere that single family homes are allowed and where low density multifamily is allowed.
- It's a great way to provide affordable housing without destroying the environment. Plus I like the idea of multigenerational housing, ie an aging parent or young adult child living in a tiny home of the family property
- Creates affordable housing neighborhood options and allows for families to add cost effective additions to their property to care for family members, offer affordable student housing, or similar rentals.
- This will allow airbnb renting and hoteling culture hence creating more nuance in the community rather than helping the residents.
- Deland should allow structured tiny home communities to support the following populations: Young professionals looking to have an independent start Disabled individuals who need more affordable housing People in transition after natural disasters The aging population who would prefer to downsize Anyone who would prefer a smaller home
- Affordable housing for young professionals will help our community grow and thrive, long term.

- People should be allowed to build homes as small as they like. Bigger doesn't equal nicer, better, etc. Private property rights should include building whatever size home one desires, as long as homes are build to Florida building code for safety reasons.
- There is already over development everywhere in volusia do not need more housing!! Damn apartments have added thousands of new homes!
- They're more affordable
- Tiny homes are a viable and cost effective alternative to apartments if done correctly. I don't want to see packed half lot "communities". There should still be a minimum plot size so future home development is possible
- Not necessarily tiny home communities but being allowed to put an attractive tiny home on private property should be allowed
- My preference is tiny homes for the over 55 folks. As a 68 year old living in a 3/2, it's starting to get to be too much to maintain between the housework, yard work, and the pool. But where would I go if I sold my house? A tiny home would be perfect and keep me in the town I love.
- Lower environmental impact per home.
- I have long thought that tiny home communities would be an ideal living situation for many senior citizens, with private space and independence and outdoor areas (pool, kitchen, gazebo, etc.) shared with a small group of neighbors (ideally friends and family) and as needed shared maintenance, health care, etc. This could also work well for many other demographics of single people or couples to have (possibly as owners) affordable and functional housing. In many cases, however, I think "small" (say 500 sf) would be more functional than "tiny."
- More affordable less to own . Sustainable. You can have a solar as well on those homes as well and more affordable . Home should be allowed up to 600 square feet single floor two rooms and bath for those who do not want a loft . However I would like to own my land and not pay rent (lot) which can go up every year. I am ready for something like this.
- Affordability !!
- It gives more options for those who cannot afford to buy a house or even to rent an apartment now it's so expensive so tiny homes offers those less fortunate to able to be housed and afford to live
- They should allow build tiny homes there is so much needed especially 1 bed or 2 bedrooms
- More affordable option. Not everyone needs a 1000+ sq ft space to live in
- Alot more people can have a home
- We need affordable housing options. We must keep some green spaces. Smaller more affordable homes satisfy both priorities within our community. This should be expanded to the county as a whole.
- It would let people who can not afford a larger house to be a homeowner
- I believe they should allow it for the families to be built but not something we should allow for companies to produce communities of or buy land in mass to sell for. They are affordable in this every declining economy and rising inflation while wages cannot keep up. We do not need people renting them for profit but we do need families to build them that can live within them an are affordable to do so.
- Its a great way to increase downtown population and therefore foot traffic for stores and restaurant with minimal impact to the environment. Its also ideal for our many of our young service industry staff
- This will allow people like teachers who don't get paid enough money for their jobs to qualify for a tiny home. Homes are so expensive and this will allow people to find a home within their budget and yet live in a nice community. I have lived in a large home but now I would like to live in something that has all the

beautiful big open floor plan, one level and enough to be able to afford a home. I would love a home that is one level with a porch in the front and has a medal building design. Homes that are affordable for nurses, fireman, teacher, police officers etc. along with very very low HOA.

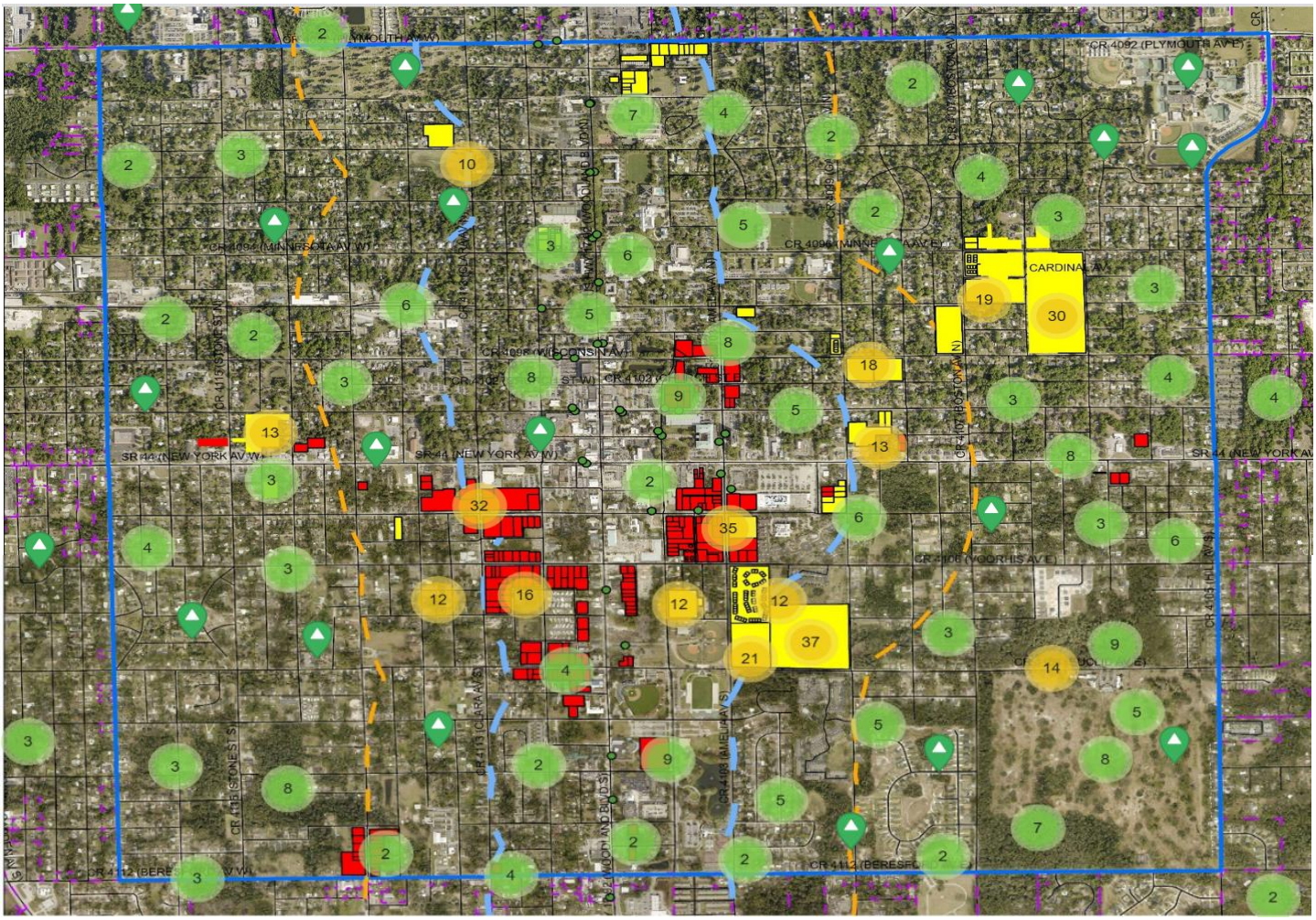
- Should be allow Tiny home communities for families could afford housing, mortgages or rent for singles mother with children or eldelry people.
- My husband and I having been closely following tiny homes for a few years now .. it would be great option for so many .. we are seniors wanting to downsize and are seeing in these communities a bond of close friendships... people who are proud of thier homes ...allowing tiny homes to be placed on properties also Improves land value and family stability... There are amazing quality builders across the United States that the Deland community could be very proud to have their tiny homes here .. There is only great things if this comes to Deland . Thank you
- Affordable housing is a must.
- Tiny homes are a great way to solve part of the housing crisis
- They should make regular housing affordable and not force people to live in tiny houses.
- The homeless are growing in numbers. Every human needs a place to lay their head at night without the fear of being run off. Our shelters have waiting lists and this will provide additional space. Unhoused individuals need help getting on their feet again with skills, community and housing which the tiny home project will do.
- DeLand should definitely permit Tiny Homes. In addition to possibly providing affordable housing it could potentially provide senior housing for empty nesters. Widows and widowers would especially find it attractive in their "Golden Years" when they would like to abandon their albatrosses of 3, 4 and 5 bedroom houses. The income from the sales of their former homes could help supplement their retirement income. Efforts should be made to ensure that the communities are not unduly burdened with home owners associations fees and rules. Maintenance free or minimum maintenance landscaping should be mandatory.
- The city of deland should allow this because alot of people cannot afford a traditional single family house, and other people choose the commodity of living with less. There should always be options for everyone, at the end of the day the goal is so people may have a roof under their heads and live with dignity.
- This is an alternative for housing for older and singles
- Affordable options for housing
- Lower cost homes and easier to maintain for older adults or disabled
- They provide housing for those not able to afford a conventional home and have a small footprint. They are economical and are a great way to evolve the city.
- We should allow tiny homes as a more affordable option for housing
- Good options for low income families
- In DeLand we have numerous homeless people that are not familes and would benefit from a tiny home. I believe that if we can allow these homes and help those that need jobs along with a tiny home that would benefit not only the person of persons looking for a home but the overall community as well.
- It can be a an affordable option.
- It would help a lot of people have a place of their own without paying too much.
- The City of Deland needs to allow a Tiny Home community for many reasons. First, there is such an over development of Florida for larger homes that often sit unused for a while. A Tiny Home community would allow for people to find their homes, whether they are a fist home for some or even a downsize from a larger

home. Second, there is a need for something new that allows the community to stand out. If the City of Deland offers something like this, the community will prosper and grow. People will want to move to Deland for the new opportunity as well as the chance to be a part of something new that adds to the development of the area. Furthermore, with something like this in the area it allows for a sense of community to grow. A Tiny Home community with special amenities for those who live in there allows money to go back into the community with an inexpensive HOA or something that allows them to give back. Overall, something like this would allow the City of Deland to grow and allow the people in it to prosper and give back to the city while allowing new opportunities for the poeple who live in the community.

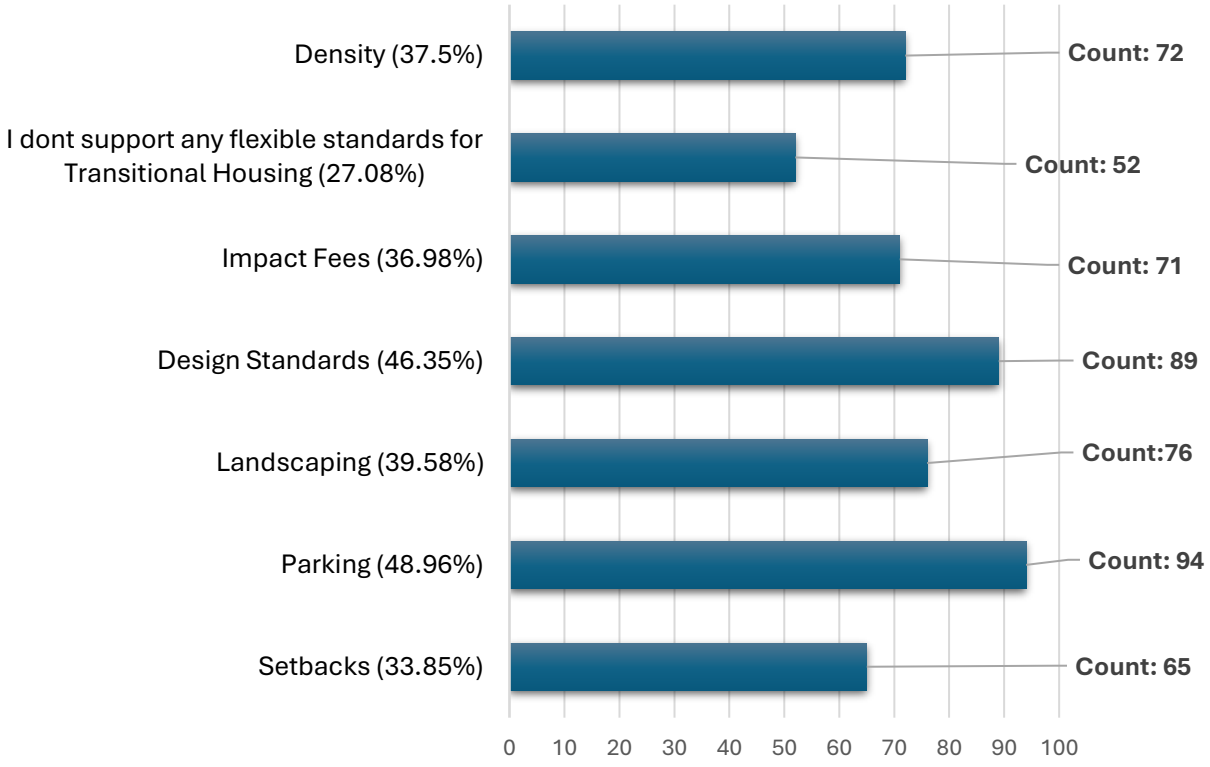
- Our children and less fortunate deserve options they can afford. Insurance costs have become unbearable and we should be able to do what we want with our land.
- DeLand has at least two excellent factors supporting the construction of tiny homes: 1) a superb university drawing students from a variety of regions who require small, lower-cost housing options, and 2) an over-supply of older single family homes on large lots with existing amenities. Tiny homes would be an excellent marriage of those two factors, to the benefit of the city, the tax, base, the homeowners, and renters requiring housing options other than the cookie-cutter development sprawl that DeLand has rabidly applied for the past 30+ years.
- They are a great option for seniors who need smaller living spaces and yards
- Allowing tiny home communities in DeLand provides more affordable housing options, promotes smarter land use through higher-density development near downtown, and aligns with long-term planning goals.
- Well, if they are affordable, it would benefit more people.
- It can help people who can't afford larger houses.
- Times are changing and young adults are choosing to remain single. Sure to this, family homes are not just too expensive but have more space than necessary for a single individual. Tiny homes will provide an alternative and affordable way for this demographic purchase homes. This would also help couples just starting out, an affordable way to purchase their first starter homes.
- Tiny Home communities provide housing opportunities for lower income and single homeowners to live in relative comfort in their own space. Tiny Home communities would also provide a space for elderly citizens to enjoy aging in place in near family members or centers of convenience.
- It makes a more affordable housing option for people who can't afford a larger home.
- tiny homes can be an effective means to provide additional necessary housing options
- Tiny homes would allow for residents that are unable to afford or are without need of a full-size home to have to opportunity to have a home. Since Deland has had issues with homelessness, it would be nice to give a more affordable option to those less fortunate. The Urban Institute did a research report showing the positive impact of the availability of tiny homes on decreasing the homeless population. The Center for Health Journalism also has an article that states that tiny homes were more successful for homeless people to find permanent housing compared to traditional homeless shelters. If Deland can approve developers to build PUD neighborhoods, townhouses, and mobile home parks, then it seems illogical that building a neighborhood with tiny homes would cause an issue.
- With the low wages and higher costs of living it provides affordable housing for those in need. It would also be a great option for those looking to downsize or minimize their footprint. Tiny homes should be allowed in other areas as well, not just in communities. There should be zoning rules updated to allow this in rural areas or where mobile homes are allowed. They wouldn't much impact to the home values in those areas and would again offer more affordable options to those wanting to live this way.

- I have a funny feeling the city is about to “ask” to buy my land again….
- It would allow low income families have a home
- I think it will be a more affordable housing situation for single people on a fixed income.
- Alternative for expensive regular homes
- Affordable living place. For people that are interested.
- It’s a great option for the senior
- It's a splendid idea! Housing costs and rentals have soared. I'd like to think that DeLand is a city of compassion and action on that. Anything we can do to help those folks in desperate circumstances, some with children, living in woods and cars, we should do. They are extremely vulnerable and suffering. We must not turn our backs and simply push them to the fringes of society. I'm not putting pins on the map--put them anywhere and everywhere, but they will be most helpful where the people can walk to resources and possible jobs.
- We need more affordable options for folks that provide shelter and a sense of dignity in being able to be housed.
- To help with affordable housing and preventing further degradation of our resources through suburban sprawl
- I think affordable housing is a good idea, along with ADU's on existing properties. Cities like Ecinitas California did approved style ADU's and provided the plans to the public. I think more diverse style of allowable building styles too. Things like dome houses with aircrete, container homes, barndominiums etc.
- I support the idea of using tiny homes in little communities to help make the most of the space we have. I don't believe they are an actual solution to affordability when they're smaller than the apartments that are already going up and it's left up to the market to price them.
- We need more affordable housing options in this city. This would allow for single adults or couples without children secure permanent housing at a fraction of the cost.
- Provide for more housing closer to town
- It might help with the growing homeless crisis in the downtown area.
- Tiny homes fits the character of Deland. A big small town with solutions for everyone

Q3: If Tiny Home Communities would be allowed, where would they best fit? Drop pins on the map below, where you think they'd fit best. *(101/253)*



Q4: Do you support flexibility for any of the following standards for Transitional Housing? Select all that apply. *(192/253)*



Q5: Which Tiny Home Designs do you like best? Drop a corresponding pin on each image (click the image and drag to see all images) *(117/253)*



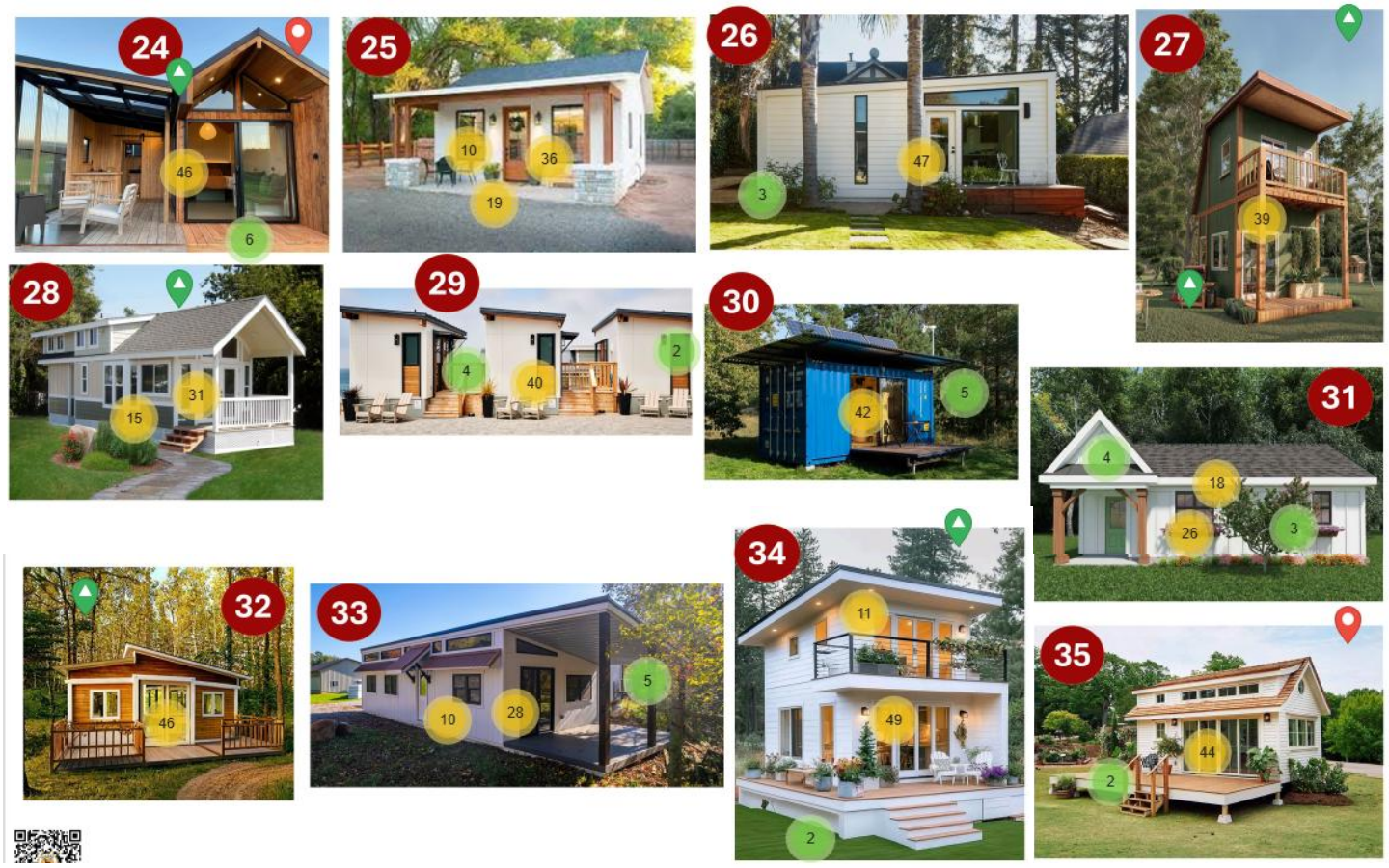
Pin	Count	%
Dislike!	255	31.64%
Like!	551	68.36%

Q6: Which Tiny Home Designs do you like best? Drop a corresponding pin on each image (click the image and drag to see all images) *(99/253)*



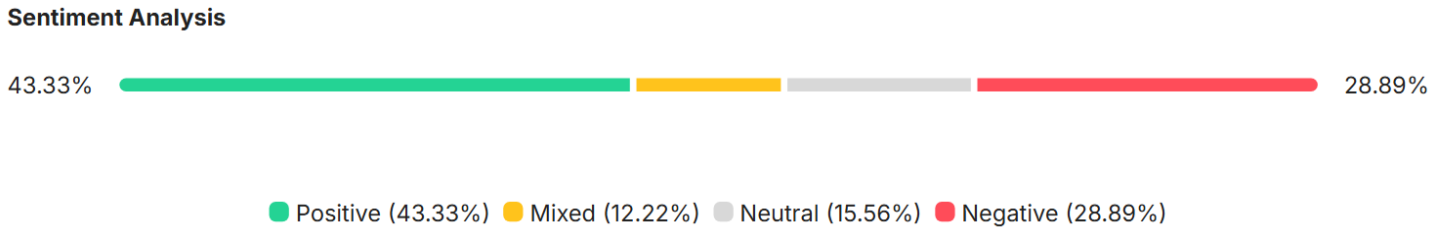
Pin	Count	%
Dislike!	172	29.81%
Like!	405	70.19%

Q7: Which Tiny Home Designs do you like best? Drop a corresponding pin on each image (click the image and drag to see all images) *(88/253)*



Pin	Count	%
Dislike	148	24.46%
Like!	457	75.54%

Q8: Please share any additional thoughts, concerns, or suggestions you have regarding Tiny Home communities in DeLand. *(90/253)*



Sentiment Analysis provided by ZenCity uses artificial intelligence to group participants responses into positive/mixed/neutral/negative buckets, as sorted below:

Mixed:

- Tiny homes will never be kept up well and will look bad within 5 years. It sounds good on paper but in reality, I don't think it will add anything to our community.
- Some of these photo examples are not “tiny.” But the city should have to decide if they will establish sq ft parameters. I don’t find shipping container construction, but in FL, it has to be properly insulated. In a tony home community, will the homes be mobile (on wheels) or built on the ground? (Either is fine, but there are consequences, both good and bad, for each.) Will they be built by a developer and all look the same (ugh!) or simply be a spot where people can build their own or order kits or pre-built homes and locate them there? I prefer the latter. Why is the conversation focused on transition housing for currently unhoused people? Why not acknowledge that many young people, seniors, and middle-aged people might benefit from an option for tiny home living? Will tiny homes be allowed on existing sf parcels as ADUs? They should. This is the question of centralized vs distributed tiny homes. Are they clustered as their own community or integrated into the larger community? There are benefits to both.
- If the idea is transitional housing then multiple stories should be limited. I also really don't want these to be built right on top of each other. Everyone should have space to garden and for privacy.
- Should be able to purchase your land instead of rent . No HOA community garden have chickens for eggs , each plot should be enough to have your own garden . Keep home within a 25,000.00 budget otherwise only the rich can afford it. And land within 10,000 Looking for affordability in homes. Not to go in debt. Otherwise the rich can only live there and not the poor or what. Some people would need the middle class. You can have another section where it's only rent and cap it at $800 a month and then they pay the cost of water and electric and sewage. I have a job and I can't even afford rent! Less is more ! Thanks for considering this
- Tiny homes with a little larger lots would be great. Some people like having a yard but dont need a whole house.
- I think it is important we are not leveling more land for this. If it is land that has buildings not being used, lets use that. We have so many vacant properties that can be used. I am sick of seeing our nature destroyed but we do need transitional housing, small homes, and housing for the homeless. A tiny home should be rewarded with the same benefits as a regular home owner.
- My only concern is that companies will try to take advantage of the new rules and instead of providing affordable housing they find another way to charge multiple thousands for "tiny home" aesthetics. Lot rentals are possibly a way to combat this but I'm not sure.

- More housing options in general, greater varieties of housing options, and more affordable and flexible housing options are critical additions to accommodate DeLand's projected growth. The city has been a very slow adopter of people-friendly characteristics and modern options in both housing and transportation. Instead, leadership has unfailingly applied narrow-minded and antiquated 1950s/60s housing models. Flexible "smart growth", in all its forms, should be an actuality, rather than a fake buzzword thrown about the public meetings to placate the citizens.
- Would like to see Florida appropriate architecture without fireplaces. Wood storage would become a problem. No shipping container conversions
- Make sure handicapp accessible! Hard for people to do stairs!
- I believe this could be a great idea; however, there should be clear requirements for living in these communities. Residents should be expected to engage in education, receive mental health support, and maintain employment in order to continue living there. From my past experience with subsidized housing, I've seen that while it is often well-managed in the beginning, over time it can unfortunately decline and become associated with crime.

Neutral:

- Focus on existing housing.
- Flexibility is important re design. Local government should impose codes that mitigate damage from storms/ to owners and neighbors alike... flying debris etc.
- Can you make the tiny houses affordable for people who is single or single parents
- Transitional housing needs more police presence. Limited density per acre (I.e. do nNOT fit as many as you can)
- allow in more areas, especially with all the smaller lots. Are we able to buy just one like a house? don't want to rent
- There are no concerns for me I love the idea of tiny homes mainly for homeless and the elderly who can no longer afford to live comfortably
- We need more housing apts for seniors one bedroom is very needed in Deland
- Will the tiny homes be limited to developers only or will investors be able to build tiny homes and will there be a limit to the number of homes that a private individual would be able to build? Will someone be able develop and rent tiny homes ?
- Specific community for the tiny house communities(families with low income)
- Tiny homes should be developed in a specific area and not allowed to be scattered throughout town
- Ensuring the community has either regular random UAs if it is used for transitional housing and/or HOA type rules for visitors, noise, and exterior property maintenance.
- After looking at the examples of tiny homes there would need to be something added for the community when it comes to parking. if there was a designated parking between the house or a lot just for the vehicles of the people who live in the community that would be an easy fix. There should also be an option for the people in the tiny homes to have a chance to enclose their property with small fencing. If they have animals, it will make it easy for them to have a small area fence in the back or even on the side of the homes to allow people with animals to provide an opportunity to do minor landscaping, as a way to add some future property value to the area and allow it to grow internally as its own community, is that makes sense.
- Are we going to build more schools to handle all these people?
- People sleep in the side walks they need an area to wash and rest , non profit is the best help is needed

- Build tiny homes that feel larger than their footprint. Add livable space by integrating outdoor living into the overall design 2.design spaces that support families. Add full size appliances and showers. 3. Build spaces to encourage socialization and gathering with neighbors. Courtyards, gardening spaces, butterfly gardens, outdoor water features 4. Use landscaping to add unique character

Negative:

- Clearly based on the survey questions the city has already decided to move forward with this development. I do not support this effort.
- Stop all the building!
- I wish we would stop taking homes of the wild life. I have deer all over the streets now cause the new street and round abount built on blue lake its sad
- A lot of concerns, too much traffic and people .
- They should be offered for section 8 rental or purchase.
- Need more affordable housing in the area.
- no shipping containers, they are ugly and always will be
- Deland does not need a tiny home community. What we need is to stop all of the developers from coming in and building on every inch they can get their greedy hands on. We moved to Deland because it was a smaller, quieter town, but it's quickly losing that charm and becoming another overpopulated suburb full of crime and angry people.
- Development designations should be limited to a few lots. Azalea Walk on Plymouth Ave. Is one example. These huge investment groups have far too much lobbying power, with poor motives
- Tiny home communities are not the answer to homelessness in Deland. Do not support.
- Like I said, this will promote airbnb culture which is not productive for what you are trying to achieve. Also, I hope it is not that smart cities agenda by WEF.
- Too bad that the city was not open to this when Fred Schneider was pushing for it years ago.
- Not in favor of additional housing in our city limits
- This is a bad idea, barely a step above a tent city. It will be alcoholics and drugs. Better put it right next to the emergency room and cemetery.
- The method for dropping pins on the designs is not user friendly so you're not going to get thorough responses.
- I think it's a shame that society has sunken so low that tiny houses is even a thing. Provide Americans with proper housing so they can live the American dream and not be forced to live in subpar conditions.
- I don't recommend wasting the money. The houses will require consistent code enforcement and most likely become an eyesore from lack of maintenance and cleaning. My comments are based off of my experiences in California and I don't want to see it happen here.
- The only thing is that the lots are very small
- There will not be enough to go around. & Also pricing
- Someone on the board thinks tiny homes are "cute", as they sit in their fancy house looking at photos in home decor magazine. In a town like deland, it would create a vacuum sucking in the hopeless, carrying in drugs and crime along the way. Property values would continue to plummet further.
- The community needs to be near facilities like grocery stores, drug stores, laundromats, bus stops. None should be in or near established residential neighborhoods.

- I don't think this should be a city-wide change. If it's allowed, it should only be for this one purpose. As part of their rehab services. We should not be having developers building entire tiny home communities in our city.
- Concern is there will be barely any side setbacks. Concern is the exterior finishings will not be solid. Concern is there will not be minimum standards for upkeep. Suggest keeping it close to the downtown or employment centers. Suggest starting with working families/individuals and only start considering the model for 'transitional communities' once the product has been tested, verified, and accepted by the community.
- Stop building in this town. No one wants it. We've all begged you to stop. Multiple times. On multiple occasions.
- DeLand does not need Tiny Homes Communities or more growth. Stop the Growth!
- By supporting tiny homes, you're taking away from the lure of Deland people don't want to be involved in all these bombs hanging out selling drugs. Believe me, that's why I left Boca Raton crime. Just not a good idea.

Positive:

- I love the idea of tiny homes. I believe they will be more affordable for our residents of Volusia County.
- This is an excellent initiative. There should be an aspect to help the homeless, but also to create a pool of local workers.
- I believe they City of Deland is going to set an example for surrounding areas. Tiny homes are the future of affordable housing.
- Would be nice for a tiny home community also have a central building for use in having members of the community learn vocational skills and or hobbies with shared space and tools.
- Tiny homes are great, we should focus on communities where people own their lots instead of a mobile home model where they pay rent indefinitely to one landowner.
- Housing is for human beings. Let's create as much housing opportunities as we can.
- ADUs are very important options. Sustainability should be considered as well- solar, excellent insulation, bus lines, placement along 92 for bus service into Daytona, and walkability to the shopping is great!
- I think it is a good opportunity for young people and families to have affordable housing. That should be the primary reasoning. I do also feel there should be a separate tiny home community that can be used for transitional housing for the homeless but maybe as a totally separate neighborhood.
- I Ian a 1/2 acre or more (double lot) It would be amazing to be able to build a tiny house on my land for my adult son, aging mom, or even to rent out to offset the mortgage cause times are so tough.
- More variety the better with tiny homes. Let demand decide!
- Allow for ADUs in residential areas. That saves on cutting down trees and already is established. It's a win win for everyone
- Appreciate you seeking feedback. Transitional housing can be very helpful to others if well managed. I believe tiny homes should be allowed. Don't believe in minimum square footage requirements.
- Very dumb idea to add more housing where are the extra jobs for all of these houses ? Why not redevelop old places instead of tearing out more wood lines
- No concerns about the community of tiny homes. This could be a very affordable option. Don't regulate it so hard that it is impossible to achieve. Just like a mobile home community it's an option.
- Deland is a great community for tiny houses. I would hope other parts of volusia county will follow, allowing for variation in density instead of the apartment complexes that are being built all over. The

natural green space that comes with most tiny homes is an improvement on the environmental factors and beautification of the Deland.

- It will bring stability to our city. We are only as strong as our weakest link. Let's elevate our neighbors and form a stronger community!!!
- The designs need to meets the needs of the owners. I don't care about the design. I care about housing our residents. Please review Finland's Housing First Program. Finla d is doing right by their communities. Thank you for this opportunity to share my thoughts.
- This would be a great idea for Deland to construct these homes. I was thinking of moving to a state that has these homes, which are affordable with updated style and has personality woods mixed in with metal . Love love this style. Please make these homes
- I believe this is a great idea. But let people build on their property also. Not only land that you want people to build on.
- Love the ideas! This would be a wonderful way to solve a lot of homeless issues. We'd love to be able to have this for our veterans in transition.
- I think this change would benefit the community
- I think it's a great idea to bring more affordable housing to smaller sized families.
- 'Tiny home' DOES NOT EQUAL cheap or low quality building material, quality of build, cleanliness of home / property, or demand for overall safety. Tiny home are not a place to just push the poor and homeless. Tiny home is for people who need / want a small and manageable space. If a potential home owner is just one person or young then why not live in a home with only 1 or 2 bedrooms and 1 bath. Tiny homes promote the idea of being outside the residence and participating in the community. A good tiny home will have a patio / porch, grill area, dining area, and a small garden / green area. People are not meant to stay inside the structure at all times. Go outside. Sit on a porch. Cook / eat food outside. Maybe there is a neighborhood / community pool or park nearby.
- Affordable housing is the key to bringing more revenue into the community. If you want people to spend money in town on other things, the housing costs must not break the bank.
- Tiny Home communities are a change to meet a changing and growing community. As with most homeownership, there should be some space and quality in the design while maintaining dignity to its residence.
- Would invoke new opportunities for many people.
- I think this is a great idea. Way to go DeLand!
- This is a win win for the community; people will get homes, and the city and county will get additional tax revenue that was not there before. This need to be a change in the building codes and zoning in not just Deland but in all of Volusia. My other suggestion is that we outlaw short term rentals and large corporations from buying up all the stock to keep this revenue in the county.
- A Tiny Home community would be a good addition to the City of Deland. It will give an opportunity to the less fortunate to be able to have a home. If done correctly it has the potential to have a positive impact on the low income and homeless population in the area. Although it may not completely solve the issues that plague the homeless population, it is a good step in the right direction.
- Again, I would like to see tiny homes allowed in more rural areas or where mobile homes are permitted to give people an option for a smaller footprint. The cost to maintain a tiny home is very attractive in today's world of extreme living costs.

- Any location between the Neighborhood Center and Neighborhood Walmart would be ideal so those resources are walkable.
- They are a cost effective way to offer housing to the community. VOA uses shipping containers for housing for Vets. Attractive and cost efficient.
- Insure land parcels are individually owned. Limit homeownerships to Owner Occupants. PEOPLE need affordable housing!!!!!!!!!!!!!! Make parts of this change available and helpful to INDIVIDUALS who desire to live & own their own land and home :)
- I think tiny homes (either individually built as an ADU or as part of a community) are integral to making Deland a better place to live and making the downtown area more accessible to all.
- I would love to be more involved in the process. Here is the one in CA https://www.encinitasca.gov/government/departments/development-services/policy-planning-housing/policy-planning/accessory-dwelling-units I hope Deland brings them in. Also consider changing RV or Trailer parks to allow upgrading the spaces with units like this as well. I have been on Design Review boards in other cities and would consider participating in Deland. alicia@hioctanedesign.com I also think allowing unique trailers like airstreams, container buildings etc for downtown spaces to activate the space.
- I think with the right design and planning, these tiny home communities would fit right into our city. I think it's a great idea. My only fear is that the city will lose the true focus of a project like this which is low-cost, affordable housing options. There needs to be design standards but keep costs as low as possible to stay AFFORDABLE for the people.
- Great option for 55+
- Glad to see the city thinking out of the box!

CITY OF DELAND

DRAFT

TINY HOME COMMUNITY DESIGN GUIDE



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INTRODUCTION

Over the years, the housing inventory in DeLand has been focused on large single-family lots or large multi-family buildings, leaving few housing options.

By allowing townhomes, cottage clusters, multiplexes, and other housing types, also referred to as "missing middle housing" the city can unlock housing choices and promote neighborhood infill opportunities.



This guide has been developed to encourage and provide an overview of the considerations, requirements, and processes involved in building a Tiny Home Community.

WHO IS THIS GUIDE FOR?	
Residents/Property Owners	Architects & Designers
Developers & Builders	Homeowners/Buyers
Neighborhood Groups	Non-profits/Housing Advocates

HOW TO USE THIS DESIGN GUIDE

How to use this guide:

1. **Consider if your property is properly zoned.**
2. **Find the buildable area and other design parameters.**
3. **Determine desired unit count.**
4. **Calculate the required parking.**
5. **Determine if the tiny home community is for transitional housing.**
6. **Pick building types, styles and materials.**
7. **Contact Planning for Pre-Application Meeting**

ASPIRATIONAL PRINCIPLES		
Promote Walkability Tiny Home Communities are best suited for walkable areas near existing employment, shopping, and public transit.	**Small-footprint buildings** Tiny Homes have smaller footprints than single-family homes. Every design choice serves a purpose while blending into an existing neighborhood seamlessly through the use of similar materials and design features.	**Sense of Community** Integrate private open spaces with shared spaces to promote a sense of community.
Provide Local Benefits Tiny Home Communities add housing gradually without altering the character of neighborhoods and can offer paths to homeownership.	**Marketable to Many** Tiny Home Communities look and feel like a house with features such as entrances off a shared open space, common walkways and community amenities.	**Well-Designed Units** Units should use durable, weather-resistant materials and include energy and water-efficient features to ensure comfort, usability, and a high quality of life.

ZONING

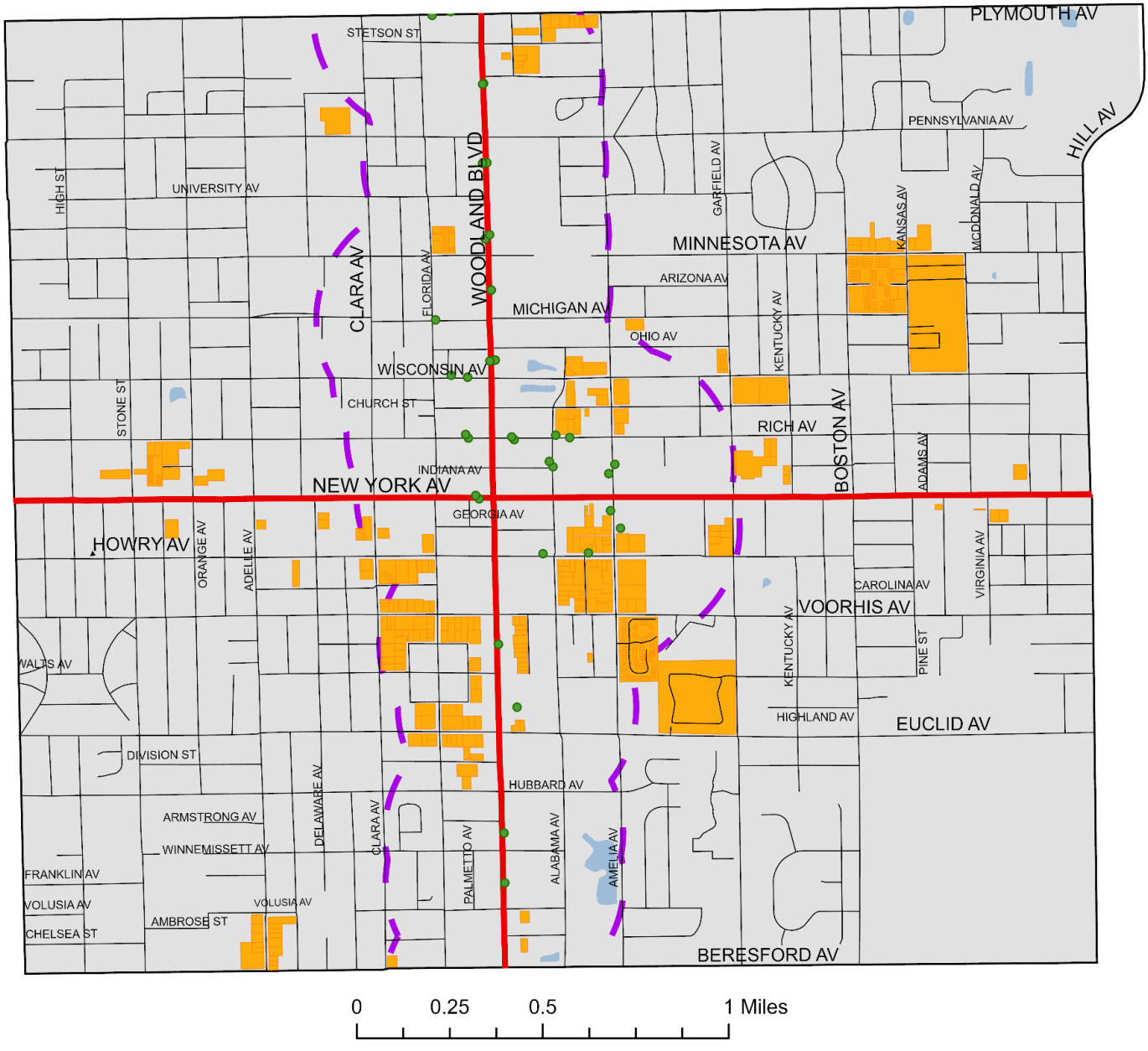
Eligible Residential Districts: R-12, R-16

Eligible Commercial Districts: C-1, C-2

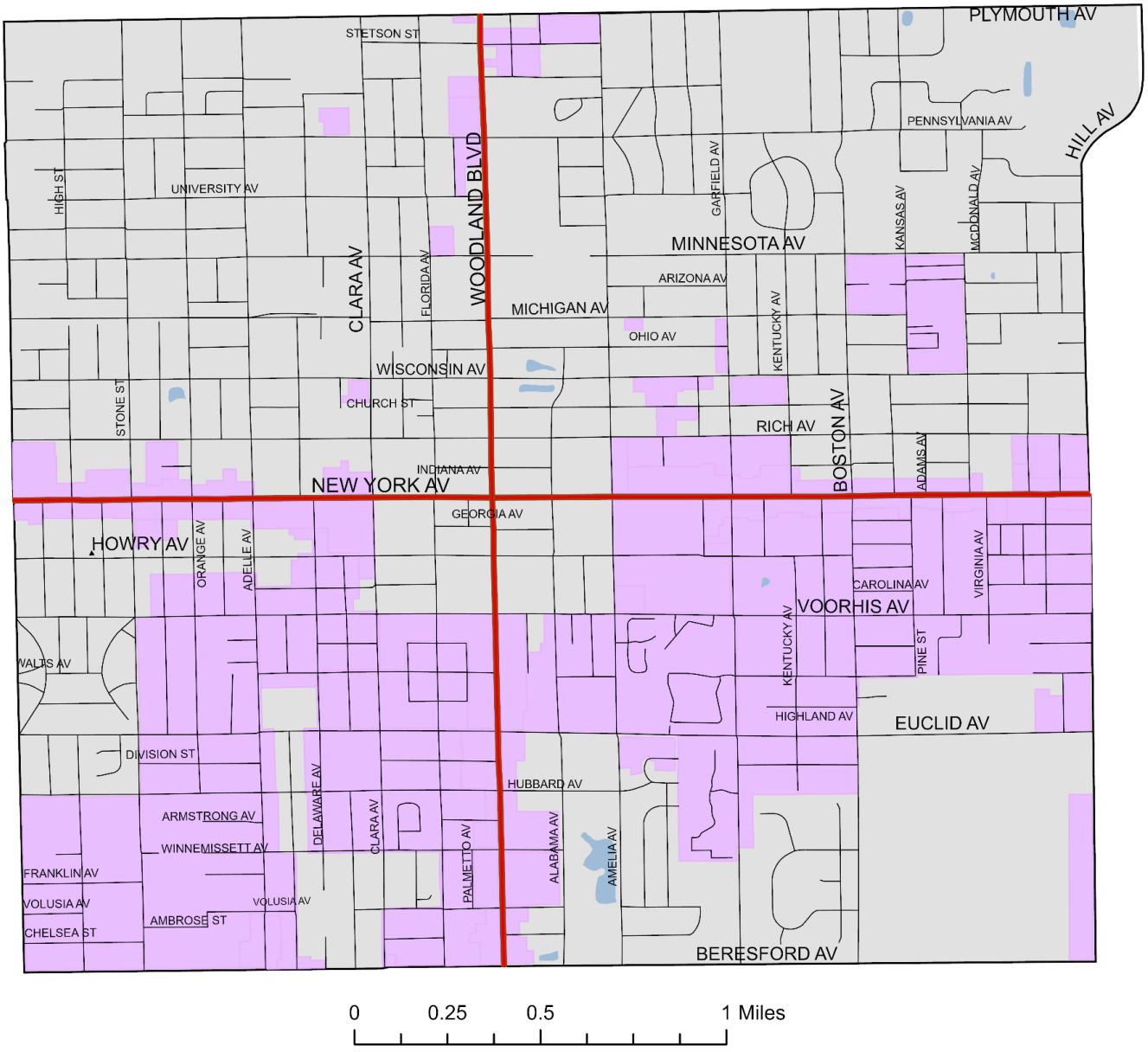
Properties cannot be located directly on Woodland Boulevard or New York Avenue

MAP LEGEND

- Parcels zoned for Tiny Home Communities
- Transit Stop
- 0.25 mile bus stop buffer



LAND USE



If your property is not currently zoned for a Tiny Home Community but is located in any of the highlighted areas above, you may meet the criteria for a Land Use Change.

Please contact the Planning Division for additional information.

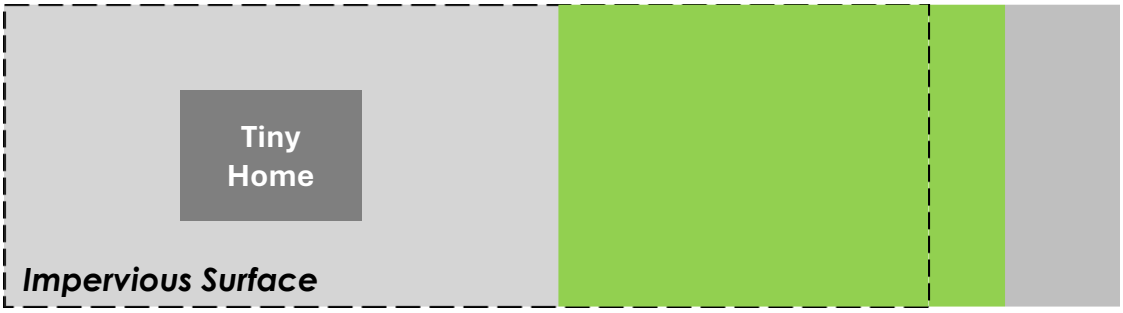
SITE PLANNING & LAYOUT





Maximum Density	**20 tiny home units per acre; calculated as 0.50 dwelling units**
Maximum Lot Size	**2 acres**
Maximum Impervious Surface Area	**60 %**

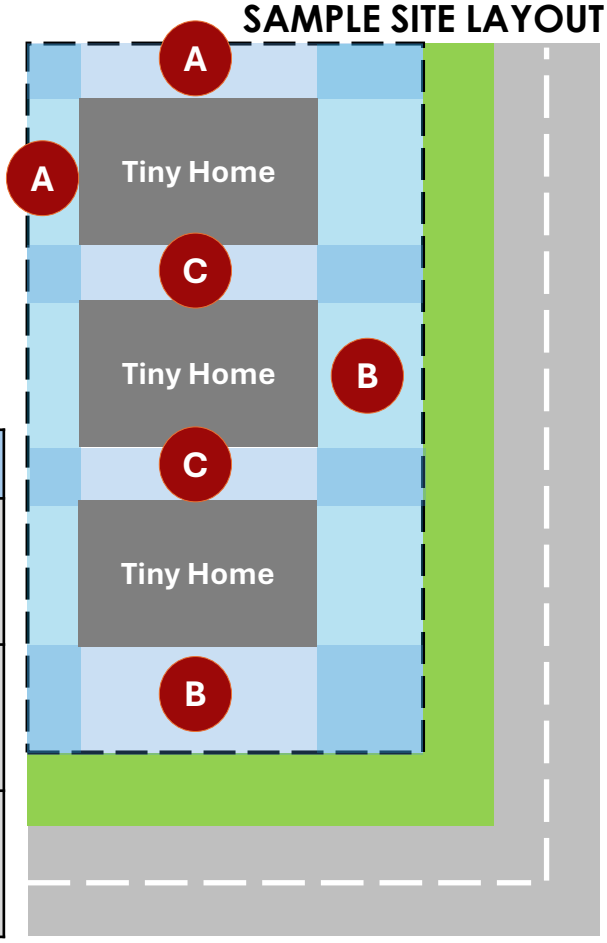
SAMPLE LOT COVERAGE







SAMPLE SITE LAYOUT



SETBACKS	
A	Sides: 10 feet
B	Street Side: 20 feet
C	Separation between Structures: 10 feet

PARKING

DeLand's residential parking requirements differ between single-family and multi-family, and do not consider whether the development is in a walkable neighborhood.

- **Single family requires 4 spaces per unit for up to 3 bedrooms.**
- **Multifamily developments require between 1 and 2 spaces per unit, depending on the number of bedrooms, plus additional visitor parking.**

Since Tiny Home Communities are within walking distance of amenities and services, parking requirements have been "right-sized" to encourage small-scale development.

TINY HOME COMMUNITY REQUIRED PARKING	
Off-Street Parking	1 space per unit & 0.25 guest spaces per unit
Bicycle Parking	0.5 spaces per Tiny Home



Parking should be clustered/grouped to maximize open space and common areas, rather than located adjacent to each tiny home.

COMMON AREA & SITE AMENITIES

A well-designed Tiny Home Community places each Tiny Home around a common area with an internal sidewalk system. Usable amenities are essential to the community and may include a variety of options.

AMENITY CONSIDERATIONS	
Community Building	Small Playgrounds
Bicycle Storage	Outdoor Kitchen or Grill Area
Recreational and Play Areas	Community Garden
Dog Park	Solar Panels







GREEN SPACES & LANDSCAPING

With a Tiny's Home's compact size, details matter. Green spaces and thoughtful landscaping extend the living space, provide privacy, aesthetic appeal, enhance shading and cooling in summer, reduce water consumption and support drainage patterns and other natural ecological functions.

Perimeter Buffer	**10-feet with a minimum of 1 tree and 5 shrubs for every 50 linear feet**
Right of Way Buffer	**Class B, 3.6 trees, 1.2 understory trees, and 12 shrubs for every 100 linear feet**
Tree Protection Area	**15 %**

Landscape buffers have been designed to provide adequate screening between the development and adjacent properties and right of ways, with enough flexibility to include a centralized courtyard.







The following principles provide strategies that are affordable, low maintenance, and reduce the need for excessive irrigation while providing wildlife & pollinator habitats.



Design around existing trees and the natural topography

Trees located to the south and east will provide energy savings.



Incorporate Rain Gardens and other Stormwater Management Strategies

Help reduce flooding, filter pollutants from runoff, recharge groundwater, and create healthy habitats for local wildlife—all while protecting our waterways and improving community resilience.



Plant Native – FL Friendly

Naturally adapted to the local climate and soil, require less water and maintenance, support local wildlife like pollinators and birds, and help preserve Florida's unique ecosystems.



Limit Impervious surfaces such as concrete

Consider permeable pavements

DESIGN & CHARACTER

LIVE BIG IN A SMALL FOOTPRINT

- 200 – 600 sq. ft.
- Set on a permanent foundation
- Contains plumbing, heating, air conditioning, and electrical
- Florida Building Code Compliant
- Site Built or Modular Construction



A maximum height of 35 feet, measured to the roof peak, provides ample opportunity for varying aesthetics & design, additional square footage for living, storage or outdoor features, and a feeling of spaciousness.

Per the Tiny Home definition provided in this Design Guide, the examples below are NOT considered a Tiny Home





Due to the smaller footprint, key design details are crucial.

Number of Tiny Home Units	0-16	17-30	> 30
Number of Architectural Styles & Rooflines required	2 Styles	3 Styles	4 Styles

KEY DESIGN FEATURES	
Front Façade oriented towards common area	Pitched Roof
Covered porch, deck, or patio	Varying architectural features & rooflines











CASE STUDY

The following examples depict house designs that prioritize simplicity, utilizing architectural styles and details that are functional, cost effective, and stand the test of time. While the intent is to provide inspiration, applicants should provide different materials, colors, windows and trim, and other features to provide interest and variety.







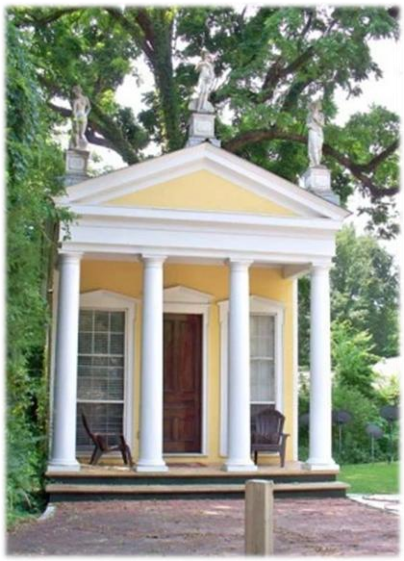






The following examples depict **Classical Revival** architecture which is based on architecture of ancient Greece and Rome, which was one of the most widespread styles during the late 1800's and early 1900's. This style would blend in seamlessly as multiple building through the City incorporate this style such as the iconic Volusia County courthouse.

Common Elements Include:
Large Columns
Dome
Portico
Pediments
Pilasters
Dentils
Classical Frieze







The following examples depict **Mediterranean Revival architecture** which mirrors architectural influences of the Mediterranean coast including Italian, Byzantine, and themes from southern Spain. This was a popular style from the 1920's through the 1930's. This style would blend in seamlessly as multiple building through the City incorporate this style such as Flagler Hall at Stetson University.

Common Elements Include:
Stucco Walls
Red Tile Roof
Arched Windows
Iron Balconies









The following examples depict **Craftsman Bungalow** architecture which mirrors Arts & Crafts architecture from the 1920's through the 1930's. This style would blend in seamlessly as multiple building through the City incorporate this style such as 511 & 528 West New York Ave, or 220 & 228 West Wisconsin Avenue.

Common Elements Include:
Emphasis on horizontal lines
Gable Roofs
Dormer Windows
Deep overhang and exposed rafter rails
Porch Columns









The remaining examples depict a more modern design approach that could co-exist well with homes throughout the City.



























TRANSITIONAL HOUSING

To support the development of affordable housing, non-profit, religious, institutional, or other quasi-government entities may construct Tiny Home Communities with modified standards.

Please contact the Planning Division for additional information.





DEFINITIONS

Tiny Home: an attached or detached residential dwelling with a minimum 200 square feet to a maximum of 600 square feet under heat and air, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system, meets all applicable Florida Building Code standards. The structures must be site built or of modular construction.

Tiny Home Community: a single development of 3 or more Tiny Homes on a single lot or parcel.

Tiny Home Community Building: a structure designed to serve a Tiny Home Community which may contain, but are not limited to, a club house, common dining area, kitchen, bathroom, laundry facilities, and/or storage.

Manufactured Modular Home: a structure or building module as defined by statute and under the jurisdiction and control of the Florida Department of Community Affairs, installed and used as a residence, that is set on an approved permanent foundation. The structure contains plumbing, heating, air conditioning, and an electrical system. The term does not include a mobile home. Modular homes must comply with the standards of the Florida Building Commission, be constructed off-site, and possess a Department of Business and Professional Regulation (DBPR) Insignia label. The term may include a Tiny Home (see Tiny Home).

Transitional Housing: a Tiny Home Community linked to support services that are offered, for a period less than 24 months, to transition into independent living and permanent housing for persons with low incomes, experiencing homelessness or at imminent risk of homelessness. Support services may include meals, child care, counseling, vocational rehabilitation and other similar services. Transitional Housing shall be managed by a non-profit, religious, institutional, or other quasi-government entity.

Transit Stop: a designated location or facility where City-recognized public transportation operators pick up and drop off passengers.

PLANNING DIVISION
120 South Florida Avenue
planning@deland.org
386-626-7016

The Design Team would like to extend its profound appreciation and sincere gratitude to the City Commission, Planning Board and the City Manager's Office for their leadership in initiating this project. Their continuous engagement, support, and feedback has been instrumental in shaping its success. We further acknowledge and thank the public for their enthusiastic and dedicated participation, which has truly made this a collaborative, community-led endeavor.

City Commission
Chris Cloudman, *Mayor*
Jessica Davis, *Vice Mayor*
Kevin Reid
Daniel Reed
Richard Paiva

Planning Board
Jeremy Owens, *Chair*
Harper Hill
Troy Baumgartner
Don Liska
Nora Lewis
Henry Thiry
Aaron Preston

City Staff
Michael Pleus, *ICMA-CM*
Mike Grebosz, *ICMA-CM*
Darren Elkind
Rick Werbiskis, *AICP*
Carol Kuhn, *AICP*
Chris Carson, *AICP*
Debi Glick
Emily Kunkel
Sam Nelson
Tyler Figenscher
Belinda Williams-Collins, *AICP*
Kendall Story, *CNU-A*
Kristian Logan
Vivian Ford

Community Partners
Neighborhood Center of West Volusia
First Presbyterian Church DeLand

Business Impact Estimate

Proposed ordinance's title/reference:

ORDINANCE NO. 2025-

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, AMENDING THE CODE OF ORDINANCES OF THE CITY OF DELAND LAND DEVELOPMENT REGULATIONS BY AMENDING SECTION 33-12 "DEFINITIONS"; BY AMENDING SECTION 33-17 "ZONING DISTRICTS"; AND BY AMENDING SECTION 33-19 "SPECIAL REQUIREMENTS APPLICABLE TO CONDITIONAL USES" BY ADDING A NEW SUB-SECTION 33-19.15 "TINY HOME COMMUNITY PERFORMANCE STANDARDS AND CONDITIONS"; PROVIDING FOR CONFLICTS, CODIFICATION, SEVERABILITY AND PROVIDING FOR AN EFFECTIVE DATE.

This Business Impact Estimate is provided in accordance with section 166.041(4), Florida Statutes. If one or more boxes are checked below, this means the City is of the view that a business impact estimate is not required by state law[1] for the proposed ordinance, but the City is, nevertheless, providing this Business Impact Estimate as a courtesy and to avoid any procedural issues that could impact the enactment of the proposed ordinance. This Business Impact Estimate may be revised following its initial posting.

- ☐ The proposed ordinance is required for compliance with Federal or State law or regulation;
- ☐ The proposed ordinance relates to the issuance or refinancing of debt;
- ☐ The proposed ordinance relates to the adoption of budgets or budget amendments, including revenue sources necessary to fund the budget;
- ☐ The proposed ordinance is required to implement a contract or an agreement, including, but not limited to, any Federal, State, local, or private grant or other financial assistance accepted by the municipal government;
- ☐ The proposed ordinance is an emergency ordinance;
- ☐ The ordinance relates to procurement; or
- ☐ The proposed ordinance is enacted to implement the following:
  a. Part II of Chapter 163, Florida Statutes, relating to growth policy, county and municipal planning, and land development regulation, including zoning, development orders, development agreements and development permits;
  b. Sections 190.005 and 190.046, Florida Statutes, regarding community development districts;
  c. Section 553.73, Florida Statutes, relating to the Florida Building Code; or
  d. Section 633.202, Florida Statutes, relating to the Florida Fire Prevention Code.

[1] See Section 166.041(4)(c), Florida Statutes.

In accordance with the provisions of controlling law, even notwithstanding the fact that an exemption noted above may apply, the City hereby publishes the following information:

1. Summary of the proposed ordinance (must include a statement of the public purpose, such as serving the public health, safety, morals and welfare):

The proposed ordinance will promote the welfare of the community by promoting the construction of affordable housing units through the development of Tiny Home Communities.

2. An estimate of the direct economic impact of the proposed ordinance on private, for-profit businesses in the City, if any:

(a) An estimate of direct compliance costs that businesses may reasonably incur:

There is no direct economic impact to existing businesses.

(b) Any new charge or fee imposed by the proposed ordinance or for which businesses will be financially responsible:

No new fees are being proposed that will affect business.

(c) An estimate of the City's regulatory costs, including estimated revenues from any new charges or fees to cover such costs.

The City's regulatory costs will be dependent upon the number of applications. Application fees will cover the cost of permit administration.

3. Good faith estimate of the number of businesses likely to be impacted by the proposed ordinance:

The estimated number of businesses that may be impacted by the proposed ordinance is zero as the ordinance affects only proposed residential properties.

4. Additional information the governing body deems useful (if any):
N/A

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Amending Section 7-2, "Local Supplements to the Florida Building Code, Administration," Subsection 101.2.3(4), to Add Appendix Q.

DEPARTMENT: Community Development

PREPARED BY: Rick Werbiskis, Community Dev. Director

ATTACHMENTS: Ordinance, Appendix Q Tiny Houses

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The City Commission is considering adoption of an ordinance to allow for the development of Tiny Home Communities. In order to allow for tiny homes to be permitted under the Florida Building Code, the City must adopt Appendix Q - Tiny Houses, which is part of the Florida Building Code.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

High Value Government

SUSTAINABILITY:

NA

FISCAL IMPACT:

There is no direct fiscal impact to the City by adoption of Appendix Q of the Florida Building Code.

RECOMMENDATION:

It is recommended that the City Commission adopt the proposed ordinance on First Reading.

BACKGROUND/DISCUSSION:

In 2023, the Mayor and City Commission directed staff to research and explore how Tiny Home Communities could function in City limits as the City's current Land Development Regulations (LDRs) do not allow Tiny Home Communities. In 2024, staff presented findings to both the City Commission and Planning Board to gather feedback. Staff then outlined code revisions based on City Commission and Planning Board feedback. In August 2025, staff hosted an open house with the public and conducted an online survey to gather further input. Public feedback at the open house was overwhelmingly positive with an overall sentiment that tiny homes are an appropriate housing option. The survey confirmed this sentiment with 83 % of the 253 total responses in favor of allowing Tiny Home Communities. Planning staff are recommending revisions to the Land Development Regulations related to Tiny Home Communities in conjunction with this ordinance.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, AMENDING THE CODE OF ORDINANCES OF THE CITY OF DELAND BY AMENDING SECTION 7-2 "LOCAL SUPPLEMENT TO THE FLORIDA BUILDING CODE, ADMINISTRATION", SUBSECTION 101.2.3 (4.), BY ADDING "APPENDIX Q: TINY HOUSES"; BY PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE

WHEREAS, staff has undertaken a comprehensive review for the development of Tiny Home Communities within the city limits and in order to allow for tiny homes to be permitted under the Florida Building Code, it is necessary to adopt Appendix Q – Tiny Houses, which is part of the Florida Building Code; and

WHEREASE, the City Commission finds that the adoption of this Ordinance is in the best interests of the citizens of the City of DeLand.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission hereby amends the Code of Ordinances of the City of DeLand by amending Sec 7-2 "Local Supplements to the Florida Building Code, administration.", subsection 101.2.3(4)., by adding the new underlined language as follows:

Sec. 7-2. Local supplement to the Florida Building Code, administration.

101.2.3 There are hereby adopted the following appendices:

***

4. Residential Code:

   Appendix A: (IFGS): Sizing and Capacities of Gas Piping

   Appendix B: Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances, and Appliances Listed for Use with Type B Vents.

   Appendix C: (IFGS): Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems.

   Appendix Q: Tiny Houses

Section 2. Conflicts. All Ordinances or parts of Ordinances and other actions of the City Commission in conflict with this Ordinance are hereby repealed.

Section 3. Severability. If any section, sentence, phrase, word or portion of this Ordinance is determined to be invalid, unlawful or unconstitutional, said determination shall not

be held to invalidate or impair the validity, force or effect of any other section, sentence, phrase, word or portion of this Ordinance not otherwise determined to be invalid, unlawful or unconstitutional.

Section 4. Codification; Directions to Code Codifier; Correction of Scrivener's Errors.

(a). The provisions Section 1 of this Ordinance shall become and be made a part of the Code of Ordinances of the City of DeLand and the Sections of this Ordinance may be renumbered or re-lettered to accomplish such intention and the word "Ordinance", or similar words, may be changed to "Section," "Article", or other appropriate word; provided, however, Sections 2 through 4 shall not be codified.

(b). The Code codifier shall instruct the Municipal Code Corporation to make all changes necessary in the Code of Ordinances of the City of DeLand to implement the provisions of this Ordinance and is granted liberal authority to codify the provisions of this Ordinance in such manner and in such places as deemed advisable.

(c). In accordance with the City's ongoing codification program; the City Clerk, in conjunction with the City Attorney, may make corrections to the provisions of this Ordinance relative to Scrivener's errors of whatever type or nature.

Section 5. Effective Date. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ___ day of _____, 2025.

_____
Christopher M. Cloudman
Mayor–Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

APPENDIX Q

TINY HOUSES

SECTION AQ101 GENERAL

AQ101.1 Scope. This appendix shall be applicable to tiny houses used as single dwelling units. Tiny houses shall comply with this code except as otherwise stated in this appendix.

SECTION AQ102 DEFINITIONS

AQ102.1 General. The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

EGRESS ROOF ACCESS WINDOW. A skylight or roof window designed and installed to satisfy the emergency escape and rescue opening requirements of Section R310.2.

LANDING PLATFORM. A landing provided as the top step of a stairway accessing a loft.

LOFT. A floor level located more than 30 inches (762 mm) above the main floor, open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm) and used as a living or sleeping space.

TINY HOUSE. A dwelling that is 400 square feet (37 m^2) or less in floor area excluding lofts.

SECTION AQ103 CEILING HEIGHT

AQ103.1 Minimum ceiling height. Habitable space and hallways in tiny houses shall have a ceiling height of not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches (1930 mm). Obstructions including, but not limited to, beams, girders, ducts and lighting shall not extend below these minimum ceiling heights.

Exception: Ceiling heights in lofts are permitted to be less than 6 feet 8 inches (2032 mm).

SECTION AQ104 LOFTS

AQ104.1 Minimum loft area and dimensions. Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ104.1.1 through AQ104.1.3.

AQ104.1.1 Minimum area. Lofts shall have a floor area of not less than 35 square feet (3.25 m^2).

AQ104.1.2 Minimum horizontal dimensions. Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ104.1.3 Height effect on loft area. Portions of a loft with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft. See Figure AQ104.1.3.

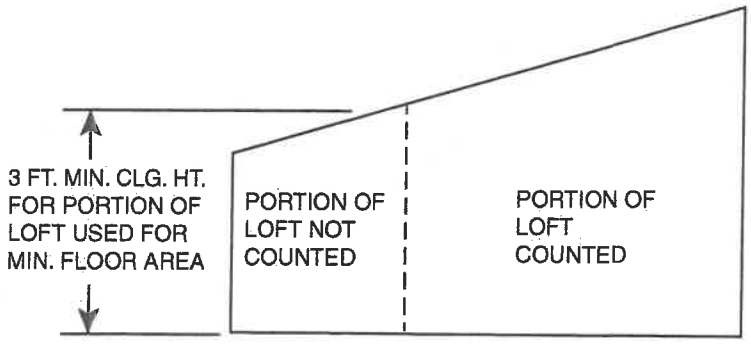
Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a loft with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft. See Figure AQ104.1.3.

AQ104.2 Loft access and egress. The access to and primary egress from lofts shall be of any type described in Sections AQ104.2.1 through AQ104.2.4. The loft access and egress element along its required minimum width shall meet the loft where its ceiling height is not less than 3 feet (914 mm).

AQ104.2.1 Stairways. Stairways accessing lofts shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.7.

AQ104.2.1.1 Width. Stairways accessing a loft shall be not less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

AQ104.2.1.2 Headroom. The headroom above stairways accessing a loft shall be not less than 6 feet 2



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE AQ104.1.3
LOFT CEILING HEIGHT

inches (1880 mm), as measured vertically from a sloped line connecting the tread, landing or platform nosings in the center of their width, and vertically from the landing platform along the center of its width.

AQ104.2.1.3 Treads and risers. Risers for stairs accessing a loft shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.
2. The riser height shall be 15 inches (381 mm) minus three-fourths of the tread depth.

AQ104.2.1.4 Landings. Intermediate landings and landings at the bottom of stairways shall comply with Section R311.7.6, except that the depth in the direction of travel shall be not less than 24 inches (610 mm).

AQ104.2.1.5 Landing platforms. The top tread and riser of stairways accessing lofts shall be constructed as a landing platform where the loft ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the loft. The landing platform shall be not less than 20 inches (508 mm) in width and depth measured horizontally from and perpendicular to the nosing of the landing platform. The landing platform riser height to the loft floor shall be not less than 16 inches (406 mm) and not greater than 18 inches (457 mm).

AQ104.2.1.6 Handrails. Handrails shall comply with Section R311.7.8.

AQ104.2.1.7 Stairway guards. Guards at open sides of stairways, landings and landing platforms shall comply with Section R312.1.

AQ104.2.2 Ladders. Ladders accessing lofts shall comply with Sections AQ104.2.1 and AQ104.2.2.

AQ104.2.2.1 Size and capacity. Ladders accessing lofts shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 300-pound (136 kg) load on any rung. Rung spacing shall be uniform within $^{3}/_{8}$ inch (9.5 mm).

AQ104.2.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ104.2.3 Alternating tread devices. Alternating tread devices accessing lofts shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ104.2.4 Ships ladders. Ships ladders accessing lofts shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

AQ104.2.5 Loft guards. Loft guards shall be located along the open side(s) of lofts. Loft guards shall be not less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less. Loft guards shall comply with Section R312.1.3 and Table R301.5 for their components.

SECTION AQ105
EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ105.1 General. Tiny houses shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: Egress roof access windows in lofts used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the loft floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

SECTION AQ106
ENERGY CONSERVATION

AQ106.1 Air leakage testing. The air leakage rate for *tiny houses* shall not exceed 0.30 cubic feet per minute at 50 Pascals of pressure per square foot of the *dwelling unit* enclosure area. The air leakage testing shall be in accordance with the testing methods required in Section R402.4.1.2 of the *Florida Building Code, Energy Conservation.* The *dwelling unit* enclosure area shall be the sum of the areas of ceilings, floors and walls that separate the conditioned space of a *dwelling unit* from the exterior, its adjacent unconditioned spaces and adjacent *dwelling units*.

AQ106.1.1 Whole-house mechanical ventilation. Where the air leakage rate is in accordance with Section AQ106.1, the *tiny house* shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

AQ106.2 Alternative compliance. *Tiny houses* shall be deemed to be in compliance with Chapter 11 of this code and Chapter R4 of the *Florida Building Code, Energy Conservation*, provided that the following conditions are met:

1. The insulation and fenestration meet the requirements of Table R402.1.2 of the *Florida Building Code, Energy Conservation.*
2. The thermal envelope meets the requirements of Section R402.4.1.1 and Table R402.4.1.1 of the *Florida Building Code, Energy Conservation.*
3. Solar, wind or other renewable energy source supplies not less than 90 percent of the energy use for the structure.
4. Solar, wind or other renewable energy source supplies not less than 90 percent of the energy for service water heating.
5. Permanently installed lighting is in accordance with Section R404 of the *Florida Building Code, Energy Conservation.*
6. Mechanical ventilation is provided in accordance with Section M1507 and operable fenestration is not used to meet ventilation requirements

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Land Use for ±1.3 Acres of Property, Located at 955 West New York Avenue, from Mixed Office/Residential To Mixed Commercial (With Historic Core Overlay).

DEPARTMENT: Planning

PREPARED BY: Belinda Collins, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A , Survey - 955 W. New York 06-0687, SR-SMLU25-118 955 W. New York Ave. FINAL for PB Packet, SMLU25-118 Current Land Use Change, SMLU25-118 Proposed Land Use Change, SMLU25-118 Aerial, 955 New York - Trip Gen Memo - FLU (1)

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The applicant is requesting a Comprehensive Land Use Amendment for land located at 955 W. New York Avenue. The request is to amend the property's designation from Mixed Office/ Residential to Mixed Commercial (w/Historic Core Overlay). The 1.3-acre site is currently vacant and undeveloped. The owner has also submitted an application to rezone this site.

On August 13, 2025, the Planning Board recommended approval of the land use amendment and the rezoning.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Strategic Focus Area: Preserving a "Sense of Community" as a key asset.
Strategic Context: Throughout the strategic planning process, the term "sense of community" has been highly valued as a distinctive DeLand asset. The term is most often associated with downtown, the historic district, Stetson, and the old city grid. It is this core city identity that citizens want to maintain and preserve. This distinctiveness is critically important in the new economy, where a sense of place is a highly valued asset. There is synergy between high-value jobs and maintaining the current sense of place that distinguishes the core city.
Promote additional investment
Action Steps:
2. Continue private investment in those core assets that define "sense of community."

a. Encourage private investment in commercial redevelopment and residential restoration.
b. Provide incentives to encourage redevelopment of commercially underutilized buildings.

SUSTAINABILITY:

The Strategic Plan Focus Area: Preparing for the Future/Sustainability recognizes that, "...the city itself is dynamic and that extensive changes will occur in the near and long term future", and that "...it is important that there be a strategic focus on the future." By changing the land use from Mixed Office/ Residential to Mixed Commercial (w/Historic Core Overlay), the designation will be compatible with the numerous other properties located along New York Avenue with the same designation.

FISCAL IMPACT:

N/A

RECOMMENDATION:

It is recommended that the City Commission approve the requested land use amendment on First Reading.

BACKGROUND/DISCUSSION:

This property is currently vacant and undeveloped. The applicant has stated that it has been difficult to find a use for the property, and it is felt that the current land use of Mixed Office/ Residential is too restrictive. This amendment is requested in order to provide more options for use of the site. There have also been issues with trespassing on the site and development may help resolve that issue. The property located at 955 W. New York Avenue is also the subject of a rezoning request to change the zoning designation from P-1 (Professional Residential) to C-1 (Neighborhood Commercial). This land use amendment will create consistency and enable that rezoning application to go forward with no issues in regard to land use designation.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, AMENDING THE COMPREHENSIVE PLAN FOR THE CITY OF DELAND, BY CHANGING THE LAND USE DESIGNATION OF CERTAIN PROPERTY LOCATED AT 955 WEST NEW YORK AVENUE; FROM MIXED OFFICE/RESIDENTIAL FUTURE LAND USE DESIGNATION TO MIXED COMMERCIAL (WITH HISTORIC CORE OVERLAY) FUTURE LAND USE DESIGNATION; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, F.S. §163.3161, et seq., creates the Community Planning Act (hereinafter the "Act"); and

WHEREAS, the Act allows each local government to approve comprehensive plan amendments related to small scale development activities at any time during the year under certain conditions; and

WHEREAS, the Act permits small area amendments to be approved without regard to statutory limits on the frequency of comprehensive plan amendments as long as:

1. The proposed amendment involves the change to the land use designation of a parcel of property that is 50 acres or less; and

2. The cumulative effect of the above amendment does not exceed 120 acres annually; and

WHEREAS, the City Commission adopted a comprehensive plan for the future growth and development of the City pursuant to Ordinance No. 90-4, as amended, (hereinafter the "Comprehensive Plan"); and

WHEREAS, the City Commission has received a request to amend the Comprehensive Plan by changing the land use designation of approximately +/- 1.3 acres of land located at 955 West New York Avenue, from Mixed Office/Residential future land use designation to Mixed Commercial (with Historic Core Overlay) future land use designation; and

WHEREAS, the Planning Board held a public hearing, after due public notice, for the purpose of recommending the adoption of the proposed Comprehensive Plan amendment; and

WHEREAS, the City Commission held a public hearing after due public notice, in accordance with F.S. §163.3184(11); and

WHEREAS, this land use amendment has been transmitted to and reviewed by the Volusia Growth Management Commission.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission hereby amends the Future Land Use Map for the incorporated area by changing the land use designation of that certain parcel of land located at 955 West New York Avenue, consisting of approximately +/- 1.3 acres of land from Mixed Office/Residential Future Land Use designation to Mixed Commercial (with Historic Core

Overlay) Future Land Use designation, as more particularly described in the Exhibit "A" attached hereto and by this reference made a part hereof.

Section 2. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 3. The effective date of this Ordinance shall be the later date of the following events: (1) the date of issuance of a certificate of consistency or conditional certificate of consistency with regard to the land use designation of the subject property by the Volusia Growth Management Commission; (2) thirty-one (31) days after its adoption by the City Commission; or (3) if properly challenged by an affected person, after the state land planning agency or the Administration Commission, respectively, issues a final order determining this adopted small scale development amendment to be in compliance. No development orders, development permits or land uses dependent on this Ordinance may be issued or commence before it has become effective.

PASSED AND DULY ADOPTED this ___day of September, 2025.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

955 West New York Avenue, Deland, Florida, 32720

Size and Legal Description

Size

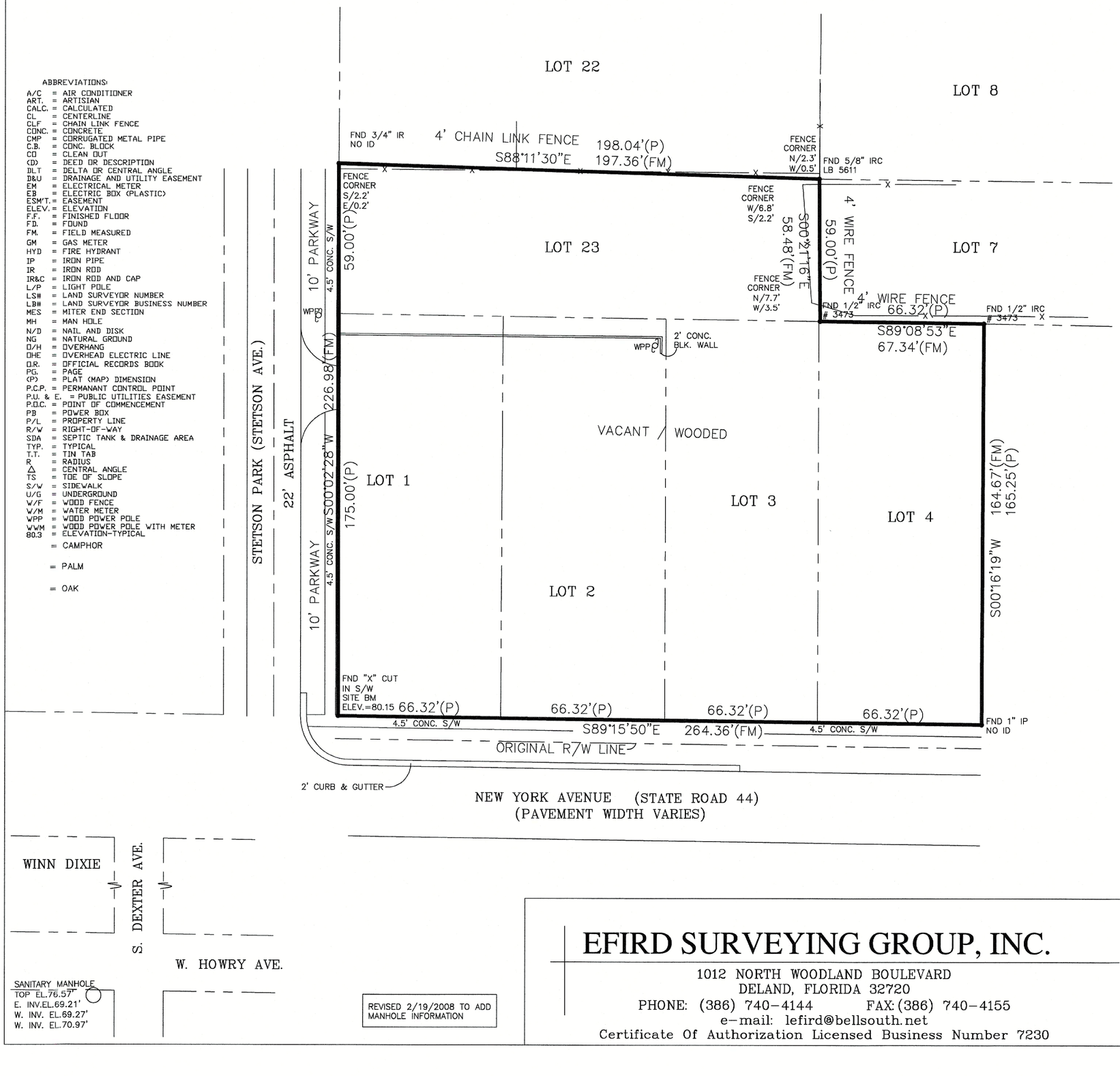
Total Property Size = +/- 1.3 Acres

Legal Description (Both Parcels)

8 17 30 LOTS 1 TO 4 INC BLK 6 STETSON PARK MB 7 PG 7 PER OR 4395 PG 2168 PER OR 5956 PGS 0821-0823 INC

8 17 30 LOT 23 BLK 6 STETSON PARK MB 7 PG 7 PER OR 4395 PG 2 168 PER OR 5956 PGS 0821-0823 INC

SECTION 8, TOWNSHIP 17 SOUTH, RANGE 30 EAST
CITY OF DELAND
VOLUSIA COUNTY, FLORIDA



ABBREVIATIONS:

A/C = AIR CONDITIONER
ART. = ARTISIAN
CALC. = CALCULATED
CL = CENTERLINE
CLF = CHAIN LINK FENCE
CONC. = CONCRETE
CMP = CORRUGATED METAL PIPE
C.B. = CONC. BLOCK
CO = CLEAN OUT
(D) = DEED OR DESCRIPTION
DLT = DELTA OR CENTRAL ANGLE
D&U = DRAINAGE AND UTILITY EASEMENT
EM = ELECTRICAL METER
EB = ELECTRIC BOX (PLASTIC)
ESM'T. = EASEMENT
ELEV. = ELEVATION
F.F. = FINISHED FLOOR
FD. = FOUND
FM. = FIELD MEASURED
GM = GAS METER
HYD = FIRE HYDRANT
IP = IRON PIPE
IR = IRON ROD
IR&C = IRON ROD AND CAP
L/P = LIGHT POLE
LS# = LAND SURVEYOR NUMBER
LB# = LAND SURVEYOR BUSINESS NUMBER
MES = MITER END SECTION
MH = MAN HOLE
N/D = NAIL AND DISK
NG = NATURAL GROUND
O/H = OVERHANG
OHE = OVERHEAD ELECTRIC LINE
O.R. = OFFICIAL RECORDS BOOK
PG. = PAGE
(P) = PLAT (MAP) DIMENSION
P.C.P. = PERMANANT CONTROL POINT
P.U. & E. = PUBLIC UTILITIES EASEMENT
P.O.C. = POINT OF COMMENCEMENT
PB = POWER BOX
P/L = PROPERTY LINE
R/W = RIGHT-OF-WAY
SDA = SEPTIC TANK & DRAINAGE AREA
TYP. = TYPICAL
T.T. = TIN TAB
R = RADIUS
△ = CENTRAL ANGLE
TS = TOE OF SLOPE
S/W = SIDEWALK
U/G = UNDERGROUND
W/F = WOOD FENCE
W/M = WATER METER
WPP = WOOD POWER POLE
WWM = WOOD POWER POLE WITH METER
80.3 = ELEVATION-TYPICAL
= CAMPHOR
= PALM
= OAK

1" = 30'
GRAPHIC SCALE
0 15 30 60

DESCRIPTION: (PER O.R. 4395, PAGE 2168)

LOTS ONE (1), TWO (2), THREE (3), AND FOUR (4), BLOCK SIX (6), STETSON PARK SUBDIVISION IN SECTION EIGHT (8), TOWNSHIP SEVENTEEN (17) SOUTH, RANGE THIRTY EAST (30 E.), ACCORDING TO MAP IN MAP BOOK SEVEN (7), PAGE SEVEN (7), PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

AND

LOT TWENTY-THREE (23), BLOCK SIX (6), IN STETSON PARK, VOLUSIA COUNTY, FLORIDA, AS SHOWN BY PLAT OF SAME DULY RECORDED IN OFFICE OF THE CLERK OF THE CIRCUIT COURT OF SAID COUNTY AND STATE IN MAP BOOK 7, PAGE 7.

NOTE:

THIS PLAT AND/OR SKETCH OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS SHOWN HEREON, ON THE MOST CURRENT DATE SHOWN, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER. THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN HEREON THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THE COUNTY. THIS SURVEY /SKETCH IS PREPARED WITHOUT BENEFIT OF ABSTRACT OR TITLE SEARCH UNLESS OTHERWISE NOTED. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES. THIS SURVEY DRAWING IS THE PROFESSIONAL OPINION OF THIS SURVEYOR AND MAPPER AND THE FIRM, WHICH WAS PREPARED UTILIZING THE BEST AVAILABLE INFORMATION AND AS SUCH DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED. FURTHERMORE, THIS SURVEYOR AND FIRM DOES NOT ASSUME RESPONSIBILITY AND SHALL NOT BE HELD LIABLE FOR CLAIMS ARISING FROM ERRONEOUS OR INCORRECT INFORMATION FURNISHED TO THE SURVEYOR, WHICH WAS USED AS A BASIS IN THE PREPARATION OF THIS SURVEY DRAWING.

NOTES:

1. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHT OF WAY AND/OR OWNERSHIP WERE FURNISHED TO THIS SURVEYOR EXCEPT AS SHOWN.
2. NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
3. NO UNDERGROUND IMPROVEMENTS OR INSTALLATIONS OR OTHER INTERIOR IMPROVEMENTS HAVE BEEN LOCATED, EXCEPT AS SHOWN, AS PER THE REQUEST OF THE CLIENT.
4. UNLESS NOTED, LEGAL DESCRIPTION FURNISHED BY CLIENT.
5. FEATURES SHOWN BY SYMBOL AS INDICATED IN THE LEGEND ARE NOT TO SCALE.
6. THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE SEARCH, A TITLE SEARCH MAY REVEAL ADDITIONAL INFORMATION AFFECTING THE PARCEL AS SHOWN.
7. WHERE APPLICABLE, MONUMENT DIAMETERS, ETC.. AND/OR LS OR LB NUMBERS ARE SHOWN NEAR RESPECTIVE SYMBOL ABOVE, UNLESS SHOWN IN LEGEND.
8. BEARINGS ASSUMED FROM PLAT, DEED, LEGAL DESCRIPTION.
9. UNLESS SHOWN, ONLY THOSE VISIBLE FEATURES IN THE IMMEDIATE VICINITY OF THE ABOVE DESCRIBED PARCEL BOUNDARY HAVE BEEN LOCATED.
10. SUBJECT PROPERTY LIES WITHIN ZONE "X", AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAN AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, CITY OF DELAND COMMUNITY #120307, PANEL #12127C0465 G DATED APRIL 15, 2002. THIS FLOOD INSURANCE RATE MAP IS NOT A SURVEY AND NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF SAID MAP.

REVISED 7/16/2025 TO SHOW CURRENT SURVEY CONDITIONS

REVISED 2/19/2008 TO ADD MANHOLE INFORMATION

EFIRD SURVEYING GROUP, INC.
1012 NORTH WOODLAND BOULEVARD
DELAND, FLORIDA 32720
PHONE: (386) 740-4144 FAX: (386) 740-4155
e-mail: lefird@bellsouth.net
Certificate Of Authorization Licensed Business Number 7230

Boundary Survey

Survey Date:	Drawing Number	Scale:
10/24/06	06-0687 C	1"=30
		Drawn By: M.J./JM

For:
955 NEW YORK AVENUE, LLC
FIRST COMMERCIAL BANK OF FLORIDA
VOLUSIA TITLE SERVICES, INC.
FIRST AMERICAN TITLE INSURANCE COMPANY
04-852

I HEREBY CERTIFY THIS SURVEY DRAWING TO BE CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND COMPLIES IN FORM WITH THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61G17-6, F.A.C. PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

STATE OF FLORIDA LICENSED SURVEYOR NO. 5823

7/16/2025

LARRY R. EFIRD JR.
Professional Surveyor & Mapper No. 5823

PLANNING DEPARTMENT STAFF REPORT
TO
THE CITY OF DELAND PLANNING BOARD

August 13, 2025

A. APPLICATION NO.: SMLU25-118

APPLICANT: Tim Exner, New York Ave, LLC

STAFF PLANNER: Belinda Williams-Collins – AICP, Senior Planner

REQUEST: To amend the land use designation from Mixed Office/Residential to Mixed Commercial

B. SITE FACTORS:

Location: 955 W. New York Ave.
Parcel ID #: 700834060010, 700834060230
Parcel Size: 1.3 ± acres
Land Use: Mixed Office/Residential
Existing Use: Vacant, undeveloped

	SURROUNDING USE:	ZONING:
North:	VC:ULI (Urban Low Intensity)	VC R-4: Urban Single-Family Residential
South:	Mixed Office/Residential	P-1: Professional - Residential
East:	VC:ULI (Urban Low Intensity)	VC R-4: Urban Single-Family Residential
West:	Mixed Office/Residential	P-1: Professional - Residential

C. REQUESTED ACTION & HISTORY:

The applicant is requesting the future land use designation be amended for a 1.3± acre parcel located at 955 W. New York Ave. from Mixed Office/Residential (w/Historic Core Overlay and Downtown Design District Overlay) to Mixed Commercial. A portion of the property has the Historic Core Overlay and Downtown Design District Overlay and this designation will remain. *The Applicant has requested to rezone the property from P-1 to C-1 (Z25-119).*

D. ANALYSIS:

The purpose of this section is to analyze the reasonableness of the applicant's request for an amendment of the land use designation for the subject property. This analysis will include a description of the current and future land uses of the site and the surrounding area, potential impacts on the transportation system, and any significant adverse environmental impacts. Florida Statute 163.3187 allows for a Future Land Use Map amendment for area of use under 50 acres, and which are not an area of critical state concern.

1. Availability of Public Facilities (water, sewer, drainage, traffic, and schools if residential):

- The City's Utilities Department states that the closest city water main is found along Stetson Park Dr./New York Ave. and the closest sewer main is found on the eastern edge of the property 600 feet east to Boundary Ave. This site would most likely require a lift

station to address the sewer system connection and it may be possible to install a gravity system along New York.

- Due to the proposed land use and based on the size of the property, a Traffic Impact Analysis could be required dependent on the size and use of the structure proposed. Once a detailed site plan application is submitted, a determination of whether or not the proposed use would trigger more than 1,000 average daily trips will be established. Should this be the case a full TIA would be required.

- Should the eventual use of the property be residential, the Volusia County School Board will issue a capacity determination letter to determine if there is adequate capacity for the proposed project.

2. **Compatibility with Land Use and Other Elements:** The Future Land Use element requires that the subject property be consistent with surrounding development. The Comprehensive Plan describes the proposed Mixed Commercial land use designation as follows:

> The City of DeLand has several areas which are characterized by a mixture of primarily single family residential, office, and retail/service land uses. Although there is a tendency for the residences to convert to nonresidential land uses (office, service, and retail), residential land uses are compatible with the nonresidential land uses and comprise a significant portion of the land uses. Residential land uses include single family, and multiple family, having densities not exceeding 10 DU/A.

The general types of development for this land use designation are:

- Residential development, both single family and multiple family
- Conversion of residential structures into office, service and/or retail uses
- Office complexes
- High schools
- Neighborhood Convenience
- Neighborhood Shopping Center

Policy guidelines for development for this land use designation are:

- Neighborhood convenience centers shall be located so as to be easily accessible to both automobiles and to the pedestrians who live within the immediate area.
- Neighborhood commercial areas are frequently located in older areas of the city and may be comprised of a mixture of both residential and nonresidential land uses.

- New neighborhood commercial developments shall be clustered to promote shared facilities and access.
  Residential land uses may either be freestanding or share structures with nonresidential land uses.

A portion of the property includes the Historic Corridor Overlay and Downtown Design District Overlay and these overlays will remain. There are no structures, historic or otherwise, currently on the property and this overlay also applies to other properties along the corridor.

3. **Future Land Use Map:** The proposed change in the land use designation to Mixed Commercial and retain the Historic Core Overlay- Downtown Design District will be shown on the revised Future Land Use Map.

4. **Location of Lakes, Floodplains, and Wetlands:** The property does not contain any bodies of water, nor is it located within a floodplain.

5. **Analysis of Natural Resources:**
   - ***a.*** *Soil types:* Astatula-Tavares
   - ***b.*** *Presence of Endangered Species*: None known of at this time. A full report will be required with the submittal of an application for development of the property.

6. **Existing and Future Impact upon Infrastructure Capacity:**

   a. *Water* – The City's Utility Department indicates sufficient water supply is available for the proposed land use designation.

   b. *Sewer* – The City's Utility Department has indicated sufficient existing capacity. The site may require the provision of a lift station.

   c. *Drainage* – The City adheres to the County's 100-year frequency, 24-hour storm event standard for landlocked basins. Stormwater capture for future development will be addressed on-site and will be further evaluated at the time of preliminary plat.

   d. *Solid Waste* – Solid waste services are available for the property.

   e. *Transportation* – The proposed use of the property has not yet been determined. In order to estimate traffic generated by development on the subject property, projections for the most intense type of development allowed under the existing and proposed land use designations must be made. Development under the most intensive of the uses allowed under the current land use designation of Mixed Office/Residential must be compared with the most intensive use proposed under the Mixed Commercial designation.

   The applicant has provided an analysis of the trip generation for this site and concluded that the existing use would generate 1,234 daily trips, 122 peak AM and 258 peak PM. The proposed use would generate 1,319 daily trips, 118 peak AM and 111 peak PM. The difference in these theoretical maximums result in an additional 85 daily trips, -4 peak AM and -147 peak PM. *These calculations according to Trip Generation by the Institute of Transportation Engineers. (11th ed.)*

   Both of these generation rates exceed the 1,000 trip threshold requiring a full TIA. The actual future use, once determined, will be similarly analyzed and should the result exceed 1,000 trips, a full TIA will be required.

7. **Impact upon Recreation and Open Space:** Future residential development of the site may create a demand for new recreation if the property is developed for residential use. That demand will be addressed once a final development plan is submitted.

8. **New Public Facilities Needed to Serve Land Use:** There is the potential need of a lift station.

9. **Impact Upon Existing Deficiencies:** As identified in the City's Comprehensive Plan, drainage in this area is deficient. Any future development on this site will be required to manage its own stormwater, based on the 100 year/24-hour storm event, and further review will be undertaken as part of the development plan submittal.

10. **Impact upon Ability of the City to Fund Capital Improvements:** The development should not create an additional impact upon the City's ability to fund the projects listed in the adopted Five-Year Capital Improvement Program as the development will utilize existing roadways.

11. **Impact upon Adopted Five-Year Schedule in Capital Improvements Element:** The proposed land use amendment will not require revision to the City's adopted Five-Year Capital Improvement Program.

12. **Compatibility with Existing Zoning Classification:** The applicant is also requesting to rezone the property to C-1 (Neighborhood Commercial) which is permitted under the amended land use designation. A concurrent application for a rezoning accompanies this application. The proposed zoning designation would be compatible with the proposed Mixed Commercial land use designation. (The existing land use designation permits only P-1 and PD zoning. The proposed land use designation would permit P-1, C-1, C-2, E-1 and PD zoning.)

13. **Will the proposed land use change impact schools?** If a residential use is proposed in the future on this property, the applicant is required to provide a current Finding of Adequate Capacity letter from the Volusia County School Board, determining that capacity is available for the proposed use. The applicant will be required to reserve said capacity and submit an approval letter from the school board at that time.

14. **How does this proposal fit with the guidelines developed for DeLand 2050 Vision and the City's Strategic Plan?**

    a. DeLand 2050 Vision: Concentrate development towards the Urban Core with appropriate density or intensity.

    b. DeLand Strategic Plan:
    Strategic Focus Area: Creating the connected community
    Key Corridors. The city has two key corridors — Woodland and SR 44 and several gateways that are important entry ways into the city. The look and feel of these corridors and gateways need to be consistent or complementary with the city both to enhance the sense of community as well as permeate across the city the image of DeLand.

E. CONCLUSION: The facility analysis presented in the above sections suggests the proposed land use should not cause any of the City's facilities to degrade below the adopted or current operational level of service (LOS). The proposed land use designation, Mixed Commercial, is consistent with the surrounding area, and is not expected to create any land use incompatibilities.

F. STAFF RECOMMENDATION: Staff recommends the Planning Board forward a recommendation of approval of the proposed amendment of the subject property's future land use designation from Mixed Office/Residential to Mixed Commercial.

G. VGMC INFRASTRUCTURE IMPACT ASSESSMENT:

In accordance with standard practice from the Florida Department of Economic Opportunity (DEO) and other review agencies, an impact comparison analysis of the proposed amendment has been completed based upon the theoretical maximum development potential under the currently adopted future land use designation versus the proposed designation.

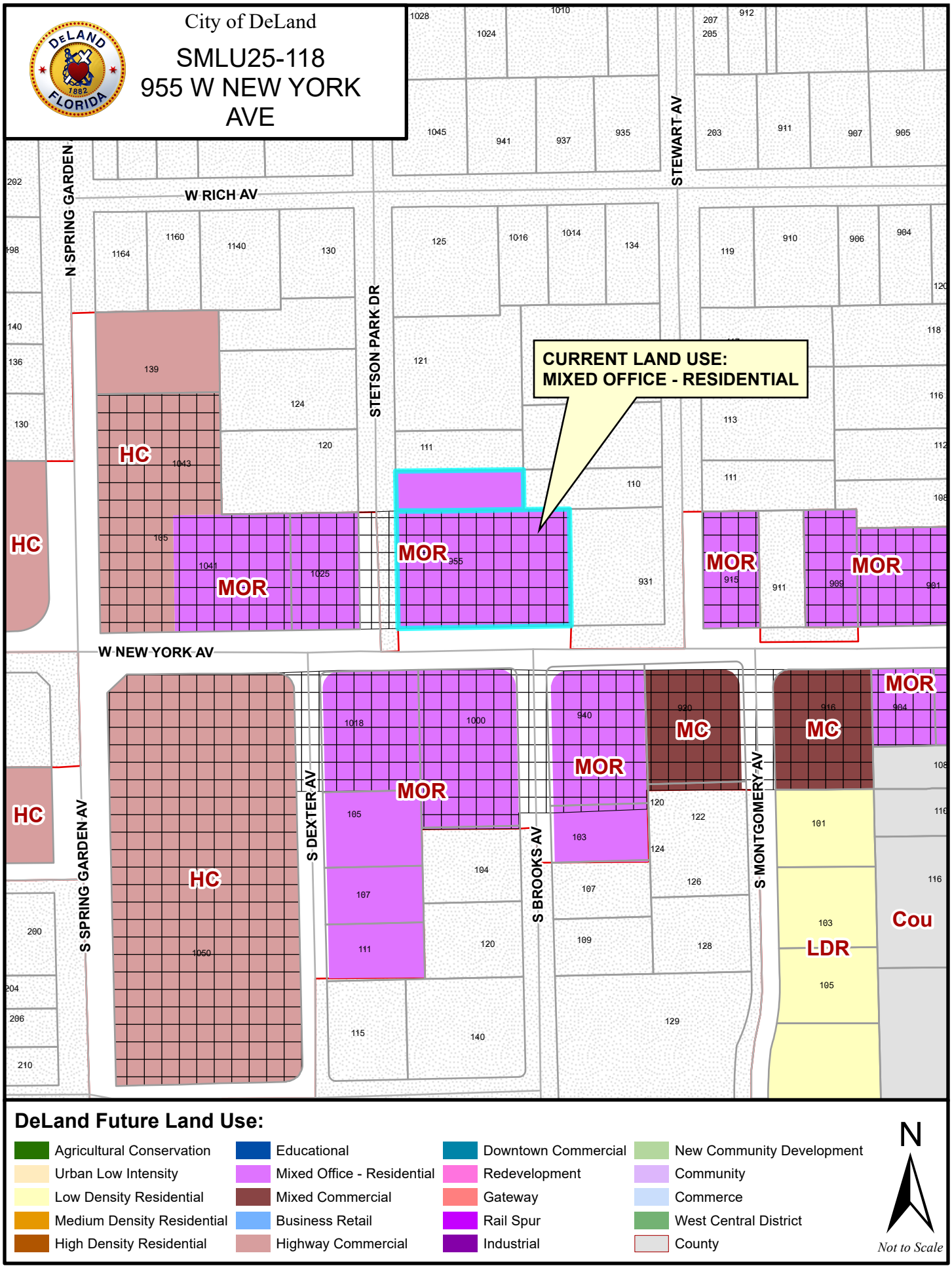
The following seven public facilities and services were examined:

1. Transportation
2. Sanitary Sewer
3. Potable Water
4. Solid Waste
5. Stormwater Drainage
6. Recreation
7. Schools

Table 4. Impact Analysis (Theoretical Maximums)

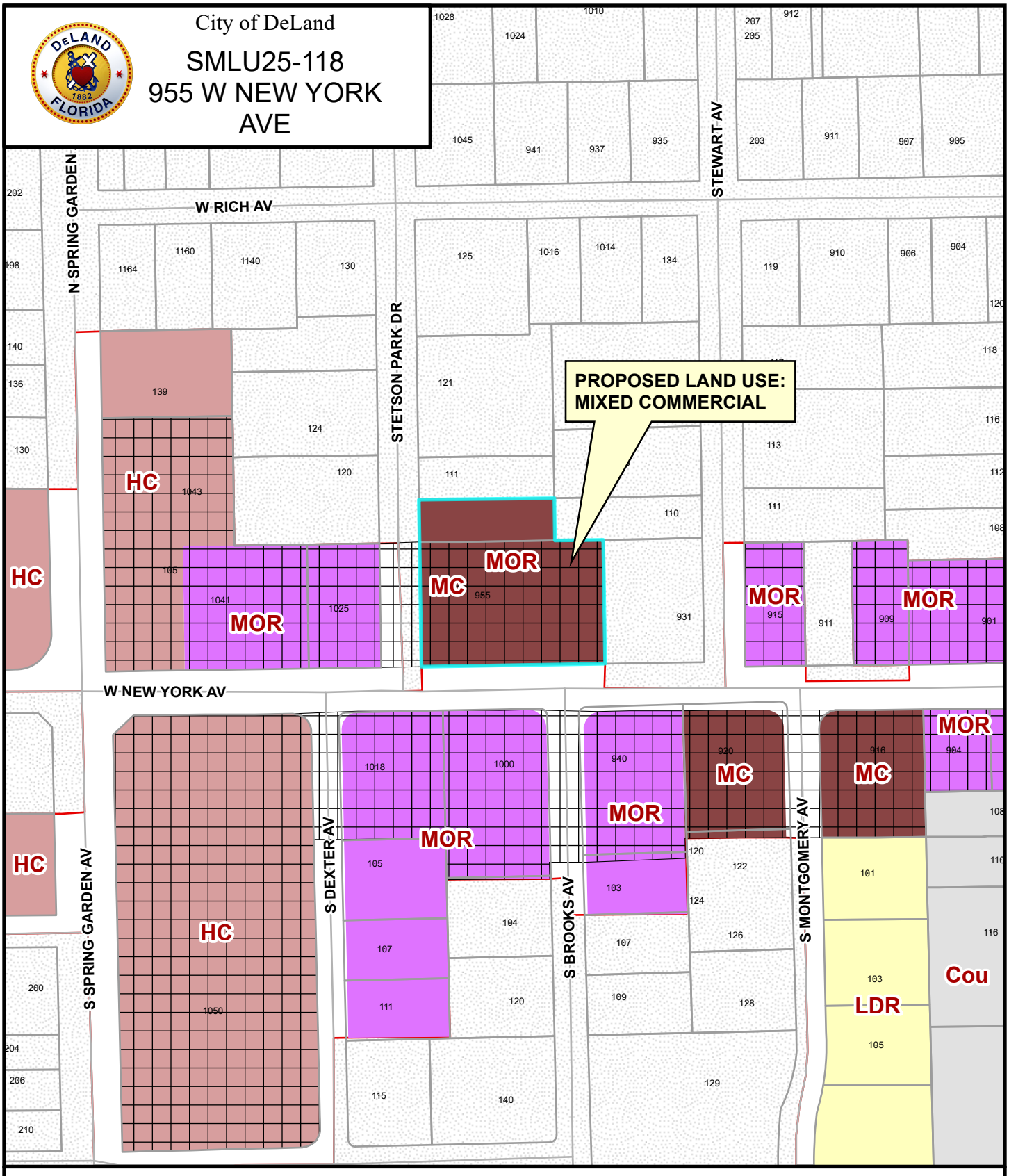
Development Variable			EXISTING Land Use	PROPOSED Land Use	Net Change
			Mixed Office/Resid.	*Mixed Commercial*	
Theoretical Maximum					
Property Acreage	**1.3**				
Permitted Density			*5.8*	*10*	4
Dwelling units			7.54	13	5
Non-residential (retail, sq. ft.)					0
1. Population	2.44	persons/hh	18	32	**+ 13**
2. PM Peak Hour Trips/Daily Trips	0.57	PM peak/unit	3	6	**+ 3**
	7.12	trips/unit	41	71	**+ 30**
3. Sanitary Sewer	200	gal/unit	1508	2600	**+ 1092**
4. Potable water (gal/day)	300	gal/unit	2262	3900	**+ 1638**
5. Solid waste (pounds/person)	3.21	lb/person	59	102	**+ 43**
6. Stormwater Drainage					
7. Recreation/Open Space (ac./person)	0.007	acres/person	0	0	**0**

The proposed amendment indicates a difference in service needs from one land use designation to the other based on the theoretical maximum impact analysis. This analysis is meant to help ensure the efficient provision of these services as sites are eventually developed.


City of DeLand
SMLU25-118
955 W NEW YORK AVE
CURRENT LAND USE:
MIXED OFFICE - RESIDENTIAL
W RICH AV
W NEW YORK AV
N SPRING GARDEN
STETSON PARK DR
STEWART AV
S SPRING GARDEN AV
S DEXTER AV
S BROOKS AV
S MONTGOMERY AV
HC
MOR
MC
LDR
Cou
DeLand Future Land Use:
Agricultural Conservation
Urban Low Intensity
Low Density Residential
Medium Density Residential
High Density Residential
Educational
Mixed Office - Residential
Mixed Commercial
Business Retail
Highway Commercial
Downtown Commercial
Redevelopment
Gateway
Rail Spur
Industrial
New Community Development
Community
Commerce
West Central District
County
N
Not to Scale

City of DeLand

SMLU25-118
955 W NEW YORK AVE

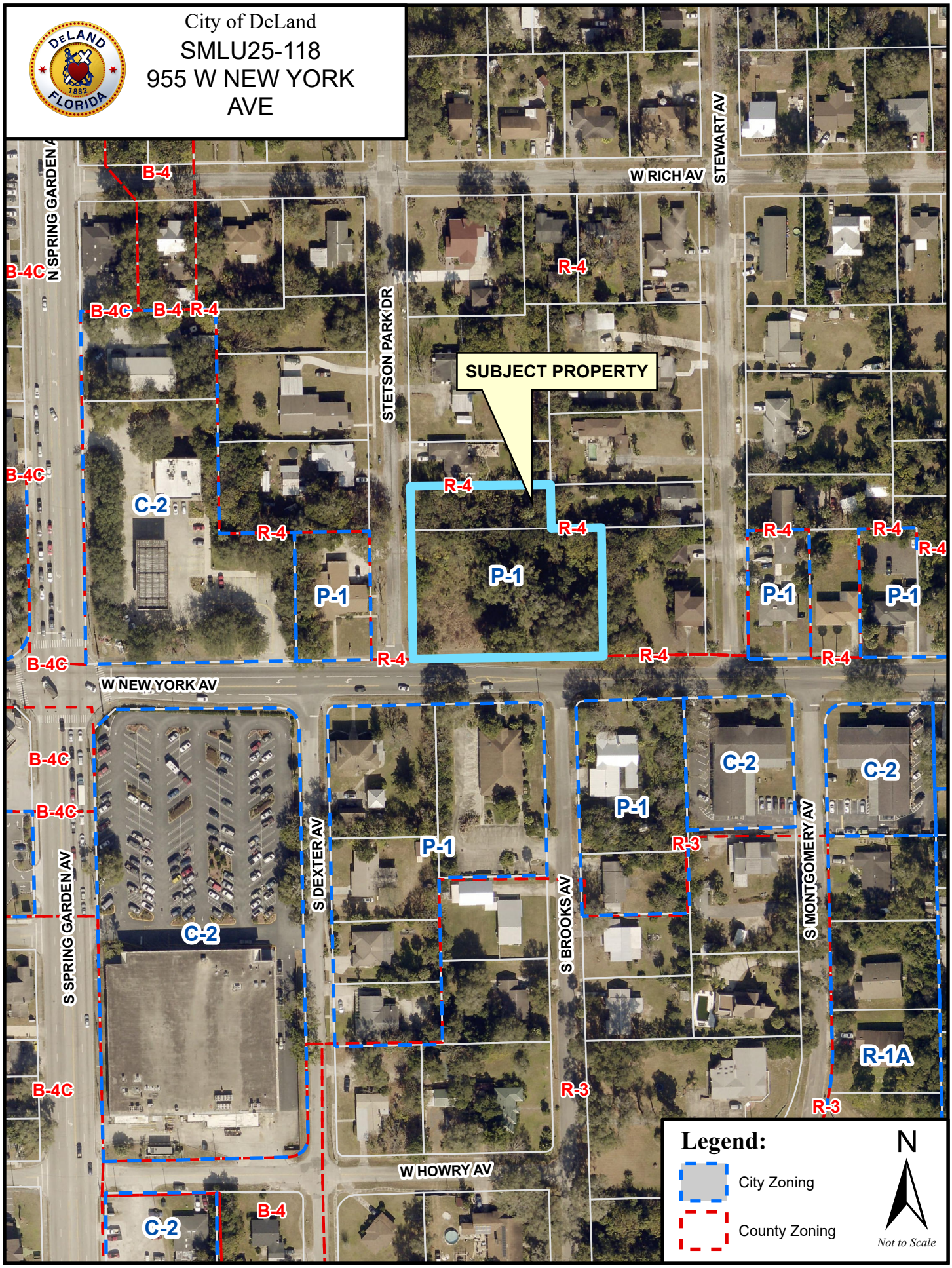


DeLand Future Land Use:

- Agricultural Conservation
- Urban Low Intensity
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Educational
- Mixed Office - Residential
- Mixed Commercial
- Business Retail
- Highway Commercial
- Downtown Commercial
- Redevelopment
- Gateway
- Rail Spur
- Industrial
- New Community Development
- Community
- Commerce
- West Central District
- County

N

Not to Scale


City of DeLand
SMLU25-118
955 W NEW YORK AVE
SUBJECT PROPERTY
W RICH AV
STEWART AV
N SPRING GARDEN AV
STETSON PARK DR
W NEW YORK AV
S SPRING GARDEN AV
S DEXTER AV
S BROOKS AV
S MONTGOMERY AV
W HOWRY AV
B-4
B-4C
C-2
R-4
P-1
R-3
R-1A
Legend:
City Zoning
County Zoning
N
Not to Scale

NEWKIRK ENGINEERING, INC.
CIVIL ENGINEERING - TRANSPORTATION - CEI - LANDSCAPE ARCHITECTURE
1230 N US HWY 1, SUITE 3, ORMOND BEACH, FLORIDA 32174 386-872-7794

July 11, 2025

Ms. Carol Kuhn
Planning Director
120 S. Florida Ave
DeLand, FL 32720

RE: 955 New York Ave – Trip Generation Memo
Parcel No.'s 7008-34-06-0010 & 7008-34-06-0230
1.23 Acres +/-

Dear Ms. Kuhn,

Submitted is a traffic trip generation calculation for the above referenced project:

The trip generation calculations for the proposed **Future Land Use Amendment & Rezoning** from *Mixed Office – Residential* to *Mixed Commercial* (w/ *Historical Corridor Overlay*) and from *P-1* to *C-1* for the parcels located at 955 W New York Ave, DeLand, Florida 32724.

Calculations were performed with the 11th Edition of the ITE trip generation calculator. Attached is the ITE trip generation report and input data. The ITE Codes used for theoretical maximums for existing and proposed are **(912) Drive-In Bank** and **(932) High-Turnover Sit-Down Restaurant**.

A maximum building area was determined by using the P-1 zoning requirement of 10,000 SF per acre. This was applied to the proposed zoning as both scenarios have a 60% maximum impervious area which will govern these high-parking demand uses.

ZONING	Land Use (with Historical Corridor Overlay)	ITE Code	UNIT	11th Ed. ITE Vehicle Trip Generation Rates						
				DAILY	(Peak Hour of Adjacent Street Traffic)					
					AM	AM In	AM Out	PM	PM In	PM Out
P-1	Mixed Office - Residential	(912) Drive-in Bank	KSF	100.35	9.95	58%	42%	21.01	50%	50%
C-1	Mixed Commercial	(932) High-Turnover Restaurant (sit down)	KSF	107.2	9.57	55%	45%	9.05	61%	39%

		Maximum Existing Use (10,000 SF building area per Acre)	Unit	Total Distribution of Generated Trips						
		Description (ITE Code)	KSF	Daily	AM	AM In	AM Out	PM	PM In	PM Out
P-1	Mixed Office - Residential	(912) Drive-in Bank	12.30	1234	122	71	51	258	129	129

		Maximum Proposed Use (10,000 SF building area per Acre)	Unit	Total Distribution of Generated Trips						
		Description (ITE Code)	KSF	Daily	AM	AM In	AM Out	PM	PM In	PM Out
C-1	Mixed Commercial	(932) High-Turnover Restaurant (sit down)	12.30	1319	118	65	53	111	68	56

Existing Max Use: 1,234 daily trips, 122 peak AM, 258 peak PM
Proposed Max Use: 1,319 daily trips, 118 peak AM, 111 peak PM

Difference in Theoretical Max: +85 Daily Trips, -4 Peak AM, -147 peak PM

The differences observed between these maximum values can be attributed to the anticipated building size and use of the buildings. For a 1.23-acre site, a 12,300 square foot building would be on the larger side of building for each of these uses. These buildings would require ample parking, and the site would need to meet all other dimensional and stormwater requirements. Additionally, the significant drop in Peak PM traffic could be attributed to the middle hours of the day (lunchtime) seeing additional trips for the restaurant use and overall disbursement of trips outside of the peak hours.

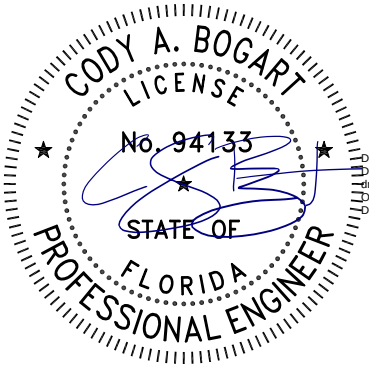
These theoretical trip generation rates for both scenarios anticipate 1,000 daily trips or more as possible, which require a TIA to be conducted for a site plan. If the future proposed site plan configuration and use does not exceed 1,000 daily trips, then the TIA requirement would be waived.

If you have any questions or need additional information, please feel free to call or email me at cody@Newkirk-Engineering.com.

Sincerely,

Cody A. Bogart, PE
NEWKIRK ENGINEERING, INC.

This report has been digitally signed and sealed by Cody A. Bogart, PE #94133 on



Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Name: Cody A. Bogart
PE License No: 94133
Address: 1230 North US Highway 1
Suite 3
Ormond Beach, FL 32174

Drive-in Bank
(912)

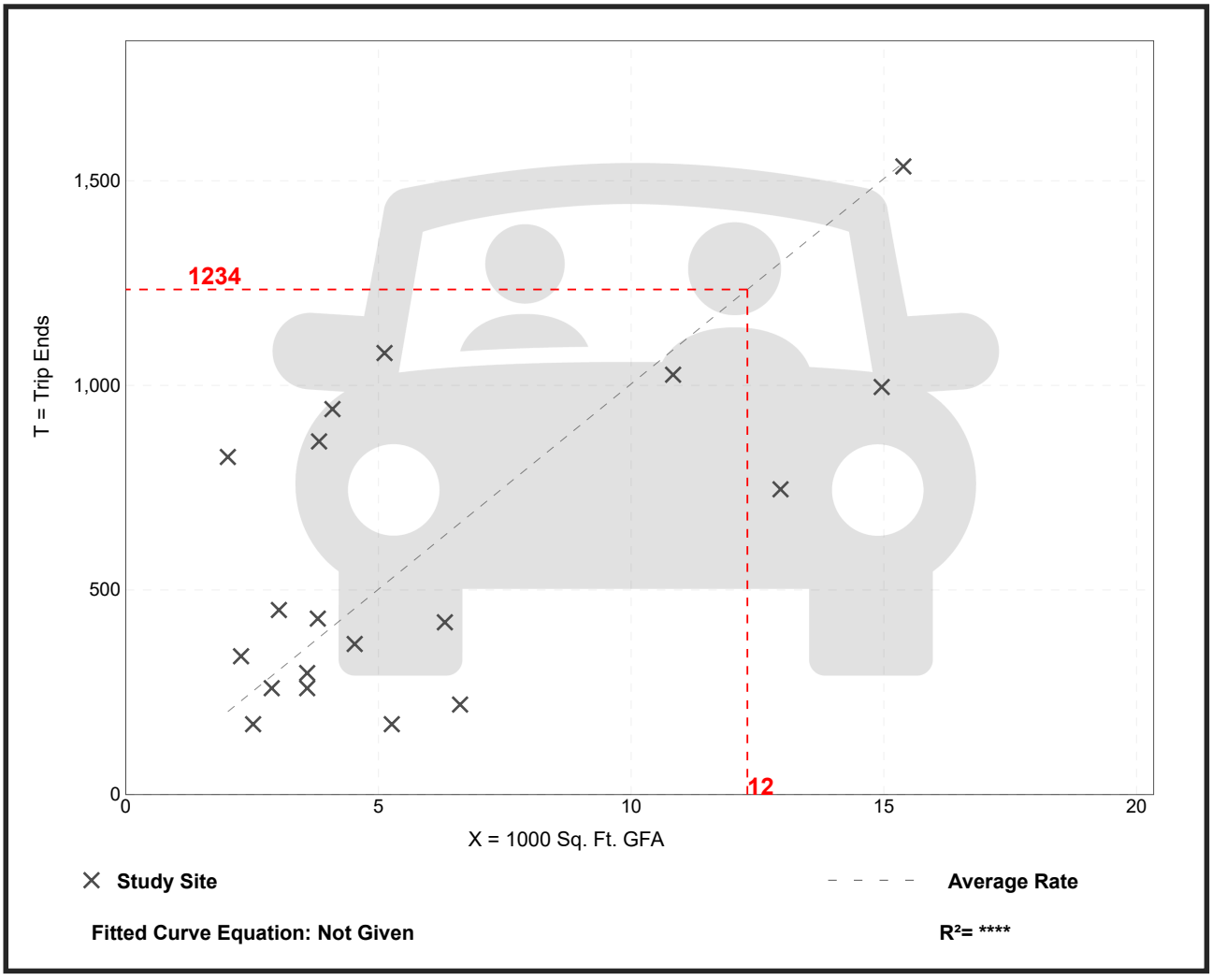
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
100.35	32.67 - 408.42	68.62

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

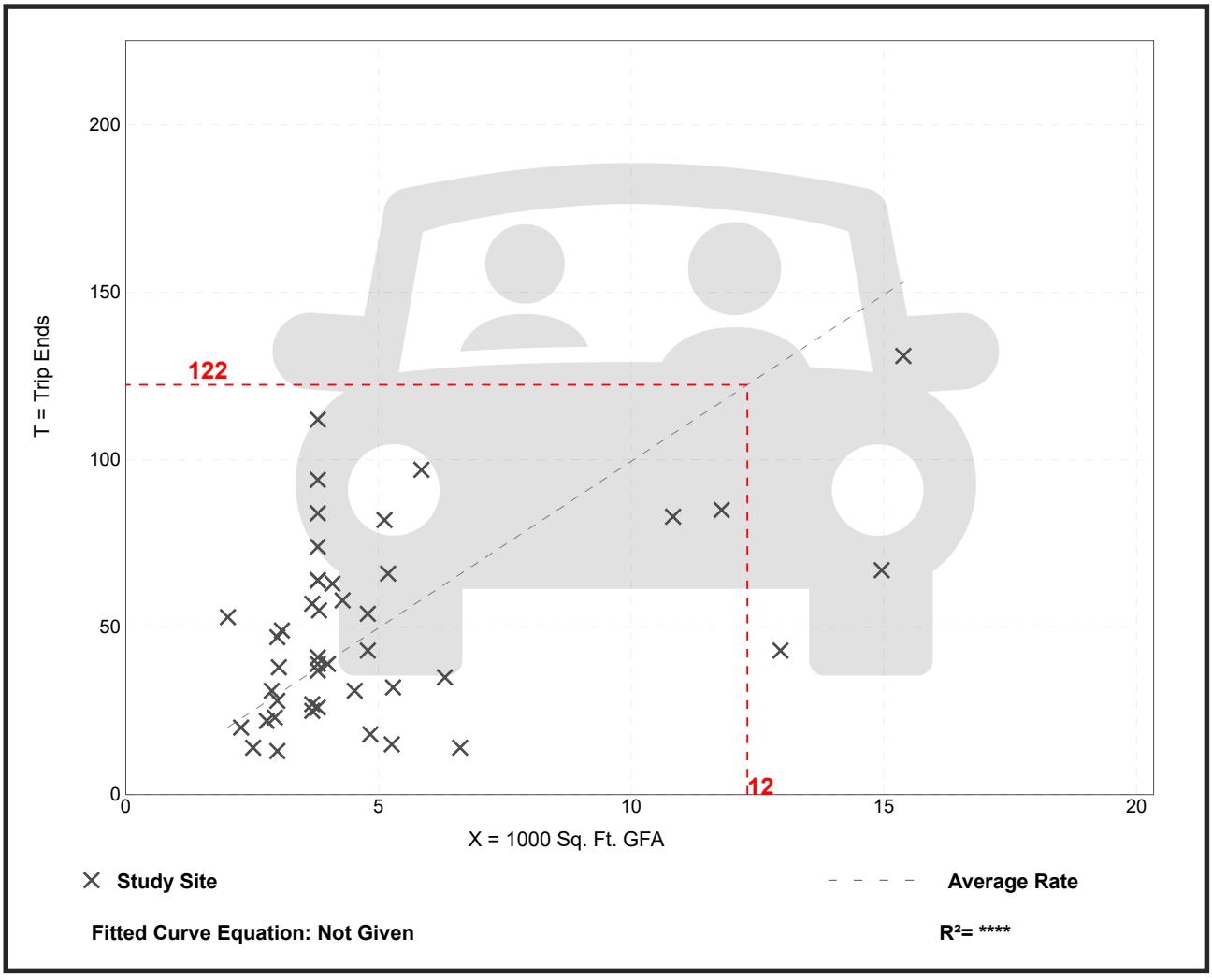
Drive-in Bank
(912)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 44
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 58% entering, 42% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.95	2.12 - 29.47	6.00

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

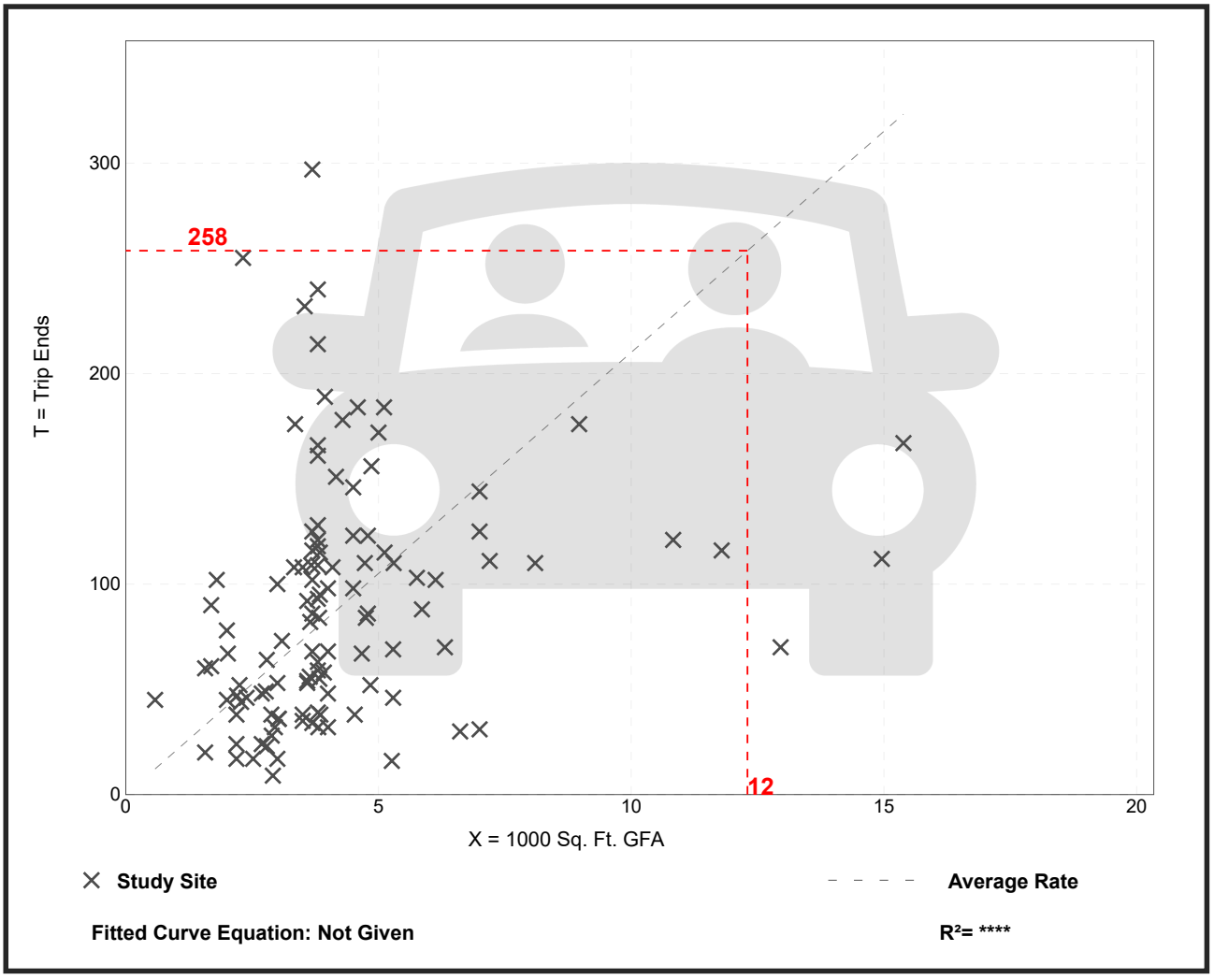
Drive-in Bank
(912)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 114
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.01	3.04 - 109.91	15.13

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

High-Turnover (Sit-Down) Restaurant
(932)

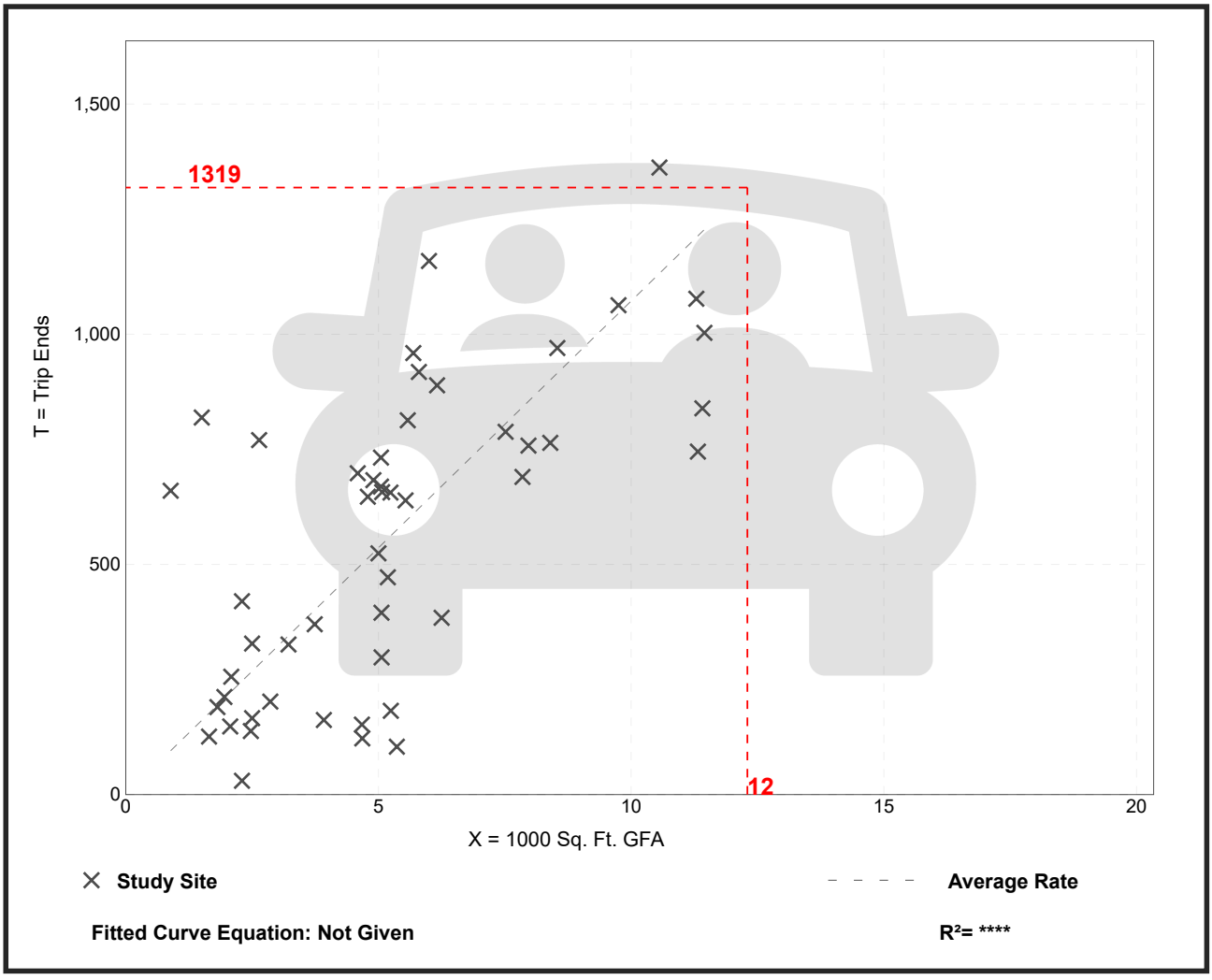
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 50
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
107.20	13.04 - 742.41	66.72

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

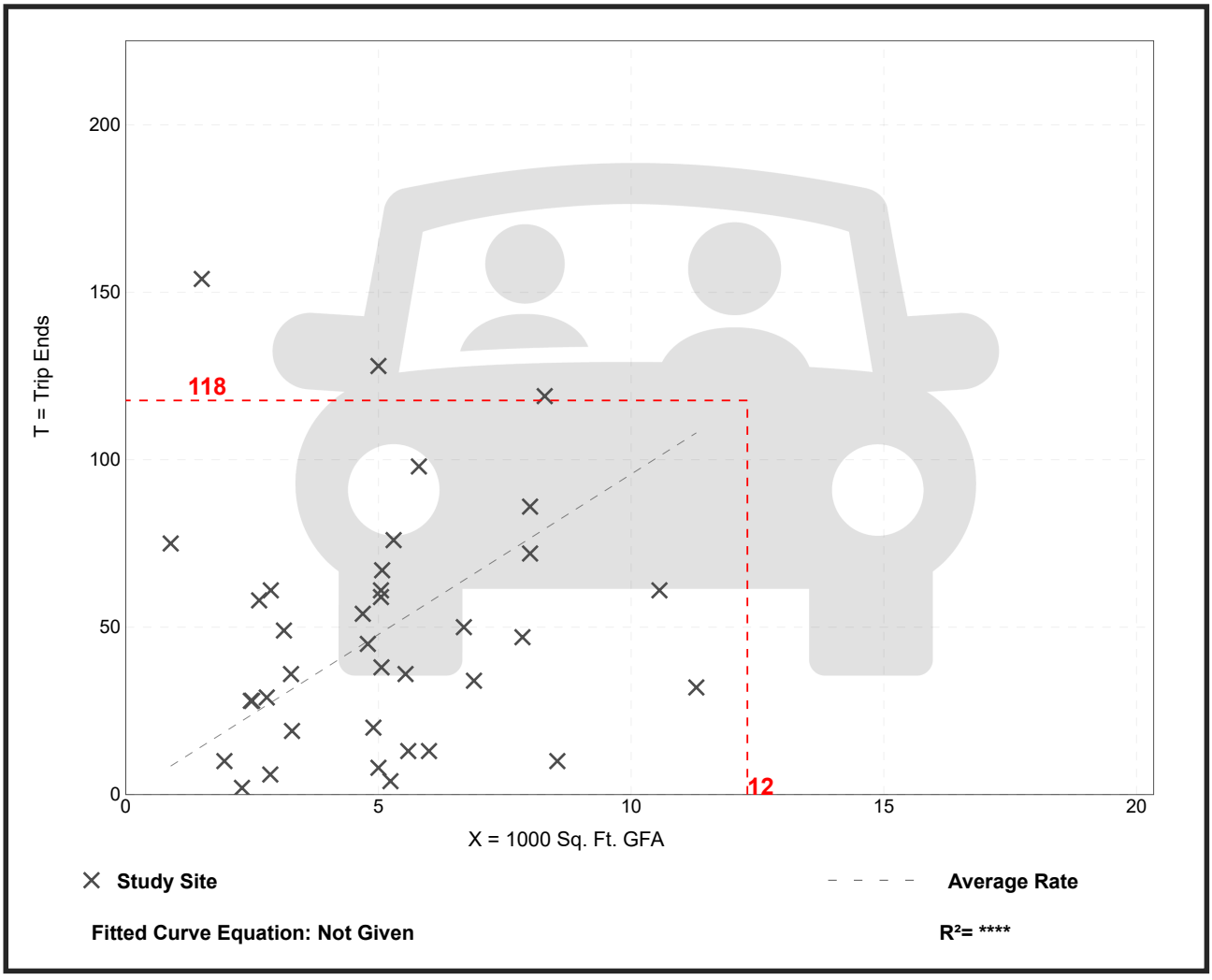
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 37
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

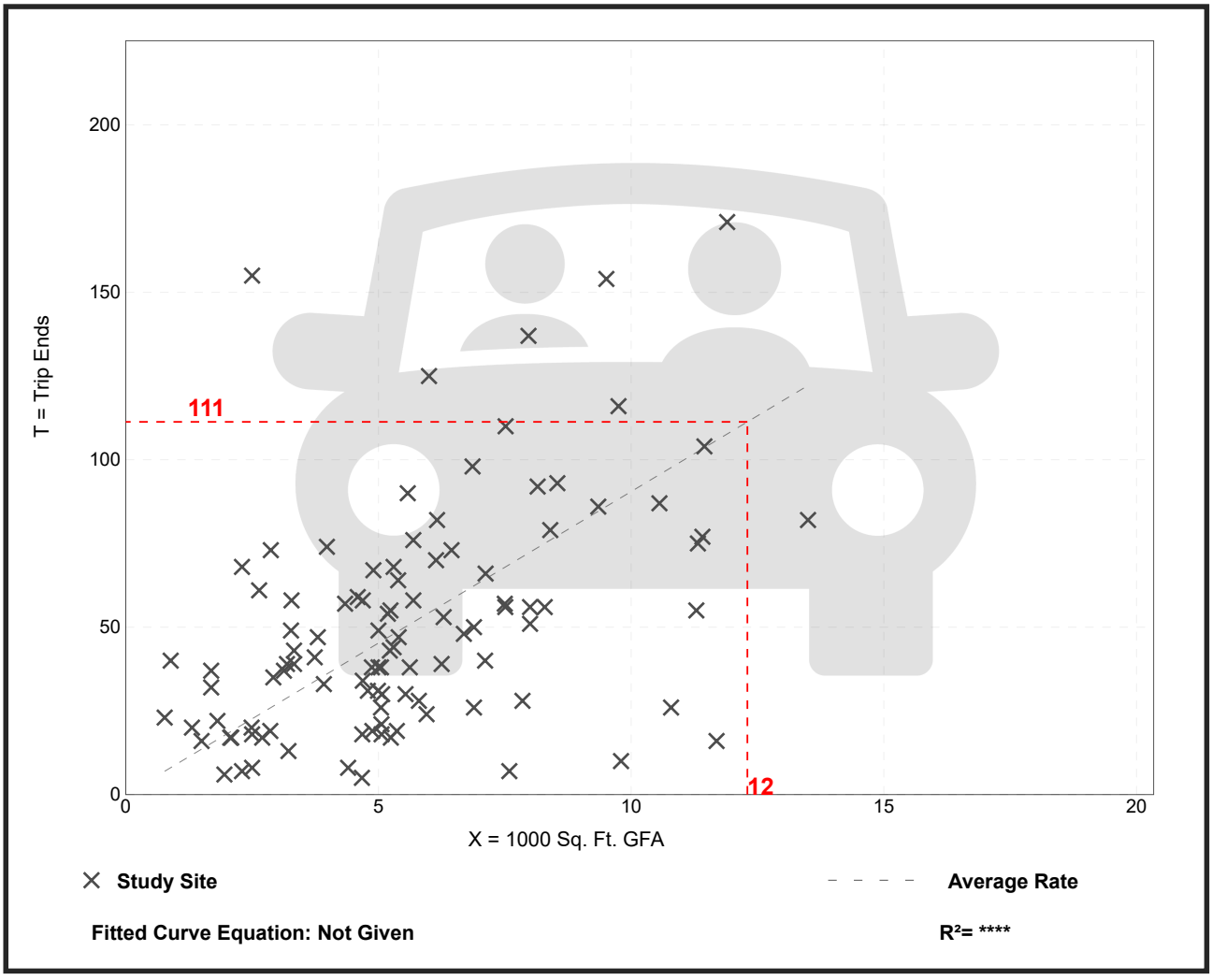
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Zoning for ±1.3 Acres of Property Located at 955 West New York Ave, from P-1 (Professional-Residential) to C-1 (Neighborhood Commercial).

DEPARTMENT: Planning

PREPARED BY: Belinda Collins, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A-Legal Description , Survey - 955 W. New York 06-0687, SR-Z25-119 955 W. New York Ave FINAL, Z25-119 Aerial, Z25-119 Proposed Aerial, Z25-119 Proposed Zoning, Z25-119 Zoning, 955 New York -Trip Gen Memo - FLU (1)

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

This request is for approval to amend the zoning designation for property located at 955 W. New York Avenue from P-1 (Professional Residential) to C-1 (Neighborhood Commercial). The 1.3-acre site is currently vacant and undeveloped. This site is located adjacent to a single-family neighborhood, located in unincorporated Volusia County, to the north. The intent of the new zoning designation is "to provide for the retail and service needs of adjacent residential areas." It permits both residential and non-residential land uses…" The staff report prepared for the August 13, 2025 Planning Board meeting presented a comparison of the uses allowed in the existing zoning designation and how they compare to the uses of the proposed designation. No specific use has been proposed for the property and the applicant is requesting the amendment in the anticipation that more options for development will be made available with the change.

At the August 13, 2025 meeting, the Planning Board recommended approval of the rezoning as well as a land use amendment for this site.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:
Strategic Focus Area: Creating the connected community.
Strategic Context: It is the connections between the three elements identified so far which will create the economic dynamism and the community vibrancy desired by the citizenry. This connection takes form in four ways:

- **Key Corridors**. The City has two key corridors — Woodland and SR 44 and **several gateways that are important entryways into the City**. The look and feel of these corridors and gateways needs to be consistent or complementary with the City both to enhance the sense of community as well as permeate across the City the image of DeLand as a distinctive place which attracts high-value wage earners and high-value jobs.

SUSTAINABILITY:

SUSTAINABILITY:
Amending the zoning designation of this property and outlining the use parameters will permit its development for neighborhood commercial purposes that align with the city's development requirements and will enable the city to continue active pursuit of its vision and strategic plan.

FISCAL IMPACT:

Approval of the rezoning will promote the development of this property, and inclusion of any new business, residential or other use onto the city's tax rolls will generate additional revenue to be used toward city services.

RECOMMENDATION:

It is recommended that the City Commission approve on First Reading, an ordinance amending the zoning designation of this property from P-1 (Professional Residential) to C-1 (Neighborhood Commercial).

BACKGROUND/DISCUSSION:

This property is currently vacant and undeveloped. The applicant has stated that it has been difficult to find a use for the property, and it is felt that the current land use of Mixed Office/ Residential is too restrictive. This site is located adjacent to a single-family neighborhood, located in unincorporated Volusia County, to the north. The intent of the new zoning designation is "to provide for the retail and service needs of adjacent residential areas."

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, CHANGING THE ZONING FROM P-1 PROFESSIONAL RESIDENTIAL TO C-1 NEIGHBORHOOD COMMERCIAL ON PROPERTY LOCATED AT 955 WEST NEW YORK AVENUE; MAKING FINDINGS OF CONSISTENCY WITH THE COMPREHENSIVE LAND USE PLAN FOR THE CITY OF DELAND; DIRECTING CHANGE IN THE COMPREHENSIVE ZONING MAP; CONDITIONING FINAL DEVELOPMENT ORDERS ON A DETERMINATION OF CAPACITY; AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the property located at 955 West New York Avenue and more particularly described in the attached Exhibit "A", is currently zoned as P-1, Professional Residential, pursuant to City of DeLand's Zoning Ordinances; and

WHEREAS, the property currently has a Land Use Designation of Mixed Commercial (with Historic Core Overlay) pursuant to the City of DeLand's Land Use Plan; and

WHEREAS, a proper and complete application has been received requesting that the zoning be changed to C-1, Neighborhood Commercial; and

WHEREAS, the C-1, Neighborhood Commercial zoning designation is consistent with the Comprehensive Plan of the City of DeLand.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission has held a public hearing on the application for a change of zoning from P-1, Professional Residential to C-1, Neighborhood Commercial zoning designation, on the following described property:

See legal description attached hereto as Exhibit "A"

Tax Parcel Identification Nos.:
700834060010 and 700834060230

Section 2. The City Commission hereby finds that the C-1, Neighborhood Commercial zoning designation is consistent with the parcel's Mixed Commercial (with Historic Core Overlay).

Section 3. Pursuant to the determination made at public hearing, the City Commission hereby amends the Comprehensive Zoning Map of the City of DeLand and changes the zoning from P-1, Professional Residential to C-1, Neighborhood Commercial zoning designation on the parcels described in Section 1.

Section 4. The Planning Director is hereby directed to change the Comprehensive Zoning Map of the City of DeLand to conform with the change of zoning enacted in this Ordinance.

Section 5. No rights to obtain final development orders nor any rights to develop the property have been granted or implied by this Ordinance. Final development orders for the property including, but not limited to building permits and site plan approval shall be subject to a determination of capacity.

Section 6. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 7. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ____day of _____, 2025.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

955 West New York Avenue, Deland, Florida, 32720

Size and Legal Description

Size

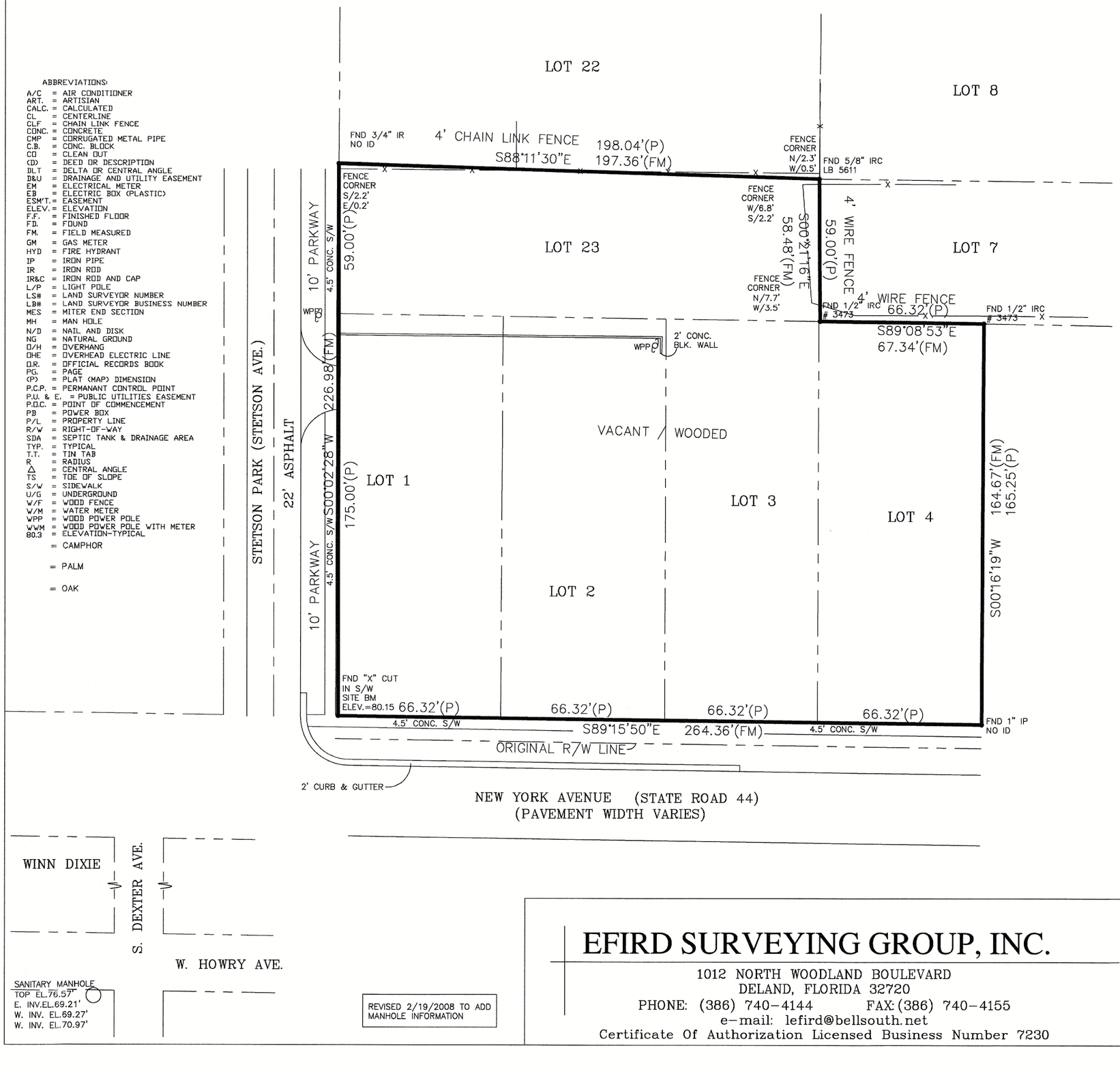
Total Property Size = +/- 1.3 Acres

Legal Description (Both Parcels)

8 17 30 LOTS 1 TO 4 INC BLK 6 STETSON PARK MB 7 PG 7 PER OR 4395 PG 2168 PER OR 5956 PGS 0821-0823 INC

8 17 30 LOT 23 BLK 6 STETSON PARK MB 7 PG 7 PER OR 4395 PG 2 168 PER OR 5956 PGS 0821-0823 INC

SECTION 8, TOWNSHIP 17 SOUTH, RANGE 30 EAST
CITY OF DELAND
VOLUSIA COUNTY, FLORIDA



ABBREVIATIONS:

A/C = AIR CONDITIONER
ART. = ARTISIAN
CALC. = CALCULATED
CL = CENTERLINE
CLF = CHAIN LINK FENCE
CONC. = CONCRETE
CMP = CORRUGATED METAL PIPE
C.B. = CONC. BLOCK
CO = CLEAN OUT
(D) = DEED OR DESCRIPTION
DLT = DELTA OR CENTRAL ANGLE
D&U = DRAINAGE AND UTILITY EASEMENT
EM = ELECTRICAL METER
EB = ELECTRIC BOX (PLASTIC)
ESM'T. = EASEMENT
ELEV. = ELEVATION
F.F. = FINISHED FLOOR
FD. = FOUND
FM. = FIELD MEASURED
GM = GAS METER
HYD = FIRE HYDRANT
IP = IRON PIPE
IR = IRON ROD
IR&C = IRON ROD AND CAP
L/P = LIGHT POLE
LS# = LAND SURVEYOR NUMBER
LB# = LAND SURVEYOR BUSINESS NUMBER
MES = MITER END SECTION
MH = MAN HOLE
N/D = NAIL AND DISK
NG = NATURAL GROUND
O/H = OVERHANG
OHE = OVERHEAD ELECTRIC LINE
O.R. = OFFICIAL RECORDS BOOK
PG. = PAGE
(P) = PLAT (MAP) DIMENSION
P.C.P. = PERMANANT CONTROL POINT
P.U. & E. = PUBLIC UTILITIES EASEMENT
P.O.C. = POINT OF COMMENCEMENT
PB = POWER BOX
P/L = PROPERTY LINE
R/W = RIGHT-OF-WAY
SDA = SEPTIC TANK & DRAINAGE AREA
TYP. = TYPICAL
T.T. = TIN TAB
R = RADIUS
△ = CENTRAL ANGLE
TS = TOE OF SLOPE
S/W = SIDEWALK
U/G = UNDERGROUND
W/F = WOOD FENCE
W/M = WATER METER
WPP = WOOD POWER POLE
WWM = WOOD POWER POLE WITH METER
80.3 = ELEVATION-TYPICAL
= CAMPHOR
= PALM
= OAK

1" = 30'
GRAPHIC SCALE
0 15 30 60

DESCRIPTION: (PER O.R. 4395, PAGE 2168)

LOTS ONE (1), TWO (2), THREE (3), AND FOUR (4), BLOCK SIX (6), STETSON PARK SUBDIVISION IN SECTION EIGHT (8), TOWNSHIP SEVENTEEN (17) SOUTH, RANGE THIRTY EAST (30 E.), ACCORDING TO MAP IN MAP BOOK SEVEN (7), PAGE SEVEN (7), PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

AND

LOT TWENTY-THREE (23), BLOCK SIX (6), IN STETSON PARK, VOLUSIA COUNTY, FLORIDA, AS SHOWN BY PLAT OF SAME DULY RECORDED IN OFFICE OF THE CLERK OF THE CIRCUIT COURT OF SAID COUNTY AND STATE IN MAP BOOK 7, PAGE 7.

NOTE:

THIS PLAT AND/OR SKETCH OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS SHOWN HEREON, ON THE MOST CURRENT DATE SHOWN, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER. THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN HEREON THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THE COUNTY. THIS SURVEY /SKETCH IS PREPARED WITHOUT BENEFIT OF ABSTRACT OR TITLE SEARCH UNLESS OTHERWISE NOTED. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES. THIS SURVEY DRAWING IS THE PROFESSIONAL OPINION OF THIS SURVEYOR AND MAPPER AND THE FIRM, WHICH WAS PREPARED UTILIZING THE BEST AVAILABLE INFORMATION AND AS SUCH DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED. FURTHERMORE, THIS SURVEYOR AND FIRM DOES NOT ASSUME RESPONSIBILITY AND SHALL NOT BE HELD LIABLE FOR CLAIMS ARISING FROM ERRONEOUS OR INCORRECT INFORMATION FURNISHED TO THE SURVEYOR, WHICH WAS USED AS A BASIS IN THE PREPARATION OF THIS SURVEY DRAWING.

NOTES:

1. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHT OF WAY AND/OR OWNERSHIP WERE FURNISHED TO THIS SURVEYOR EXCEPT AS SHOWN.
2. NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
3. NO UNDERGROUND IMPROVEMENTS OR INSTALLATIONS OR OTHER INTERIOR IMPROVEMENTS HAVE BEEN LOCATED, EXCEPT AS SHOWN, AS PER THE REQUEST OF THE CLIENT.
4. UNLESS NOTED, LEGAL DESCRIPTION FURNISHED BY CLIENT.
5. FEATURES SHOWN BY SYMBOL AS INDICATED IN THE LEGEND ARE NOT TO SCALE.
6. THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE SEARCH, A TITLE SEARCH MAY REVEAL ADDITIONAL INFORMATION AFFECTING THE PARCEL AS SHOWN.
7. WHERE APPLICABLE, MONUMENT DIAMETERS, ETC.. AND/OR LS OR LB NUMBERS ARE SHOWN NEAR RESPECTIVE SYMBOL ABOVE, UNLESS SHOWN IN LEGEND.
8. BEARINGS ASSUMED FROM PLAT, DEED, LEGAL DESCRIPTION.
9. UNLESS SHOWN, ONLY THOSE VISIBLE FEATURES IN THE IMMEDIATE VICINITY OF THE ABOVE DESCRIBED PARCEL BOUNDARY HAVE BEEN LOCATED.
10. SUBJECT PROPERTY LIES WITHIN ZONE "X", AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAN AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, CITY OF DELAND COMMUNITY #120307, PANEL #12127C0465 G DATED APRIL 15, 2002. THIS FLOOD INSURANCE RATE MAP IS NOT A SURVEY AND NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF SAID MAP.

REVISED 7/16/2025
TO SHOW CURRENT
SURVEY CONDITIONS

REVISED 2/19/2008 TO ADD MANHOLE INFORMATION

EFIRD SURVEYING GROUP, INC.
1012 NORTH WOODLAND BOULEVARD
DELAND, FLORIDA 32720
PHONE: (386) 740-4144 FAX: (386) 740-4155
e-mail: lefird@bellsouth.net
Certificate Of Authorization Licensed Business Number 7230

Boundary Survey

Survey Date:	Drawing Number	Scale:
10/24/06	06-0687 C	1"=30
		Drawn By: M.J./JM

For:
955 NEW YORK AVENUE, LLC
FIRST COMMERCIAL BANK OF FLORIDA
VOLUSIA TITLE SERVICES, INC.
FIRST AMERICAN TITLE INSURANCE COMPANY

04-852

I HEREBY CERTIFY THIS SURVEY DRAWING TO BE CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND COMPLIES IN FORM WITH THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61G17-6, F.A.C. PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

STATE OF FLORIDA LICENSED SURVEYOR NO. 5823

7/16/2025

LARRY R. EFIRD JR.
Professional Surveyor & Mapper No. 5823

PLANNING DEPARTMENT STAFF REPORT
TO
PLANNING BOARD

August 13, 2025

A. APPLICATION NO.: Z25-119

STAFF PLANNER: Belinda Williams-Collins - AICP, Senior Planner

APPLICANT: Tim Exner, 995 New York Ave, LLC

REQUEST: Rezone from: P-1 (Professional-Residential)
To: C-1 (Neighborhood Commercial)
The Applicant has also submitted an application for a future land use amendment (SMLU25-11)

APPLICABLE REGULATIONS:
Article XII ADMINISTRATION AND ENFORCEMENT
Sec. 33-135 – Procedure for text amendments & rezoning.

B. SITE FACTORS:

Location: 955 W. New York Ave. (700834060010, 700834060230)
Size: 1.3± acres
Land Use: Mixed Office/Residential
Zoning: P-1 (Professional-Residential)

	SURROUNDING USE:	**ZONING:**
North:	VC:ULI (Urban Low Intensity)	VC R-4: Urban Single-Family Residential
South:	Mixed Office/Residential	P-1: Professional - Residential
East:	VC:ULI (Urban Low Intensity)	VC R-4: Urban Single-Family Residential
West:	Mixed Office/Residential	P-1: Professional - Residential

C. ANALYSIS:

The subject property is a vacant, undeveloped property located along New York Avenue just west of the central core of the city. The property is comprised of five (5) individual lots on a corridor that was primarily a residential street. Over time, many of the existing residential structures have been converted to business use. It is anticipated that these lots will be combined into a single property. The area is characterized by single-family use to the north and east, and office use to the west and along the south side of New York Ave.

The area north of the property is unincorporated Volusia County has a land use designation of ULI (Urban Low Intensity) and zoning of R-4 (Urban Single-Family Residential) described as follows:

> The ULI designation is primarily a residential designation but may also allow neighborhood convenience uses and individual office buildings as transitional uses…
>
> *R-4 Purpose and intent:* The purpose and intent of the R-4 Urban Single-Family Residential Classification is to provide medium-density residential developments, preserving the character of existing or proposed residential neighborhoods.

The city's land development regulations describe the existing and proposed zoning designations as follows:

P-1 Professional-Residential District.

(a) Statement of intent.

1. It is the intent of this section to provide a zoning district wherein certain types of residential and professional uses are permitted such residential and other permitted uses are to be harmonious in appearance and have ample open space, which is extensively landscaped.
2. Further, this district is formulated to:
    1) Permit the conversion of certain older residential areas to combination of residences and restricted services;
    2) Provide a transition between existing commercial uses and adjacent residential areas but yet not adversely affected areas; and
    3) Encourage comprehensively planned professional residential office developments.

C-1—Limited Neighborhood Commercial District.

(a) Statement of intent. The purpose of this district is to provide for the retail and service needs of adjacent residential areas. It permits both residential and nonresidential land uses, either freestanding or combined in a shared structure.

A comparison of the permitted uses for both designation is as follows:

P-1		C-1	
PROFESSIONAL		**PROFESSIONAL**	
General/Professional Offices	P	General/Professional Offices	P
Financial Institutions	P	Financial Institutions	P
MEDICAL SUPPORT (See also Section 33-19.11)		**MEDICAL SUPPORT (See also Section 33-19.11)**	
Medical office	P	Medical office	P
Apothecary shops	P	Apothecary shops	C15
Drugstores and pharmacies	P		
Laboratories, hospitals and clinics	E15	Laboratories, hospitals and clinics	P
Medical clinics over 5,000 square feet	E15		
		Nursing homes and adult congregate living facilities	P
BUSINESS SUPPORT		**BUSINESS SUPPORT**	
		Mailbox and shipping shops	P
		Copying, printing and lithography	P
PERSONAL SERVICES		**PERSONAL SERVICES**	
		Beauty salons, barbershops and day spas	P
Day care facilities, adult or child	P	Day care facilities, adult or child	P
		Dry cleaning and laundry, retail	C3
		Pet shops and pet grooming with no overnight boarding of animals	C
HOSPITALITY		**HOSPITALITY**	
Bed and breakfast inn	C 19	Bed and breakfast inn	P
		Hotels or motels and associated accessory uses including restaurant and conference facilities	C 5
		Uses requiring a DBPR 3PS liquor license (package sales) or 4COP liquor license (bars, lounges, etc.)	E17
		Package sales where beer and/or wine (no liquor) are sold for consumption off premises with DBPR 2APS license	C

		Restaurants, except fast food and/or drive through facilities	P
		Restaurants and establishments serving alcohol requiring a DBPR 2COP, 3PS or 4COP license with special class	C
FOOD SERVICE AND INDUSTRY		**FOOD SERVICE AND INDUSTRY**	
VEHICULAR (See also Section 33-19.12)		Bakery, pastry, gourmet, coffee and specialty beverage shops (retail)	P
		Bakeries wholesale, up to 1,000 square feet of floor area	C
RETAIL		**RETAIL**	
		Retail sales	P
RESIDENTIAL (See also Section 33-20)		**RESIDENTIAL (See also Section 33-20)**	
Community residential homes		Garden communities	C
Multifamily—Per section 33-19.02 (e)	C*	Multiple-family dwellings and duplexes complaint with R-12 standards	C
Community residential homes		Residential dwelling units above the first floor or one residential unit on the first floor accessory to an office or commercial use	C
Single-family—Per section 33-19.02 (d)	C*	Single-family dwelling compliant with R-1 standards not located within the highway commercial land use areas	C
Convalescent, rest and nursing homes; institutions and homes for children, the aged and the disabled	P	Two-family dwelling and duplexes compliant with R-2 standards	C
Single-family dwellings, except mobile homes	P		
INSTITUTIONAL		**INSTITUTIONAL**	
Churches, houses of worship and religious institutions with customary accessory educational and recreational uses	E5	Churches, houses of worship and religious institutions with customary accessory educational and recreational uses	E5
Government and public land uses and buildings	P	Government and public land uses and buildings	P
Private clubs and lodges	P	Private clubs and lodges	P
RECREATION		**RECREATION**	
Museums	P		
		Music, dance, gymnasium, art school or studio, excluding discotheques	P
Parks, community and regional	E8	Parks, community and regional	E8
Parks, mini and neighborhood	P	Parks, mini and neighborhood	P
TRADES		**TRADES**	
INDUSTRIAL AND MANUFACTURING		**INDUSTRIAL AND MANUFACTURING**	
		Microwave, radio, telephone and television facilities and transmission towers	E6
MISCELLANEOUS		**MISCELLANEOUS**	

No specific use has been proposed for the property and once a decision is made for its development, a site plan will be required to ensure the regulations are met as intended. Consolidation of the lots will also be required.

The table below compares the development standards of the existing and proposed districts.

DEVELOPMENT STANDARDS		
	P-1 (Professional-Residential)	**C-1** (Neighborhood Commercial)
Min. lot area	7500 sq. ft.	n/a com'l/6500 s.f./ 7500 duplex
Front yard setback	n/a	n/a
Rear yard setback (Com'l/SF/Duplex)	25 ft.	30 ft./25 ft./25 ft.
Side yard setback	10 ft./15ft. (st)	15 resid- 0 other/7.5 ft./7.5 ft.
Min. lot width	75 ft.	60ft./75ft.
Max. Impervious	50%	60%

Section 33-135 of the Land Development Regulations provides the following criteria, which the Planning Board and City Commission shall utilize in reviewing a rezoning request:

1. **Is the proposed rezoning consistent with the Comprehensive Land Use Plan, the land use, zoning pattern and character of the surrounding area?**

   The proposed zoning of C-1 (Neighborhood Commercial) is inconsistent with the current comprehensive plan land use designation of MOR (Mixed Office - Residential). The applicant has initiated a land use amendment to a compatible designation of Mixed Commercial. Generally, the intent of the proposed zoning designation is the same, however, some of the specific uses permitted within the proposed zoning designation are different as shown in the table above.

2. **Will the proposed rezoning have an impact upon the environment or natural resources?**

   The subject site is vacant, undeveloped, and wooded. The rezoning process will not impact this situation. Environmental and resource impacts will be evaluated with the future replat and site plan applications. Future development will need to meet the development standards and the community design standards as well.

3. **Will the proposed rezoning have an impact upon the economy of the affected area?**

   Rezoning of the property would permit a wider range of uses, but some of the uses allowed in the P-1 zoning district would be eliminated. Once developed, it is anticipated that the impact of the rezoning would be similar to what is currently allowed under the P-1 zoning. Ultimately, use of the property will be limited to what the relatively small 1.3-acre site will allow based on the site development standards.

4. **Will the proposed rezoning have an impact upon governmental services?**

   The subject property will have access to the currently existing government services, such as police and fire, and utilities. No additional services are anticipated to be necessary.

5. **Are there changes in the circumstances or conditions affecting the area since the original assignment of zoning that will support the proposed zoning?**

   The core district that made up the original City of DeLand is located just east of this area. New York Avenue was developed primarily as a residential corridor as evidenced by the remaining residential structures. Few of these remaining residential structures are in use as single family homes as most have been converted to commercial and office use.

   While there is a significant amount of residential use in the surrounding area, major corridors, such as New York Ave., are inconsistent with single-family use. In particular, New York Ave. is now designated a State Highway with higher volumes of traffic. The request to rezone the property is consistent with the changes in the development and traffic patterns.

6. Was there a mistake in the original classification?

There is no known mistake in the original zoning classification. The Professional-Residential designation permits the conversion of residential structures to commercial use to provide a transition between residential and office/commercial uses.

7. Will the proposed rezoning have any effect upon the use or value of the affected area?

The proposed rezoning would allow a number of additional retail uses in the area while maintaining the intent of the conversion of residential structures and providing a transition or buffer to the single-family areas. There are currently no structures on the property, however, development would be required to consider the adjacent neighborhoods and impacts to those areas and would have to meet the community design standards.

8. Will the proposed rezoning have an impact upon public health, safety and welfare?

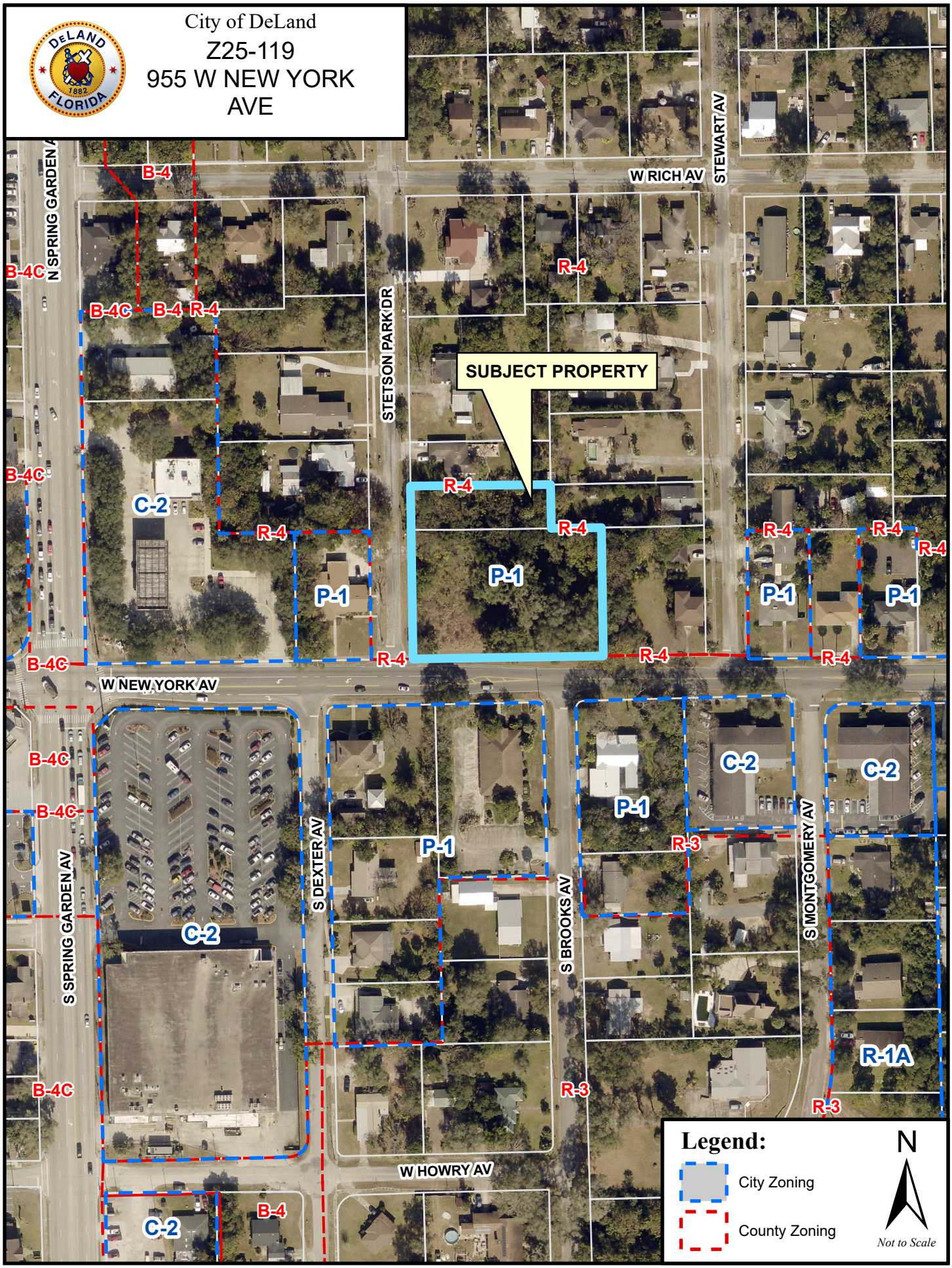
There is not anticipated to be any adverse impacts upon public health, safety, or welfare as a result of this zoning change.

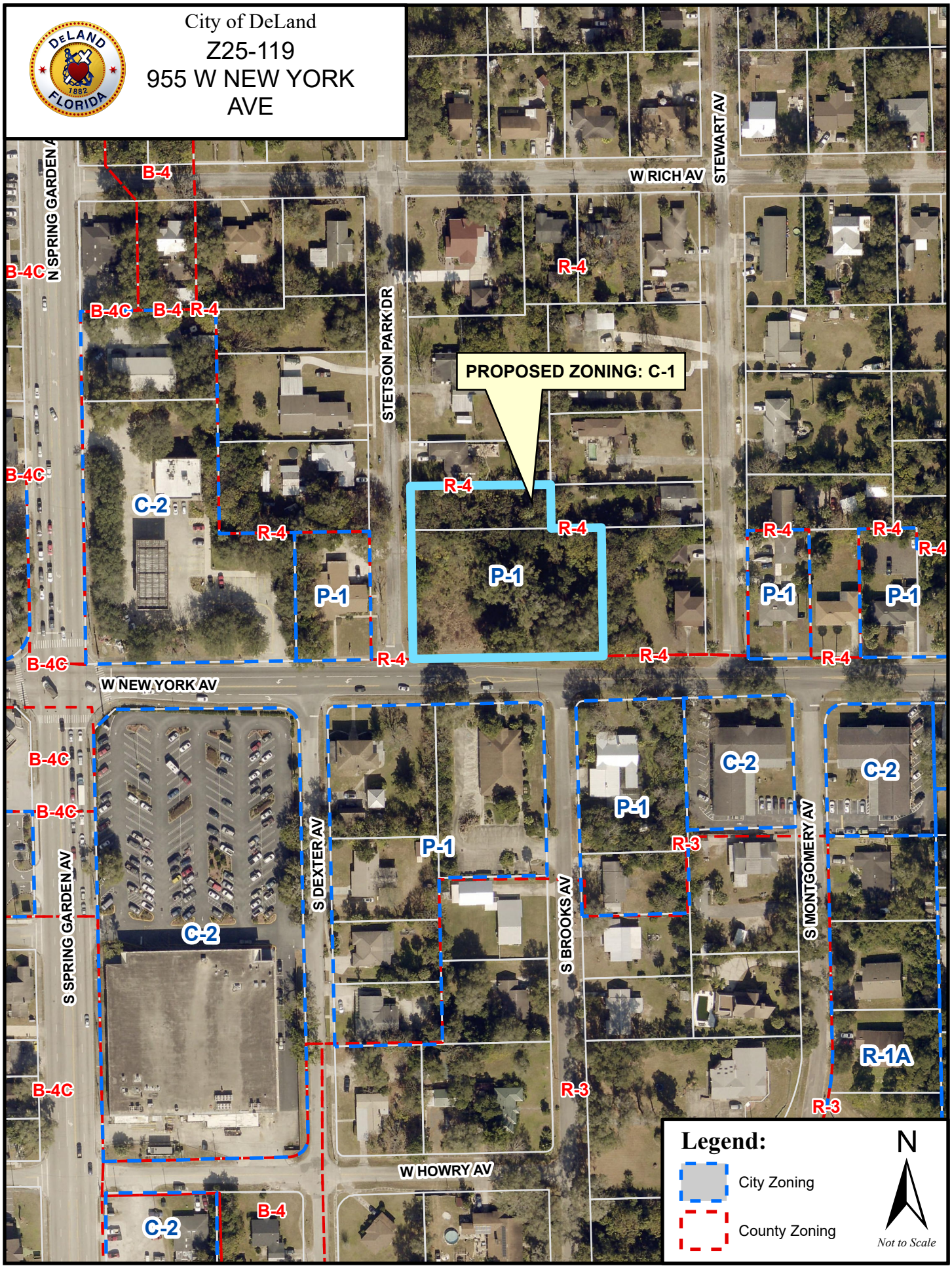
D. CONCLUSION:

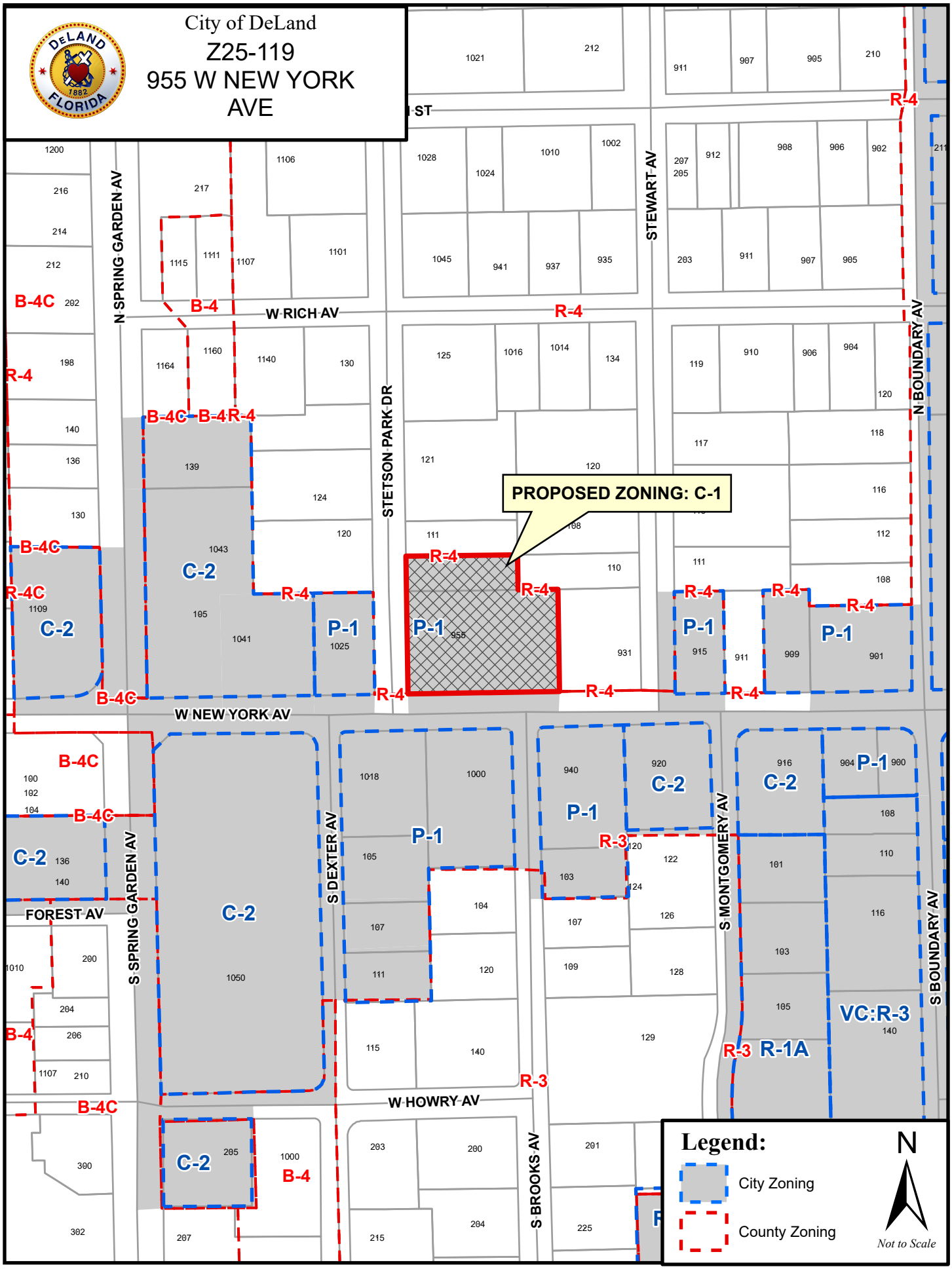
The applicant is proposing to rezone the subject property from P-1 (Professional-Residential, to C-1 (Neighborhood Commercial). This section of the city, heading west, is where properties are beginning to transition from the City limits of DeLand to unincorporated Volusia County. In consideration of the pattern of development along New York Avenue, this rezoning change appears to be consistent and compatible with the area. Specific development of the property will be required to consider the impacts upon the nearby neighborhoods.

E. STAFF RECOMMENDATION:

Staff recommends that the Planning Board forward the application to the City Commission with a recommendation of approval for the request to rezone from the property from P-1 (Professional-Residential, to C-1 (Neighborhood Commercial).


City of DeLand
Z25-119
955 W NEW YORK AVE
SUBJECT PROPERTY
W RICH AV
STEWART AV
N SPRING GARDEN AV
STETSON PARK DR
W NEW YORK AV
S SPRING GARDEN AV
S DEXTER AV
S BROOKS AV
S MONTGOMERY AV
W HOWRY AV
B-4
B-4C
C-2
R-4
P-1
R-3
R-1A
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
Z25-119
955 W NEW YORK AVE
PROPOSED ZONING: C-1
W RICH AV
STEWART AV
N SPRING GARDEN AV
STETSON PARK DR
W NEW YORK AV
S SPRING GARDEN AV
S DEXTER AV
S BROOKS AV
S MONTGOMERY AV
W HOWRY AV
B-4
B-4C
R-4
C-2
P-1
R-3
R-1A
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
Z25-119
955 W NEW YORK AVE
PROPOSED ZONING: C-1
W NEW YORK AV
W RICH AV
W HOWRY AV
FOREST AV
N SPRING GARDEN AV
S SPRING GARDEN AV
STETSON PARK DR
S DEXTER AV
STEWART AV
S MONTGOMERY AV
N BOUNDARY AV
S BOUNDARY AV
S BROOKS AV
Legend:
City Zoning
County Zoning
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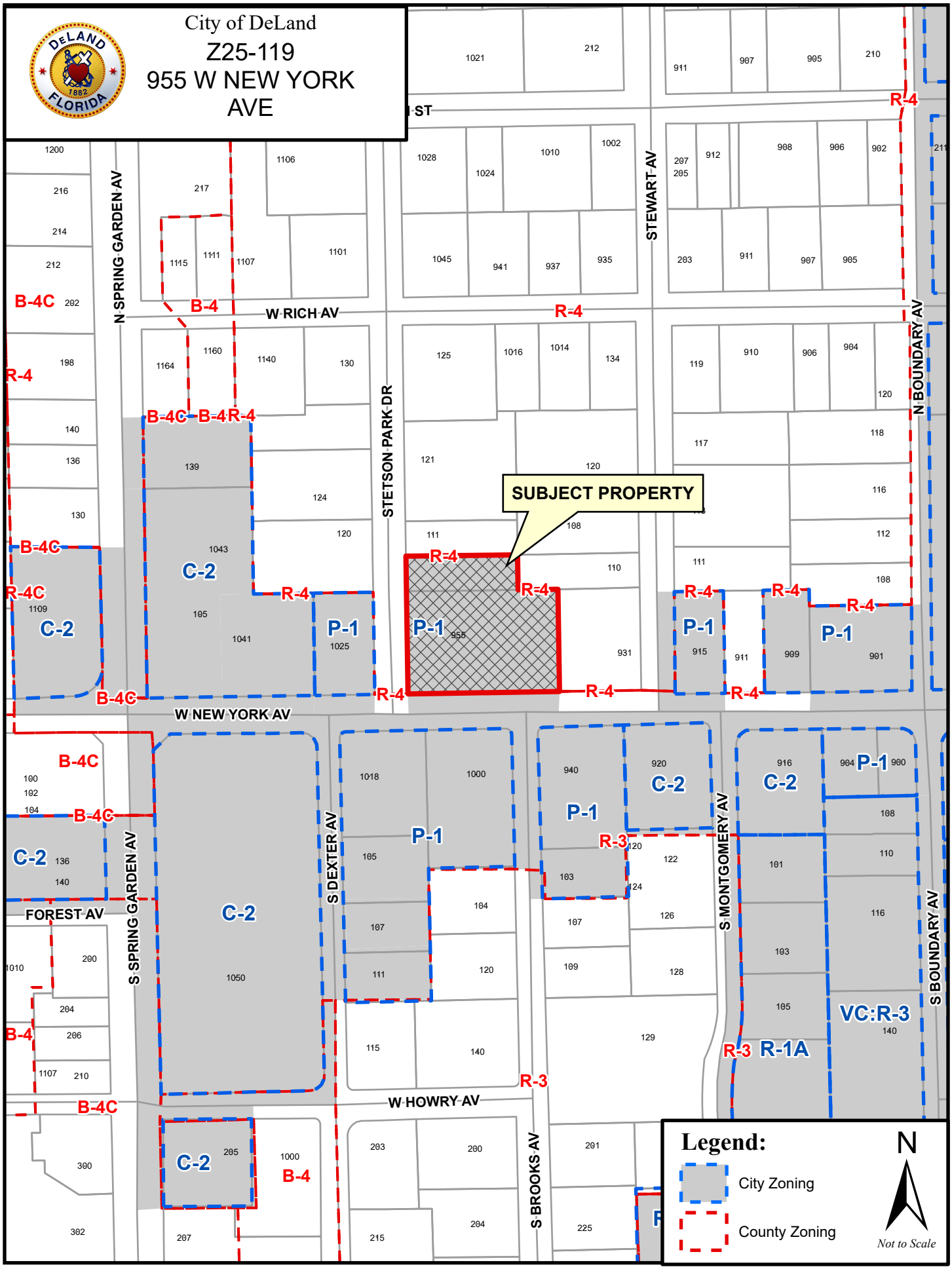
Not to Scale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B-4C
B-4
C-2
P-1
R-4
R-3
R-1A
VC:R-3
Legend:
City Zoning
County Zoning
N
Not to Scale

NEWKIRK ENGINEERING, INC.
CIVIL ENGINEERING - TRANSPORTATION - CEI - LANDSCAPE ARCHITECTURE
1230 N US HWY 1, SUITE 3, ORMOND BEACH, FLORIDA 32174 386-872-7794

July 11, 2025

Ms. Carol Kuhn
Planning Director
120 S. Florida Ave
DeLand, FL 32720

RE: 955 New York Ave – Trip Generation Memo
Parcel No.'s 7008-34-06-0010 & 7008-34-06-0230
1.23 Acres +/-

Dear Ms. Kuhn,

Submitted is a traffic trip generation calculation for the above referenced project:

The trip generation calculations for the proposed **Future Land Use Amendment & Rezoning** from *Mixed Office – Residential* to *Mixed Commercial* (w/ *Historical Corridor Overlay*) and from *P-1* to *C-1* for the parcels located at 955 W New York Ave, DeLand, Florida 32724.

Calculations were performed with the 11th Edition of the ITE trip generation calculator. Attached is the ITE trip generation report and input data. The ITE Codes used for theoretical maximums for existing and proposed are **(912) Drive-In Bank** and **(932) High-Turnover Sit-Down Restaurant**.

A maximum building area was determined by using the P-1 zoning requirement of 10,000 SF per acre. This was applied to the proposed zoning as both scenarios have a 60% maximum impervious area which will govern these high-parking demand uses.

ZONING	Land Use (with Historical Corridor Overlay)	ITE Code	UNIT	11th Ed. ITE Vehicle Trip Generation Rates						
				DAILY	(Peak Hour of Adjacent Street Traffic)					
					AM	AM In	AM Out	PM	PM In	PM Out
P-1	Mixed Office - Residential	(912) Drive-in Bank	KSF	100.35	9.95	58%	42%	21.01	50%	50%
C-1	Mixed Commercial	(932) High-Turnover Restaurant (sit down)	KSF	107.2	9.57	55%	45%	9.05	61%	39%

		Maximum Existing Use (10,000 SF building area per Acre)	Unit	Total Distribution of Generated Trips						
		Description (ITE Code)	KSF	Daily	AM	AM In	AM Out	PM	PM In	PM Out
P-1	Mixed Office - Residential	(912) Drive-in Bank	12.30	1234	122	71	51	258	129	129

		Maximum Proposed Use (10,000 SF building area per Acre)	Unit	Total Distribution of Generated Trips						
		Description (ITE Code)	KSF	Daily	AM	AM In	AM Out	PM	PM In	PM Out
C-1	Mixed Commercial	(932) High-Turnover Restaurant (sit down)	12.30	1319	118	65	53	111	68	56

Existing Max Use: 1,234 daily trips, 122 peak AM, 258 peak PM
Proposed Max Use: 1,319 daily trips, 118 peak AM, 111 peak PM

Difference in Theoretical Max: +85 Daily Trips, -4 Peak AM, -147 peak PM

The differences observed between these maximum values can be attributed to the anticipated building size and use of the buildings. For a 1.23-acre site, a 12,300 square foot building would be on the larger side of building for each of these uses. These buildings would require ample parking, and the site would need to meet all other dimensional and stormwater requirements. Additionally, the significant drop in Peak PM traffic could be attributed to the middle hours of the day (lunchtime) seeing additional trips for the restaurant use and overall disbursement of trips outside of the peak hours.

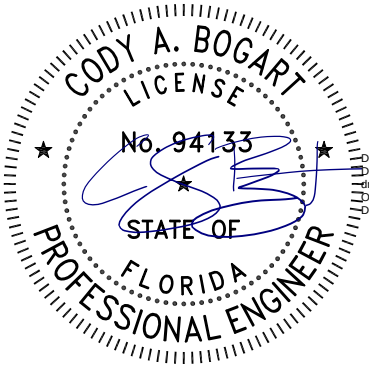
These theoretical trip generation rates for both scenarios anticipate 1,000 daily trips or more as possible, which require a TIA to be conducted for a site plan. If the future proposed site plan configuration and use does not exceed 1,000 daily trips, then the TIA requirement would be waived.

If you have any questions or need additional information, please feel free to call or email me at cody@Newkirk-Engineering.com.

Sincerely,

Cody A. Bogart, PE
NEWKIRK ENGINEERING, INC.

This report has been digitally signed and sealed by Cody A. Bogart, PE #94133 on



Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Name: Cody A. Bogart
PE License No: 94133
Address: 1230 North US Highway 1
Suite 3
Ormond Beach, FL 32174

Drive-in Bank
(912)

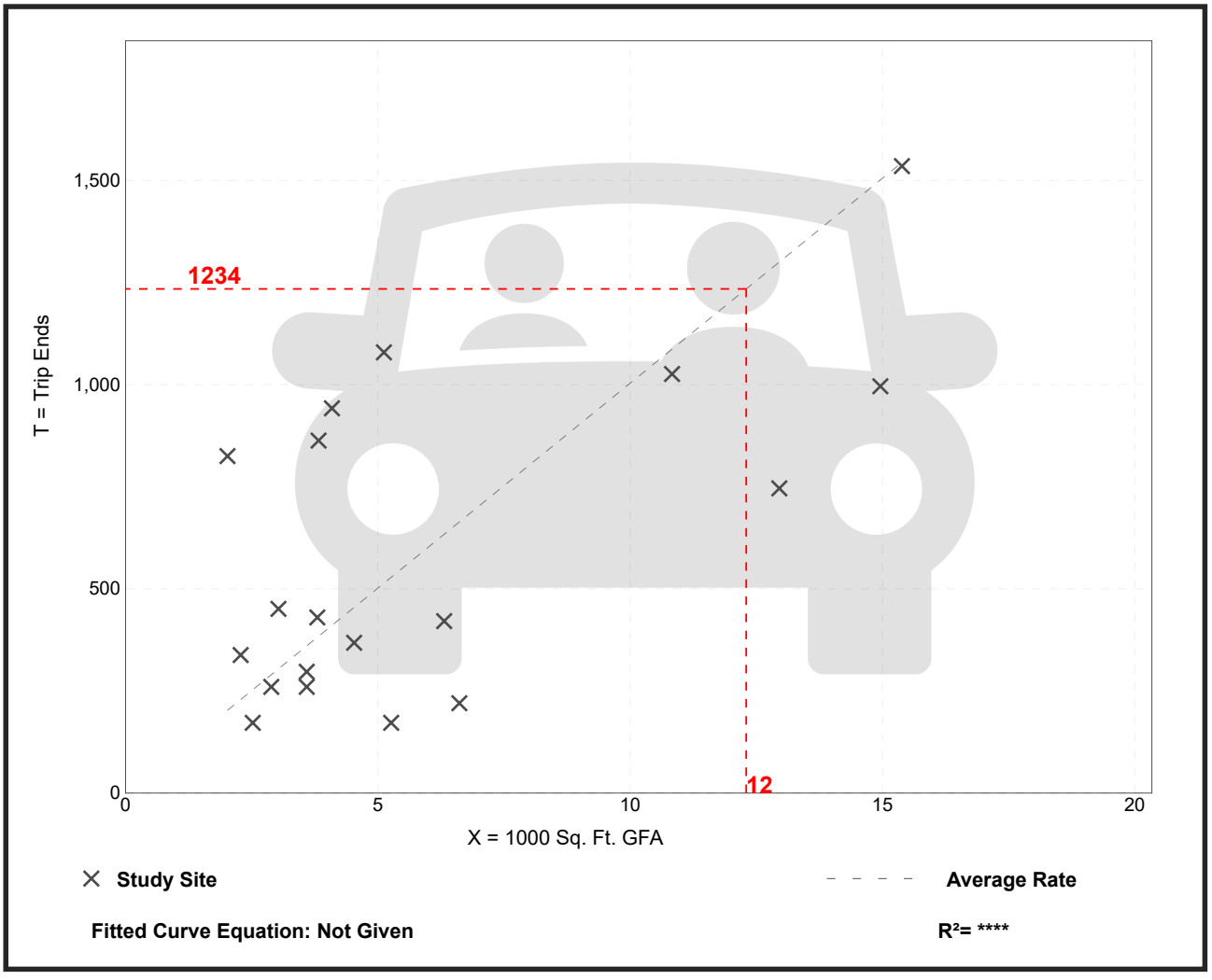
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
100.35	32.67 - 408.42	68.62

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

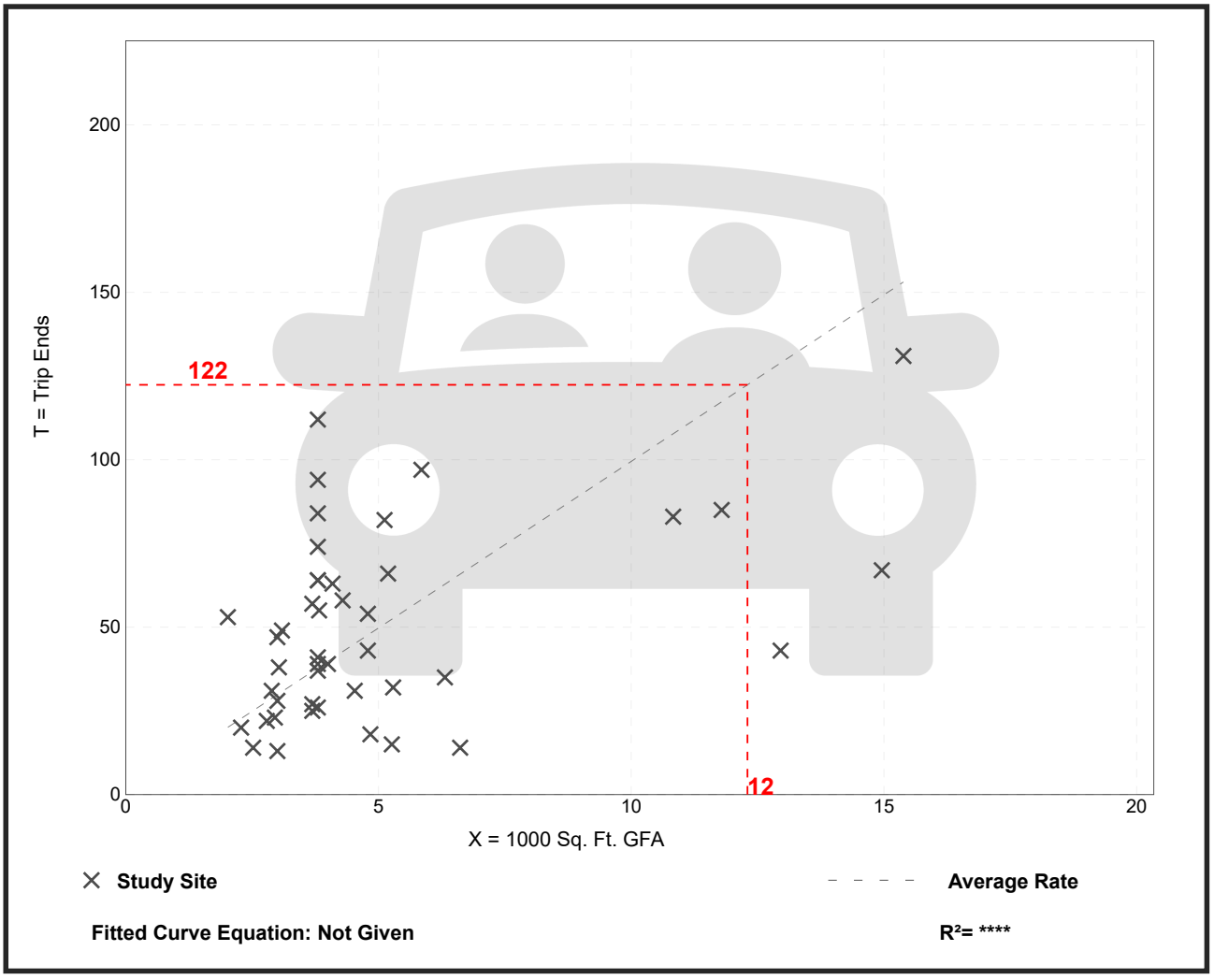
Drive-in Bank
(912)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 44
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 58% entering, 42% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.95	2.12 - 29.47	6.00

Data Plot and Equation



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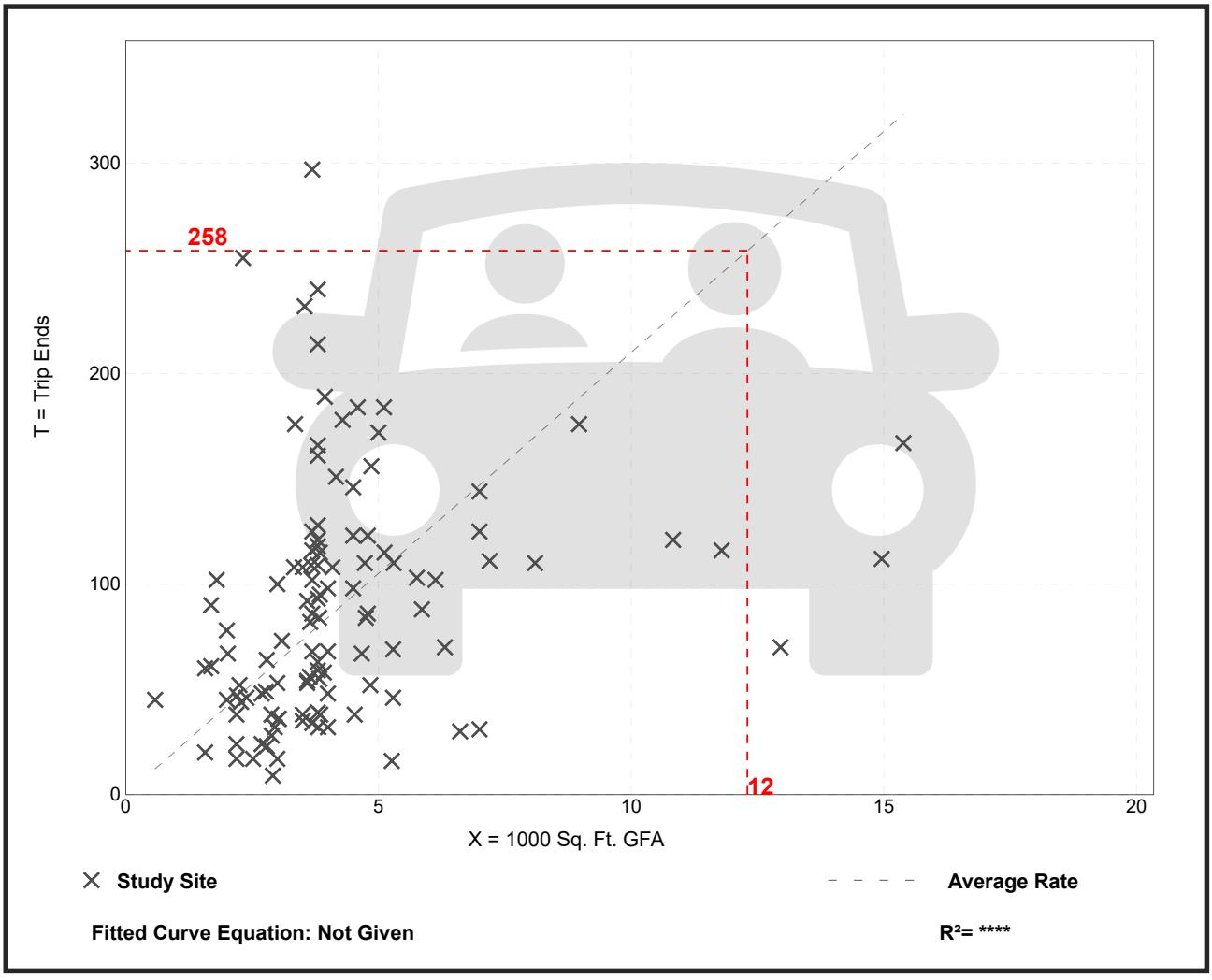
Drive-in Bank
(912)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 114
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.01	3.04 - 109.91	15.13

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

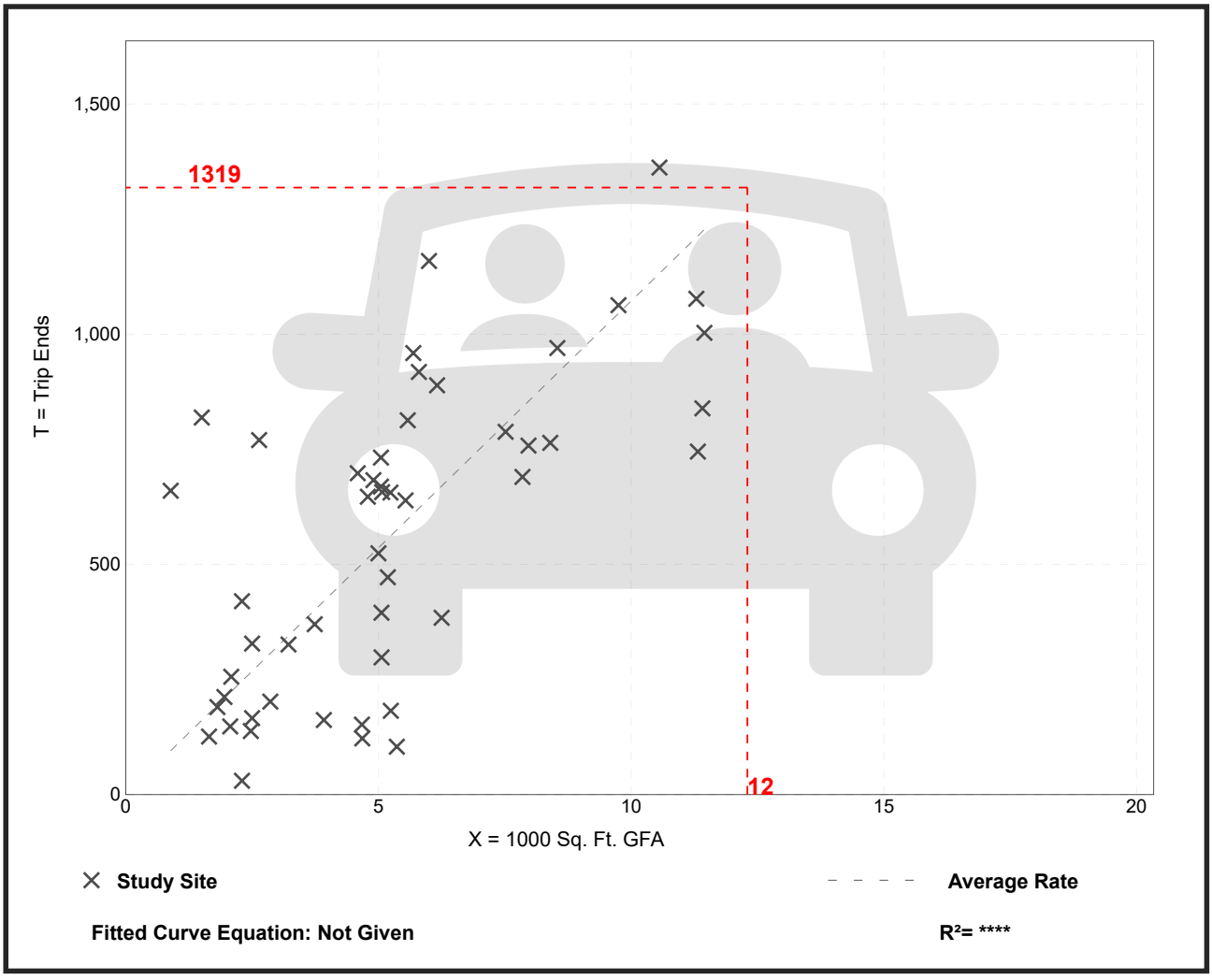
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 50
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
107.20	13.04 - 742.41	66.72

Data Plot and Equation



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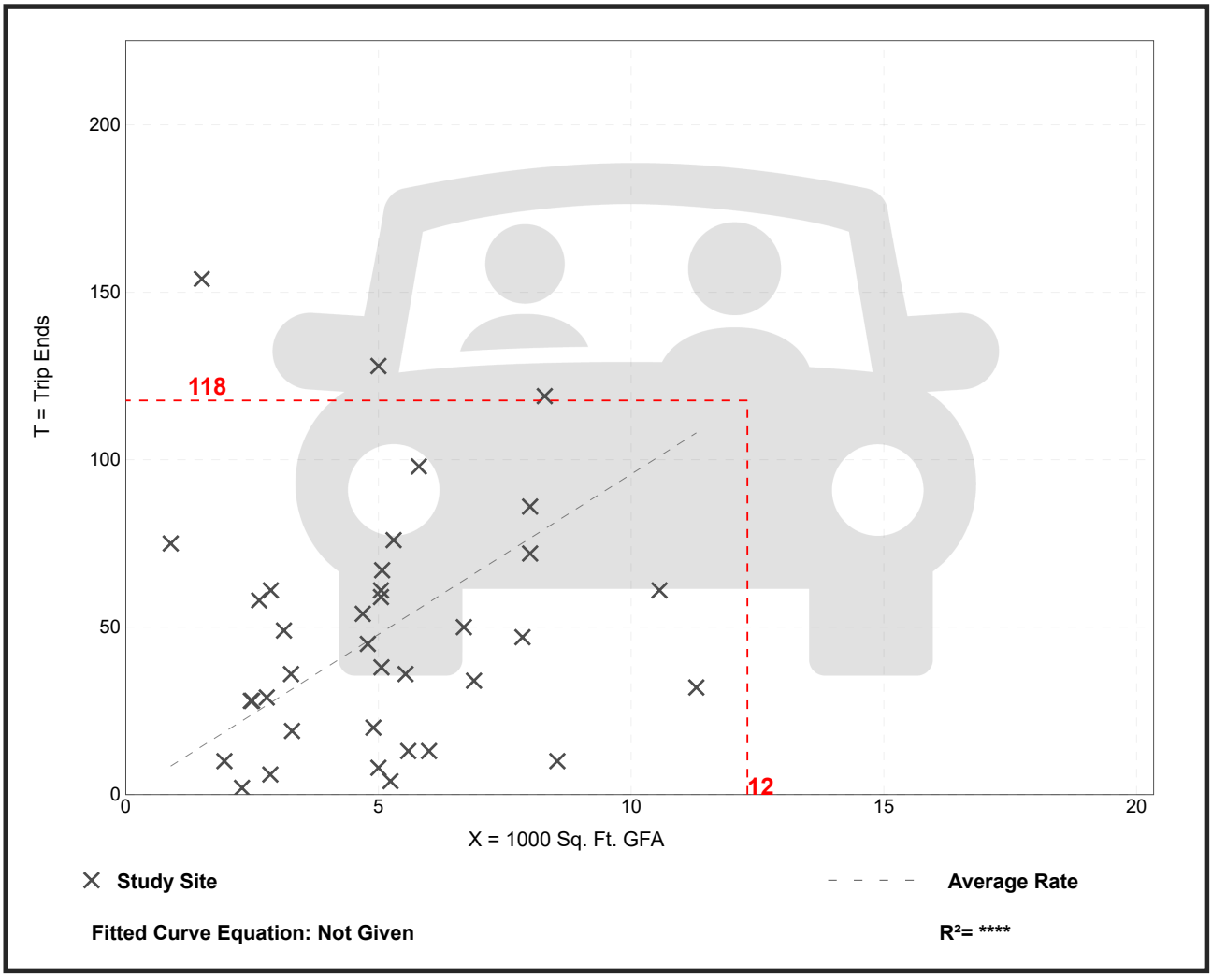
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 37
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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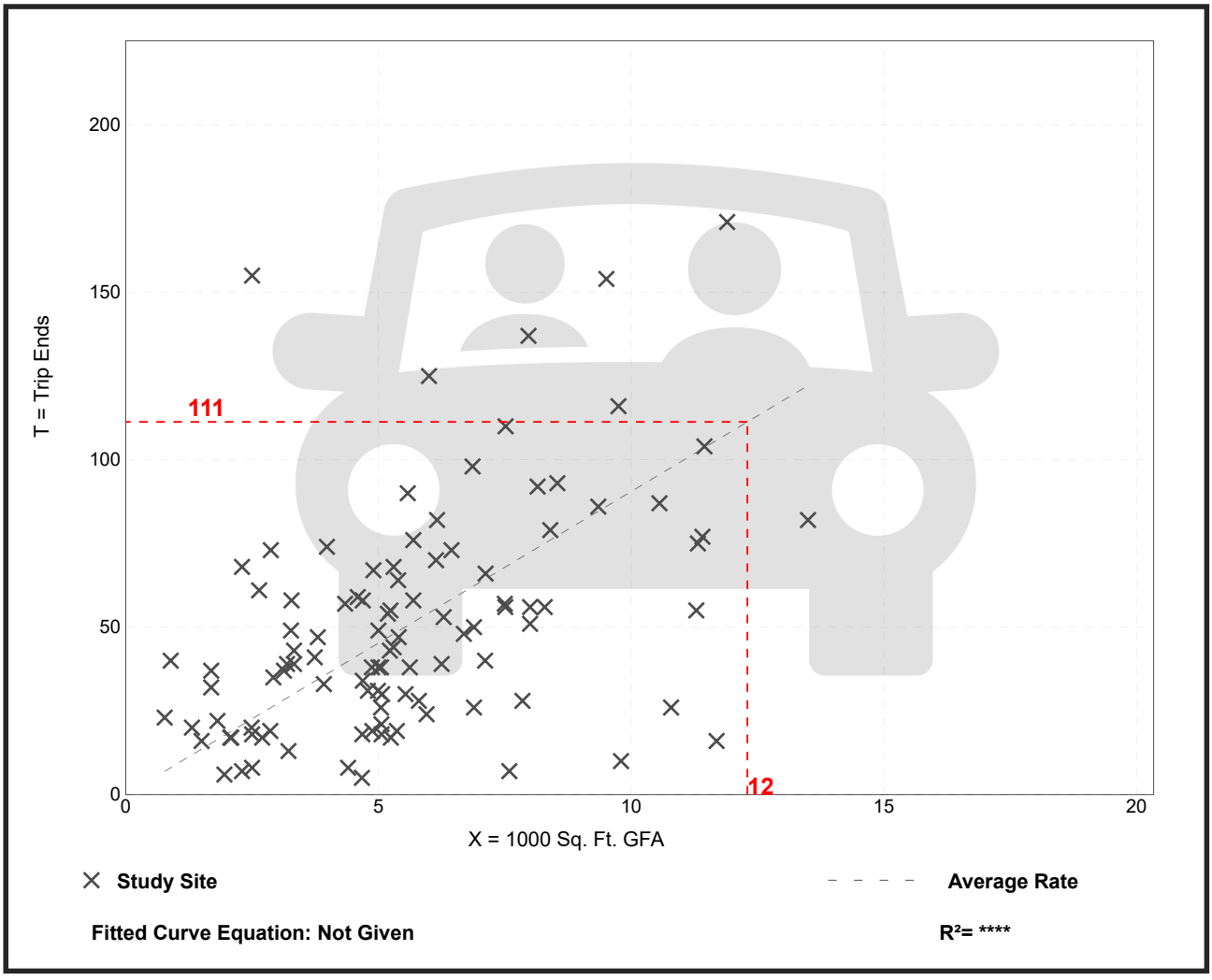
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Zoning for ±15.50 Acres of Property Located at the Northwest Corner of South Blue Lake Avenue and East Beresford Avenue, from Volusia County R-3 (Single-Family) to City of DeLand R-1A (Single-Family).

DEPARTMENT: Planning

PREPARED BY: Kendall Story, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A-Legal Description, Z25-115 Boundary Survey, Z25-115 Staff Report, Z25-115 Aerial, Z25-115 Proposed Zoning, Z25-115 TIA Exemption Letter, Z25-115 School Adequacy Letter

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The subject property is ±15.50 acres and is located at the northwest corner of S. Blue Lake Ave. and E. Beresford Ave. The current zoning designation is Volusia County R-3 (urban single family). The applicant is requesting to rezone to R-1A (single-family residential) for the purpose of eventually creating a residential subdivision. When compared, the R-1A zoning designation allows for slightly smaller lots (minimum lot size of 8,250 sq. ft.), with similar setbacks as the VC R-3 designation. The existing VC R-3 zoning designation requires slightly larger lots (minimum lot size of 10,000 sq. ft.).

A Volusia County School Adequate Capacity Determination Letter was approved by the school board, dated January 16, 2025.

The item was heard at the August 13, 2025, Planning Board meeting, where the board unanimously voted to recommend approval of the proposed rezoning. Members of the public spoke out against the rezone request, citing concerns about flooding and endangered species.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Smart Growth Principles.

SUSTAINABILITY:

N/A

FISCAL IMPACT:

Residential development of this property and inclusion of the new units onto the City's tax rolls will increase funds towards City services.

RECOMMENDATION:

Staff recommends that the City Commission approve the requested rezoning, on first reading.

BACKGROUND/DISCUSSION:

The applicant's original rezone request was to a PD with the intention of creating a tiny home development. However, the applicant decided to shift direction, instead proposing a fee-simple single-family residential subdivision. At the time of annexation, which was approved on March 3, 2025, the property maintained its county zoning, as the applicant chose to rezone the property at a future date.

ORDINANCE NO. 2025 –

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, CHANGING THE ZONING FROM VOLUSIA COUNY'S R-3, URBAN SINGLE FAMILY TO CITY OF DELAND'S R-1A, SINGLE FAMILY RESIDENTIAL ON PROPERTY LOCATED AT THE NORTHWEST CORNER OF SOUTH BLUE LAKE AVENUE AND EAST BERESFORD AVENUE; MAKING FINDINGS OF CONSISTENCY WITH THE COMPREHENSIVE LAND USE PLAN FOR THE CITY OF DELAND; DIRECTING CHANGE IN THE COMPREHENSIVE ZONING MAP; CONDITIONING FINAL DEVELOPMENT ORDERS ON A DETERMINATION OF CAPACITY; AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the property located at the northwest corner of South Blue Lake Avenue and East Beresford Avenue and more particularly described in the attached Exhibit "A", is currently zoned as Volusia County's R-3, Urban Single Family, pursuant to Volusia County's Zoning Ordinances; and

WHEREAS, the property currently has a Land Use Designation of Low Density Residential (Institutional Overlay) pursuant to the City of DeLand's Land Use Plan; and

WHEREAS, a proper and complete application has been received requesting that the zoning be changed to City of DeLand's R-1A Single Family Residential; and

WHEREAS, the R-1A, Single Family Residential zoning designation is consistent with the Comprehensive Plan of the City of DeLand.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission has held a public hearing on the application for a change of zoning from Volusia County's R-3, Urban Single Family to City of DeLand's R-1A, Single Family Residential zoning designation, on the following described property:

See legal description attached hereto as Exhibit "A"

Tax Parcel Identification No.: 701500000720

Section 2. The City Commission hereby finds that the R-1A, Single Family Residential zoning designation is consistent with the parcel's Low Density Residential (Institutional Overlay) Land Use Designation.

Section 3. Pursuant to the determination made at public hearing, the City Commission hereby amends the Comprehensive Zoning Map of the City of DeLand and changes the zoning from Volusia County's R-3, Urban Single Family to City of DeLand's R-1A, Single Family Residential zoning designation on the parcel described in Section 1.

Section 4. The Planning Director is hereby directed to change the Comprehensive Zoning Map of the City of DeLand to conform with the change of zoning enacted in this Ordinance.

Section 5. No rights to obtain final development orders nor any rights to develop the property have been granted or implied by this Ordinance. Final development orders for the property including, but not limited to building permits and site plan approval shall be subject to a determination of capacity.

Section 6. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 7. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ____day of _____, 2025.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

Exhibit A – Legal Description

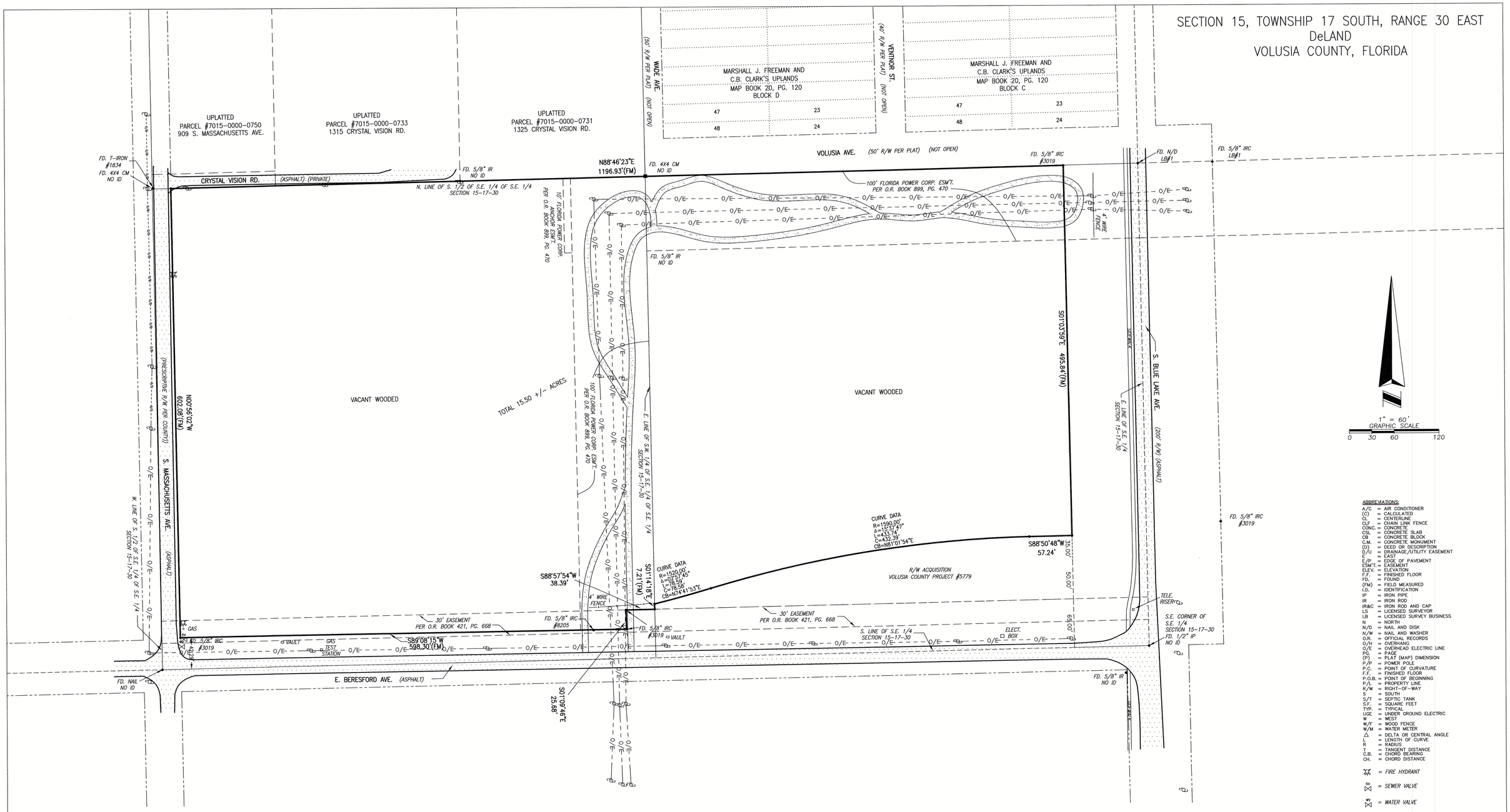
The South Half (S ½) of the Southeast Quarter (SE ¼) of the Southeast Quarter (SE ¼) of Section 15, Township 17 South, Range 30 East, subject to the right of way of public roads and of easements to Houston Texas Gas and Oil Corporation, recorded in Official Records Book 421, Page 668 and to Florida Power Corporation, recorded in Official Records Book 899, Page 470, Public Records of Volusia County, Florida.

Site contains 15.50 acres

Volusia County Parcel ID #: 701500000720

Alternate Key #: 2236272

SECTION 15, TOWNSHIP 17 SOUTH, RANGE 30 EAST
DeLAND
VOLUSIA COUNTY, FLORIDA



ABBREVIATIONS:

A/C	= AIR CONDITIONER
(C)	= CALCULATED
CL	= CENTERLINE
CLF	= CHAIN LINK FENCE
CONC.	= CONCRETE
CSL	= CONCRETE SLAB
CB	= CONCRETE BLOCK
C.M.	= CONCRETE MONUMENT
(D)	= DEED OR DESCRIPTION
D.U	= DRAINAGE/UTILITY EASEMENT
E	= EAST
E/P	= EDGE OF PAVEMENT
ESM'T.	= EASEMENT
ELEV.	= ELEVATION
F.F.	= FINISHED FLOOR
FD.	= FOUND
(FM)	= FIELD MEASURED
I.D.	= IDENTIFICATION
IP	= IRON PIPE
IR	= IRON ROD
IR&C	= IRON ROD AND CAP
LS	= LICENSED SURVEYOR
LB	= LICENSED SURVEY BUSINESS
N	= NORTH
N/D	= NAIL AND DISK
N/W	= NAIL AND WASHER
O.R.	= OFFICIAL RECORDS
O/H	= OVERHANG
O/E	= OVERHEAD ELECTRIC LINE
PG.	= PAGE
(P)	= PLAT (MAP) DIMENSION
P/P	= POWER POLE
P.C.	= POINT OF CURVATURE
F.F.	= FINISHED FLOOR
P.O.B.	= POINT OF BEGINNING
P/L	= PROPERTY LINE
R/W	= RIGHT-OF-WAY
S	= SOUTH
S/T	= SEPTIC TANK
S.F.	= SQUARE FEET
TYP.	= TYPICAL
UGE	= UNDER GROUND ELECTRIC
W	= WEST
W/F	= WOOD FENCE
W/M	= WATER METER
Δ	= DELTA OR CENTRAL ANGLE
L	= LENGTH OF CURVE
R	= RADIUS
T	= TANGENT DISTANCE
C.B.	= CHORD BEARING
CH.	= CHORD DISTANCE

= FIRE HYDRANT

= SEWER VALVE

= WATER VALVE

= POWER POLE

NOTES:

1. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHT OF WAY AND/OR OWNERSHIP WERE FURNISHED TO THIS SURVEYOR EXCEPT AS SHOWN.
2. NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
3. NO UNDERGROUND IMPROVEMENTS OR INSTALLATIONS OR OTHER INTERIOR IMPROVEMENTS HAVE BEEN LOCATED, EXCEPT AS SHOWN, AS PER THE REQUEST OF THE CLIENT.
4. UNLESS NOTED, LEGAL DESCRIPTION FURNISHED BY CLIENT.
5. FEATURES SHOWN BY SYMBOL AS INDICATED IN THE LEGEND ARE NOT TO SCALE.
6. THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE SEARCH, A TITLE SEARCH MAY REVEAL ADDITIONAL INFORMATION AFFECTING THE PARCEL AS SHOWN.
7. WHERE APPLICABLE, MONUMENT DIAMETERS, ETC.. AND/OR LS OR LB NUMBERS ARE SHOWN NEAR RESPECTIVE SYMBOL ABOVE, UNLESS SHOWN IN LEGEND.
8. BEARINGS AND GEOMETRY SHOWN HEREON BASED ON GPS OBSERVATIONS, FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST COAST ZONE (0901), NORTH AMERICAN DATUM 1983, 2011 ADJUSTMENT.
9. UNLESS SHOWN, ONLY THOSE VISIBLE FEATURES IN THE IMMEDIATE VICINITY OF THE ABOVE DESCRIBED PARCEL BOUNDARY HAVE BEEN LOCATED.
10. SUBJECT PROPERTY LIES WITHIN ZONE "X", AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAN AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, VOLUSIA COUNTY COMMUNITY #125155, PANEL #1212C0470 H, DATED FEBRUARY 19, 2014. THIS FLOOD INSURANCE RATE MAP IS NOT A SURVEY AND NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF SAID MAP.

NOTE:

THIS SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS SHOWN HEREON, ON THE MOST CURRENT DATE SHOWN, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER. THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN HEREON THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THE COUNTY. THIS SURVEY IS PREPARED WITHOUT BENEFIT OF ABSTRACT OR TITLE SEARCH UNLESS OTHERWISE NOTED. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES. THIS SURVEY DRAWING IS THE PROFESSIONAL OPINION OF THIS SURVEYOR AND MAPPER AND THE FIRM, WHICH WAS PREPARED UTILIZING THE BEST AVAILABLE INFORMATION AND AS SUCH DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED. FURTHERMORE, THIS SURVEYOR AND FIRM DOES NOT ASSUME RESPONSIBILITY AND SHALL NOT BE HELD LIABLE FOR CLAIMS ARISING FROM ERRONEOUS OR INCORRECT INFORMATION FURNISHED TO THE SURVEYOR, WHICH WAS USED AS A BASIS IN THE PREPARATION OF THIS SURVEY DRAWING.

DESCRIPTION: (PER ORB 7109 PG. 363)

THE SOUTH HALF (S 1/2) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 15, TOWNSHIP 17 SOUTH, RANGE 30 EAST, SUBJECT TO THE RIGHT OF WAY OF PUBLIC ROADS AND OF EASEMENTS TO HOUSTON TEXAS GAS AND OIL CORPORATION, RECORDED IN OFFICIAL RECORDS BOOK 421, PAGE 668 AND TO FLORIDA POWER CORPORATION, RECORDED IN OFFICIAL RECORDS BOOK 899, PAGE 470, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

THIS SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS SHOWN HEREON, ON THE MOST CURRENT DATE SHOWN, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

EFIRD SURVEYING GROUP, INC.
475 S. BLUE LAKE AVENUE
DELAND, FLORIDA 32724
PHONE: (386) 740-4144 FAX: (386) 740-4155
WEBSITE: www.efirdsurveying.com
e-mail: larry@efirdsurveying.com
Certificate Of Authorization Licensed Business Number 7230

Boundary Survey

Survey Date:	Drawing Number:	Scale:	Drawn By:
1/10/2024	23-0412	1"=60'	JRE/JM/LE

For:

DREAMQUEST TINY NEIGHBORHOODS, INC.

xxxx S. BLUE LAKE AVE., DeLAND

I HEREBY CERTIFY, THIS SURVEY DRAWING TO BE CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND COMPLETED IN ACCORDANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, ACCORDANT TO SECTION: 472.027, FLORIDA STATUTES.

STATE OF FLORIDA LICENSED LARRY R. EFIRD JR. NO. 5823 PROFESSIONAL SURVEYOR & MAPPER

1/10/2024

LARRY R. EFIRD JR.
Professional Surveyor & Mapper No. 5823

PLANNING DEPARTMENT STAFF REPORT
TO
PLANNING BOARD

August 13, 2025

A. APPLICATION NO.: Z25-115

STAFF PLANNER: Kendall Story

APPLICANT: Scott Banta, Telesis Services, LLC

REQUEST: Rezone from Volusia County R-3 (Single Family Residential) to City R-1A (Single Family Residential).

APPLICABLE REGULATIONS:

Article XII ADMINISTRATION AND ENFORCEMENT
Sec. 33-135 – Procedure for text amendments & rezoning.

B. SITE FACTORS:

Location:	Northwestern corner of S. Blue Lake Ave. & E. Beresford Ave.
Size:	±15.50 acres
Land Use:	LDR, Low Density Residential (Institutional Overlay)
Existing Zoning:	VC R-3
Existing Use:	Vacant

	SURROUNDING LAND USE:	SURROUNDING ZONING:
North:	VC: Urban Low-Intensity	VC: R-3 (VC Single Family)
South:	VC: Rural	VC: RR (Rural Residential)
East:	Low-Density Residential	Trinity Gardens PD
West:	VC: Urban Low-Intensity	VC: R-3 (VC Single Family)

C. ANALYSIS:

The subject property is ±15.50 acres and is located at the northwest corner of S. Blue Lake Ave. and E. Beresford Ave. On March 3, 2024, the City Commission voted to approve the annexation and future land use amendment to Low Density Residential (LDR) for the property. The southeast portion of the subject property includes a portion of property owned by Volusia County. A current survey of the property includes a 100’ wide Florida Power & Light easement that runs north to south, and then east to S. Blue Lake Ave.

The current zoning designation is Volusia County R-3 (urban single family). According to the County's land development code, the R-3 zoning is intended to provide medium-low-density development, preserving the character of existing or proposed neighborhoods. Permitted uses include single-family standard or manufactured modular dwellings, clustered and zero lot line development. A comparison of the zoning standards are outlined below, with Volusia County R-3 zoning on the left and City R-1A on the right. It is important to note that the number of units shown in the table are theoretical maximums and do not factor in the area that would be required for roads, stormwater retention, tree protection area or landscape buffers.

	CURRENT ZONING: VC R-3	PROPOSED ZONING: CITY R-1A
LOT SIZE	10,000 sq. ft.	8,250 sq. ft.
WIDTH	85'	75'
FRONT SETBACK	30'	30'
SIDE SETBACK	20' combined, 8' min.	12.5'
REAR SETBACK	20'	25'
HEIGHT	35'	35'
MAX. UNITS (±15.50 ACRES)	67 dwelling units	81 dwelling units

The applicant's original rezone request was to a PD with the intention of creating a tiny home development. However, the applicant decided to shift direction, instead proposing a fee-simple single-family residential subdivision. At the time of annexation, the property maintained its county zoning, as the applicant chose to rezone the property at a future date.

The surrounding properties are a mixture of low-density residential land uses, with Trinity Gardens to the east and surrounded by larger residential lots.

Section 33-135 of the Land Development Regulations provides the following criteria, which the Planning Board and City Commission shall utilize in reviewing a rezoning request:

1. Is the proposed rezoning consistent with the Comprehensive Land Use Plan, the land use, zoning pattern and character of the surrounding area?

The development is consistent with the Comprehensive Plan with an underlying land use designation of LDR (Low Density Residential). R-1A is compatible with the LDR land use designation, typified by detached single-family dwelling units and both agricultural and conservation land uses.

2. Will the proposed rezoning have an impact upon the environment or natural resources?

The subject site is heavily wooded and the proposed development would reduce the tree coverage significantly. However, any future development must dedicate, at a minimum, 15% of the property to tree preservation areas to mitigate for tree loss, per the Land Development Regulations. The code also requires a minimum of 1 tree per 2,500 sq. ft. of property. Additionally, buffering and other tree requirements, such as size and species, must meet the standards in the code. An endangered species report will be required at time of the preliminary subdivision plat.

3. Will the proposed rezoning have an impact upon the economy of the affected area?

The infusion of newer homes in this project could have a positive impact on the general area and potentially raise overall values.

4. Will the proposed rezoning have an impact upon governmental services?

Governmental services such as potable water, sewer, code enforcement, police, and fire are available for the subject property and will be provided by the City. The applicant will be required to connect to city water and sewer, as well as reclaimed water for irrigation.

5. Are there changes in the circumstances or conditions affecting the area since the original assignment of zoning that will support the proposed zoning?

The subject property was annexed into the city in March of last year, obtaining a new future land use designation of Low Density Residential (LDR). A city zoning district that is compatible with the LDR land use designation must be applied to the property prior to development.

6. Was there a mistake in the original classification?

There was no known mistake in the original zoning classification. The subject property was recently annexed into the city and requires a city zoning designation.

7. Will the proposed rezoning have any effect upon the use or value of the affected area?

The infusion of newer homes in this project could have a positive impact on the general area and potentially raise overall values. The proposed density is similar to some of the surrounding subdivisions, to include Trinity Gardens to the east, low density properties to the north off of E. Winnemissett Ave., and the Woods at Southridge PD to the west.

8. Will the proposed rezoning have an impact upon public health, safety and welfare?

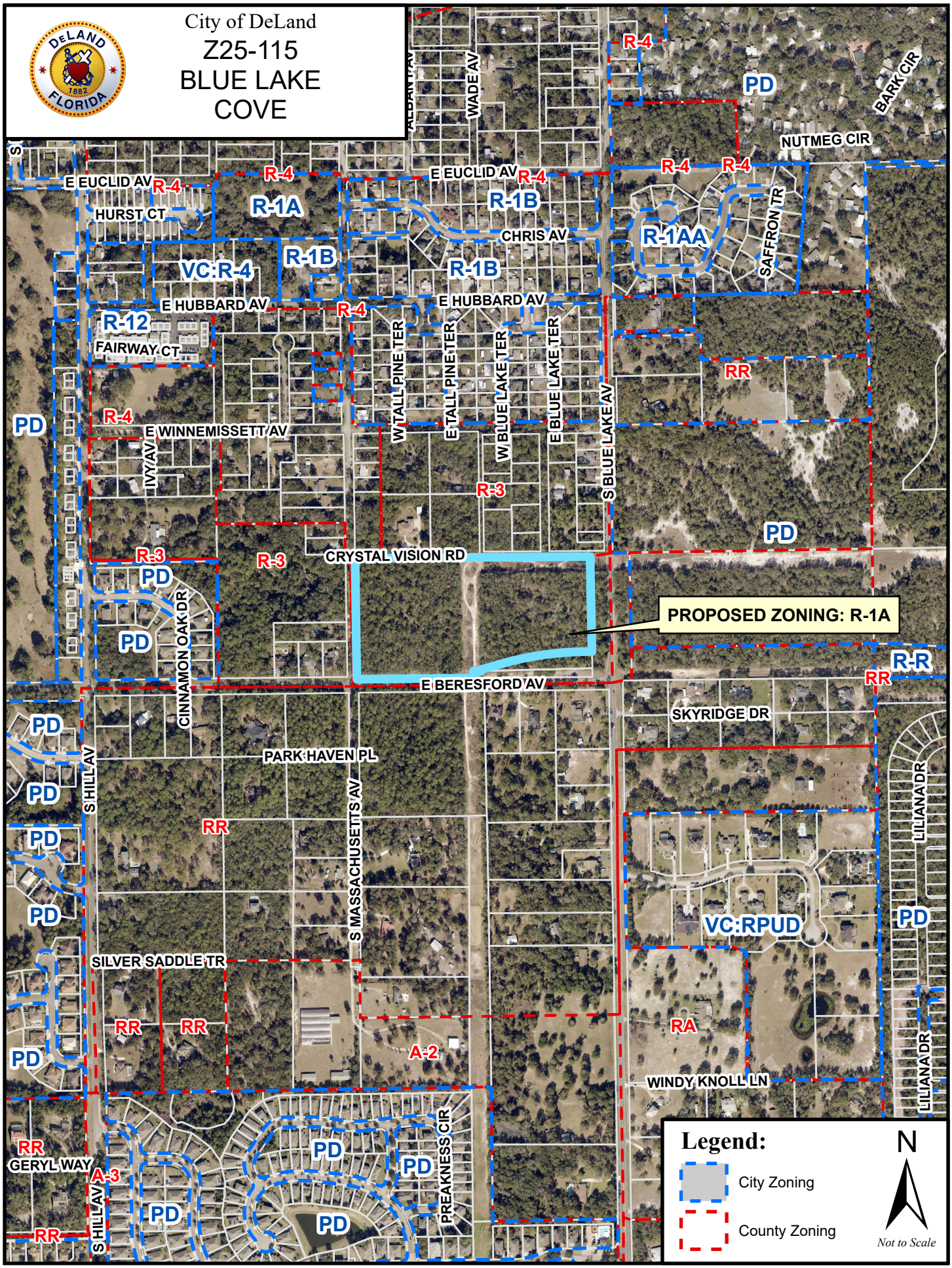
There is no indication that the new proposal will create additional impacts upon public health, safety or welfare, as all provided public services have the capacity needed to accommodate residential development.

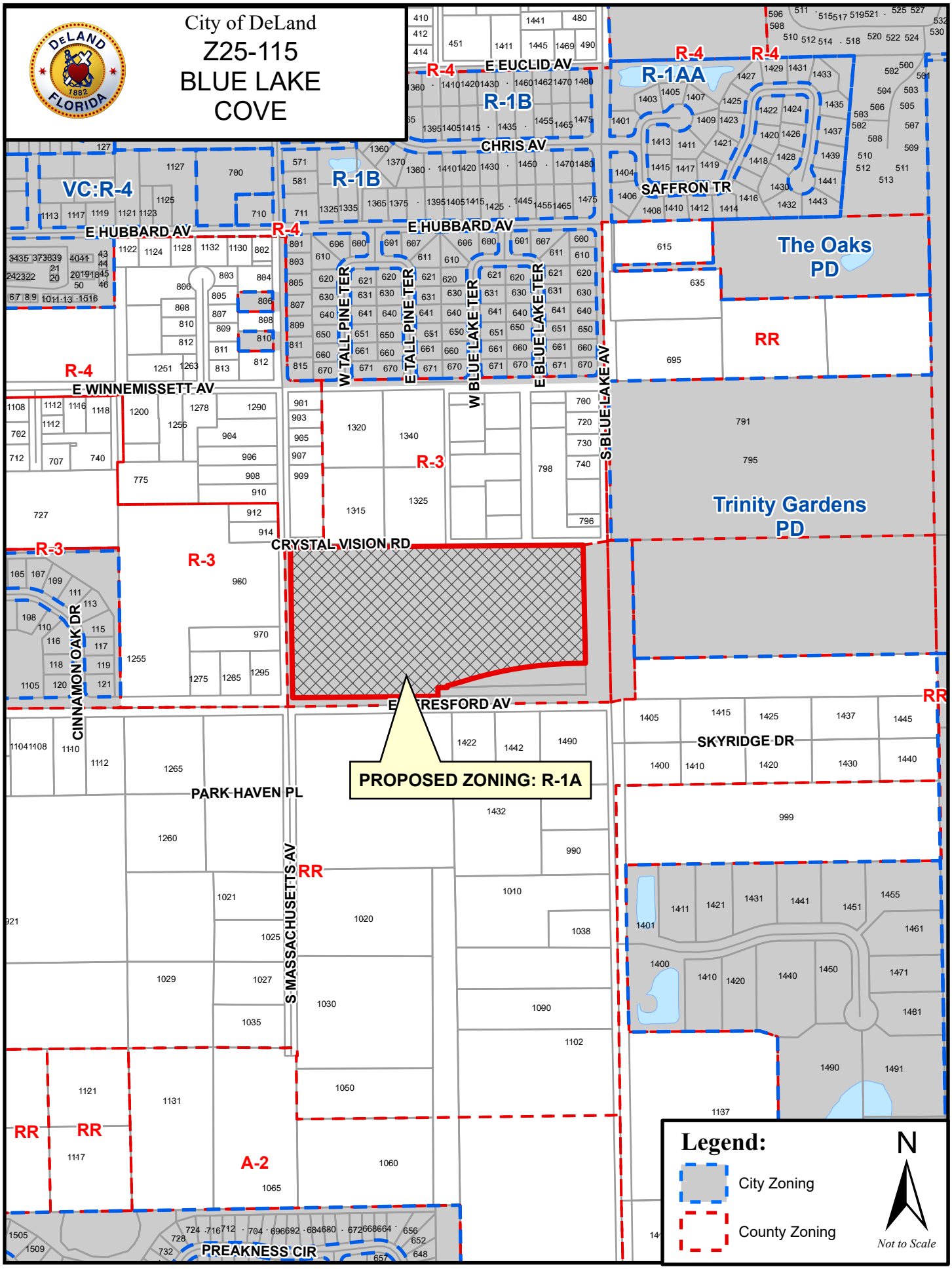
D. CONCLUSION:

The City of DeLand is proposing to rezone the subject property from Volusia County R-3 to City of DeLand R-1A, which is compatible with the LDR (Low Density Residential) future land use designation.

E. STAFF RECOMMENDATION:

Staff recommends that the Planning Board forward the application to the City Commission with a recommendation of approval for the request to rezone from Volusia County R-3 to City R-1A.


City of DeLand
Z25-115
BLUE LAKE COVE
PROPOSED ZONING: R-1A
CRYSTAL VISION RD
E BERESFORD AV
E EUCLID AV
E HUBBARD AV
E WINNEMISSETT AV
HURST CT
FAIRWAY CT
CHRIS AV
NUTMEG CIR
BARK CIR
SAFFRON TR
SKYRIDGE DR
LILIANA DR
WINDY KNOLL LN
PARK HAVEN PL
SILVER SADDLE TR
GERYL WAY
PREAKNESS CIR
CINNAMON OAK DR
IVY AV
S HILL AV
S MASSACHUSETTS AV
W TALL PINE TER
E TALL PINE TER
W BLUE LAKE TER
E BLUE LAKE TER
S BLUE LAKE AV
WADE AV
R-1A
R-1B
R-1AA
VC:R-4
VC:RPUD
R-12
R-4
R-3
RR
R-R
RA
A-2
A-3
PD
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
Z25-115
BLUE LAKE COVE
E EUCLID AV
CHRIS AV
E HUBBARD AV
E WINNEMISSETT AV
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E TALL PINE TER
W BLUE LAKE TER
E BLUE LAKE TER
S BLUE LAKE AV
CRYSTAL VISION RD
E CRESFORD AV
CINNAMON OAK DR
PARK HAVEN PL
S MASSACHUSETTS AV
SKYRIDGE DR
SAFFRON TR
PREAKNESS CIR
R-1AA
R-1B
R-3
R-4
VC:R-4
A-2
RR
The Oaks PD
Trinity Gardens PD
PROPOSED ZONING: R-1A
Legend:
City Zoning
County Zoning
N
Not to Scale

PTG

MEMORANDUM

RE: Dreamquest Tiny Home Neighborhood, Volusia County
Traffic Impact Analysis Exemption Request
01/12/2024
Job # 23158

The following presents a request for exemption from doing a traffic study due to its low-volume nature. In general, the analyses presented herein conform to the methodology requirements and guidelines documented by Volusia County and the Florida Department of Transportation (FDOT).

Trip Generation

Table 1 summarizes the trip generation analysis conducted using information published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 11th Edition*. The calculation revealed that the proposed development will generate a total of 605 daily trips of which 40 and 48 will occur during the AM and PM peak hour, respectively. It should be noted that LUC 240 was used as the size of the time homes were best approximated using this use; however, it is understood that the tiny home will involve homes with in-ground foundations.

Table 1: Trip Generation

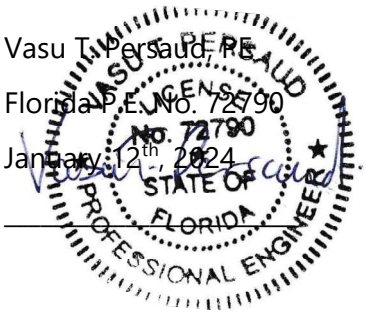
ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Enter	Exit	Total	Rate	Enter	Exit	Total
240	Mobile Home Park	85 DUs	7.12	605	0.47	8	32	40	0.57	30	18	48

Note: The ITE trip generation equations are used when the r-squared correlation coefficient is greater than 0.7.

Summary

The proposed tiny home neighborhood is anticipated to generate relatively low traffic volumes. Consequently, approval of the proposed project is requested from a traffic impact perspective.

NAME: Vasu T. Persaud, PE
P.E. #: Florida P.E. No. 72790
DATE: January 12th, 2024
SIGNATURE:



Mailing: 15155 W Colonial Drive, # 784852, Winter Garden, Florida 34787 | Physical: 350 E Crown Point Road, Suite 1100, Winter Garden, FL 34787
PremierTrafficGroup@gmail.com | C 321-948-9594

Attachments

Includes:
87 (47+40) Tiny Homes (20' x 24' or 20' x 28')
All with 10' Front Porches facing inward
Center Circle Arrangement features
Social Connectivity with
fire-pits, BBQ grills, picnic tables, benches,
pavilions and open grass areas
157 (86+71) Parking Spaces includes 14 HC access spaces and bike parking area

Other Features:
Attainable Work Force Housing
Low Impact Development
Green Stormwater Management Practices
Energy-Stingy™ Construction
Extensive use of Xeriscaping
Community Garden Area
Solid Fencing along back sides
Open Fencing along street side

BLUE LAKE COVE
A DreamQuest Tiny Neighborhoods Inc. Development
Deland, Florida

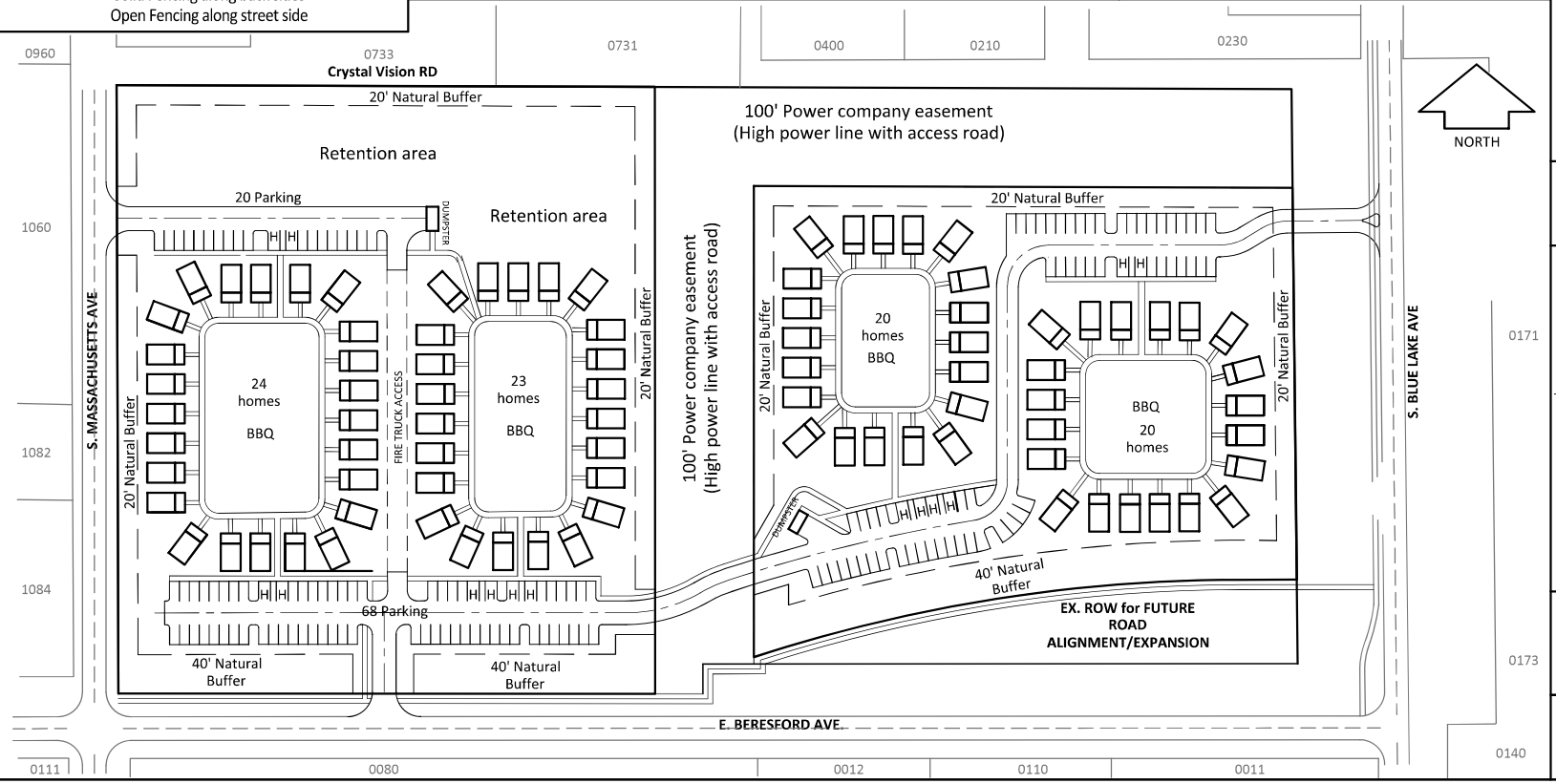
SITE DATA:

Parcel ID: 701500000720
Township-Range-Section: 17 - 30 - 15
Subdivision-Block-Lot: 00 - 00 - 0720
Property Size: 16.41 acres
Existing Land Use: Vacant - ULI - (Urban Low Intensity)
Existing Coverage: Wooded
Proposed Land Use
Existing Zoning: R-3
Proposed Zoning: PUD

FEMA: 12127C0470H Zone X
Conservation Lands: None
Sewer: City of Deland
Water: City of Deland



VICINITY MAP



CENTRAL FLORIDA ENGINEERING CONSULTANTS, LLC
1111 North Ronald Reagan Blvd., STE 101
Longwood, Florida 32750
407.599.7010
MAIL@FLORIDAENG.COM
EB No. 29173

DRAWING TITLE *Sketch Plan*

BLUE LAKE COVE Volusia County, Florida

FLORIDA BOARD OF PROFESSIONAL REGULATION
Engineering Business No. 29173
Engineer:

Montje S. Plank, P.E.
License No. 36149

Job Number:
Scale: *1"=120'*
Date: Aug 30, 2023

SHEET NUMBER
1 of ___

Land Use: 240
Mobile Home Park

Description

A mobile home park generally consists of manufactured homes that are sited and installed on permanent foundations. The mobile home park typically includes community facilities such as a recreation room, swimming pool, and laundry facilities.

Additional Data

The sites were surveyed in the 1980s, the 1990s, and the 2000s in Delaware, Indiana, Oregon, Virginia, and West Virginia.

Source Numbers

155, 169, 252, 936, 1066

Mobile Home Park
(240)

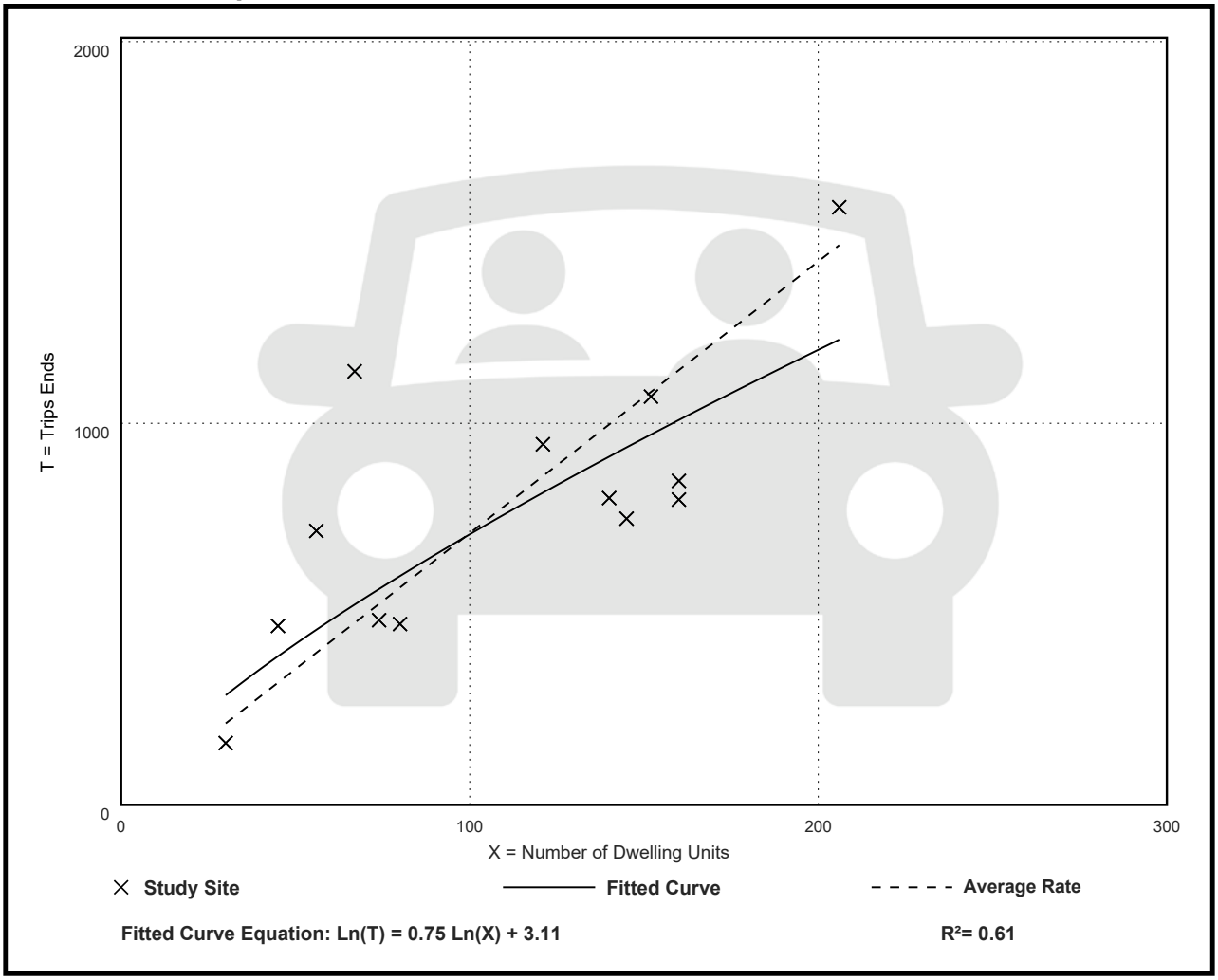
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. Num. of Dwelling Units: 110
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.12	5.00 - 16.96	2.91

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.75 Ln(X) + 3.11

R^2= 0.61

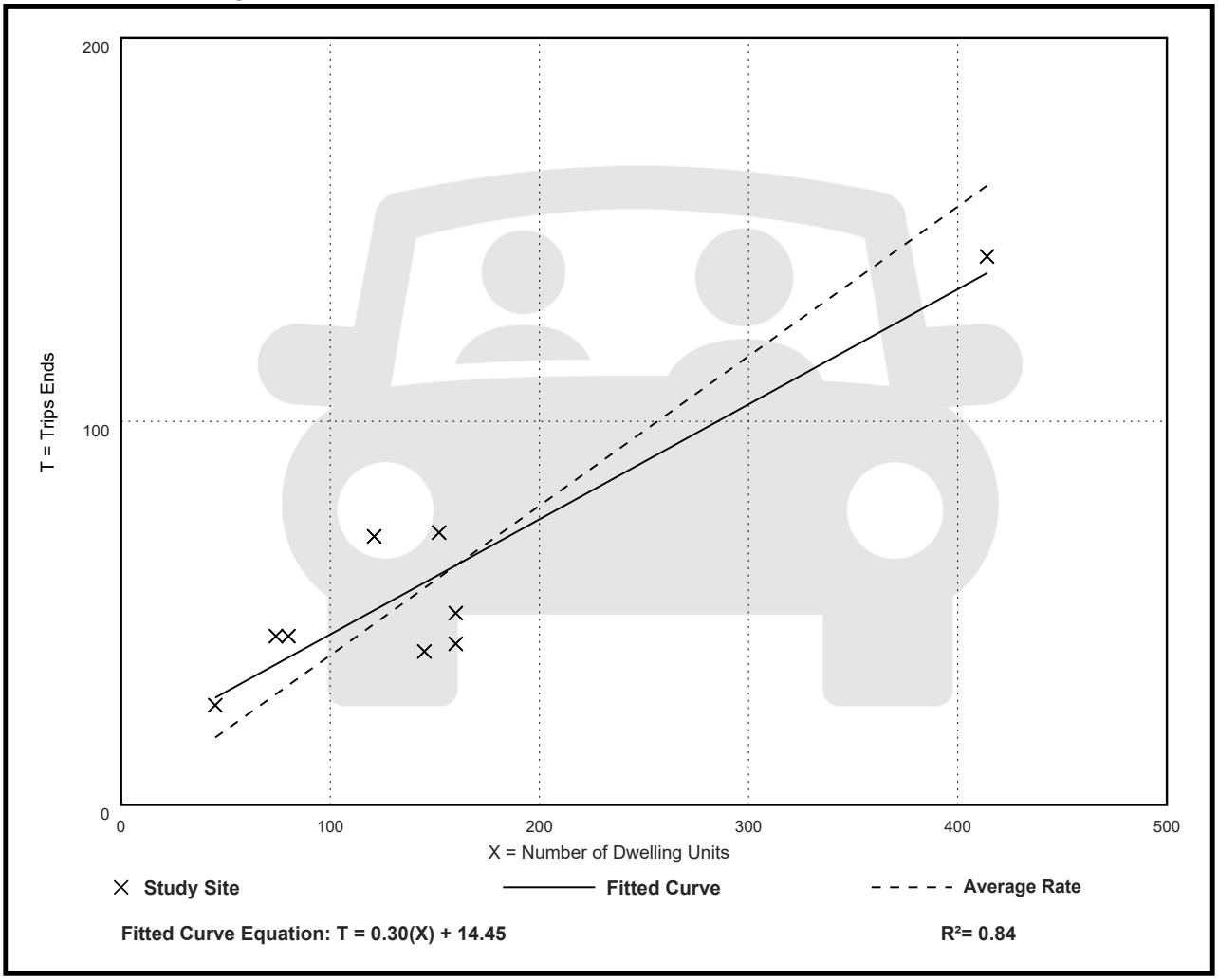
Mobile Home Park
(240)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. Num. of Dwelling Units: 150
Directional Distribution: 21% entering, 79% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.26 - 0.59	0.12

Data Plot and Equation



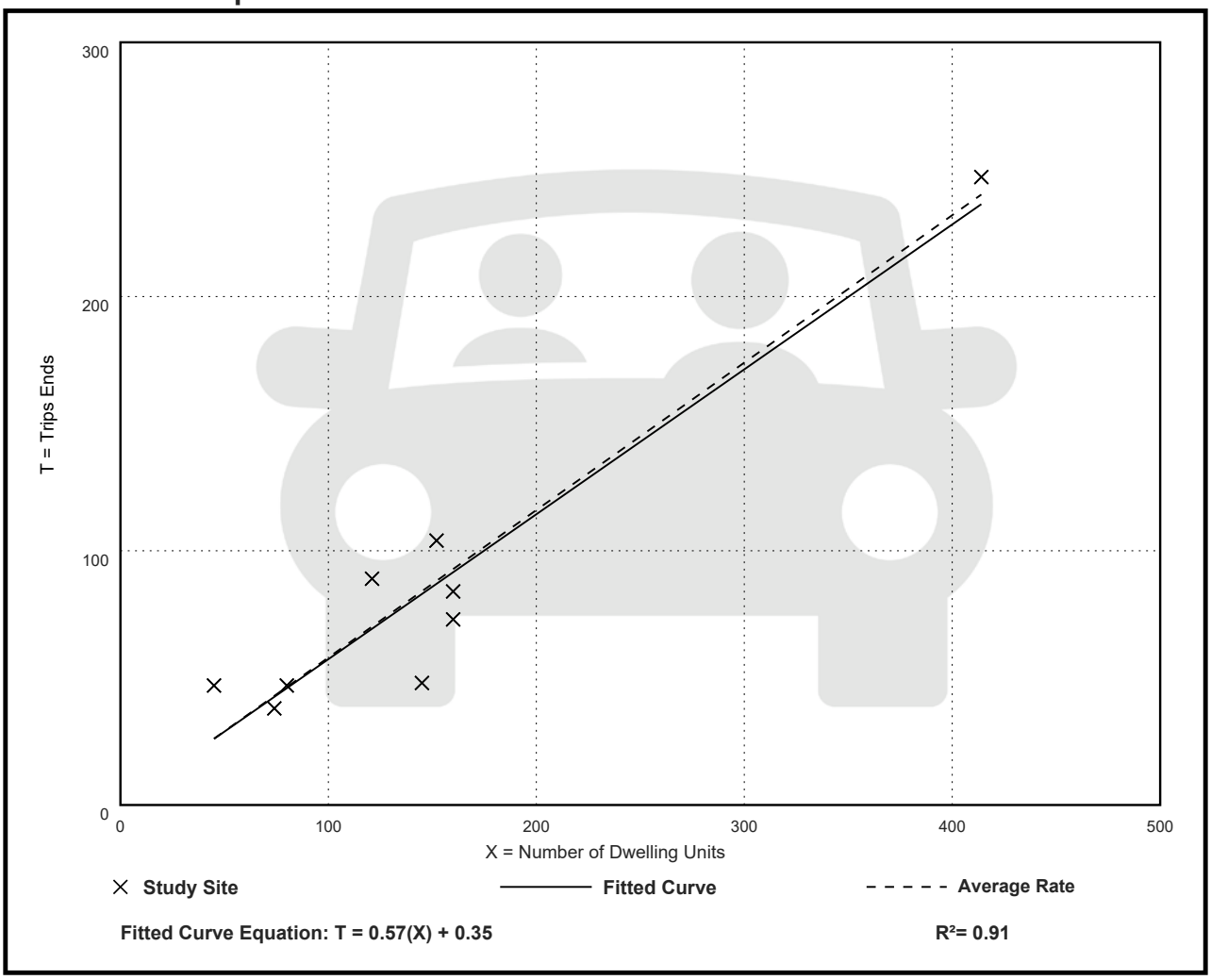
Mobile Home Park
(240)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. Num. of Dwelling Units: 150
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.58	0.33 - 1.04	0.15

Data Plot and Equation



Scott Banta

From: Roberts, James F. <jfrobert@volusia.k12.fl.us>
Sent: Thursday, January 16, 2025 11:02 AM
To: Scott Banta
Cc: Voges, Robert J.; Marpole, Victoria D.; Young, Ronald E.; Kendall Story
Subject: 24-01-05-001-A – Blue Lake Cove – City of DeLand
Attachments: 24-01-05-001-A_BlueLakeCove_DeLand.pdf

Hello Mr. Banta,

Attached is the letter and certificate of finding of adequate capacity for the proposed residential development known as Blue Lake Cove, located at or near the intersection of E Beresford Ave and S Blue Lake Ave, current within an unincorporated area of Volusia County.

Physical copies will be sent via US mail to the contact address provided in the application.

Please note: No student reservations have been made with this finding of adequate capacity. All future development orders, such as site plans and subdivisions, are subject to school concurrency review. School concurrency will be evaluated at the time when the impact of development is specifically quantified and known. Only funded school improvements and then current capacity will be considered at that time.

Please let us know if you have questions or need further assistance.

Thank you,

James Roberts
Specialist, Planning & GIS
Planning and Business Services
Volusia County Schools
386-947-8786 EXT. 50802

For information on school concurrency, see:

- School Concurrency Review Application
- VCSB Concurrency Fee Schedule
- School Planning Process Flow Chart
- School Impact Fee Study

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VOLUSIA COUNTY SCHOOLS

Carmen J. Balgobin, Ed.D
Superintendent of Schools

School Board of Volusia County

Mrs. Jessie Thompson, Chair
Ms. Jamie M. Haynes, Vice Chair
Mr. Ruben Colón
Ms. Donna Brosemer
Ms. Krista Goodrich

School Adequate Capacity Determination
Finding of Adequate Capacity Letter

January 16, 2025

Mr. Scott Banta
Telesis Services, LLC
1111 N Ronald Regan Blvd, Suite 101
Longwood, FL 32750

RE : Blue Lake Cove – City of DeLand
School Concurrency Case # 24-01-05-001-A

Mr. Banta:

The County Charter requires any Comprehensive Plan Amendment or Rezoning that allows increased residential density to be effective only when adequate public schools can be timely planned and constructed to serve the projected increase in student population. The district uses this requirement as the guiding principle behind the school adequate capacity review.

District staff reviewed the information for the proposed project known as Blue Lake Cove associated with 16.4 +/- acres of property located at or near the intersection of E Beresford Ave and S Blue Lake Ave. The property is currently in an unincorporated area of Volusia County, but information provided by the City of DeLand's planning office indicates that the developer is seeking annexation into the city. The proposed project would provide eighty-five (85) single family homes.

The district uses a county wide Student Generation Rate (SGR) of (0.258) per single family dwelling unit to calculate projected students. By applying the SGR to the use types in Table 1 below, the project could generate twenty-two (22) full time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	0.258	85	22
Multifamily Dwelling Unit	0.137	0	0
Manufactured Home Dwelling Unit	0.052	0	0
Total		**85**	**22**

When performing an adequate capacity review, district staff evaluates the effects of the proposed change compared to any remaining permanent capacity within the impacted schools, up to 100%, Table 2 (next page). The projected increase in student population may be over 100% if there are plans to serve increased student population in that planning area within the long-term planning horizon. A finding of adequate capacity may be issued in either case.

FACILITIES SERVICES
3750 OLSON DRIVE • DAYTONA BEACH, FL 32124
PHONE: (386) 947-8786 • FAX (386) 506-5056

An Equal Opportunity Employer

Table 2

Schools	SY 2024/25 Enrollment	% of Permanent Capacity	Plans for Capacity Increase Long-Term	Traditional K-12 students projected
Blue Lake Elementary	541	103%	No	9
DeLand Middle	1,067	104%	No	4
West CSA (DeLand High)	2,956	115%	No	7
Other				2

The student projections generated by this project **will** increase the existing percentage above 100% permanent capacity at all school levels. However, the concurrency service areas (CSAs) for both Blue Lake Elementary and DeLand Middle are over 100% but below 115% for level of service (LOS) standards. Likewise, the CSA for DeLand High is over 100% but below 120% for LOS standards. Based on this, the school district has no objections to the proposed development plan.

Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering. Additional considerations, particularly for gated and muti-family communities, include accessibility for school buses, by ensuring a turn radius of at least 60 feet at all entrances and exits, and the inclusion of dedicated pickup/drop off sites.

All future development orders, such as site plans and subdivisions, are subject to school concurrency review. School concurrency will be evaluated at the time when the impact of development is specifically quantified and known. Only funded school improvements and then current capacity will be considered at that time.

No student reservations have been made at this time.

Please note the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Consequently, students generated from this project may not attend the current assigned schools.

Should you need additional information, please contact me at (386) 947-8786, extension 50802.

Sincerely,

James F. Roberts

James F. Roberts
Specialist, Planning & GIS

CC: Carmen J. Balgobin, Ed.D, Superintendent of Schools
Ron Young, Director of Planning & Construction
Robert J. Voges, Ed.S, Planning Coordinator
Kendall Story, CNU-A, Senior Planner, City of DeLand

FACILITIES SERVICES
3750 OLSON DRIVE • DAYTONA BEACH, FL 32124
PHONE: (386) 947-8786 • FAX (386) 506-5056

VOLUSIA COUNTY SCHOOLS

Finding of Adequate School Capacity

VOLUSIA COUNTY SCHOOL BOARD

Project Information	
Project Name	Blue Lake Cove
VCSB Project #	**24-01-05-001-A**
Jurisdiction Project #	
Parcel ID Numbers	7015-00-00-0720
Project Location	E Beresford Ave and S Blue Lake Ave
Potential Residential Units	85 Single Family Homes
Property Owner/Applicant	Scott Banta, Telesis Services, LLC

Notes: Additional review will be required at the time of subdivision/site plan submittal(s).
No Student Reservations have been made.

Based upon the Findings of Fact, pursuant to School Board Policy 612 and Section 206 of the County Charter, the school district has determined at this time that school capacity is adequate to serve the proposed increase in residential density. This Finding shall constitute competent substantial evidence that adequate public school capacity is likely to be available at the time it is required to serve the planned new development.

Capacity is not being reserved with this Finding unless otherwise noted on this document. This Finding of Adequate School Capacity allows this subject project to continue through the Comprehensive Plan Amendment and/or rezoning process; however, it may be subject to additional school capacity review in the future.

James F. Roberts

James F. Roberts
Specialist, Planning & GIS

January 16, 2025
Issue Date

Created: 9/2007
Owner: Facilities Services

2007-073-VCS
Print Locally

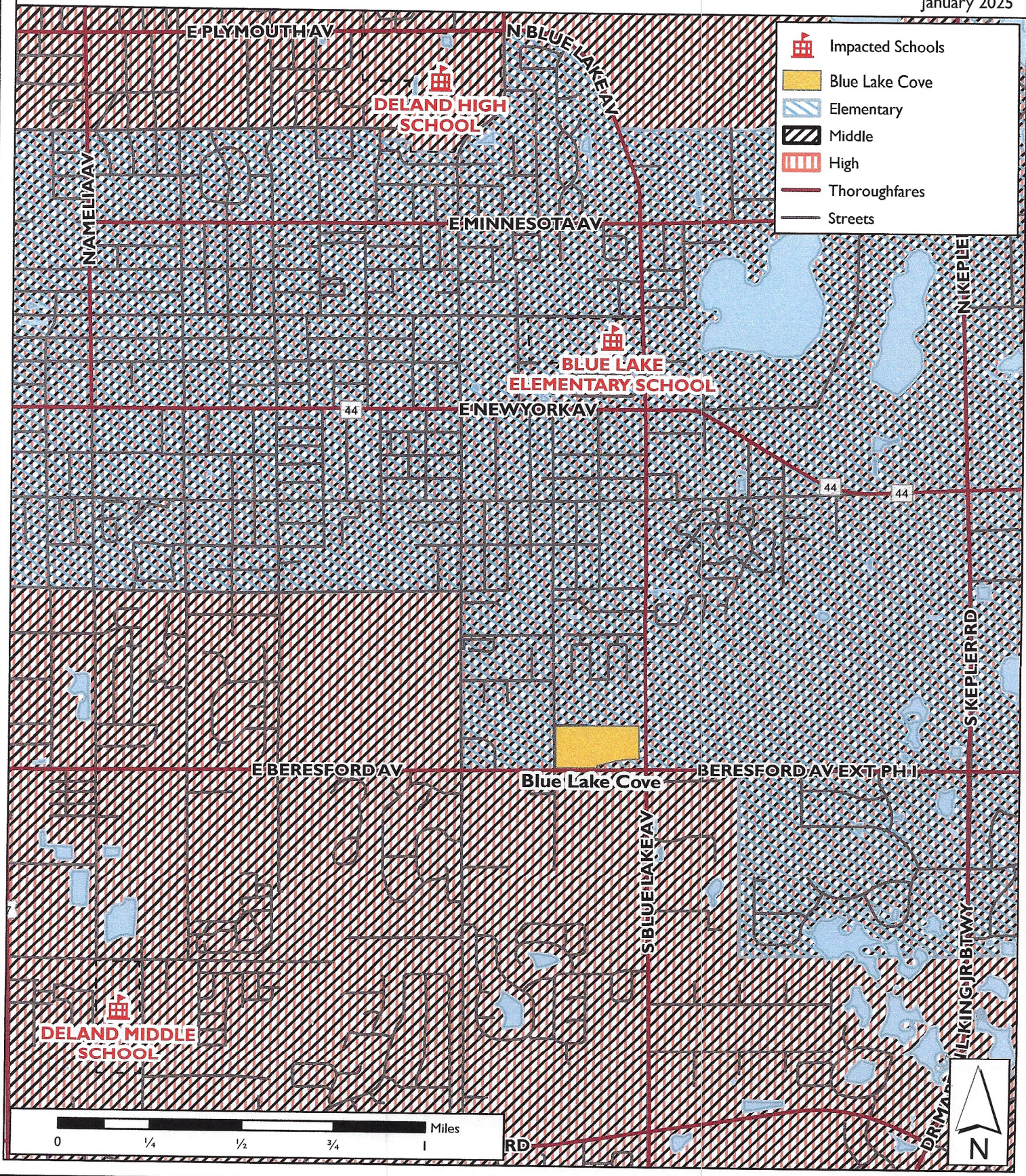
VCSB Schools Impacted by Development

School Concurrency Review - Blue Lake Cove

VOLUSIA COUNTY SCHOOLS

Planning & Business Services

January 2025



CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Annexing ±20.13 Acres of Property, Located at 210 North Ridgewood Avenue (DeLand Reserve).

DEPARTMENT: Planning

PREPARED BY: Emily Kunkel, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A - Legal Description , Exhibit B - Location Map , AN25-082 Narrative, AN25-082 Staff Report, Volusia County Thoroughfare Overlay Zone, AN25-082 Aerial, AN25-082 - Survey

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

This request is for approval to annex ±20.13 acres of property into the City of DeLand to develop a residential project with a subsequent land use amendment to Medium Density Residential and a rezone request to the DeLand Reserve Planned Development.

The City's guidelines for annexation require a property to be sufficiently contiguous to property already within the city limits and accessible to public services provided. In addition, the State requires the property be reasonably compact, not circuitous, and does not create an enclave. The subject property is contiguous to the City of DeLand, is reasonably compact, is not circuitous and will not create an enclave.

At their September 10, 2025, meeting, the Planning Board recommended approval of the annexation.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Institute Smart Growth Principles - As outlined in the city's strategic plan: "To manage growth, the City will need to institute a number of smart growth principles. For reasons of both community identity and governmental efficiency, an annexation strategy is required which will "square off' the City's boundaries." Approval of this request will further the city's goals to annex contiguous properties in order to ensure quality growth within the city limits.

SUSTAINABILITY:

Annexing the property into the City's jurisdiction will subject it to the City's adopted policies and allow implementation of the City's Sustainability Action Plan.

FISCAL IMPACT:

Inclusion of this property into the City's tax roll will increase funds towards City services.

RECOMMENDATION:

Staff recommends the City Commission approve, on First Reading, the annexation of ±20.13 acres of property into the city limits of DeLand.

BACKGROUND/DISCUSSION:

The subject property is ±20.13 acres in size, including the west portion of the North Ridgewood Avenue right-of-way. The subject property is currently vacant, undeveloped, and being utilized as a pine tree plantation.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, ANNEXING A PARCEL OF LAND TOTALING APPROXIMATELY +/- 20.13 ACRES OF PROPERTY LOCATED AT 210 NORTH RIDGEWOOD AVENUE (DELAND RESERVE); AMENDING CITY BOUNDARIES TO INCLUDE THE ANNEXED PROPERTIES; AFFIRMING COMPLIANCE WITH STATUTORY PROCEDURE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Petitioner, Storch Law Firm, on behalf of the owner, James K & Scarlet M. Trust, submitted a petition for annexation of approximately +/- 20.13 acres of land located at 210 North Ridgewood Avenue (DeLand Reserve); and

WHEREAS, the subject property to be annexed is currently vacant and undeveloped; and

WHEREAS, the area to be annexed is contiguous to the boundaries of the City of DeLand to the north, will not create an enclave if annexed, is reasonably compact, is not circuitous, and otherwise meets the requirements of *Chapter 171, Florida Statutes*.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The following described parcel of land in Volusia County, Florida, for which a petition for annexation has been received from the Petitioner, Storch Law Firm, on behalf of the owner, James K & Scarlet M. Trust, totaling approximately +/- 20.13 acres, located at 210 North Ridgewood Avenue (DeLand Reserve) is hereby annexed and made part of the City of DeLand, subject to the jurisdiction, obligations, benefits and privileges of property within the municipality:

See legal description(s) attached hereto as Exhibit "A"

Parcel Identification No. 791200000061

Section 2. The boundary lines of the City of DeLand are hereby changed and redefined to include the lands described in Section 1 above and depicted on the map attached hereto as Exhibit "B" and by this reference made a part hereof.

Section 3. The City Commission finds that a public hearing has been held on this Ordinance prior to adoption in the Commission Chambers, City Hall, 120 S. Florida Avenue, DeLand, Florida, at 7:00 p.m., on _____, after notice published in accordance with Florida Statutes Section 171.044.

Section 4. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ___day of _____.

_____
Christopher M. Cloudman
Mayor-Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

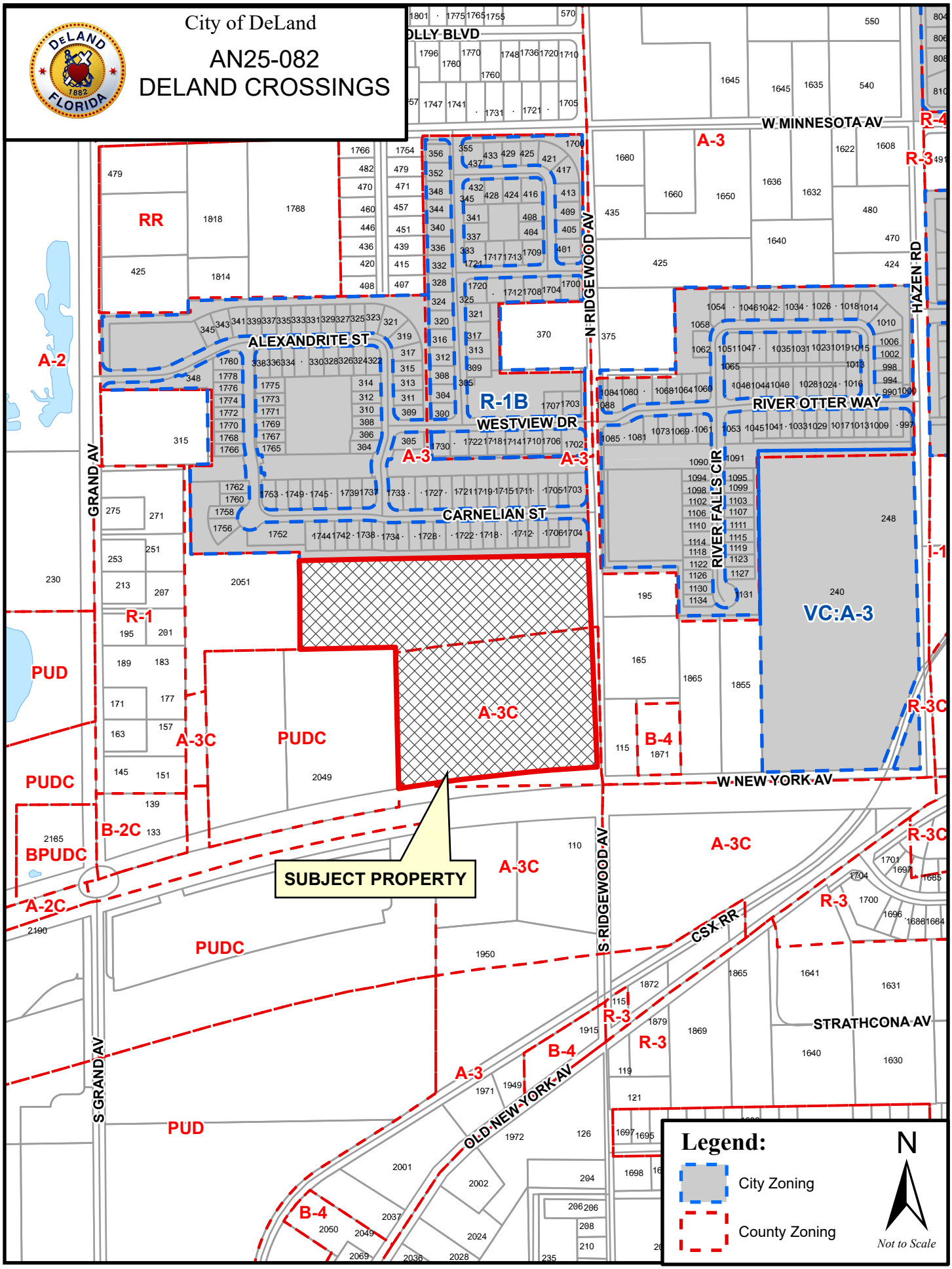
TITLE DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE POINT OF BEGINNING.

CONTAINING 20.137 ACRES, MORE OR LESS.


City of DeLand
AN25-082
DELAND CROSSINGS
SUBJECT PROPERTY
W MINNESOTA AV
W NEW YORK AV
OLD NEW YORK AV
STRATHCONA AV
CSX RR
ALEXANDRITE ST
WESTVIEW DR
CARNELIAN ST
RIVER OTTER WAY
RIVER FALLS CIR
GRAND AV
S GRAND AV
N RIDGEWOOD AV
S RIDGEWOOD AV
HAZEN RD
OLLY BLVD
A-2
A-3
A-3C
R-1
R-1B
R-3
R-3C
R-4
RR
PUD
PUDC
B-2C
BPUDC
A-2C
B-4
VC:A-3
Legend:
City Zoning
County Zoning
N
Not to Scale

STORCH
LAW FIRM

GLENN D. STORCH, ESQUIRE
glenn@storchlawfirm.com

COREY D. BROWN, ESQUIRE
corey@storchlawfirm.com

A. JOSEPH POSEY, ESQUIRE
joey@storchlawfirm.com

May 5, 2025

Via Hand Delivery
Carol Kuhn, AICP
Planning Director
City of DeLand
120 South Florida Avenue
DeLand, FL 32720

Re: Annexation, Comprehensive Plan Amendment and PD Rezoning for DeLand Crossings

Dear Carol:

I have the privilege of representing DeLand Crossings, LLC with regard to the above-referenced applications for a new townhome project called DeLand Crossings. The subject property is 20.13 +/- acres in size and located at the intersection of Ridgewood Avenue and New York Avenue, Parcel ID Number 7912-00-00-0061. The property is adjoining incorporated City of DeLand to the north, has a Future Land Use Designation of Volusia County Rural and a zoning designation of Volusia County Agriculture. We are proposing a City FLU of Medium Density Residential (maximum of 12 units per acre), which is consistent with a PD rezoning for a maximum of 160 townhome units (7.94 units per acre). The proposed DeLand Crossings PD will feature up to 160 townhome units with minimum lot widths of 20 feet, a combination of front and rear-loaded (alley access) units and space for at least 2 vehicles on each lot. At least 30% of the project will be dedicated to open space, and the project will include amenities such as a park area nature trail, dog park and tot lot.

The DeLand Crossings PD and Medium Density Residential Future Land Use are consistent with the surrounding area and appropriate for this location, which is near the DeLand SunRail Station in a growing part of the City. The project is directly adjacent to New York Avenue / SR 44, granting easy access to an arterial roadway for new residents, and is across the street from the County's SunRail DeLand Area Activity Center Future Land Use Designation. This County FLU permits up to 30 du/acre in the "Core District" and up to 15 du/acre in the "Transition District", which adjoins the subject property across SR 44 to the south. Within this Activity Center FLU designation right across the street, Volusia County approved the Pelham Square PUD with 648 units, including 114 single-family homes, 210 townhomes, 324 apartments, commercial

development and densities between 8 and 20 units per acre. Additionally, a new single-family development adjoins the subject property to the north, with another residential subdivision in the City to the northeast. In summary, the surrounding area, both within the City limits and in unincorporated Volusia County, is well-suited for a project like DeLand Crossings.

While the DeLand Crossings PD is a townhome development with a fee simple ownership pattern for units, the City of DeLand considers townhomes as a multi-family use. And because the City's Land Development Regulations have dimensional standards that are geared toward large-lot apartment buildings in multi-family zonings and not for townhomes, we are asking for a number of deviations from the dimensional requirements of the R-8 zoning district (at staff's request). The deviations we are requesting are as follows:

1. Minimum lot width of 20 ft. in lieu of 75 ft.;
2. Minimum lot size of 1,800 sq. ft. in lieu of 10,000+ sq. ft.;
3. Maximum impervious surface coverage over entire PD Property of 60% in lieu of 50%;
4. Minimum front yard setback of 20 ft. for front-loaded townhomes and 15 ft. for rear-loaded townhomes in lieu of 30 ft. from project perimeter lot line;
5. Minimum rear yard setback of 10 ft. for front-loaded townhomes and 20 ft. for rear-loaded townhomes in lieu of 20 ft. from project perimeter lot line;
6. Minimum side yard setback of 7.5 ft., with a 0 ft. setback for internal side setbacks, in lieu of 20 ft. from project perimeter lot line;
7. Minimum building separation of 15 ft. in lieu of 25 ft.;
8. Maximum building length of 192 ft. in lieu of 150 ft.; and

The requested deviations will allow for project dimensions and features that are typical of townhome communities and townhome zoning requirements in other area jurisdictions.

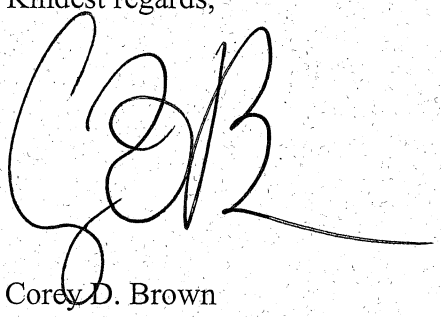
The following is a list of the application documents and materials that are being submitted along with this application letter:

1. Signed application submittal checklist;
2. Application fee check in the amount of $700.00 for the annexation;
3. Application fee check in the amount of $1,900.00 for the Comprehensive Plan Future Land Use map amendment;
4. Application fee check in the amount of $4,425.00 for the PD Rezoning;
5. Signed and notarized authorization of owner;
6. Typed mailing labels names and mailing addresses of all property owners within a 500-ft. radius of the subject property;
7. Current signed and sealed survey of the subject property;

8. Metes and bounds legal description including the adjacent half (to centerline) of rights of way that border the subject property;
9. Draft of proposed Planned Development Agreement;
10. Conceptual Development Plan for the PD, including PD site plan, preliminary drainage plan, preliminary landscape plan and tree removal plan;
11. Exhibit showing typical roadway cross-sections;
12. Elevations of the proposed townhome buildings;
13. Trip generation statement;
14. Endangered species report; and
15. Volusia County School Planning and Concurrency Application.

We are excited to work with you on these applications to bring the DeLand Crossings community from a dream to a reality. Please let me know if you have any questions or need any additional application documents for the DeLand Crossings annexation, Comp. Plan amendment and PD rezoning.

Kindest regards,



Corey D. Brown
For Glenn D. Storch

CDB
Enclosures

PLANNING DIVISION STAFF REPORT
TO
THE CITY OF DELAND PLANNING BOARD

September 10, 2025

A. **APPLICATION NO.**: AN25-082 *(DeLand Reserve Annexation)*

APPLICANT: Storch Law Firm

OWNER: James K & Scarlet M Trust

STAFF PLANNER: Emily Kunkel, *Senior Planner*

REQUEST: Annexation of ±20.13 acres of property into the City limits of DeLand

B. **SITE FACTORS:**

PARCEL NUMBER*:* 791200000061

LOCATION: 210 North Ridgewood Ave.

SIZE OF PROPERTY: ±20.13 acres

C. **LAND USE DESIGNATION & ZONING OF SUBJECT PROPERTY:**

FUTURE LAND USE: Volusia County: Rural and located in the City Transit Oriented Development/Redevelopment area

EXISTING ZONING: Volusia County: Transitional Agriculture with Thoroughfare Overlay Zone (A-3C)

EXISTING USE: Vacant, undeveloped

D. **SURROUNDING LAND USE & ZONING:**

	LAND USE	ZONING
North:	VC: Urban Low Intensity (ULI)	Grandview Gardens PD
South:	VC: SunRail DeLand Area Activity Center	VC: Transitional Agriculture (A-3C)
East:	VC: Urban Low Intensity (ULI)	VC: Transitional Agriculture (A-3C)
West:	VC: Rural	VC: PUD

E. **PHYSICAL CHARACTERISTICS:** The subject property is ±20.13 acres in size, including the west portion of the North Ridgewood Avenue right-of-way. The subject property is vacant, undeveloped, and does not appear to contain any wetlands and does not lie within the 100-year flood zone. The subject property is located in unincorporated Volusia County and is currently zoned VC: A-3C (Volusia County Transitional Agriculture

with Thoroughfare Overlay Zone). The subject property has a future land use designation of Volusia County: Rural and located within the City's Transit Oriented Development/Redevelopment area as defined in the 2050 Vision Plan. It is owned by James K & Scarlet M Trust, and the property is currently vacant, being utilized as a pine tree plantation. This application is accompanied by a request for a future land use amendment (SMLU25-083) to MDR (Medium Density Residential), and a PD rezoning application (Z25-084) proposing to develop the site into a 155-unit maximum residential subdivision, to include a mixture of front loaded and rear loaded Townhome (multi-family) units. The applicant has included standards within the PD document to include the flexibility for front loaded, rear loaded, and zero-lot line single-family units, but at this time the applicant plans to development only townhome (multi-family) units. If the future land use and rezoning requests are approved, any future site improvements will first require approval of a separate development application.

F. **PUBLIC SERVICES & UTILITIES:** The City's Utilities Department determined the closest City water main is at New York Avenue (SR-44) and North Ridgewood Avenue, which contains a 12-inch and 3-inch water main. The closest city sewer main is also located at Hazen Road as a 16-inch force main, as well as an 8-inch gravity sewer system. The subject property will also require payment into the Westside Force Main Proportionate Fair Share, at the cost of $899 per ERU.

G. **GROWTH MANAGEMENT PLAN CONSISTENCY:** North of the property is the Grandview Gardens PD (single-family residential subdivision); south is a mix of single-family residential properties and vacant properties; to the east are single-family residential properties; and to the west is a mix of one rural single-family residential property and a commercial/industrial use property.

H. **ANALYSIS:** The City's guidelines for annexation require a property be sufficiently contiguous to property already within the city limits and to be accessible to public services provided. In addition, the State requires the property be reasonably compact, not circuitous, and does not create an enclave. The subject property is contiguous to the City of DeLand, is reasonably compact, is not circuitous, and does not create an enclave. The parcel is contiguous to the city to the north by ± 1,207.70-ft.

I. **RECOMMENDATION:** Staff recommends that the Planning Board forward this annexation petition to the City Commission, with a recommendation for approval.

Based upon the concurrency requirements of the State of Florida and the City's concurrency management plan, as adopted in Article 5, Sec. 33-41 of the Land Development Regulations, approval of the proposed annexation does not automatically provide vested development rights. At the time the developer applies for a development permit, adequate infrastructure must exist to support the proposed development. If such infrastructure does not exist, the developer may be required to incur additional expense to ensure that the necessary infrastructure is provided.

Sec. 72-297. - Thoroughfare overlay zone regulations.

(a) *Purpose and intent:*

(1) The purpose of this section is to provide regulations to ensure safe ingress to and egress from proposed development along thoroughfares, to maintain adequate highway capacity, eliminate hazardous traffic conditions, lessen or prevent traffic congestion, establish a high standard for development, including additional sign regulations and create a more attractive streetscape. Commercial development typically expands along thoroughfares as population and traffic volumes increase in the vicinity of and along the thoroughfare. Eventually, conflicts result between the thoroughfare's function and its ability to move high volumes of traffic through an area.

(2) This congestion is intensified when commercial growth increases along the entire length of the thoroughfare.

(3) The increased commercial growth also changes the public's image of the thoroughfare. What was once considered an attractive tree-lined thoroughfare gradually and often rapidly begins to exhibit characteristics of uncontrolled strip commercial development. Once this pattern has been established, it is difficult to establish alternative types of development (e.g. residential) along these thoroughfares. Therefore, these regulations apply to thoroughfares which; (1) move large volumes of through traffic in addition to significant volumes of everyday local traffic; and (2) do not contain significant amounts of strip commercial development. These thoroughfare overlay zone regulations are intended to supplement all of the regulations of the existing zoning classifications except for permitted uses and special exceptions. The type of permitted uses or special exceptions allowed would be determined according to the existing zoning classification and the site design, signage, building location and the dimensional requirements would be regulated by these overlay zone regulations.

(b) *[Thoroughfare overlay zone:]* A thoroughfare overlay zone is hereby established, and the regulations of this section shall apply in said zone. Said zone shall apply to all zoning classifications established in division 7 of this article, and the official zoning map shall identify said overlay zone by adding the letter "C" as a suffix to the existing zoning classification that currently exists on said maps. The thoroughfares, or portions thereof, to which these regulations apply are as follows:

(1) *North coastal area:*

State Road #40: Western boundary lines of Section 26, Township 14 South, Range 31 East to Ormond Beach west city limits.

U.S. #92: Indian Lake Road east to Daytona Beach west city limit.

(2) *South coastal area:*

State Road #44: New Smyrna Beach city limit west to Tomoka Farms Road (CR 415).

(3) *West Volusia area:*

U.S. #92: Eastern boundary line of Section 25, Township 16 South, Range 30 East, to State Road 15-A.

State Road 15-A: U.S. #17 South to U.S. #17-92.

U.S. #17: Eastern boundary of Section 39, Township 16 South, Range 30 East, to South boundary line of Section 4, Township 17 South, Range 30 East.

U.S. #17-92: North Line of Section 21, Township 17 South, Range 30 East, to South line of Section 33, Township 17 South, Range 30 East.

State Road #44: Western boundary line of Section 14, Township 17 South, Range 29 East, to East boundary line of Section 17, Township 17 South, Range 31 East.

West Volusia Beltline: State Road #44, to North boundary line of Section 13, Township 18 South, Range 30 East. (Ord. No. 85-24, § XVII, 10-10-85; Ord. No. 86-16, § XXXII, 10-23-86; Ord. No. 88-2, § XXI, 1-19-88; Ord. No. 84-25, § XXV, 10-10-84; Ord. No. 88-2, § XXII, 1-19-88; Ord. No. 02-07, § I, 3-7-02)

(c) *Dimensional requirements:*

(1) *Minimum lot width:* No premises shall be divided for the purpose of development of sale such that the width of each or any premises is less than 300 feet measured along the right-of-way line, except as follows:

If vehicle access to any premises is provided by means other than directly onto an arterial, then the minimum lot width requirement may be reduced to 150 feet, and direct vehicle access to a major arterial shall be prohibited.

(2) *Minimum yard size:* Front yard: 50 feet.

(3) *Maximum building height:* Three stories, not to exceed 35 feet.

(4) *Maximum lot coverage:* Total coverage of principal and accessory buildings shall not exceed 30 percent.

(5) *Thoroughfare overlay zone depth:* The thoroughfare overlay zone requirements shall be applied to all premises that front onto or have access to the thoroughfare to a distance equal to the depth of the rear property line, but not to exceed a depth of 660 feet as measured perpendicular from the centerline of the thoroughfare right-of-way.

(d) *Off-street parking and loading requirements:* Off-street parking and loading space shall meet the requirements of section 72-286 and in addition shall meet the following:

Off-street parking and loading areas shall be permitted in the front yard or the side yard that is adjacent to a thoroughfare as long as the off-street parking and loading areas are designed outside the 35-foot-wide landscaped buffer area along the project perimeter adjacent to thoroughfares. Said area shall contain landscaped fences, walls or berms of sufficient heights and opacity to generally obscure parked vehicles from view of the traveling public. All parking areas shall contain a minimum of 20 percent interior landscaping, excluding any required landscaped buffer area as provided in subsection (e), below.

(e) *Landscaping buffer requirements:* In addition to meeting the landscape buffer requirements in section 72-284, the following requirements shall also be met:

(1) A landscape plan shall be provided identifying the quantity, botanical and common name, size and location of plant material, including those existing plant materials to be retained. Plans and specifications for an underground irrigation system are required for any landscaped area.

(2) A minimum of 30 percent of the area of the site shall be covered by landscape materials as specified in subsection 72-284(1) of this article.

(3) Except for access driveways, it is intended that development along the thoroughfare corridor shall be designed to prevent the need for fill material or such other treatment which would remove or harm existing trees within the required front yard.

(4) A landscaped buffer area shall be provided along the perimeter of the property. The width of the buffer shall be determined by the requirements in subsection 72-284(2) unless the site is located on a thoroughfare, then the front buffer shall be a minimum of 35 feet. If the thoroughfare right-of-way is less than 140 feet, then the buffer area will start at a point 70 feet from the centerline of the thoroughfare.

(f) *Final site plan requirements:* In addition to meeting the final site plan requirements in division 3 of the Land Development Code [article III], the following requirements shall be met:

All site plans, reports and general information will be submitted to the development review committee to ensure compliance and consistency for all developments along the thoroughfare.

(g) *Service road requirement:* All premises fronting thoroughfares upon which the thoroughfare overlay zone regulations have been applied shall be provided access via a service road, unless as otherwise specified herein. The service road may either be in the front or rear of the project site depending on the location of any existing service road.

(h) *Transportation impact analysis report; purpose:* The transportation impact analysis report is designed to identify the transportation impacts and problems which are likely to be generated by a proposed use because of the size, density, traffic generation rates or location. The report will also identify all improvements required to ensure safe ingress and egress from a proposed development, maintenance of adequate street capacity, and elimination of hazardous conditions and improvements necessary for immediately surrounding roadways and intersections as a result of the proposed development.

(1)

Threshold for traffic impact analysis report: A transportation impact analysis report shall be required, unless waived by the county traffic engineer, for all uses which meet or exceed any one or more of the following thresholds:

a. Any development which proposes to have direct access to any roadway designated in subsection (b) of this section.

b. Any use which, according to the Institute of Transportation Engineers Trip Generation Manual, latest edition, rates published by the Florida Department of Transportation, or rates documented by study as agreed prior to use by the Volusia County Traffic Engineer will generate in excess of 1,000 trips per day.

(2) *Contents of transportation impact analysis report:* The transportation impact analysis report shall include the following:

a. *General site description:* A detailed description of the highway network within a radius as determined by the county traffic engineer of the site, a description of the proposed project, the anticipated stages of construction, and the anticipated completion date of the proposed land development. This description, which may be in the form of a map, shall include the following items:

1. All major intersections;
2. All proposed and existing ingress and egress locations;
3. All existing roadway widths and rights-of-way;
4. All existing traffic signals and regulatory signage;
5. All existing and proposed public transportation services and facilities within the above-determined radius of the site.

b. *Description of existing traffic conditions:* A 24-hour traffic count shall be conducted for a typical weekday on all roadways which have direct access to a proposed development site. The existing average daily traffic volume, and the highest average peak hour volume for any weekday hour between 3:00 p.m. and 6:00 p.m. shall be recorded. These traffic volumes shall be averaged to determine the average hourly peak traffic volume for a weekday. The methodology used to calculate existing traffic conditions and use of traffic counts and data other than those described above to represent existing traffic conditions shall be subject to the approval of the county traffic engineer.

c. *Transportation impact of the development.* A report shall be made detailing the nature and extent of the trip generation expected to result from the proposed development. Trip generation analysis shall include an estimate of internal/external split, if applicable, and a determination of what characteristics of the development will yield such a split. The source of all trip generation rates shall be according to the Institute of Transportation Engineers Trip Generation Manual, latest edition, rates published by the Florida Department of Transportation, or rates documented by study and agreed to prior to use by the Volusia County Traffic Engineer.

d. *Determination of roadway service level—Calculate service volumes:* Roadway service volumes shall be calculated at the level of service for the thoroughfare which is specified in the comprehensive plan. Data and procedures contained in the Highway Capacity Manual, Special Report, 209, 1985, published by the transportation research board shall be utilized in deriving the information required by the transportation impact analysis report.

e *Determination of intersection service level:*

1. Data and procedures in the Highway Capacity Manual, Special Report, 209, 1985, published by the transportation research board shall be utilized in determining intersection service levels.
2. The post-developing level of service for all intersections shall be in accordance with the comprehensive plan.
3. Determine the existing level of service of all intersections within one-half mile of the proposed development using the critical movement analysis techniques provided in subsection e.1., above.

f. *Analysis of transportation impact:* An analysis shall be undertaken to determine if roadways and intersections will operate at the level of service specified by the comprehensive plan following completion of the development given the future peak hour traffic that will be generated by the proposed development. This analysis shall consist of a comparison of the total future peak hour roadway traffic demand with the plan's mandated level of service standard and a critical movement analysis for intersections to determine the impact of total future peak hour traffic on intersection level of service. All roadways and intersections that would operate below the required level of service following completion of the development shall be considered deficient.

Maintenance of levels of service. Whenever level of service is determined to be below the level specified by the comprehensive plan, development is not permitted unless the developer makes the roadway or other improvements necessary to maintain the specified level of service.

(3) *Traffic-control devices:* Whenever, as a result of additional traffic generated by a proposed development, the manual on uniform traffic control devices determines the need for a traffic signal or regulatory sign, the developer shall be responsible for installing all said devices and signs.

(4) *Large developments:* [Large developments] (over 250 vehicle trips generated per one hour during 3:00 p.m. and 6:00 p.m.) shall also include the following:

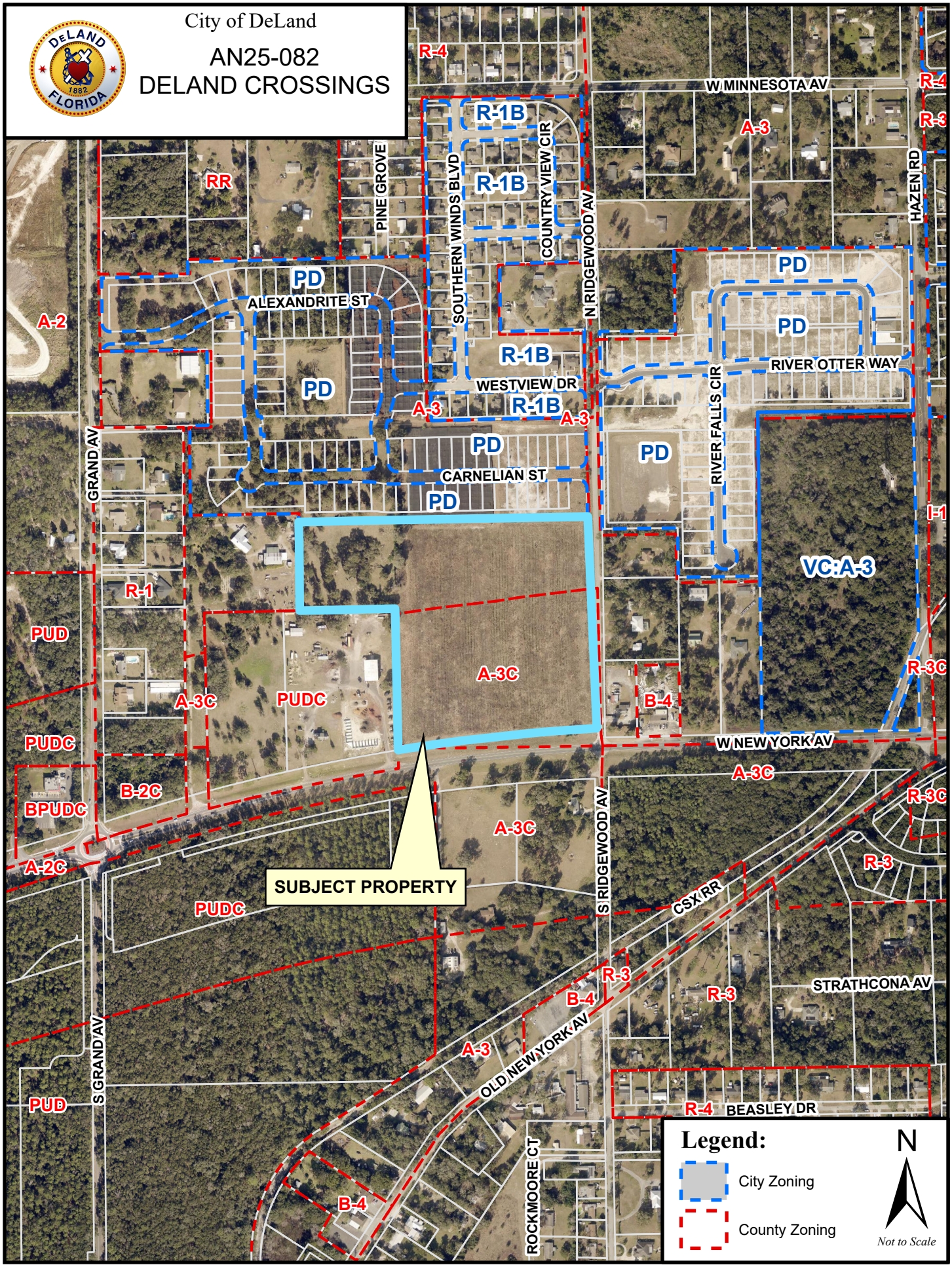
a. The impact report for developments which will generate between 250 and 1,000 trips during the peak hour shall involve an analysis of all arterials and all intersections within one mile of the proposed project.

b. Except for developments of regional impact as defined by F.S. § 380.06, the impact report for developments which will generate over 100 trips during the peak hour shall involve an analysis of all arterial and collector roadways and all intersections within three miles of the proposed project.

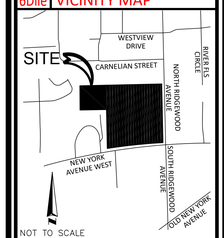
(i) *Temporary access:* No developer shall be denied a rezoning or building permit for the sole reason that the parcel for which it is sought cannot physically accommodate the requirements of this classification because adjoining segments of service roads or public roadways are not yet constructed. In such an event, a temporary access permit will be issued which shall expire when the proposed access becomes available to the parcel.

(j) *Sign regulations:* The sign regulations established in section 72-298 et seq. shall also apply in any thoroughfare overlay zone; provided, however, the maximum permissible height for any ground sign is eight feet, and the maximum permissible copy area for any ground sign is 40 square feet.

(Ord. No. 85-24, §§ XVIII—XXIV, 10-10-85; Ord. No. 86-16, § XXXIII, 10-23-86; Ord. No. 88-2, §§ XXIII—XXX, 1-19-88; Ord. No. 89-20, § XLIII, 6-20-89; Ord. No. 92-6, § LXVI, 6-4-92; Ord. No. 02-07, § II, 3-7-02; Ord. No. 2008-25, § II, 12-4-08; Ord. No. 2018-05, § IX, 1-18-18)


City of DeLand
AN25-082
DELAND CROSSINGS
SUBJECT PROPERTY
W MINNESOTA AV
W NEW YORK AV
OLD NEW YORK AV
BEASLEY DR
STRATHCONA AV
CSX RR
ALEXANDRITE ST
CARNELIAN ST
WESTVIEW DR
RIVER OTTER WAY
PINE GROVE
SOUTHERN WINDS BLVD
COUNTRY VIEW CIR
N RIDGEWOOD AV
S RIDGEWOOD AV
HAZEN RD
GRAND AV
S GRAND AV
RIVER FALLS CIR
ROCKMOORE CT
R-4
R-1B
A-3
RR
PD
A-2
R-1
PUD
A-3C
PUDC
B-2C
BPUDC
A-2C
B-4
R-3
I-1
VC:A-3
R-3C
Legend:
City Zoning
County Zoning
N
Not to Scale

6Diie VICINITY MAP



NOT TO SCALE

6Diic NORTH ARROW & SCALE

1" = 80'
GRAPHIC SCALE
0 40' 80' 160'

5Ciii OBSERVED POTENTIAL ENCROACHMENTS

- (A) BARBED WIRE FENCE CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 2.1'
- (B) BARBED WIRE AND WOOD & WIRE FENCE CROSS BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 1.3'
- (C) NORTH RIDGEWOOD AVENUE PAVEMENT CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 23.7'
- (D) NORTH RIDGEWOOD AVENUE PAVEMENT CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 17.8'

3 FLOOD INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN ZONE "X", AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 125155 0465 H (MAP NO. 12127C0465H), WHICH BEARS AN EFFECTIVE DATE OF 02/19/2014, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE. ZONE "X" DENOTES AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

6Diid LEGEND AND ABBREVIATIONS

	CONCRETE SURFACE	ALUM	ALUMINUM
	ROAD STRIPING	BM	BENCHMARK
	FIRE HYDRANT	(C)	CALCULATED DATA
	GAS VALVE	C/L	CENTERLINE
	UTILITY POLE	CM	CONCRETE MONUMENT
	GUY ANCHOR	CONC	CONCRETE
MB	MAIL BOX	CRNR	CORNER
	BENCHMARK	(T)	TITLE DATA
	RECOVERED MONUMENT AS NOTED	EL	ELEVATION
	SET MONUMENT AS NOTED	EP	EDGE OF PAVEMENT
	CONCRETE MONUMENT AS NOTED	FLDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
		FND	FOUND
x	VINYL FENCE	IR	IRON ROD
	WIRE FENCE	LB	LICENSED BUSINESS
	ADJACENT LINE	LS	LICENSED SURVEYOR
	SECTION LINE	(M)	FIELD MEASURED DATA
OHU	OVERHEAD UTILITY LINE	MB	MAIL BOX
	CONTOUR MAJOR	N/D	NAIL & DISK
	CONTOUR MINOR	NGS	NATIONAL GEODETIC SURVEY
•XXX	SPOT SHOT	NO.	NUMBER
	CENTERLINE	ORB	OFFICIAL RECORDS BOOK
	BREAK LINE	(P)	PLAT DATA
		PB	PLAT BOOK
	SECTION CORNER	PG	PAGE
	CANPHOR TREE	PID	PARCEL IDENTIFICATION
	OAK TREE	PLS	PROFESSIONAL LICENSED SURVEYOR
	PALM TREE	POB	POINT OF BEGINNING
		POC	POINT OF COMMENCEMENT
		R/W	RIGHT OF WAY

6Cvii PLATTED SETBACK OR RECORDED BUILDING RESTRICTION LINES

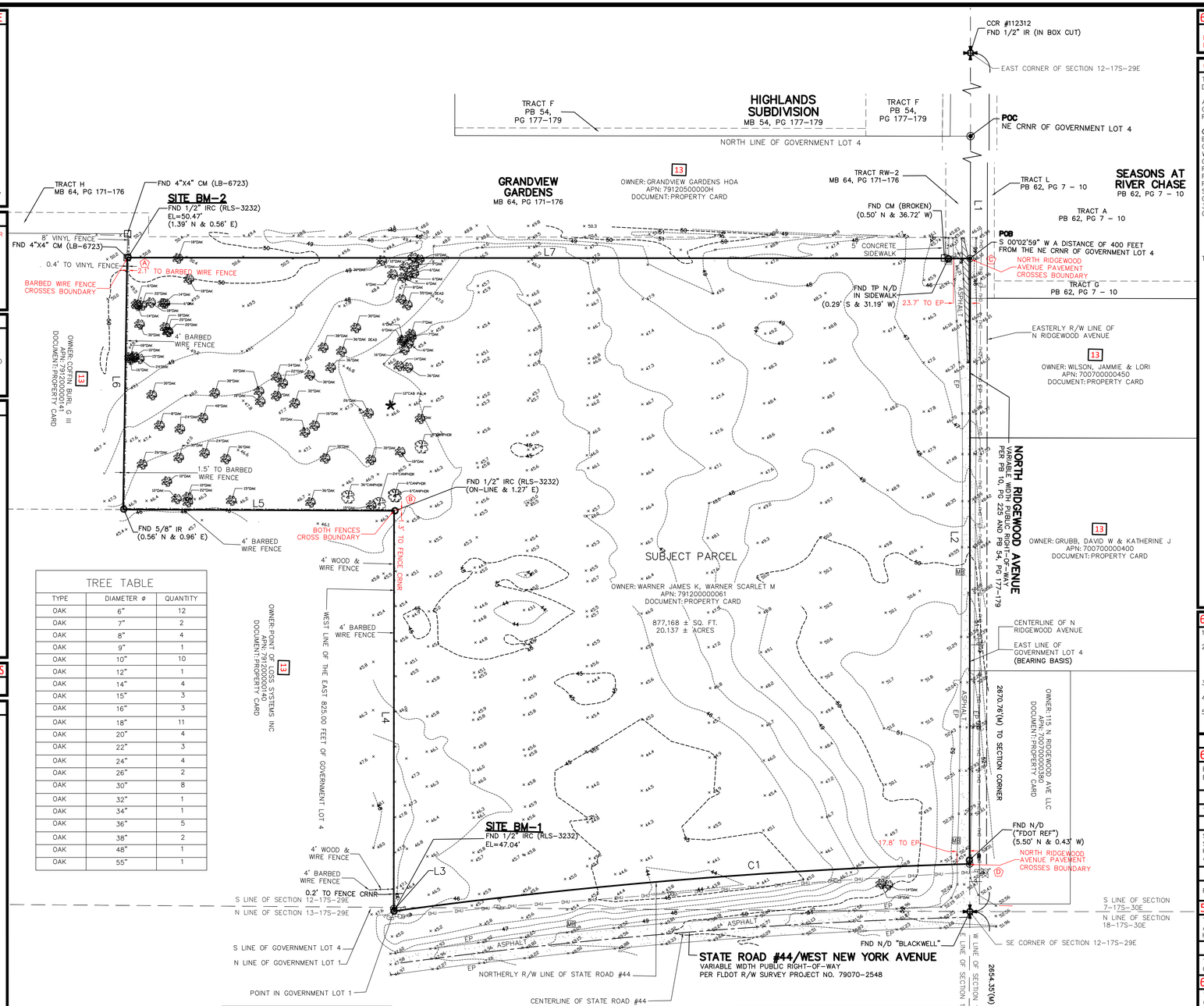
NONE PROVIDED TO THIS SURVEYOR.

5Ei "SCHEDULE B - SECTION 2" ITEMS

(9) — EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED FEBRUARY 15, 1961 IN OFFICIAL RECORDS BOOK 349, PAGE 570. (DOES NOT AFFECT)

ALTA/NSPS LAND TITLE SURVEY IDENTIFICATION TABLE

2	"TABLE A" PROPERTY ADDRESS	6Bvii	CONTIGUITY STATEMENT	8	"TABLE A" SUBSTANTIAL FEATURES OBSERVED
3	"TABLE A" FLOOD INFORMATION	6Bxii	TITLE COMMITMENT INFORMATION	9	"TABLE A" PARKING SPACES
4	"TABLE A" LAND AREA	6Cvii	RECORDED SETBACKS/RESTRICTIONS PROVIDED BY INSURED	10	"TABLE A" DIVISION/PARTY WALLS
5Biii	ACCESS TO PROPERTY	6Diic	NORTH ARROW & SCALE	11	"TABLE A" UTILITY INFORMATION
5Ciii	SURVEYOR OBSERVED POTENTIAL ENCROACHMENTS	6Diid	LEGEND & ABBREVIATIONS	13	"TABLE A" ADJOINING OWNERS
5Ei	"SCHEDULE B – SECTION 2" ITEMS	6Diie	VICINITY MAP	14	"TABLE A" INTERSECTING STREET
5F	CEMETERY NOTE	6Diig	SURVEYOR'S NOTES	16	"TABLE A" EARTH MOVING NOTE
6	TABLE "A" ZONING INFORMATION	6Diik	TYPE OF SURVEY	17	"TABLE A" RIGHT OF WAY CHANGES
6Bi	TITLE DESCRIPTION	7	SURVEYOR'S CERTIFICATE	18	"TABLE A" OFFSITE EASEMENTS OR SERVITUDES
		7b	"TABLE A" BUILDING AREA		
6Biv	BEARING BASIS	7c	"TABLE A" BUILDING HEIGHT		



TREE TABLE

TYPE	DIAMETER ø	QUANTITY
OAK	6"	12
OAK	7"	2
OAK	8"	4
OAK	9"	1
OAK	10"	10
OAK	12"	1
OAK	14"	4
OAK	15"	3
OAK	16"	3
OAK	18"	11
OAK	20"	4
OAK	22"	3
OAK	24"	4
OAK	26"	2
OAK	30"	8
OAK	32"	1
OAK	34"	1
OAK	36"	5
OAK	38"	2
OAK	48"	1
OAK	55"	1

TREE TABLE

TYPE	DIAMETER ø	QUANTITY
CANPHOR	6"	3
CANPHOR	24"	1
CANPHOR	36"	1

TREE TABLE

TYPE	DIAMETER ø	QUANTITY
PALM	12"	1

LINE TABLE

LINE	BEARING	DISTANCE
L1(T&C)	S 00°02'59" W	400.00'
L2(T&C)	S 00°02'59" W	867.52'
L3(T&C)	N 07°45'26" W	3.60'
L4(T&C)	N 00°02'59" E	570.00'
L5(T)	N 89°44'24" W	388.20'
L5(M)	N 89°38'58" W	388.57'
L6(T)	N 00°55'19" E	360.95'
L6(M)	N 00°46'46" E	360.28'
L7(T&C)	S 89°56'42" E	1207.70'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1(T&C)	7714.49'	827.72'	827.33'	S 85°19'00" W	6°08'51"

6Bxii TITLE COMMITMENT INFORMATION

THE TITLE DESCRIPTION AND SCHEDULE "B" ITEMS HEREON ARE FROM: FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO.: #110588914, HAVING AN EFFECTIVE DATE OF FEBRUARY 13, 2025.

SHEET 1 OF 1

6Bi TITLE DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE **POINT OF BEGINNING**, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE **POINT OF BEGINNING**.

THIS SURVEY DESCRIBES AND DEPICTS THE SAME LAND AS DESCRIBED IN THE TITLE COMMITMENT AS REFERENCED ABOVE.

6Diig SURVEYOR'S NOTES

1. NO UNDERGROUND UTILITIES ARE SHOWN ON THIS SURVEY, ONLY ABOVE GROUND VISIBLE EVIDENCE OF UTILITIES ARE SHOWN.
2. ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.
3. THIS SURVEY MEETS OR EXCEEDS THE SURVEY STANDARDS/STANDARDS OF CARE AS SET FORTH IN SECTION 3 OF THE 2021 ALTA/NSPS SURVEY REQUIREMENTS.
4. TREES SHOWN HEREON ARE DESCRIBED BY SPECIES AND DIAMETER OF TRUNK AT BREAST HEIGHT.
5. VERTICAL INFORMATION BASED ON: BENCHMARK 01-049-0-02 HAVING A PUBLISHED ELEVATION OF 41.881 FEET (NAVD88) DESCRIBED AS: "SET 4" X 4" PRECAST CONCRETE MONUMENT WITH S.J.R.W.M.D. DISK

4 LAND AREA

877,168 ± SQUARE FEET 20.137 ± ACRES

6Biv BEARING BASIS

BEARINGS SHOWN HEREON ARE BASED ON EAST LINE OF GOVERNMENT LOT 4, WHICH BEARS S 00°02'59" W, PER ASSUMED DATUM.

5F CEMETERY NOTE

THERE IS NO VISIBLE EVIDENCE OF CEMETERIES ON SUBJECT PROPERTY.

8 SUBSTANTIAL FEATURES OBSERVED

SUBSTANTIAL ABOVE GROUND FEATURES THAT WERE OBSERVED ON THE SUBJECT PARCEL, SUCH AS PARKING AREAS, DRIVES, WALKS, PLANTERS/LANDSCAPE AREAS AND OTHER, HAVE BEEN LOCATED AS SHOWN HEREON. NOTE: THERE WERE NO OBSERVED SUBSTANTIAL AREAS OF REFUSE ON THE SUBJECT PARCEL PER THE DATE OF THIS SURVEY.

9 PARKING SPACES

REGULAR = 0 HANDICAP = 0 TOTAL = 0

5Biii ACCESS TO PROPERTY

THE SUBJECT PROPERTY HAS DIRECT PHYSICAL ACCESS TO NEW YORK AVENUE WEST, AND NORTH RIDGEWOOD AVENUE, BOTH BEING DEDICATED PUBLIC STREETS OR HIGHWAYS.

16 EARTH MOVING NOTE

THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

6Bvii CONTIGUITY STATEMENT

THE PARCELS CONTAINED IN THE LEGAL DESCRIPTION ARE CONTIGUOUS WITHOUT ANY GAPS, GORES OR OVERLAPS.

7 SURVEYOR'S CERTIFICATE

TO: MERITAGE HOMES

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 13, 14, 16, AND 19 OF TABLE A THEREOF.
THE FIELD WORK WAS COMPLETED ON 03/06/2025.
DATE OF PLAT OR MAP: 03/07/2025.

Digitally signed by E Glenn Turner
DN: cn=E Glenn Turner, o=American Surveying & Mapping, ou=Professional Land Surveyor, email=eglturner@asmcorporate.com, c=US
Date: 2025.07.15 12:38:41 -04'00'
Adobe Acrobat version: 2020.005.30774

E. GLENN TURNER — DATE

PROFESSIONAL SURVEYOR & MAPPER NO: 5643
STATE OF: FLORIDA
PROJECT NO: 240638

SURVEY PREPARED BY:
AMERICAN SURVEYING AND MAPPING, INC.
221 CIRCLE DRIVE
MAITLAND, FLORIDA 32751
CERTIFICATE OF AUTHORIZATION # LB6393
PHONE: (407) 426-7979
FAX: (407) 426-9741
INFO@ASMCORPORATE.COM

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER PER F.S. 472.025 OR THE CERTIFIED ELECTRONIC SIGNATURE AND SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER PER F.A.C. 5J-17.062(2) AND 5J17.062(3).

THIS SURVEY MEETS OR EXCEEDS THE FLORIDA STANDARDS OF PRACTICE AS SET IN FLORIDA ADMINISTRATIVE CODE CHAPTER 5J-17-0.50 FOR A BOUNDARY SURVEY. ALL PARTS OF THIS SURVEY AND DRAWING HAVE BEEN COMPLETED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS FOR SURVEYING IN THE STATE OF FLORIDA TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

DATE	REVISIONS	TECH
03/07/25	NEW TITLE/CERTS	BS
05/22/25	UPDATE CERTS	BS
06/02/25	UPDATE EXCEPTIONS	BS
07/15/25	UPDATE ALTA	BS

FIELD	SM	DRAWING SCALE	1"=80'
DRAWN BY	BS	QC BY	EGT
DRAWING NAME	240638 210 N RIDGEWOOD AVE, DELAND ALTA W TITLE BEARING BASIS 07-14-25.DWG		

6Diik TYPE OF SURVEY: ALTA/NSPS LAND TITLE SURVEY
2
BOUNDARY AND TOPOGRAPHIC SURVEY OF
210 NORTH RIDGEWOOD AVENUE
SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST;
AND SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST
VOLUSIA COUNTY DELAND, FLORIDA

AMERICAN SURVEYING & MAPPING, INC.
A DIVISION OF AMERICAN SURVEYING & MAPPING, INC
NDDS NATIONAL DUE DILIGENCE SERVICES
221 Circle Drive, Maitland, FL 32751
Phone: 407-426-7979 nationalduediligenceservices.com

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CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Land Use for ±20.13 Acres of Property, Located at 210 N Ridgewood Avenue, from Volusia County Rural to City of DeLand Medium-Density Residential (MDR).

DEPARTMENT: Planning

PREPARED BY: Emily Kunkel, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A - Legal Description, Survey, SMLU25-083 Staff Report, SMLU25-083 Current Land Use, SMLU25-083 Proposed Land Use, SMLU25-083 Zoning, SMLU25-083 Aerial, Volusia County Thoroughfare Overlay Zone, SMLU25-083 - TIA Methodology, SMLU25-083 - School Capacity Determination Letter 06.18.2025

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The request is to amend the land use designation of the subject property from Volusia County Rural to City of DeLand Medium Density Residential (MDR), for ±20.13 acres of property. The subject property is also located within the City's Transit Oriented Development/ Redevelopment area, and the future land use is Medium-Density Residential. The 2050 Vision plan, describes the Transit Oriented Development/Redevelopment area as being an area that will encourage higher density and a mixture of uses, in order to make a transit system more efficient for the DeLand area. These areas will see a transition from the current development pattern to a more transit-friendly pattern, over time.

The Comprehensive Plan describes the Medium-Density Residential land use designation as being typified by detached and attached moderate density housing types, serving as a transitional area between nonresidential or high-density residential and low-density residential land use with a maximum density of 12 dwelling units per acre. The development should provide recreation and open space through the clustering of dwelling units and shall include on-site amenities such as, but not limited to, recreational facilities, open space, and pedestrian walkways.

The proposed maximum density of 8 dwelling units per acre provides a transition from the lower density residential to the higher density residential and proposed nonresidential/residential uses within this area, specifically on the southern side of SR-44. The subject property is ±1.6 miles from the DeLand SunRail station, and the applicant has coordinated with Florida Department of Transportation (FDOT) and Volusia County to provide a more transit-friendly pattern by constructing additional sidewalks along North Ridgewood Avenue and State Road 44. Therefore, the request is compatible with the Comprehensive Plan and the 2050 Vision Plan.

Two on-site community enhancements are being provided in the DeLand Reserve PD. These enhancements include:

1. Walking paths, one centrally located and one within the Tree Protection Area (TPA), adhering to the TPA requirements in the Land Development Regulations.
2. Internal sidewalks that connect the entire site to the new proposed sidewalk along N. Ridgewood Ave.
3. A dog park
4. A tot lot

5. Open space throughout the site
6. Centrally located community gathering area

The proposed land use designation, Medium-Density Residential, is consistent with the surrounding area, and is not expected to create any land use incompatibilities.

At the September 10, 2025, meeting, the Planning Board recommended approval of the land use amendment.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

The land use amendment will implement smart growth policies relating to increasing urban densities and protecting conservation areas as outlined in the Smart Growth Strategic Focus Area.

SUSTAINABILITY:

The land use amendment allows implementation of the City's Sustainability Action Plan through the application of the Transitional Residential Development future land use designation's policy guidelines.

FISCAL IMPACT:

Residential development of this property, and inclusion of the residential units onto the City’s tax rolls, will increase funds towards City services.

RECOMMENDATION:

Staff recommends the City Commission approve the requested land use amendment of the subject property from Volusia County Rural to City of DeLand Medium-Density Residential (MDR), on first reading, and direct staff to transmit the amendment to the Volusia Growth Management Commission. The second reading should be delayed until the application is reviewed by the Volusia Growth Management Commission.

BACKGROUND/DISCUSSION:

To the north and East of the subject property is Volusia County Urban Low Intensity (ULI) which allows up to 4 dwelling units per acre and for existing agricultural uses to remain, but generally is residential and where appropriate, less intense neighborhood convenience and office uses may be permitted with a maximum FAR (floor area ratio) of 0.5. To the south is Volusia County Urban Low Intensity (ULI) and SunRail Deland Area Activity Center (TOD Transition District), which allows up to 15 dwelling units per acre and a mixture of residential, commercial and office uses. Immediately to the west is Volusia County Rural land use, which allows up to 1 dwelling unit per 5 acres, and up to 1 dwelling unit per acre. The requested land use amendment to City Medium Density Residential (MDR) will increase the overall maximum density from 1 unit per acre to up to 12 units per acre. However, this development is proposing a maximum of 8 units per acre.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, AMENDING THE COMPREHENSIVE PLAN FOR THE CITY OF DELAND, BY CHANGING THE LAND USE DESIGNATION OF CERTAIN PROPERTY LOCATED AT 210 NORTH RIDGEWOOD AVENUE; FROM VOLUSIA COUNTY'S RURAL TO CITY OF DELAND'S MEDIUM DENSITY RESIDENTIAL FUTURE LAND USE DESIGNATION; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, F.S. §163.3161, et seq., creates the Community Planning Act (hereinafter the "Act"); and

WHEREAS, the Act allows each local government to approve comprehensive plan amendments related to small scale development activities at any time during the year under certain conditions; and

WHEREAS, the Act permits small area amendments to be approved without regard to statutory limits on the frequency of comprehensive plan amendments as long as:

1. The proposed amendment involves the change to the land use designation of a parcel of property that is 50 acres or less; and

2. The cumulative effect of the above amendment does not exceed 120 acres annually; and

WHEREAS, the City Commission adopted a comprehensive plan for the future growth and development of the City pursuant to Ordinance No. 90-4, as amended, (hereinafter the "Comprehensive Plan"); and

WHEREAS, the City Commission has received a request to amend the Comprehensive Plan by changing the land use designation of approximately +/- 20.13 acres of land located at 210 North Ridgewood Avenue, from Volusia County's Rural future land use designation to City of DeLand's Medium Density Residential future land use designation; and

WHEREAS, the Planning Board held a public hearing, after due public notice, for the purpose of recommending the adoption of the proposed Comprehensive Plan amendment; and

WHEREAS, the City Commission held a public hearing after due public notice, in accordance with F.S. §163.3184(11); and

WHEREAS, this land use amendment has been transmitted to and reviewed by the Volusia Growth Management Commission.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission hereby amends the Future Land Use Map for the incorporated area by changing the land use designation of that certain parcel of land located at 210 North Ridgewood Avenue, consisting of approximately +/- 20.13 acres of land from Volusia County's Rural to City of DeLand's Medium Density Residential Future Land Use designation,

as more particularly described in the Exhibit "A" attached hereto and by this reference made a part hereof.

Section 2. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 3. The effective date of this Ordinance shall be the later date of the following events: (1) the date of issuance of a certificate of consistency or conditional certificate of consistency with regard to the land use designation of the subject property by the Volusia Growth Management Commission; (2) thirty-one (31) days after its adoption by the City Commission; or (3) if properly challenged by an affected person, after the state land planning agency or the Administration Commission, respectively, issues a final order determining this adopted small scale development amendment to be in compliance. No development orders, development permits or land uses dependent on this Ordinance may be issued or commence before it has become effective.

PASSED AND DULY ADOPTED this ___day of September, 2025.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

TITLE DESCRIPTION

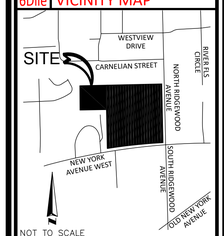
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE POINT OF BEGINNING.

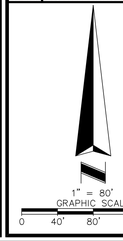
CONTAINING 20.137 ACRES, MORE OR LESS.

6Diie VICINITY MAP



NOT TO SCALE

6Diic NORTH ARROW & SCALE



5Ciii OBSERVED POTENTIAL ENCROACHMENTS

- (A) BARBED WIRE FENCE CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 2.1'
- (B) BARBED WIRE AND WOOD & WIRE FENCE CROSS BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 1.3'
- (C) NORTH RIDGEWOOD AVENUE PAVEMENT CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 23.7'
- (D) NORTH RIDGEWOOD AVENUE PAVEMENT CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 17.8'

3 FLOOD INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN ZONE "X", AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 125155 0465 H (MAP NO. 12127C0465H), WHICH BEARS AN EFFECTIVE DATE OF 02/19/2014, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE. ZONE "X" DENOTES AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

6Diid LEGEND AND ABBREVIATIONS

	CONCRETE SURFACE	ALUM	ALUMINUM
	ROAD STRIPING	BM	BENCHMARK
	FIRE HYDRANT	(C)	CALCULATED DATA
	GAS VALVE	C/L	CENTERLINE
	UTILITY POLE	CM	CONCRETE MONUMENT
	GUY ANCHOR	CONC	CONCRETE
MB	MAIL BOX	CRNR	CORNER
	BENCHMARK	(T)	TITLE DATA
	RECOVERED MONUMENT AS NOTED	EL	ELEVATION
	SET MONUMENT AS NOTED	EP	EDGE OF PAVEMENT
	CONCRETE MONUMENT AS NOTED	FLDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
		FND	FOUND
x	VINYL FENCE	IR	IRON ROD
	WIRE FENCE	LB	LICENSED BUSINESS
	ADJACENT LINE	LS	LICENSED SURVEYOR
	SECTION LINE	(M)	FIELD MEASURED DATA
OHU	OVERHEAD UTILITY LINE	MB	MAIL BOX
	CONTOUR MAJOR	N/D	NAIL & DISK
	CONTOUR MINOR	NGS	NATIONAL GEODETIC SURVEY
•XXX	SPOT SHOT	NO.	NUMBER
	CENTERLINE	ORB	OFFICIAL RECORDS BOOK
	BREAK LINE	(P)	PLAT DATA
		PB	PLAT BOOK
	SECTION CORNER	PG	PAGE
	CANPHOR TREE	PID	PARCEL IDENTIFICATION
	OAK TREE	PLS	PROFESSIONAL LICENSED SURVEYOR
	PALM TREE	POB	POINT OF BEGINNING
		POC	POINT OF COMMENCEMENT
		R/W	RIGHT OF WAY

6Ciie PLATTED SETBACK OR RECORDED BUILDING RESTRICTION LINES

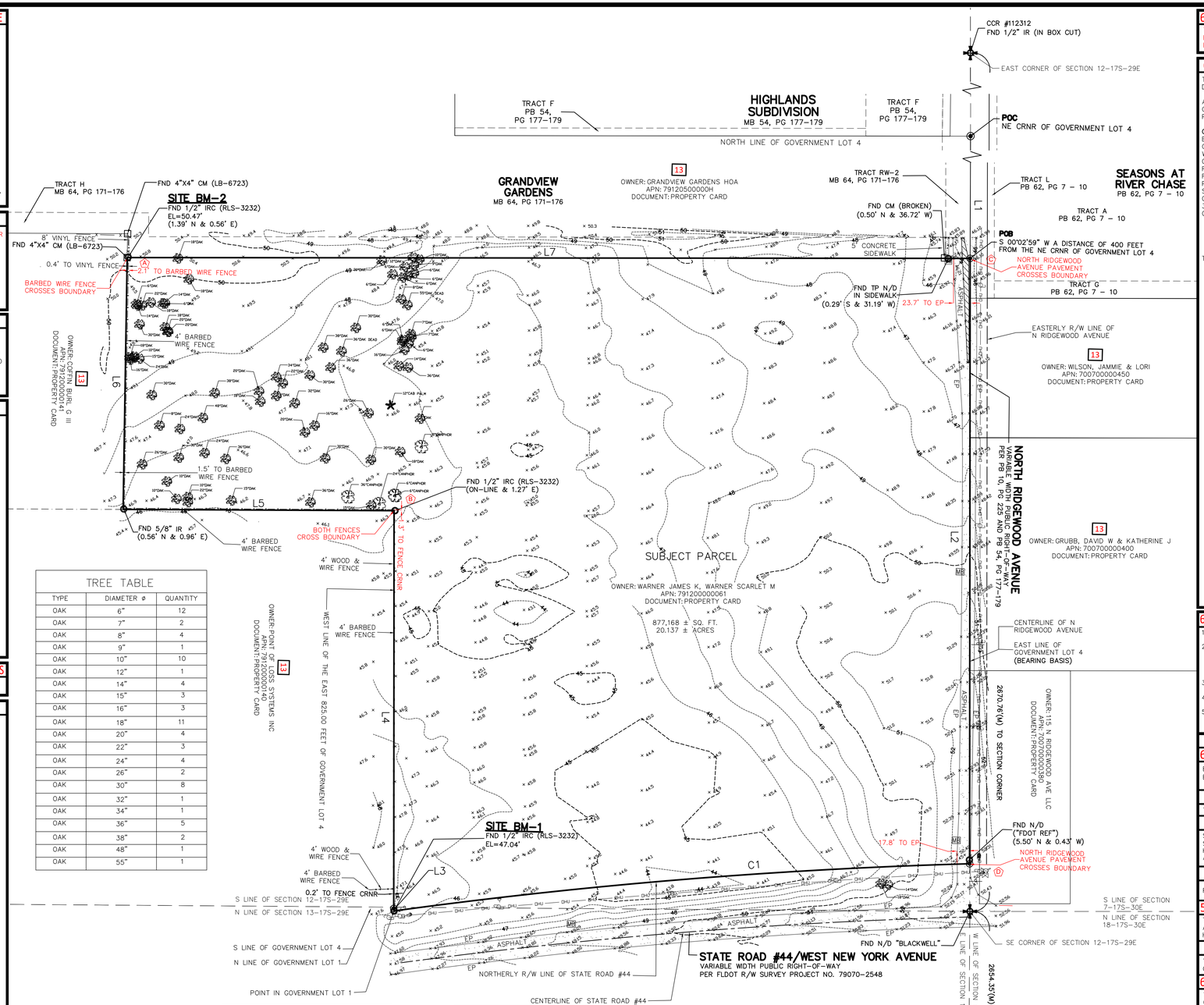
NONE PROVIDED TO THIS SURVEYOR.

5Ei "SCHEDULE B - SECTION 2" ITEMS

(9) — EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED FEBRUARY 15, 1961 IN OFFICIAL RECORDS BOOK 349, PAGE 570. (DOES NOT AFFECT)

ALTA/NSPS LAND TITLE SURVEY IDENTIFICATION TABLE

2	"TABLE A" PROPERTY ADDRESS	6Bvii	CONTIGUITY STATEMENT	8	"TABLE A" SUBSTANTIAL FEATURES OBSERVED
3	"TABLE A" FLOOD INFORMATION	6Bxii	TITLE COMMITMENT INFORMATION	9	"TABLE A" PARKING SPACES
4	"TABLE A" LAND AREA	6Cvii	RECORDED SETBACKS/RESTRICTIONS PROVIDED BY INSURED	10	"TABLE A" DIVISION/PARTY WALLS
5Biii	ACCESS TO PROPERTY	6Diic	NORTH ARROW & SCALE	11	"TABLE A" UTILITY INFORMATION
5Ciii	SURVEYOR OBSERVED POTENTIAL ENCROACHMENTS	6Diid	LEGEND & ABBREVIATIONS	13	"TABLE A" ADJOINING OWNERS
5Ei	"SCHEDULE B – SECTION 2" ITEMS	6Diie	VICINITY MAP	14	"TABLE A" INTERSECTING STREET
5F	CEMETERY NOTE	6Diif	SURVEYOR'S NOTES	16	"TABLE A" EARTH MOVING NOTE
6	TABLE "A" ZONING INFORMATION	6Diik	TYPE OF SURVEY	17	"TABLE A" RIGHT OF WAY CHANGES
6Bi	TITLE DESCRIPTION	7	SURVEYOR'S CERTIFICATE	18	"TABLE A" OFFSITE EASEMENTS OR SERVITUDES
		7b	"TABLE A" BUILDING AREA		
6Biv	BEARING BASIS	7c	"TABLE A" BUILDING HEIGHT		



TREE TABLE

TYPE	DIAMETER ø	QUANTITY
OAK	6"	12
OAK	7"	2
OAK	8"	4
OAK	9"	1
OAK	10"	10
OAK	12"	1
OAK	14"	4
OAK	15"	3
OAK	16"	3
OAK	18"	11
OAK	20"	4
OAK	22"	3
OAK	24"	4
OAK	26"	2
OAK	30"	8
OAK	32"	1
OAK	34"	1
OAK	36"	5
OAK	38"	2
OAK	48"	1
OAK	55"	1

TREE TABLE

TYPE	DIAMETER ø	QUANTITY
CANPHOR	6"	3
CANPHOR	24"	1
CANPHOR	36"	1

TREE TABLE

TYPE	DIAMETER ø	QUANTITY
PALM	12"	1

LINE TABLE

LINE	BEARING	DISTANCE
L1(T&C)	S 00°02'59" W	400.00'
L2(T&C)	S 00°02'59" W	867.52'
L3(T&C)	N 07°45'26" W	3.60'
L4(T&C)	N 00°02'59" E	570.00'
L5(T)	N 89°44'24" W	388.20'
L5(M)	N 89°38'58" W	388.57'
L6(T)	N 00°55'19" E	360.95'
L6(M)	N 00°46'46" E	360.28'
L7(T&C)	S 89°56'42" E	1207.70'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1(T&C)	7714.49'	827.72'	827.33'	S 85°19'00" W	6°08'51"

6Bxii TITLE COMMITMENT INFORMATION

THE TITLE DESCRIPTION AND SCHEDULE "B" ITEMS HEREON ARE FROM: FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO.: #110588914, HAVING AN EFFECTIVE DATE OF FEBRUARY 13, 2025.

SHEET 1 OF 1

6Bi TITLE DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE **POINT OF BEGINNING**, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE **POINT OF BEGINNING**.

THIS SURVEY DESCRIBES AND DEPICTS THE SAME LAND AS DESCRIBED IN THE TITLE COMMITMENT AS REFERENCED ABOVE.

6Diig SURVEYOR'S NOTES

1. NO UNDERGROUND UTILITIES ARE SHOWN ON THIS SURVEY, ONLY ABOVE GROUND VISIBLE EVIDENCE OF UTILITIES ARE SHOWN.
2. ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.
3. THIS SURVEY MEETS OR EXCEEDS THE SURVEY STANDARDS/STANDARDS OF CARE AS SET FORTH IN SECTION 3 OF THE 2021 ALTA/NSPS SURVEY REQUIREMENTS.
4. TREES SHOWN HEREON ARE DESCRIBED BY SPECIES AND DIAMETER OF TRUNK AT BREAST HEIGHT.
5. VERTICAL INFORMATION BASED ON: BENCHMARK 01-049-0-02 HAVING A PUBLISHED ELEVATION OF 41.881 FEET (NAVD88)
DESCRIBED AS: "SET 4" X 4" PRECAST CONCRETE MONUMENT WITH S.J.R.W.M.D. DISK

4 LAND AREA

877,168 ± SQUARE FEET 20.137 ± ACRES

6Biv BEARING BASIS

BEARINGS SHOWN HEREON ARE BASED ON EAST LINE OF GOVERNMENT LOT 4, WHICH BEARS S 00°02'59" W, PER ASSUMED DATUM.

5F CEMETERY NOTE

THERE IS NO VISIBLE EVIDENCE OF CEMETERIES ON SUBJECT PROPERTY.

8 SUBSTANTIAL FEATURES OBSERVED

SUBSTANTIAL ABOVE GROUND FEATURES THAT WERE OBSERVED ON THE SUBJECT PARCEL, SUCH AS PARKING AREAS, DRIVES, WALKS, PLANTERS/LANDSCAPE AREAS AND OTHER, HAVE BEEN LOCATED AS SHOWN HEREON. NOTE: THERE WERE NO OBSERVED SUBSTANTIAL AREAS OF REFUSE ON THE SUBJECT PARCEL PER THE DATE OF THIS SURVEY.

9 PARKING SPACES

REGULAR = 0 HANDICAP = 0 TOTAL = 0

5Biii ACCESS TO PROPERTY

THE SUBJECT PROPERTY HAS DIRECT PHYSICAL ACCESS TO NEW YORK AVENUE WEST, AND NORTH RIDGEWOOD AVENUE, BOTH BEING DEDICATED PUBLIC STREETS OR HIGHWAYS.

16 EARTH MOVING NOTE

THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

6Bvii CONTIGUITY STATEMENT

THE PARCELS CONTAINED IN THE LEGAL DESCRIPTION ARE CONTIGUOUS WITHOUT ANY GAPS, GORES OR OVERLAPS.

7 SURVEYOR'S CERTIFICATE

TO: MERITAGE HOMES

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 13, 14, 16, AND 19 OF TABLE A THEREOF.
THE FIELD WORK WAS COMPLETED ON 03/06/2025.
DATE OF PLAT OR MAP: 03/07/2025.

Digitally signed by E Glenn Turner
DN: cn=E Glenn Turner, o=American Surveying & Mapping, ou=Professional Land Surveyor, email=eglenn@asmcorporate.com, c=US
Date: 2025.07.15 12:38:41 -04'00'
Adobe Acrobat version: 2020.005.30774

E. GLENN TURNER — DATE

PROFESSIONAL SURVEYOR & MAPPER NO: 5643
STATE OF: FLORIDA
PROJECT NO: 240638

SURVEY PREPARED BY:
AMERICAN SURVEYING AND MAPPING, INC.
221 CIRCLE DRIVE
MAITLAND, FLORIDA 32751
CERTIFICATE OF AUTHORIZATION # LB6393
PHONE: (407) 426-7979
FAX: (407) 426-9741
INFO@ASMCORPORATE.COM

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER PER F.S. 472.025 OR THE CERTIFIED ELECTRONIC SIGNATURE AND SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER PER F.A.C. 5J-17.062(2) AND 5J17.062(3).

THIS SURVEY MEETS OR EXCEEDS THE FLORIDA STANDARDS OF PRACTICE AS SET IN FLORIDA ADMINISTRATIVE CODE CHAPTER 5J-17-0.50 FOR A BOUNDARY SURVEY. ALL PARTS OF THIS SURVEY AND DRAWING HAVE BEEN COMPLETED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS FOR SURVEYING IN THE STATE OF FLORIDA TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

DATE	REVISIONS	TECH
03/07/25	NEW TITLE/CERTS	BS
05/22/25	UPDATE CERTS	BS
06/02/25	UPDATE EXCEPTIONS	BS
07/15/25	UPDATE ALTA	BS

FIELD	SM	DRAWING SCALE	1"=80'
DRAWN BY	BS	QC BY	EGT
DRAWING NAME	240638 210 N RIDGEWOOD AVE, DELAND ALTA W TITLE BEARING BASIS 07-14-25.DWG		

6Diik ALTA/NSPS LAND TITLE SURVEY
2
BOUNDARY AND TOPOGRAPHIC SURVEY OF
210 NORTH RIDGEWOOD AVENUE
SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST;
AND SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST
DELAND, FLORIDA
VOLUSIA COUNTY

AMERICAN SURVEYING & MAPPING, INC.
A DIVISION OF AMERICAN SURVEYING & MAPPING, INC
NDDS NATIONAL DUE DILIGENCE SERVICES
221 Circle Drive, Maitland, FL 32751
Phone: 407-426-7979 nationalduediligenceservices.com

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PLANNING DIVISION STAFF REPORT
TO
THE CITY OF DELAND PLANNING BOARD

September 10, 2025

A. **APPLICATION NO**.: SMLU25-083 *(DeLand Reserve Land Use)*
APPLICANT: Storch Law Firm
OWNER: James K & Scarlet M Trust
STAFF PLANNER: Emily Kunkel, *Senior Planner*
REQUEST: To amend the land use designation from Volusia County Rural to City of DeLand Medium-Density Residential (MDR)

B. **SITE FACTORS:**
PARCEL NUMBER*:* 791200000061
LOCATION: 210 North Ridgewood Ave.
SIZE OF PROPERTY: ±20.13 acres

C. **LAND USE DESIGNATION & ZONING OF SUBJECT PROPERTY:**
Future Land Use: Volusia County: Rural and located in the City Transit Oriented Development/Redevelopment area
Existing Zoning: Volusia County: Transitional Agriculture with Thoroughfare Overlay Zone (A-3C)
Existing Use: Vacant, undeveloped (pine plantation)

D. **SURROUNDING LAND USE & ZONING:**

	LAND USE	ZONING
North:	VC: Urban Low Intensity (ULI)	Grandview Gardens PD
South:	VC: SunRail DeLand Area Activity Center	VC: Transitional Agriculture (A-3C)
East:	VC: Urban Low Intensity (ULI)	VC: Transitional Agriculture (A-3C)
West:	VC: Rural	VC: PUD

E. **REQUESTED ACTION:**

1. **REQUEST:** The applicant is requesting the future land use designation be amended for a ±20.13-acre parcel located at 210 North Ridgewood Avenue from Volusia County's Rural land use designation to the City of DeLand's Medium-Density Residential (MDR) land use designation. *The Applicant has also petitioned for annexation (AN25-082) and submitted a rezoning application (Z25-084).*

F. **ANALYSIS:**
The purpose of this section is to analyze the reasonableness of the applicant's request for an amendment of the land use designation for the subject property. This analysis will

include a description of the current and future land uses of the site and the surrounding area, potential impacts on the transportation system, and any significant adverse environmental impacts. Florida Statute 163.3187 allows for a Future Land Use Map amendment for area of use under 50 acres, and are not an area of critical state concern.

1. **Availability of Public Facilities *(water, sewer, drainage, traffic, and schools if residential):***

   The City's Utilities Department determined the closest City water main is at New York Avenue (SR-44) and North Ridgewood Avenue, which contains a 12-inch and 3-inch water main. The closest city sewer main is located at Hazen Road as a 16-inch force main, as well as an 8-inch gravity sewer system. The subject property will also require payment into the Westside Force Main Proportionate Fair Share, at the cost of $899 per ERU.

   A Traffic Impact Analysis Methodology letter from Traffic & Mobility Consultants (TMC) dated April 29, 2025, states that the proposed development is projected to generate 1,169 new daily trips of which 78 trips occur during the AM peak hour and 92 trips occur during the PM peak hour. Per the R2CTPO traffic study guidelines, since the proposed development is anticipated to generate more than 1,000 daily new trips, a TIA will be required at the time of the Preliminary Plat process.

   In a memo dated June 18, 2025, the Volusia County School Board issued a capacity determination letter which found that there is adequate capacity for the proposed project.

2. **Compatibility with Land Use and Other Elements:** The Future Land Use element requires that the subject property be consistent with surrounding development. The subject property is located, within the City's Transit Oriented Development/ Redevelopment area, and the future land use is Medium-Density Residential. The 2050 Vision plan, describes the Transit Oriented Development/Redevelopment area, as being an area that will encourage higher density and a mixture of uses, in order to make a transit system more efficient for the DeLand area. These areas will see a transition from the current development pattern to a more transit friendly pattern, over time.

   The Comprehensive Plan describes the Medium-Density Residential land use designation as being typified by detached and attached moderate density housing types, serving as a transitional area between nonresidential or high-density residential and low-density residential land use with a maximum density of 12 dwelling units per acre. The development should provide recreation and open space through the clustering of dwelling units and shall include on-site amenities such as, but not limited to, recreational facilities, open space, and pedestrian walkways.

   The proposed maximum density of 8 dwelling units per acre provide a transition from the lower density residential to the higher density residential and proposed nonresidential/residential uses within this area, specifically on the southern side of SR-44. The subject property is 1.6 miles from the DeLand SunRail station, and the applicant has coordinated with Florida Department of Transportation (FDOT) and Volusia County to provide a more transit friendly pattern by constructing additional

sidewalks along North Ridgewood Avenue and State Road 44. Therefore, the request is compatible with the Comprehensive Plan and the 2050 Vision Plan.

	LAND USE	DU/AC	CURRENT USE
North:	VC: Urban Low Intensity (ULI)	4 units/acre	Grandview Gardens PD (single-family residential subdivision)
South:	VC: SunRail DeLand Area Activity Center	4 units/acre	Single-family residential and vacant
East:	VC: Urban Low Intensity (ULI)	4 units/acre	Single-family residential
West:	VC: Rural	1 unit/acre	Rural single-family residential and a commercial/industrial use.

3. **Future Land Use Map:** The proposed change in the land use designation to Medium-Density Residential (MDR) will be shown on the revised Future Land Use Map. There will be no change in the 2050 Vision Map, as a portion of the subject property is within the Transit Oriented Development/Redevelopment area.

4. **Location of Lakes, Floodplains, and Wetlands:** The property does not contain bodies of water, nor is it located within a floodplain.

5. **Analysis of Natural Resources:**
   - **a.** *Soil types:* Apopka, fine sand & Astatula, fine sand
   - **b.** *Presence of Endangered Species*: None known at this time. A full report will be required with the Preliminary Plat application.

6. **Existing and Future Impact upon Infrastructure Capacity:**
   - **a.** ***Water:*** The City's Utility Department indicates sufficient water supply is available for the proposed land use designation. The City's Utilities Department determined the closest City water main is at New York Avenue (SR-44) and North Ridgewood Avenue, which contains a 12-inch and 3-inch water main. The fully engineered plans and final determination will be reviewed at the time of preliminary plat.
   - **b.** ***Sewer:*** The City's Utility Department has indicated sufficient existing capacity. The closest city sewer main is located at Hazen Road as a 16-inch force main, as well as an 8-inch gravity sewer system. The subject property will also require payment into the Westside Force Main Proportionate Fair Share, at the cost of $899 per ERU. The fully engineered plans and final determination will be reviewed at the time of preliminary plat.
   - **c.** ***Drainage:*** The city adheres to the County's standard to retain for the 100-year frequency, 24-hour storm event for landlocked basins. Stormwater capture for future development will be addressed on-site and will be further evaluated at the time of preliminary plat.
   - **d.** ***Solid Waste:*** Solid waste services are available for the property.
   - **e.** ***Transportation*****:** The proposed use of the property is for residential use. In order to estimate traffic generation by development on the subject property,

Staff must make projections for the most intense type of development allowed under the existing and proposed land use designations. Development under the most intensive of the uses allowed under the current land use designation of Volusia County Rural must be compared with the most intensive use proposed under the City's Medium-Density Residential (MDR) designation.

The Volusia County Rural land use designation allows a maximum density of 1 dwelling unit per acre; and with the most-intense allowable residential use, the property would currently be permitted to yield up to 20 units and would generate **146** calculated trips per day according to Trip Generation by the Institute of Transportation Engineers. (11th ed.)

DeLand's Medium-Density Residential land use designation allows for a maximum residential density up to 12 dwelling units per acre. If the land use amendment is approved, the +/- 20.13 acres of property could yield as many as 242 units. The traffic generation will be calculated based on the ITE Trip Generation manual. Assuming the maximum density, 12 dwelling units per acre, the +/- 20.13 acres of property would generate **1,767** calculated trips per day at build-out. At the time of the subdivision process, the applicant will dedicate the necessary 25-ft right-of-way as well as additional right-of-way to Volusia County for a 5-ft sidewalk along North Ridgewood.

7. **Impact upon Recreation and Open Space:** The development includes on-site amenities such as open space, walking paths and a park; therefore, all residents will have access to recreational opportunities. Therefore, the future land use amendment should not have an impact to the existing level of service.

8. **New Public Facilities Needed to Serve Land Use:** Per the feasibility analysis completed by staff, no need for new public facilities is anticipated.

9. **Impact Upon Existing Facilities:** Any future development on this site will be required to manage its own stormwater, based on retaining for the 100 year/24-hour storm event, and it will be further reviewed as part of the preliminary plat submittal.

10. **Impact upon Ability of the City to Fund Capital Improvements:** The development should not create an additional impact upon the City's ability to fund the projects listed in the adopted Five-Year Capital Improvement Program and will not require revision to the City's adopted Five-Year Capital Improvement Program.

11. **Compatibility with Existing Zoning Classification:** The proposed DeLand Reserve PD would be compatible with the Medium-Density Residential land use designation.

12. **Will the proposed land use change impact schools?** The applicant has provided a current Finding of Adequate Capacity letter from the Volusia County School Board, determining that capacity is available for the proposed land use. At the time of the preliminary plat, the applicant will be required to reserve said capacity and submit an approval letter from the school board at that time.

13. **How does this proposal fit with the guidelines developed for DeLand 2050 Vision and the City's Strategic Plan?**
    a. **2050 Vision Plan:** The proposed development is located within Category 3, "Transit Oriented Development/Redevelopment" which encourages higher density and mixed uses to support a more efficient transit system in the DeLand area. Located 1.6 miles from the DeLand SunRail station, the applicant has coordinated with FDOT and Volusia County to improve transit accessibility. Planned improvements include additional sidewalks along North Ridgewood Avenue and State Road 44.
    b. **DeLand Strategic Plan:** "To manage growth, the city will institute a number of smart growth principles. For reasons of both community identity and governmental efficiency, an annexation strategy is required which will 'square off' the city's boundaries". A Transit Oriented Development (TOD) is an area that will encourage higher density and a mixture of uses, in order to make a transit system more efficient for the DeLand area. These areas will see a transition from the current development pattern to a more transit friendly pattern, overtime. *A portion of the subject property is located within the Transit Oriented Development/Redevelopment, as shown on the DeLand 2050 Land Use Map and is within the Volusia County Thoroughfare overlay zone which encourages safe ingress/egress from the development. The increase in density is appropriate for the proposed location as it is located along an arterial road, in close proximity to the DeLand SunRail station and encouraging higher intensity along select corridors or major centers will encourage transit and lessen traffic congestion.*

G. CONCLUSION: The facility analysis presented in the above sections suggests the proposed land use should not cause any of the City's facilities to degrade below the adopted or current operational level of service (LOS). The proposed land use designation, Medium-Density Residential, is consistent with the surrounding area, and is not expected to create any land use incompatibilities.

H. NEXT STEPS: The request for a small-scale future land use map amendment will go before the City Commission on October 6, 2025 for first reading, followed by Volusia Growth Management Commission Review (VGMC). After VGMC review, the request is anticipated to go before City Commission on November 17, 2025 for second reading.

I. STAFF RECOMMENDATION: Staff recommends that the Planning Board forward the request to the City Commission with a recommendation of approval of the proposed amendment of the subject property's future land use designation to the City's Medium-Density Residential.

J. VGMC INFRASTRUCTURE IMPACT ASSESSMENT:

In accordance with standard practice from the Florida Department of Economic Opportunity (DEO) and other review agencies, an impact comparison analysis of the proposed amendment has been completed based upon the theoretical maximum development potential under the currently adopted future land use designation versus the proposed designation.

The following seven public facilities and services were examined (Table 4): Transportation, Stormwater Drainage, Sanitary Sewer, Recreation, Potable Water, Schools, and Solid Waste.

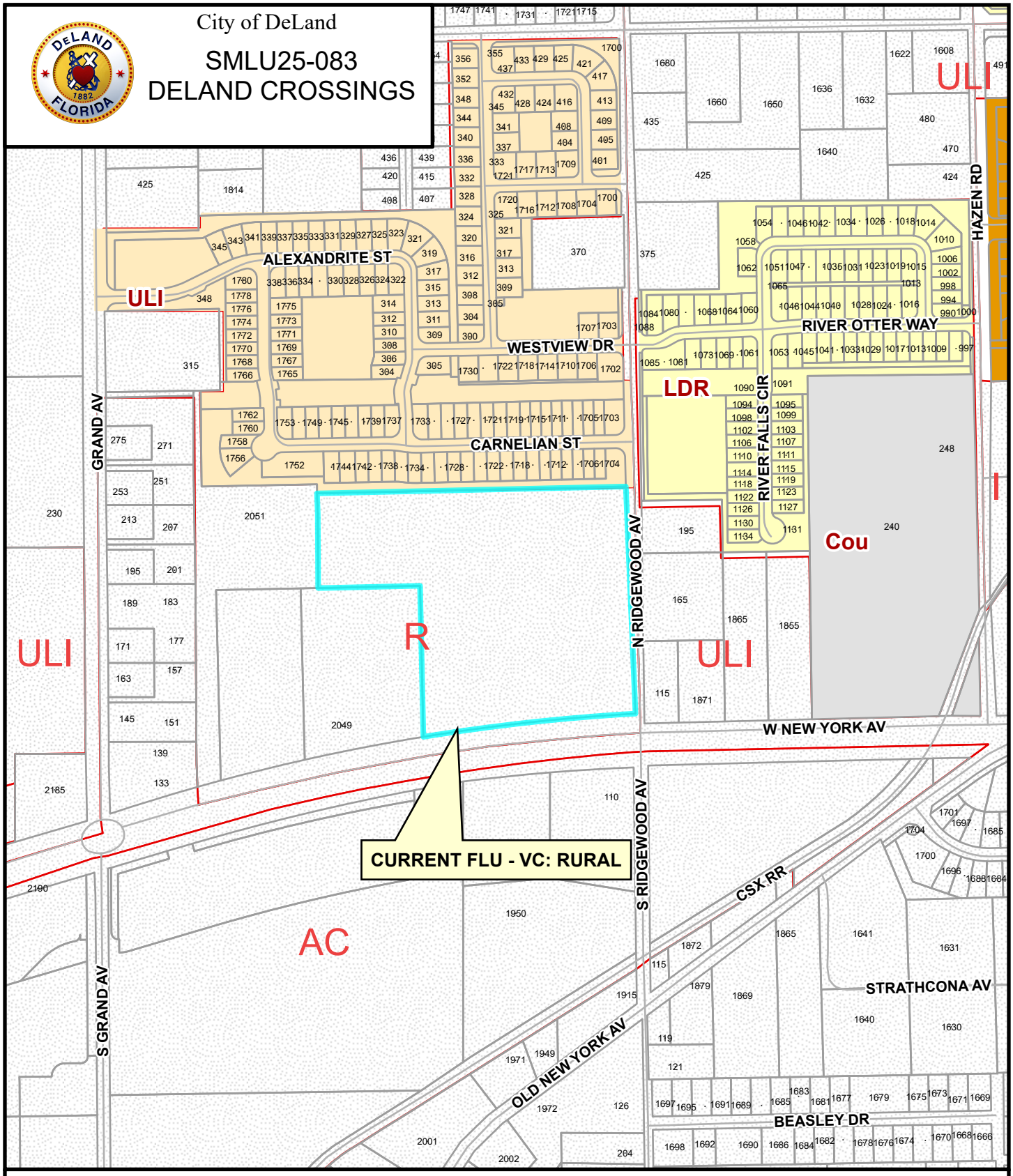
Table 4. Impact Analysis (Theoretical Maximums)

Development Variable	**Theoretical Maximums**		
	EXISTING ***VC: Rural***	**PROPOSED** ***City: MDR***	**Net Change**
Permitted Density/Intensity	1 du/acre	12 du/acre	+11 du/acre
Dwelling Units	20	242	+222
Non-residential Sq. Ft.	N/A	N/A	N/A
Population *2.44 persons per household (per 2020 Census)*	48.8	590	+541.2
Transportation ***(PM Peak Hr. Trips/Daily Trips)*** *(ITE Trip Generation Manual, 11th Edition): PM PEAK HR rate (215): 0.58 trips per unit; ADT rate RM (215): 7.30 trips per day per unit*	11.6 peak/146 ADT	140 peak/1,767 ADT	+128.4 peak/+1,621 ADT
Sanitary Sewer ***(gallons/day)*** *225 GPD per Equivalent Residential Unit (ERU)*	4,500	54,450	+49,950
Potable Water ***(gallons/day)*** *255 GPD per Equivalent Residential Unit (ERU)*	5,100	61,710	+56,610
Solid Waste ***(pounds/day)*** *8.6 pounds per person per day*	419.69	5,074	+4,654.31
Stormwater Drainage *LOS Standard 100-yr/24-hr event. Drainage system to be designed to meet the req. of the LDR during subdivision or site plan review.*	N/A	N/A	N/A
Recreation/Open Space *4.6 parkland acres/1,000 persons (0.0046 acres/person)*	.224	2.71	+2.49

The proposed amendment results in increased impacts to all public infrastructure and services based on the theoretical maximum impact analysis.

City of DeLand

SMLU25-083
DELAND CROSSINGS

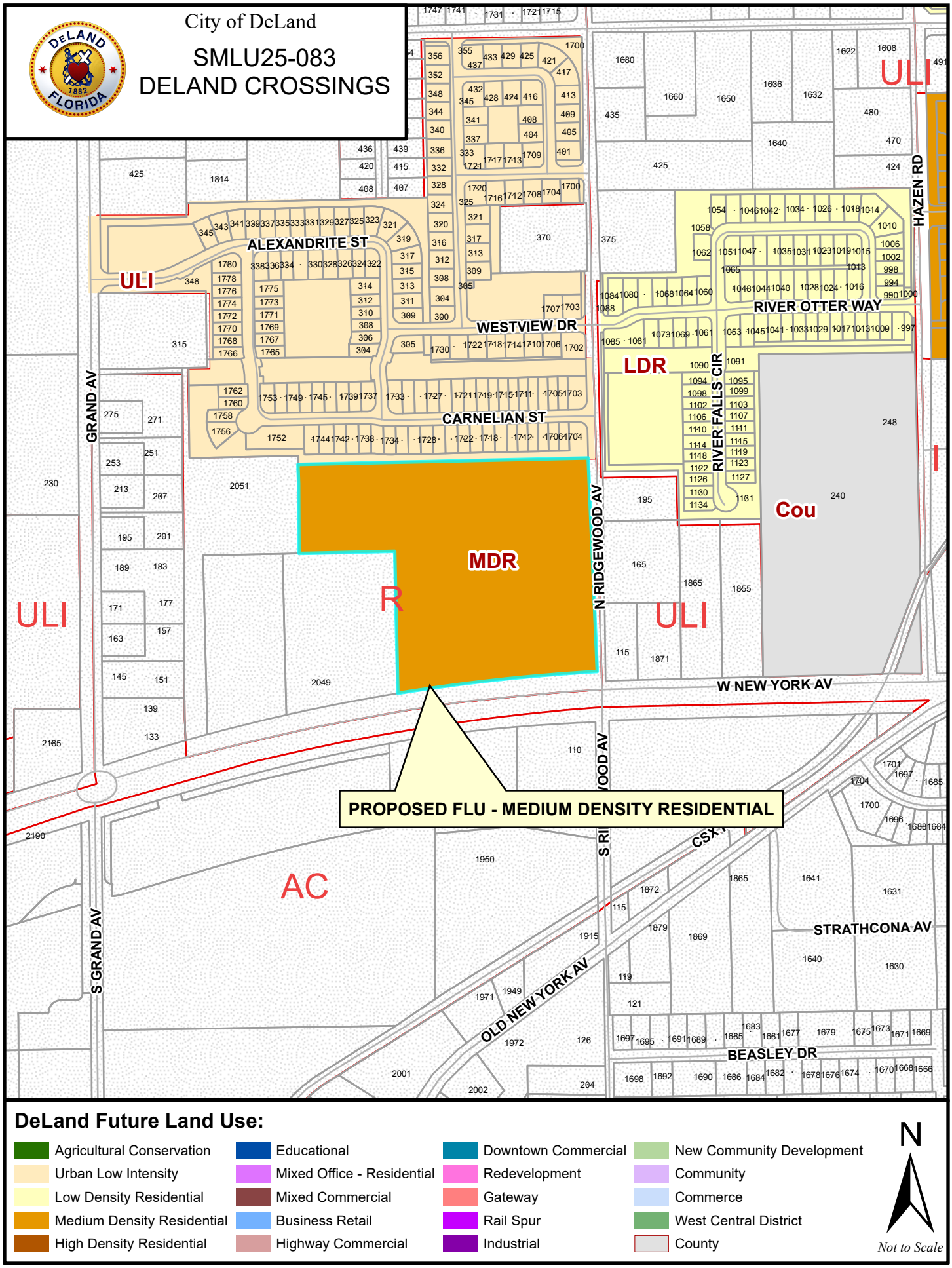


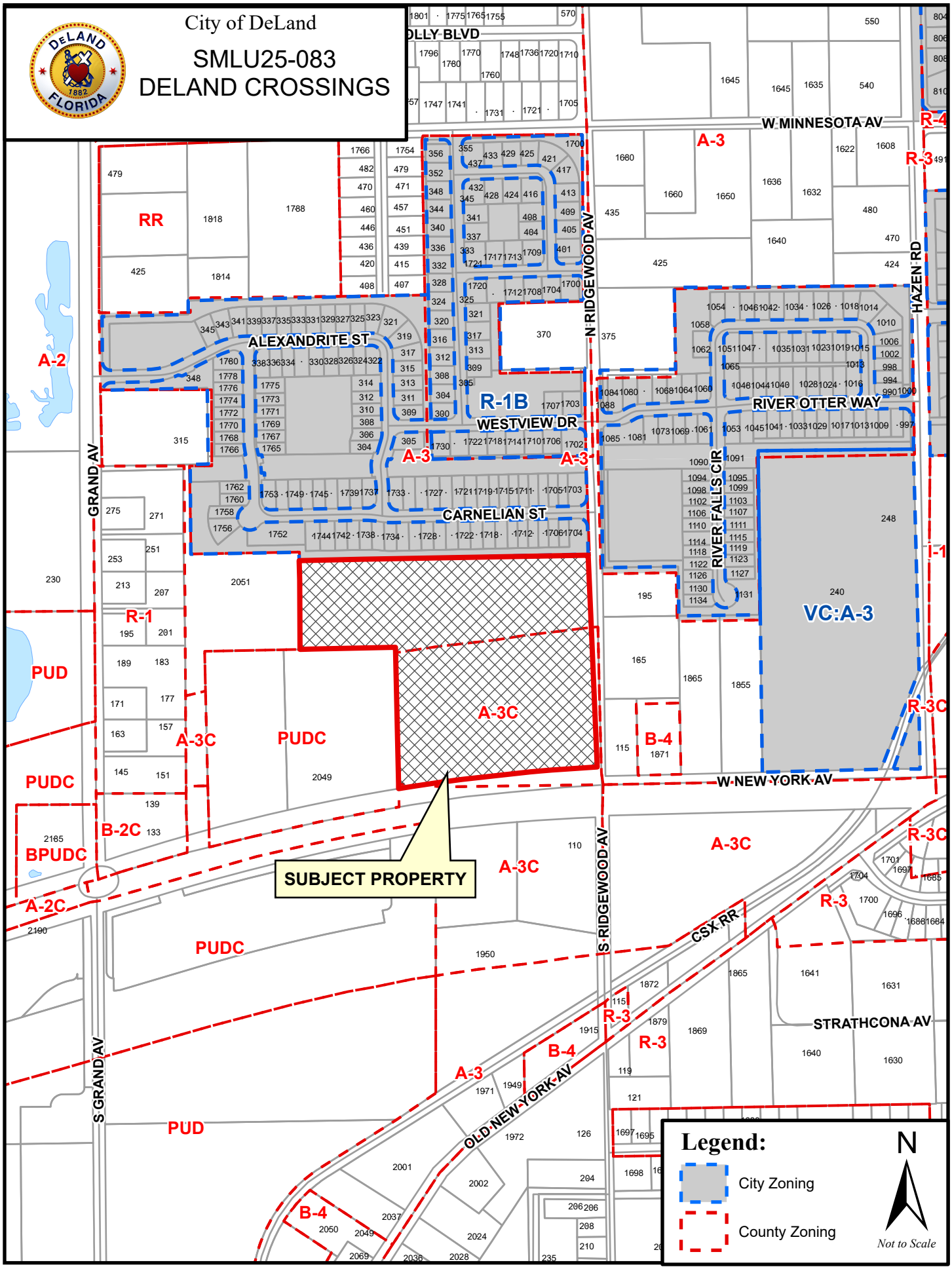
DeLand Future Land Use:

- Agricultural Conservation
- Urban Low Intensity
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Educational
- Mixed Office - Residential
- Mixed Commercial
- Business Retail
- Highway Commercial
- Downtown Commercial
- Redevelopment
- Gateway
- Rail Spur
- Industrial
- New Community Development
- Community
- Commerce
- West Central District
- County

N

Not to Scale


City of DeLand
SMLU25-083
DELAND CROSSINGS
PROPOSED FLU - MEDIUM DENSITY RESIDENTIAL
MDR
LDR
ULI
R
AC
ALEXANDRITE ST
WESTVIEW DR
CARNELIAN ST
RIVER OTTER WAY
RIVER FALLS CIR
GRAND AV
S GRAND AV
N RIDGEWOOD AV
HAZEN RD
W NEW YORK AV
OLD NEW YORK AV
STRATHCONA AV
BEASLEY DR
CSX
DeLand Future Land Use:
Agricultural Conservation
Urban Low Intensity
Low Density Residential
Medium Density Residential
High Density Residential
Educational
Mixed Office - Residential
Mixed Commercial
Business Retail
Highway Commercial
Downtown Commercial
Redevelopment
Gateway
Rail Spur
Industrial
New Community Development
Community
Commerce
West Central District
County
N
Not to Scale


City of DeLand
SMLU25-083
DELAND CROSSINGS
SUBJECT PROPERTY
W MINNESOTA AV
ALEXANDRITE ST
WESTVIEW DR
CARNELIAN ST
RIVER OTTER WAY
RIVER FALLS CIR
N RIDGEWOOD AV
S RIDGEWOOD AV
HAZEN RD
GRAND AV
S GRAND AV
W NEW YORK AV
CSX RR
STRATHCONA AV
OLD NEW YORK AV
RR
A-2
R-1
R-1B
A-3
A-3C
PUD
PUDC
BPUDC
B-2C
A-2C
B-4
R-3
R-3C
R-4
I-1
VC:A-3
Legend:
City Zoning
County Zoning
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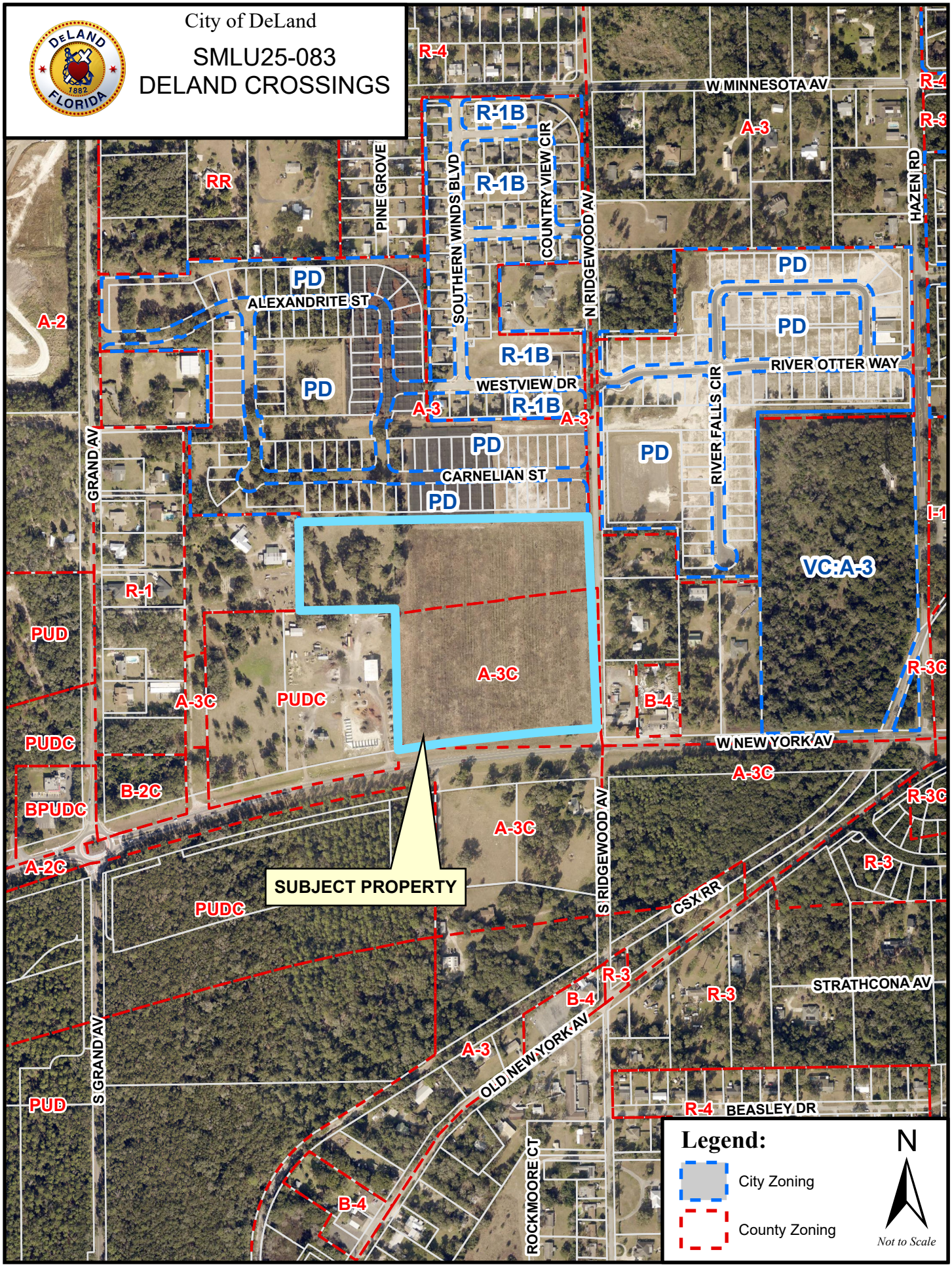
Not to Scale


City of DeLand
SMLU25-083
DELAND CROSSINGS
DeLAND FLORIDA 1882
W MINNESOTA AV
R-4
R-3
A-3
R-1B
RR
PINE GROVE
SOUTHERN WINDS BLVD
COUNTRY VIEW CIR
N RIDGEWOOD AV
HAZEN RD
PD
ALEXANDRITE ST
A-2
RIVER OTTER WAY
WESTVIEW DR
RIVER FALLS CIR
GRAND AV
CARNELIAN ST
I-1
VC:A-3
R-1
PUD
A-3C
PUDC
B-4
R-3C
W NEW YORK AV
B-2C
BPUDC
A-2C
SUBJECT PROPERTY
S RIDGEWOOD AV
CSX RR
STRATHCONA AV
OLD NEW YORK AV
S GRAND AV
BEASLEY DR
ROCKMOORE CT
Legend:
City Zoning
County Zoning
N
Not to Scale

Sec. 72-297. - Thoroughfare overlay zone regulations.

(a) *Purpose and intent:*

(1) The purpose of this section is to provide regulations to ensure safe ingress to and egress from proposed development along thoroughfares, to maintain adequate highway capacity, eliminate hazardous traffic conditions, lessen or prevent traffic congestion, establish a high standard for development, including additional sign regulations and create a more attractive streetscape. Commercial development typically expands along thoroughfares as population and traffic volumes increase in the vicinity of and along the thoroughfare. Eventually, conflicts result between the thoroughfare's function and its ability to move high volumes of traffic through an area.

(2) This congestion is intensified when commercial growth increases along the entire length of the thoroughfare.

(3) The increased commercial growth also changes the public's image of the thoroughfare. What was once considered an attractive tree-lined thoroughfare gradually and often rapidly begins to exhibit characteristics of uncontrolled strip commercial development. Once this pattern has been established, it is difficult to establish alternative types of development (e.g. residential) along these thoroughfares. Therefore, these regulations apply to thoroughfares which; (1) move large volumes of through traffic in addition to significant volumes of everyday local traffic; and (2) do not contain significant amounts of strip commercial development. These thoroughfare overlay zone regulations are intended to supplement all of the regulations of the existing zoning classifications except for permitted uses and special exceptions. The type of permitted uses or special exceptions allowed would be determined according to the existing zoning classification and the site design, signage, building location and the dimensional requirements would be regulated by these overlay zone regulations.

(b) *[Thoroughfare overlay zone:]* A thoroughfare overlay zone is hereby established, and the regulations of this section shall apply in said zone. Said zone shall apply to all zoning classifications established in division 7 of this article, and the official zoning map shall identify said overlay zone by adding the letter "C" as a suffix to the existing zoning classification that currently exists on said maps. The thoroughfares, or portions thereof, to which these regulations apply are as follows:

(1) *North coastal area:*

State Road #40: Western boundary lines of Section 26, Township 14 South, Range 31 East to Ormond Beach west city limits.

U.S. #92: Indian Lake Road east to Daytona Beach west city limit.

(2) *South coastal area:*

State Road #44: New Smyrna Beach city limit west to Tomoka Farms Road (CR 415).

(3) *West Volusia area:*

U.S. #92: Eastern boundary line of Section 25, Township 16 South, Range 30 East, to State Road 15-A.

State Road 15-A: U.S. #17 South to U.S. #17-92.

U.S. #17: Eastern boundary of Section 39, Township 16 South, Range 30 East, to South boundary line of Section 4, Township 17 South, Range 30 East.

U.S. #17-92: North Line of Section 21, Township 17 South, Range 30 East, to South line of Section 33, Township 17 South, Range 30 East.

State Road #44: Western boundary line of Section 14, Township 17 South, Range 29 East, to East boundary line of Section 17, Township 17 South, Range 31 East.

West Volusia Beltline: State Road #44, to North boundary line of Section 13, Township 18 South, Range 30 East. (Ord. No. 85-24, § XVII, 10-10-85; Ord. No. 86-16, § XXXII, 10-23-86; Ord. No. 88-2, § XXI, 1-19-88; Ord. No. 84-25, § XXV, 10-10-84; Ord. No. 88-2, § XXII, 1-19-88; Ord. No. 02-07, § I, 3-7-02)

(c) *Dimensional requirements:*

(1) *Minimum lot width:* No premises shall be divided for the purpose of development of sale such that the width of each or any premises is less than 300 feet measured along the right-of-way line, except as follows:

If vehicle access to any premises is provided by means other than directly onto an arterial, then the minimum lot width requirement may be reduced to 150 feet, and direct vehicle access to a major arterial shall be prohibited.

(2) *Minimum yard size:* Front yard: 50 feet.

(3) *Maximum building height:* Three stories, not to exceed 35 feet.

(4) *Maximum lot coverage:* Total coverage of principal and accessory buildings shall not exceed 30 percent.

(5) *Thoroughfare overlay zone depth:* The thoroughfare overlay zone requirements shall be applied to all premises that front onto or have access to the thoroughfare to a distance equal to the depth of the rear property line, but not to exceed a depth of 660 feet as measured perpendicular from the centerline of the thoroughfare right-of-way.

(d) *Off-street parking and loading requirements:* Off-street parking and loading space shall meet the requirements of section 72-286 and in addition shall meet the following:

Off-street parking and loading areas shall be permitted in the front yard or the side yard that is adjacent to a thoroughfare as long as the off-street parking and loading areas are designed outside the 35-foot-wide landscaped buffer area along the project perimeter adjacent to thoroughfares. Said area shall contain landscaped fences, walls or berms of sufficient heights and opacity to generally obscure parked vehicles from view of the traveling public. All parking areas shall contain a minimum of 20 percent interior landscaping, excluding any required landscaped buffer area as provided in subsection (e), below.

(e) *Landscaping buffer requirements:* In addition to meeting the landscape buffer requirements in section 72-284, the following requirements shall also be met:

(1) A landscape plan shall be provided identifying the quantity, botanical and common name, size and location of plant material, including those existing plant materials to be retained. Plans and specifications for an underground irrigation system are required for any landscaped area.

(2) A minimum of 30 percent of the area of the site shall be covered by landscape materials as specified in subsection 72-284(1) of this article.

(3) Except for access driveways, it is intended that development along the thoroughfare corridor shall be designed to prevent the need for fill material or such other treatment which would remove or harm existing trees within the required front yard.

(4) A landscaped buffer area shall be provided along the perimeter of the property. The width of the buffer shall be determined by the requirements in subsection 72-284(2) unless the site is located on a thoroughfare, then the front buffer shall be a minimum of 35 feet. If the thoroughfare right-of-way is less than 140 feet, then the buffer area will start at a point 70 feet from the centerline of the thoroughfare.

(f) *Final site plan requirements:* In addition to meeting the final site plan requirements in division 3 of the Land Development Code [article III], the following requirements shall be met:

All site plans, reports and general information will be submitted to the development review committee to ensure compliance and consistency for all developments along the thoroughfare.

(g) *Service road requirement:* All premises fronting thoroughfares upon which the thoroughfare overlay zone regulations have been applied shall be provided access via a service road, unless as otherwise specified herein. The service road may either be in the front or rear of the project site depending on the location of any existing service road.

(h) *Transportation impact analysis report; purpose:* The transportation impact analysis report is designed to identify the transportation impacts and problems which are likely to be generated by a proposed use because of the size, density, traffic generation rates or location. The report will also identify all improvements required to ensure safe ingress and egress from a proposed development, maintenance of adequate street capacity, and elimination of hazardous conditions and improvements necessary for immediately surrounding roadways and intersections as a result of the proposed development.

(1)

Threshold for traffic impact analysis report: A transportation impact analysis report shall be required, unless waived by the county traffic engineer, for all uses which meet or exceed any one or more of the following thresholds:

a. Any development which proposes to have direct access to any roadway designated in subsection (b) of this section.

b. Any use which, according to the Institute of Transportation Engineers Trip Generation Manual, latest edition, rates published by the Florida Department of Transportation, or rates documented by study as agreed prior to use by the Volusia County Traffic Engineer will generate in excess of 1,000 trips per day.

(2) *Contents of transportation impact analysis report:* The transportation impact analysis report shall include the following:

a. *General site description:* A detailed description of the highway network within a radius as determined by the county traffic engineer of the site, a description of the proposed project, the anticipated stages of construction, and the anticipated completion date of the proposed land development. This description, which may be in the form of a map, shall include the following items:

1. All major intersections;
2. All proposed and existing ingress and egress locations;
3. All existing roadway widths and rights-of-way;
4. All existing traffic signals and regulatory signage;
5. All existing and proposed public transportation services and facilities within the above-determined radius of the site.

b. *Description of existing traffic conditions:* A 24-hour traffic count shall be conducted for a typical weekday on all roadways which have direct access to a proposed development site. The existing average daily traffic volume, and the highest average peak hour volume for any weekday hour between 3:00 p.m. and 6:00 p.m. shall be recorded. These traffic volumes shall be averaged to determine the average hourly peak traffic volume for a weekday. The methodology used to calculate existing traffic conditions and use of traffic counts and data other than those described above to represent existing traffic conditions shall be subject to the approval of the county traffic engineer.

c. *Transportation impact of the development.* A report shall be made detailing the nature and extent of the trip generation expected to result from the proposed development. Trip generation analysis shall include an estimate of internal/external split, if applicable, and a determination of what characteristics of the development will yield such a split. The source of all trip generation rates shall be according to the Institute of Transportation Engineers Trip Generation Manual, latest edition, rates published by the Florida Department of Transportation, or rates documented by study and agreed to prior to use by the Volusia County Traffic Engineer.

d. *Determination of roadway service level—Calculate service volumes:* Roadway service volumes shall be calculated at the level of service for the thoroughfare which is specified in the comprehensive plan. Data and procedures contained in the Highway Capacity Manual, Special Report, 209, 1985, published by the transportation research board shall be utilized in deriving the information required by the transportation impact analysis report.

e *Determination of intersection service level:*

1. Data and procedures in the Highway Capacity Manual, Special Report, 209, 1985, published by the transportation research board shall be utilized in determining intersection service levels.
2. The post-developing level of service for all intersections shall be in accordance with the comprehensive plan.
3. Determine the existing level of service of all intersections within one-half mile of the proposed development using the critical movement analysis techniques provided in subsection e.1., above.

f. *Analysis of transportation impact:* An analysis shall be undertaken to determine if roadways and intersections will operate at the level of service specified by the comprehensive plan following completion of the development given the future peak hour traffic that will be generated by the proposed development. This analysis shall consist of a comparison of the total future peak hour roadway traffic demand with the plan's mandated level of service standard and a critical movement analysis for intersections to determine the impact of total future peak hour traffic on intersection level of service. All roadways and intersections that would operate below the required level of service following completion of the development shall be considered deficient.

Maintenance of levels of service. Whenever level of service is determined to be below the level specified by the comprehensive plan, development is not permitted unless the developer makes the roadway or other improvements necessary to maintain the specified level of service.

(3) *Traffic-control devices:* Whenever, as a result of additional traffic generated by a proposed development, the manual on uniform traffic control devices determines the need for a traffic signal or regulatory sign, the developer shall be responsible for installing all said devices and signs.

(4) *Large developments:* [Large developments] (over 250 vehicle trips generated per one hour during 3:00 p.m. and 6:00 p.m.) shall also include the following:

a. The impact report for developments which will generate between 250 and 1,000 trips during the peak hour shall involve an analysis of all arterials and all intersections within one mile of the proposed project.

b. Except for developments of regional impact as defined by F.S. § 380.06, the impact report for developments which will generate over 100 trips during the peak hour shall involve an analysis of all arterial and collector roadways and all intersections within three miles of the proposed project.

(i) *Temporary access:* No developer shall be denied a rezoning or building permit for the sole reason that the parcel for which it is sought cannot physically accommodate the requirements of this classification because adjoining segments of service roads or public roadways are not yet constructed. In such an event, a temporary access permit will be issued which shall expire when the proposed access becomes available to the parcel.

(j) *Sign regulations:* The sign regulations established in section 72-298 et seq. shall also apply in any thoroughfare overlay zone; provided, however, the maximum permissible height for any ground sign is eight feet, and the maximum permissible copy area for any ground sign is 40 square feet.

(Ord. No. 85-24, §§ XVIII—XXIV, 10-10-85; Ord. No. 86-16, § XXXIII, 10-23-86; Ord. No. 88-2, §§ XXIII—XXX, 1-19-88; Ord. No. 89-20, § XLIII, 6-20-89; Ord. No. 92-6, § LXVI, 6-4-92; Ord. No. 02-07, § II, 3-7-02; Ord. No. 2008-25, § II, 12-4-08; Ord. No. 2018-05, § IX, 1-18-18)

MEMORANDUM

April 29, 2025

Re: Ridgewood Avenue Residential
Traffic Impact Analysis Methodology
Volusia County, Florida
Project № 25042.01.01 v1.1

The following methodology outlines the methods and assumptions of the Traffic Impact Analysis (TIA) for the above referenced project. The TIA will conform to the methodology requirements and guidelines documented by the River to Sea Transportation Planning Organization (R2CTPO). It addresses comments received from Volusia County as detailed in the **Attachments**.

Project Description

The proposed development consists of 160 multi-family townhome residential homes with an anticipated buildout year of 2027. The site consists of parcel 79-1200000061 and is located at the northwest corner SR 44 and North Ridgewood Avenue in Volusia County, Florida, as shown in **Figure 1**. Access to the site is proposed via two (2) full access driveways on North Ridgewood Avenue. A copy of the conceptual site plan is provided in the **Attachments**.

Trip Generation

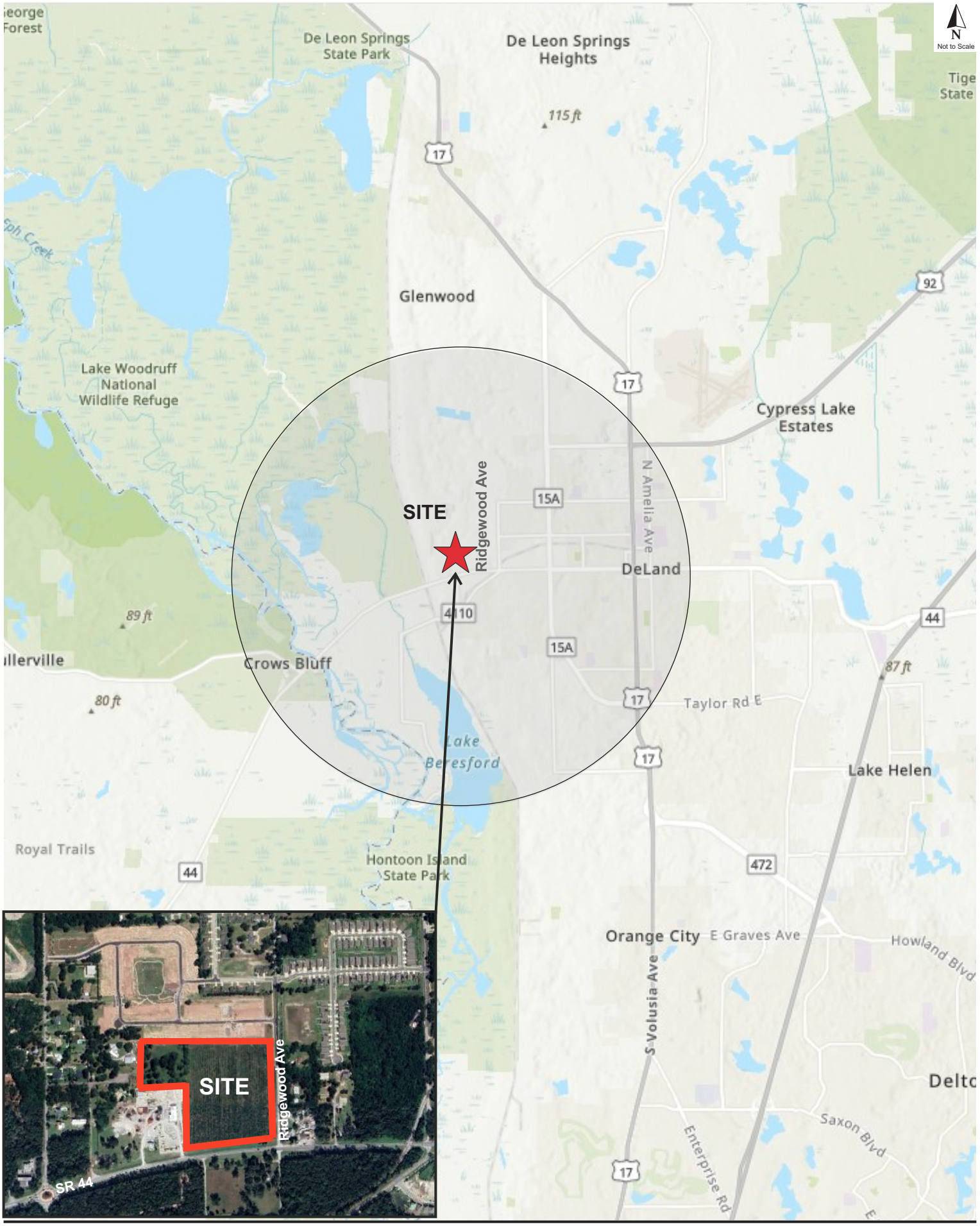
The trip generation analysis for the proposed development was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, *11th Edition*. The trip generation calculation for the project is summarized in **Table 1**. Detailed trip generation sheets are provided in the **Attachments**.

Table 1
Trip Generation Calculation

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
215	Single-Family Attached (Townhouses)	160 DU	7.30	1,169	0.48	78	19	59	0.58	92	54	38

Trip generation analysis based on ITE Trip Generation Manual, 11th Edition

The proposed development is projected to generate 1,169 new daily trips of which 78 trips occur during the AM peak hour and 92 trips occur during the PM peak hour. Per the R2CTPO traffic study guidelines, since the proposed development is anticipated to generate more than 1,000 daily new trips, a TIA is required.


N
Not to Scale
De Leon Springs State Park
De Leon Springs Heights
115 ft
Glenwood
Lake Woodruff National Wildlife Refuge
Cypress Lake Estates
SITE
Ridgewood Ave
N Amelia Ave
DeLand
Crows Bluff
89 ft
80 ft
87 ft
Taylor Rd E
Lake Beresford
Lake Helen
Royal Trails
Hontoon Island State Park
Orange City
E Graves Ave
Howland Blvd
S Volusia Ave
Saxon Blvd
Enterprise Rd
SR 44
17
92
15A
4110
44
472

Trip Distribution

The trip distribution pattern was estimated using the *Central Florida Regional Planning Model (CFRPM, v7.0)*. The model distribution was adjusted to reflect the local network as well as prevailing traffic flow patterns. The raw model output is included in the **Attachments** and the adjusted trip distribution is shown in **Figure 2**.

Study Area

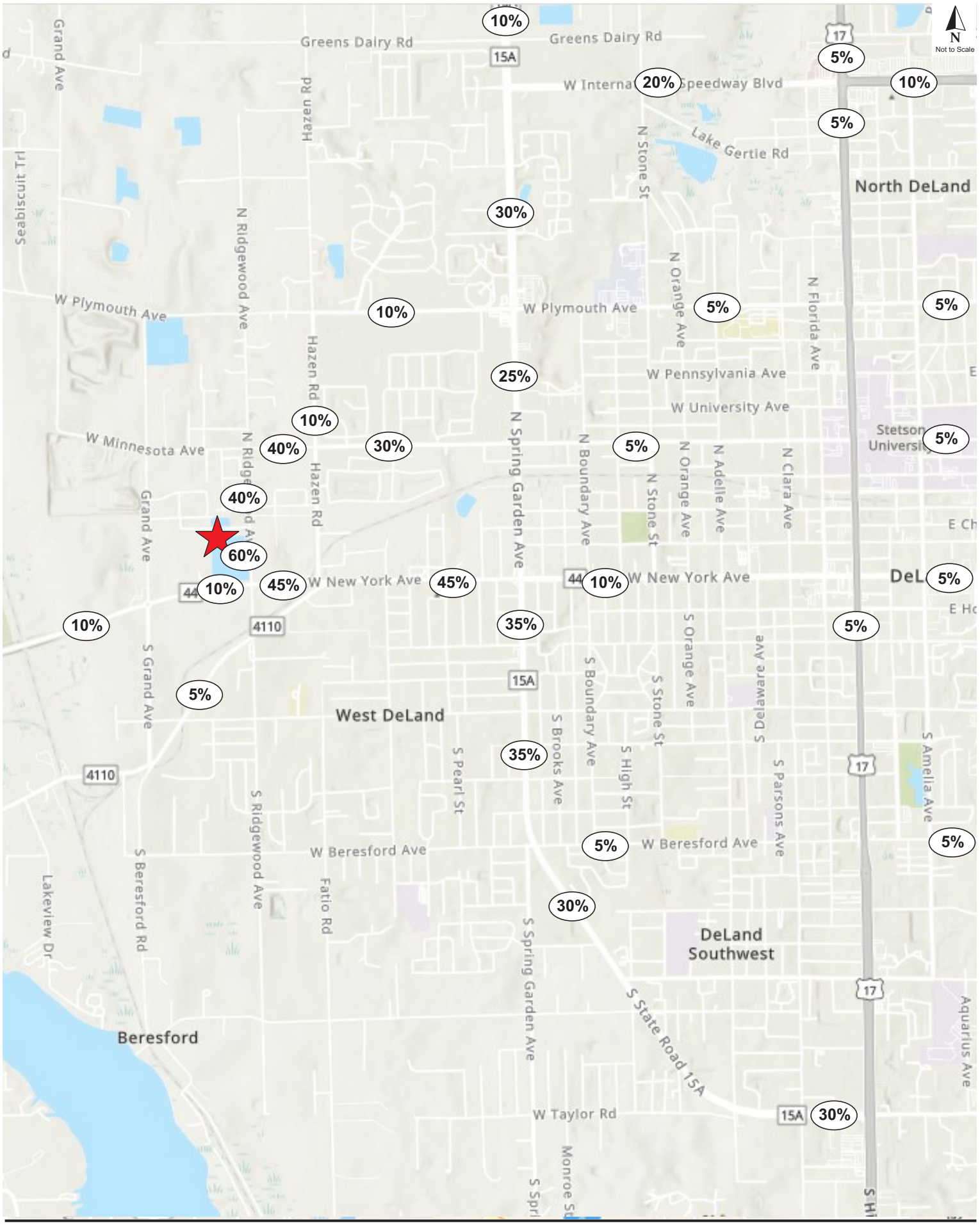
Per the TIA requirements, all roadways of the project where the project's peak hour trips consume three percent (3%) or more of a roadway's two-way peak hour generalized service volume based on the adopted LOS and committed number of lanes shall be analyzed. In addition, the Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) data was reviewed for roadway segments within a 3-mile radius. The 3-mile C/NC/VC/NVC roadway buffer is shown in **Figure 3**. Roadway segments and peak two-way LOS capacities were obtained from the *Volusia County 2022 AADT & Historical Counts*, included in the **Attachments**. Findings are summarized in **Table 2.**

Two (2) roadway segments within the 3-mile radius were determined to be C/NC/VC/NVC designated facilities. One (1) segment is projected to consume three percent (3%) or more of the surrounding roadway's two-way peak hour generalized service volume. One (1) additional segment was added based on its proximity to the project. Therefore, the study will include the roadway segments and intersections displayed in **Figure 4**.

Roadway Segment and Intersection Analysis

The traffic analysis will include existing and 2027 buildout conditions for both roadway segment and intersection capacity analysis. Roadway segments will be analyzed for the PM peak two-way volume. The analysis will be based on volumes and service volumes obtained from *Volusia County 2022 AADT & Historical Counts.*

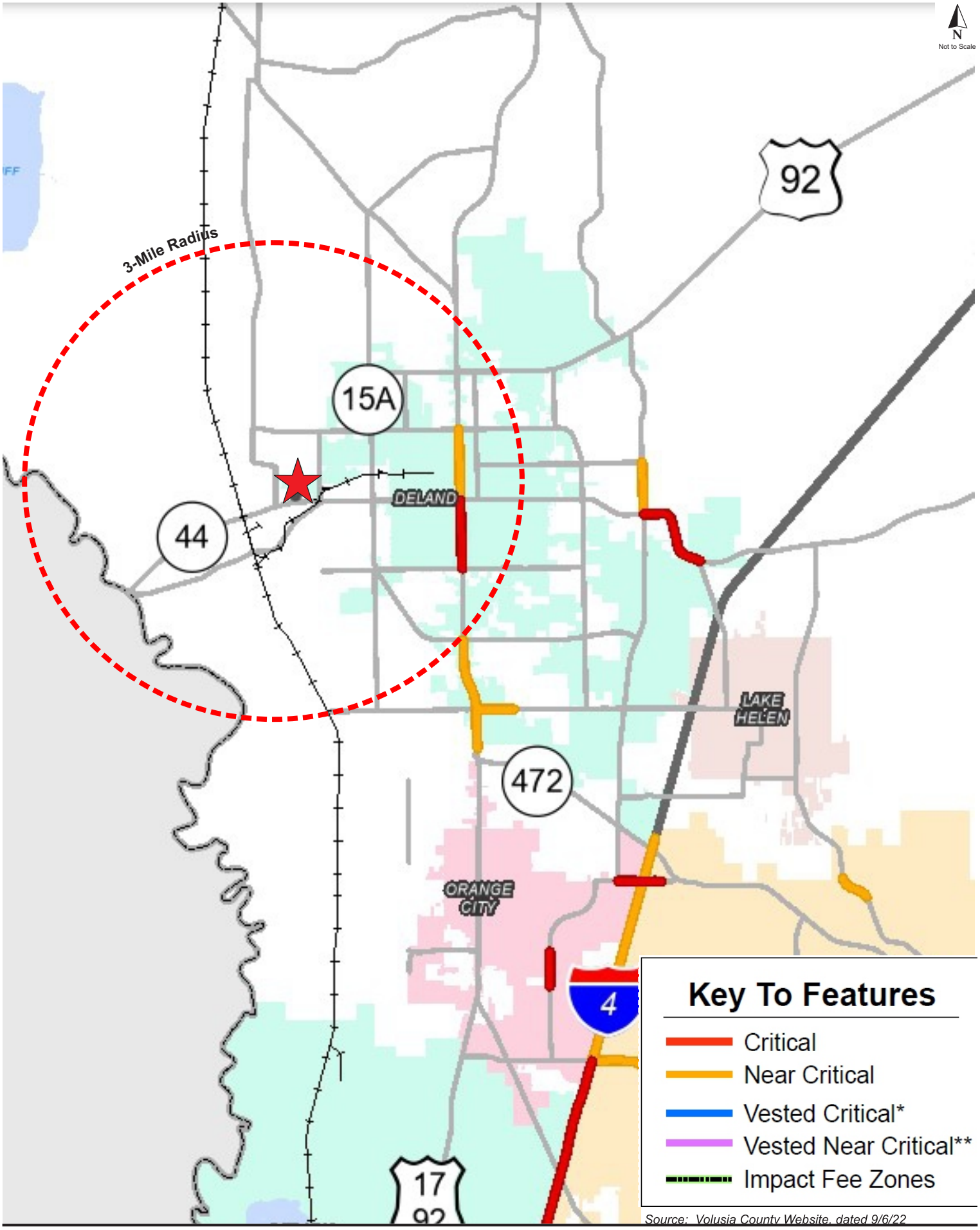
The intersection analysis will be conducted for the AM and PM peak hours based on field counts, projected movements, *Synchro* software and the methods of the *Highway Capacity Manual (HCM).* The intersection field counts will include non-vehicular modes of travel (e.g., pedestrians and bicycles).



TMC Traffic & Mobility CONSULTANTS

25042.01.01 Ridgewood Avenue Residential

Project Trip Distribution **Figure 2**



Source: Volusia County Website, dated 9/6/22

Table 2
Study Area Significance Review

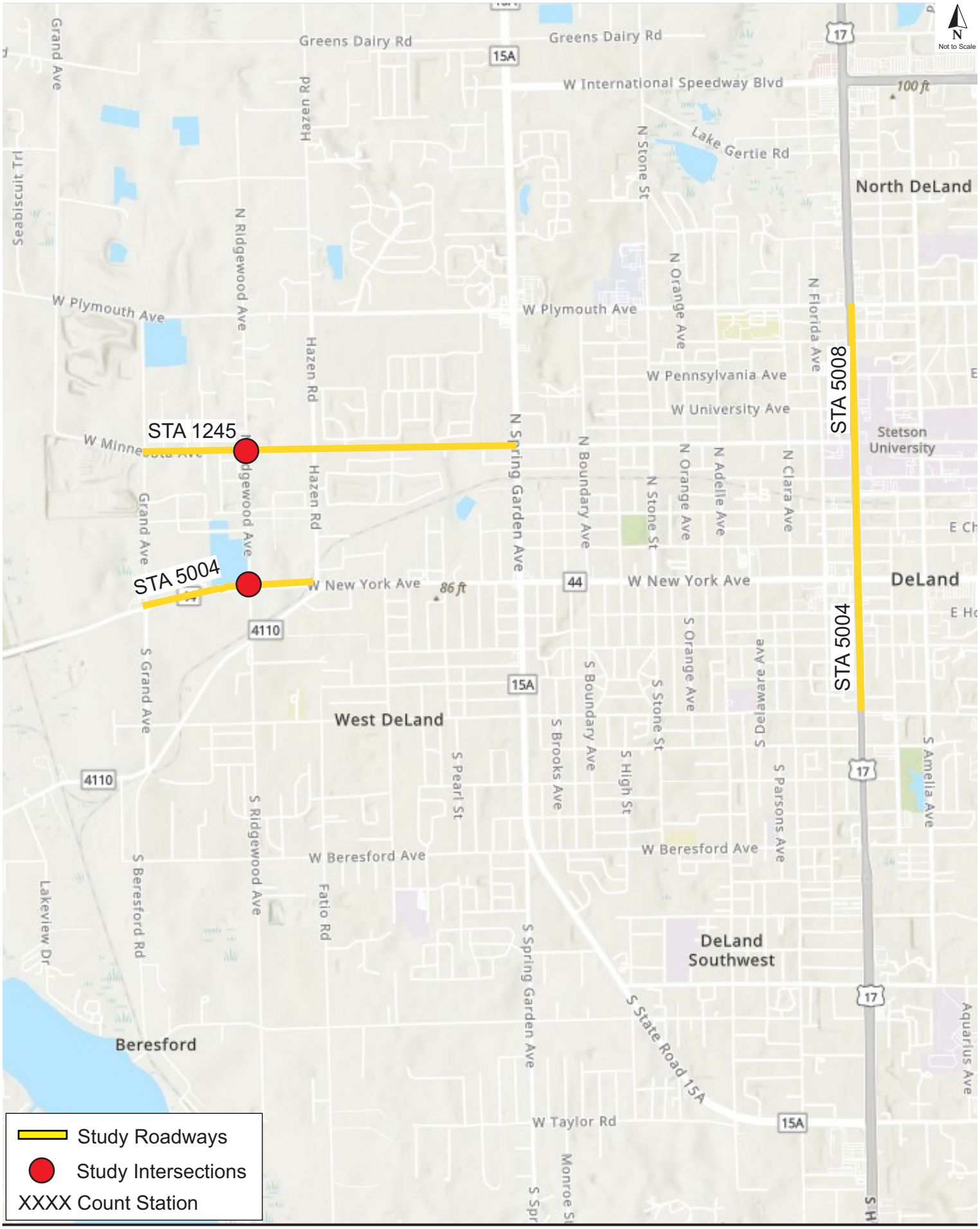
Roadway Segment	Seg Num	A T	Function Class	# of Lns	PK 2W Cap	Project Trips Dist	Trips	%Cap	Signif-icant?	C/ NC?	w/in 3-miles	In Study?
US 17/92												
SR 15A/Taylor Rd. to Beresford Ave.	1006	U	Principal Arterial	4	3,790	0%	0	0.00%	NO	NO	YES	NO
Beresford Ave. to Euclid Ave.	5173	U	Principal Arterial	4	1,480	0%	0	0.00%	NO	NO	YES	NO
Euclid Ave. to SR 44/New York Ave.	5004	U	Principal Arterial	2	1,410	5%	4	0.28%	NO	C	YES	YES
SR 44/New York Ave. to Plymouth Ave.	5008	U	Principal Arterial	2	1,410	0%	0	0.00%	NO	NC	YES	YES
Plymouth Ave. to US 92/ISB	66	U	Principal Arterial	4	3,790	5%	4	0.11%	NO	NO	YES	NO
SR 15A												
US 17/92/Taylor to New Hampshire Ave.	1005	U	Principal Arterial	4	3,580	30%	25	0.70%	NO	NO	YES	NO
New Hampshire Ave. to Beresford Ave.	6	U	Principal Arterial	4	3,580	30%	25	0.70%	NO	NO	YES	NO
Beresford Ave. to SR 44/New York Ave.	474	U	Principal Arterial	4	3,580	35%	29	0.81%	NO	NO	YES	NO
SR 44/New York Ave. to Plymouth Ave.	463	U	Principal Arterial	4	3,580	25%	21	0.59%	NO	NO	YES	NO
Plymouth Ave. to CR 92	537	U	Principal Arterial	4	3,580	30%	25	0.70%	NO	NO	YES	NO
CR 92 to Glenwood Rd.	465	U	Principal Arterial	4	3,580	10%	8	0.22%	NO	NO	YES	NO
SR 44												
Lake Co. to Shell Rd.	1007	U	Principal Arterial	2	1,490	10%	8	0.54%	NO	NO	YES	NO
Shell Rd. to Grand Ave.	1007	U	Principal Arterial	2	2,180	10%	8	0.37%	NO	NO	YES	NO
Grand Ave. to Old New York/Hazen Rd.	1007	U	Principal Arterial	2	2,180	45%	37	1.70%	NO	NO	YES	NO
Old New York/Hazen Rd. to SR 15A/Spring Garden /	274	U	Principal Arterial	2	2,180	45%	37	1.70%	NO	NO	YES	NO
SR 15A/Spring Garden Ave. to Stone St.	447	U	Principal Arterial	2	1,712	10%	8	0.47%	NO	NO	YES	NO
Stone St. to Clara Ave.	5012	U	Principal Arterial	2	1,712	10%	8	0.47%	NO	NO	YES	NO
Clara Ave. to Amelia Ave.	5015	U	Principal Arterial	2	1,410	10%	8	0.57%	NO	NO	YES	NO
Amelia Ave. to Hill Ave.	80	U	Principal Arterial	2	1,712	5%	4	0.23%	NO	NO	YES	NO
Amelia Ave												
SR 44 to Ohio Ave.	73	U	Major-Collector	4	2,060	0%	0	0.00%	NO	NO	YES	NO
Ohio Ave. to Minnesota Ave.	74	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Minnesota Ave. to Plymouth Ave.	75	U	Major-Collector	2	1,270	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave. to US 92	77	U	Major-Collector	2	1,270	0%	0	0.00%	NO	NO	YES	NO
Beresford Ave												
Beresford Rd. to Fatio Rd	161	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Fatio Rd. to SR 15A	162	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
SR 15A to US 17/92	164	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
US 17/92 to Amelia Ave	165	U	Major-Collector	2	1,330	5%	4	0.30%	NO	NO	YES	NO
Amelia Ave. to Hill Ave.	167	U	Major-Collector	2	1,620	5%	4	0.25%	NO	NO	YES	NO
Hill Ave. to Blue Lake Ave.	169	U	Major-Collector	2	1,230	5%	4	0.33%	NO	NO	YES	NO
Beresford Rd												
SR 15A to Spring Garden Ave.	180	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Spring Garden Ave. to Fatio Rd.	181	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Fatio Rd.. to Beresford Ave	182	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Beresford Ave. to Old New York Ave.	183	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
CR 92 (International Speedway Blvd)												
SR 15A to Stone St.	450	U	Principal Arterial	4	3,410	20%	16	0.47%	NO	NO	YES	NO
Stone St. to US 17/92	452	U	Principal Arterial	4	3,410	20%	16	0.47%	NO	NO	YES	NO
Euclid Ave												
Grand to Fatio Rd.	610	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Fatio Rd. to Woodward Ave.	611	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Woodward Ave. to SR 15A	612	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
SR 15A to Adelle Ave.	613	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Adelle Ave. to US 17/92	614	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Garfield Ave												
SR 44 to Plymouth Ave.	700	U	Local	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave. to US 92	702	U	Local	2	1,020	0%	0	0.00%	NO	NO	YES	NO

Source: 2022 Volusia County AADTs

Table 2
Study Area Significance Review (Cont'd)

Roadway Segment	Seg Num	A T	Function Class	# of Lns	PK 2W Cap	Project Trips			Signif-icant?	C/ NC?	w/in 3-miles	In Study?
						Dist	Trips	%Cap				
Grand Ave / CR 4053												
Old New York Ave. to SR 44	748	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
SR 44 to Minnesota Ave.	750	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Minnesota Ave. to Plymouth Ave.	751	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave. to Glenwood Rd.	752	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Glenwood Rd. to Lemon St.	754	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Minnesota Ave												
Grand Ave. to SR 15A	1245	U	Minor-Collector	2	1,020	40%	33	3.24%	YES	NO	YES	YES
SR 15A to US 17/92	1247	U	Minor-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Amelia Ave. to Hill Ave	1249	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
New Hampshire Ave												
SR 15A to Adelle Ave	1270	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Adelle Ave to Clara Ave.	1271	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Clara Ave. to US 17/92	1272	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave												
Grand Ave. to Hazen Rd.	1490	U	Major-Collector	2	1,230	0%	0	0.00%	NO	NO	YES	NO
Hazen Rd. to SR 15A	1491	U	Major-Collector	2	1,230	10%	8	0.65%	NO	NO	YES	NO
SR 15A to Stone St.	1493	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Stone St. to Clara Ave	1495	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Clara Ave. to US 17/92	1497	U	Major-Collector	2	1,270	5%	4	0.31%	NO	NO	YES	NO
US 17/92 to Amelia Ave	1498	U	Major-Collector	2	1,270	5%	4	0.31%	NO	NO	YES	NO
Amelia Ave. to Garfield Ave.	1500	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Garfield Ave. to Blue Lake Rd./Jacobs Dairy Rd	1502	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Woodward Ave												
Beresford Ave. to Euclid Ave.	2031	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Euclid Ave. to SR 44	2030	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO

Source: 2022 Volusia County AADTs


N
Not to Scale
Greens Dairy Rd
15A
W International Speedway Blvd
100 ft
Lake Gertie Rd
North DeLand
Grand Ave
Hazen Rd
N Ridgewood Ave
N Stone St
N Orange Ave
N Florida Ave
W Plymouth Ave
W Pennsylvania Ave
W University Ave
STA 5008
Stetson University
STA 1245
N Spring Garden Ave
N Boundary Ave
N Adelle Ave
N Clara Ave
Hazen Rd
Grand Ave
STA 5004
W New York Ave
86 ft
44
DeLand
4110
S Grand Ave
West DeLand
S Boundary Ave
S Stone St
S Orange Ave
S Delaware Ave
S Amelia Ave
17
S Pearl St
S Brooks Ave
S High St
S Parsons Ave
S Ridgewood Ave
W Beresford Ave
S Beresford Rd
Fatio Rd
Lakeview Dr
DeLand Southwest
S Spring Garden Ave
S State Road 15A
Aquarius Ave
Beresford
W Taylor Rd
Study Roadways
Study Intersections
XXXX Count Station

Background Traffic

Background traffic will be projected to the buildout year 2027 per *Volusia County's Segment Growth Rates and Vested Trips Instructions Policy*, included in **Attachments**. Growth rates will be calculated based on the historical AADT obtained from the latest *Volusia County AADT & Historical Counts*. The vested trips will be calculated based on the most recent version of *Volusia County Vested Trip Database*. Vested developments as coordinated with the City of Deland will also be included. The locations of the count stations used to collect the historical AADT data are included in **Figure 4**. Necessary adjustments will be made to both the growth rates and the vested trips per Volusia County guidelines.

Buildout Traffic

Buildout conditions will be analyzed by comparing the total projected traffic volumes to their service volumes at the adopted LOS standard for the roadway segments and intersections. Total projected traffic volumes at buildout year 2027 will be calculated as the sum of background traffic and project trips.

Planned and Programmed Improvements

The *FDOT Work Program* and the *River to Sea Transportation Planning Organization (TPO) Transportation Improvement Program (TIP)* were reviewed to determine if any roadway or intersection capacity improvements were funded for construction within the next three (3) years. One (1) improvement is currently funded. The St. Johns Loop Trail Gap between Lake Beresford Park and Grand Avenue is a multi-use 3.6-mile trail where a *Project Development & Environment (PD&E) Study* is currently underway. An excerpt from the FDOT *www.cflroads.com* website is provided in the **Attachments**.

Access and Turn Lane Analysis

An assessment of turn lane needs for the project driveways will also be performed for proposed full access driveway utilized by project traffic. Turn lane requirements will be based on section 72-619 of the *Volusia County Land Development Code*.

Proportionate Share

If the development results in offsite impacts, the development will mitigate its impact to the deficient facilities by contributing a proportionate share. The proportionate share calculation will be based on costs approved by the Volusia County.

Alternative Mode Analysis

An alternative mode review will be included in the traffic study and will include a narrative of any transit stops within ¼ mile of the site, ½ mile of a rail line station or intermodal facility, provisions for sidewalks adjacent to public roads within the limits of the site, sidewalk connectivity between parcels, provisions for any bicycle amenities, and identification of any schools within 1-mile of the site.

Crash Analysis

A review of historical crash data within the vicinity of the site access points will be conducted to determine if any design features could potentially mitigate the observed crash frequency/ severity. A crash diagram with georeferenced crash locations highlighting crash trends based on five (5) years period will be included. Five (5) years of crash data will be obtained from Signal Four Analytics (S4A) for the analysis. The crash analysis will include all listed study intersections/segments adjoining the development and intersection(s)/segment(s) with mitigated development measure(s). In summary the crash analysis review will include consideration to the following:

- Crash patterns near proposed driveways should be assessed to identify if additional mitigations like access restriction or median treatments are warranted.
- Analyze crash data to identify trends, patterns, and crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period.
- Mitigation measure(s) as proposed to address potential crash trends will be required by using CMF factors to include the following tabulated information.
- Confirm that full access is operationally and safely feasible on North Ridgewood Avenue based on existing traffic volumes and access spacing policies.

Report

A report will be prepared detailing the methods, findings, and recommendations of the traffic analysis for the proposed development.

ATTACHMENTS

May 7, 2025

William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West Indiana Avenue
DeLand, FL 32720
WDWhite@volusia.org

Re: Ridgewood Ave Residential
Response to Methodology Comments
TMC Project № 25042.01.01
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by Volusia County Traffic Engineering dated April 24, 2025 regarding the above referenced Methodology dated April 14, 2025. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology v1.1 is provided under cover reflecting the changes resulting from these comments.

1. **Secure written confirmation from relevant agencies their listed vested development(s) to be considered within your impacted study area.**

   TMC Response: Acknowledged. The TIA will include applicable vested developments as coordinated with the City of Deland and Volusia County.

2. **Please confirm if the study area is within ¼-mile of a transit route, or ½-mile of a rail line rail station, or intermodal facility.**

   TMC Response: Acknowledged. The TIA will include details on the transit routes, rail lines, and intermodal facilities that are within the study area, as defined per Volusia County standards.

3. **Evaluates the impact of proposed development interaction with high school, bicycle, and pedestrian traffic.**

   TMC Response: Acknowledged. This information will be included in the TIA.

4. ***Refer to TIA guideline section 7 (though an analysis of safety and access management issues may still need to be completed) and provide documentation that support this requirement. A crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period. Analysis of safety and access management issues will be required to include:***

- **Crash patterns near proposed driveways should be assessed to identify if additional mitigations like access restriction or median treatments are warranted.**
- **Analyze crash data to identify trends, patterns, and crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period.**
- **Mitigation measure(s) as proposed to address potential crash trends will be required by using CMF factors to include the following tabulated information:**

Countermeasure	CMF Description	CMF ID & CMF Value	Clearinghouse Quality Level	Crash Applicability Description	Included in Analysis?

TMC Response: The section of the methodology titled Crash Analysis already included this level of detail for the safety/crash review. The text has been expanded to include the above listed bullets as well.

5. **Confirm that full access is operationally and safely feasible on North Ridgewood Avenue based on existing traffic volumes and access spacing policies.**

   TMC Response: The Crash Analysis section has been expanded to include this requirement.

6. **Include justification for local adjustments (e.g., observed traffic patterns, major attractors/employers) in the final report for transparency.**

   TMC Response: Acknowledged.

7. **Pay special attention to potential need for northbound/southbound left-turn lanes due to full access configuration and proximity to SR 44.**

   TMC Response: The access review will include an assessment of the feasibility of accommodating a full left turn lane based on the site's proximity to SR 44, if a turn lane is determined to meet agency thresholds.

8. **Please submit soft copy of the Synchro files used.**

   TMC Response: Acknowledged. We understand this to be standard County requirement.

9. **Please submit a soft copy of the excel spreadsheet used for your PFS calculation.**

   TMC Response: Acknowledged. We understand this to be standard County requirement.

10. Present traffic count results to account for all modes of movements and provide soft copy of all count survey data using the following file types:

- **Intersection data - .txt export from PetraPro; .txt export from Traffic Data Online.**
- **Midblock data: .prn export from TraxPro/StarNEXT; .csv export from VIAS; .prn export from TrafficViewerPro**

TMC Response: Acknowledged.

END OF COMMENTS

We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

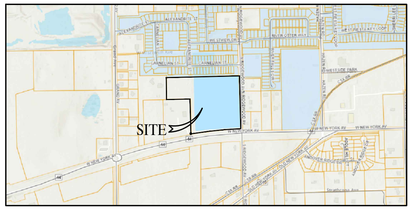
Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC

Charlotte Davidson, PE, PTP
Project Manager



LOCATION MAP



AERIAL MAP

LEGAL DESCRIPTION:

12-17-29 IRREG PARCEL LYING IN GOVT LOT 4 E OF GRAND AVE & N OF SR 44 & W OF N RIDGEWOOD AVE MEAS 827.72 ALONG N R/W OF SR 44 & 867.52 FT ALONG W R/W OF N RIDGEWOOD AVE & 1207.70 FT ON N/L AS DESCRIBED IN OR 7709 PG 3083 PER OR 7233 PG 1560

FLOOD ZONE:

PROPERTY SHOWN HEREON LIES IN FLOOD ZONE "X" AN AREA WHICH LIES OUTSIDE THE 100 YEAR FLOOD AREA ACCORDING TO F.I.R.M. MAP PANEL No. 12127C0465H, DATED FEBRUARY 19, 2014.

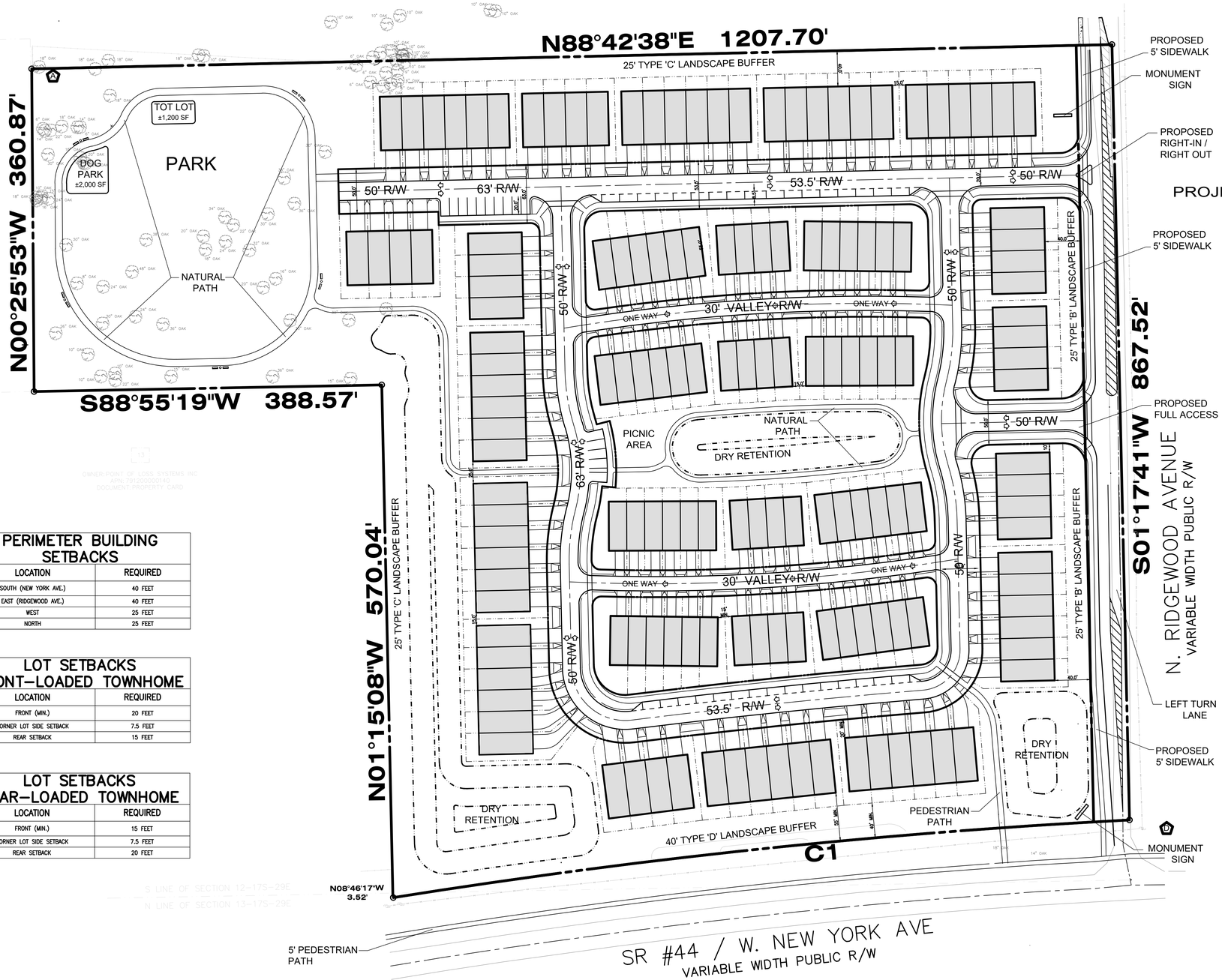
TAX PARCEL ID #:
791200000061

ALT ID #:
2061880

ADDRESS:
210 N. RIDGEWOOD AVE.
DELAND, FLORIDA 32720

N
W E
S

0' 60' 120'
SCALE: 1" = 60'



LEGEND
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CONCRETE

PROJECT AREA = 20.13 ACRES

PROJECT DATA:

TOTAL AREA:	20.13 AC
MAX. No. OF UNITS:	160 UNITS
MAXIMUM DENSITY:	8 UNITS / AC
MAX. IMP. ALLOWED:	60%
MIN. OPEN SPACE REQ'D:	30%

PROPOSED PARKING:

FRONT LOADED UNITS:	1 GARAGE + 2 CAR D/W EACH
REAR LOADED UNITS:	1 GARAGE + 1 CAR D/W EACH
STREET SIDE:	8.5' X 20' PARALLEL PARKING 9' X 20' - 90° PARKING

PROPOSED BUILDINGS:

MAX. NO. UNITS / BLDG.:	8 UNITS
MIN. NO. UNITS / BLDG.:	4 UNITS
MIN. DIST. BETWEEN BLDGS:	15'

PERIMETER BUILDING SETBACKS

LOCATION	REQUIRED
SOUTH (NEW YORK AVE.)	40 FEET
EAST (RIDGEWOOD AVE.)	40 FEET
WEST	25 FEET
NORTH	25 FEET

LOT SETBACKS FRONT-LOADED TOWNHOME

LOCATION	REQUIRED
FRONT (MIN.)	20 FEET
CORNER LOT SIDE SETBACK	7.5 FEET
REAR SETBACK	15 FEET

LOT SETBACKS REAR-LOADED TOWNHOME

LOCATION	REQUIRED
FRONT (MIN.)	15 FEET
CORNER LOT SIDE SETBACK	7.5 FEET
REAR SETBACK	20 FEET

OWNER:POINT OF LOSS SYSTEMS INC
APN:791200000140
DOCUMENT:PROPERTY CARD

S LINE OF SECTION 12-17S-29E
N LINE OF SECTION 13-17S-29E

DATE: MAY 2, 2025
SCALE: 1" = 60'
DESIGNED: THS
DRAWN: MOS
CHECKED BY: THS
JOB NO.: 25045
EMAIL: tomskelton4568@gmail.com

REVISIONS | REVISED | CHECKED | DATE

AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS ROAD, SUITE 211 WINTER SPRINGS, FLORIDA 32708
PHONE: (407) 327-7700, FAX (407) 327-0227
CERTIFICATE OF AUTHORIZATION NO.: 00006729

PD SITE PLAN
DELAND CROSSINGS
MULTI-FAMILY DEVELOPMENT
DELAND, FLORIDA

THOMAS H. SKELTON, PE
REGISTRATION NO. 42752

SHEET: C1

Single-Family Attached Housing
(215)

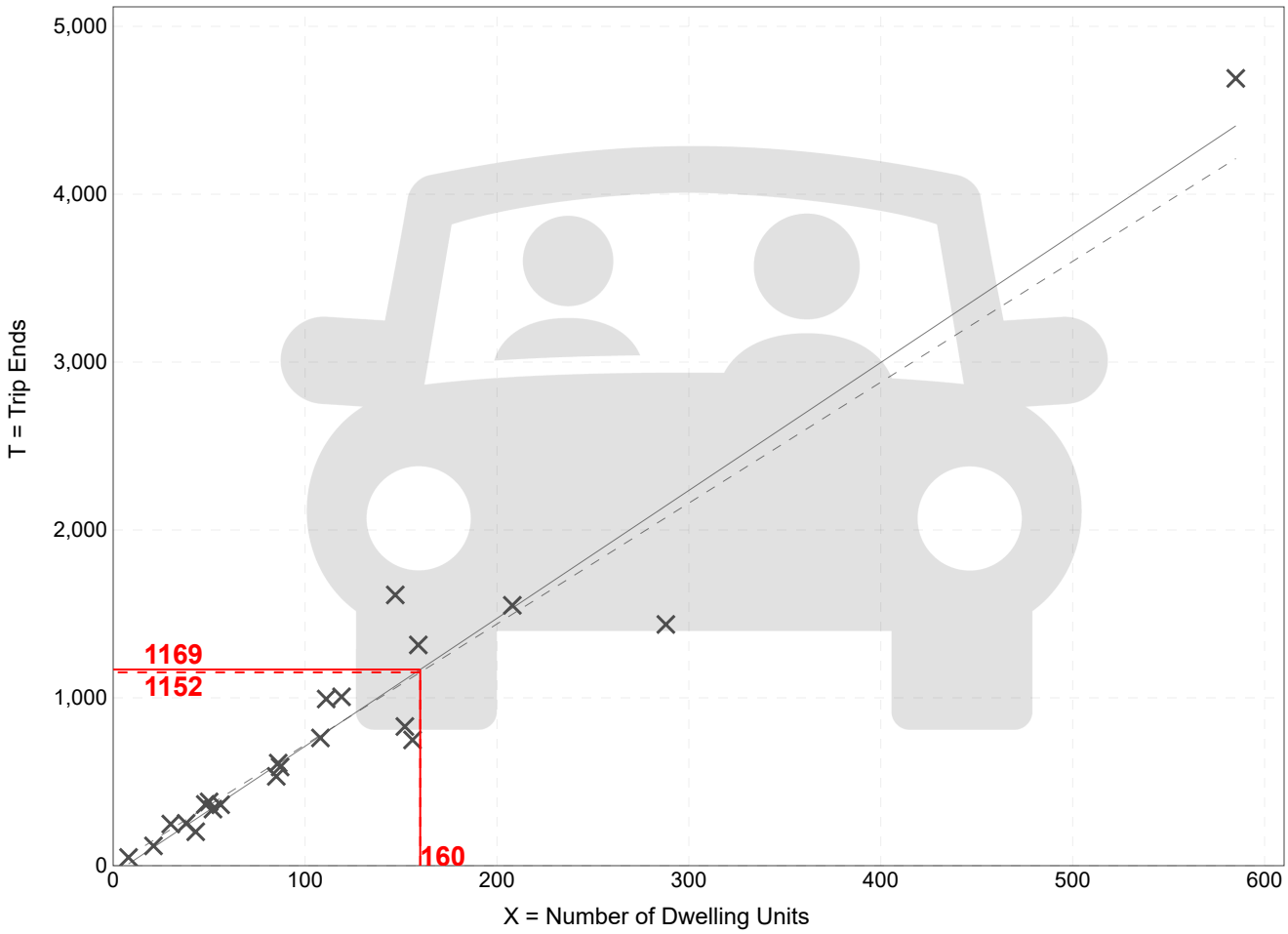
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Fitted Curve Equation: T = 7.62(X) - 50.48

R^2= 0.94

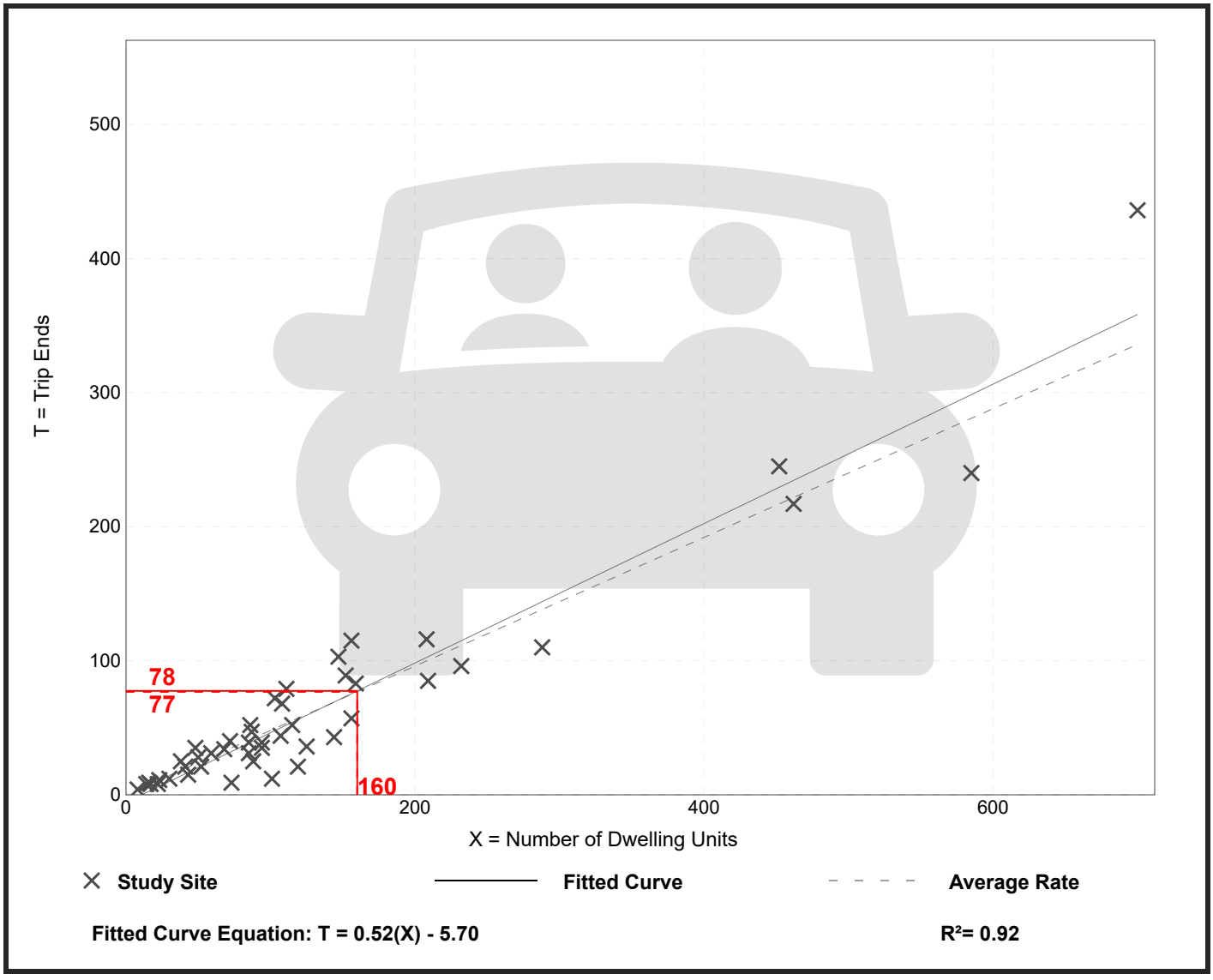
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	46
Avg. Num. of Dwelling Units:	135
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

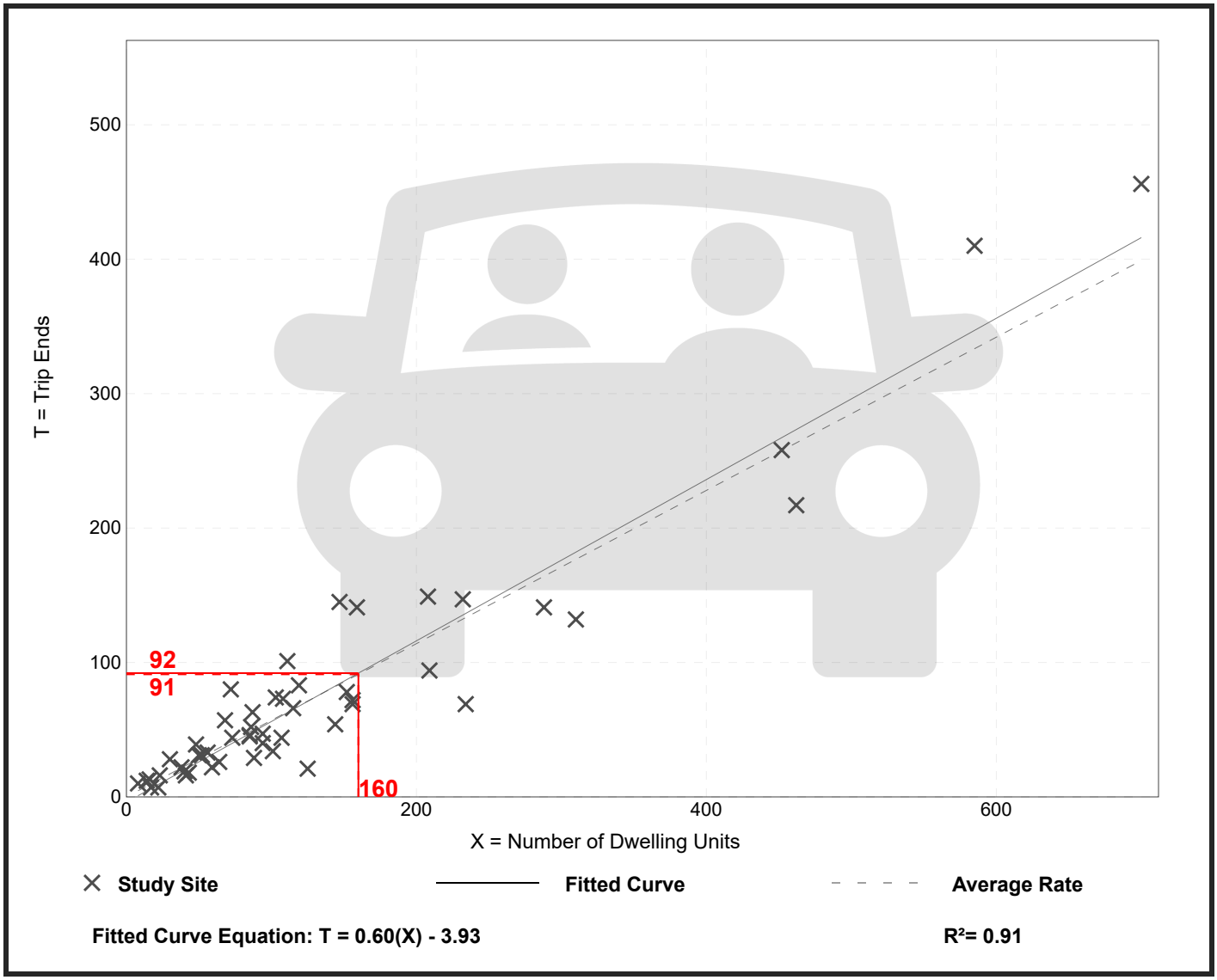
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed						2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
US 1	10th Ave. to Canal St./Bus. SR 44	5154	FDOT	Yes	1.52	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.68	D	-	-	2,920	4
US 1	Canal St./Bus. SR 44 to Turnbull Bay	5155	FDOT	Yes	1.34	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	-	-	3,580	4
US 1	Turnbull Bay Rd. to Art Center Ave.	5159	FDOT	Yes	2.24	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.63	C	-	-	3,580	4
US 1	Art Center Ave. to SR 5A/Nova Rd.	13	FDOT	Yes	3.19	45	N+S	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.39	B	-	-	5,960	4
US 1	SR 5A/Nova Rd. to Commonwealth	152	FDOT	Yes	1.23	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.39	C	1,170	1,350	3,580	4
US 1	Commonwealth to SR 421/Dunlawton	5057	FDOT	Yes	1.37	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.44	C	1,340	1,440	3,580	4
US 1	SR 421/Dunlawton Ave. to Reed Can	213	FDOT	Yes	1.18	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.63	C	-	-	3,580	4
US 1	Reed Canal Rd. to Big Tree Rd.	5061	FDOT	Yes	1.17	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.58	C	-	-	3,580	4
US 1	Big Tree Rd. to Bellewood Ave.	5063	FDOT	Yes	0.45	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.73	C	-	-	3,580	4
US 1	Bellewood Ave. to SR 400/Beville Rd	5063	FDOT	Yes	0.27	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.73	C	-	-	3,580	4
US 1	SR 400/Beville Rd to Bellevue Ave.	452	FDOT	Yes	1.05	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.73	C	2,040	2,350	3,580	4
US 1	Bellevue Ave. to Orange Ave.	5066	FDOT	Yes	0.72	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.72	C	-	-	3,580	4
US 1	Orange Ave. to US 92/ISB	5070	FDOT	Yes	0.30	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.88	D	-	-	2,920	4
US 1	US 92/ISB to Fairview/Main St.	5074	FDOT	Yes	0.66	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.86	D	-	-	2,920	4
US 1	Fairview/Main St. to SR 430/Mason A	5074	FDOT	Yes	0.54	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.86	D	-	-	2,920	4
US 1	SR 430/Mason Ave. to LPGA Blvd.	1018	FDOT	Yes	1.47	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.74	D	-	-	2,920	4
US 1	LPGA Blvd. to Hand Ave.	1018	FDOT	Yes	2.00	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	-	-	3,580	4
US 1	Hand Ave. to SR 40/Granada Blvd.	5142	FDOT	Yes	0.84	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.55	C	-	-	3,580	4
US 1	SR 40/Granada Blvd. to SR 5A/Nova	1019	FDOT	Yes	1.83	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.49	C	-	-	3,580	4
US 1	SR 5A/Nova Rd. to Airport Rd.	100	FDOT	Yes	1.13	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.83	C	-	-	3,580	4
US 1	Airport Rd. to I-95	351	FDOT	Yes	2.81	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.62	C	2,040	2,330	3,580	4
US 1	I-95. to Flagler Co Line	536	FDOT	Yes	1.53	60	N+S	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.26	B	-	-	5,960	4
US 17/92	Seminole Co. to Barwick Rd.	0040-S	FDOT	Yes	0.52	50	N+S	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.88	C	-	-	3,580	4
US 17/92	Barwick Rd to Ft. Florida Rd.	0040-S	FDOT	Yes	0.76	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.79	C	-	-	3,580	4
US 17/92	Ft. Florida Rd. to Dirksen Dr.	101	FDOT	Yes	0.72	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.79	C	2,280	2,920	3,580	4
US 17/92	Dirksen Dr. to Valencia Rd.	479	FDOT	Yes	1.05	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.70	C	-	-	3,580	4
US 17/92	Valencia Rd to Highbanks Rd.	7	FDOT	Yes	0.74	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.64	C	1,790	2,410	3,580	4
US 17/92	Highbanks Rd. to DeBary Plantation I	8	FDOT	Yes	0.92	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	-	-	3,580	4
US 17/92	DeBary Plantation Blvd to Saxon Blvd	509	FDOT	Yes	0.61	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.87	C	-	-	3,580	4
US 17/92	Saxon Blvd. to Enterprise Rd.	539	FDOT	Yes	0.80	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.65	C	-	-	3,580	4
US 17/92	Enterprise Rd. to Rhode Island Ave.	444	FDOT	Yes	0.75	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.87	C	-	-	3,580	4
US 17/92	Rhode Island Ave. to Graves Ave.	444	FDOT	Yes	1.01	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.87	C	-	-	3,580	4
US 17/92	Graves Ave. to New York Ave.	445	FDOT	Yes	1.00	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.84	C	-	-	3,580	4
US 17/92	New York Ave to SR 472	445	FDOT	Yes	0.75	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.84	C	-	-	3,580	4
US 17/92	SR 472 to SR 15A/Taylor Rd.	1004	FDOT	Yes	1.75	45	N+S	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.93	C	-	-	5,390	6
US 17/92	SR 15A/Taylor Rd. to Beresford Ave.	1006	FDOT	Yes	1.02	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	42,190	0.76	C	1,850	2,660	3,790	4
US 17/92	Beresford Ave. to Euclid Ave.	5173	FDOT	Yes	0.49	35	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	E	16,380	1.22	F	1,120	1,510	1,480	2
US 17/92	Euclid Ave. to SR 44/New York Ave.	5004	FDOT	Yes	0.49	30	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	E	15,600	1.20	D	-	-	1,410	2
US 17/92	SR 44/New York Ave. to Plymouth Av	5008	FDOT	Yes	1.01	30	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC3_2W_2L_U_WL	UA_S2WAC3_2W_2L_U_WL	UA_S2WAC3_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	19,150	0.98	DeLand	-	-	1,410	2
US 17/92	Plymouth Ave. to US 92/ISB	66	FDOT	Yes	0.83	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	42,190	0.57	C	-	-	3,790	4
US 17	US 92 to Mercers Fernery Rd.	1000	FDOT	Yes	0.68	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	42,190	0.79	C	-	-	3,790	4
US 17	Mercers Fernery Rd. to Glenwood Rd	69	FDOT	Yes	0.51	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.55	C	1,170	1,890	3,580	4
US 17	Glenwood Rd. to SR 15A/CR 15A	236	FDOT	Yes	1.64	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.40	C	-	-	3,580	4
US 17	SR 15A/CR 15A to Reynolds Rd	476	FDOT	Yes	2.76	45	N+S	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.30	B	1,320	1,680	5,960	4
US 17	Reynolds Rd to Spring Garden Ranch	519	FDOT	Yes	1.09	55	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.48	B	-	-	2,180	2
US 17	Spring Garden Ranch Rd. to Lake Wi	104	FDOT	Yes	0.56	45	N+S	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.39	B	-	-	2,180	2
US 17	Lake Winona Rd. to SR 40	104	FDOT	Yes	4.93	45	N+S	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	D	18,000	0.52	B	-	-	1,620	2
US 17	SR 40 to Washington Ave.	448	FDOT	Yes	5.02	45	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.50	B	760	770	1,490	2
US 17	Washington Ave. to CR 305/Lk Geor	46	FDOT	Yes	5.28	55	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.37	B	-	-	1,490	2
US 17	CR 305/Lk George Rd to Putnam Co	280	FDOT	Yes	3.41	60	N+S	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	18,000	0.33	B	510	510	1,620	2
US 92	US 17 to Jacobs Rd.	1001	FDOT	Yes	1.41	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.67	C	-	-	3,580	4
US 92	Jacobs Rd. to Kepler Rd.	5	FDOT	Yes	1.23	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	1,580	1,880	3,580	4
US 92	Kepler Rd. to Old Daytona Rd.	9925	FDOT	Yes	1.32	65	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.40	C	-	-	3,580	4
US 92	Old Daytona Rd. to Red John Dr.	9925	FDOT	Yes	7.20	55	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RUA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban/Rural	C	44,900	0.35	B	-	-	4,270	4
US 92	Red John Dr. to I-4 EB Ramp	478	FDOT	Yes	2.26	55	E+W	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.43	C	-	-	3,580	4
US 92	I-4 EB Ramp to LPGA Blvd.	478	FDOT	Yes	0.58	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.43	C	-	-	3,580	4
US 92	LPGA Blvd. to I-95	532	FDOT	Yes	2.03	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.77	C	-	-	3,580	4
US 92	I-95 to Williamson Blvd.	508	FDOT	Yes	0.71	50	E+W	UA_S2WAC1_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	Principal Arterial - Other - Urban	C	78,800	0.50	C	3,180	3,290	7,090	8
US 92	Williamson Blvd. to Bill France Blvd.	5172	FDOT	Yes	1.13	50	E+W	UA_S2WAC1_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	Principal Arterial - Other - Urban	C	78,800	0.58	C	-	-	7,090	8
US 92	Bill France Blvd. to SR 483/Clyde Mo	5094	FDOT	Yes	0.86	50	E+W	UA_S2WAC1_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	Principal Arterial - Other - Urban	D	78,800	0.50	C	2,620	3,270	7,210	8
US 92	SR 483/Clyde Morris Blvd. to SR 5A/I	5096	FDOT	Yes	0.93	45	E+W	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.60	C	2,570	2,800	5,390	6
US 92	SR 5A/Nova Rd. to Martin Luther Kin	5099	FDOT	Yes	0.78	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.57	C	-	-	3,580	4
US 92	Martin Luther King Blvd. to US 1	5104	FDOT	Yes	0.38	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.57	C	1,410	1,620	3,580	4
US 92	US 1 to Beach St.	5105	FDOT	Yes	0.23	30	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.46	D	-	-	2,920	4
US 92	Beach St. to SR 441/Peninsula Dr.	337	FDOT	Yes	0.88	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.43	C	-	-	3,580	4
US 92	SR 441/Peninsula Dr. to SR A1A/Atla	5109	FDOT	Yes	0.30	30	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.28	C	480	740	2,920	4
SR A1A - Dunlawton Ave.	US 1 to SR A1A/Atlantic Ave.	427	FDOT	Yes	1.25	35	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.82	D	-	-	2,920	4
SR A1A - Atlantic Ave. So	SRA1A/Dunlawton Ave. to Van Ave.	477	FDOT	Yes	1.05	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.44	D	-	-	2,920	4
SR A1A - Atlantic Ave. So	Van Ave. to Florida Shores	5179	FDOT	Yes	1.29	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.41	D	840	1,120	2,920	4
SR A1A - Atlantic Ave. So	Florida Shores to Silver Beach Ave.	436	FDOT	Yes	2.34	35	N+S	UA_

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
SR 15A	CR 92 to Glenwood Rd.	465	FDOT	Yes	1.20	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.34	C	-	-	3,580	4
SR 15A	Glenwood Rd. to US 17	466	FDOT	Yes	1.11	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.35	C	-	-	3,580	4
SR 40	Lake County to Emporia Rd.	533	FDOT	Yes	0.86	55	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.59	B	-	-	1,490	2
SR 40	Emporia Rd. to US 17	344	FDOT	Yes	5.58	55	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.55	B	550	660	1,490	2
SR 40	US 17 to SR 11	530	FDOT	Yes	6.69	60	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	8,600	0.86	C	-	-	820	2
SR 40	SR 11 to Pinto Lane	530	FDOT	Yes	6.83	60	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	8,600	0.86	C	-	-	820	2
SR 40	Pinto Lane to Rima Ridge Rd (urban	523	FDOT	Yes	1.25	60	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban/Rural	C	42,300	0.17	B	-	-	4,020	4
SR 40	Rima Ridge Rd to Tymber Creek Rd.	499	FDOT	Yes	4.36	60	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.34	C	-	-	3,580	4
SR 40	Tymber Creek Rd. to I-95	499	FDOT	Yes	0.79	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.67	C	-	-	3,580	4
SR 40	I-95 to Clyde Morris Blvd.	522	FDOT	Yes	1.58	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.90	C	-	-	3,580	4
SR 40	Clyde Morris Blvd. to SR 5A/Nova Rd	489	FDOT	Yes	1.06	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.90	C	-	-	3,580	4
SR 40	SR5A/Nova Rd. to US 1	1020	FDOT	Yes	1.33	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.78	C	-	-	3,580	4
SR 40	US 1 to Halifax Ave.	171	FDOT	Yes	1.11	35	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	1.10	F	3,030	3,380	2,920	4
SR 40	Halifax Ave. to SR A1A	5128	FDOT	Yes	0.37	35	E+W	UA_S2WAC2_2W_4L_U_WL	UA_S2WAC2_2W_4L_U_WL	UA_S2WAC2_2W_4L_U_WL	UA_S2WAC2_2W_4L_U_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.66	D	-	-	2,920	4
SR 44	Lake Co. to Shell Rd.	1007	FDOT	Yes	1.19	55	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.89	C	-	-	1,490	2
SR 44	Shell Rd. to Grand Ave.	1007	FDOT	Yes	1.26	45	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.57	C	-	-	2,180	2
SR 44	Grand Ave. to Old New York/Hazen F	1007	FDOT	Yes	0.70	55	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.60	C	-	-	2,180	2
SR 44	Old New York/Hazen Rd. to SR 15A/	274	FDOT	Yes	0.71	40	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.60	C	900	1,180	2,180	2
SR 44	SR 15A/Spring Garden Ave. to Stone	447	FDOT	Yes	0.50	40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	18,939	0.62	C	-	-	1,712	2
SR 44	Stone St. to Clara Ave.	5012	FDOT	Yes	0.51	35-40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	18,939	0.60	C	730	910	1,712	2
SR 44	Clara Ave. to Amelia Ave.	5015	FDOT	Yes	0.50	25-35	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	E	14,800	0.50	D	-	-	1,410	2
SR 44	Amelia Ave. to Hill Ave.	80	FDOT	Yes	1.00	35/40/45	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	18,939	0.70	C	-	-	1,712	2
SR 44	Hill Ave. to Blue Lake Ave.	80	FDOT	Yes	0.51	45	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	19,800	0.67		-	-	1,712	2
SR 44	Blue Lake Ave. to Kepler Rd.	19	FDOT	Yes	0.94	45	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	20,800	0.87		-	-	1,712	2
SR 44	Kepler Rd. to Summit Ave.	259	FDOT	Yes	1.18	45-50	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	19,800	1.11		-	-	1,712	2
SR 44	Summit Ave. to I-4	538	FDOT	Yes	0.98	45	E+W	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.59	C	-	-	3,580	4
SR 44	I-4 to Prevatt Ave.	480	FDOT	Yes	0.74	55	E+W	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.41	C	1,630	1,820	3,580	4
SR 44	Prevatt Ave. to Pioneer Tr.	41	FDOT	Yes	5.93	65	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RUA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	C	44,900	0.42	B	1,510	1,700	4,270	4
SR 44	Pioneer Tr. to SR 415/CR 415	1011	FDOT	Yes	3.56	65	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RUA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	C	44,900	0.37	B	-	-	4,270	4
SR 44	SR 415/CR 415 to Samsula Dr.	1012	FDOT	Yes	1.14	65	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	C	42,300	0.53	B	-	-	4,020	4
SR 44	Samsula Dr. to Airport Rd	423	FDOT	Yes	1.70	65	E+W	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban/Rural	C	42,300	0.36	B	1,140	1,490	4,020	4
SR 44	Airport Rd. to I-95	423	FDOT	Yes	2.05	65	E+W	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.39	C	1,140	1,490	3,580	4
SR 44	I-95 to Mission Dr	515	FDOT	Yes	2.83	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.90	C	-	-	3,580	4
SR 44	Mission Dr. to Live Oak	514	FDOT	Yes	1.35	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.57	C	-	-	3,580	4
SR 44/SR A1A/S Causew	Live Oak to Peninsula Ave.	207	FDOT	Yes	1.30	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.65	C	-	-	3,580	4
SR 44/SR A1A/S Causew	Peninsula Ave. to Saxon Dr.	5180	FDOT	Yes	0.35	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.55	C	-	-	3,580	4
SR 44/SR A1A/3rd Ave/A	Saxon Dr. to 6th Ave	5043	FDOT	Yes	0.50	40	E+W	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.34	C	900	1,030	3,580	4
SR 44 (Business) - Canal S	SR 44/Lytle St to Pioneer Trail	516	FDOT	Yes	0.17	40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.69	C	820	950	1,600	2
SR 44 (Business) - Canal S	Pioneer Tr. to US 1	111	FDOT	Yes	0.76	40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.73	C	840	1,030	1,600	2
SR 46	Seminole Co. to Brevard Co.	0416-B	FDOT	Yes	5.44	55	E+W	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	18,000	0.27	B	-	-	1,620	2
SR 400 - Beville Rd.	I-95 to Williamson Blvd.	501	FDOT	Yes	0.28	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.44	C	-	-	5,390	6
SR 400 - Beville Rd.	Williamson Blvd. to SR 483/Clyde Mo	5189	FDOT	Yes	1.91	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.63	C	-	-	3,580	4
SR 400 - Beville Rd.	SR 483/Clyde Morris Blvd. to SR 5A/I	511	FDOT	Yes	0.68	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.75	C	-	-	3,580	4
SR 400 - Beville Rd.	SR 5A/Nova Rd. to US 1	502	FDOT	Yes	1.34	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.58	C	-	-	3,580	4
SR 415	Seminole Co. to Enterprise-Osteen R	25	FDOT	Yes	4.39	55	N+S	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_4L_D_WL	Minor Arterial - Urban/Rural	D	66,200	0.40	D	-	-	5,960	4
SR 415	Enterprise-Osteen Rd. to Howland Bl	437	FDOT	Yes	1.83	45	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.52	C	1,500	1,860	3,580	4
SR 415	Howland Blvd. to Acorn Lake Rd	321	FDOT	Yes	0.88	45	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.25	C	-	-	3,580	4
SR 415	Acorn Lake Rd to SR 44	1009	FDOT	Yes	10.49	55	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Minor Arterial - Rural	C	18,000	0.62	C	-	-	1,620	2
SR 421 - Dunlawton Ave.	Williamson to Clyde Morris Blvd.	517	FDOT	Yes	1.07	45	E+W	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.91	C	-	-	5,390	6
SR 421 - Dunlawton Ave.	Clyde Morris Blvd. to SR 5A/Nova Rd	1014	FDOT	Yes	1.31	50	E+W	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.73	C	-	-	5,390	6
SR 421 - Dunlawton Ave.	SR5A/Nova Rd. to Spruce Creek Rd.	1015	FDOT	Yes	0.91	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.77	C	-	-	3,580	4
SR 421 - Dunlawton Ave.	Spruce Creek Rd. to US 1	5181	FDOT	Yes	0.71	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.67	C	-	-	3,580	4
SR 430 - Mason Ave.	SR 483/Clyde Morris Blvd. to SR 5A/I	5197	FDOT	Yes	0.99	35	E+W	UA_S2WAC1_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	Minor Arterial - Urban	D	24,300	0.81	D	1,330	1,480	2,190	4
SR 430 - Mason Ave.	SR 5A/Nova Rd. to US 1	5197	FDOT	Yes	1.08	35	E+W	UA_S2WAC1_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	Minor Arterial - Urban	D	24,300	0.81	D	1,330	1,480	2,190	4
SR 430 - Mason Ave.	US 1 to Beach St.	5197	FDOT	Yes	0.30	35	E+W	UA_S2WAC1_2W_4L_U_0L	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Minor Arterial - Urban	D	32,400	0.60	D	1,330	1,480	2,920	4
SR 430 - Oakridge Blvd. -	Beach St. to Peninsula Dr	5196E	FDOT	Yes	0.70	40	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	Minor Arterial - Urban	D	23,880	0.39	C	-	-	2,150	2
SR 430 - Oakridge Blvd. -	Peninsula Dr to SR A1A/Atlantic	5195	FDOT	Yes	0.28	40	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	Minor Arterial - Urban	D	23,880	0.25	C	-	-	2,150	2
SR 430 - Seabreeze Brid	Beach St. to Peninsula Dr	5196W	FDOT	Yes	1.01	40	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	Minor Arterial - Urban	D	23,880	0.42	C	-	-	2,150	2
SR 430 - Seabreeze Brid	Peninsula Dr to SR A1A/Atlantic	5191	FDOT	Yes	0.29	30	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC2_1W_2L_D_WL	UA_SSAC2_1W_2L_D_WL	Minor Arterial - Urban	D	19,440	0.57	C	-	-	1,750	2
SR 441 - Peninsula Dr.	SR A1A/Dunlawton to Florida Shores	5188	FDOT	Yes	2.42	40	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.33	C	-	-	1,600	2
SR 441 - Peninsula Dr.	Florida Shores to Silver Beach Ave.	5187	FDOT	Yes	2.34	35	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.47	C	-	-	1,600	2
SR 441 - Peninsula Dr.	Silver Beach Ave. to US 92/ISB	5187	FDOT	Yes	0.65	35	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.47	C	-	-	1,600	2
SR 442 - Indian River Blvd	I-95 to Air Park Rd.	170	FDOT	Yes	2.09	55	E+W	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.36	C	-	-	3,580	4
SR 442 - Indian River Blvd	Air Park Rd. to US 1	5190	FDOT	Yes	1.69	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.48	C	-	-	3,580	4
SR 472	US 17/92 to CR 4101/MLK Blvd	472	FDOT	Yes	2.31	60	E+W	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.36	B	-	-	5,960	4
SR 472	CR 4101/MLK Blvd to I-4 (end of stat	535	FDOT	Yes	1.10	60	E+W	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.80	C	2,300	2,710	3,580	4
SR 483 - Clyde Morris BV	SR 400/Beville Rd. to Aviation Ctr Pk	5193	FDOT	Yes	0.98	45	N+S	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	Principal Arterial - Other - Urban	D	37,800	0.73	C	-	-	3,400	4
SR 483 - Clyde Morris BV	Aviation Ctr Pkwy/Bellevue to US 92/	5193	FDOT	Yes	1.20	45	N+S	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.69	C	-	-	3,580	4
SR 483 - Clyde Morris BV	US 92/ISB to SR 430/Mason Ave.	5182	FDOT	Yes	1.20	45	N+S	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	Principal Arterial - Other - Urban	D	37,800	0.55	C	-	-	3,400	4
6th St.	Derbyshire Rd. to SR 5A/Nova Rd	11	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2

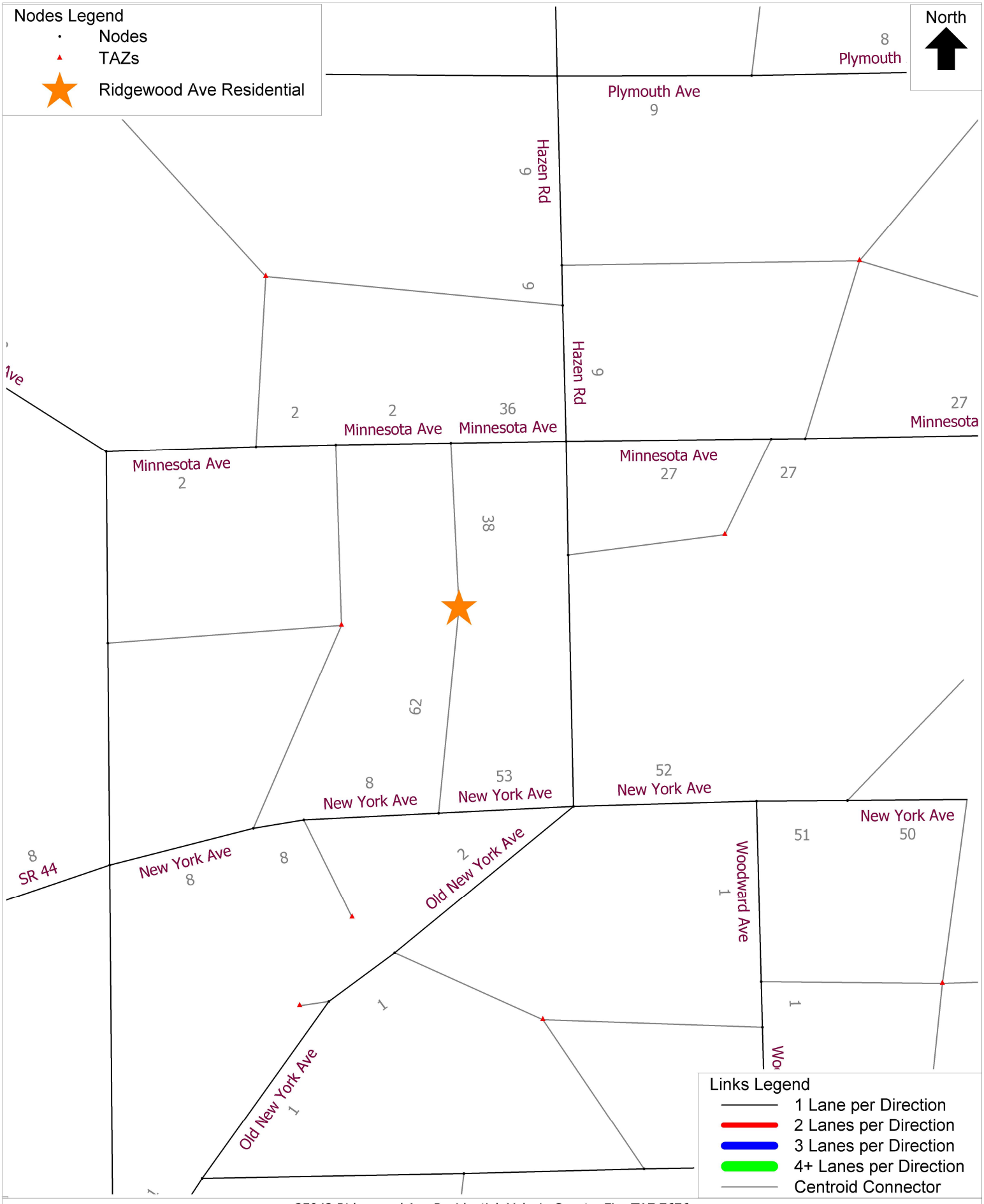
Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Beach/Riverside/Beach (C	SR 40 to Wilmette Ave.	132	County	Yes	0.70	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	16,000	0.54	D	580	725	1,440	2
Beach/Riverside/Beach (C	Wilmette Ave. to Inglesa Ave.	135	County	Yes	2.55	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	16,000	0.43	D	610	710	1,440	2
Beach/Riverside/Beach (C	Inglesa Ave to Pine Tree Dr.	137	County	Yes	1.10	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	16,000	0.18	C	170	250	1,440	2
Beacon Light Rd.	Halifax Ave. to Ariel Rd.	140	County	Yes	2.75	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.05	B	25	35	620	2
Beacon Light Rd.	Ariel Rd. to Volco Rd.	141	County	Yes	1.25	35	N+S	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.09	B	40	55	620	2
Bellevue Ave. Extension	CR 415/Tomoka Farms Rd to William	151	County	Yes	0.50	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.52	D	500	580	1,020	2
Bellevue Ave. Extension	Williamson Blvd to SR 483/Clyde Mo	153	County	Yes	2.50	45	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.23	C	220	295	1,230	2
Beresford Ave.	Beresford Rd. to Fatio Rd	161	County	Yes	0.70	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	175	220	1,020	2
Beresford Ave.	Fatio Rd. to SR 15A	162	County	Yes	1.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.30	C	240	350	1,020	2
Beresford Ave.	SR 15A to US 17/92	164	County	Yes	1.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.34	C	250	400	1,020	2
Beresford Ave.	US 17/92 to Amelia Ave	165	County	Yes	0.25	35	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.73	D	590	895	1,330	2
Beresford Ave.	Amelia Ave. to Hill Ave.	167	County	Yes	1.00	40	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Major Collector - Urban	E	17,900	0.37	C	390	590	1,620	2
Beresford Ave.	Hill Ave. to Blue Lake Ave.	169	County	Yes	1.35	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.31	C	260	400	1,230	2
Beresford Ave.	Blue Lake Ave. to MLK (Kepler Rd.)	Future Rd-17	County	Yes	0.80	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Future - Major Collector - Urban	E	13,640	-	-	-	-	1,230	0
Beresford Ave.	MLK (Kepler Rd.) to SR 44	Future Rd-17	County	Yes	0.75	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Future - Major Collector - Urban	E	13,640	-	-	-	-	1,230	0
Beresford Rd.	SR 15A to Spring Garden Ave.	180	County		0.40	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.04	C	45	55	1,020	2
Beresford Rd.	Spring Garden Ave. to Fatio Rd.	181	County		0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.07	C	60	85	1,020	2
Beresford Rd.	Fatio Rd.. to Beresford Ave	182	County		1.30	30	E+W	TA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.14	C	125	210	1,020	2
Beresford Rd.	Beresford Ave. to Old New York Ave.	183	County	Yes	0.30	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.25	C	250	365	1,020	2
Big Tree Rd.	Clyde Morris Blvd. to Nova Rd.	192	County	Yes	1.10	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.46	D	375	545	1,020	2
Big Tree Rd.	Nova Rd. to Magnolia Ave.	193	County	Yes	0.40	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.82	D	750	1,050	1,330	2
Big Tree Rd.	Magnolia Ave. to Kenilworth Ave.	195	County	Yes	0.45	35	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.70	D	630	945	1,330	3
Big Tree Rd.	Kenilworth Ave. to US 1	196	County	Yes	0.55	35	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.51	D	230	605	1,330	3
Blackburn Rd.	CR 3 to Emporia Rd	211	County		1.25	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.10	B	55	65	620	2
Blackwelder Rd.	Lake Winona Rd. to SR 11	221	County		3.25	35	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.04	B	20	25	620	2
Blue Lake Ave.	SR 472 to Orange Camp Rd	Future Rd-22	County	Yes	1.05	45	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	-	-	-	-	1,540	2
Blue Lake Ave.	Orange Camp Rd. to Taylor Rd.	231	County	Yes	1.05	45	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.31	C	565	455	1,540	2
Blue Lake Ave.	Taylor Rd. to Beresford Ave.	232	County	Yes	1.05	45	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.56	C	650	740	1,230	2
Blue Lake Ave.	Beresford Ave. to Voorhis Ave.	234	County	Yes	0.75	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.38	C	320	585	1,020	2
Blue Lake Ave.	Voorhis Ave. to SR 44	235	County	Yes	0.25	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.27	C	230	370	1,020	2
Blue Lake Ave.	SR 44 to Minnesota Ave.	236	County	Yes	0.55	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.39	D	320	490	1,020	2
Blue Lake Ave.	Minnesota Ave. to Plymouth Ave.	237	County	Yes	1.00	40	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.55	C	625	695	1,230	2
Blue Springs Av (West)	Sparkman Dr to Lawton Dr	239	County		0.60	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.36	C	500	450	1,020	2
Brownlee Rd.	Raulerson Rd. #1 to Raulerson Rd.	240	County		1.70	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.03	B	15	20	620	2
Cardinal Blvd.	SR 421/Dunlawton Ave. to Demotte A	245	County		0.15	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.10	C	80	130	1,020	2
Cardinal Blvd.	Demotte Ave. to Marcelle Ave	260	County		0.90	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.41	D	330	485	1,020	2
Cardinal Blvd.	Marcelle Ave to Major St.	261	County		1.00	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.06	C	45	80	1,020	2
Carter Rd.	SR 11 to Marsh Rd.	270	County		1.75	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.13	C	120	160	1,230	2
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	County	Yes	1.80	30	N+S	UA_UFH_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.18	C	140	210	1,020	2
Clara Ave.	SR 15A to New Hampshire Ave.	301	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	135	220	1,020	2
Clara Ave.	New Hampshire Ave. to Beresford Av	303	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.22	C	210	270	1,020	2
Clifton Rd.	Lake Winona Rd. to SR 11	311	County		1.70	30	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.03	B	20	25	620	2
Clyde Morris Blvd.	Taylor Rd. to SR 421/Dunlawton Ave	330	County	Yes	0.95	40	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.62	C	1,190	900	1,540	2
Clyde Morris Blvd.	SR 421/Dunlawton Ave. to Willow Ru	332	County	Yes	0.65	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.53	C	1,250	1,575	3,410	4
Clyde Morris Blvd.	Willow Run Blvd. to Madeline Ave.	333	County	Yes	1.30	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.60	C	1,390	1,900	3,410	4
Clyde Morris Blvd.	Madeline Ave. to Big Tree Rd.	335	County	Yes	1.00	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.60	C	1,360	1,865	3,410	4
Clyde Morris Blvd.	Big Tree Rd. to SR 400/Beville Rd.	337	County	Yes	0.90	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_U_WL	Principal Arterial - Other - Urban	E	36,070	0.59	C	1,260	1,785	3,240	4
Clyde Morris Blvd.	SR 430/Mason Ave. to Bill France Bl	338	County	Yes	0.60	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.41	C	1,050	1,140	3,410	4
Clyde Morris Blvd.	Bill France Blvd. to LPGA Blvd.	341	County	Yes	1.25	50	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.48	C	1,160	1,455	3,410	4
Clyde Morris Blvd.	LPGA Blvd. to Hand Ave.	343	County	Yes	1.50	50	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.43	C	1,120	1,270	3,410	4
Clyde Morris Blvd.	Hand Ave to SR 40/Granada Blvd.	348	County	Yes	0.80	35	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Principal Arterial - Other - Urban	E	30,420	0.43	C	890	1,050	2,740	4
Commonwealth Blvd.	Spruce Creek Rd. to Orange Ave.	360	County		0.55	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.39	C	355	430	1,020	2
Commonwealth Blvd.	Orange Ave. to US 1	361	County		0.35	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.27	C	250	305	1,020	2
CR 3	Ponce DeLeon Blvd. to Lake Winona	380	County	Yes	0.45	45	N+S	TA_NSMCRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.08	C	80	100	1,230	2
CR 3	Lake Winona Rd. to SR 40	380	County	Yes	5.04	35	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Local	C	11,775	0.09	B	80	100	1,230	2
CR 3	SR 40 to Emporia Rd	382	County	Yes	3.40	45	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.10	B	115	110	1,230	2
CR 3	Emporia Rd to Washington Ave.	384	County	Yes	1.20	30	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.17	B	180	200	1,230	2
CR 3	Washington Ave. to 'US 17	386	County	Yes	2.20	35	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.09	B	90	100	1,230	2
CR 15A	US 17 to Airport Rd.	440	County	Yes	0.90	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.22	B	325	460	2,200	2
CR 15A	Airport Rd. to SR 11	441	County	Yes	1.25	40	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.12	B	220	265	2,200	2
CR 92 (Intn'l Spdwy Blvd.	SR 15A to Stone St.	450	County	Yes	0.25	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.40	C	890	1,250	3,410	4
CR 92 (Intn'l Spdwy Blvd.	Stone St. to US 17/92	452	County	Yes	0.75	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.43	C	930	1,360	3,410	4
CR 305 (Bunnell Rd.)	US 17 to Cowart Rd.	460	County	Yes	1.50	50	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Rural	C	6,450	0.35	B	205	250	620	2
CR 305 (Bunnell Rd.)	Cowart Rd. to Flagler Co.	461	County	Yes	3.00	50	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Rural	C	6,450	0.25	B	180	200	620	2
Cow Creek Rd.	SR 442 to Volco Rd.	420	County	Yes	3.50	50	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.16	B	80	90	620	2
Cowart Rd.	Bunnell Rd to Little Brown Church Rd	430	County		2.05	40	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.03	B	20	20	620	2
Daugharty Rd. (S. End)	Marsh Rd. to SR 11	470	County	Yes	0.80	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.08	B	35	50	620	2
Daugharty Rd.	SR 11 to Marsh Rd.	472	County		0.95	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.14	B	60	90	620	2
Demotte Ave.	Peninsula Dr. to Cardinal Blvd	500	County		0.20	25	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.37	C	300	450	1,020	2
Derbyshire Rd.	SR 430/Mason Ave. to LPGA Blvd.	511	County		1.45	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed						2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Enterprise-Osteen Rd.	Garfield Rd to Reed Ellis Rd.	601	County	Yes	1.70	35	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.22	C	220	330	1,020	2
Enterprise-Osteen Rd.	Reed Ellis Rd. to SR 415	602	County	Yes	2.50	35	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.10	C	100	165	1,020	2
Euclid Ave.	Grand to Fatio Rd.	610	County		0.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.09	C	85	125	1,020	2
Euclid Ave.	Fatio Rd. to Woodward Ave.	611	County		0.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.11	C	105	145	1,020	2
Euclid Ave.	Woodward Ave. to SR 15A	612	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.19	C	185	220	1,020	2
Euclid Ave.	SR 15A to Adelle Ave.	613	County		0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	165	260	1,020	2
Euclid Ave.	Adelle Ave. to US 17/92	614	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.15	C	100	185	1,020	2
Flomich St.	Derbyshire Rd. to SR 5A/Nova Rd.	650	County	Yes	0.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.39	C	315	455	1,020	2
French Ave.	Beginning of road to Blue Springs Pa	690	County		1.00	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.01	C	15	25	1,020	2
French Ave.	Blue Springs Park to Lawton Ave./Ha	691	County		1.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.06	C	10	80	1,020	2
Garfield Ave.	SR 44 to Plymouth Ave.	700	County		1.00	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.15	C	130	155	1,020	2
Garfield Ave.	Plymouth Ave. to US 92	702	County		0.85	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.19	C	210	240	1,020	2
Garfield Rd.	Doyle Rd. to Enterprise-Osteen Rd	711	County		0.90	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.15	C	150	180	1,230	2
Glencoe Rd.	Taylor Rd. to Paige Ave.	730	County		1.50	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	195	245	1,230	2
Glencoe Rd.	Paige Ave. to SR 44	731	County		1.10	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.41	C	440	525	1,020	2
Glencoe Rd.	SR 44 to Pioneer Tr.	732	County		0.85	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.16	C	140	210	1,020	2
Glenwood Rd.	Grand Ave. to SR 15A	741	County		1.60	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.28	C	270	310	1,020	2
Glenwood Rd.	SR 15A to US 17	743	County		1.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.15	C	130	180	1,020	2
Grand Av/CR 4053	Old New York Ave. to SR 44	748	County	Yes	0.60	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.17	C	155	250	1,020	2
Grand Av/CR 4053	SR 44 to Minnesota Ave.	750	County	Yes	0.90	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.34	C	315	445	1,020	2
Grand Av/CR 4053	Minnesota Ave. to Plymouth Ave.	751	County	Yes	0.50	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.14	C	145	200	1,230	2
Grand Av/CR 4053	Plymouth Ave. to Glenwood Rd.	752	County	Yes	2.10	40	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.19	C	205	240	1,230	2
Grand Av/CR 4053	Glenwood Rd. to Lemon St.	754	County	Yes	1.30	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.27	C	295	385	1,330	2
Grand Av/CR 4053	Lemon St. to Retta St.	756	County	Yes	1.80	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	160	210	1,230	2
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentuck	775	County	Yes	0.30	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC2_2W_2L_D_WL	UA_MCCRAC2_2W_2L_D_WL	UA_MCCRAC2_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	1.12	F	1,230	1,635	1,620	2
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	County	Yes	0.60	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	1.10	C	1,420	1,675	1,620	2
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	County	Yes	0.25	35	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	0.53	D	1,140	1,340	2,740	4
Greens Dairy Rd.	SR 15A to Stone St.	780	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local		E	13,640	0.01	C	15	15	1,020	2
Halleck St. (NSB)	Wayne Ave. to Enterprise Ave.	810	County	Yes	0.20	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.52	D	475	575	1,020	2
Hand Ave.	Williamson Blvd. to Clyde Morris Blvd	830	County	Yes	1.25	50	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.54	A	615	775	1,540	2
Hand Ave.	Clyde Morris Blvd. to Shangri La Dr.	832	County	Yes	0.75	50	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.94	C	1,110	1,310	1,540	2
Hand Ave.	Shangri La Dr. to SR 5A/Nova Rd.	833	County	Yes	0.25	45	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.43	C	1,110	1,340	3,410	4
Hazen Rd.	SR 44 to Plymouth Ave.	850	County	Yes	1.00	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.12	C	120	160	1,230	2
Hazen Rd.	Plymouth Ave. to Mercers Fernery Rd	852	County		1.50	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.07	C	135	100	1,020	2
Highbridge Rd.	Walter Boardman Ln. to John Anders	871	County	Yes	1.60	30	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Major Collector - Rural	C	11,775	0.29	A	200	290	1,120	2
Highbridge Rd.	John Anderson Dr. to SR A1A	872	County	Yes	0.20	30	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.21	C	185	245	1,020	2
Hill Ave.	Taylor Rd. to Beresford Ave.	878	County		1.00	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local		E	13,640	0.08	C	80	100	1,020	2
Hill Ave.	Beresford Ave. to Voorhis Ave.	881	County		0.75	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	140	200	1,020	2
Hill Ave.	Voorhis Ave. to SR 44	882	County		0.25	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.19	C	145	250	1,020	2
Hill Ave./Jacobs Rd.	Plymouth Ave. to US 92	950	County	Yes	0.85	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.57	C	705	675	1,230	2
Hontoon Rd.	end of road to Botts Landing Rd.	890	County		2.00	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	C	5,260	0.21	C	75	110	1,020	2
Hontoon Rd.	Botts Landing Rd. to Old New York A	891	County		1.15	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	C	12,100	0.27	C	235	270	1,230	2
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	FDOT	Yes	0.40	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.81	C	2,185	2,410	3,410	4
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	County	Yes	1.15	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.71	C	1,975	2,125	3,410	4
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905	County	Yes	0.35	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.52	C	1,490	1,460	3,410	4
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	County	Yes	2.10	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	1.02	E	945	1,020	1,230	2
Howland Blvd.	Elkcam Blvd. to Lake Helen-Osteen F	908	County	Yes	0.30	45/40	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.39	C	915	1,190	3,410	4
Howland Blvd.	Lake Helen-Osteen Rd. to Newmark	909	County	Yes	0.70	40	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.57	C	1,450	1,780	3,410	4
Howland Blvd.	Newmark Dr. to Courtland Blvd.	911	County	Yes	1.15	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.50	C	1,360	1,530	3,410	4
Howland Blvd.	Courtland Blvd. to Ft Smith Blvd.	913	County	Yes	1.80	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.42	C	1,430	1,320	3,410	4
Howland Blvd.	Ft Smith Blvd. to SR 415	915	County	Yes	0.65	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.48	C	1,150	1,580	3,410	4
I-4 Frontage Rd.	Summit Ave. to Orange Camp Rd.	ure Road-2 la	County	Yes	2.00	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	n/c	E	13,640	-	-	-	-	1,230	0
I-4 Frontage Rd.	Orange Campe Rd. to Cassadaga Rd.	ure Road-4 la	County	Yes	1.35	45	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	n/c	E	37,970	-	-	-	-	3,410	0
I-4 Frontage Rd.	Cassadaga Rd. to SR 472	ure Road-4 la	County	Yes	0.70	45	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	n/c	E	37,970	-	-	-	-	3,410	0
Indian Lake Rd.	Tiger Bay Rd. to US 92	935	County		0.80	40	N+S	TA_NSOSRS_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local		E	13,640	0.38	C	505	440	1,230	2
John Anderson Dr.	Halifax Dr to Lynnhurst	972	County	Yes	0.85	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.41	C	380	445	1,020	2
John Anderson Dr.	Lynnhurst to Highbridge Rd.	974	County	Yes	7.40	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.29	C	265	310	1,020	2
John Anderson Hwy.	Walter Boardman Lane to Flagler Co	990	County	Yes	1.00	5 NB / 30 SI	N+S	TA_NSMCRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.12	B	95	150	1,120	2
Josephine St./10th St.	Old Mission Rd. to Tatum Blvd.	1000	County	Yes	0.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.49	D	780	550	1,020	2
Josephine St./10th St. (NS	Tatum Blvd. to US 1	1002	County	Yes	1.80	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Major Collector - Urban	E	14,040	0.00	A	-	-	1,270	2
Kathy Dr. (N. Penin.)	John Anderson Dr. to SR A1A	1011	County		0.44	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local		E	13,640	0.03	C	35	35	1,020	2
Kennedy Pkwy (Old SR 3	US 1 to Park Entrance	798158	Federal		4.00	55	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Rural	C	6,450	0.00	B	-	-	620	2
Kicklighter Rd.	Macy Ave. to Lake Helen-Osteen/Pre	1051	County	Yes	0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.13	C	370	175	1,020	2
Lake George Rd.	Bream Dr. to US 17	1062	County		3.90	30	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.11	B	60	70	620	2
Lake Helen-Osteen Rd.	Howland Blvd. to Elkcam Blvd.	1070	County	Yes	0.40	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.62	D	630	770	1,020	2
Lake Helen-Osteen Rd.	Elkcam Blvd. to Haulover Blvd.	1071	County	Yes	1.75	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.66	C	550	865	1,230	2
Lake Helen-Osteen Rd.	Haulover Blvd. to Catalina Blvd.	1072	County	Yes	0.50	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.95	D	1,140	1,170	1,230	2
Lake Helen-Osteen Rd.	Catalina Blvd. to Captain Dr	1073	County	Yes	0.40	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.64	C	790	805	1,230	2
Lake Helen-Osteen Rd.	Captain Dr. to Kicklighter Rd.	1076	County	Yes	1.40	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.66	C	825

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Marsh Rd.	Carter Rd. to Daugharty Rd.	1183	County	Yes	3.00	40	N+S	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.09	B	80	100	1,120	2
Mason Ave.	Williamson Blvd. to Fentress Blvd.	1190	County	Yes	0.60	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	0.80	C	845	1,155	1,620	2
Mason Ave.	Fentress Blvd. to Bill France Blvd.	1191	County	Yes	0.50	40	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	0.98	D	1,160	1,570	1,620	2
Mason Ave.	Bill France Blvd. to Jimmy Ann Dr.	1193	County	Yes	0.30	40	E+W	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.42	C	940	1,370	3,410	4
Mason Ave.	Jimmy Ann Dr. to SR 483/Clyde Morr	1194	County	Yes	0.50	40	E+W	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.44	C	930	1,435	3,410	4
Maytown Rd.	SR 415/New Smyrna Blvd. to Pell Rd	1196	County	Yes - Future	5.60	50	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.32	B	290	355	1,120	2
Maytown Rd.	Pell Rd. to Beacon Light Rd.	1198	County	Yes - Future	12.90	45	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.18	B	80	115	620	2
Maytown Rd./Halifax Ave.	Beacon Light Rd. to US 1	790	County	Yes	1.10	35	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.18	B	130	170	1,120	2
McBride Rd.	US 17 to Lake George Rd.	1200	County		3.00	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.04	B	25	30	620	2
McGregor Rd.	Westside Con./Fatio to Spring Garde	1210	County	Yes	0.70	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	210	295	1,230	2
McGregor Rd.	Spring Garden Ave. to US17/92	1211	County	Yes	1.40	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.35	C	355	495	1,230	2
Mercers Fernery Rd.	Glenwood Rd. to SR 15A	1221	County		1.45	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.08	C	65	90	1,020	2
Mercers Fernery Rd.	SR 15A to US 17	1223	County		1.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.11	C	90	125	1,020	2
Midway Ave.	Williamson Blvd. to US 92	1230	County		2.00	40	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Collector - Urban	E	37,970	0.06	C	160	235	3,410	4
Minnesota Ave. (Orange C	Sparkman Ave. to US 17/92	1241	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.24	C	160	350	1,020	2
Minnesota Ave. (Orange C	US 17/92 to Leavitt Ave.	1242	County		0.50	25	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.09	C	85	135	1,020	2
Minnesota Ave. (Orange C	Leavitt Ave. to SR 472	1243	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.10	C	85	130	1,020	2
Minnesota Ave. (DeLand)	Grand Ave. to SR 15A	1245	County		1.35	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.29	C	255	360	1,020	2
Minnesota Ave. (DeLand)	SR 15A to US 17/92	1247	County		1.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.12	C	135	150	1,020	2
Minnesota Ave. (DeLand)	Amelia Ave. to Hill Ave	1249	County	Yes	0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.15	C	135	195	1,020	2
Minnesota Ave. (DeLand)	Hill Ave. to Blue Lake Ave.	1250	County	Yes	0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.18	C	280	220	1,020	2
Minnesota Ave. (DeLand)	Blue Lake Ave. to Kepler Rd.	1251	County	Yes	0.85	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.27	C	280	365	1,230	2
New Hampshire Ave.	SR 15A to Adelle Ave	1270	County		0.15	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.18	C	345	355	1,020	2
New Hampshire Ave.	Adelle Ave to Clara Ave.	1271	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.30	C	310	375	1,020	2
New Hampshire Ave.	Clara Ave. to US 17/92	1272	County		0.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.24	C	200	300	1,020	2
New York Ave. (Orange C	Westside Pkwy/Hamilton Ave. to Spa	1281	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.36	C	375	435	1,020	2
New York Ave. (Orange C	Sparkman Ave. to Carpenter Ave	1283	County		0.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.40	D	440	465	1,020	2
New York Ave. (Orange C	Carpenter Ave. to US 17/92	1284	County		0.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.44	D	450	510	1,020	2
New York Ave. (Lake Hel	Summit Ave. to Lakeview Dr.	1285	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	C	5,260	0.18	C	85	90	1,020	2
Ohio Ave. (LH)	Macy Ave. to Lakeview Dr.	1320	County	Yes	0.20	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	C	5,260	0.15	C	75	95	1,020	2
Old Dixie Hwy.	Ingelsia to Pine Tree Dr.	1330	County	Yes	0.50	35	N+S	TA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.19	C	160	230	1,020	2
Old Dixie Hwy.	Pine Tree Dr. to Walter Boardman Ln	1332	County	Yes	5.10	45	N+S	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	20,700	0.17	C	225	310	1,860	2
Old Dixie Hwy.	Walter Boardman Ln. to Old Kings Rd	1333	County	Yes	0.55	45	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	20,700	0.26	C	335	460	1,860	2
Old Dixie Hwy.	Old Kings Rd. to I-95	1334	County	Yes	0.60	45	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	20,700	0.49	C	675	800	1,860	2
Old Kings Rd.	Old Dixie Hwy. to Flagler Co.	1340	County	Yes	0.60	50	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	22,800	0.18	C	285	320	2,050	2
Old Mission Rd.	SR 44/Mission Dr. to Old Mission Rd	1356	County	Yes	0.60	40	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.08	C	90	105	1,230	2
Old New York Ave.	SR 44 to Hontoon Rd.	1360	County	Yes	1.40	40	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Local	C	11,775	0.08	B	55	115	1,120	2
Old New York Ave.	Hontoon Rd. to Lakeview Dr.	1361	County	Yes	0.40	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	C	12,100	0.32	C	250	345	1,230	2
Old New York Ave.	Lakeview Dr. to Grand Ave.	1362	County	Yes	0.50	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.32	C	280	380	1,230	2
Old New York Ave.	Grand Ave. to SR 44	1364	County	Yes	0.91	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.19	C	155	195	1,230	2
Orange/Silver Beach Ave	US 1 to Beach St.	1374	County	Yes	0.20	30	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	-	-	-	-	2,740	4
Orange/Silver Beach Ave	Beach St. to City Island Pkwy.	1375	County	Yes	0.20	30	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	0.32	C	675	795	2,740	4
Orange/Silver Beach Ave	City Island Pkwy. to Peninsula Dr.	1710	County	Yes	0.60	30	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	E	14,040	0.65	D	615	760	1,270	2
Orange/Silver Beach Ave	Peninsula Dr. to SR A1A	1711	County	Yes	0.30	30	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	E	14,040	0.30	C	265	340	1,270	2
Orange Camp Rd.	US 17/92 to Princeton	1380	County	Yes	0.75	35	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	E	14,040	0.94	E	840	1,160	1,270	2
Orange Camp Rd.	Princeton. to Blue Lake Ave.	1382	County	Yes	0.90	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.69	C	825	990	1,540	2
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (I	1384	County	Yes	0.55	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.73	C	845	1,075	1,540	2
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385	County	Yes	1.00	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.78	C	1,310	1,170	1,540	2
Palm Dr.	John Anderson Dr. to SR A1A	1391	County		0.44	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.10	C	85	110	1,020	2
Park Ave.	Old Mission Rd. to Air Park Rd.	1409	County	Yes	0.90	45	E+W	TA_NSOSRS_2W_2L_D_WL	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Major Collector - Urban	E	17,900	0.34	C	395	505	1,620	2
Park Ave.	Air Park Rd. to US 1	1413	County	Yes	1.40	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.54	D	475	685	1,330	2
Peninsula Dr. - South (Pi	Inlet Harbor Rd to Major St.	1419	County		0.55	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.22	C	130	275	1,020	2
Peninsula Dr. - South	Major St. to Marcelle Ave.	1423	County		0.45	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.24	C	180	300	1,020	2
Peninsula Dr. - South	Marcelle Ave to SR 421/Dunlawton A	1420	County		0.15	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.43	D	340	540	1,020	2
Peterson Rd.	Riley Pridgeon Rd. to Emporia/Blackl	1433	County		2.80	35	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.07	B	30	45	620	2
Pineland Tr.	Harmony Ave. to US 1	1451	County		2.00	50	E+W	TA_NSOSRS_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	-	-	-	-	1,230	2
Pine Tree Dr.	US 1 to Addison Dr	1440	County		1.00	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.18	C	150	245	1,020	2
Pine Tree Dr.	Addison Dr. to Old Dixie Hwy	1441	County		1.00	35	E+W	TA_NSOSRS_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.10	C	80	125	1,020	2
Pioneer Tr.	SR 44 to Tomoka Farms Rd.	1461	County	Yes	4.00	50	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Major Collector - Rural	C	11,775	0.42	B	400	410	1,120	2
Pioneer Tr.	Tomoka Farms Rd. Airport Rd.	1464	County	Yes	1.40	45	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.41	C	415	490	1,230	2
Pioneer Tr.	Airport Rd. to Turnbull Bay Rd.	1465	County	Yes	2.50	45	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.53	C	480	630	1,230	2
Pioneer Tr.	Turnbull Bay Rd. to Sugar Mill Dr	1467	County	Yes	1.75	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.52	D	500	570	1,020	2
Pioneer Tr.	Sugar Mill Dr. to Williams Rd.	1471	County	Yes	1.45	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.77	C	735	855	1,230	2
Pioneer Tr.	Williams Rd. to Enterprise Ave	1473	County	Yes	1.05	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.71	C	675	780	1,230	2
Pioneer Tr.	Enterprise Ave. to Jungle Rd	1474	County	Yes	0.50	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.60	D	545	665	1,020	2
Pioneer Tr.	Jungle Rd to Canal St.	1475	County	Yes	0.25	35	N+S	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.21	C	215	245	1,020	2
Wallace Rd.	Canal St to SR 44	1955	County	Yes	0.25	35	N+S	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.53	D	520	640	1,330	3
Mission Dr.	SR 44 to Old Mission Rd.	1261	County	Yes	0.75	40	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.41	C	1,325	1,265	3,410	4
Old Mission Rd./Mission R	Old Mission Rd. to Josephine St.	1354	County	Yes	0.75	40	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Rhode Island Ave.	Carpenter Ave to US 17/92	1600	County	Yes	0.25	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.57	D	995	865	1,330	2
Rhode Island Ave.	Veteran's Memorial Pkwy. to Norman	Future Rd	County	Yes	1.80		E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_D_WL	future Minor Collector - Urban	E	14,740	-	A	-	-	1,330	0
Riley Pridgeon Rd.	Peterson Rd. to SR 40	1610	County		2.55	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.06	B	30	35	620	2
River Dr.	John Anderson Dr. to SR A1A	1621	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.02	C	25	30	1,020	2
Samsula Dr.	Pioneer Tr. to SR 44	1651	County	Yes	2.60	45	N+S	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.14	B	105	160	1,120	2
Sandra Dr.	John Anderson Dr. to SR A1A	1661	County		1.00	30	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.02	C	25	25	1,020	2
Saxon Blvd.	Rail Station to Westside Connector	Future Rd	County	Yes	0.62	40	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_4L_D_WL	future Minor Collector - Urban	E	37,970	-	A	-	-	3,410	0
Saxon Blvd.	Westside Connector to US 17/92	Future Rd	County	Yes	1.30	40	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_4L_D_WL	future Minor Collector - Urban	E	37,970	-	A	-	-	3,410	0
Saxon Blvd.	US 17/92 to Enterprise Rd	1671	County	Yes	0.65	35	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	0.54	D	1,070	1,315	2,740	4
Saxon Blvd.	Enterprise Rd. to Veterans Memorial	1673	County	Yes	0.60	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_NSSRC1_2W_6L_D_WL	UA_NSSRC1_2W_6L_D_WL	Minor Arterial - Urban	E	57,140	0.60	C	1,905	2,390	5,140	6
Saxon Blvd.	VMP to FDOT Park & Ride	1674	County	Yes	0.30	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_NSSRC1_2W_6L_D_WL	UA_NSSRC1_2W_6L_D_WL	Minor Arterial - Urban	E	57,140	0.80	C	2,575	3,480	5,140	6
Saxon Blvd.	FDOT Park & Ride to I-4	1685	County	Yes	0.30	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_6L_D_WL	UA_NSSRC1_2W_6L_D_WL	Minor Arterial - Urban	E	57,140	0.62	C	1,970	2,800	5,140	6
Saxon Blvd.	I-4 to Finland Dr.	1675	County	Yes	0.35	40	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_5L_D_WL	Minor Arterial - Urban	E	47,560	0.98	E	2,660	3,750	4,280	5
Saxon Blvd.	Finland Dr. to Normandy Blvd.	1676	County	Yes	0.35	40	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	1.06	F	2,210	3,170	3,410	4
Saxon Blvd.	Normandy Blvd. to Tivoli Dr.	1677	County	Yes	1.25	40	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.70	C	1,635	2,150	3,410	4
Saxon Blvd.	Tivoli Dr. to Providence Blvd.	1679	County	Yes	0.90	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.84	D	665	925	1,020	2
Saxon Blvd.	Providence Blvd. to Normandy Blvd.	1681	County	Yes	0.70	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.58	D	470	630	1,020	2
Saxon Blvd.	Normandy Blvd. to Doyle Rd.	1684	County	Yes	1.00	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.41	C	535	550	1,230	2
Saxon Dr. (NSB)	CR A1A to Hiles Blvd.	1691	County		0.55	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.08	C	70	100	1,020	2
Saxon Dr. (NSB)	Hiles Blvd. to 27th Ave.	1693	County		1.55	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.21	C	205	235	1,020	2
Saxon Dr. (NSB)	27th Ave. to 3rd Ave/SR A1A	1695	County		1.75	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.44	D	445	505	1,020	2
Sparkman Ave.	Rhode Island Ave. to Blue Springs Av	1720	County		0.60	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	410	295	1,020	2
Sparkman Ave.	Blue Springs Ave. to French Ave.	1721	County		0.65	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.21	C	280	285	1,020	2
Sparkman Ave.	French Ave. to New York Ave. W.	1722	County		0.75	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.12	C	155	160	1,020	2
Sparkman Ave.	New York Ave. W. to Minnesota Ave.	1723	County		0.45	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.10	C	120	140	1,020	2
Spring Garden Ave.	McGregor Rd. to Beresford Rd. West	1731	County	Yes	0.90	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.18	C	155	230	1,020	2
Spring Garden Ave.	Beresford Rd. West to Beresford Ave	1732	County	Yes	0.60	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.15	C	130	185	1,020	2
Spring Garden Ranch Rd.	US 17 to Aragon Ave	1740	County	Yes	0.20	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.23	C	150	350	1,020	2
Spring Garden Ranch Rd.	Aragon Ave to Arrendondo Grant/Eas	1742	County		1.20	35	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Urban/Rural	C	6,450	0.05	B	70	55	620	2
Spruce Creek Rd.	Taylor Rd. to SR5A/Nova Rd.	1751	County		0.75	45	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.06	C	370	265	3,410	4
Spruce Creek Rd.	SR5A/Nova Rd. to Commonwealth Bl	1752	County		0.50	35	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.62	D	565	730	1,020	2
Stone St.	Plymouth Ave to CR 92/ISB	1770	County		0.80	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.36	C	355	395	1,020	2
Stone St.	CR 92/ISB to Mercers Fernery Rd	1773	County		0.70	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.02	C	45	65	1,020	2
Sugar Mill Dr.	Pioneer Tr. to SR 44	1781	County	Yes	1.30	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.27	C	250	310	1,230	2
Summit Ave.	SR 44 to Main St.	1791	County	Yes	2.20	50	N+S	UA_NSMCRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.19	C	235	240	1,230	2
Surfside Dr.	John Anderson Dr. to SR A1A	1801	County		0.35	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.03	C	45	35	1,020	2
Taylor Rd. (CO)	Tomoka Farms Rd. to Spruce Creek	1810	County	Yes	0.70	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other -Urban	E	17,050	0.46	C	465	650	1,540	2
Taylor Rd. (CO)	Spruce Creek Blvd. to Crane Lake Bl	1811	County	Yes	1.10	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other -Urban	E	17,050	0.63	C	665	850	1,540	2
Taylor Rd. (CO)	Crane Lake Blvd. to Summertree Rd.	1812	County	Yes	0.75	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other -Urban	E	17,050	1.21	C	1,230	1,890	1,540	2
Taylor Rd. (CO)	Summertree Rd. to Williamson Blvd.	1813	County	Yes	0.20	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other -Urban	E	37,970	0.54	C	1,275	1,660	3,410	4
Taylor Rd. (CO)	Williamson Blvd. to I-95 (at Dunlawto	1814	County	Yes	0.15	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC3_2W_5L_D_WL	UA_MCCRAC3_2W_5L_D_WL	UA_MCCRAC3_2W_5L_D_WL	UA_NSSRC1_2W_5L_D_WL	UA_NSSRC1_2W_5L_D_WL	Principal Arterial - Other -Urban	E	47,560	1.00	D	2,865	3,755	4,280	5
Taylor Rd. (PO)	SR 421/Dunlawton Ave. to Clyde Mor	1823	County	Yes	0.55	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_WL	Major Collector - Urban	E	14,040	1.08	D	1,195	1,450	1,270	2
Taylor Rd. (PO)	Clyde Morris Blvd. to Hensel Rd	1824	County		0.50	45	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.52	C	1,550	1,775	3,410	4
Taylor Rd. (PO)	Hensel Rd. Spruce Creek Rd.	1826	County		1.00	45	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.46	C	1,065	1,630	3,410	4
Taylor Rd. (DL)	US 17/92 to Stratford Dr.	1816	County	Yes	0.80	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.62	D	610	745	1,020	2
Taylor Rd. (DL)	Stratford Dr. to Blue Lake Ave.	1818	County	Yes	0.95	50	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.41	C	555	600	1,540	2
Taylor Rd. (DL)	Blue Lake Ave. to Martin Luther King	1819	County	Yes	0.80	50	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.59	C	645	725	1,230	2
Taylor Rd. (NSB)	Glencoe Rd. to Mission Rd	1821	County		0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.21	C	195	260	1,020	2
Tomoka Farms Rd.	SR 44 to Pioneer Tr	1840	County	Yes	2.20	50	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Arterial - Rural	C	11,775	0.74	B	610	725	1,120	2
Tomoka Farms Rd.	Pioneer Tr to Taylor Rd.	1843	County	Yes	2.80	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.52	C	870	1,015	2,200	2
Tomoka Farms Rd.	Taylor Rd. to Townwest Blvd	1844	County	Yes	1.45	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.35	B	600	715	2,200	2
Tomoka Farms Rd.	Townwest Blvd to Shunz Rd.	1845	County	Yes	1.50	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.35	B	655	715	2,200	2
Tomoka Farms Rd.	Shunz Rd. to US 92/ISB	1847	County	Yes	3.02	40	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.39	B	720	825	2,200	2
Tomoka Farms Rd.	US 92/ISB to Dunn Ave.	1848	County	Yes	1.90	40	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Major Collector - Urban	E	24,450	0.38	B	575	830	2,200	2
Tomoka Farms Rd.	Dunn Ave. to LPGA Blvd.	1849	County	Yes	1.90	40	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Major Collector - Urban	E	24,450	0.27	B	470	565	2,200	2
Turnbull Bay Rd.	Pioneer Tr. to Williams Rd.	1863	County	Yes	2.90	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban/Rural	E	13,640	0.32	C	310	370	1,230	2
Turnbull Bay Rd.	Williams Rd. to Industrial Park Ave.	1865	County	Yes	1.20	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.28	C	240	365	1,230	2
Turnbull Bay Rd.	Industrial Park Ave. to US 1	1867	County	Yes	0.85	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.39	C	410	430	1,020	2
Tymber Creek Rd.	LPGA Blvd to Terminus	NEW	County	Yes	1.20	35							UA_UFH_2W_4L_D_WL	Major Collector - Urban	E	75,300	-	-	-	-	6,780	4
Tymber Creek Rd.	Terminus to Riverbend Rd/Future Co	Future Rd	County	Yes - Future	1.70	45							UA_UFH_2W_2L_D_WL	future "Major Collector - Urban	E	34,230	-	-	-	-	3,080	2
Tymber Creek Rd.	Riverbend Rd. to SR 40	1880	County	Yes - Future	0.45	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local - future Major Collector - Urban	E	13,640	0.05	C	60	60	1,020	2
Tymber Creek Rd.	SR 40 to Tymber Run	1881	County	Yes	0.50	40	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.31	C	1,300	1,060	3,410	4
Tymber Creek Rd.	Tymber Run to Airport Rd.	1882	County	Yes	0.90	40	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.72	C	1,330	1,110	1,540	2
Tymber Creek Rd.	Airport Rd to Broadway Ave./US 1	1883	County	Yes	4.20	40	N+S	UA_NSOSRS_2W_2L_U_WL	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.18	C	155	215	1,230	2
Van Ave. (DBS)	Peninsula Dr. to SR A1A	1890	County		0.20	25	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	-	-	-	-	1,020	2
Volco Rd.	Cow Creek Rd. to Beacon Light Rd.	1920	County	Yes	2.50	30	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.05	B	30	35	620	2
Volco Rd.	Beacon Light Rd. to 35th St.	1921	County	Yes	1.40	45	N+S	UA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban/Rural	E	13,640	0.05	C	45	65	1,230	2
Volco Rd.	35th St. to US 1	1922	County	Yes	0.50	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.18	C	185	200	1,020	2
Voorhis Ave.	US 17/92 to Amelia Ave.	1931	County		0.20	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.24	C	200	285	1,020	2
Voorhis Ave.	Amelia Ave. to Hill Ave.	1933	County		1.00	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Williamson Blvd.	Townwest Blvd to Willow Run Blvd.	1991	County	Yes	0.25	55	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	0.99	F	915	1,505	1,540	2
Williamson Blvd.	Madeline Ave. to Willow Run Blvd.	1992	County	Yes	1.10	55	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	0.95	D	930	1,425	1,540	2
Williamson Blvd.	Madeline Ave. to SR400/Beville Rd.	1993	County	Yes	1.50	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	1.07	D	1,195	1,570	1,540	2
Williamson Blvd.	SR400/Beville Rd. to Bellevue Ave. E	1994	County	Yes	1.00	50	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.50	C	1,135	1,595	3,410	4
Williamson Blvd.	Bellevue Ave. Ext. to Midway Ave.	1996	County	Yes	0.50	50	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.40	C	830	1,300	3,410	4
Williamson Blvd.	Midway Ave. to US 92/ISB	1997	County	Yes	0.50	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.32	C	690	1,035	3,410	4
Williamson Blvd.	US 92/ISB to Dunn Ave.	1998	County	Yes	2.35	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.48	C	1,075	1,595	3,410	4
Williamson Blvd.	Dunn Ave. to Mason Ave.	1999	County	Yes	0.35	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.49	C	985	1,535	3,410	4
Williamson Blvd.	Mason Ave. to LPGA Blvd.	2000	County	Yes	0.35	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.57	C	1,340	1,735	3,410	4
Williamson Blvd.	LPGA Blvd. to Hand Ave.	2001	County	Yes	2.05	50	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	1.14	F	1,160	1,490	1,540	2
Williamson Blvd.	Hand Ave. to SR 40	2004	County	Yes	0.60	40	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.61	C	1,435	1,690	3,410	4
Woodward Ave.	Beresford Ave. to Euclid Ave.	2031	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.02	C	140	100	1,020	2
Woodward Ave.	Euclid Ave. to SR 44	2030	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.05	C	50	60	1,020	2



25042 Ridgewood Ave Residential, Volusia County, FL - TAZ 7676
Project Trips Directional
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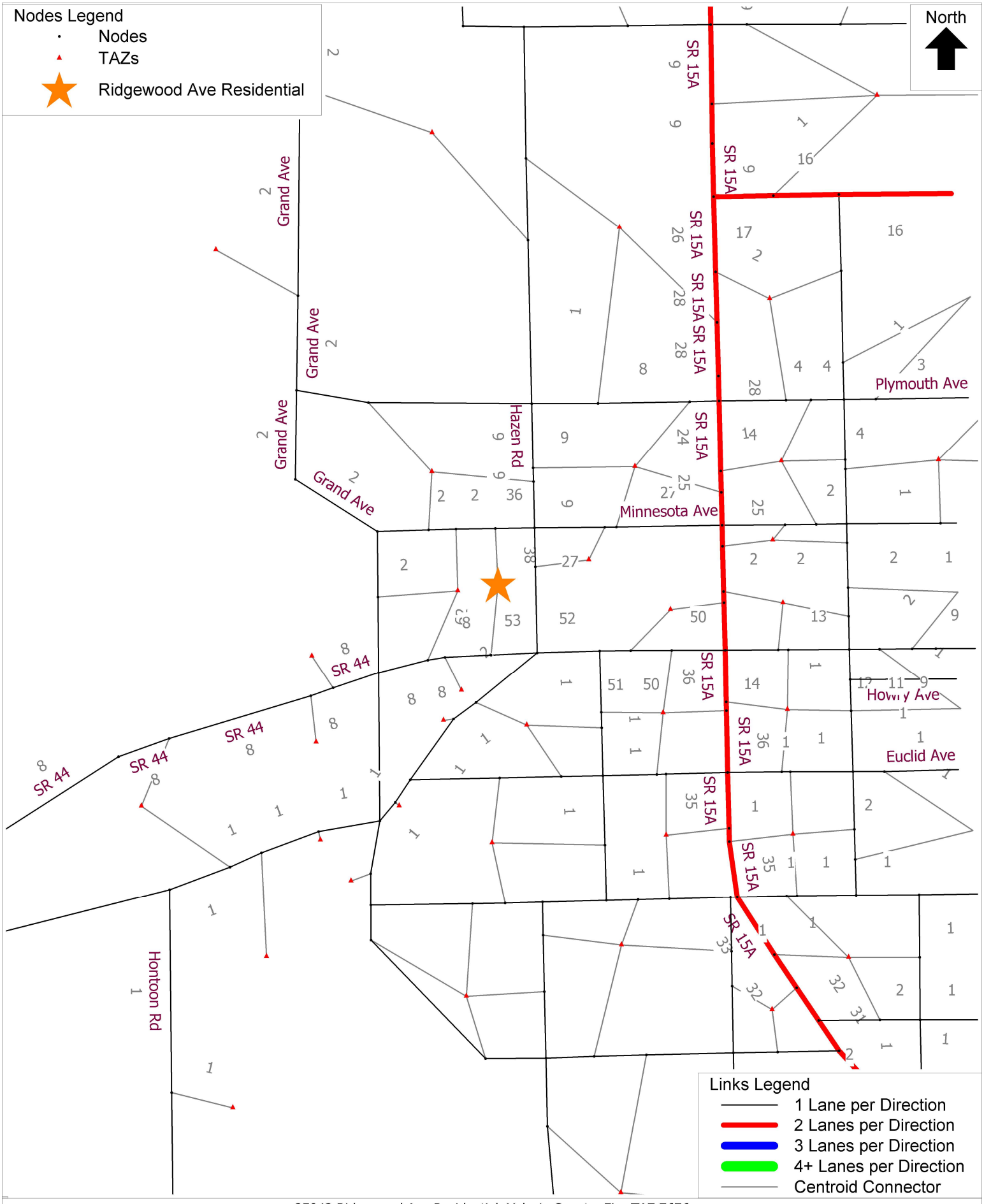

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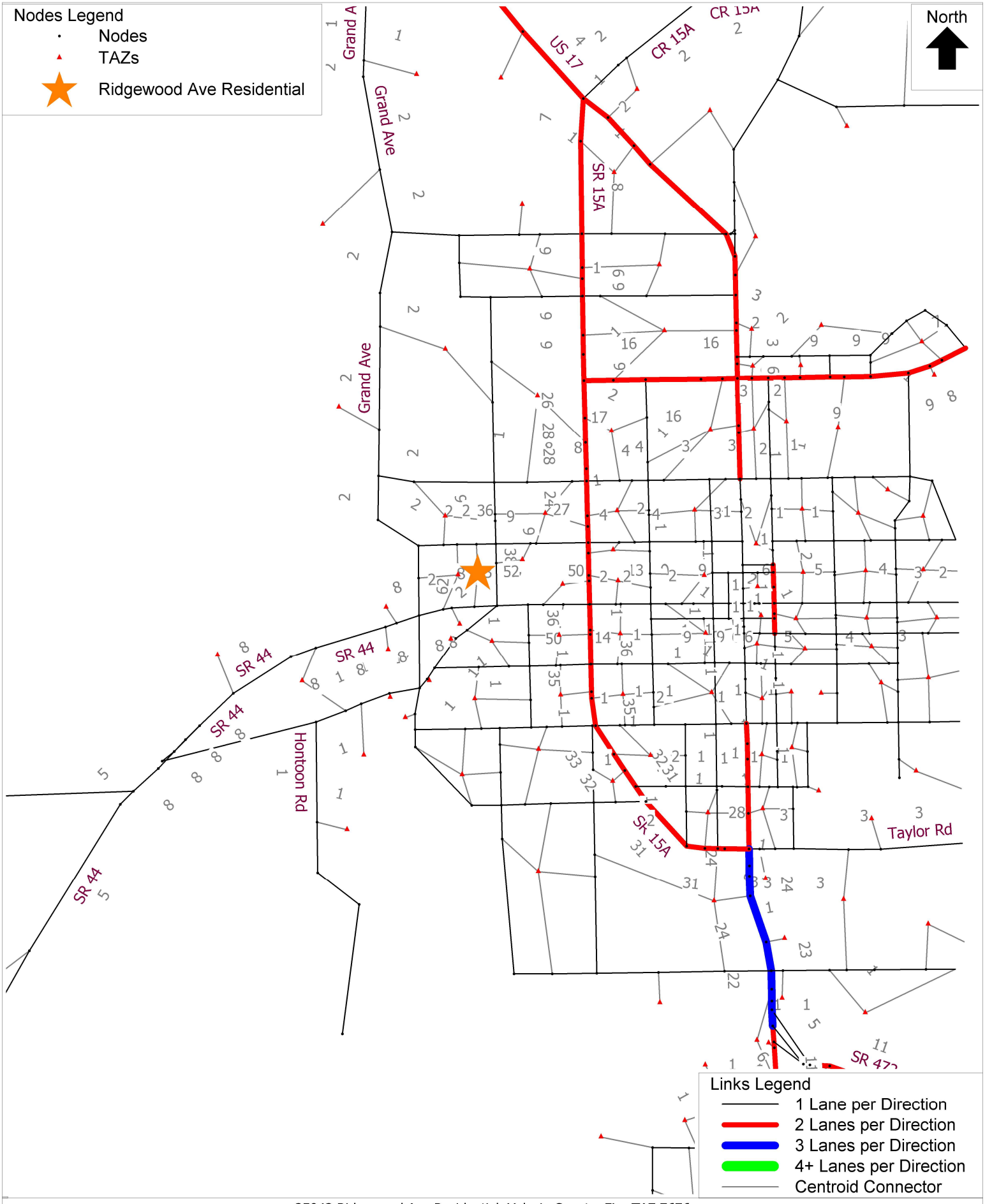

25042 Ridgewood Ave Residential, Volusia County, FL - TAZ 7676
Project Trips Directional
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439874-1 SJR2C Lake Beresford to Grand Avenue PD&E Study



Project Details

Work Type: PD&E Study

Phase: PD&E

Length: 3.6 miles

City: DeLand

County: Volusia

About

The St Johns River to Sea (SJR2C) Loop Trail Gap PD&E Study is completed.

The SJR2C Loop Trail Gap between Lake Beresford Park and Grand Avenue is a multi-use trail in Volusia County that will close the 3.6-mile gap between existing trails within Lake Beresford Park to the south, and the junction of Grand Avenue and Minnesota Avenue to the north, in DeLand.

The St. Johns River to Sea Loop (SJR2C) is a 260-mile trail system that will link together several communities including St. Augustine, Daytona Beach, Titusville, DeLand, and Palatka. This project is part of a greater effort to close the trail gaps and complete the St. Johns River to Sea Loop.

A PD&E study is the FDOT's process for adhering to the National Environmental Policy Act (NEPA) and related federal and state statutes. This process involves preliminary engineering to determine multi-use trail concepts; environmental evaluations to assess impacts associated with a new multi-use trail; and extensive public involvement and agency coordination.

PD&E Study reports are available on this page. A final newsletter was sent to property owners and other interested parties on August 11, 2020.

Send a comment or ask a question about this project

Contact Information

PD&E Project Manager
David Graeber
(386) 943-5392
David.Graeber@dot.state.fl.us

Last Updated

10/03/2024

School Board of Volusia County

Ms. Jamie M. Haynes, Chair
Mr. Ruben Colón, Vice Chair
Ms. Krista Goodrich
Mrs. Jessie Thompson
Ms. Donna Brosemer

Carmen J. Balgobin, Ed.D
Superintendent of Schools

School Adequate Capacity Determination
Finding of Adequate Capacity Letter

June 18, 2025

Ms. Nika Zyryanova
MAS Development
2875 NE 191st St Suite 305
Aventura, FL 33180

RE : DeLand Crossings – City of DeLand
School Concurrency Case # 25-06-10-001-A

Ms. Zyryanova:

The County Charter requires any Comprehensive Plan Amendment or Rezoning that allows increased residential density to be effective only when adequate public schools can be timely planned and constructed to serve the projected increase in student population. The district uses this requirement as the guiding principle behind the school adequate capacity review.

District staff reviewed the information for the proposed project known as DeLand Crossings associated with 20 +/- acres of property located at or near the intersection of N Ridgewood and New York Ave within an unincorporated part of DeLand city limits. The proposed project would provide one hundred and sixty (160) multi-family units.

The district uses a county wide Student Generation Rate (SGR) of (0.137) per multi-family dwelling unit to calculate projected students. By applying the SGR to the use types in Table 1 below, the project could generate twenty (20) full-time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	0.258	0	0
Multifamily Dwelling Unit	0.137	160	20
Manufactured Home Dwelling Unit	0.052	0	0
Total		**0**	**0**

When performing an adequate capacity review, district staff evaluates the effects of the proposed change compared to any remaining permanent capacity within the impacted schools, up to 100%, Table 2 (next page). The projected increase in student population may be over 100% if there are plans to serve increased student population in that planning area within the long-term planning horizon. A finding of adequate capacity may be issued in either case.

Table 2

Schools	SY 2024/25 Enrollment	% of Permanent Capacity	Plans for Capacity Increase Long-Term	Traditional K-12 students projected
Woodward Elementary	538	76%	No	9
Southwestern Middle	644	83%	No	4
West CSA DeLand High	2956	110%	No	7
Other				0

The student projections generated by this project **will** increase the existing percentage above 100% permanent capacity at the high school level. However, the concurrency service area (CSA) for DeLand High school is at or over 100% but below 115% for level of service (LOS) standards. Based on this, the school district has no objections to the proposed development plan.

Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering. Additional considerations, particularly for gated and muti-family communities, include accessibility for school buses, by ensuring a turn radius of at least 60 feet at all entrances and exits, and the inclusion of dedicated pickup/drop off sites.

All future development orders, such as site plans and subdivisions, are subject to school concurrency review. School concurrency will be evaluated at the time when the impact of development is specifically quantified and known. Only funded school improvements and then current capacity will be considered at that time.

No student reservations have been made at this time.

Please note the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Consequently, students generated from this project may not attend the current assigned schools.

Should you need additional information, please contact me at (386) 947-8786, extension 50802.

Sincerely,

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

CC: Carmen J. Balgobin, Ed.D, Superintendent of Schools
Ron Young, Director of Planning & Construction
Robert J. Voges, Ed.S, Planning Coordinator
Carol Kuhn, Planning Director, City of DeLand

FACILITIES SERVICES
3750 OLSON DRIVE ◆ DAYTONA BEACH, FL 32124
PHONE: (386) 947-8786 ◆ FAX (386) 506-5056

Finding of Adequate School Capacity

VOLUSIA COUNTY SCHOOL BOARD

Project Information	
Project Name	DeLand Crossings
VCSB Project #	**25-06-10-001-A**
Jurisdiction Project #	
Parcel ID Numbers	791200000061
Project Location	N Ridgewood and New York Ave
Potential Residential Units	160 Multi-Family Units
Property Owner/Applicant	Nika Zyryanova, MAS Development

Notes: Additional review will be required at the time of subdivision/site plan submittal(s).
No Student Reservations have been made.

Based upon the Findings of Fact, pursuant to School Board Policy 612 and Section 206 of the County Charter, the school district has determined at this time that school capacity is adequate to serve the proposed increase in residential density. This Finding shall constitute competent substantial evidence that adequate public school capacity is likely to be available at the time it is required to serve the planned new development.

Capacity is not being reserved with this Finding unless otherwise noted on this document. This Finding of Adequate School Capacity allows this subject project to continue through the Comprehensive Plan Amendment and/or rezoning process; however, it may be subject to additional school capacity review in the future.

Cody F. Shepard

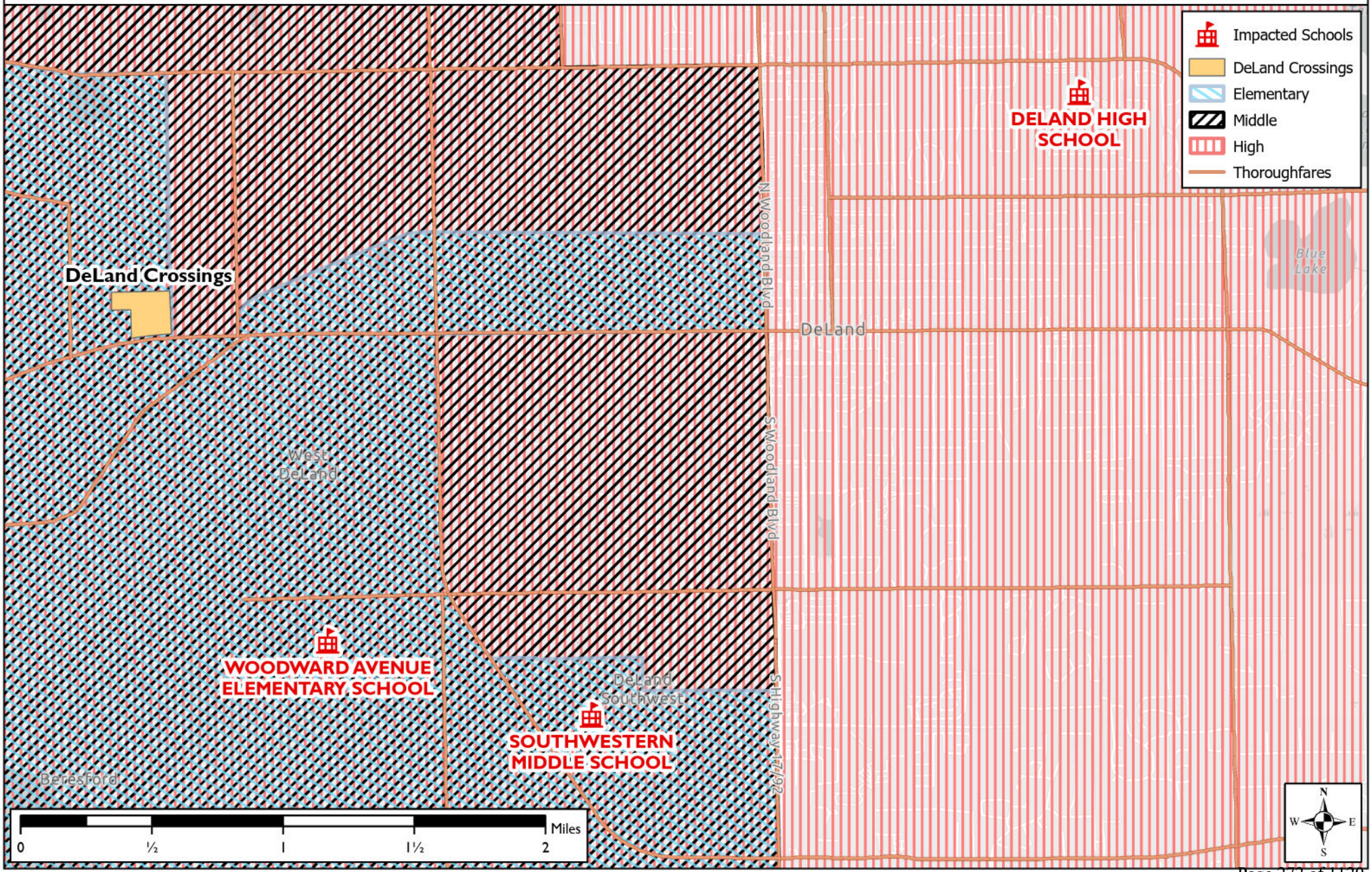
Cody F. Shepard
Specialist, Planning & GIS

June 18, 2025
Issue Date

VCSB Schools Impacted by Development

School Adequacy Determination - DeLand Crossings

VOLUSIA COUNTY SCHOOLS
Planning & Business Services
June 2025



CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Zoning for ±20.13 Acres of Property, Located at 210 North Ridgewood Avenue, from Volusia County A-3C (Transitional Agricultural with Thoroughfare Overlay Zone) to DeLand Reserve PD (Planned Development).

DEPARTMENT: Planning

PREPARED BY: Emily Kunkel, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A - Legal Description, Exhibit B-DeLand Reserve PD Agreement, Exhibit A - Legal Description, Exhibit B - Concept Plan, Exhibit C - Conceptual Elevations, Survey, Z25-084 Staff Report, Z25-084 Zoning, Z25-084 Aerial, SMLU25-083 - School Capacity Determination Letter 06.18.2025, SMLU25-083 - TIA Methodology, Volusia County Thoroughfare Overlay Zone

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The applicant is requesting to rezone the subject property from Volusia County A-3C (Transitional Agriculture with a Thoroughfare Overlay Zone overlay), to the DeLand Reserve PD (Planned Development) district. The DeLand Reserve PD, is a residential planned development and includes the western 25-ft right-of-way of North Ridgewood Avenue, as it was never dedicated to Volusia County. At the time of the subdivision process, the applicant will dedicate the necessary 25-ft right-of-way as well as additional right-of-way to Volusia County for a sidewalk along North Ridgewood.

The proposed Planned Development rezoning will allow for the applicant to develop the site into a 155-unit maximum residential subdivision. Included in the PD are standards to allow for the flexibility of all single-family, all multi-family units or a mixture of each. The standards also allow for the flexibility of a mixture of front loaded, rear loaded, and zero-lot line single-family units. However, the applicant is only proposing a mixture of front loaded and rear loaded multi-family units at this time.

The conceptual plan shows two access points from N. Ridgewood Avenue, minimum of 40% of open space, which shall include the minimum 15% of Tree Protection Area, that will serve as a buffer between the existing neighborhood to the north and the commercial/industrial use to the west. Additionally, the development includes two connected meaningful, accessible open space areas, with meandering paths, one in the northwest corner and one in the middle of the development, which creates a pedestrian corridor that is beneficial for the community.

The proposed development includes a minimum of 20’ wide lots for townhomes and 30’ wide lots for single-family. Parking shall be provided at a ratio of two (2) parking spaces per residential lot, together with an additional allocation of 0.25 guest parking spaces per residential lot, accommodated by on-street parking spaces provided throughout the development for visitors. The subject property is located ±1.6 miles from the DeLand Sunrail station, therefore, the applicant has designed a more transit friendly pattern by proposing internal sidewalks, and an additional sidewalk along North Ridgewood Avenue connecting to the existing sidewalk network and anticipated future developments in the area.

The development includes landscape designs that will serve environmentally friendly functions including, but

not limited to, cooling, privacy screening, shade, aesthetics, wildlife habitat, runoff pollution prevention. The design shall incorporate green infrastructure such as stormwater plantings, rain gardens and/or vegetative swales as appropriate to mimic the natural environment.

The applicant has applied for annexation of property, as well as a land use amendment to create the overall residential development (AN25-082), (SMLU25-083) which are being reviewed concurrently with this zoning amendment.

On September 10, 2025, the Planning Board voted to recommend approval of the DeLand Reserve PD.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

As outlined in the City's strategic plan under Strategic Focus Area: Preparing for the Future and Sustainability Strategic Context: Recognizing that the City itself is dynamic and that extensive changes will occur in the region in the near- and long-term future, it is important that there be a strategic focus on the future.

SUSTAINABILITY:

The rezoning of the property to a Planned Development allows implementation of the City's Sustainability Action Plan through the conditions of the PD Development Agreement.

FISCAL IMPACT:

Residential development of this property, and inclusion of the new units onto the City's tax rolls, will increase funds towards City services.

RECOMMENDATION:

It is recommended that the City Commission approve the rezoning of this property from Volusia County A-3C (Transitional Agricultural with Thoroughfare Overlay Zone) to DeLand Reserve PD (Planned Development)

BACKGROUND/DISCUSSION:

To the north of the property is Grandview Gardens PD (single-family residential subdivision); to the south is mix of single-family residential properties and vacant properties; to the east are single-family residential properties; and to the west is a mix of one rural single-family residential property and a commercial/industrial use property.

Per Sec. 33-32 of the Land Development Regulations, in return for flexibility in site design and development, Planned Developments (PDs) are expected to include exceptional design that preserves critical environmental resources; provides above-average open space and recreational amenities, and incorporates creative design in the layout of buildings.

All development for the property shall rely upon the standards set forth below as identified on the Planned Development Plan. Where this document is silent, the R-8 zoning regulations shall apply.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, CHANGING THE ZONING FROM VOLUSIA COUNTY's A-3C TRANSITIONAL AGRICULTURE WITH A THOROUGHFARE OVERLAY ZONE, TO DELAND RESERVE PLANNED DEVELOPMENT (PD), ON PROPERTY LOCATED AT 210 NORTH RIDGEWOOD AVENUE; APPROVING A PLANNED DEVELOPMENT PLAN CONSISTING OF APPROXIMATELY 20.13 ACRES OF PROPERTY; MAKING FINDINGS OF CONSISTENCY WITH THE COMPREHENSIVE LAND USE PLAN FOR THE CITY OF DELAND; DIRECTING CHANGE IN THE COMPREHENSIVE ZONING MAP; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the Applicant, Storch Law Firm(hereinafter referred to as "Applicant"), on behalf of the owner James K & Scarlet M Trust owns approximately 20.13 +/- acres of land located at 210 North Ridgewood Avenue, which is more particularly described in the legal description attached hereto as Exhibit "A" and by this reference made a part hereof; and

WHEREAS, the Applicant has applied for a change of zoning designation from Volusia County's A-3C Transitional Agriculture with a Thoroughfare Overlay Zone to DeLand Reserve Planned Development (PD); and

WHEREAS, the Applicant wishes to amend the zoning to planned development to develop the property into a 155-unit maximum residential subdivision; and

WHEREAS, said rezoning is consistent with both the Comprehensive Plan and the purpose and intent of Section 33-32 of the Code of Ordinances of the City of DeLand (the "Code"); and

WHEREAS, the Applicant has submitted an application for the approval of a development plan in order to amend the property zoning designation so as to change certain development standards for the property described in Exhibit "A" (hereinafter the "Property" or the "Project"); and

WHEREAS, the proposed development plan meets or exceeds the minimum conditions and standards for the PD District with respect to minimum development size, perimeter setbacks, comprehensive plan consistency, internal compatibility, external compatibility, open spaces, sidewalks, environmental constraints, internal access and circulation, external transportation access, off-street parking, public facilities and unified control; and

WHEREAS, the proposed development plan is consistent with the Medium Density Residential land use designation.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission has held a public hearing to approve the change of zoning from Volusia County's A-3C Transitional Agriculture with a Thoroughfare Overlay Zone to DeLand Reserve Planned Development (PD) on the property located at 210 North Ridgewood Avenue, consisting of approximately 20.13 +/- acres.

Section 2. Pursuant to the determination made at public hearing, the City Commission hereby amends the Comprehensive Zoning Map of the City to include the land described in Exhibit "A" as DeLand Reserve PD, Planned Development District.

Section 3. The zoning of the Property as Planned Development District (PD), is made pursuant to Section 33-32 of the Code and the development of the Property shall take place in accordance with that Section and in substantial compliance with the Development Plan Agreement, Maps and other supporting

documentation submitted by Applicant which shall be filed and retained for public inspection in the office of the City Planning Department and constitute a supplement to the official Zoning Map of the City.

Section 4. The approved Development Plan for DeLand Reserve PD, Planned Development District, including the Development Plan Agreement, Map and other supporting documentation (on file with the City Planning Department), are attached hereto as Exhibit "B" and by this reference made a part hereof.

Section 5. The failure of the approved Development Plan to address a particular permit, condition, term or restriction shall not relieve the Applicant of the necessity of complying with any law governing said permitting requirements, conditions, terms or restrictions, as same may be amended or enacted from time to time in the future. All current land development regulations of the City are applicable to the PD District except to the extent that they conflict with a specific provision of the approved Development Plan.

Section 6. At the time of development, the Applicant shall comply with all relevant building codes and development standards contained in the City's Code of Ordinances or in the Development Plan; provided, however, that the development standards contained in the adopted Development Plan shall supersede comparable standards contained in the Code of Ordinances.

Section 7. Pursuant to Article 5 of the City's Land Development Regulations, the Applicant shall comply with all applicable infrastructure regulations.

Section 8. The Planning Director is hereby directed to change the Comprehensive Zoning Map of the City of DeLand to conform with the change of zoning enacted in this Ordinance.

Section 9. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 10. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this _____ day of _____.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

TITLE DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE POINT OF BEGINNING.

CONTAINING 20.137 ACRES, MORE OR LESS.

PLANNED DEVELOPMENT AGREEMENT

THE CITY COMMISSION OF THE
CITY OF DELAND, FLORIDA
Case # Z25-084
Application of DeLand Crossings, LLC
ORDINANCE # 2025-___
ORDER AND RESOLUTION
GRANTING A REQUEST FOR CHANGE OF ZONING FROM VOLUSIA COUNTY A-3C
TO DELAND RESERVE PLANNED DEVELOPMENT (PD)

The application of DeLand Crossings, LLC, hereinafter "Applicant," for rezoning was heard by and before the City Commission, DeLand, Florida, on _____. Based upon the verified Application and other supporting documents, maps, charts, overlays, other evidence and instruments; the advice, report, and recommendations of the Community Development, and other Departments and agencies of DeLand, Florida; and the testimony adduced and evidence received at the Public Hearing on this Application by the Planning Board held on September 10, 2025, and otherwise being fully advised, the City Commission does hereby find and determine as follows:

GENERAL FINDINGS

A. That the application of Applicant was duly and properly filed herein on May 5, 2025 as required by law.

B. That all fees and costs which are by law, regulation, or Ordinance required to be borne and paid by the Applicant have been paid.

C. That the Applicant is the contract purchaser of a 20.13 +/- acres parcel of land which is the subject of this application and which land is situated in DeLand, Florida.

D. That the Applicant has complied with the Planned Development Plan provisions as required by Land Development Regulations of the Code of Ordinances of the City of DeLand.

E. That the Applicant has complied with the "Due Public Notice" requirements of the City Commission, Land Development Regulations of the Code of Ordinances of the City of DeLand.

F. That the owner of the property, James K. Warner and Scarlett M. Warner, as Trustees of The Warner Family Trust dated February 26, 2016, agrees with the provisions of this Development Agreement.

FINDINGS REGARDING REZONING

A. That the applicant has applied for a change of zoning from the present zoning classification of the parcel described in Exhibit "A" from Volusia County A-3C to DeLand Reserve Planned Development (PD).

B. That said rezoning to a PD is consistent with both the City of DeLand Comprehensive Plan and the intent and purpose of the City of DeLand Land Development Regulations contained in Chapter 33 of the Code of Ordinances of the City of DeLand (the "LDR"), and does promote the public health, safety, morals, general welfare and orderly growth of the area affected by the rezoning request.

NOW THEREFORE, BE IT RESOLVED AND ORDERED BY THE CITY OF DELAND, FLORIDA, IN OPEN MEETING DULY ASSEMBLED IN THE CITY COMMISSION CHAMBERS, 120 SOUTH FLORIDA AVENUE, DELAND, FLORIDA, THIS ___ DAY OF _____,2025, AS FOLLOWS:

C. That the Application of DeLand Crossings, LLC for the rezoning of the subject parcel is hereby granted.

D. That the zoning classification of the subject parcels described in Exhibit "A" attached hereto is hereby amended from Volusia County A-3C to DeLand Reserve PD as described in Article VII of the City of DeLand, Land Development Regulations. The Future Land Use designation of the subject parcel is Medium Density Residential.

E. That the Official Zoning Map of the City of DeLand, is hereby amended to show the rezoning of said parcels to DeLand Reserve PD.

F. That the City of DeLand, Land Development Regulations is consistent with the provisions of the "Development Agreement" as hereinafter set forth in this Ordinance and with respect to any conflict between Land Development Regulations, and the "Development Agreement," the provisions of the "Development Agreement" shall govern. The Land Development Regulations shall govern with respect to any matter not covered by the "Development Agreement." The City of DeLand will ensure overall compliance with this Ordinance.

G. Unless otherwise provided for herein, the City of Deland, Land Development Regulations, shall apply to the PD in the same manner as the R-8 zoning classification.

H. Except as otherwise stated herein, nothing in the Development Agreement is intended to abridge the requirements of the Land Development Regulations or any other City Ordinances.

I. All construction activities on the Property shall comply with the noise ordinance requirements of the City of DeLand Code of Ordinances, Chapter 20 - Noise. Construction hours shall be limited to between the hours of 7:00 A.M. and 7:00 P.M.

DEVELOPMENT AGREEMENT

A. Development Concept. The property shall generally be developed as DeLand Reserve PD, substantially in accordance with the Planned Development Plan. The Planned

Development Plan shall govern the development of the property as a PD and shall regulate the future land use of this parcel.

B. Planned Development Plan. The Planned Development Plan shall consist of the Development Plan Map prepared by American Civil Engineering Co. and dated May 2, 2025 and this Development Agreement. The Development Plan Map is hereby approved and incorporated in this Development Agreement by reference as Exhibit "B." The Planned Development Plan shall be filed and retained for public inspection in the Planning Division and it shall constitute a supplement to the Official Zoning Map of the City of DeLand.

C. Amendments. All amendments of the Planned Development Plan shall require the review and recommendation of the Planning Board and action by the City Commission in the same manner as a rezoning of the parcel. No administrative amendments may be authorized.

D. Subdivision Approval. After the Planned Development Plan is recorded, and prior to any construction, including clearing and landfill, the applicant or his successors shall comply with the subdivision review and approval requirements of Article 13 of the City of DeLand Land Development Regulations.

E. Unified Ownership. The applicant or his successors shall maintain unified ownership of each phase on the subject property until after issuance and recordation in the public records of Volusia County of a final plat for that phase.

F. Phases of Development. Development of the Property shall be accomplished in a single or multiple phases. Phasing for the development of the property may generally be provided per the attached Exhibit "B". There shall be no mass-grading of the property absent issuance of City permits for grading of each phase of development. No open burning shall be permitted. No vertical construction materials or combustible materials may be stored onsite for any phase of the development until the utilities and roads serving that specific phase have been inspected and approved by the City's Utilities, Engineering, and Fire Departments. Once the utilities and roads for a particular phase have been inspected and approved by the city, the Developer may apply for

and obtain Certificates of Occupancy (COs) for the units within that approved phase, regardless of whether the utilities and roads in other phases have been approved or are still under construction.

G. Land Uses Within the PD. The location and size of said land use areas are generally shown on the Development Plan Map, Exhibit "B." The following land uses shall be allowed as permitted principal uses and structures along with their customary accessory uses and structures:

1. Permitted Uses:

Multiple-family dwellings (townhomes), and their customary accessory uses

Single-family detached dwellings, and their customary accessory uses

Parks (tot lot and dog park)

Picnic areas/spaces

Open space areas

H. Development Standards. All development for the property shall rely upon the standards set forth below as identified on the Planned Development Plan. Where this document is silent, the R-8 Zoning regulations shall apply.

Development Standard	Overall Property
Number of lots/Maximum unit count	155
Max residential density Note: density shall be calculated based on the remaining acreage of the Property after any right-of-way dedication for N. Ridgewood Avenue	8 units per acre
Max. building height	35 ft.
Max. impervious surface	Overall impervious surfaces across the development shall not exceed 60%

1. Multiple-Family Residences.

Development Standard	
Min. lot width	20 ft.
Min. lot area	1,800 sq. ft
Min. lot depth	90 ft.

Min. setbacks for front-loaded townhome lots	Front yard: 20 ft. Garage setback: 25 ft. Rear yard: 10 ft. Side yard: 7.5 ft. Side yard (interior): 0 ft.
Min. setbacks for rear-loaded townhome lots (garages accessed from rear of lot)	Front yard: 10 ft. Rear yard: 5 ft. Side yard: 7.5 ft. Side yard (interior): 0 ft.
Min. building setback	Corner lot, side street: 10 ft. Adjacent to single-family: 40 ft.
Min. living area	950 sq. ft.
Max. lot coverage	70%
Max. building length	150 ft.
Min. building separation	15 ft. between sides of buildings; 25 ft. between sides and rear of adjacent buildings 50 ft. between any combination of fronts or rears of adjacent buildings.

2. Detached Single-Family Residences.

Development Standard	
Min. lot width	30 ft.
Min. lot area	2,850 sq. ft.
Min. lot depth	95 ft.
Min. setbacks for front-loaded lots	Front yard: 20 ft. Garage setback: 25 ft. Rear yard: 10 ft. Side yard: 5 ft.
Min. setbacks for rear-loaded lots (garages accessed from rear of lot)	Front yard: 15 ft. Rear yard: 5 ft. Side yard: 5 ft. Accessory Structures: 5 ft.
Min. setbacks for zero lot line *(The location of a building on a lot in such a manner that one or more of the building's sides rests directly on a lot line, provided that separations or setbacks between buildings meet all applicable building, fire code provisions, and PD development standards as provided herein)*	Front yard: 20 ft. Garage setback: 25 ft. Rear yard: 10 ft. Side yard: 0 ft. for the side where the home is placed against the lot line; 10 ft. on the nonzero side
Min. building setback	Corner lot, side street: 15 ft.
Min. living area	950 sq. ft.
Max. lot coverage	60%

Min. building separation	10 ft. between sides of buildings; 25 ft. between sides and rear of adjacent buildings 50 ft. between any combination of fronts or rears of adjacent buildings.

3. Accessory Structures associated with detached single-family residential. Unless otherwise stated herein, all accessory structures shall meet the development standards as outlined within the Land Development Regulations.

4. Architectural Standards. The development shall comply with the provisions of Section 33-94 of the City of DeLand Land Development Regulations, except as specifically otherwise provided for herein. Units shall be consistent with the architectural styles shown in the attached architectural elevations and townhome buildings shall incorporate at least two different rooflines and ridgelines per product type (rear-loaded and front-loaded), as shown in Exhibit "C". Four sided architectural elements shall be required for any building sides facing North Ridgewood Avenue and State Road 44.

5. Signage. Signage for the subdivision shall be provided per the Land Development Regulations. Signage shall not be located within the visibility triangle at the corner of New York Avenue and Ridgewood Avenue.

6. Amenities/Community Enhancements. Community enhancements shall include a park area with nature trail, seating areas, dog park and tot lot.

7. Model Homes and Temporary Sales Offices. A maximum of two (2) buildings with up to six (6) townhome model home units in each building (including one temporary sales/leasing office) may be constructed following approval of the preliminary plat and construction plans for the corresponding phase. A maximum of six (6) detached single-family model homes (including one temporary sales/leasing office) may be constructed. Construction of the model homes and temporary sales/leasing office may commence upon approval of a preliminary plat and final construction plans and completion of installation and activation of fire hydrants, and paved roads from the nearest open public road up to the point of the model home(s) within the said phase. Under no circumstances may the homes be occupied or otherwise utilized until such time as they are connected to potable water and sanitary sewer pursuant to a permit issued by the City of DeLand. The applicant and its successors and assigns shall be and remain jointly and severally liable for any violation of this provision. Furthermore, the applicant and its successors and assigns

hereby acknowledge and agree that any violation of this provision shall constitute a serious threat to the public health, safety and welfare for purposes of Section 162.06(4), Florida Statutes, hereby waive any argument in reference thereto, and waive any and all statutory notice requirements as may otherwise be required for entry of a code enforcement lien.

8. Open Space. A minimum of 40% of the development shall be reserved as Open Space. Such areas may include landscape buffers, stormwater ponds and Tree Protection Area provided these areas meet the requirements of the Land Development Regulations.

9. Landscape and Buffers Standards. All landscaping and buffers shall generally utilize Florida-Friendly Landscaping, as defined by the University of Florida/Institute of Food and Agricultural Sciences ("UF/IFAS") Center for Landscape Conservation and Ecology, native, and low-water plant material and shall meet the requirements of the Land Development Regulations. The development of the Property shall include landscape designs such that plants will serve environmentally friendly functions including, but not limited to, cooling, privacy screening, shade, aesthetics, wildlife habitat, and runoff pollution prevention. Special consideration for species/plant types around stormwater ponds should be taken to ensure compatibility in a more wet environment. With the approval of the City Forester, understory species listed in the City of DeLand's List of Approved Tree Replacement Species may be substituted for canopy trees when adjacent to roadways or sidewalks, where root-related damage is a concern.

A. Perimeter Buffers. Except as otherwise specifically provided for in this Development Agreement, the perimeter buffers of the development shall comply with the landscape buffer width and planting requirements provided for in the Land Development Regulations. As shown on Exhibit "B", the buffer types shall be as follows:

LOCATION	**TYPE**
NORTH	C
SOUTH	D
EAST	B
WEST	D

The west landscape buffers shall provide a 6-foot, 100% opaque screening fence (PVC fence). The north landscape buffer shall incorporate dense vegetation designed to create a visual screen and establish privacy between the Property and the adjoining neighborhood. A fence is permitted on the north property line and may be placed within the buffer plantings to reduce the fence's visibility. A variety of tree heights will be incorporated into the north landscape buffer to enhance privacy for the adjoining residential community, as generally depicted on the preliminary landscape plan (Exhibit "B"). It is intended that the existing trees within the landscape buffers are to be preserved and additional tree species will be added to this pine plantation tree buffer. As additional protection for the adjoining residents during Phase 1 construction, the existing trees in the north perimeter buffer will remain in place to act as a buffer until site work necessitates their removal.

B. Subdivision Entryways. Perimeter landscaping at subdivision entryways shall be installed to screen the sides of proposed dwellings from pedestrian viewpoints, utilizing plant materials that provide screening between 3 feet and 8 feet in height at maturity. Screening shall focus on softening views rather than achieving full opacity.

10. Parking Standards.

1. Parking shall be provided at a ratio of two (2) parking spaces per residential lot, together with an additional allocation of 0.25 guest parking spaces per residential lot. Required parking shall be provided through a combination of garage, driveway, and on-street parking spaces.
2. All driveway parking spaces for front-loaded lots shall be a minimum of nine (9) feet wide by twenty-five (25) feet long. Driveways shall be measured from the garage door to the edge of the sidewalk closest to the garage door.
3. To the extent practicable, the placement of driveways within alleys should be minimized to promote visual quality. While the reduction of

driveway parking within alleys is encouraged, driveways for rear-loaded homes are permitted where necessary to ensure functional site design, adequate grading, or compliance with other applicable requirements.

4. On-street parking shall be provided in various locations within the Property.
5. On-street parallel parking spaces shall be nine (9) feet by twenty-two (22) feet measured to back of drop curb.
6. Perpendicular parking spaces are sized nine (9) feet by eighteen (18) feet.
7. Cross sections of the roadway illustrating typical design for parking on one or both sides of the street are included in Exhibit "B".

I. Environmental Considerations. The development shall comply with the requirements as set forth in the Land Development Regulations.

1. Tree Protection Area (TPA). A minimum of 15% of the development shall be reserved as TPA, per the Land Development Regulations, and shall be maintained as generally depicted on Exhibit "B", which may be modified based upon an updated tree survey during the platting process so long as the minimum 15% of development area and 30-foot width is preserved. The ultimate configuration will be determined through the platting process. Permeable materials may be utilized for pathways located within tot lots and dog parks designated as Tree Protection Areas. A certified arborist shall prepare and submit a plan demonstrating that the proposed materials and installation methods will not negatively impact existing trees.

2. Tree mitigation shall be reviewed and approved per the Land Development Regulations.

3. Street Trees. Street trees may be planted within the rights of way within the Property and said trees may be included in mitigation calculations. Street tree installation, based upon the approved landscape plan, shall be required on a lot-by-lot basis and must be planted prior to the issuance of a certificate of occupancy for that particular lot.

4. In meeting the minimum tree coverage requirements of the City's LDR's, required trees may be located within common areas of the project which are adjacent to the structures. The homeowner's association required for the development shall be responsible for ensuring the preservation and, if necessary, the replacement of required trees. The foregoing provision is not intended to divest the City of its code enforcement authority relative to required trees but places an additional burden on the homeowner's association to proactively enforce the tree requirements.

5. A tree survey of all trees 6" DBH or larger is required as part of the review process for the platting and development of the project. The survey shall, at a minimum, identify all specimen and historic trees on the Property.

6. Palm trees and understory trees from the City of DeLand List of Approved Tree Replacement Species shall account for no more than 25 percent of required trees.

7. On-Site Burning of Cleared Vegetation Prohibited. Vegetation and other biomass cleared from the Property during development may not be incinerated on-site.

8. Stormwater Drainage. The stormwater system shall be designed to retain, at a minimum, the one hundred-year, 24-hour storm event. The stormwater system shall also hold the entire volume of such storm event. In all other regards, the stormwater retention shall be in accordance with the Land Development Regulations.

9. Dark Sky Standards. All lighting shall comply with Dark Sky standards and be of the full cut-off, fully-shielded variety in which the light source is recessed and shielded which prohibits upward light overspill into the night sky and off-site nuisance glare.

10. Low Impact Development (LID) Standards. The development has been laid out in a manner to best accommodate the existing topography, drainage and known environmental conditions identified on the property. However, the actual location and layout of the developed areas within the Property shall be determined during preliminary plat review. The design shall incorporate green infrastructure such as rain gardens and/or vegetative swales as appropriate to mimic the natural environment. The following Low Impact Development elements shall be provided:

A. Stormwater Plantings. All stormwater ponds shall utilize supplemental plantings to enhance the functionality and/or aesthetics of the stormwater system. Littoral plantings shall be

utilized if viability is likely - i.e. if a stormwater pond is designed to remain wet. If a pond is designed to remain dry and littoral plantings are unlikely to survive, the supplemental plantings shall be Florida Friendly plants.

J. Sewage Disposal, Potable Water and Reclaimed Water. Provision for sewage disposal, potable and reclaimed water needs of the PD will be provided in accordance with the Comprehensive Plan, the Land Development Regulations, and State of Florida Administrative Code 64E-6. Reclaimed water is not currently available to the Property. Upon reclaimed water becoming available to the site, the development will be required to connect to reclaimed water for both the individual lots and any common areas that are irrigated, but the development shall not be required to have a pond or other facility for receiving and retaining reclaimed water.

K. Access and Transportation System Improvements. All access and transportation system improvements shall be provided in accordance with the Land Development Regulations. The property shall be developed in substantial accordance with the following access and transportation system improvements:

1. Access Points. Access to the site will be from two entrances on North Ridgewood Avenue, as shown in Exhibit "B". The Planned Development Plan indicates the anticipated connection locations; however, the final locations may vary due to final engineering design and permitting considerations.

2. Transportation System Improvements. Transportation system improvements will be provided as required by permitting agencies and as needed according to the Traffic Impact Analysis (TIA) for the project.

3. Sidewalks and Multi-use trails. Five (5) foot wide ADA accessible sidewalks shall be provided throughout the subdivision. Sidewalks shall not be required within alleyways.

4. Internal Roadways. Internal right-of-way dimensions shall be a minimum of 50 feet in width. Alleyways shall consist of at least 14 feet of paved roadway width. Right-of-way and alleyway dimensions shall be as shown in Exhibit "B" and constructed in accordance with the Land Development Regulations. All internal rights-of-way will be publicly owned and dedicated to the City.

L. Homeowners Association (HOA). The Applicant shall create a homeowner's association, which shall be responsible for owning and maintaining all common areas, shared use facilities, alleyways and internal sidewalks. The HOA shall be responsible for the maintenance of Low Impact Design Elements and Stormwater System, and in no event shall either be the responsibility of the City of DeLand. The HOA shall be responsible for the maintenance of street trees. Moreover, the HOA shall also be responsible to repair any and all impacts upon the right of way infrastructure created by the presence of said trees, including any road, sidewalk, curb and gutter facilities. The charter and by-laws of said association and any other agreements, covenants, easements or restrictions shall be furnished to the City of DeLand for review prior to the time of creation. The Applicant shall be responsible for recording said information in the Public Records of Volusia County, Florida. Also, the applicant shall bear and pay all costs for recording all of the aforementioned documents. Furthermore, the HOA Declaration shall include a provision prohibiting short term rentals in the community and governing the placement of trash receptacles in front yards.

With respect to the enforcement of said agreements, covenants, easements or restrictions entered into between the Applicant and the owners or occupiers of property within the Deland Reserve PD, the City of DeLand shall only enforce the provisions of the "Development Agreement" and City of DeLand Land Development Regulations whichever is applicable, and not the private agreements entered into between the aforementioned parties.

M. Expiration. The terms of this Development Agreement shall be vested upon issuance of a final plat development order for the development issued within five (5) years from the effective date of the ordinance which adopts the Planned Development Plan unless the City Commission, for good cause shown, extends the time period indicated in this paragraph. If not vested by said date, the Planned Development Plan shall expire and will be of no further force or effect and no development shall occur on the subject property until it is rezoned. The City Commission may rezone the subject property as may be necessary or appropriate to protect adjoining properties or the public health, safety and welfare if the Planned Development Plan expires.

N. Binding Effect of Plans; Recording; and Effective Date. The Planned Development Plan, including any and all amendments, shall bind and inure to the benefit of the Applicant and its successors in title or interest. The DeLand Reserve PD zoning, provisions of the "Development Agreement," and all approved plans shall run with the land and shall be administered in a manner consistent with Article XII of the City of DeLand Land Development Regulations.

This Ordinance and all subsequent amendments shall be filed with the Clerk of the Court and recorded within forty-five (45) days following execution of the document by the City Commission, in the Official Records of Volusia County, Florida. One copy of the document, bearing the book and page number of the Official Record in which the document was recorded, shall be submitted to the Planning Department for placement in the public file. The date of recording of this document shall constitute the effective date of the DeLand Reserve PD or its subsequent amendments. The Applicant shall pay all filing costs for recording documents.

DONE and ORDERED by the City Commission, City of DeLand, Florida, this _____ day of _____, 20___.

ATTEST:

City Commission of DeLand, Florida

_____
Michael P. Pleus
City Manager

_____
Christopher M. Cloudman
Mayor

STATE OF FLORIDA

COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me by means of □ physical presence or □ online notarization this ____ day of _____, 2025, by Michael P. Pleus and Christopher M. Cloudman, as City Manager and Mayor of the City of DeLand, respectively, on behalf of the City of DeLand, and who are personally known to me.

NOTARY PUBLIC, STATE OF FLORIDA

Type or Print Name:

_____

Commission No.: _____

My Commission Expires: _____

WITNESSES:

APPLICANT: DELAND CROSSINGS, LLC, a Florida limited liability company

By: MAS Land Venture Opportunity Management, LLC, a Florida limited liability company, its Manager

_____

_____

Printed Name

By: MAS Development, LLC, a Florida limited liability company, its Manager

_____

_____ By:_____

Printed Name Alan Benenson, Manager

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of [_] physical presence or [_] online notarization this ____ day of _____, 2025, by Alan Benenson, as Manager of MAS Development, LLC, a Florida limited liability company, the Manager of MAS Land Venture Opportunity Management, LLC, a Florida limited liability company, the Manager of DeLand Crossings, LLC, a Florida limited liability company, who is [_] personally known to me or [_] who has produced _____ as identification.

NOTARY PUBLIC, STATE OF FLORIDA

Type or Print Name:

_____

Commission No.: _____

My Commission Expires: _____

WITNESSES:

OWNER:

James K. Warner and Scarlett M. Warner, as Trustees of The Warner Family Trust dated February 26, 2016

_____

Printed Name

By: _____

James K. Warner, Trustee

By: _____

Scarlett M. Warner, Trustee

_____

Printed Name

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization this ____ day of _____, 2025, by James K. Warner and Scarlett M. Warner, as Trustees of The Warner Family Trust dated February 26, 2016, who are _____ personally known to me or _____ who have produced _____ as identification.

NOTARY PUBLIC, STATE OF FLORIDA

Type or Print Name:

_____

Commission No.: _____

My Commission Expires: _____

TITLE DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

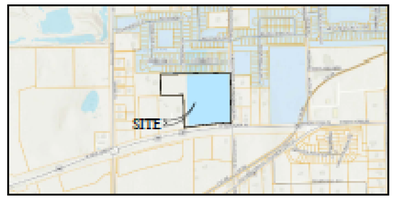
A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE POINT OF BEGINNING.

CONTAINING 20.137 ACRES, MORE OR LESS.



LOCATION MAP



AERIAL MAP

LEGAL DESCRIPTION:

12-17-29 IRREG PARCEL LYING IN GOVT LOT 4 E OF GRAND AVE & N OF SR 44 & W OF N RIDGEWOOD AVE MEAS 827.72 ALONG N R/W OF SR 44 & 867.52 FT ALONG W R/W OF N RIDGEWOOD AVE & 1207.70 FT ON N/L AS DESCRIBED IN OR 7709 PG 3083 PER OR 7233 PG 1560

FLOOD ZONE:

PROPERTY SHOWN HEREON LIES IN FLOOD ZONE "X" AN AREA WHICH LIES OUTSIDE THE 100 YEAR FLOOD AREA ACCORDING TO F.I.R.M. MAP PANEL No. 12127C0465H, DATED FEBRUARY 19, 2014.

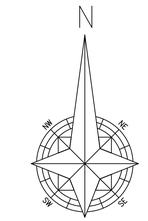
791200000061

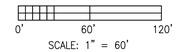
2061880

210 N. RIDGEWOOD AVE.
DELAND, FLORIDA 32720

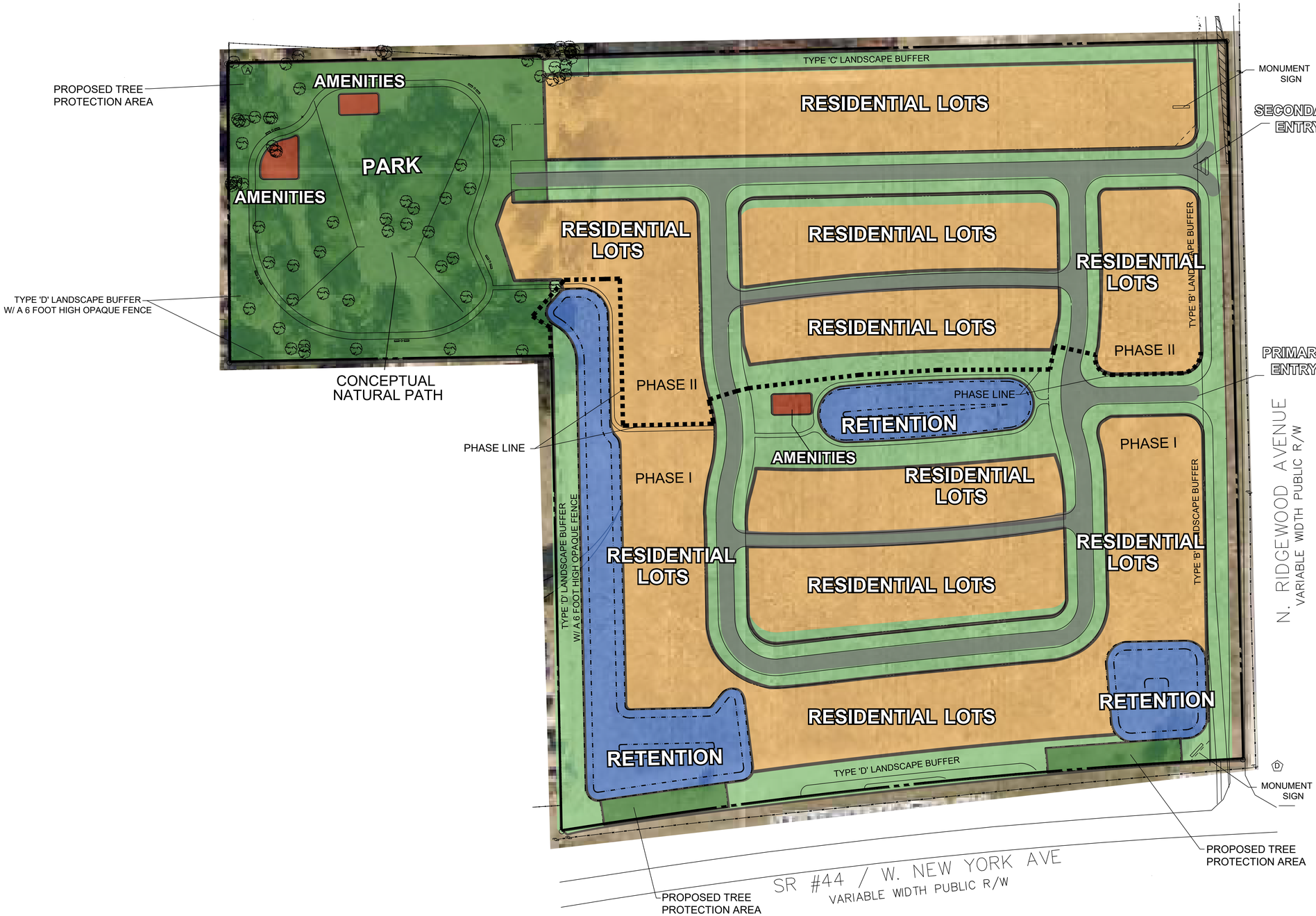
Z25-084

NOTE: THESE PLANS ARE CONCEPTUAL





SCALE: 1" = 60'



PROJECT DATA:

TOTAL GROSS PROJECT AREA:	20.13 AC
AREA OF ADDITONAL ROW:	+/- 0.80 AC
TOTAL NET PROJECT AREA:	+/- 19.33 AC

PROPOSED FLU CHANGE:
VOLUSIA COUNTY RURAL
TO MEDIUM DENSITY RESIDENTIAL

MAX. No. OF UNITS:	155 UNITS
MAXIMUM DENSITY:	8 UNITS / AC
MAX. IMP. ALLOWED:	60%
MIN. OPEN SPACE REQ'D:	40%

PROPOSED BUILDINGS:

MAX. LENGTH OF BUILDING: 150 FEET
MIN. DIST. BETWEEN BLDGS: 15'

TREE PROTECTION AREA:

REQUIRED TPA: 15 % OF TOTAL AREA

PD DEVELOPMENT NOTES:

1. THE FINAL LOCATION OF PARKING, AMENITIES, AND REQUIRED INFRASTRUCTURE SHALL BE DETERMINED AT THE TIME OF PRELIMINARY PLAT SUBMITTAL.
2. INCREASES IN LOT SIZES AND/OR DECREASES IN THE NUMBER OF LOTS SHALL BE DEEMED TO BE IN SUBSTANTIAL CONFORMANCE WITH THIS PD CONCEPT PLAN.
3. THE FINAL MIX OF RESIDENTIAL PRODUCT TYPES (E.G., TOWNHOMES AND/OR SINGLE-FAMILY HOMES) WILL BE DETERMINED AT THE TIME OF PRELIMINARY PLAT SUBMITTAL. THIS PD IS INTENDED TO ALLOW FOR ALL TOWNHOMES, ALL SINGLE-FAMILY HOMES, OR A MIX OF BOTH, IN RESPONSE TO MARKET CONDITIONS.

DATE:	MAY 2, 2025
SCALE:	1" = 60'
DESIGNED:	THS
DRAWN:	MDS
CHECKED BY:	THS
JOB NO.:	25045
EMAIL:	tomskelton4698@gmail.com

DATE	REVISIONS	BY	CHECKED
07/08/2025	REVISED PER CITY OF DELAND	MDS	THS

AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS ROAD, SUITE 211 WINTER SPRINGS, FLORIDA 32708
PHONE: (407) 327-7706 FAX (407) 327-8227
CERTIFICATE OF AUTHORIZATION NO.: 00005709

PD SITE PLAN

DELAND, FLORIDA

THOMAS H. SKELTON, PE
REGISTRATION NO. 42752

SHEET:

Conceptual Elevations - Front Load Townhomes



Elevation A



Elevation B



Elevation C



Elevation D



Elevation E



Elevation F

Conceptual Elevations - Front Load Townhomes



Elevation A



Elevation B



Elevation C

Conceptual Elevations - Front Load Townhomes



Elevation A



Elevation B



Elevation C



Elevation E



Elevation D

Conceptual Elevations - Front Load Townhomes



Elevation A



Elevation B



Elevation C

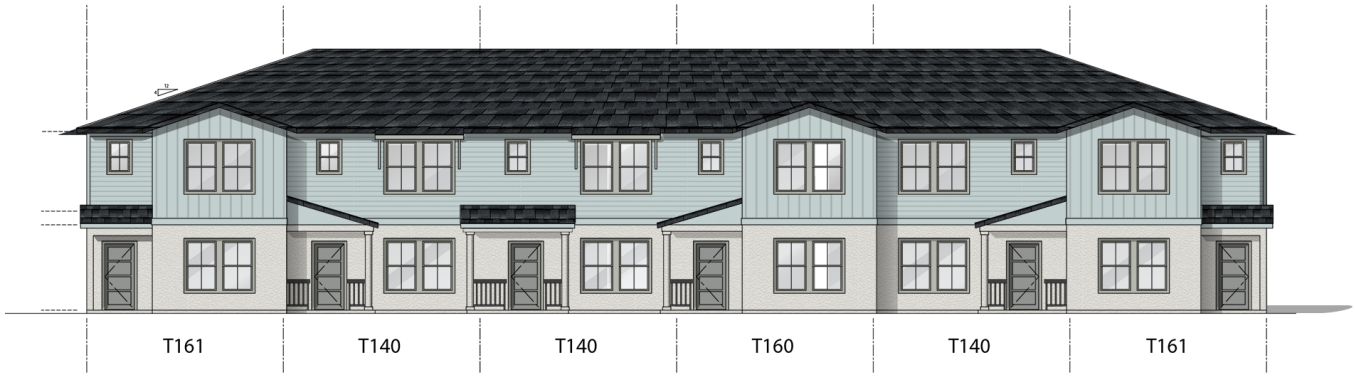


Elevation D

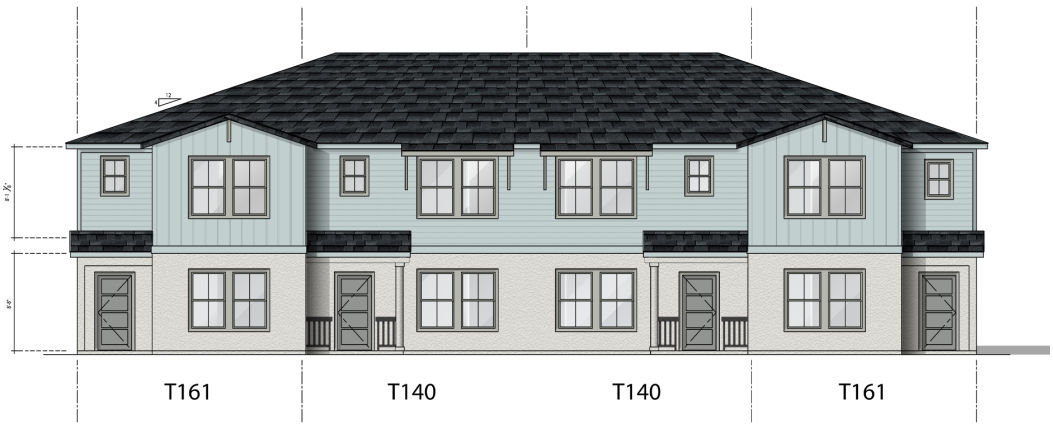


Elevation E

Conceptual Elevations - Rear Load Townhomes





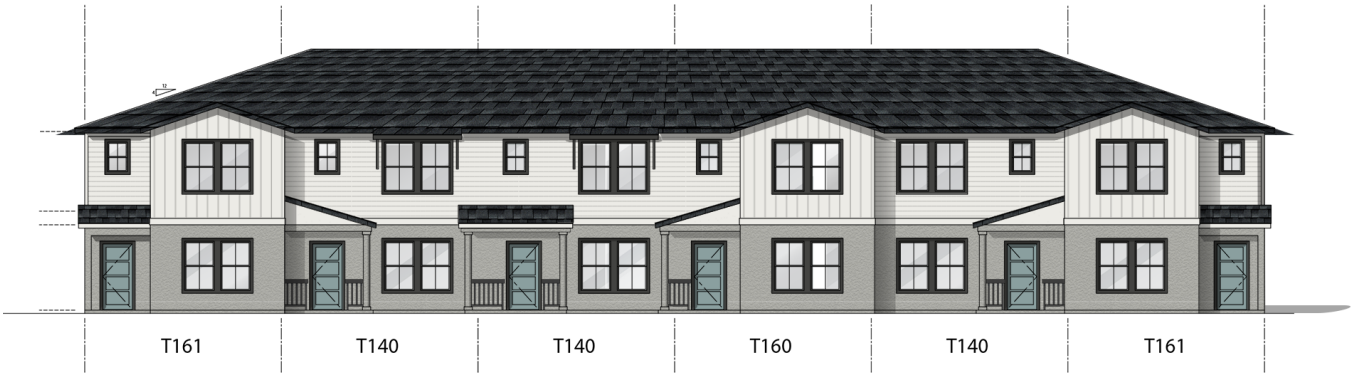


Conceptual Elevations - Rear Load Townhomes

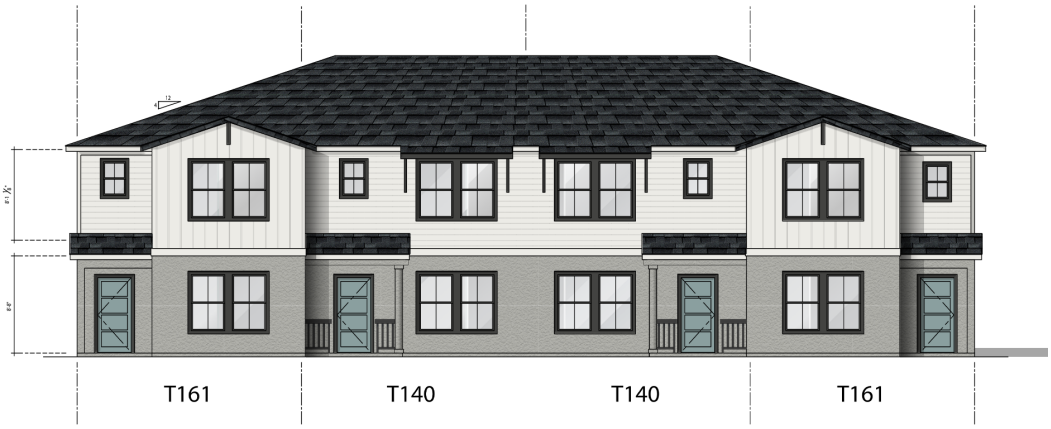




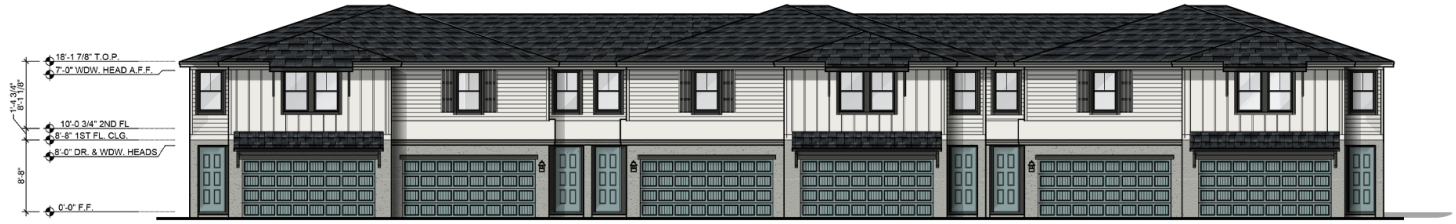
Conceptual Elevations - Rear Load Townhomes





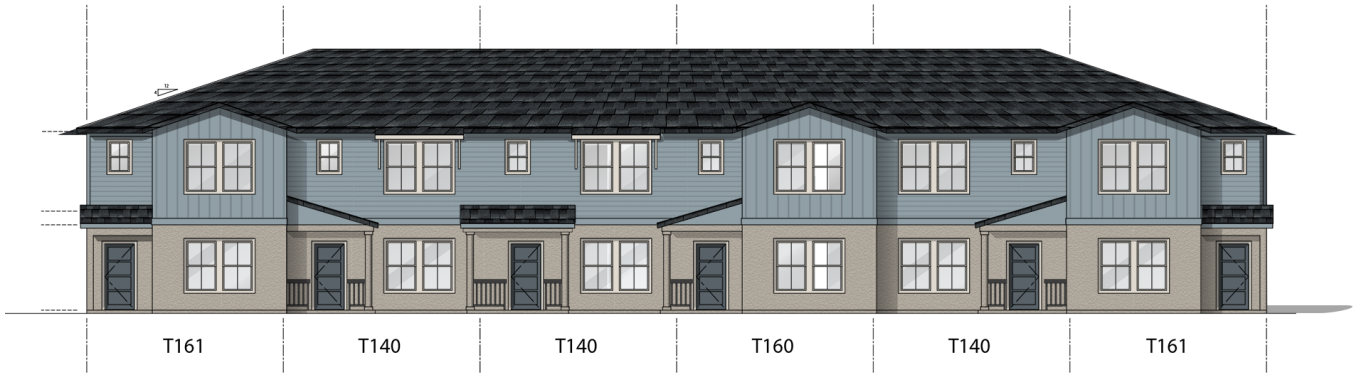


Conceptual Elevations - Rear Load Townhomes

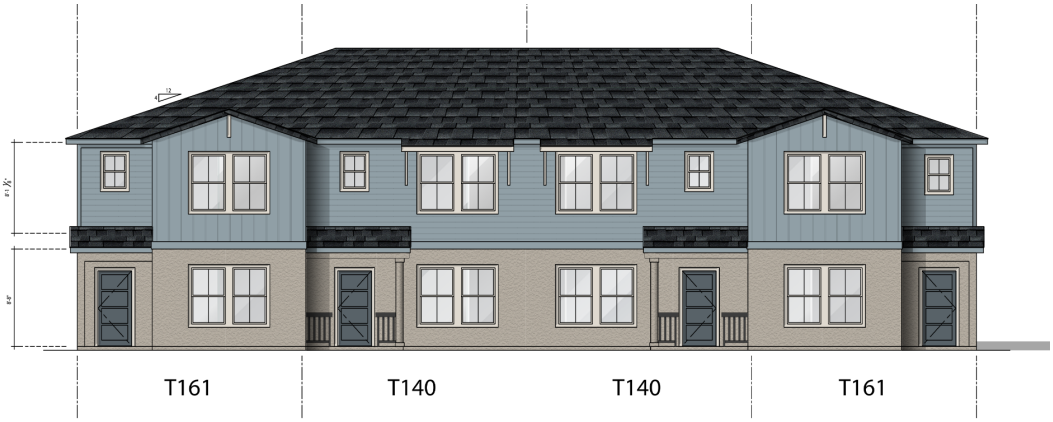




Conceptual Elevations - Rear Load Townhomes

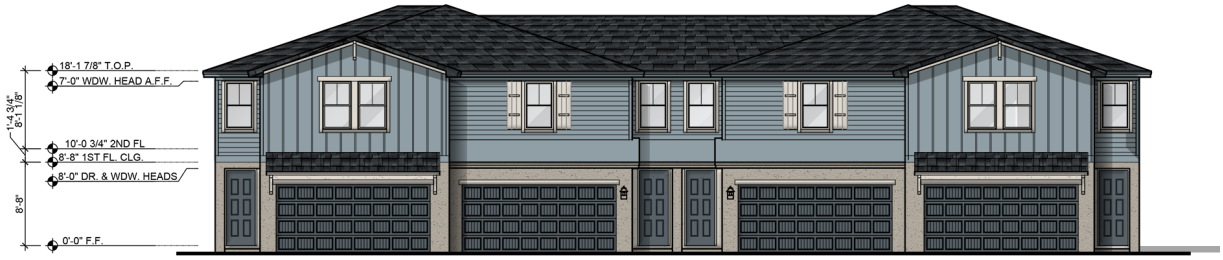






Conceptual Elevations - Rear Load Townhomes

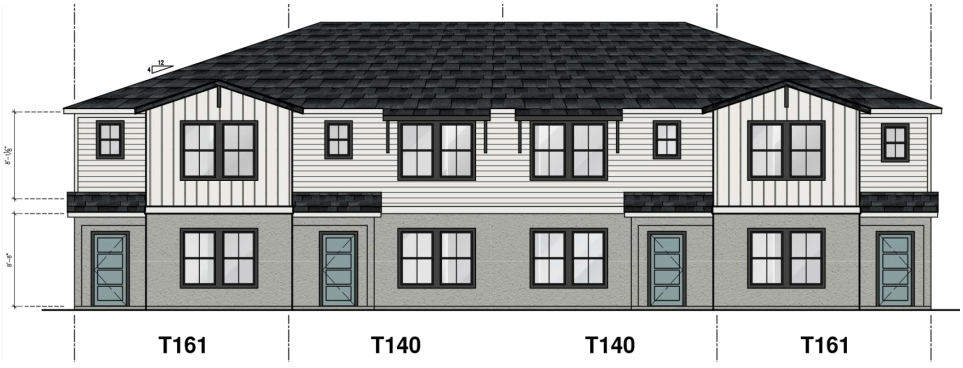




Conceptual Elevations - Rear Load Townhomes







Conceptual Elevations - Rear Load Townhomes



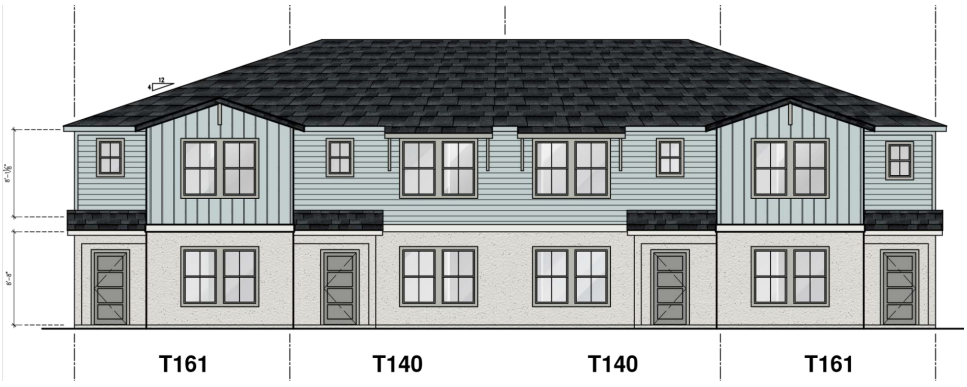




Conceptual Elevations - Rear Load Townhomes







Conceptual Elevations - Front Load Single Family



Elevation A



Elevation B



Elevation C



Elevation D



Elevation E



Elevation F



Elevation G



Elevation H

Conceptual Elevations - Front Load Single Family



Elevation A



Elevation B



Elevation C



Elevation D



Elevation E



Elevation F



Elevation G



Elevation H

Conceptual Elevations - Front Load Single Family



Elevation A



Elevation B



Elevation C



Elevation D

Conceptual Elevations - Front Load Single Family



Elevation A



Elevation B



Elevation C



Elevation D



Elevation E

Conceptual Elevations - Front Load Single Family



Elevation A



Elevation B



Elevation C



Elevation D



Elevation E

Conceptual Elevations - Rear Load Single Family



Elevation A



Elevation B



Elevation C



Elevation K



Elevation L



Elevation M

Conceptual Elevations - Rear Load Single Family



Elevation A



Elevation B



Elevation C



Elevation K



Elevation L



Elevation M

Conceptual Elevations - Rear Load Single Family



Elevation A



Elevation B



Elevation C



Elevation K



Elevation L



Elevation M

Conceptual Elevations - Rear Load Single Family



Elevation A



Elevation B



Elevation C



Elevation K

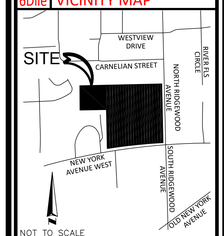


Elevation L



Elevation M

6Diie VICINITY MAP



NOT TO SCALE

6Diic NORTH ARROW & SCALE

1" = 80'
GRAPHIC SCALE
0 40' 80' 160'

5Ciii OBSERVED POTENTIAL ENCROACHMENTS

- (A) BARBED WIRE FENCE CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 2.1'
- (B) BARBED WIRE AND WOOD & WIRE FENCE CROSS BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 1.3'
- (C) NORTH RIDGEWOOD AVENUE PAVEMENT CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 23.7'
- (D) NORTH RIDGEWOOD AVENUE PAVEMENT CROSSES BOUNDARY, POSSIBLE ENCROACHMENT, NO GREATER THAN 17.8'

3 FLOOD INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN ZONE "X", AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 125155 0465 H (MAP NO. 12127C0465H), WHICH BEARS AN EFFECTIVE DATE OF 02/19/2014, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE. ZONE "X" DENOTES AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

6Diid LEGEND AND ABBREVIATIONS

	CONCRETE SURFACE	ALUM	ALUMINUM
	ROAD STRIPING	BM	BENCHMARK
	FIRE HYDRANT	(C)	CALCULATED DATA
	GAS VALVE	C/L	CENTERLINE
	UTILITY POLE	CM	CONCRETE MONUMENT
	GUY ANCHOR	CONC	CONCRETE
MB	MAIL BOX	CRNR	CORNER
	BENCHMARK	(T)	TITLE DATA
	RECOVERED MONUMENT AS NOTED	EL	ELEVATION
	SET MONUMENT AS NOTED	EP	EDGE OF PAVEMENT
	CONCRETE MONUMENT AS NOTED	FLDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
		FND	FOUND
x	VINYL FENCE	IR	IRON ROD
	WIRE FENCE	LB	LICENSED BUSINESS
	ADJACENT LINE	LS	LICENSED SURVEYOR
	SECTION LINE	(M)	FIELD MEASURED DATA
OHU	OVERHEAD UTILITY LINE	MB	MAIL BOX
	CONTOUR MAJOR	N/D	NAIL & DISK
	CONTOUR MINOR	NGS	NATIONAL GEODETIC SURVEY
•XXX	SPOT SHOT	NO.	NUMBER
	CENTERLINE	ORB	OFFICIAL RECORDS BOOK
	BREAK LINE	(P)	PLAT DATA
		PB	PLAT BOOK
	SECTION CORNER	PG	PAGE
	CANPHOR TREE	PID	PARCEL IDENTIFICATION
	OAK TREE	PLS	PROFESSIONAL LICENSED SURVEYOR
	PALM TREE	POB	POINT OF BEGINNING
		POC	POINT OF COMMENCEMENT
		R/W	RIGHT OF WAY

6Ciie PLATTED SETBACK OR RECORDED BUILDING RESTRICTION LINES

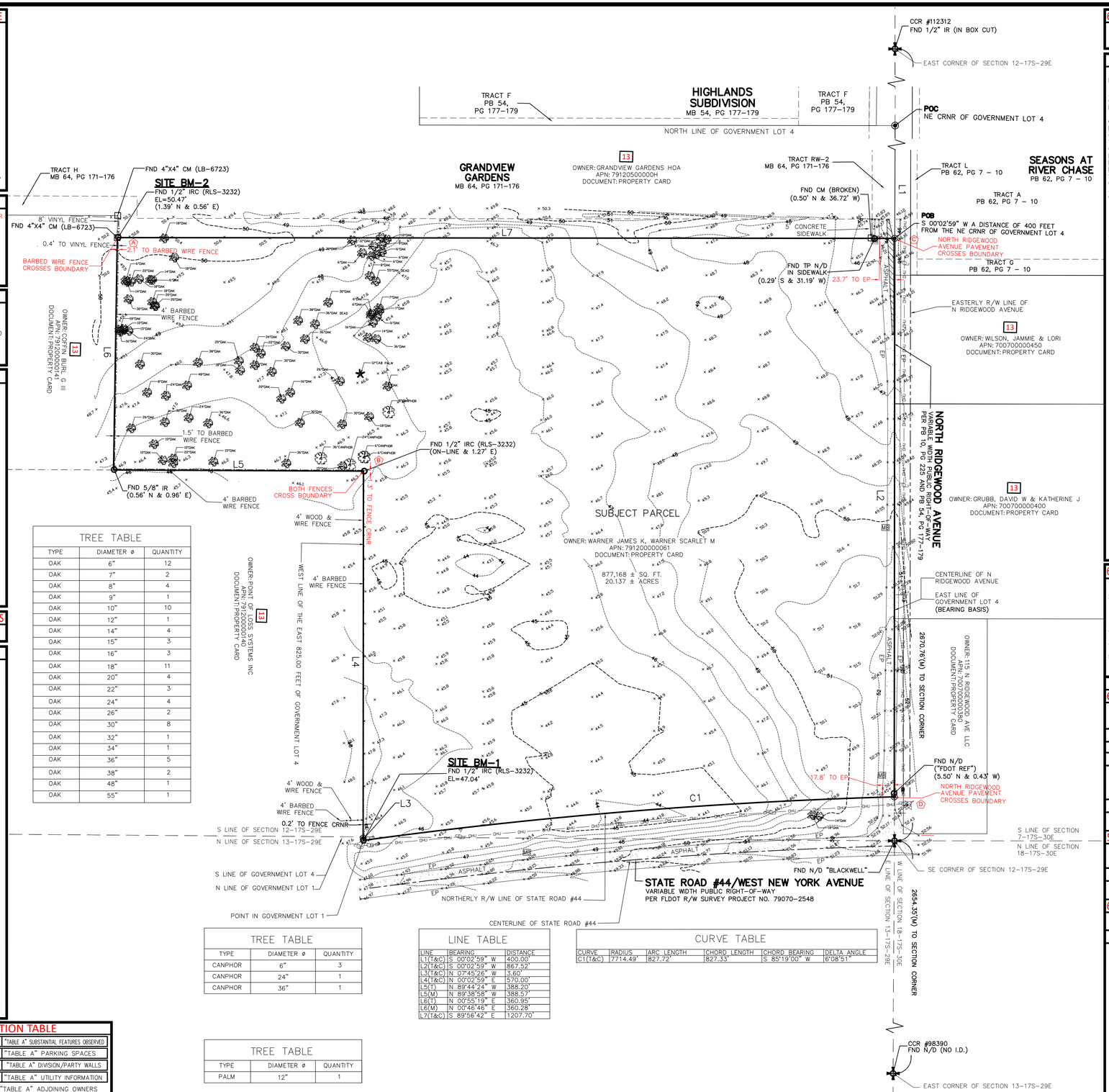
NONE PROVIDED TO THIS SURVEYOR.

5Ei "SCHEDULE B - SECTION 2" ITEMS

(9) — EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED FEBRUARY 15, 1961 IN OFFICIAL RECORDS BOOK 349, PAGE 570. (DOES NOT AFFECT)

ALTA/NSPS LAND TITLE SURVEY IDENTIFICATION TABLE

2	"TABLE A" PROPERTY ADDRESS	6Bvii	CONTIGUITY STATEMENT	8	"TABLE A" SUBSTANTIAL FEATURES OBSERVED
3	"TABLE A" FLOOD INFORMATION	6Bxii	TITLE COMMITMENT INFORMATION	9	"TABLE A" PARKING SPACES
4	"TABLE A" LAND AREA	6Cvii	RECORDED SETBACKS/RESTRICTIONS PROVIDED BY INSURED	10	"TABLE A" DIVISION/PARTY WALLS
5Biii	ACCESS TO PROPERTY	6Diic	NORTH ARROW & SCALE	11	"TABLE A" UTILITY INFORMATION
5Ciii	SURVEYOR OBSERVED POTENTIAL ENCROACHMENTS	6Diid	LEGEND & ABBREVIATIONS	13	"TABLE A" ADJOINING OWNERS
5Ei	"SCHEDULE B – SECTION 2" ITEMS	6Diie	VICINITY MAP	14	"TABLE A" INTERSECTING STREET
5F	CEMETERY NOTE	6Diif	SURVEYOR'S NOTES	16	"TABLE A" EARTH MOVING NOTE
6	TABLE "A" ZONING INFORMATION	6Diik	TYPE OF SURVEY	17	"TABLE A" RIGHT OF WAY CHANGES
6Bi	TITLE DESCRIPTION	7	SURVEYOR'S CERTIFICATE	18	"TABLE A" OFFSITE EASEMENTS OR SERVITUDES
		7b	"TABLE A" BUILDING AREA		
6Biv	BEARING BASIS	7c	"TABLE A" BUILDING HEIGHT		



TREE TABLE

TYPE	DIAMETER ø	QUANTITY
OAK	6"	12
OAK	7"	2
OAK	8"	4
OAK	9"	1
OAK	10"	10
OAK	12"	1
OAK	14"	4
OAK	15"	3
OAK	16"	3
OAK	18"	11
OAK	20"	4
OAK	22"	3
OAK	24"	4
OAK	26"	2
OAK	30"	8
OAK	32"	1
OAK	34"	1
OAK	36"	5
OAK	38"	2
OAK	48"	1
OAK	55"	1

TREE TABLE

TYPE	DIAMETER ø	QUANTITY
CANPHOR	6"	3
CANPHOR	24"	1
CANPHOR	36"	1

TREE TABLE

TYPE	DIAMETER ø	QUANTITY
PALM	12"	1

LINE TABLE

LINE	BEARING	DISTANCE
L1(T&C)	S 00°02'59" W	400.00'
L2(T&C)	S 00°02'59" W	867.52'
L3(T&C)	N 07°45'26" W	3.60'
L4(T&C)	N 00°02'59" E	570.00'
L5(T)	N 89°44'24" W	388.20'
L5(M)	N 89°38'58" W	388.57'
L6(T)	N 00°55'19" E	360.95'
L6(M)	N 00°46'46" E	360.28'
L7(T&C)	S 89°56'42" E	1207.70'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1(T&C)	7714.49'	827.72'	827.33'	S 85°19'00" W	6°08'51"

THIS SURVEY MEETS OR EXCEEDS THE FLORIDA STANDARDS OF PRACTICE AS SET IN FLORIDA ADMINISTRATIVE CODE CHAPTER 5J-17-0.50 FOR A BOUNDARY SURVEY. ALL PARTS OF THIS SURVEY AND DRAWING HAVE BEEN COMPLETED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS FOR SURVEYING IN THE STATE OF FLORIDA TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

DATE	REVISIONS	TECH
03/07/25	NEW TITLE/CERTS	BS
05/22/25	UPDATE CERTS	BS
06/02/25	UPDATE EXCEPTIONS	BS
07/15/25	UPDATE ALTA	BS

FIELD	SM	DRAWING SCALE	1"=80'
DRAWN BY	BS	QC BY	EGT
DRAWING NAME	240638 210 N RIDGEWOOD AVE, DELAND ALTA W TITLE BEARING BASIS 07-14-25.DWG		

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6Bxii TITLE COMMITMENT INFORMATION

THE TITLE DESCRIPTION AND SCHEDULE "B" ITEMS HEREON ARE FROM: FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO.: #110588914, HAVING AN EFFECTIVE DATE OF FEBRUARY 13, 2025.

SHEET 1 OF 1

6Bi TITLE DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN GOVERNMENT LOT 4, SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST AND GOVERNMENT LOT 1, SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 4, RUN THENCE S 00°02'59" W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 4 A DISTANCE OF 400.00 FEET TO THE **POINT OF BEGINNING**, THENCE CONTINUE S 00°02'59" W ALONG SAID EAST LINE OF DISTANCE OF 867.52 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD #44, BEING ON A CURVE CONCAVE TO THE SOUTH, HAVING A CENTRAL ANGLE OF 06°08'51", A RADIUS OF 7714.49 FEET, A CHORD BEARING OF S85°19'00" W AND A CHORD DISTANCE OF 827.33 FEET, THENCE RUN ALONG THE ARC AND SAID NORTHERLY RIGHT OF WAY LINE AN ARC DISTANCE OF 827.72 FEET TO A POINT IN SAID GOVERNMENT LOT 1, THENCE RUN N 07°45'26" W A DISTANCE OF 3.60 FEET TO A POINT ON THE NORTH LINE OF SAID GOVERNMENT LOT 1, ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 4, SAID POINT BEING ON THE WEST LINE OF THE EAST 825.00 FEET OF SAID GOVERNMENT LOT 4, THENCE RUN N 00°02'59" E ALONG SAID WEST LINE A DISTANCE OF 570.00 FEET, THENCE RUN N 89°44'24" W A DISTANCE OF 388.20 FEET, THENCE RUN N 00°55'19" E A DISTANCE OF 360.95 FEET, THENCE RUN S 89°56'42" E, A DISTANCE OF 1207.70 FEET TO THE **POINT OF BEGINNING**.

THIS SURVEY DESCRIBES AND DEPICTS THE SAME LAND AS DESCRIBED IN THE TITLE COMMITMENT AS REFERENCED ABOVE.

6Diig SURVEYOR'S NOTES

1. NO UNDERGROUND UTILITIES ARE SHOWN ON THIS SURVEY, ONLY ABOVE GROUND VISIBLE EVIDENCE OF UTILITIES ARE SHOWN.
2. ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.
3. THIS SURVEY MEETS OR EXCEEDS THE SURVEY STANDARDS/STANDARDS OF CARE AS SET FORTH IN SECTION 3 OF THE 2021 ALTA/NSPS SURVEY REQUIREMENTS.
4. TREES SHOWN HEREON ARE DESCRIBED BY SPECIES AND DIAMETER OF TRUNK AT BREAST HEIGHT.
5. VERTICAL INFORMATION BASED ON: BENCHMARK 01-049-0-02 HAVING A PUBLISHED ELEVATION OF 41.881 FEET (NAVD88) DESCRIBED AS: "SET 4" X 4" PRECAST CONCRETE MONUMENT WITH S.J.R.W.M.D. DISK

4 LAND AREA

877,168 ± SQUARE FEET 20.137 ± ACRES

6Biv BEARING BASIS

BEARINGS SHOWN HEREON ARE BASED ON EAST LINE OF GOVERNMENT LOT 4, WHICH BEARS S 00°02'59" W, PER ASSUMED DATUM.

5F CEMETERY NOTE

THERE IS NO VISIBLE EVIDENCE OF CEMETERIES ON SUBJECT PROPERTY.

8 SUBSTANTIAL FEATURES OBSERVED

SUBSTANTIAL ABOVE GROUND FEATURES THAT WERE OBSERVED ON THE SUBJECT PARCEL, SUCH AS PARKING AREAS, DRIVES, WALKS, PLANTERS/LANDSCAPE AREAS AND OTHER, HAVE BEEN LOCATED AS SHOWN HEREON. NOTE: THERE WERE NO OBSERVED SUBSTANTIAL AREAS OF REFUSE ON THE SUBJECT PARCEL PER THE DATE OF THIS SURVEY.

9 PARKING SPACES

REGULAR = 0 HANDICAP = 0 TOTAL = 0

5Biii ACCESS TO PROPERTY

THE SUBJECT PROPERTY HAS DIRECT PHYSICAL ACCESS TO NEW YORK AVENUE WEST, AND NORTH RIDGEWOOD AVENUE, BOTH BEING DEDICATED PUBLIC STREETS OR HIGHWAYS.

16 EARTH MOVING NOTE

THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

6Bvii CONTIGUITY STATEMENT

THE PARCELS CONTAINED IN THE LEGAL DESCRIPTION ARE CONTIGUOUS WITHOUT ANY GAPS, GORES OR OVERLAPS.

7 SURVEYOR'S CERTIFICATE

TO: MERITAGE HOMES

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 13, 14, 16, AND 19 OF TABLE A THEREOF.
THE FIELD WORK WAS COMPLETED ON 03/06/2025.
DATE OF PLAT OR MAP: 03/07/2025.

Digitally signed by E Glenn Turner
DN: cn=E Glenn Turner, o=American Surveying & Mapping, ou=Professional Land Surveyor, email=eglturner@asmcorporate.com, c=US
Date: 2025.07.15 12:38:41 -04'00'
Adobe Acrobat version: 2020.005.30774

E. GLENN TURNER — DATE

PROFESSIONAL SURVEYOR & MAPPER NO: 5643
STATE OF: FLORIDA
PROJECT NO: 240638

SURVEY PREPARED BY:
AMERICAN SURVEYING AND MAPPING, INC.
221 CIRCLE DRIVE
MAITLAND, FLORIDA 32751
CERTIFICATE OF AUTHORIZATION # LB6393
PHONE: (407) 426-7979
FAX: (407) 426-9741
INFO@ASMCORPORATE.COM

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER PER F.S. 472.025 OR THE CERTIFIED ELECTRONIC SIGNATURE AND SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER PER F.A.C. 5J-17.062(2) AND 5J17.062(3).

6Diik ALTA/NSPS LAND TITLE SURVEY
2
BOUNDARY AND TOPOGRAPHIC SURVEY OF
210 NORTH RIDGEWOOD AVENUE
SECTION 12, TOWNSHIP 17 SOUTH, RANGE 29 EAST;
AND SECTION 13, TOWNSHIP 17 SOUTH, RANGE 29 EAST
VOLUSIA COUNTY DELAND, FLORIDA

AMERICAN SURVEYING & MAPPING, INC.
A DIVISION OF AMERICAN SURVEYING & MAPPING, INC
NDDS NATIONAL DUE DILIGENCE SERVICES
221 Circle Drive, Maitland, FL 32751
Phone: 407-426-7979 nationalduediligenceservices.com

PLANNING DIVISION STAFF REPORT
TO
THE CITY OF DELAND PLANNING BOARD

September 10, 2025

A. **APPLICATION NO.**: Z25-084 (DeLand Reserve Rezoning)
APPLICANT: Storch Law Firm
OWNER: James K & Scarlet M Trust
STAFF PLANNER: Emily Kunkel, *Senior Planner*
REQUEST: Change of zoning for ±20.13 acres from Volusia County A-3C (Transitional Agricultural with Thoroughfare Overlay Zone) to DeLand Reserve PD (Planned Development)

B. **APPLICABLE REGULATIONS:**

Article IV **OVERLAY AND FLOATING ZONES**
Sec. 33-32 – Planned Development District.

Article XII **ADMINISTRATION AND ENFORCEMENT**
Sec. 33-135 – Procedure for text amendments & rezoning.

C. **SITE FACTORS:**

PARCEL NUMBER*:* 791200000061
LOCATION: 210 North Ridgewood Ave.
SIZE OF PROPERTY: ±20.13 acres

D. **LAND USE DESIGNATION & ZONING OF SUBJECT PROPERTY:**

Future Land Use: Volusia County: Rural
Existing Zoning: Volusia County: Transitional Agriculture with Thoroughfare Overlay Zone (A-3C)
Existing Use: Vacant, undeveloped (pine plantation)

E. **SURROUNDING LAND USE & ZONING:**

	LAND USE	ZONING
North:	VC: Urban Low Intensity (ULI)	Grandview Gardens PD
South:	VC: SunRail DeLand Area Activity Center	VC: Transitional Agriculture (A-3C)
East:	VC: Urban Low Intensity (ULI)	VC: Transitional Agriculture (A-3C)
West:	VC: Rural	VC: PUD

F. **BACKGROUND:** The subject property is ±20.13 acres in size, vacant and undeveloped, which also includes the western 25-ft right-of-way of North Ridgewood Avenue, as it was never dedicated to Volusia County. At the time of the subdivision process, the applicant will dedicate the necessary 25-ft right-of-way as well as additional right-of-way to Volusia County for a sidewalk along North Ridgewood. The current zoning is Volusia County A-3C (Transitional Agriculture with a Thoroughfare Overlay Zone overlay), and the applicant is requesting a rezone to the DeLand Reserve PD (Planned Development) district. The subject property is located at 210 North Ridgewood Avenue, and north of the property is

Grandview Gardens PD (single-family residential subdivision); to the south is mix of single-family residential properties and vacant properties; to the east are single-family residential properties; and to the west is a mix of one rural single-family residential property and a commercial/industrial use property.

G. **ANALYSIS:** The applicant is proposing to develop the site into a 155-unit maximum residential subdivision, to include a mixture of front loaded and rear loaded Townhome (multi-family) units. The applicant has included standards within the PD document to include the flexibility for front loaded, rear loaded, and zero-lot line single-family units, but at this time the applicant plans to development only townhome (multi-family) units. The subject property is currently located within unincorporated Volusia County. Concurrent applications to annex the subject property into the City (AN25-082) and to amend the future land use designation (SMLU25-083) were submitted by the applicant.

Per Sec. 33-32 of the Land Development Regulations, in return for flexibility in site design and development, Planned Developments (PDs) are expected to include exceptional design that preserves critical environmental resources; provides above-average open space and recreational amenities, and incorporates creative design in the layout of buildings.

All development for the property shall rely upon the standards set forth below as identified on the Planned Development Plan. Where this document is silent, the R-8 zoning regulations shall apply.

SITE DATA			
	OVERALL	**TOWNHOMES**	**SINGLE-FAMILY**
Unit count (max)	155		
Overall size	±20.13 Acre		
Density	8 DU/Acre		
Height/stories	35 ft. Max.		
Max. impervious	60%		
Min. Building Setback		Corner lot, side street: 10 ft. Adjacent to single-family: 40 ft.	Corner lot, side street: 15 ft.
Max. Building length		150 ft.	
Min. lot width		20 ft.	30 ft.
Min. floor area		950 sq. ft.	950 sq. ft.
Max. lot coverage		70%	60%
Min. lot area		1,800 sq. ft.	2,850 sq. ft.
Min. lot depth		90 ft.	95 ft.
Min. Setbacks for Front-loaded		Front: 20 ft. Garage: 25 ft. Rear: 10 ft. Side yard: 7.5 ft. Side yard (interior): 0 ft.	Front: 20 ft. Garage: 25 ft. Rear: 10 ft. Side yard: 5 ft.
Min. Setbacks for Rear-loaded *(garages accessed from rear of lot)*		Front: 10 ft. Rear: 5 ft. Side yard: 7.5 ft. Side yard (interior): 0 ft.	Front: 15 ft. Rear: 5 ft. Side yard: 5 ft. Accessory Structure: 5 ft.
Setbacks for zero lot line *(The location of a building on a lot in such a manner that one or more of the building's sides rests directly on a lot line, provided that separations or setbacks between buildings meet all applicable building, fire code provisions, and PD development standards as provided herein)*			Front yard: 20 ft. Garage: 25 ft. Rear yard: 10 ft. Side yard: 0 ft. for the side where the home is placed against the lot line; 10 ft. on the nonzero side

Minimum building separation		15 ft. between sides of buildings; 25 ft. between sides and rear of adjacent buildings; 50 ft. between any combination of fronts or rears of adjacent buildings.	10 ft. between sides of buildings; 25 ft. between sides and rear of adjacent buildings; 50 ft. between any combination of fronts or rears of adjacent buildings.

The concept plan addresses this section by providing a minimum of 40% of open space, which shall include the minimum 15% of Tree Protection Area, that will serve as a buffer between the existing neighborhood to the north and the commercial/industrial use to the west. Additionally, having two connected meaningful, accessible open space areas, with meandering paths, one in the northwest corner and one in the middle of the development, creates a pedestrian corridor that is beneficial for the community. As shown in the elevations, a variety of paint colors and façade finishes are used to differentiate each building, with alternating roof lines/ridgelines, garage overhangs and exterior textures. Sidewalks are included along the internal roadways and along North Ridgewood Avenue facilitating pedestrian access throughout the site.

The development includes landscape designs that will serve environmentally friendly functions including, but not limited to, cooling, privacy screening, shade, aesthetics, wildlife habitat, runoff pollution prevention. The design shall incorporate green infrastructure such as stormwater plantings, rain gardens and/or vegetative swales as appropriate to mimic the natural environment. The perimeter landscape buffers are outlined in the table below which compares the standard buffers for the development, to what the applicant is providing in the PD. As seen in the chart, the buffer widths being provided for the north, south, east, and west boundaries are all exceeding the minimum width requirements.

LANDSCAPE BUFFERS		
	REQUIRED	**PROVIDED**
NORTH	TYPE C	TYPE C
SOUTH	TYPE D	TYPE D
EAST	TYPE B	TYPE B
WEST	TYPE D *(with a 6-ft opaque fence)*	TYPE D *(with a 6-ft opaque fence)*

The development shall comply with the city's Land Development Regulations as well as International Dark Sky standards, designed to reduce light pollution by restricting upward-directed light and avoiding glare.

Parking shall be provided at a ratio of two (2) parking spaces per residential lot, together with an additional allocation of 0.25 guest parking spaces per residential lot. The applicant has included standards within the PD document to include the flexibility for front loaded, rear loaded and zero-lot line single-family units, but at this time the applicant plans to development only multiple-family (townhome) units. The calculations can be seen using the below table.

PARKING		
155 MAX UNITS	**REQUIRED**	**PROPOSED**
SPACES/UNIT	**Townhomes:** 2 **Single-Family:** 4	**Townhomes:** 2 **Single-Family:** 2
GUEST SPACES/UNIT	**Townhomes:** 0.5 **Single-Family:** 0	**Townhomes:** 0.25 **Single-Family:** 0
TOTAL	**Townhomes:** 310 + 78 = **388 spaces** **Single-Family:** 620 + 0 = **620 spaces**	**Townhomes:** 310 + 39 = **349 spaces** **Single-Family:** 310 + 0 = **310 spaces**

The Planned Development District is intended to provide a method for consideration and approval of unique zoning districts for individual Planned Developments (PD) which are not provided for or allowed in the zoning districts otherwise established.

The R-8 zoning district allows multi-family uses such as the DeLand Reserve PD. However, the applicant is requesting deviations from the city's R-8 zoning district and is proposing a PD that will create tailored zoning district for the project. The code deviations from R-8 to the DeLand Reserve PD are outlined in the table below.

DEVELOPMENT STANDARD DEVIATIONS				
	R-8 REQUIRED	**PROPOSED (PD)**		
Max. Impervious (overall site)	50%	60%		
MULTI-FAMILY (TOWNHOME)				
	R-8 REQUIRED	**FRONT LOAD**	**REAR LOAD**	
Front yard setback	30 ft	20 ft	10 ft	
Rear yard setback	20 ft	10 ft	5 ft	
Garage setback	25 ft	25 ft	5 ft	
Side street setback	15 ft	10 ft	10 ft	
Side yard setback	20 ft	7.5 ft 0 ft (internal)		
Min. lot width	75 ft.	20 ft.		
Minimum building separation	25 feet between sides of bldgs.; 25 feet between sides and rear of adjacent bldgs. 50 feet between any combination of fronts or rears of adjacent bldgs.	15 ft. between sides of bldgs. 25 ft. between sides and rear of adjacent bldgs. 50 ft. between any combination of fronts or rears of adjacent bldgs.		
Min. floor area/unit	Efficiency: 425 sq. ft. 1 bedroom: 575 sq. ft. 2+ bedroom: 725 sq. ft.	950 sq. ft.		
Min. lot area (size)	10,000 square feet for first three units plus 5,500 square feet for each additional unit.	1,800 sq. ft.		
SINGLE FAMILY				
	R-8 REQUIRED	**FRONT LOAD**	**REAR LOAD**	**ZERO LOT LINE**
Front yard setback	30 ft.	20 ft.	15 ft.	20 ft.
Garage setback	25 ft.	25 ft.	5 ft.	25 ft.

Rear yard setback	25 ft.	10 ft.	5 ft.	10 ft.
Side street setback (Corner lot)	15 ft.	15 ft.	15 ft.	15 ft.
Side yard setback	7.5 ft.	5 ft.	5 ft.	0 ft. for the side where the home is placed against the lot line; 10 ft. on the nonzero side
Min. lot width	60 ft.	30 ft.		
Min. floor area/unit	750 sq. ft.	950 sq. ft.		
Min. lot size	6,500 sq. ft.	2,850 sq. ft.		

School Concurrency: A school concurrency letter dated June 18, 2025, was provided, stating that the district has no objections to the proposed development plan.

Traffic Analysis: A Traffic Impact Analysis Methodology letter from Traffic & Mobility Consultants (TMC) dated April 29, 2025, states that the proposed development is projected to generate 1,169 new daily trips of which 78 trips occur during the AM peak hour and 92 trips occur during the PM peak hour. Per the R2CTPO traffic study guidelines, since the proposed development is anticipated to generate more than 1,000 daily new trips, a TIA is required.

Stormwater: Stormwater retention ponds are being provided at the southwest border and southeast corner of the site. Per the proposed PD Agreement, the stormwater system will be designed to meet all required governmental regulations, and that it shall be designed to accommodate a 100-year, 24-hour storm event which will be retained on site.

H. LAND DEVELOPMENT REGULATIONS:

Sec. 33-32 – Planned Development District of the Land Development Regulations is intended to provide a method for consideration and approval of unique zoning districts for individual Planned Developments (PD) which are not provided for or allowed in the zoning districts otherwise established by this chapter.

The proposed Planned Development rezoning will allow for the applicant to develop the site into a 155-unit maximum residential subdivision. Included in the PD document are standards to allow for the flexibility of all single-family, all multi-family units or a mixture of each. The standards also allow the flexibility for the mixture of each to be front loaded, rear loaded, and zero-lot line single-family units. However, the applicant is only proposing a mixture of front loaded and rear loaded multi-family units at this time. The approval criteria and standards have been reviewed and staff finds the consistencies as outlined below.

The proposed development would utilize the natural topography and existing drainage to develop the site therefore, proposing to cluster the buildings to allow for separation between development and existing natural conditions. A multi-modal trail is proposed west of the project site along Grand Avenue. Additionally, the subject property is 1.6 miles from the DeLand SunRail station, and the applicant has coordinated with Florida Department of Transportation (FDOT) and Volusia County to provide a more transit friendly pattern by constructing additional sidewalks along North Ridgewood Avenue and SR- 44 connecting to the existing sidewalk network and anticipated future developments in the area.

Sec. 33-135 – Procedure for text amendments & rezoning of the Land Development Regulations provides the following factors to consider during the review of each application for rezoning or for changes in permitted uses, among the factors to be considered are the following:

1. **Is the proposed rezoning consistent with the Comprehensive Land Use Plan, the land use, zoning pattern and character of the surrounding area?**
   The proposed zoning of Planned Development (PD) is consistent with the Comprehensive Plan with a proposed underlying land use designation of MDR (Medium-Density Residential). The MDR land use designation would be compatible with the Planned Development (PD) zoning district, per the Comprehensive Plan.

   To the north of the property is the Grandview Gardens PD (single-family residential subdivision); to the south is a mix of single-family residential properties and vacant properties; to the east are single-family residential properties; and to the west is a mix of one rural single-family residential property and a commercial/industrial use property. On the Future Land Use map, the surrounding properties are designated as Volusia County Urban Low Intensity (ULI) to the north and east, Volusia County Rural to the west, Volusia County SunRail DeLand Area Activity Center to the south, and the subject property is concurrently requesting to amend the land use from Volusia County Rural to City of DeLand Medium Density Residential (MDR).

   According to the 2050 Vision, a portion of the parcel is located within Category 3, "Transit Oriented Development/Redevelopment". A Transit Oriented Development (TOD) is an area that will encourage higher density and a mixture of uses, in order to make a transit system more efficient for the DeLand area. These areas will see a transition from the current development pattern to a more transit friendly pattern, overtime. The proposed DeLand Reserve PD and increase in density fits in with the mixture of residential uses nearby and anticipated nonresidential/residential uses on the south side of SR-44 by serving as a transitional area between nonresidential or high-density residential and low-density residential land use.

2. **Will the proposed rezoning have an impact upon the environment or natural resources?**
   The subject site currently has a cluster of oak trees in the northwest corner that is shown on the concept plan as Tree Protection Area (TPA) and the majority of the site is dominated by a canopy of young, planted pine trees (pine plantation). At the time of preliminary plat, the development standards will ensure that Tree Protection Areas and landscape buffering both meet the requirements of the Land Development Regulations and DeLand Reserve Planned Development. Low Impact Development (LID) standards will be applied and will include green infrastructure such as stormwater plantings, rain gardens and/or vegetative swales as appropriate to mimic the natural environment. Additionally, because the property is greater than 5 acres, a survey of all endangered or threatened species will be required at the preliminary plat application and may require a habitat management plan.

3. **Will the proposed rezoning have an impact upon the economy of the affected area?**
   The site is currently undeveloped; therefore, the development of residential development should have a positive economic impact on the city and the surrounding area. This development, providing additional residential development in close proximity to the DeLand SunRail station, could have the potential for housing new commuter residents. This development could potentially raise overall home values by creating additional jobs, shopping, and convenience.

4. **Will the proposed rezoning have an impact upon governmental services?**
   Governmental services such as potable water, reclaimed water, sewer, code enforcement, police, and fire are available for the subject property and will be provided by the City.

5. **Are there changes in the circumstances or conditions affecting the area since the original assignment of zoning that will support the proposed zoning?**
   Since the original assignment of zoning, there have been changes in the market and demand of the area. Residential developments and development of the new SunRail station in close proximity (1.6 miles) of the subject property have been established. The proposed zoning change will facilitate site improvements, and it is consistent with the surrounding land uses, zoning and anticipated additional development in the immediate area. The development of multi-family units in close proximity to the DeLand SunRail station is an appropriate location by encouraging higher intensity along select corridors or major centers will encourage transit and lessen traffic congestion.

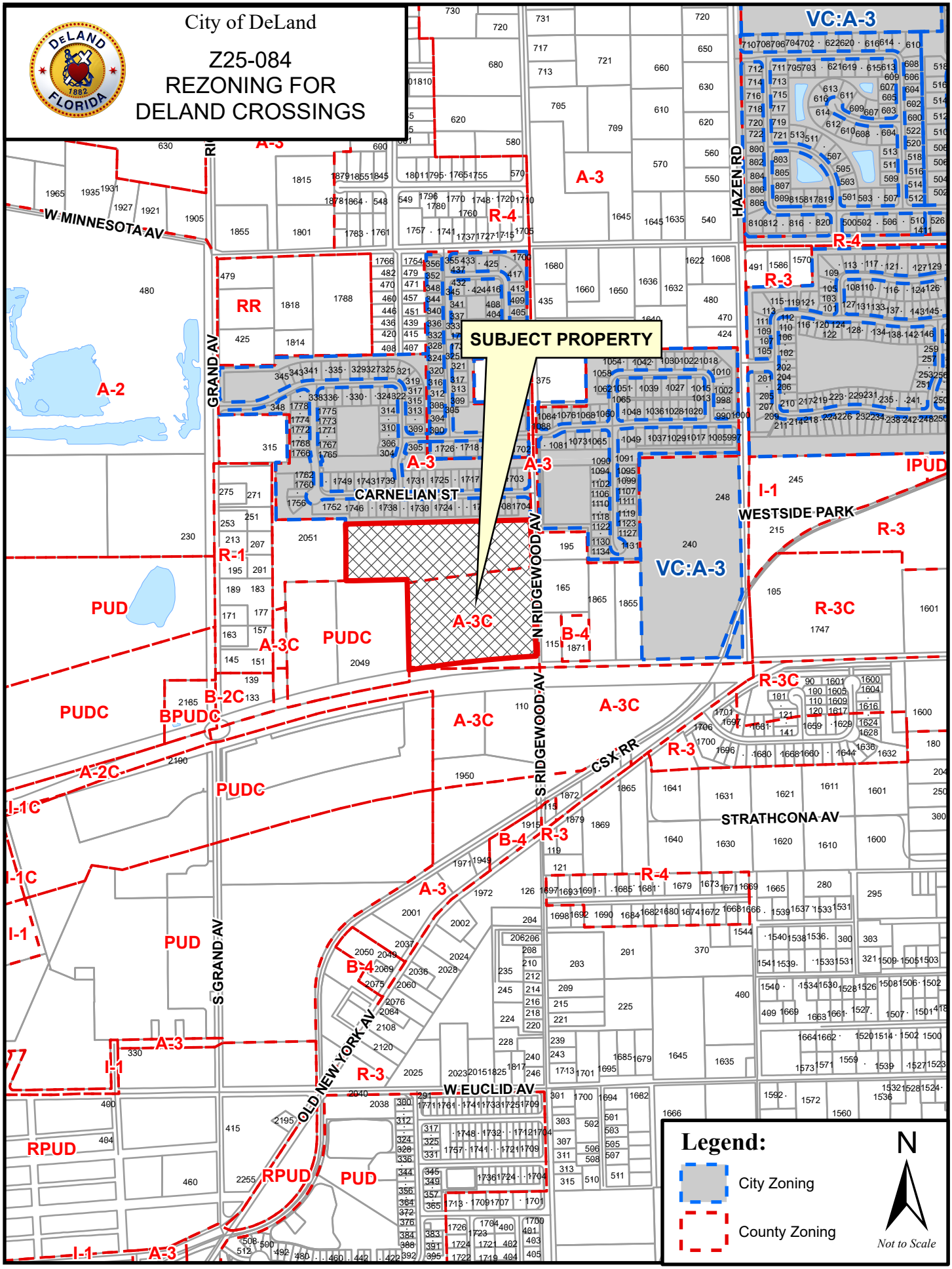
6. **Was there a mistake in the original classification?**
   There were no mistakes in the original classification. Standards that are not included in the PD agreement will default to the R-8 zoning district standards and the Land Development Regulations.

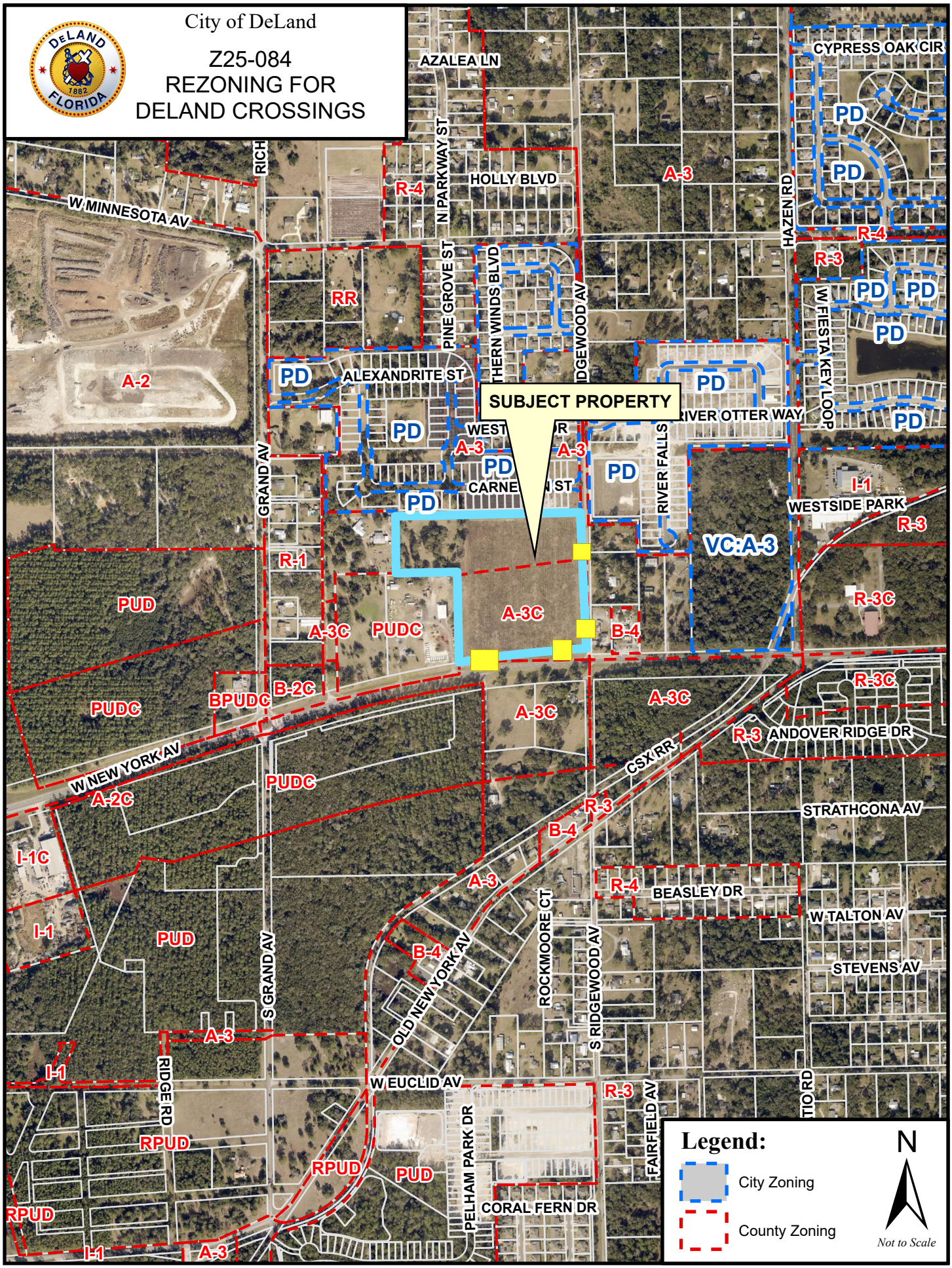
7. **Will the proposed rezoning have any effect upon the use or value of the affected area?**
   The proposed rezoning should have a positive impact upon the surrounding area, as the property would no longer be undeveloped and vacant. The infusion of new homes could have a positive impact to the area and encourage commuter residents.

8. **Will the proposed rezoning have an impact upon public health, safety and welfare?**
   There is no indication at this time that the new proposal will create additional impacts upon public health, safety or welfare, as all provided public services have the capacity needed to accommodate the proposed development. This rezoning would be consistent with the residential uses of the surrounding area.

I. **CONCLUSION:** The applicant is proposing to rezone the subject property from Volusia County Transitional Agriculture (A-3C) to DeLand Reserve Planned Development (PD). Submittal of a preliminary and final plat will be required to ensure the provisions of the Planned Development Agreement are satisfied, as determined by TRC Staff, Planning Board, and City Commission.

J. **STAFF RECOMMENDATION**: Staff recommends that the Planning Board forward the application to the City Commission with a recommendation of approval for the request to rezone from Volusia County Transitional Agriculture (A-3C) to DeLand Reserve Planned Development (PD).


City of DeLand
Z25-084
REZONING FOR
DELAND CROSSINGS
SUBJECT PROPERTY
W MINNESOTA AV
GRAND AV
CARNELIAN ST
N RIDGEWOOD AV
S RIDGEWOOD AV
HAZEN RD
WESTSIDE PARK
CSX RR
STRATHCONA AV
W EUCLID AV
OLD NEW YORK AV
S GRAND AV
VC:A-3
A-3
R-4
R-3
RR
A-2
R-1
PUD
PUDC
A-3C
B-4
B-2C
BPUDC
A-2C
I-1C
I-1
RPUD
IPUD
R-3C
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
Z25-084
REZONING FOR
DELAND CROSSINGS
SUBJECT PROPERTY
AZALEA LN
CYPRESS OAK CIR
HOLLY BLVD
W MINNESOTA AV
N PARKWAY ST
PINE GROVE ST
THERN WINDS BLVD
DGEWOOD AV
HAZEN RD
W FIESTA KEY LOOP
ALEXANDRITE ST
RIVER OTTER WAY
RIVER FALLS
WESTSIDE PARK
GRAND AV
W NEW YORK AV
CSX RR
ANDOVER RIDGE DR
STRATHCONA AV
BEASLEY DR
W TALTON AV
STEVENS AV
S GRAND AV
OLD NEW YORK AV
ROCKMOORE CT
S RIDGEWOOD AV
RIDGE RD
W EUCLID AV
FAIRFIELD AV
PELHAM PARK DR
CORAL FERN DR
A-2
A-3
A-3C
A-2C
B-2C
B-4
BPUDC
PUD
PUDC
RPUD
RR
R-1
R-3
R-3C
R-4
I-1
I-1C
PD
VC:A-3
Legend:
City Zoning
County Zoning
N
Not to Scale

School Board of Volusia County

Ms. Jamie M. Haynes, Chair
Mr. Ruben Colón, Vice Chair
Ms. Krista Goodrich
Mrs. Jessie Thompson
Ms. Donna Brosemer

Carmen J. Balgobin, Ed.D
Superintendent of Schools

School Adequate Capacity Determination
Finding of Adequate Capacity Letter

June 18, 2025

Ms. Nika Zyryanova
MAS Development
2875 NE 191st St Suite 305
Aventura, FL 33180

RE : DeLand Crossings – City of DeLand
School Concurrency Case # 25-06-10-001-A

Ms. Zyryanova:

The County Charter requires any Comprehensive Plan Amendment or Rezoning that allows increased residential density to be effective only when adequate public schools can be timely planned and constructed to serve the projected increase in student population. The district uses this requirement as the guiding principle behind the school adequate capacity review.

District staff reviewed the information for the proposed project known as DeLand Crossings associated with 20 +/- acres of property located at or near the intersection of N Ridgewood and New York Ave within an unincorporated part of DeLand city limits. The proposed project would provide one hundred and sixty (160) multi-family units.

The district uses a county wide Student Generation Rate (SGR) of (0.137) per multi-family dwelling unit to calculate projected students. By applying the SGR to the use types in Table 1 below, the project could generate twenty (20) full-time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	0.258	0	0
Multifamily Dwelling Unit	0.137	160	20
Manufactured Home Dwelling Unit	0.052	0	0
Total		**0**	**0**

When performing an adequate capacity review, district staff evaluates the effects of the proposed change compared to any remaining permanent capacity within the impacted schools, up to 100%, Table 2 (next page). The projected increase in student population may be over 100% if there are plans to serve increased student population in that planning area within the long-term planning horizon. A finding of adequate capacity may be issued in either case.

Table 2

Schools	SY 2024/25 Enrollment	% of Permanent Capacity	Plans for Capacity Increase Long-Term	Traditional K-12 students projected
Woodward Elementary	538	76%	No	9
Southwestern Middle	644	83%	No	4
West CSA DeLand High	2956	110%	No	7
Other				0

The student projections generated by this project **will** increase the existing percentage above 100% permanent capacity at the high school level. However, the concurrency service area (CSA) for DeLand High school is at or over 100% but below 115% for level of service (LOS) standards. Based on this, the school district has no objections to the proposed development plan.

Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering. Additional considerations, particularly for gated and muti-family communities, include accessibility for school buses, by ensuring a turn radius of at least 60 feet at all entrances and exits, and the inclusion of dedicated pickup/drop off sites.

All future development orders, such as site plans and subdivisions, are subject to school concurrency review. School concurrency will be evaluated at the time when the impact of development is specifically quantified and known. Only funded school improvements and then current capacity will be considered at that time.

No student reservations have been made at this time.

Please note the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Consequently, students generated from this project may not attend the current assigned schools.

Should you need additional information, please contact me at (386) 947-8786, extension 50802.

Sincerely,

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

CC: Carmen J. Balgobin, Ed.D, Superintendent of Schools
Ron Young, Director of Planning & Construction
Robert J. Voges, Ed.S, Planning Coordinator
Carol Kuhn, Planning Director, City of DeLand

Finding of Adequate School Capacity

VOLUSIA COUNTY SCHOOL BOARD

Project Information	
Project Name	DeLand Crossings
VCSB Project #	**25-06-10-001-A**
Jurisdiction Project #	
Parcel ID Numbers	791200000061
Project Location	N Ridgewood and New York Ave
Potential Residential Units	160 Multi-Family Units
Property Owner/Applicant	Nika Zyryanova, MAS Development

Notes: Additional review will be required at the time of subdivision/site plan submittal(s).
No Student Reservations have been made.

Based upon the Findings of Fact, pursuant to School Board Policy 612 and Section 206 of the County Charter, the school district has determined at this time that school capacity is adequate to serve the proposed increase in residential density. This Finding shall constitute competent substantial evidence that adequate public school capacity is likely to be available at the time it is required to serve the planned new development.

Capacity is not being reserved with this Finding unless otherwise noted on this document. This Finding of Adequate School Capacity allows this subject project to continue through the Comprehensive Plan Amendment and/or rezoning process; however, it may be subject to additional school capacity review in the future.

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

June 18, 2025
Issue Date

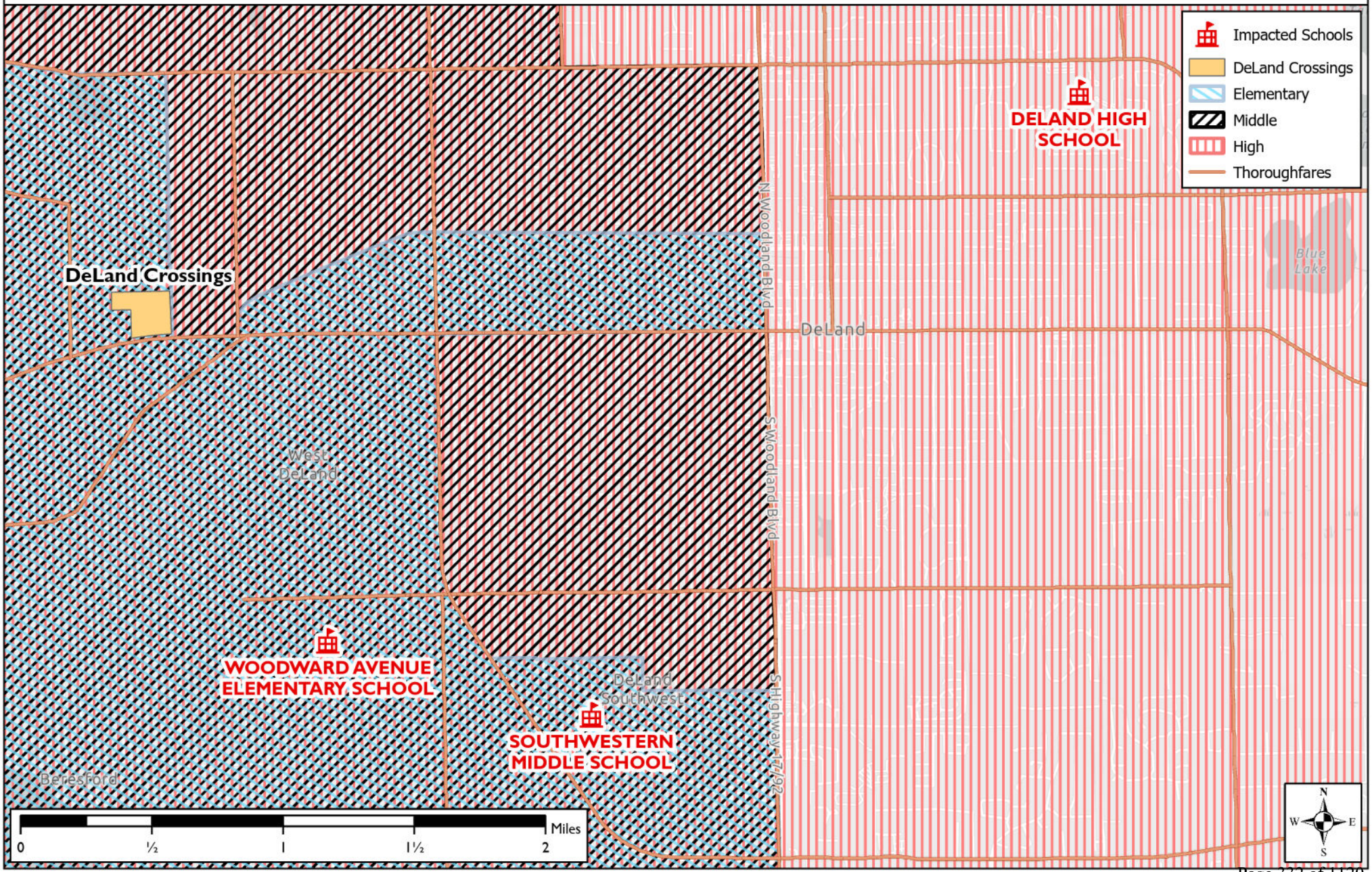
Created: 9/2007
Owner: Facilities Services

2007-073-VCS
Print Locally

VCSB Schools Impacted by Development

School Adequacy Determination - DeLand Crossings

VOLUSIA COUNTY SCHOOLS
Planning & Business Services
June 2025



MEMORANDUM

April 29, 2025

Re: Ridgewood Avenue Residential
Traffic Impact Analysis Methodology
Volusia County, Florida
Project № 25042.01.01 v1.1

The following methodology outlines the methods and assumptions of the Traffic Impact Analysis (TIA) for the above referenced project. The TIA will conform to the methodology requirements and guidelines documented by the River to Sea Transportation Planning Organization (R2CTPO). It addresses comments received from Volusia County as detailed in the **Attachments**.

Project Description

The proposed development consists of 160 multi-family townhome residential homes with an anticipated buildout year of 2027. The site consists of parcel 79-1200000061 and is located at the northwest corner SR 44 and North Ridgewood Avenue in Volusia County, Florida, as shown in **Figure 1**. Access to the site is proposed via two (2) full access driveways on North Ridgewood Avenue. A copy of the conceptual site plan is provided in the **Attachments**.

Trip Generation

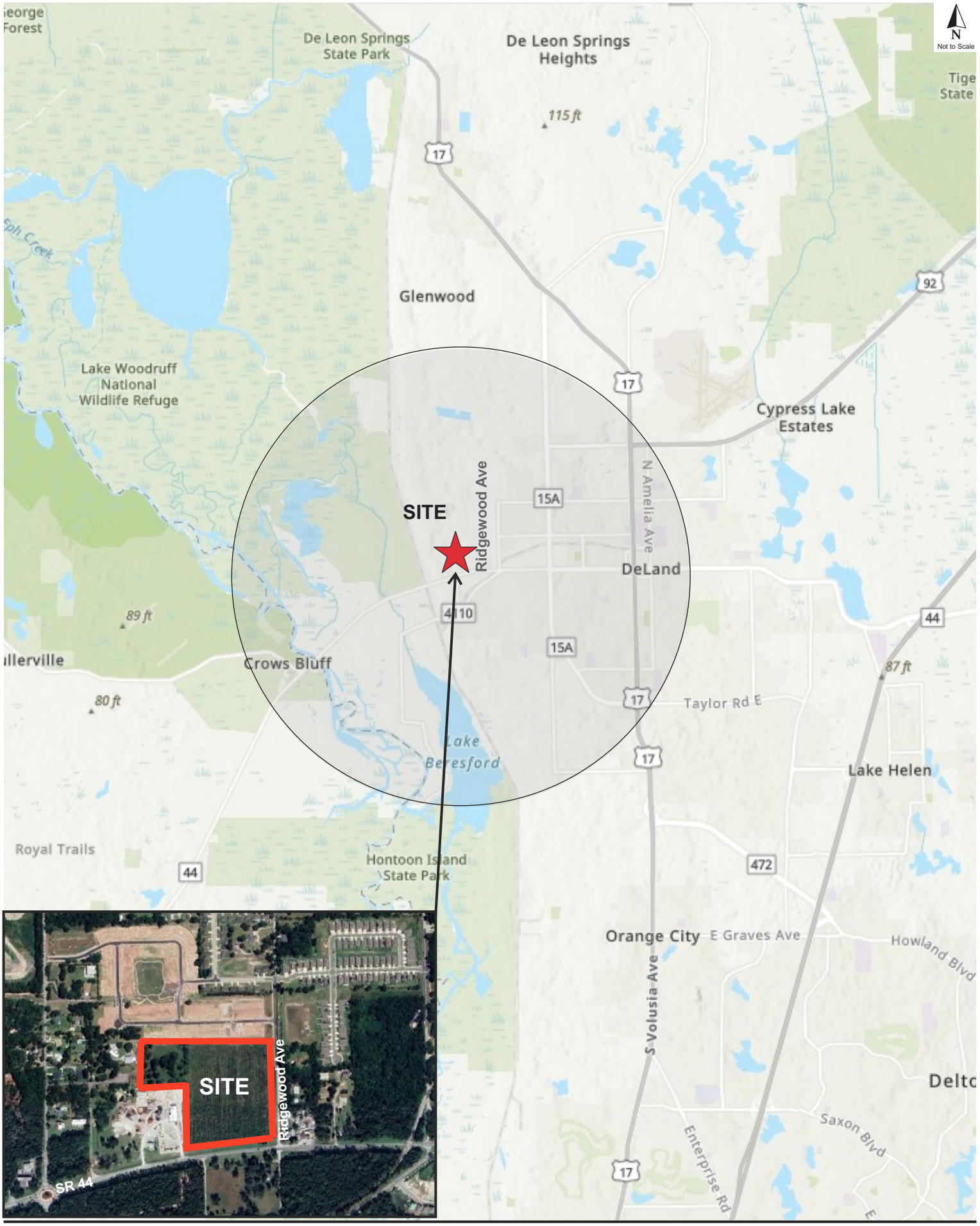
The trip generation analysis for the proposed development was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, *11th Edition*. The trip generation calculation for the project is summarized in **Table 1**. Detailed trip generation sheets are provided in the **Attachments**.

Table 1
Trip Generation Calculation

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
215	Single-Family Attached (Townhouses)	160 DU	7.30	1,169	0.48	78	19	59	0.58	92	54	38

Trip generation analysis based on ITE Trip Generation Manual, 11th Edition

The proposed development is projected to generate 1,169 new daily trips of which 78 trips occur during the AM peak hour and 92 trips occur during the PM peak hour. Per the R2CTPO traffic study guidelines, since the proposed development is anticipated to generate more than 1,000 daily new trips, a TIA is required.


N
Not to Scale
De Leon Springs State Park
De Leon Springs Heights
115 ft
Glenwood
Lake Woodruff National Wildlife Refuge
Cypress Lake Estates
SITE
Ridgewood Ave
N Amelia Ave
DeLand
15A
4110
Crows Bluff
89 ft
80 ft
87 ft
Taylor Rd E
Lake Beresford
Lake Helen
Royal Trails
Hontoon Island State Park
472
Orange City
E Graves Ave
Howland Blvd
S Volusia Ave
Saxon Blvd
Enterprise Rd
SR 44
17
92
44

Trip Distribution

The trip distribution pattern was estimated using the *Central Florida Regional Planning Model (CFRPM, v7.0)*. The model distribution was adjusted to reflect the local network as well as prevailing traffic flow patterns. The raw model output is included in the **Attachments** and the adjusted trip distribution is shown in **Figure 2**.

Study Area

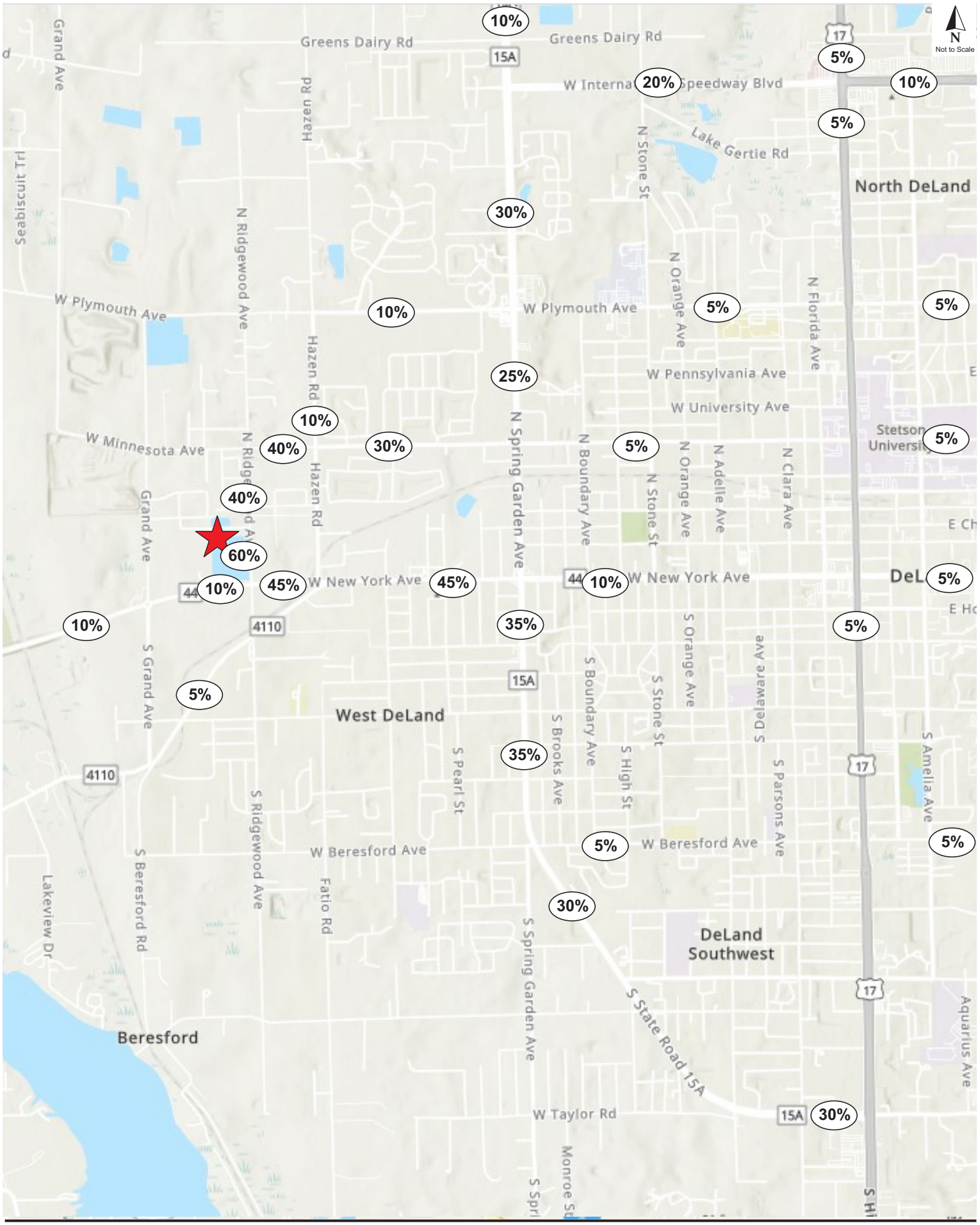
Per the TIA requirements, all roadways of the project where the project's peak hour trips consume three percent (3%) or more of a roadway's two-way peak hour generalized service volume based on the adopted LOS and committed number of lanes shall be analyzed. In addition, the Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) data was reviewed for roadway segments within a 3-mile radius. The 3-mile C/NC/VC/NVC roadway buffer is shown in **Figure 3**. Roadway segments and peak two-way LOS capacities were obtained from the *Volusia County 2022 AADT & Historical Counts*, included in the **Attachments**. Findings are summarized in **Table 2.**

Two (2) roadway segments within the 3-mile radius were determined to be C/NC/VC/NVC designated facilities. One (1) segment is projected to consume three percent (3%) or more of the surrounding roadway's two-way peak hour generalized service volume. One (1) additional segment was added based on its proximity to the project. Therefore, the study will include the roadway segments and intersections displayed in **Figure 4**.

Roadway Segment and Intersection Analysis

The traffic analysis will include existing and 2027 buildout conditions for both roadway segment and intersection capacity analysis. Roadway segments will be analyzed for the PM peak two-way volume. The analysis will be based on volumes and service volumes obtained from *Volusia County 2022 AADT & Historical Counts.*

The intersection analysis will be conducted for the AM and PM peak hours based on field counts, projected movements, *Synchro* software and the methods of the *Highway Capacity Manual (HCM).* The intersection field counts will include non-vehicular modes of travel (e.g., pedestrians and bicycles).



TMC Traffic & Mobility CONSULTANTS

25042.01.01 Ridgewood Avenue Residential

Project Trip Distribution **Figure 2**

Page 336 of 1120

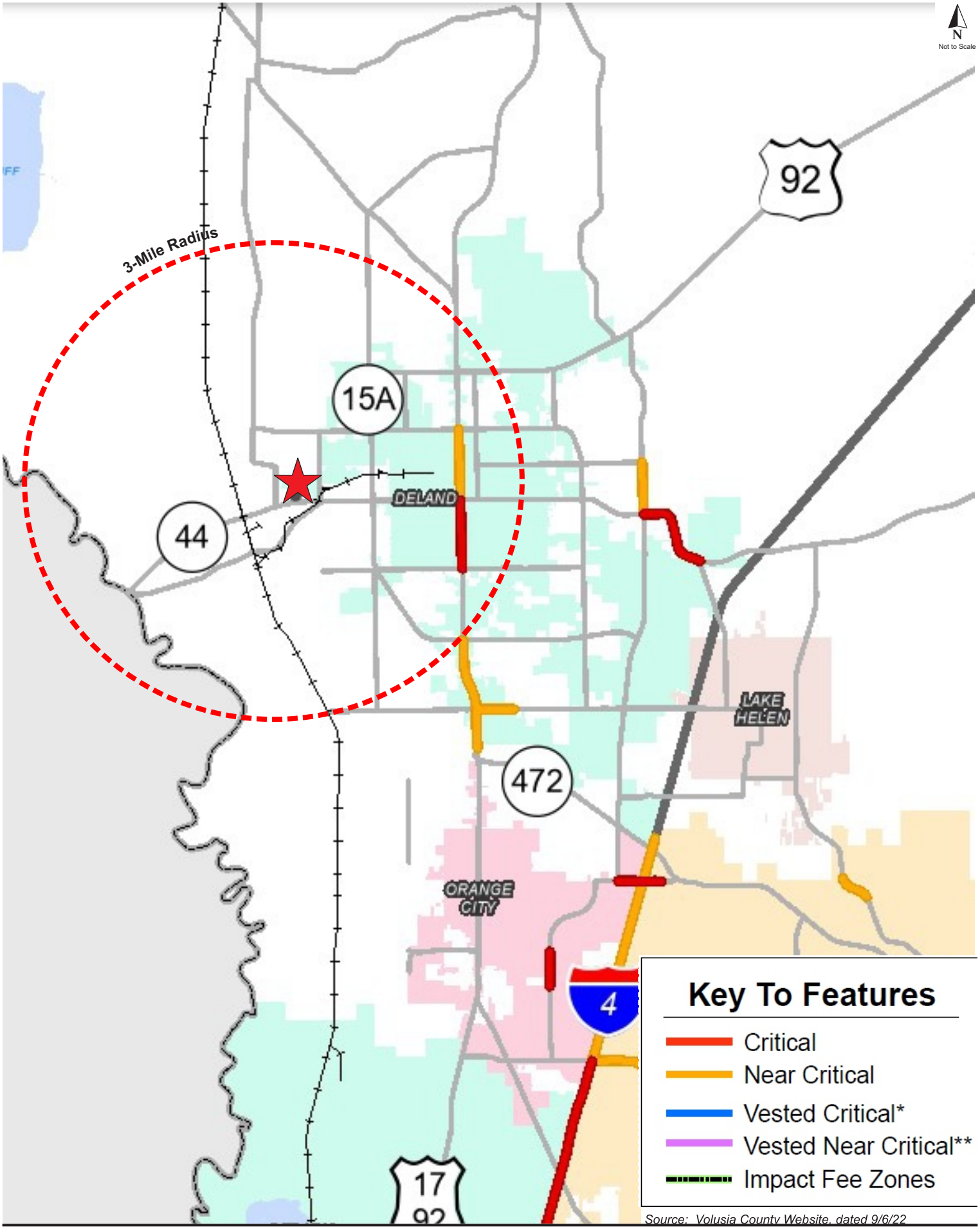

N
Not to Scale
3-Mile Radius
92
15A
44
DELAND
LAKE HELEN
472
ORANGE CITY
4
17
92
Key To Features
Critical
Near Critical
Vested Critical*
Vested Near Critical**
Impact Fee Zones
Source: Volusia County Website, dated 9/6/22

Table 2
Study Area Significance Review

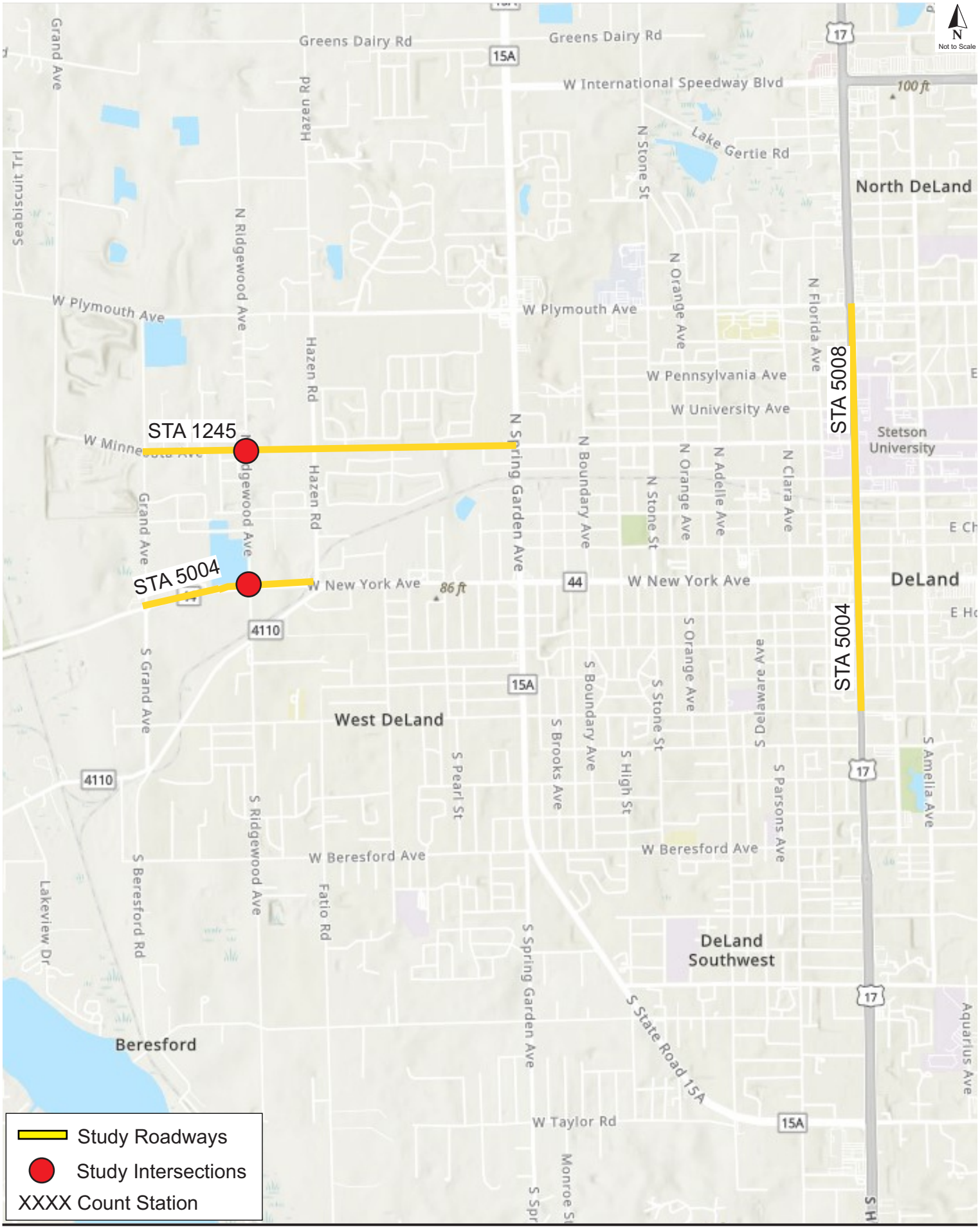
Roadway Segment	Seg Num	A T	Function Class	# of Lns	PK 2W Cap	Project Trips Dist	Trips	%Cap	Signif-icant?	C/ NC?	w/in 3-miles	In Study?
US 17/92												
SR 15A/Taylor Rd. to Beresford Ave.	1006	U	Principal Arterial	4	3,790	0%	0	0.00%	NO	NO	YES	NO
Beresford Ave. to Euclid Ave.	5173	U	Principal Arterial	4	1,480	0%	0	0.00%	NO	NO	YES	NO
Euclid Ave. to SR 44/New York Ave.	5004	U	Principal Arterial	2	1,410	5%	4	0.28%	NO	C	YES	YES
SR 44/New York Ave. to Plymouth Ave.	5008	U	Principal Arterial	2	1,410	0%	0	0.00%	NO	NC	YES	YES
Plymouth Ave. to US 92/ISB	66	U	Principal Arterial	4	3,790	5%	4	0.11%	NO	NO	YES	NO
SR 15A												
US 17/92/Taylor to New Hampshire Ave.	1005	U	Principal Arterial	4	3,580	30%	25	0.70%	NO	NO	YES	NO
New Hampshire Ave. to Beresford Ave.	6	U	Principal Arterial	4	3,580	30%	25	0.70%	NO	NO	YES	NO
Beresford Ave. to SR 44/New York Ave.	474	U	Principal Arterial	4	3,580	35%	29	0.81%	NO	NO	YES	NO
SR 44/New York Ave. to Plymouth Ave.	463	U	Principal Arterial	4	3,580	25%	21	0.59%	NO	NO	YES	NO
Plymouth Ave. to CR 92	537	U	Principal Arterial	4	3,580	30%	25	0.70%	NO	NO	YES	NO
CR 92 to Glenwood Rd.	465	U	Principal Arterial	4	3,580	10%	8	0.22%	NO	NO	YES	NO
SR 44												
Lake Co. to Shell Rd.	1007	U	Principal Arterial	2	1,490	10%	8	0.54%	NO	NO	YES	NO
Shell Rd. to Grand Ave.	1007	U	Principal Arterial	2	2,180	10%	8	0.37%	NO	NO	YES	NO
Grand Ave. to Old New York/Hazen Rd.	1007	U	Principal Arterial	2	2,180	45%	37	1.70%	NO	NO	YES	NO
Old New York/Hazen Rd. to SR 15A/Spring Garden /	274	U	Principal Arterial	2	2,180	45%	37	1.70%	NO	NO	YES	NO
SR 15A/Spring Garden Ave. to Stone St.	447	U	Principal Arterial	2	1,712	10%	8	0.47%	NO	NO	YES	NO
Stone St. to Clara Ave.	5012	U	Principal Arterial	2	1,712	10%	8	0.47%	NO	NO	YES	NO
Clara Ave. to Amelia Ave.	5015	U	Principal Arterial	2	1,410	10%	8	0.57%	NO	NO	YES	NO
Amelia Ave. to Hill Ave.	80	U	Principal Arterial	2	1,712	5%	4	0.23%	NO	NO	YES	NO
Amelia Ave												
SR 44 to Ohio Ave.	73	U	Major-Collector	4	2,060	0%	0	0.00%	NO	NO	YES	NO
Ohio Ave. to Minnesota Ave.	74	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Minnesota Ave. to Plymouth Ave.	75	U	Major-Collector	2	1,270	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave. to US 92	77	U	Major-Collector	2	1,270	0%	0	0.00%	NO	NO	YES	NO
Beresford Ave												
Beresford Rd. to Fatio Rd	161	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Fatio Rd. to SR 15A	162	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
SR 15A to US 17/92	164	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
US 17/92 to Amelia Ave	165	U	Major-Collector	2	1,330	5%	4	0.30%	NO	NO	YES	NO
Amelia Ave. to Hill Ave.	167	U	Major-Collector	2	1,620	5%	4	0.25%	NO	NO	YES	NO
Hill Ave. to Blue Lake Ave.	169	U	Major-Collector	2	1,230	5%	4	0.33%	NO	NO	YES	NO
Beresford Rd												
SR 15A to Spring Garden Ave.	180	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Spring Garden Ave. to Fatio Rd.	181	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Fatio Rd.. to Beresford Ave	182	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Beresford Ave. to Old New York Ave.	183	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
CR 92 (International Speedway Blvd)												
SR 15A to Stone St.	450	U	Principal Arterial	4	3,410	20%	16	0.47%	NO	NO	YES	NO
Stone St. to US 17/92	452	U	Principal Arterial	4	3,410	20%	16	0.47%	NO	NO	YES	NO
Euclid Ave												
Grand to Fatio Rd.	610	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Fatio Rd. to Woodward Ave.	611	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Woodward Ave. to SR 15A	612	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
SR 15A to Adelle Ave.	613	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Adelle Ave. to US 17/92	614	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Garfield Ave												
SR 44 to Plymouth Ave.	700	U	Local	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave. to US 92	702	U	Local	2	1,020	0%	0	0.00%	NO	NO	YES	NO

Source: 2022 Volusia County AADTs

Table 2
Study Area Significance Review (Cont'd)

Roadway Segment	Seg Num	A T	Function Class	# of Lns	PK 2W Cap	Project Trips Dist	Trips	%Cap	Signif-icant?	C/ NC?	w/in 3-miles	In Study?
Grand Ave / CR 4053												
Old New York Ave. to SR 44	748	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
SR 44 to Minnesota Ave.	750	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Minnesota Ave. to Plymouth Ave.	751	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave. to Glenwood Rd.	752	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Glenwood Rd. to Lemon St.	754	U	Major-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Minnesota Ave												
Grand Ave. to SR 15A	1245	U	Minor-Collector	2	1,020	40%	33	3.24%	YES	NO	YES	YES
SR 15A to US 17/92	1247	U	Minor-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Amelia Ave. to Hill Ave	1249	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
New Hampshire Ave												
SR 15A to Adelle Ave	1270	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Adelle Ave to Clara Ave.	1271	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Clara Ave. to US 17/92	1272	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Plymouth Ave												
Grand Ave. to Hazen Rd.	1490	U	Major-Collector	2	1,230	0%	0	0.00%	NO	NO	YES	NO
Hazen Rd. to SR 15A	1491	U	Major-Collector	2	1,230	10%	8	0.65%	NO	NO	YES	NO
SR 15A to Stone St.	1493	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Stone St. to Clara Ave	1495	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Clara Ave. to US 17/92	1497	U	Major-Collector	2	1,270	5%	4	0.31%	NO	NO	YES	NO
US 17/92 to Amelia Ave	1498	U	Major-Collector	2	1,270	5%	4	0.31%	NO	NO	YES	NO
Amelia Ave. to Garfield Ave.	1500	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Garfield Ave. to Blue Lake Rd./Jacobs Dairy Rd	1502	U	Major-Collector	2	1,020	5%	4	0.39%	NO	NO	YES	NO
Woodward Ave												
Beresford Ave. to Euclid Ave.	2031	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO
Euclid Ave. to SR 44	2030	U	Minor-Collector	2	1,020	0%	0	0.00%	NO	NO	YES	NO

Source: 2022 Volusia County AADTs


N
Not to Scale
Greens Dairy Rd
15A
W International Speedway Blvd
100 ft
Lake Gertie Rd
North DeLand
Grand Ave
Hazen Rd
N Stone St
N Ridgewood Ave
W Plymouth Ave
N Orange Ave
N Florida Ave
W Pennsylvania Ave
W University Ave
STA 5008
Stetson University
STA 1245
N Spring Garden Ave
N Boundary Ave
N Adelle Ave
N Clara Ave
Hazen Rd
Grand Ave
STA 5004
W New York Ave
86 ft
44
DeLand
4110
S Grand Ave
S Orange Ave
S Delaware Ave
15A
West DeLand
S Boundary Ave
S Stone St
S Brooks Ave
S High St
S Pearl St
S Parsons Ave
S Amelia Ave
17
4110
S Ridgewood Ave
W Beresford Ave
S Beresford Rd
Fatio Rd
Lakeview Dr
DeLand Southwest
S Spring Garden Ave
S State Road 15A
Aquarius Ave
Beresford
W Taylor Rd
15A
Study Roadways
Study Intersections
XXXX Count Station

Background Traffic

Background traffic will be projected to the buildout year 2027 per *Volusia County's Segment Growth Rates and Vested Trips Instructions Policy*, included in **Attachments**. Growth rates will be calculated based on the historical AADT obtained from the latest *Volusia County AADT & Historical Counts*. The vested trips will be calculated based on the most recent version of *Volusia County Vested Trip Database*. Vested developments as coordinated with the City of Deland will also be included. The locations of the count stations used to collect the historical AADT data are included in **Figure 4**. Necessary adjustments will be made to both the growth rates and the vested trips per Volusia County guidelines.

Buildout Traffic

Buildout conditions will be analyzed by comparing the total projected traffic volumes to their service volumes at the adopted LOS standard for the roadway segments and intersections. Total projected traffic volumes at buildout year 2027 will be calculated as the sum of background traffic and project trips.

Planned and Programmed Improvements

The *FDOT Work Program* and the *River to Sea Transportation Planning Organization (TPO) Transportation Improvement Program (TIP)* were reviewed to determine if any roadway or intersection capacity improvements were funded for construction within the next three (3) years. One (1) improvement is currently funded. The St. Johns Loop Trail Gap between Lake Beresford Park and Grand Avenue is a multi-use 3.6-mile trail where a *Project Development & Environment (PD&E) Study* is currently underway. An excerpt from the FDOT *www.cflroads.com* website is provided in the **Attachments**.

Access and Turn Lane Analysis

An assessment of turn lane needs for the project driveways will also be performed for proposed full access driveway utilized by project traffic. Turn lane requirements will be based on section 72-619 of the *Volusia County Land Development Code*.

Proportionate Share

If the development results in offsite impacts, the development will mitigate its impact to the deficient facilities by contributing a proportionate share. The proportionate share calculation will be based on costs approved by the Volusia County.

Alternative Mode Analysis

An alternative mode review will be included in the traffic study and will include a narrative of any transit stops within ¼ mile of the site, ½ mile of a rail line station or intermodal facility, provisions for sidewalks adjacent to public roads within the limits of the site, sidewalk connectivity between parcels, provisions for any bicycle amenities, and identification of any schools within 1-mile of the site.

Crash Analysis

A review of historical crash data within the vicinity of the site access points will be conducted to determine if any design features could potentially mitigate the observed crash frequency/ severity. A crash diagram with georeferenced crash locations highlighting crash trends based on five (5) years period will be included. Five (5) years of crash data will be obtained from Signal Four Analytics (S4A) for the analysis. The crash analysis will include all listed study intersections/segments adjoining the development and intersection(s)/segment(s) with mitigated development measure(s). In summary the crash analysis review will include consideration to the following:

- Crash patterns near proposed driveways should be assessed to identify if additional mitigations like access restriction or median treatments are warranted.
- Analyze crash data to identify trends, patterns, and crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period.
- Mitigation measure(s) as proposed to address potential crash trends will be required by using CMF factors to include the following tabulated information.
- Confirm that full access is operationally and safely feasible on North Ridgewood Avenue based on existing traffic volumes and access spacing policies.

Report

A report will be prepared detailing the methods, findings, and recommendations of the traffic analysis for the proposed development.

ATTACHMENTS

May 7, 2025

William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West Indiana Avenue
DeLand, FL 32720
WDWhite@volusia.org

Re: Ridgewood Ave Residential
Response to Methodology Comments
TMC Project № 25042.01.01
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by Volusia County Traffic Engineering dated April 24, 2025 regarding the above referenced Methodology dated April 14, 2025. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology v1.1 is provided under cover reflecting the changes resulting from these comments.

1. **Secure written confirmation from relevant agencies their listed vested development(s) to be considered within your impacted study area.**

   TMC Response: Acknowledged. The TIA will include applicable vested developments as coordinated with the City of Deland and Volusia County.

2. **Please confirm if the study area is within ¼-mile of a transit route, or ½-mile of a rail line rail station, or intermodal facility.**

   TMC Response: Acknowledged. The TIA will include details on the transit routes, rail lines, and intermodal facilities that are within the study area, as defined per Volusia County standards.

3. **Evaluates the impact of proposed development interaction with high school, bicycle, and pedestrian traffic.**

   TMC Response: Acknowledged. This information will be included in the TIA.

4. ***Refer to TIA guideline section 7 (though an analysis of safety and access management issues may still need to be completed) and provide documentation that support this requirement. A crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period. Analysis of safety and access management issues will be required to include:***

- **Crash patterns near proposed driveways should be assessed to identify if additional mitigations like access restriction or median treatments are warranted.**
- **Analyze crash data to identify trends, patterns, and crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period.**
- **Mitigation measure(s) as proposed to address potential crash trends will be required by using CMF factors to include the following tabulated information:**

Countermeasure	CMF Description	CMF ID & CMF Value	Clearinghouse Quality Level	Crash Applicability Description	Included in Analysis?

TMC Response: The section of the methodology titled Crash Analysis already included this level of detail for the safety/crash review. The text has been expanded to include the above listed bullets as well.

5. **Confirm that full access is operationally and safely feasible on North Ridgewood Avenue based on existing traffic volumes and access spacing policies.**

   TMC Response: The Crash Analysis section has been expanded to include this requirement.

6. **Include justification for local adjustments (e.g., observed traffic patterns, major attractors/employers) in the final report for transparency.**

   TMC Response: Acknowledged.

7. **Pay special attention to potential need for northbound/southbound left-turn lanes due to full access configuration and proximity to SR 44.**

   TMC Response: The access review will include an assessment of the feasibility of accommodating a full left turn lane based on the site's proximity to SR 44, if a turn lane is determined to meet agency thresholds.

8. **Please submit soft copy of the Synchro files used.**

   TMC Response: Acknowledged. We understand this to be standard County requirement.

9. **Please submit a soft copy of the excel spreadsheet used for your PFS calculation.**

   TMC Response: Acknowledged. We understand this to be standard County requirement.

10. Present traffic count results to account for all modes of movements and provide soft copy of all count survey data using the following file types:

- **Intersection data - .txt export from PetraPro; .txt export from Traffic Data Online.**
- **Midblock data: .prn export from TraxPro/StarNEXT; .csv export from VIAS; .prn export from TrafficViewerPro**

TMC Response: Acknowledged.

END OF COMMENTS

We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

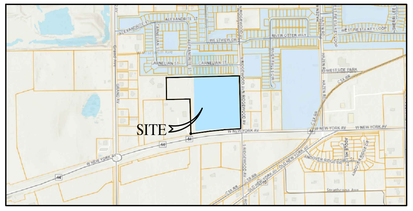
Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC

Charlotte Davidson, PE, PTP
Project Manager



LOCATION MAP



AERIAL MAP

LEGAL DESCRIPTION:

12-17-29 IRREG PARCEL LYING IN GOVT LOT 4 E OF GRAND AVE & N OF SR 44 & W OF N RIDGEWOOD AVE MEAS 827.72 ALONG N R/W OF SR 44 & 867.52 FT ALONG W R/W OF N RIDGEWOOD AVE & 1207.70 FT ON N/L AS DESCRIBED IN OR 7709 PG 3083 PER OR 7233 PG 1560

FLOOD ZONE:

PROPERTY SHOWN HEREON LIES IN FLOOD ZONE "X" AN AREA WHICH LIES OUTSIDE THE 100 YEAR FLOOD AREA ACCORDING TO F.I.R.M. MAP PANEL No. 12127C0465H, DATED FEBRUARY 19, 2014.

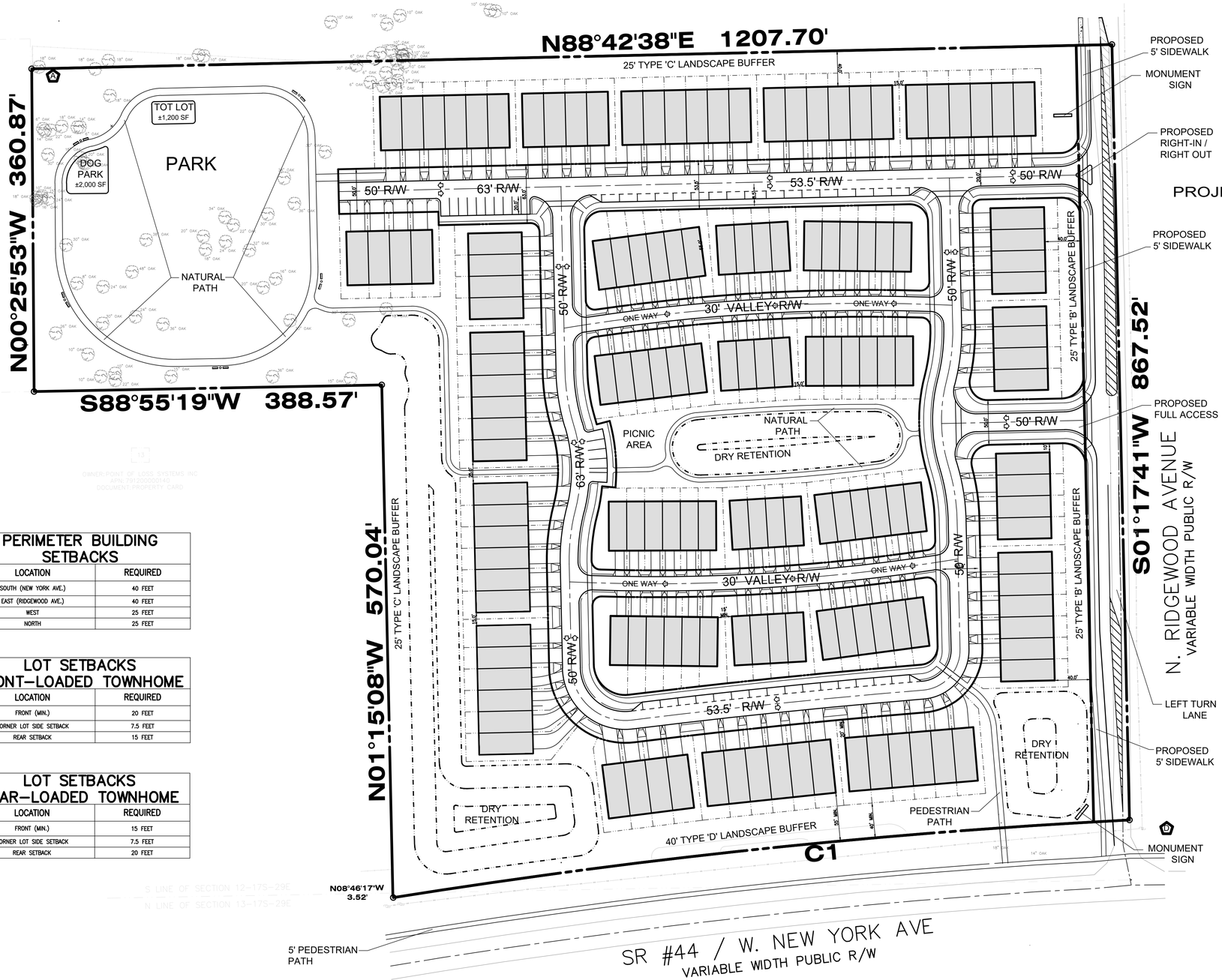
TAX PARCEL ID #:
791200000061

ALT ID #:
2061880

ADDRESS:
210 N. RIDGEWOOD AVE.
DELAND, FLORIDA 32720

N
W E
S

0' 60' 120'
SCALE: 1" = 60'



LEGEND

- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CONCRETE

PROJECT AREA = 20.13 ACRES

PROJECT DATA:

TOTAL AREA:	20.13 AC
MAX. No. OF UNITS:	160 UNITS
MAXIMUM DENSITY:	8 UNITS / AC
MAX. IMP. ALLOWED:	60%
MIN. OPEN SPACE REQ'D:	30%

PROPOSED PARKING:

FRONT LOADED UNITS:	1 GARAGE + 2 CAR D/W EACH
REAR LOADED UNITS:	1 GARAGE + 1 CAR D/W EACH
STREET SIDE:	8.5' X 20' PARALLEL PARKING 9' X 20' - 90° PARKING

PROPOSED BUILDINGS:

MAX. NO. UNITS / BLDG.:	8 UNITS
MIN. NO. UNITS / BLDG.:	4 UNITS
MIN. DIST. BETWEEN BLDGS:	15'

PERIMETER BUILDING SETBACKS

LOCATION	REQUIRED
SOUTH (NEW YORK AVE.)	40 FEET
EAST (RIDGEWOOD AVE.)	40 FEET
WEST	25 FEET
NORTH	25 FEET

LOT SETBACKS FRONT-LOADED TOWNHOME

LOCATION	REQUIRED
FRONT (MIN.)	20 FEET
CORNER LOT SIDE SETBACK	7.5 FEET
REAR SETBACK	15 FEET

LOT SETBACKS REAR-LOADED TOWNHOME

LOCATION	REQUIRED
FRONT (MIN.)	15 FEET
CORNER LOT SIDE SETBACK	7.5 FEET
REAR SETBACK	20 FEET

OWNER:POINT OF LOSS SYSTEMS INC
APN:791200000140
DOCUMENT:PROPERTY CARD
S LINE OF SECTION 12-17S-29E
N LINE OF SECTION 13-17S-29E

DATE: MAY 2, 2025
SCALE: 1" = 60'
DESIGNED: THS
DRAWN: MOS
CHECKED BY: THS
JOB NO.: 25045
EMAIL: tomskelton4568@gmail.com

REVISIONS | DATE | REVISED | CHECKED

AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS ROAD, SUITE 211 WINTER SPRINGS, FLORIDA 32708
PHONE: (407) 327-7700, FAX (407) 327-0227
CERTIFICATE OF AUTHORIZATION NO.: 00006729

PD SITE PLAN
DELAND CROSSINGS
MULTI-FAMILY DEVELOPMENT
DELAND, FLORIDA

THOMAS H. SKELTON, PE
REGISTRATION NO. 42752

SHEET: C1

Single-Family Attached Housing
(215)

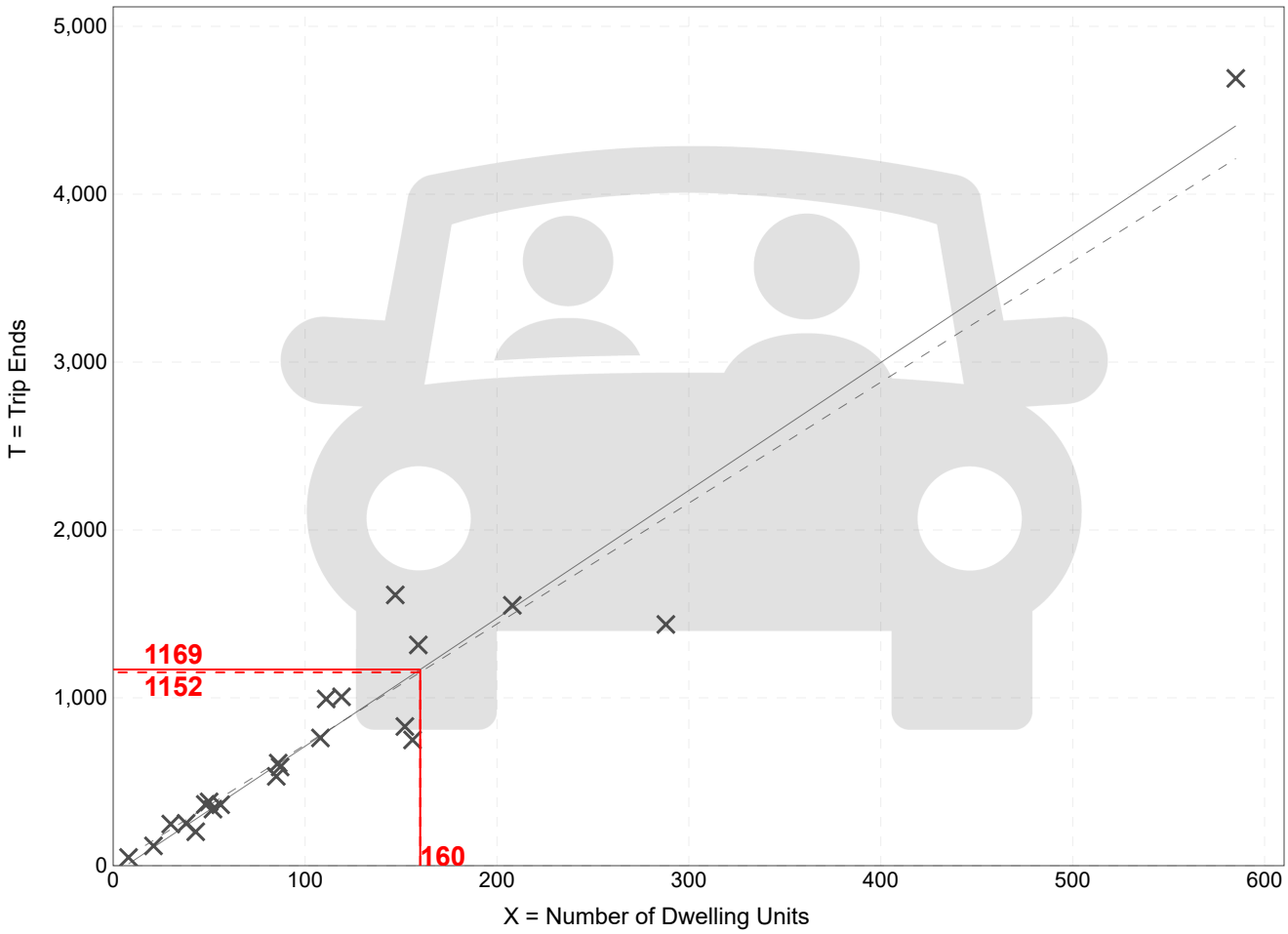
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Fitted Curve Equation: T = 7.62(X) - 50.48

R^2= 0.94

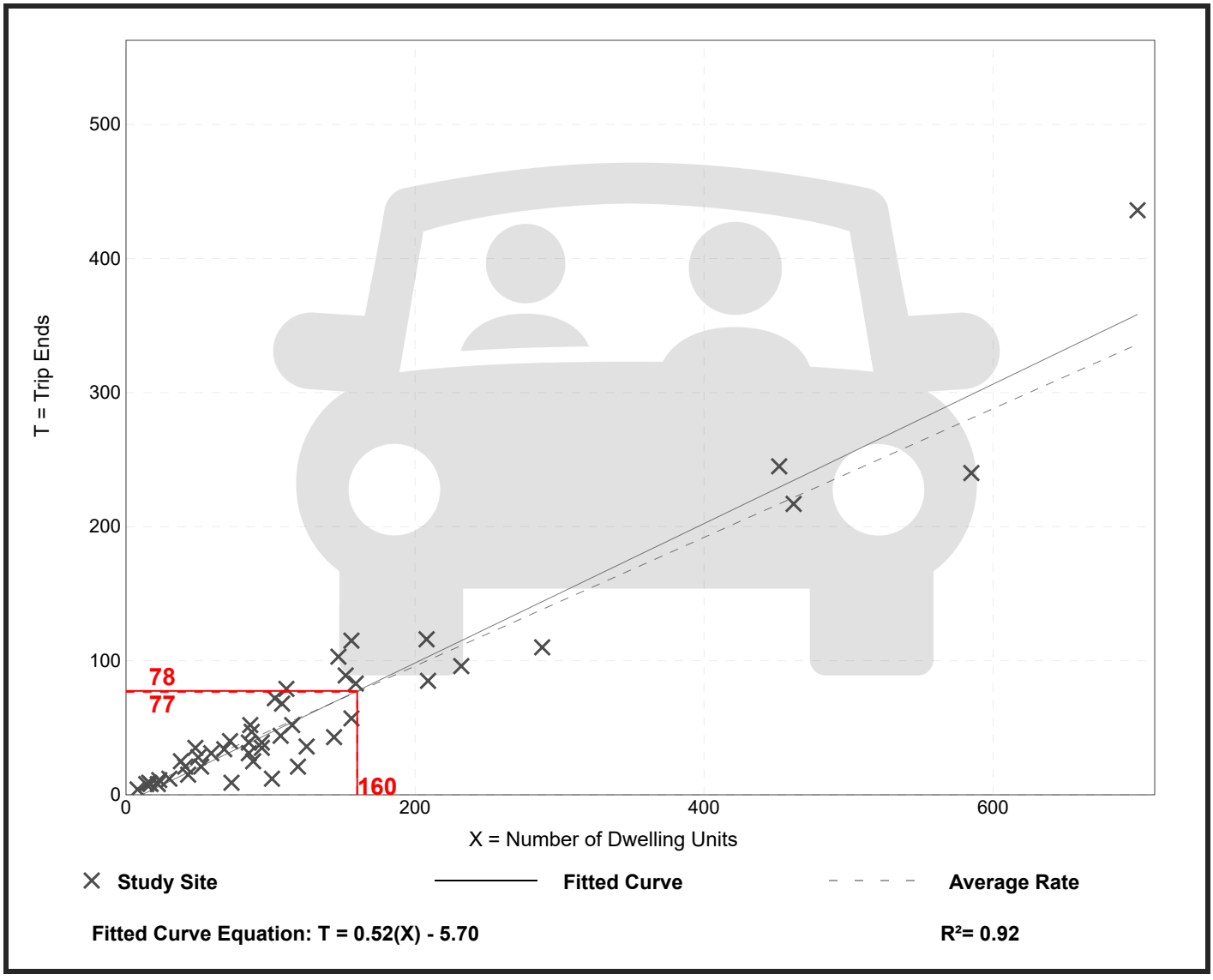
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	46
Avg. Num. of Dwelling Units:	135
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



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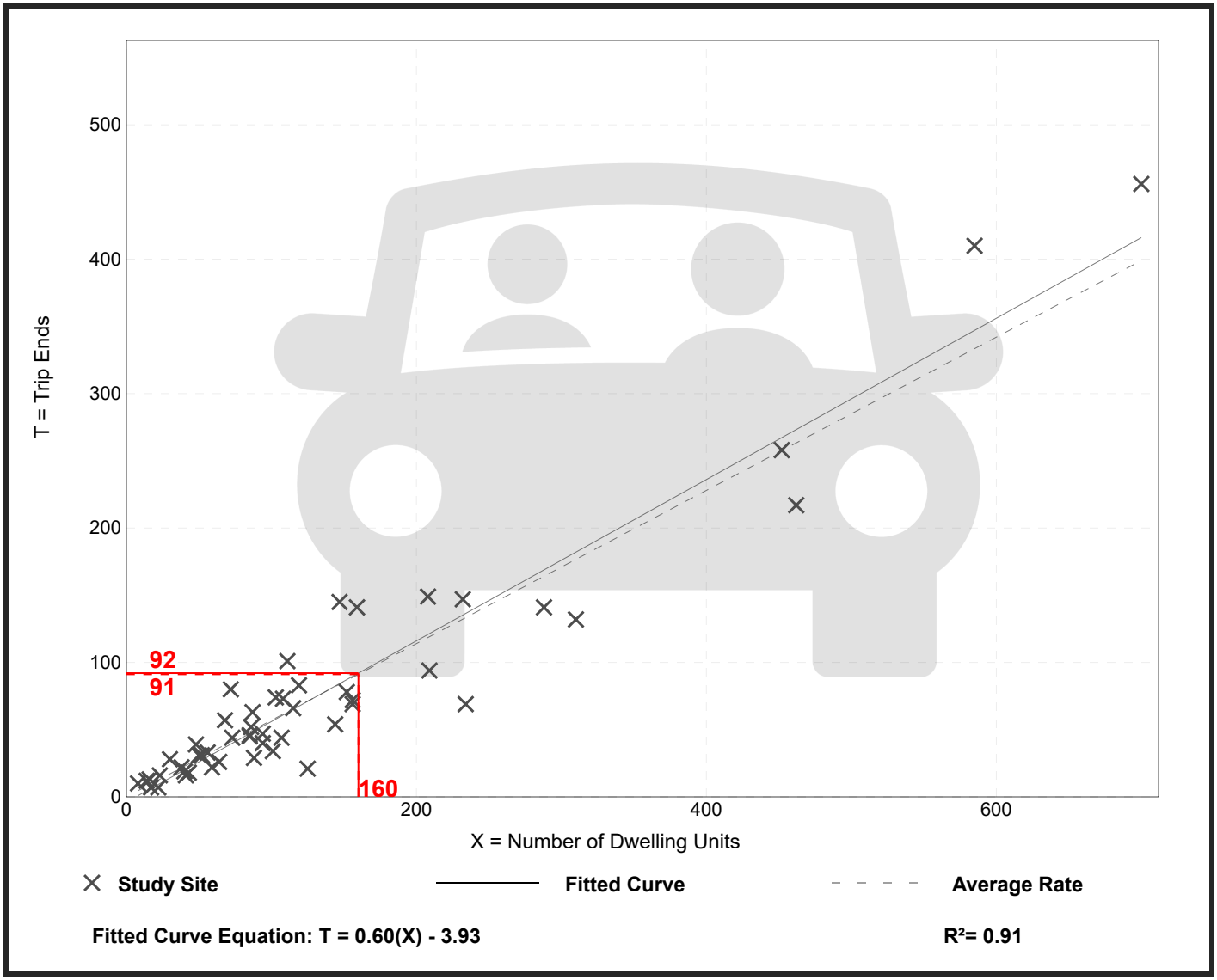
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed						2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
US 1	10th Ave. to Canal St./Bus. SR 44	5154	FDOT	Yes	1.52	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.68	D	-	-	2,920	4
US 1	Canal St./Bus. SR 44 to Turnbull Bay	5155	FDOT	Yes	1.34	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	-	-	3,580	4
US 1	Turnbull Bay Rd. to Art Center Ave.	5159	FDOT	Yes	2.24	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.63	C	-	-	3,580	4
US 1	Art Center Ave. to SR 5A/Nova Rd.	13	FDOT	Yes	3.19	45	N+S	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.39	B	-	-	5,960	4
US 1	SR 5A/Nova Rd. to Commonwealth	152	FDOT	Yes	1.23	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.39	C	1,170	1,350	3,580	4
US 1	Commonwealth to SR 421/Dunlawton	5057	FDOT	Yes	1.37	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.44	C	1,340	1,440	3,580	4
US 1	SR 421/Dunlawton Ave. to Reed Can	213	FDOT	Yes	1.18	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.63	C	-	-	3,580	4
US 1	Reed Canal Rd. to Big Tree Rd.	5061	FDOT	Yes	1.17	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.58	C	-	-	3,580	4
US 1	Big Tree Rd. to Bellewood Ave.	5063	FDOT	Yes	0.45	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.73	C	-	-	3,580	4
US 1	Bellewood Ave. to SR 400/Beville Rd	5063	FDOT	Yes	0.27	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.73	C	-	-	3,580	4
US 1	SR 400/Beville Rd to Bellevue Ave.	452	FDOT	Yes	1.05	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.73	C	2,040	2,350	3,580	4
US 1	Bellevue Ave. to Orange Ave.	5066	FDOT	Yes	0.72	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.72	C	-	-	3,580	4
US 1	Orange Ave. to US 92/ISB	5070	FDOT	Yes	0.30	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.88	D	-	-	2,920	4
US 1	US 92/ISB to Fairview/Main St.	5074	FDOT	Yes	0.66	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.86	D	-	-	2,920	4
US 1	Fairview/Main St. to SR 430/Mason A	5074	FDOT	Yes	0.54	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.86	D	-	-	2,920	4
US 1	SR 430/Mason Ave. to LPGA Blvd.	1018	FDOT	Yes	1.47	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.74	D	-	-	2,920	4
US 1	LPGA Blvd. to Hand Ave.	1018	FDOT	Yes	2.00	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	-	-	3,580	4
US 1	Hand Ave. to SR 40/Granada Blvd.	5142	FDOT	Yes	0.84	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.55	C	-	-	3,580	4
US 1	SR 40/Granada Blvd. to SR 5A/Nova	1019	FDOT	Yes	1.83	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.49	C	-	-	3,580	4
US 1	SR 5A/Nova Rd. to Airport Rd.	100	FDOT	Yes	1.13	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.83	C	-	-	3,580	4
US 1	Airport Rd. to I-95	351	FDOT	Yes	2.81	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.62	C	2,040	2,330	3,580	4
US 1	I-95. to Flagler Co Line	536	FDOT	Yes	1.53	60	N+S	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.26	B	-	-	5,960	4
US 17/92	Seminole Co. to Barwick Rd.	0040-S	FDOT	Yes	0.52	50	N+S	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.88	C	-	-	3,580	4
US 17/92	Barwick Rd to Ft. Florida Rd.	0040-S	FDOT	Yes	0.76	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.79	C	-	-	3,580	4
US 17/92	Ft. Florida Rd. to Dirksen Dr.	101	FDOT	Yes	0.72	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.79	C	2,280	2,920	3,580	4
US 17/92	Dirksen Dr. to Valencia Rd.	479	FDOT	Yes	1.05	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.70	C	-	-	3,580	4
US 17/92	Valencia Rd to Highbanks Rd.	7	FDOT	Yes	0.74	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.64	C	1,790	2,410	3,580	4
US 17/92	Highbanks Rd. to DeBary Plantation I	8	FDOT	Yes	0.92	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	-	-	3,580	4
US 17/92	DeBary Plantation Blvd to Saxon Blvd	509	FDOT	Yes	0.61	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.87	C	-	-	3,580	4
US 17/92	Saxon Blvd. to Enterprise Rd.	539	FDOT	Yes	0.80	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.65	C	-	-	3,580	4
US 17/92	Enterprise Rd. to Rhode Island Ave.	444	FDOT	Yes	0.75	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.87	C	-	-	3,580	4
US 17/92	Rhode Island Ave. to Graves Ave.	444	FDOT	Yes	1.01	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.87	C	-	-	3,580	4
US 17/92	Graves Ave. to New York Ave.	445	FDOT	Yes	1.00	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.84	C	-	-	3,580	4
US 17/92	New York Ave to SR 472	445	FDOT	Yes	0.75	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.84	C	-	-	3,580	4
US 17/92	SR 472 to SR 15A/Taylor Rd.	1004	FDOT	Yes	1.75	45	N+S	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.93	C	-	-	5,390	6
US 17/92	SR 15A/Taylor Rd. to Beresford Ave.	1006	FDOT	Yes	1.02	40	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	42,190	0.76	C	1,850	2,660	3,790	4
US 17/92	Beresford Ave. to Euclid Ave.	5173	FDOT	Yes	0.49	35	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	E	16,380	1.22	F	1,120	1,510	1,480	2
US 17/92	Euclid Ave. to SR 44/New York Ave.	5004	FDOT	Yes	0.49	30	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_S2WAC2_2W_2L_D_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	E	15,600	1.20	D	-	-	1,410	2
US 17/92	SR 44/New York Ave. to Plymouth Av	5008	FDOT	Yes	1.01	30	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC3_2W_2L_U_WL	UA_S2WAC3_2W_2L_U_WL	UA_S2WAC3_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	19,150	0.98	DeLand	-	-	1,410	2
US 17/92	Plymouth Ave. to US 92/ISB	66	FDOT	Yes	0.83	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	42,190	0.57	C	-	-	3,790	4
US 17	US 92 to Mercers Fernery Rd.	1000	FDOT	Yes	0.68	45	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	42,190	0.79	C	-	-	3,790	4
US 17	Mercers Fernery Rd. to Glenwood Rd	69	FDOT	Yes	0.51	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.55	C	1,170	1,890	3,580	4
US 17	Glenwood Rd. to SR 15A/CR 15A	236	FDOT	Yes	1.64	55	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.40	C	-	-	3,580	4
US 17	SR 15A/CR 15A to Reynolds Rd	476	FDOT	Yes	2.76	45	N+S	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.30	B	1,320	1,680	5,960	4
US 17	Reynolds Rd to Spring Garden Ranch	519	FDOT	Yes	1.09	55	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.48	B	-	-	2,180	2
US 17	Spring Garden Ranch Rd. to Lake Wi	104	FDOT	Yes	0.56	45	N+S	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.39	B	-	-	2,180	2
US 17	Lake Winona Rd. to SR 40	104	FDOT	Yes	4.93	45	N+S	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	D	18,000	0.52	B	-	-	1,620	2
US 17	SR 40 to Washington Ave.	448	FDOT	Yes	5.02	45	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.50	B	760	770	1,490	2
US 17	Washington Ave. to CR 305/Lk Geor	46	FDOT	Yes	5.28	55	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.37	B	-	-	1,490	2
US 17	CR 305/Lk George Rd to Putnam Co	280	FDOT	Yes	3.41	60	N+S	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	18,000	0.33	B	510	510	1,620	2
US 92	US 17 to Jacobs Rd.	1001	FDOT	Yes	1.41	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.67	C	-	-	3,580	4
US 92	Jacobs Rd. to Kepler Rd.	5	FDOT	Yes	1.23	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.60	C	1,580	1,880	3,580	4
US 92	Kepler Rd. to Old Daytona Rd.	9925	FDOT	Yes	1.32	65	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.40	C	-	-	3,580	4
US 92	Old Daytona Rd. to Red John Dr.	9925	FDOT	Yes	7.20	55	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RUA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban/Rural	C	44,900	0.35	B	-	-	4,270	4
US 92	Red John Dr. to I-4 EB Ramp	478	FDOT	Yes	2.26	55	E+W	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.43	C	-	-	3,580	4
US 92	I-4 EB Ramp to LPGA Blvd.	478	FDOT	Yes	0.58	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.43	C	-	-	3,580	4
US 92	LPGA Blvd. to I-95	532	FDOT	Yes	2.03	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.77	C	-	-	3,580	4
US 92	I-95 to Williamson Blvd.	508	FDOT	Yes	0.71	50	E+W	UA_S2WAC1_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	Principal Arterial - Other - Urban	C	78,800	0.50	C	3,180	3,290	7,090	8
US 92	Williamson Blvd. to Bill France Blvd.	5172	FDOT	Yes	1.13	50	E+W	UA_S2WAC1_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	Principal Arterial - Other - Urban	C	78,800	0.58	C	-	-	7,090	8
US 92	Bill France Blvd. to SR 483/Clyde Mo	5094	FDOT	Yes	0.86	50	E+W	UA_S2WAC1_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_S2WAC2_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	UA_SSAC1_2W_8L_D_WL	Principal Arterial - Other - Urban	D	78,800	0.50	C	2,620	3,270	7,210	8
US 92	SR 483/Clyde Morris Blvd. to SR 5A/I	5096	FDOT	Yes	0.93	45	E+W	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.60	C	2,570	2,800	5,390	6
US 92	SR 5A/Nova Rd. to Martin Luther Kin	5099	FDOT	Yes	0.78	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.57	C	-	-	3,580	4
US 92	Martin Luther King Blvd. to US 1	5104	FDOT	Yes	0.38	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.57	C	1,410	1,620	3,580	4
US 92	US 1 to Beach St.	5105	FDOT	Yes	0.23	30	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.46	D	-	-	2,920	4
US 92	Beach St. to SR 441/Peninsula Dr.	337	FDOT	Yes	0.88	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.43	C	-	-	3,580	4
US 92	SR 441/Peninsula Dr. to SR A1A/Atla	5109	FDOT	Yes	0.30	30	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.28	C	480	740	2,920	4
SR A1A - Dunlawton Ave.	US 1 to SR A1A/Atlantic Ave.	427	FDOT	Yes	1.25	35	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.82	D	-	-	2,920	4
SR A1A - Atlantic Ave. So	SRA1A/Dunlawton Ave. to Van Ave.	477	FDOT	Yes	1.05	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.44	D	-	-	2,920	4
SR A1A - Atlantic Ave. So	Van Ave. to Florida Shores	5179	FDOT	Yes	1.29	35	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.41	D	840	1,120	2,920	4
SR A1A - Atlantic Ave. So	Florida Shores to Silver Beach Ave.	436	FDOT	Yes	2.34	35	N+S	UA_

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
SR 15A	CR 92 to Glenwood Rd.	465	FDOT	Yes	1.20	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.34	C	-	-	3,580	4
SR 15A	Glenwood Rd. to US 17	466	FDOT	Yes	1.11	50	N+S	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.35	C	-	-	3,580	4
SR 40	Lake County to Emporia Rd.	533	FDOT	Yes	0.86	55	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.59	B	-	-	1,490	2
SR 40	Emporia Rd. to US 17	344	FDOT	Yes	5.58	55	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.55	B	550	660	1,490	2
SR 40	US 17 to SR 11	530	FDOT	Yes	6.69	60	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	8,600	0.86	C	-	-	820	2
SR 40	SR 11 to Pinto Lane	530	FDOT	Yes	6.83	60	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	8,600	0.86	C	-	-	820	2
SR 40	Pinto Lane to Rima Ridge Rd (urban	523	FDOT	Yes	1.25	60	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban/Rural	C	42,300	0.17	B	-	-	4,020	4
SR 40	Rima Ridge Rd to Tymber Creek Rd.	499	FDOT	Yes	4.36	60	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.34	C	-	-	3,580	4
SR 40	Tymber Creek Rd. to I-95	499	FDOT	Yes	0.79	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.67	C	-	-	3,580	4
SR 40	I-95 to Clyde Morris Blvd.	522	FDOT	Yes	1.58	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.90	C	-	-	3,580	4
SR 40	Clyde Morris Blvd. to SR 5A/Nova Rd	489	FDOT	Yes	1.06	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.90	C	-	-	3,580	4
SR 40	SR5A/Nova Rd. to US 1	1020	FDOT	Yes	1.33	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.78	C	-	-	3,580	4
SR 40	US 1 to Halifax Ave.	171	FDOT	Yes	1.11	35	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	1.10	F	3,030	3,380	2,920	4
SR 40	Halifax Ave. to SR A1A	5128	FDOT	Yes	0.37	35	E+W	UA_S2WAC2_2W_4L_U_WL	UA_S2WAC2_2W_4L_U_WL	UA_S2WAC2_2W_4L_U_WL	UA_S2WAC2_2W_4L_U_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	D	32,400	0.66	D	-	-	2,920	4
SR 44	Lake Co. to Shell Rd.	1007	FDOT	Yes	1.19	55	E+W	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	15,700	0.89	C	-	-	1,490	2
SR 44	Shell Rd. to Grand Ave.	1007	FDOT	Yes	1.26	45	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.57	C	-	-	2,180	2
SR 44	Grand Ave. to Old New York/Hazen F	1007	FDOT	Yes	0.70	55	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.60	C	-	-	2,180	2
SR 44	Old New York/Hazen Rd. to SR 15A/	274	FDOT	Yes	0.71	40	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	Principal Arterial - Other - Urban	D	24,200	0.60	C	900	1,180	2,180	2
SR 44	SR 15A/Spring Garden Ave. to Stone	447	FDOT	Yes	0.50	40	E+W	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	18,939	0.62	C	-	-	1,712	2
SR 44	Stone St. to Clara Ave.	5012	FDOT	Yes	0.51	35-40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	18,939	0.60	C	730	910	1,712	2
SR 44	Clara Ave. to Amelia Ave.	5015	FDOT	Yes	0.50	25-35	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_S2WAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	UA_SSAC2_2W_2L_U_WL	Principal Arterial - Other - Urban	E	14,800	0.50	D	-	-	1,410	2
SR 44	Amelia Ave. to Hill Ave.	80	FDOT	Yes	1.00	35/40/45	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	18,939	0.70	C	-	-	1,712	2
SR 44	Hill Ave. to Blue Lake Ave.	80	FDOT	Yes	0.51	45	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	19,800	0.67		-	-	1,712	2
SR 44	Blue Lake Ave. to Kepler Rd.	19	FDOT	Yes	0.94	45	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	20,800	0.87		-	-	1,712	2
SR 44	Kepler Rd. to Summit Ave.	259	FDOT	Yes	1.18	45-50	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Principal Arterial - Other - Urban	DeLand	19,800	1.11		-	-	1,712	2
SR 44	Summit Ave. to I-4	538	FDOT	Yes	0.98	45	E+W	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.59	C	-	-	3,580	4
SR 44	I-4 to Prevatt Ave.	480	FDOT	Yes	0.74	55	E+W	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.41	C	1,630	1,820	3,580	4
SR 44	Prevatt Ave. to Pioneer Tr.	41	FDOT	Yes	5.93	65	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RUA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	C	44,900	0.42	B	1,510	1,700	4,270	4
SR 44	Pioneer Tr. to SR 415/CR 415	1011	FDOT	Yes	3.56	65	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RUA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	C	44,900	0.37	B	-	-	4,270	4
SR 44	SR 415/CR 415 to Samsula Dr.	1012	FDOT	Yes	1.14	65	E+W	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	C	42,300	0.53	B	-	-	4,020	4
SR 44	Samsula Dr. to Airport Rd	423	FDOT	Yes	1.70	65	E+W	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban/Rural	C	42,300	0.36	B	1,140	1,490	4,020	4
SR 44	Airport Rd. to I-95	423	FDOT	Yes	2.05	65	E+W	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	TA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.39	C	1,140	1,490	3,580	4
SR 44	I-95 to Mission Dr	515	FDOT	Yes	2.83	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.90	C	-	-	3,580	4
SR 44	Mission Dr. to Live Oak	514	FDOT	Yes	1.35	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.57	C	-	-	3,580	4
SR 44/SR A1A/S Causew	Live Oak to Peninsula Ave.	207	FDOT	Yes	1.30	50	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.65	C	-	-	3,580	4
SR 44/SR A1A/S Causew	Peninsula Ave. to Saxon Dr.	5180	FDOT	Yes	0.35	40	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.55	C	-	-	3,580	4
SR 44/SR A1A/3rd Ave/A	Saxon Dr. to 6th Ave	5043	FDOT	Yes	0.50	40	E+W	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.34	C	900	1,030	3,580	4
SR 44 (Business) - Canal S	SR 44/Lytle St to Pioneer Trail	516	FDOT	Yes	0.17	40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.69	C	820	950	1,600	2
SR 44 (Business) - Canal S	Pioneer Tr. to US 1	111	FDOT	Yes	0.76	40	E+W	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.73	C	840	1,030	1,600	2
SR 46	Seminole Co. to Brevard Co.	0416-B	FDOT	Yes	5.44	55	E+W	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Principal Arterial - Other - Rural	C	18,000	0.27	B	-	-	1,620	2
SR 400 - Beville Rd.	I-95 to Williamson Blvd.	501	FDOT	Yes	0.28	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.44	C	-	-	5,390	6
SR 400 - Beville Rd.	Williamson Blvd. to SR 483/Clyde Mo	5189	FDOT	Yes	1.91	55	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.63	C	-	-	3,580	4
SR 400 - Beville Rd.	SR 483/Clyde Morris Blvd. to SR 5A/I	511	FDOT	Yes	0.68	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.75	C	-	-	3,580	4
SR 400 - Beville Rd.	SR 5A/Nova Rd. to US 1	502	FDOT	Yes	1.34	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.58	C	-	-	3,580	4
SR 415	Seminole Co. to Enterprise-Osteen R	25	FDOT	Yes	4.39	55	N+S	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	TA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_4L_D_WL	Minor Arterial - Urban/Rural	D	66,200	0.40	D	-	-	5,960	4
SR 415	Enterprise-Osteen Rd. to Howland Bl	437	FDOT	Yes	1.83	45	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.52	C	1,500	1,860	3,580	4
SR 415	Howland Blvd. to Acorn Lake Rd	321	FDOT	Yes	0.88	45	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.25	C	-	-	3,580	4
SR 415	Acorn Lake Rd to SR 44	1009	FDOT	Yes	10.49	55	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_WL	RUA_UFH_2W_2L_U_WL	Minor Arterial - Rural	C	18,000	0.62	C	-	-	1,620	2
SR 421 - Dunlawton Ave.	Williamson to Clyde Morris Blvd.	517	FDOT	Yes	1.07	45	E+W	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.91	C	-	-	5,390	6
SR 421 - Dunlawton Ave.	Clyde Morris Blvd. to SR 5A/Nova Rd	1014	FDOT	Yes	1.31	50	E+W	UA_S2WAC1_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_S2WAC2_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	UA_SSAC1_2W_6L_D_WL	Principal Arterial - Other - Urban	D	59,900	0.73	C	-	-	5,390	6
SR 421 - Dunlawton Ave.	SR5A/Nova Rd. to Spruce Creek Rd.	1015	FDOT	Yes	0.91	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.77	C	-	-	3,580	4
SR 421 - Dunlawton Ave.	Spruce Creek Rd. to US 1	5181	FDOT	Yes	0.71	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.67	C	-	-	3,580	4
SR 430 - Mason Ave.	SR 483/Clyde Morris Blvd. to SR 5A/I	5197	FDOT	Yes	0.99	35	E+W	UA_S2WAC1_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	Minor Arterial - Urban	D	24,300	0.81	D	1,330	1,480	2,190	4
SR 430 - Mason Ave.	SR 5A/Nova Rd. to US 1	5197	FDOT	Yes	1.08	35	E+W	UA_S2WAC1_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_S2WAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	UA_SSAC2_2W_4L_U_0L	Minor Arterial - Urban	D	24,300	0.81	D	1,330	1,480	2,190	4
SR 430 - Mason Ave.	US 1 to Beach St.	5197	FDOT	Yes	0.30	35	E+W	UA_S2WAC1_2W_4L_U_0L	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_S2WAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	UA_SSAC2_2W_4L_D_WL	Minor Arterial - Urban	D	32,400	0.60	D	1,330	1,480	2,920	4
SR 430 - Oakridge Blvd. -	Beach St. to Peninsula Dr	5196E	FDOT	Yes	0.70	40	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	Minor Arterial - Urban	D	23,880	0.39	C	-	-	2,150	2
SR 430 - Oakridge Blvd. -	Peninsula Dr to SR A1A/Atlantic	5195	FDOT	Yes	0.28	40	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	Minor Arterial - Urban	D	23,880	0.25	C	-	-	2,150	2
SR 430 - Seabreeze Brid	Beach St. to Peninsula Dr	5196W	FDOT	Yes	1.01	40	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	UA_SSAC1_1W_2L_D_WL	Minor Arterial - Urban	D	23,880	0.42	C	-	-	2,150	2
SR 430 - Seabreeze Brid	Peninsula Dr to SR A1A/Atlantic	5191	FDOT	Yes	0.29	30	E+W	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_S2WAC1_1W_2L_D_WL	UA_SSAC2_1W_2L_D_WL	UA_SSAC2_1W_2L_D_WL	Minor Arterial - Urban	D	19,440	0.57	C	-	-	1,750	2
SR 441 - Peninsula Dr.	SR A1A/Dunlawton to Florida Shores	5188	FDOT	Yes	2.42	40	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.33	C	-	-	1,600	2
SR 441 - Peninsula Dr.	Florida Shores to Silver Beach Ave.	5187	FDOT	Yes	2.34	35	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.47	C	-	-	1,600	2
SR 441 - Peninsula Dr.	Silver Beach Ave. to US 92/ISB	5187	FDOT	Yes	0.65	35	N+S	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_S2WAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	UA_SSAC1_2W_2L_U_WL	Minor Arterial - Urban	D	17,700	0.47	C	-	-	1,600	2
SR 442 - Indian River Blvd	I-95 to Air Park Rd.	170	FDOT	Yes	2.09	55	E+W	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	TA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.36	C	-	-	3,580	4
SR 442 - Indian River Blvd	Air Park Rd. to US 1	5190	FDOT	Yes	1.69	45	E+W	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_S2WAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	D	39,800	0.48	C	-	-	3,580	4
SR 472	US 17/92 to CR 4101/MLK Blvd	472	FDOT	Yes	2.31	60	E+W	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	Principal Arterial - Other - Urban	D	66,200	0.36	B	-	-	5,960	4
SR 472	CR 4101/MLK Blvd to I-4 (end of stat	535	FDOT	Yes	1.10	60	E+W	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_UFH_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.80	C	2,300	2,710	3,580	4
SR 483 - Clyde Morris BV	SR 400/Beville Rd. to Aviation Ctr Pk	5193	FDOT	Yes	0.98	45	N+S	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	Principal Arterial - Other - Urban	D	37,800	0.73	C	-	-	3,400	4
SR 483 - Clyde Morris BV	Aviation Ctr Pkwy/Bellevue to US 92/	5193	FDOT	Yes	1.20	45	N+S	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	D	39,800	0.69	C	-	-	3,580	4
SR 483 - Clyde Morris BV	US 92/ISB to SR 430/Mason Ave.	5182	FDOT	Yes	1.20	45	N+S	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_S2WAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	UA_SSAC1_2W_4L_U_WL	Principal Arterial - Other - Urban	D	37,800	0.55	C	-	-	3,400	4
6th St.	Derbyshire Rd. to SR 5A/Nova Rd	11	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_

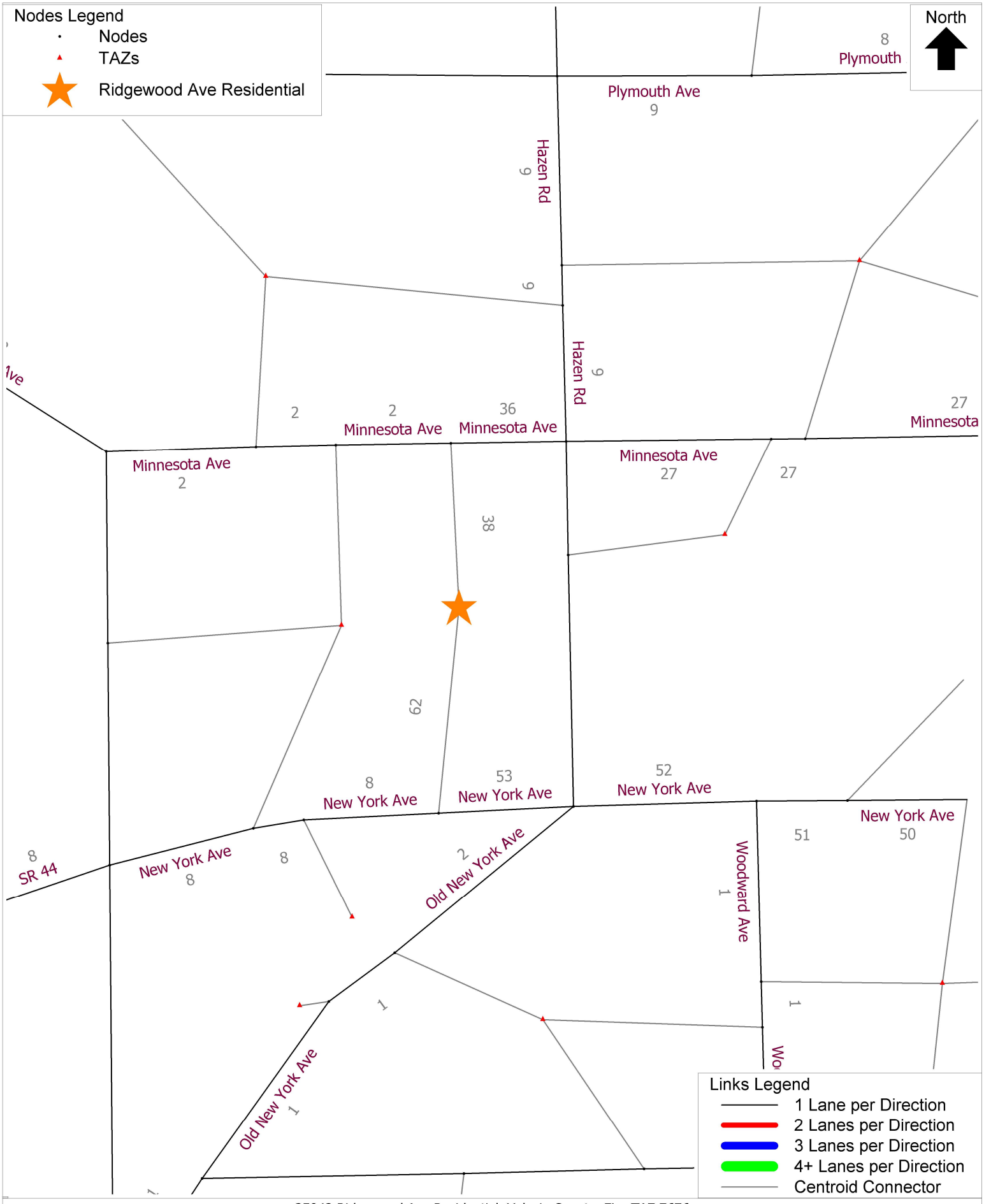
Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Beach/Riverside/Beach (C	SR 40 to Wilmette Ave.	132	County	Yes	0.70	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	16,000	0.54	D	580	725	1,440	2
Beach/Riverside/Beach (C	Wilmette Ave. to Inglesa Ave.	135	County	Yes	2.55	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	16,000	0.43	D	610	710	1,440	2
Beach/Riverside/Beach (C	Inglesa Ave to Pine Tree Dr.	137	County	Yes	1.10	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	16,000	0.18	C	170	250	1,440	2
Beacon Light Rd.	Halifax Ave. to Ariel Rd.	140	County	Yes	2.75	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.05	B	25	35	620	2
Beacon Light Rd.	Ariel Rd. to Volco Rd.	141	County	Yes	1.25	35	N+S	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.09	B	40	55	620	2
Bellevue Ave. Extension	CR 415/Tomoka Farms Rd to William	151	County	Yes	0.50	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.52	D	500	580	1,020	2
Bellevue Ave. Extension	Williamson Blvd to SR 483/Clyde Mo	153	County	Yes	2.50	45	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.23	C	220	295	1,230	2
Beresford Ave.	Beresford Rd. to Fatio Rd	161	County	Yes	0.70	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	175	220	1,020	2
Beresford Ave.	Fatio Rd. to SR 15A	162	County	Yes	1.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.30	C	240	350	1,020	2
Beresford Ave.	SR 15A to US 17/92	164	County	Yes	1.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.34	C	250	400	1,020	2
Beresford Ave.	US 17/92 to Amelia Ave	165	County	Yes	0.25	35	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.73	D	590	895	1,330	2
Beresford Ave.	Amelia Ave. to Hill Ave.	167	County	Yes	1.00	40	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Major Collector - Urban	E	17,900	0.37	C	390	590	1,620	2
Beresford Ave.	Hill Ave. to Blue Lake Ave.	169	County	Yes	1.35	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.31	C	260	400	1,230	2
Beresford Ave.	Blue Lake Ave. to MLK (Kepler Rd.)	Future Rd-17	County	Yes	0.80	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Future - Major Collector - Urban	E	13,640	-	-	-	-	1,230	0
Beresford Ave.	MLK (Kepler Rd.) to SR 44	Future Rd-17	County	Yes	0.75	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Future - Major Collector - Urban	E	13,640	-	-	-	-	1,230	0
Beresford Rd.	SR 15A to Spring Garden Ave.	180	County		0.40	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.04	C	45	55	1,020	2
Beresford Rd.	Spring Garden Ave. to Fatio Rd.	181	County		0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.07	C	60	85	1,020	2
Beresford Rd.	Fatio Rd.. to Beresford Ave	182	County		1.30	30	E+W	TA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.14	C	125	210	1,020	2
Beresford Rd.	Beresford Ave. to Old New York Ave.	183	County	Yes	0.30	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.25	C	250	365	1,020	2
Big Tree Rd.	Clyde Morris Blvd. to Nova Rd.	192	County	Yes	1.10	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.46	D	375	545	1,020	2
Big Tree Rd.	Nova Rd. to Magnolia Ave.	193	County	Yes	0.40	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.82	D	750	1,050	1,330	2
Big Tree Rd.	Magnolia Ave. to Kenilworth Ave.	195	County	Yes	0.45	35	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.70	D	630	945	1,330	3
Big Tree Rd.	Kenilworth Ave. to US 1	196	County	Yes	0.55	35	E+W	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.51	D	230	605	1,330	3
Blackburn Rd.	CR 3 to Emporia Rd	211	County		1.25	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.10	B	55	65	620	2
Blackwelder Rd.	Lake Winona Rd. to SR 11	221	County		3.25	35	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.04	B	20	25	620	2
Blue Lake Ave.	SR 472 to Orange Camp Rd	Future Rd-22	County	Yes	1.05	45	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	-	-	-	-	1,540	2
Blue Lake Ave.	Orange Camp Rd. to Taylor Rd.	231	County	Yes	1.05	45	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.31	C	565	455	1,540	2
Blue Lake Ave.	Taylor Rd. to Beresford Ave.	232	County	Yes	1.05	45	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.56	C	650	740	1,230	2
Blue Lake Ave.	Beresford Ave. to Voorhis Ave.	234	County	Yes	0.75	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.38	C	320	585	1,020	2
Blue Lake Ave.	Voorhis Ave. to SR 44	235	County	Yes	0.25	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.27	C	230	370	1,020	2
Blue Lake Ave.	SR 44 to Minnesota Ave.	236	County	Yes	0.55	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.39	D	320	490	1,020	2
Blue Lake Ave.	Minnesota Ave. to Plymouth Ave.	237	County	Yes	1.00	40	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.55	C	625	695	1,230	2
Blue Springs Av (West)	Sparkman Dr to Lawton Dr	239	County		0.60	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.36	C	500	450	1,020	2
Brownlee Rd.	Raulerson Rd. #1 to Raulerson Rd.	240	County		1.70	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.03	B	15	20	620	2
Cardinal Blvd.	SR 421/Dunlawton Ave. to Demotte A	245	County		0.15	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.10	C	80	130	1,020	2
Cardinal Blvd.	Demotte Ave. to Marcelle Ave	260	County		0.90	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.41	D	330	485	1,020	2
Cardinal Blvd.	Marcelle Ave to Major St.	261	County		1.00	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.06	C	45	80	1,020	2
Carter Rd.	SR 11 to Marsh Rd.	270	County		1.75	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.13	C	120	160	1,230	2
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	County	Yes	1.80	30	N+S	UA_UFH_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.18	C	140	210	1,020	2
Clara Ave.	SR 15A to New Hampshire Ave.	301	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	135	220	1,020	2
Clara Ave.	New Hampshire Ave. to Beresford Av	303	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.22	C	210	270	1,020	2
Clifton Rd.	Lake Winona Rd. to SR 11	311	County		1.70	30	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.03	B	20	25	620	2
Clyde Morris Blvd.	Taylor Rd. to SR 421/Dunlawton Ave	330	County	Yes	0.95	40	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.62	C	1,190	900	1,540	2
Clyde Morris Blvd.	SR 421/Dunlawton Ave. to Willow Ru	332	County	Yes	0.65	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.53	C	1,250	1,575	3,410	4
Clyde Morris Blvd.	Willow Run Blvd. to Madeline Ave.	333	County	Yes	1.30	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.60	C	1,390	1,900	3,410	4
Clyde Morris Blvd.	Madeline Ave. to Big Tree Rd.	335	County	Yes	1.00	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.60	C	1,360	1,865	3,410	4
Clyde Morris Blvd.	Big Tree Rd. to SR 400/Beville Rd.	337	County	Yes	0.90	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_U_WL	Principal Arterial - Other - Urban	E	36,070	0.59	C	1,260	1,785	3,240	4
Clyde Morris Blvd.	SR 430/Mason Ave. to Bill France Bl	338	County	Yes	0.60	45	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.41	C	1,050	1,140	3,410	4
Clyde Morris Blvd.	Bill France Blvd. to LPGA Blvd.	341	County	Yes	1.25	50	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.48	C	1,160	1,455	3,410	4
Clyde Morris Blvd.	LPGA Blvd. to Hand Ave.	343	County	Yes	1.50	50	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.43	C	1,120	1,270	3,410	4
Clyde Morris Blvd.	Hand Ave to SR 40/Granada Blvd.	348	County	Yes	0.80	35	N+S	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Principal Arterial - Other - Urban	E	30,420	0.43	C	890	1,050	2,740	4
Commonwealth Blvd.	Spruce Creek Rd. to Orange Ave.	360	County		0.55	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.39	C	355	430	1,020	2
Commonwealth Blvd.	Orange Ave. to US 1	361	County		0.35	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.27	C	250	305	1,020	2
CR 3	Ponce DeLeon Blvd. to Lake Winona	380	County	Yes	0.45	45	N+S	TA_NSMCRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.08	C	80	100	1,230	2
CR 3	Lake Winona Rd. to SR 40	380	County	Yes	5.04	35	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Local	C	11,775	0.09	B	80	100	1,230	2
CR 3	SR 40 to Emporia Rd	382	County	Yes	3.40	45	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.10	B	115	110	1,230	2
CR 3	Emporia Rd to Washington Ave.	384	County	Yes	1.20	30	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.17	B	180	200	1,230	2
CR 3	Washington Ave. to 'US 17	386	County	Yes	2.20	35	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.09	B	90	100	1,230	2
CR 15A	US 17 to Airport Rd.	440	County	Yes	0.90	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.22	B	325	460	2,200	2
CR 15A	Airport Rd. to SR 11	441	County	Yes	1.25	40	E+W	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.12	B	220	265	2,200	2
CR 92 (Intn'l Spdwy Blvd.	SR 15A to Stone St.	450	County	Yes	0.25	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.40	C	890	1,250	3,410	4
CR 92 (Intn'l Spdwy Blvd.	Stone St. to US 17/92	452	County	Yes	0.75	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.43	C	930	1,360	3,410	4
CR 305 (Bunnell Rd.)	US 17 to Cowart Rd.	460	County	Yes	1.50	50	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Rural	C	6,450	0.35	B	205	250	620	2
CR 305 (Bunnell Rd.)	Cowart Rd. to Flagler Co.	461	County	Yes	3.00	50	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Rural	C	6,450	0.25	B	180	200	620	2
Cow Creek Rd.	SR 442 to Volco Rd.	420	County	Yes	3.50	50	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.16	B	80	90	620	2
Cowart Rd.	Bunnell Rd to Little Brown Church Rd	430	County		2.05	40	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.03	B	20	20	620	2
Daugharty Rd. (S. End)	Marsh Rd. to SR 11	470	County	Yes	0.80	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.08	B	35	50	620	2
Daugharty Rd.	SR 11 to Marsh Rd.	472	County		0.95	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.14	B	60	90	620	2
Demotte Ave.	Peninsula Dr. to Cardinal Blvd	500	County		0.20	25	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.37	C	300	450	1,020	2
Derbyshire Rd.	SR 430/Mason Ave. to LPGA Blvd.	511	County		1.45	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed						2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Enterprise-Osteen Rd.	Garfield Rd to Reed Ellis Rd.	601	County	Yes	1.70	35	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.22	C	220	330	1,020	2
Enterprise-Osteen Rd.	Reed Ellis Rd. to SR 415	602	County	Yes	2.50	35	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.10	C	100	165	1,020	2
Euclid Ave.	Grand to Fatio Rd.	610	County		0.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.09	C	85	125	1,020	2
Euclid Ave.	Fatio Rd. to Woodward Ave.	611	County		0.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.11	C	105	145	1,020	2
Euclid Ave.	Woodward Ave. to SR 15A	612	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.19	C	185	220	1,020	2
Euclid Ave.	SR 15A to Adelle Ave.	613	County		0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	165	260	1,020	2
Euclid Ave.	Adelle Ave. to US 17/92	614	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.15	C	100	185	1,020	2
Flomich St.	Derbyshire Rd. to SR 5A/Nova Rd.	650	County	Yes	0.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.39	C	315	455	1,020	2
French Ave.	Beginning of road to Blue Springs Pa	690	County		1.00	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.01	C	15	25	1,020	2
French Ave.	Blue Springs Park to Lawton Ave./Ha	691	County		1.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.06	C	10	80	1,020	2
Garfield Ave.	SR 44 to Plymouth Ave.	700	County		1.00	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.15	C	130	155	1,020	2
Garfield Ave.	Plymouth Ave. to US 92	702	County		0.85	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.19	C	210	240	1,020	2
Garfield Rd.	Doyle Rd. to Enterprise-Osteen Rd	711	County		0.90	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.15	C	150	180	1,230	2
Glencoe Rd.	Taylor Rd. to Paige Ave.	730	County		1.50	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	195	245	1,230	2
Glencoe Rd.	Paige Ave. to SR 44	731	County		1.10	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.41	C	440	525	1,020	2
Glencoe Rd.	SR 44 to Pioneer Tr.	732	County		0.85	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.16	C	140	210	1,020	2
Glenwood Rd.	Grand Ave. to SR 15A	741	County		1.60	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.28	C	270	310	1,020	2
Glenwood Rd.	SR 15A to US 17	743	County		1.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.15	C	130	180	1,020	2
Grand Av/CR 4053	Old New York Ave. to SR 44	748	County	Yes	0.60	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.17	C	155	250	1,020	2
Grand Av/CR 4053	SR 44 to Minnesota Ave.	750	County	Yes	0.90	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.34	C	315	445	1,020	2
Grand Av/CR 4053	Minnesota Ave. to Plymouth Ave.	751	County	Yes	0.50	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.14	C	145	200	1,230	2
Grand Av/CR 4053	Plymouth Ave. to Glenwood Rd.	752	County	Yes	2.10	40	N+S	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.19	C	205	240	1,230	2
Grand Av/CR 4053	Glenwood Rd. to Lemon St.	754	County	Yes	1.30	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.27	C	295	385	1,330	2
Grand Av/CR 4053	Lemon St. to Retta St.	756	County	Yes	1.80	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	160	210	1,230	2
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentuck	775	County	Yes	0.30	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC2_2W_2L_D_WL	UA_MCCRAC2_2W_2L_D_WL	UA_MCCRAC2_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	1.12	F	1,230	1,635	1,620	2
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	County	Yes	0.60	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	1.10	C	1,420	1,675	1,620	2
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	County	Yes	0.25	35	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	0.53	D	1,140	1,340	2,740	4
Greens Dairy Rd.	SR 15A to Stone St.	780	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local		E	13,640	0.01	C	15	15	1,020	2
Halleck St. (NSB)	Wayne Ave. to Enterprise Ave.	810	County	Yes	0.20	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.52	D	475	575	1,020	2
Hand Ave.	Williamson Blvd. to Clyde Morris Blvd	830	County	Yes	1.25	50	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.54	A	615	775	1,540	2
Hand Ave.	Clyde Morris Blvd. to Shangri La Dr.	832	County	Yes	0.75	50	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.94	C	1,110	1,310	1,540	2
Hand Ave.	Shangri La Dr. to SR 5A/Nova Rd.	833	County	Yes	0.25	45	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.43	C	1,110	1,340	3,410	4
Hazen Rd.	SR 44 to Plymouth Ave.	850	County	Yes	1.00	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.12	C	120	160	1,230	2
Hazen Rd.	Plymouth Ave. to Mercers Fernery Rd	852	County		1.50	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.07	C	135	100	1,020	2
Highbridge Rd.	Walter Boardman Ln. to John Anders	871	County	Yes	1.60	30	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Major Collector - Rural	C	11,775	0.29	A	200	290	1,120	2
Highbridge Rd.	John Anderson Dr. to SR A1A	872	County	Yes	0.20	30	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.21	C	185	245	1,020	2
Hill Ave.	Taylor Rd. to Beresford Ave.	878	County		1.00	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local		E	13,640	0.08	C	80	100	1,020	2
Hill Ave.	Beresford Ave. to Voorhis Ave.	881	County		0.75	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.16	C	140	200	1,020	2
Hill Ave.	Voorhis Ave. to SR 44	882	County		0.25	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.19	C	145	250	1,020	2
Hill Ave./Jacobs Rd.	Plymouth Ave. to US 92	950	County	Yes	0.85	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.57	C	705	675	1,230	2
Hontoon Rd.	end of road to Botts Landing Rd.	890	County		2.00	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	C	5,260	0.21	C	75	110	1,020	2
Hontoon Rd.	Botts Landing Rd. to Old New York A	891	County		1.15	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	C	12,100	0.27	C	235	270	1,230	2
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	FDOT	Yes	0.40	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.81	C	2,185	2,410	3,410	4
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	County	Yes	1.15	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.71	C	1,975	2,125	3,410	4
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905	County	Yes	0.35	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.52	C	1,490	1,460	3,410	4
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	County	Yes	2.10	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	1.02	E	945	1,020	1,230	2
Howland Blvd.	Elkcam Blvd. to Lake Helen-Osteen F	908	County	Yes	0.30	45/40	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.39	C	915	1,190	3,410	4
Howland Blvd.	Lake Helen-Osteen Rd. to Newmark	909	County	Yes	0.70	40	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.57	C	1,450	1,780	3,410	4
Howland Blvd.	Newmark Dr. to Courtland Blvd.	911	County	Yes	1.15	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.50	C	1,360	1,530	3,410	4
Howland Blvd.	Courtland Blvd. to Ft Smith Blvd.	913	County	Yes	1.80	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.42	C	1,430	1,320	3,410	4
Howland Blvd.	Ft Smith Blvd. to SR 415	915	County	Yes	0.65	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.48	C	1,150	1,580	3,410	4
I-4 Frontage Rd.	Summit Ave. to Orange Camp Rd.	ure Road-2 la	County	Yes	2.00	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	n/c	E	13,640	-	-	-	-	1,230	0
I-4 Frontage Rd.	Orange Campe Rd. to Cassadaga Rd.	ure Road-4 la	County	Yes	1.35	45	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	n/c	E	37,970	-	-	-	-	3,410	0
I-4 Frontage Rd.	Cassadaga Rd. to SR 472	ure Road-4 la	County	Yes	0.70	45	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	n/c	E	37,970	-	-	-	-	3,410	0
Indian Lake Rd.	Tiger Bay Rd. to US 92	935	County		0.80	40	N+S	TA_NSOSRS_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local		E	13,640	0.38	C	505	440	1,230	2
John Anderson Dr.	Halifax Dr to Lynnhurst	972	County	Yes	0.85	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.41	C	380	445	1,020	2
John Anderson Dr.	Lynnhurst to Highbridge Rd.	974	County	Yes	7.40	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.29	C	265	310	1,020	2
John Anderson Hwy.	Walter Boardman Lane to Flagler Co	990	County	Yes	1.00	5 NB / 30 SI	N+S	TA_NSMCRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.12	B	95	150	1,120	2
Josephine St./10th St.	Old Mission Rd. to Tatum Blvd.	1000	County	Yes	0.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.49	D	780	550	1,020	2
Josephine St./10th St. (NS	Tatum Blvd. to US 1	1002	County	Yes	1.80	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Major Collector - Urban	E	14,040	0.00	A	-	-	1,270	2
Kathy Dr. (N. Penin.)	John Anderson Dr. to SR A1A	1011	County		0.44	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.03	C	35	35	1,020	2
Kennedy Pkwy (Old SR 3	US 1 to Park Entrance	798158	Federal		4.00	55	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Rural	C	6,450	0.00	B	-	-	620	2
Kicklighter Rd.	Macy Ave. to Lake Helen-Osteen/Pre	1051	County	Yes	0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.13	C	370	175	1,020	2
Lake George Rd.	Bream Dr. to US 17	1062	County		3.90	30	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.11	B	60	70	620	2
Lake Helen-Osteen Rd.	Howland Blvd. to Elkcam Blvd.	1070	County	Yes	0.40	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.62	D	630	770	1,020	2
Lake Helen-Osteen Rd.	Elkcam Blvd. to Haulover Blvd.	1071	County	Yes	1.75	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.66	C	550	865	1,230	2
Lake Helen-Osteen Rd.	Haulover Blvd. to Catalina Blvd.	1072	County	Yes	0.50	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.95	D	1,140	1,170	1,230	2
Lake Helen-Osteen Rd.	Catalina Blvd. to Captain Dr	1073	County	Yes	0.40	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.64	C	790	805	1,230	2
Lake Helen-Osteen Rd.	Captain Dr. to Kicklighter Rd.	1076	County	Yes	1.40	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Ur

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Marsh Rd.	Carter Rd. to Daugharty Rd.	1183	County	Yes	3.00	40	N+S	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.09	B	80	100	1,120	2
Mason Ave.	Williamson Blvd. to Fentress Blvd.	1190	County	Yes	0.60	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	0.80	C	845	1,155	1,620	2
Mason Ave.	Fentress Blvd. to Bill France Blvd.	1191	County	Yes	0.50	40	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	E	17,900	0.98	D	1,160	1,570	1,620	2
Mason Ave.	Bill France Blvd. to Jimmy Ann Dr.	1193	County	Yes	0.30	40	E+W	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.42	C	940	1,370	3,410	4
Mason Ave.	Jimmy Ann Dr. to SR 483/Clyde Morr	1194	County	Yes	0.50	40	E+W	UA_NSMCRS_2W_4L_U_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.44	C	930	1,435	3,410	4
Maytown Rd.	SR 415/New Smyrna Blvd. to Pell Rd	1196	County	Yes - Future	5.60	50	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.32	B	290	355	1,120	2
Maytown Rd.	Pell Rd. to Beacon Light Rd.	1198	County	Yes - Future	12.90	45	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	6,450	0.18	B	80	115	620	2
Maytown Rd./Halifax Ave.	Beacon Light Rd. to US 1	790	County	Yes	1.10	35	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.18	B	130	170	1,120	2
McBride Rd.	US 17 to Lake George Rd.	1200	County		3.00	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.04	B	25	30	620	2
McGregor Rd.	Westside Con./Fatio to Spring Garde	1210	County	Yes	0.70	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	210	295	1,230	2
McGregor Rd.	Spring Garden Ave. to US17/92	1211	County	Yes	1.40	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.35	C	355	495	1,230	2
Mercers Fernery Rd.	Glenwood Rd. to SR 15A	1221	County		1.45	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.08	C	65	90	1,020	2
Mercers Fernery Rd.	SR 15A to US 17	1223	County		1.25	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.11	C	90	125	1,020	2
Midway Ave.	Williamson Blvd. to US 92	1230	County		2.00	40	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Collector - Urban	E	37,970	0.06	C	160	235	3,410	4
Minnesota Ave. (Orange C	Sparkman Ave. to US 17/92	1241	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.24	C	160	350	1,020	2
Minnesota Ave. (Orange C	US 17/92 to Leavitt Ave.	1242	County		0.50	25	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.09	C	85	135	1,020	2
Minnesota Ave. (Orange C	Leavitt Ave. to SR 472	1243	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.10	C	85	130	1,020	2
Minnesota Ave. (DeLand)	Grand Ave. to SR 15A	1245	County		1.35	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.29	C	255	360	1,020	2
Minnesota Ave. (DeLand)	SR 15A to US 17/92	1247	County		1.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.12	C	135	150	1,020	2
Minnesota Ave. (DeLand)	Amelia Ave. to Hill Ave	1249	County	Yes	0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.15	C	135	195	1,020	2
Minnesota Ave. (DeLand)	Hill Ave. to Blue Lake Ave.	1250	County	Yes	0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.18	C	280	220	1,020	2
Minnesota Ave. (DeLand)	Blue Lake Ave. to Kepler Rd.	1251	County	Yes	0.85	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.27	C	280	365	1,230	2
New Hampshire Ave.	SR 15A to Adelle Ave	1270	County		0.15	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.18	C	345	355	1,020	2
New Hampshire Ave.	Adelle Ave to Clara Ave.	1271	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.30	C	310	375	1,020	2
New Hampshire Ave.	Clara Ave. to US 17/92	1272	County		0.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.24	C	200	300	1,020	2
New York Ave. (Orange C	Westside Pkwy/Hamilton Ave. to Spa	1281	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.36	C	375	435	1,020	2
New York Ave. (Orange C	Sparkman Ave. to Carpenter Ave	1283	County		0.30	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.40	D	440	465	1,020	2
New York Ave. (Orange C	Carpenter Ave. to US 17/92	1284	County		0.25	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.44	D	450	510	1,020	2
New York Ave. (Lake Hel	Summit Ave. to Lakeview Dr.	1285	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	C	5,260	0.18	C	85	90	1,020	2
Ohio Ave. (LH)	Macy Ave. to Lakeview Dr.	1320	County	Yes	0.20	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	C	5,260	0.15	C	75	95	1,020	2
Old Dixie Hwy.	Ingelsia to Pine Tree Dr.	1330	County	Yes	0.50	35	N+S	TA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.19	C	160	230	1,020	2
Old Dixie Hwy.	Pine Tree Dr. to Walter Boardman Ln	1332	County	Yes	5.10	45	N+S	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	20,700	0.17	C	225	310	1,860	2
Old Dixie Hwy.	Walter Boardman Ln. to Old Kings Rd	1333	County	Yes	0.55	45	E+W	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	20,700	0.26	C	335	460	1,860	2
Old Dixie Hwy.	Old Kings Rd. to I-95	1334	County	Yes	0.60	45	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	20,700	0.49	C	675	800	1,860	2
Old Kings Rd.	Old Dixie Hwy. to Flagler Co.	1340	County	Yes	0.60	50	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	22,800	0.18	C	285	320	2,050	2
Old Mission Rd.	SR 44/Mission Dr. to Old Mission Rd	1356	County	Yes	0.60	40	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.08	C	90	105	1,230	2
Old New York Ave.	SR 44 to Hontoon Rd.	1360	County	Yes	1.40	40	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Local	C	11,775	0.08	B	55	115	1,120	2
Old New York Ave.	Hontoon Rd. to Lakeview Dr.	1361	County	Yes	0.40	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	C	12,100	0.32	C	250	345	1,230	2
Old New York Ave.	Lakeview Dr. to Grand Ave.	1362	County	Yes	0.50	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.32	C	280	380	1,230	2
Old New York Ave.	Grand Ave. to SR 44	1364	County	Yes	0.91	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.19	C	155	195	1,230	2
Orange/Silver Beach Ave	US 1 to Beach St.	1374	County	Yes	0.20	30	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	-	-	-	-	2,740	4
Orange/Silver Beach Ave	Beach St. to City Island Pkwy.	1375	County	Yes	0.20	30	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	0.32	C	675	795	2,740	4
Orange/Silver Beach Ave	City Island Pkwy. to Peninsula Dr.	1710	County	Yes	0.60	30	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	E	14,040	0.65	D	615	760	1,270	2
Orange/Silver Beach Ave	Peninsula Dr. to SR A1A	1711	County	Yes	0.30	30	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	E	14,040	0.30	C	265	340	1,270	2
Orange Camp Rd.	US 17/92 to Princeton	1380	County	Yes	0.75	35	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	E	14,040	0.94	E	840	1,160	1,270	2
Orange Camp Rd.	Princeton. to Blue Lake Ave.	1382	County	Yes	0.90	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.69	C	825	990	1,540	2
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (I	1384	County	Yes	0.55	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.73	C	845	1,075	1,540	2
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385	County	Yes	1.00	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.78	C	1,310	1,170	1,540	2
Palm Dr.	John Anderson Dr. to SR A1A	1391	County		0.44	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.10	C	85	110	1,020	2
Park Ave.	Old Mission Rd. to Air Park Rd.	1409	County	Yes	0.90	45	E+W	TA_NSOSRS_2W_2L_D_WL	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	Major Collector - Urban	E	17,900	0.34	C	395	505	1,620	2
Park Ave.	Air Park Rd. to US 1	1413	County	Yes	1.40	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.54	D	475	685	1,330	2
Peninsula Dr. - South (Pl)	Inlet Harbor Rd to Major St.	1419	County		0.55	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.22	C	130	275	1,020	2
Peninsula Dr. - South	Major St. to Marcelle Ave.	1423	County		0.45	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.24	C	180	300	1,020	2
Peninsula Dr. - South	Marcelle Ave to SR 421/Dunlawton A	1420	County		0.15	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.43	D	340	540	1,020	2
Peterson Rd.	Riley Pridgeon Rd. to Emporia/Blackl	1433	County		2.80	35	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.07	B	30	45	620	2
Pineland Tr.	Harmony Ave. to US 1	1451	County		2.00	50	E+W	TA_NSOSRS_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	-	-	-	-	1,230	2
Pine Tree Dr.	US 1 to Addison Dr	1440	County		1.00	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.18	C	150	245	1,020	2
Pine Tree Dr.	Addison Dr. to Old Dixie Hwy	1441	County		1.00	35	E+W	TA_NSOSRS_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	TA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.10	C	80	125	1,020	2
Pioneer Tr.	SR 44 to Tomoka Farms Rd.	1461	County	Yes	4.00	50	E+W	RDA_NSSRS_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Major Collector - Rural	C	11,775	0.42	B	400	410	1,120	2
Pioneer Tr.	Tomoka Farms Rd. Airport Rd.	1464	County	Yes	1.40	45	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.41	C	415	490	1,230	2
Pioneer Tr.	Airport Rd. to Turnbull Bay Rd.	1465	County	Yes	2.50	45	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.53	C	480	630	1,230	2
Pioneer Tr.	Turnbull Bay Rd. to Sugar Mill Dr	1467	County	Yes	1.75	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.52	D	500	570	1,020	2
Pioneer Tr.	Sugar Mill Dr. to Williams Rd.	1471	County	Yes	1.45	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.77	C	735	855	1,230	2
Pioneer Tr.	Williams Rd. to Enterprise Ave	1473	County	Yes	1.05	40	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.71	C	675	780	1,230	2
Pioneer Tr.	Enterprise Ave. to Jungle Rd	1474	County	Yes	0.50	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.60	D	545	665	1,020	2
Pioneer Tr.	Jungle Rd to Canal St.	1475	County	Yes	0.25	35	N+S	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.21	C	215	245	1,020	2
Wallace Rd.	Canal St to SR 44	1955	County	Yes	0.25	35	N+S	UA_NSOSRS_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	E	14,740	0.53	D	520	640	1,330	3
Mission Dr.	SR 44 to Old Mission Rd.	1261	County	Yes	0.75	40	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.41	C	1,325	1,265	3,410	4
Old Mission Rd./Mission R	Old Mission Rd. to Josephine St.	1354	County	Yes	0.75	40	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Coll

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Rhode Island Ave.	Carpenter Ave to US 17/92	1600	County	Yes	0.25	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	UA_NSSRC2_2W_2L_D_WL	Minor Collector - Urban	E	14,740	0.57	D	995	865	1,330	2
Rhode Island Ave.	Veteran's Memorial Pkwy. to Norman	Future Rd	County	Yes	1.80		E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_D_WL	future Minor Collector - Urban	E	14,740	-	A	-	-	1,330	0
Riley Pridgeon Rd.	Peterson Rd. to SR 40	1610	County		2.55	35	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.06	B	30	35	620	2
River Dr.	John Anderson Dr. to SR A1A	1621	County		0.50	30	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.02	C	25	30	1,020	2
Samsula Dr.	Pioneer Tr. to SR 44	1651	County	Yes	2.60	45	N+S	TA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Collector - Rural	C	11,775	0.14	B	105	160	1,120	2
Sandra Dr.	John Anderson Dr. to SR A1A	1661	County		1.00	30	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.02	C	25	25	1,020	2
Saxon Blvd.	Rail Station to Westside Connector	Future Rd	County	Yes	0.62	40	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_4L_D_WL	future Minor Collector - Urban	E	37,970	-	A	-	-	3,410	0
Saxon Blvd.	Westside Connector to US 17/92	Future Rd	County	Yes	1.30	40	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_MCCRAC1_2W_2L_D_WL	UA_NSSRC1_2W_2L_D_WL	UA_NSSRC1_2W_4L_D_WL	future Minor Collector - Urban	E	37,970	-	A	-	-	3,410	0
Saxon Blvd.	US 17/92 to Enterprise Rd	1671	County	Yes	0.65	35	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	E	30,420	0.54	D	1,070	1,315	2,740	4
Saxon Blvd.	Enterprise Rd. to Veterans Memorial	1673	County	Yes	0.60	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_NSSRC1_2W_6L_D_WL	UA_NSSRC1_2W_6L_D_WL	Minor Arterial - Urban	E	57,140	0.60	C	1,905	2,390	5,140	6
Saxon Blvd.	VMP to FDOT Park & Ride	1674	County	Yes	0.30	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_MCCRAC2_2W_5L_D_WL	UA_NSSRC1_2W_6L_D_WL	UA_NSSRC1_2W_6L_D_WL	Minor Arterial - Urban	E	57,140	0.80	C	2,575	3,480	5,140	6
Saxon Blvd.	FDOT Park & Ride to I-4	1685	County	Yes	0.30	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_6L_D_WL	UA_NSSRC1_2W_6L_D_WL	Minor Arterial - Urban	E	57,140	0.62	C	1,970	2,800	5,140	6
Saxon Blvd.	I-4 to Finland Dr.	1675	County	Yes	0.35	40	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_5L_D_WL	Minor Arterial - Urban	E	47,560	0.98	E	2,660	3,750	4,280	5
Saxon Blvd.	Finland Dr. to Normandy Blvd.	1676	County	Yes	0.35	40	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_MCCRAC2_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	1.06	F	2,210	3,170	3,410	4
Saxon Blvd.	Normandy Blvd. to Tivoli Dr.	1677	County	Yes	1.25	40	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	E	37,970	0.70	C	1,635	2,150	3,410	4
Saxon Blvd.	Tivoli Dr. to Providence Blvd.	1679	County	Yes	0.90	35	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.84	D	665	925	1,020	2
Saxon Blvd.	Providence Blvd. to Normandy Blvd.	1681	County	Yes	0.70	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.58	D	470	630	1,020	2
Saxon Blvd.	Normandy Blvd. to Doyle Rd.	1684	County	Yes	1.00	40	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.41	C	535	550	1,230	2
Saxon Dr. (NSB)	CR A1A to Hiles Blvd.	1691	County		0.55	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.08	C	70	100	1,020	2
Saxon Dr. (NSB)	Hiles Blvd. to 27th Ave.	1693	County		1.55	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.21	C	205	235	1,020	2
Saxon Dr. (NSB)	27th Ave. to 3rd Ave/SR A1A	1695	County		1.75	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.44	D	445	505	1,020	2
Sparkman Ave.	Rhode Island Ave. to Blue Springs Av	1720	County		0.60	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.20	C	410	295	1,020	2
Sparkman Ave.	Blue Springs Ave. to French Ave.	1721	County		0.65	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.21	C	280	285	1,020	2
Sparkman Ave.	French Ave. to New York Ave. W.	1722	County		0.75	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.12	C	155	160	1,020	2
Sparkman Ave.	New York Ave. W. to Minnesota Ave.	1723	County		0.45	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.10	C	120	140	1,020	2
Spring Garden Ave.	McGregor Rd. to Beresford Rd. West	1731	County	Yes	0.90	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.18	C	155	230	1,020	2
Spring Garden Ave.	Beresford Rd. West to Beresford Ave	1732	County	Yes	0.60	30	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.15	C	130	185	1,020	2
Spring Garden Ranch Rd.	US 17 to Aragon Ave	1740	County	Yes	0.20	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.23	C	150	350	1,020	2
Spring Garden Ranch Rd.	Aragon Ave to Arrendondo Grant/Eas	1742	County		1.20	35	E+W	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Major Collector - Urban/Rural	C	6,450	0.05	B	70	55	620	2
Spruce Creek Rd.	Taylor Rd. to SR5A/Nova Rd.	1751	County		0.75	45	N+S	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.06	C	370	265	3,410	4
Spruce Creek Rd.	SR5A/Nova Rd. to Commonwealth Bl	1752	County		0.50	35	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.62	D	565	730	1,020	2
Stone St.	Plymouth Ave to CR 92/ISB	1770	County		0.80	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.36	C	355	395	1,020	2
Stone St.	CR 92/ISB to Mercers Fernery Rd	1773	County		0.70	35	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.02	C	45	65	1,020	2
Sugar Mill Dr.	Pioneer Tr. to SR 44	1781	County	Yes	1.30	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.27	C	250	310	1,230	2
Summit Ave.	SR 44 to Main St.	1791	County	Yes	2.20	50	N+S	UA_NSMCRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.19	C	235	240	1,230	2
Surfside Dr.	John Anderson Dr. to SR A1A	1801	County		0.35	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	0.03	C	45	35	1,020	2
Taylor Rd. (CO)	Tomoka Farms Rd. to Spruce Creek	1810	County	Yes	0.70	45	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other -Urban	E	17,050	0.46	C	465	650	1,540	2
Taylor Rd. (CO)	Spruce Creek Blvd. to Crane Lake Bl	1811	County	Yes	1.10	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other -Urban	E	17,050	0.63	C	665	850	1,540	2
Taylor Rd. (CO)	Crane Lake Blvd. to Summertree Rd.	1812	County	Yes	0.75	50	E+W	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other -Urban	E	17,050	1.21	C	1,230	1,890	1,540	2
Taylor Rd. (CO)	Summertree Rd. to Williamson Blvd.	1813	County	Yes	0.20	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other -Urban	E	37,970	0.54	C	1,275	1,660	3,410	4
Taylor Rd. (CO)	Williamson Blvd. to I-95 (at Dunlawto	1814	County	Yes	0.15	45	E+W	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC3_2W_5L_D_WL	UA_MCCRAC3_2W_5L_D_WL	UA_MCCRAC3_2W_5L_D_WL	UA_NSSRC1_2W_5L_D_WL	UA_NSSRC1_2W_5L_D_WL	Principal Arterial - Other -Urban	E	47,560	1.00	D	2,865	3,755	4,280	5
Taylor Rd. (PO)	SR 421/Dunlawton Ave. to Clyde Mor	1823	County	Yes	0.55	35	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_WL	Major Collector - Urban	E	14,040	1.08	D	1,195	1,450	1,270	2
Taylor Rd. (PO)	Clyde Morris Blvd. to Hensel Rd	1824	County		0.50	45	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.52	C	1,550	1,775	3,410	4
Taylor Rd. (PO)	Hensel Rd. Spruce Creek Rd.	1826	County		1.00	45	E+W	UA_NSOSRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.46	C	1,065	1,630	3,410	4
Taylor Rd. (DL)	US 17/92 to Stratford Dr.	1816	County	Yes	0.80	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.62	D	610	745	1,020	2
Taylor Rd. (DL)	Stratford Dr. to Blue Lake Ave.	1818	County	Yes	0.95	50	E+W	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	E	17,050	0.41	C	555	600	1,540	2
Taylor Rd. (DL)	Blue Lake Ave. to Martin Luther King	1819	County	Yes	0.80	50	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	E	13,640	0.59	C	645	725	1,230	2
Taylor Rd. (NSB)	Glencoe Rd. to Mission Rd	1821	County		0.75	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.21	C	195	260	1,020	2
Tomoka Farms Rd.	SR 44 to Pioneer Tr	1840	County	Yes	2.20	50	N+S	RDA_UFH_2W_2L_U_WL	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	RDA_UFH_2W_2L_U_0L	Minor Arterial - Rural	C	11,775	0.74	B	610	725	1,120	2
Tomoka Farms Rd.	Pioneer Tr to Taylor Rd.	1843	County	Yes	2.80	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.52	C	870	1,015	2,200	2
Tomoka Farms Rd.	Taylor Rd. to Townwest Blvd	1844	County	Yes	1.45	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.35	B	600	715	2,200	2
Tomoka Farms Rd.	Townwest Blvd to Shunz Rd.	1845	County	Yes	1.50	50	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.35	B	655	715	2,200	2
Tomoka Farms Rd.	Shunz Rd. to US 92/ISB	1847	County	Yes	3.02	40	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Minor Arterial - Urban	E	24,450	0.39	B	720	825	2,200	2
Tomoka Farms Rd.	US 92/ISB to Dunn Ave.	1848	County	Yes	1.90	40	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Major Collector - Urban	E	24,450	0.38	B	575	830	2,200	2
Tomoka Farms Rd.	Dunn Ave. to LPGA Blvd.	1849	County	Yes	1.90	40	N+S	UA_UFH_2W_2L_U_WL	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	UA_UFH_2W_2L_U_0L	Major Collector - Urban	E	24,450	0.27	B	470	565	2,200	2
Turnbull Bay Rd.	Pioneer Tr. to Williams Rd.	1863	County	Yes	2.90	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban/Rural	E	13,640	0.32	C	310	370	1,230	2
Turnbull Bay Rd.	Williams Rd. to Industrial Park Ave.	1865	County	Yes	1.20	45	N+S	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.28	C	240	365	1,230	2
Turnbull Bay Rd.	Industrial Park Ave. to US 1	1867	County	Yes	0.85	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.39	C	410	430	1,020	2
Tymber Creek Rd.	LPGA Blvd to Terminus	NEW	County	Yes	1.20	35							UA_UFH_2W_4L_D_WL	Major Collector - Urban	E	75,300	-	-	-	-	6,780	4
Tymber Creek Rd.	Terminus to Riverbend Rd/Future Co	Future Rd	County	Yes - Future	1.70	45							UA_UFH_2W_2L_D_WL	future "Major Collector - Urban	E	34,230	-	-	-	-	3,080	2
Tymber Creek Rd.	Riverbend Rd. to SR 40	1880	County	Yes - Future	0.45	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local - future Major Collector - Urban	E	13,640	0.05	C	60	60	1,020	2
Tymber Creek Rd.	SR 40 to Tymber Run	1881	County	Yes	0.50	40	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Major Collector - Urban	E	37,970	0.31	C	1,300	1,060	3,410	4
Tymber Creek Rd.	Tymber Run to Airport Rd.	1882	County	Yes	0.90	40	N+S	UA_NSOSRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	E	17,050	0.72	C	1,330	1,110	1,540	2
Tymber Creek Rd.	Airport Rd to Broadway Ave./US 1	1883	County	Yes	4.20	40	N+S	UA_NSOSRS_2W_2L_U_WL	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Local	E	13,640	0.18	C	155	215	1,230	2
Van Ave. (DBS)	Peninsula Dr. to SR A1A	1890	County		0.20	25	E+W	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Local	E	13,640	-	-	-	-	1,020	2
Volco Rd.	Cow Creek Rd. to Beacon Light Rd.	1920	County	Yes	2.50	30	N+S	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	RUA_UFH_2W_2L_U_0L	Local	C	6,450	0.05	B	30	35	620	2
Volco Rd.	Beacon Light Rd. to 35th St.	1921	County	Yes	1.40	45	N+S	UA_NSOSRS_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	TA_MCCRAC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	UA_NSSRC1_2W_2L_U_0L	Minor Collector - Urban/Rural	E	13,640	0.05	C	45	65	1,230	2
Volco Rd.	35th St. to US 1	1922	County	Yes	0.50	35	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.18	C	185	200	1,020	2
Voorhis Ave.	US 17/92 to Amelia Ave.	1931	County		0.20	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	E	13,640	0.24	C	200	285	1,020	2
Voorhis Ave.	Amelia Ave. to Hill Ave.	1933	County		1.00	30	E+W	UA_NSOSRS_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_MCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed							2021 QLOS Facility Type	2010 Federal Functional Classification	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	Direction	F_Type_08	F_Type_09	F_Type_10	F_Type_11	F_Type_14	F_Type_21	Fun_Class_2010	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Williamson Blvd.	Townwest Blvd to Willow Run Blvd.	1991	County	Yes	0.25	55	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	0.99	F	915	1,505	1,540	2
Williamson Blvd.	Madeline Ave. to Willow Run Blvd.	1992	County	Yes	1.10	55	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	0.95	D	930	1,425	1,540	2
Williamson Blvd.	Madeline Ave. to SR400/Beville Rd.	1993	County	Yes	1.50	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	1.07	D	1,195	1,570	1,540	2
Williamson Blvd.	SR400/Beville Rd. to Bellevue Ave. E	1994	County	Yes	1.00	50	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.50	C	1,135	1,595	3,410	4
Williamson Blvd.	Bellevue Ave. Ext. to Midway Ave.	1996	County	Yes	0.50	50	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.40	C	830	1,300	3,410	4
Williamson Blvd.	Midway Ave. to US 92/ISB	1997	County	Yes	0.50	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.32	C	690	1,035	3,410	4
Williamson Blvd.	US 92/ISB to Dunn Ave.	1998	County	Yes	2.35	45	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.48	C	1,075	1,595	3,410	4
Williamson Blvd.	Dunn Ave. to Mason Ave.	1999	County	Yes	0.35	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.49	C	985	1,535	3,410	4
Williamson Blvd.	Mason Ave. to LPGA Blvd.	2000	County	Yes	0.35	45	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.57	C	1,340	1,735	3,410	4
Williamson Blvd.	LPGA Blvd. to Hand Ave.	2001	County	Yes	2.05	50	N+S	UA_NSMCRS_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_MCCRAC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	UA_NSSRC1_2W_2L_U_WL	Principal Arterial - Other - Urban	E	17,050	1.14	F	1,160	1,490	1,540	2
Williamson Blvd.	Hand Ave. to SR 40	2004	County	Yes	0.60	40	N+S	UA_NSMCRS_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_MCCRAC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	UA_NSSRC1_2W_4L_D_WL	Principal Arterial - Other - Urban	E	37,970	0.61	C	1,435	1,690	3,410	4
Woodward Ave.	Beresford Ave. to Euclid Ave.	2031	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.02	C	140	100	1,020	2
Woodward Ave.	Euclid Ave. to SR 44	2030	County		0.50	30	N+S	UA_NSOSRS_2W_2L_U_WL	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_OCCRAC1_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	UA_NSSRC2_2W_2L_U_0L	Minor Collector - Urban	E	13,640	0.05	C	50	60	1,020	2



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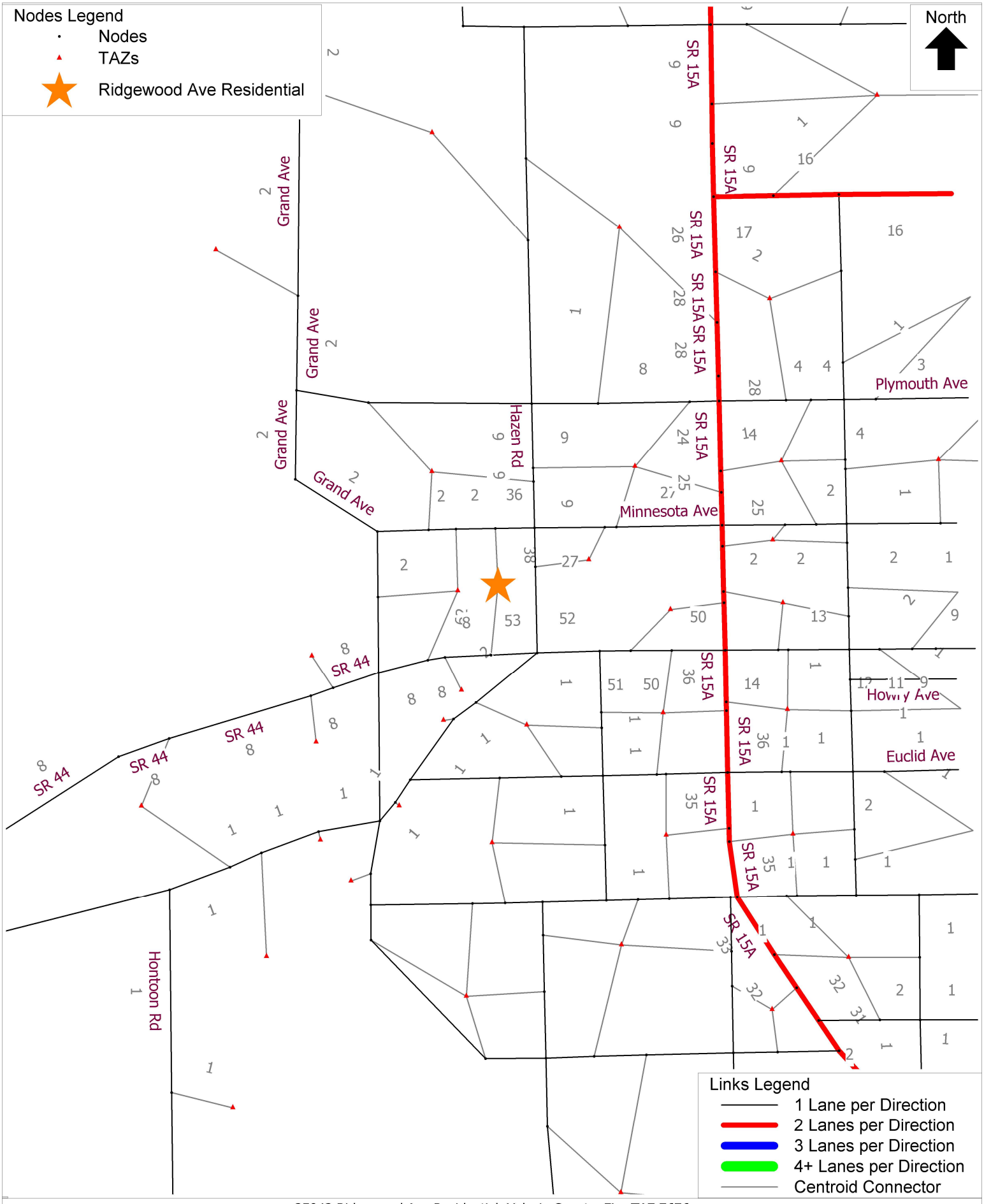

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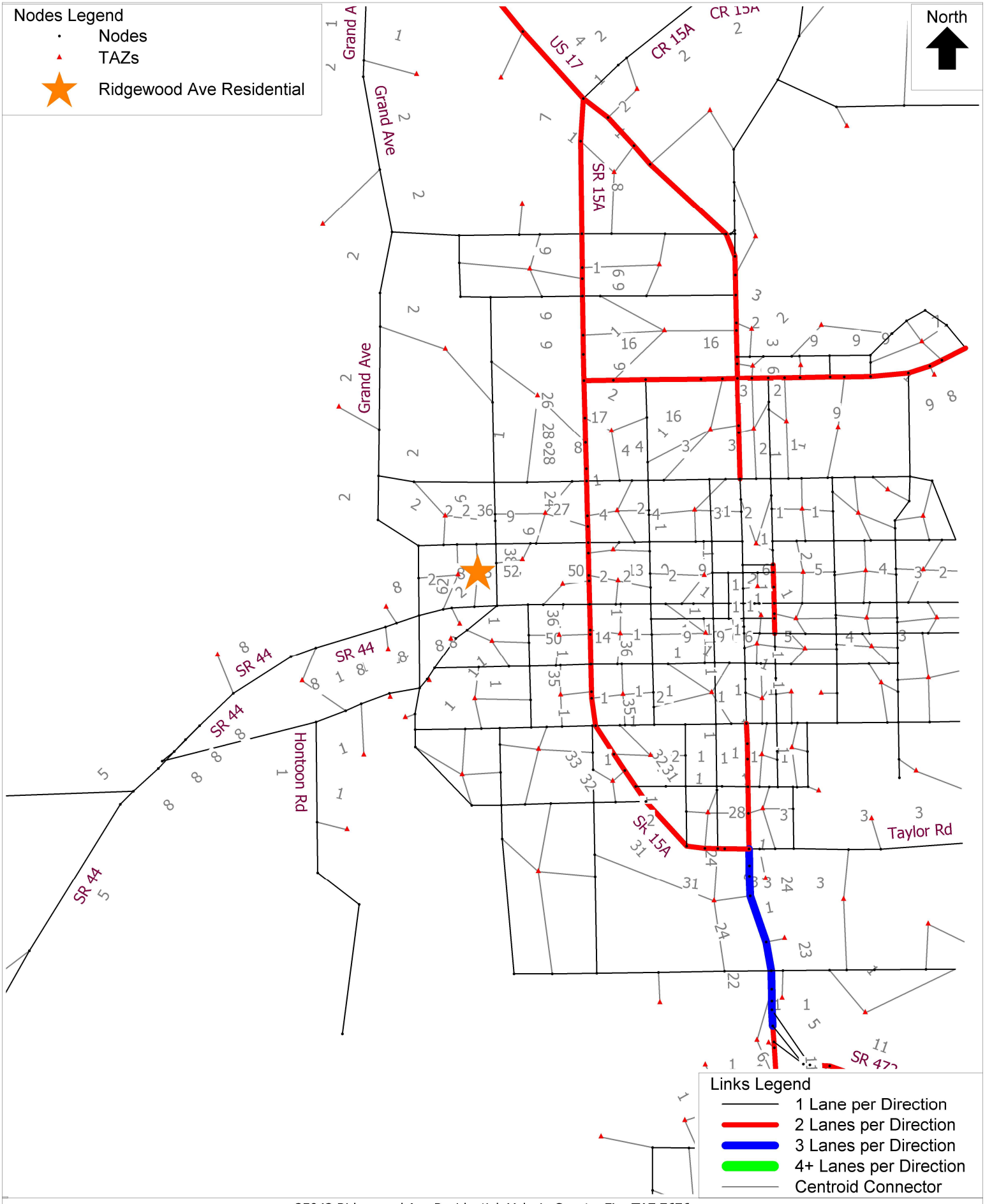

25042 Ridgewood Ave Residential, Volusia County, FL - TAZ 7676
Project Trips Directional
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439874-1 SJR2C Lake Beresford to Grand Avenue PD&E Study



Project Details

Work Type: PD&E Study

Phase: PD&E

Length: 3.6 miles

City: DeLand

County: Volusia

About

The St Johns River to Sea (SJR2C) Loop Trail Gap PD&E Study is completed.

The SJR2C Loop Trail Gap between Lake Beresford Park and Grand Avenue is a multi-use trail in Volusia County that will close the 3.6-mile gap between existing trails within Lake Beresford Park to the south, and the junction of Grand Avenue and Minnesota Avenue to the north, in DeLand.

The St. Johns River to Sea Loop (SJR2C) is a 260-mile trail system that will link together several communities including St. Augustine, Daytona Beach, Titusville, DeLand, and Palatka. This project is part of a greater effort to close the trail gaps and complete the St. Johns River to Sea Loop.

A PD&E study is the FDOT's process for adhering to the National Environmental Policy Act (NEPA) and related federal and state statutes. This process involves preliminary engineering to determine multi-use trail concepts; environmental evaluations to assess impacts associated with a new multi-use trail; and extensive public involvement and agency coordination.

PD&E Study reports are available on this page. A final newsletter was sent to property owners and other interested parties on August 11, 2020.

Send a comment or ask a question about this project

Contact Information

PD&E Project Manager

David Graeber
(386) 943-5392
David.Graeber@dot.state.fl.us

Last Updated

10/03/2024

Sec. 72-297. - Thoroughfare overlay zone regulations.

(a) *Purpose and intent:*

(1) The purpose of this section is to provide regulations to ensure safe ingress to and egress from proposed development along thoroughfares, to maintain adequate highway capacity, eliminate hazardous traffic conditions, lessen or prevent traffic congestion, establish a high standard for development, including additional sign regulations and create a more attractive streetscape. Commercial development typically expands along thoroughfares as population and traffic volumes increase in the vicinity of and along the thoroughfare. Eventually, conflicts result between the thoroughfare's function and its ability to move high volumes of traffic through an area.

(2) This congestion is intensified when commercial growth increases along the entire length of the thoroughfare.

(3) The increased commercial growth also changes the public's image of the thoroughfare. What was once considered an attractive tree-lined thoroughfare gradually and often rapidly begins to exhibit characteristics of uncontrolled strip commercial development. Once this pattern has been established, it is difficult to establish alternative types of development (e.g. residential) along these thoroughfares. Therefore, these regulations apply to thoroughfares which; (1) move large volumes of through traffic in addition to significant volumes of everyday local traffic; and (2) do not contain significant amounts of strip commercial development. These thoroughfare overlay zone regulations are intended to supplement all of the regulations of the existing zoning classifications except for permitted uses and special exceptions. The type of permitted uses or special exceptions allowed would be determined according to the existing zoning classification and the site design, signage, building location and the dimensional requirements would be regulated by these overlay zone regulations.

(b) *[Thoroughfare overlay zone:]* A thoroughfare overlay zone is hereby established, and the regulations of this section shall apply in said zone. Said zone shall apply to all zoning classifications established in division 7 of this article, and the official zoning map shall identify said overlay zone by adding the letter "C" as a suffix to the existing zoning classification that currently exists on said maps. The thoroughfares, or portions thereof, to which these regulations apply are as follows:

(1) *North coastal area:*

State Road #40: Western boundary lines of Section 26, Township 14 South, Range 31 East to Ormond Beach west city limits.

U.S. #92: Indian Lake Road east to Daytona Beach west city limit.

(2) *South coastal area:*

State Road #44: New Smyrna Beach city limit west to Tomoka Farms Road (CR 415).

(3) *West Volusia area:*

U.S. #92: Eastern boundary line of Section 25, Township 16 South, Range 30 East, to State Road 15-A.

State Road 15-A: U.S. #17 South to U.S. #17-92.

U.S. #17: Eastern boundary of Section 39, Township 16 South, Range 30 East, to South boundary line of Section 4, Township 17 South, Range 30 East.

U.S. #17-92: North Line of Section 21, Township 17 South, Range 30 East, to South line of Section 33, Township 17 South, Range 30 East.

State Road #44: Western boundary line of Section 14, Township 17 South, Range 29 East, to East boundary line of Section 17, Township 17 South, Range 31 East.

West Volusia Beltline: State Road #44, to North boundary line of Section 13, Township 18 South, Range 30 East. (Ord. No. 85-24, § XVII, 10-10-85; Ord. No. 86-16, § XXXII, 10-23-86; Ord. No. 88-2, § XXI, 1-19-88; Ord. No. 84-25, § XXV, 10-10-84; Ord. No. 88-2, § XXII, 1-19-88; Ord. No. 02-07, § I, 3-7-02)

(c) *Dimensional requirements:*

(1) *Minimum lot width:* No premises shall be divided for the purpose of development of sale such that the width of each or any premises is less than 300 feet measured along the right-of-way line, except as follows:

If vehicle access to any premises is provided by means other than directly onto an arterial, then the minimum lot width requirement may be reduced to 150 feet, and direct vehicle access to a major arterial shall be prohibited.

(2) *Minimum yard size:* Front yard: 50 feet.

(3) *Maximum building height:* Three stories, not to exceed 35 feet.

(4) *Maximum lot coverage:* Total coverage of principal and accessory buildings shall not exceed 30 percent.

(5) *Thoroughfare overlay zone depth:* The thoroughfare overlay zone requirements shall be applied to all premises that front onto or have access to the thoroughfare to a distance equal to the depth of the rear property line, but not to exceed a depth of 660 feet as measured perpendicular from the centerline of the thoroughfare right-of-way.

(d) *Off-street parking and loading requirements:* Off-street parking and loading space shall meet the requirements of section 72-286 and in addition shall meet the following:

Off-street parking and loading areas shall be permitted in the front yard or the side yard that is adjacent to a thoroughfare as long as the off-street parking and loading areas are designed outside the 35-foot-wide landscaped buffer area along the project perimeter adjacent to thoroughfares. Said area shall contain landscaped fences, walls or berms of sufficient heights and opacity to generally obscure parked vehicles from view of the traveling public. All parking areas shall contain a minimum of 20 percent interior landscaping, excluding any required landscaped buffer area as provided in subsection (e), below.

(e) *Landscaping buffer requirements:* In addition to meeting the landscape buffer requirements in section 72-284, the following requirements shall also be met:

(1) A landscape plan shall be provided identifying the quantity, botanical and common name, size and location of plant material, including those existing plant materials to be retained. Plans and specifications for an underground irrigation system are required for any landscaped area.

(2) A minimum of 30 percent of the area of the site shall be covered by landscape materials as specified in subsection 72-284(1) of this article.

(3) Except for access driveways, it is intended that development along the thoroughfare corridor shall be designed to prevent the need for fill material or such other treatment which would remove or harm existing trees within the required front yard.

(4) A landscaped buffer area shall be provided along the perimeter of the property. The width of the buffer shall be determined by the requirements in subsection 72-284(2) unless the site is located on a thoroughfare, then the front buffer shall be a minimum of 35 feet. If the thoroughfare right-of-way is less than 140 feet, then the buffer area will start at a point 70 feet from the centerline of the thoroughfare.

(f) *Final site plan requirements:* In addition to meeting the final site plan requirements in division 3 of the Land Development Code [article III], the following requirements shall be met:

All site plans, reports and general information will be submitted to the development review committee to ensure compliance and consistency for all developments along the thoroughfare.

(g) *Service road requirement:* All premises fronting thoroughfares upon which the thoroughfare overlay zone regulations have been applied shall be provided access via a service road, unless as otherwise specified herein. The service road may either be in the front or rear of the project site depending on the location of any existing service road.

(h) *Transportation impact analysis report; purpose:* The transportation impact analysis report is designed to identify the transportation impacts and problems which are likely to be generated by a proposed use because of the size, density, traffic generation rates or location. The report will also identify all improvements required to ensure safe ingress and egress from a proposed development, maintenance of adequate street capacity, and elimination of hazardous conditions and improvements necessary for immediately surrounding roadways and intersections as a result of the proposed development.

(1)

Threshold for traffic impact analysis report: A transportation impact analysis report shall be required, unless waived by the county traffic engineer, for all uses which meet or exceed any one or more of the following thresholds:

a. Any development which proposes to have direct access to any roadway designated in subsection (b) of this section.

b. Any use which, according to the Institute of Transportation Engineers Trip Generation Manual, latest edition, rates published by the Florida Department of Transportation, or rates documented by study as agreed prior to use by the Volusia County Traffic Engineer will generate in excess of 1,000 trips per day.

(2) *Contents of transportation impact analysis report:* The transportation impact analysis report shall include the following:

a. *General site description:* A detailed description of the highway network within a radius as determined by the county traffic engineer of the site, a description of the proposed project, the anticipated stages of construction, and the anticipated completion date of the proposed land development. This description, which may be in the form of a map, shall include the following items:

1. All major intersections;
2. All proposed and existing ingress and egress locations;
3. All existing roadway widths and rights-of-way;
4. All existing traffic signals and regulatory signage;
5. All existing and proposed public transportation services and facilities within the above-determined radius of the site.

b. *Description of existing traffic conditions:* A 24-hour traffic count shall be conducted for a typical weekday on all roadways which have direct access to a proposed development site. The existing average daily traffic volume, and the highest average peak hour volume for any weekday hour between 3:00 p.m. and 6:00 p.m. shall be recorded. These traffic volumes shall be averaged to determine the average hourly peak traffic volume for a weekday. The methodology used to calculate existing traffic conditions and use of traffic counts and data other than those described above to represent existing traffic conditions shall be subject to the approval of the county traffic engineer.

c. *Transportation impact of the development.* A report shall be made detailing the nature and extent of the trip generation expected to result from the proposed development. Trip generation analysis shall include an estimate of internal/external split, if applicable, and a determination of what characteristics of the development will yield such a split. The source of all trip generation rates shall be according to the Institute of Transportation Engineers Trip Generation Manual, latest edition, rates published by the Florida Department of Transportation, or rates documented by study and agreed to prior to use by the Volusia County Traffic Engineer.

d. *Determination of roadway service level—Calculate service volumes:* Roadway service volumes shall be calculated at the level of service for the thoroughfare which is specified in the comprehensive plan. Data and procedures contained in the Highway Capacity Manual, Special Report, 209, 1985, published by the transportation research board shall be utilized in deriving the information required by the transportation impact analysis report.

e *Determination of intersection service level:*

1. Data and procedures in the Highway Capacity Manual, Special Report, 209, 1985, published by the transportation research board shall be utilized in determining intersection service levels.
2. The post-developing level of service for all intersections shall be in accordance with the comprehensive plan.
3. Determine the existing level of service of all intersections within one-half mile of the proposed development using the critical movement analysis techniques provided in subsection e.1., above.

f. *Analysis of transportation impact:* An analysis shall be undertaken to determine if roadways and intersections will operate at the level of service specified by the comprehensive plan following completion of the development given the future peak hour traffic that will be generated by the proposed development. This analysis shall consist of a comparison of the total future peak hour roadway traffic demand with the plan's mandated level of service standard and a critical movement analysis for intersections to determine the impact of total future peak hour traffic on intersection level of service. All roadways and intersections that would operate below the required level of service following completion of the development shall be considered deficient.

Maintenance of levels of service. Whenever level of service is determined to be below the level specified by the comprehensive plan, development is not permitted unless the developer makes the roadway or other improvements necessary to maintain the specified level of service.

(3) *Traffic-control devices:* Whenever, as a result of additional traffic generated by a proposed development, the manual on uniform traffic control devices determines the need for a traffic signal or regulatory sign, the developer shall be responsible for installing all said devices and signs.

(4) *Large developments:* [Large developments] (over 250 vehicle trips generated per one hour during 3:00 p.m. and 6:00 p.m.) shall also include the following:

a. The impact report for developments which will generate between 250 and 1,000 trips during the peak hour shall involve an analysis of all arterials and all intersections within one mile of the proposed project.

b. Except for developments of regional impact as defined by F.S. § 380.06, the impact report for developments which will generate over 100 trips during the peak hour shall involve an analysis of all arterial and collector roadways and all intersections within three miles of the proposed project.

(i) *Temporary access:* No developer shall be denied a rezoning or building permit for the sole reason that the parcel for which it is sought cannot physically accommodate the requirements of this classification because adjoining segments of service roads or public roadways are not yet constructed. In such an event, a temporary access permit will be issued which shall expire when the proposed access becomes available to the parcel.

(j) *Sign regulations:* The sign regulations established in section 72-298 et seq. shall also apply in any thoroughfare overlay zone; provided, however, the maximum permissible height for any ground sign is eight feet, and the maximum permissible copy area for any ground sign is 40 square feet.

(Ord. No. 85-24, §§ XVIII—XXIV, 10-10-85; Ord. No. 86-16, § XXXIII, 10-23-86; Ord. No. 88-2, §§ XXIII—XXX, 1-19-88; Ord. No. 89-20, § XLIII, 6-20-89; Ord. No. 92-6, § LXVI, 6-4-92; Ord. No. 02-07, § II, 3-7-02; Ord. No. 2008-25, § II, 12-4-08; Ord. No. 2018-05, § IX, 1-18-18)

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Annexing ±41.41 Acres of Property, Located North of SR 472 and East of South Blue Lake Avenue.

DEPARTMENT: Planning

PREPARED BY: Christopher Carson, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A-Legal Description, Exhibit B- Location Map, Boundary Survey Ford 472 Bndy w-Annex 1 (rev 8-8-2025), AN25-026 Staff Report - CanopyPreserve, Revised Project Narrative letter (2-26-2025), AN25-026 Aerial

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The applicant has been working with the County since 2021 seeking approval to construct a subdivision with a combination of single-family homes and townhomes. The project was initially put on hold because of a conflict between the minimum density requirements of the County's Comprehensive Plan and the dimensional requirements for single-family residences in the Southwest Activity Center zoning designation. The Southwest Activity Center was originally visioned as a major employment and commerce center near the I-4 interchange with a variety of housing choices to support the employment base. To spur economic development, and to resolve the conflicts between the Comprehensive Plan and the Zoning, County staff proposed modifications to the SWR and SWC zoning designations, which were approved in 2023. The applicant then proceeded with plat and construction plan review for the subdivision.

The City and the County of Volusia have a long-standing utility service agreement (USA) which regulates the provision of utilities by the City outside the corporate limits of the City. In November 2022, the City and the County concluded a years-long negotiation process to amend the USA to include additional areas outside City limits that would be served by City utilities. One of the areas added included the subject property.

If this project had been in the City's utility service area when it started the development review process, the developer would have been required to obtain utilities from the City and because of its contiguity to the city limits, would have been required to annex and then go through a land use and zoning change prior to undertaking development review. However, since the developer was already fairly far along in the development review and entitlement process, the developer was entitled to proceed with development in the County and under County regulations.

To avoid further project delays, the applicant continued with plat approval, while concurrently submitting applications for incorporation into the City. The application for annexation is accompanied by a request for a small-scale future land use map amendment (SMLU25-025) and a request for a Planned Development (PD) rezone (Z25-024).

The City could simply annex the property and not change the future land use and zoning designations for the property, in which case the property would retain its county land use and zoning designations and would subject to the County's subdivision regulations pursuant to Section 171.062(2), Florida Statutes.

City staff believes that it is much better to change the land use and zoning designations to City designations as it will be much more conducive to the City's ongoing regulation of the development.

During the review of those applications, the applicant received County approval to begin site and infrastructure work to service the development. That construction activity is currently ongoing. The property was partially wooded and undeveloped. It did not appear to contain any wetlands and does not lie within the 100-year flood zone.

If the requests are approved, the County will continue to monitor and inspect all site improvements required by the development order. Prior to any vertical construction, the City will inspect access and utilities for life safety. A site plan will be required for the community amenity center. Building permits for the individual lots will be administered through the City.

At the September 10, 2025 Planning Board meeting, the Board voted unanimously (5-0) to recommend approval of the request for annexation.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Institute Smart Growth Principles.

SUSTAINABILITY:

N/A

FISCAL IMPACT:

Annexing the property will increase the City's tax roll. Therefore, there is a positive fiscal impact.

RECOMMENDATION:

Staff recommends approval of First Reading for the ordinance annexing ± 41.41 acres of property into the City limits of DeLand.

BACKGROUND/DISCUSSION:

The ± 41.41 acre subject property is located in unincorporated Volusia County with Volusia County zoning designations of Southwest Activity Center Community (SWR) and Southwest Activity Center Commerce (SWC). The property’s Volusia County future land uses are Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce).

The application for annexation is accompanied by a request for a small-scale future land use map amendment (SMLU25-025) and a request for a Planned Development (PD) rezone (Z25-024).

The City’s guidelines for annexation require a property to be sufficiently contiguous to property already within the City limits and accessible to public services. In addition, the State requires the property to be reasonably compact, not circuitous, and not create an enclave. The subject property is contiguous to the City limits, is reasonably compact, is not circuitous and will not create an enclave.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, ANNEXING A PARCEL OF LAND TOTALING APPROXIMATELY 41.41 ACRES OF PROPERTY LOCATED NORTH OF STATE ROAD 472 AND EAST OF SOUTH BLUE LAKE AVENUE; AMENDING CITY BOUNDARIES TO INCLUDE THE ANNEXED PROPERTIES; AFFIRMING COMPLIANCE WITH STATUTORY PROCEDURE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Petitioner, Mark Watts, Esq., on behalf of the owner, Pulte Home Company, LLC, submitted a petition for annexation of approximately +/- 41.41 acres of land located north of State Road 472 and east of South Blue Lake Avenue; and

WHEREAS, the subject property to be annexed is currently vacant and undeveloped; and

WHEREAS, the area to be annexed is contiguous to the boundaries of the City of DeLand to the north, will not create an enclave if annexed, is reasonably compact, is not circuitous, and otherwise meets the requirements of *Chapter 171, Florida Statutes*.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The following described parcel of land in Volusia County, Florida, for which a petition for annexation has been received from the Petitioner, Mark Watts, Esq., on behalf of the owner, Pulte Home Company, LLC, totaling approximately +/- 41.41 acres, located north of State Road 472 and east of South Blue Lake Avenue is hereby annexed and made part of the City of DeLand, subject to the jurisdiction, obligations, benefits and privileges of property within the municipality:

See legal description(s) attached hereto as Exhibit "A"

Parcel Identification No. 800100000026

Section 2. The boundary lines of the City of DeLand are hereby changed and redefined to include the lands described in Section 1 above and depicted on the map attached hereto as Exhibit "B" and by this reference made a part hereof.

Section 3. The City Commission finds that a public hearing has been held on this Ordinance prior to adoption in the Commission Chambers, City Hall, 120 S. Florida Avenue, DeLand, Florida, at 7:00 p.m., on _____, after notice published in accordance with Florida Statutes Section 171.044.

Section 4. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this ___day of _____.

_____
Christopher M. Cloudman
Mayor-Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

“EXHIBIT A”

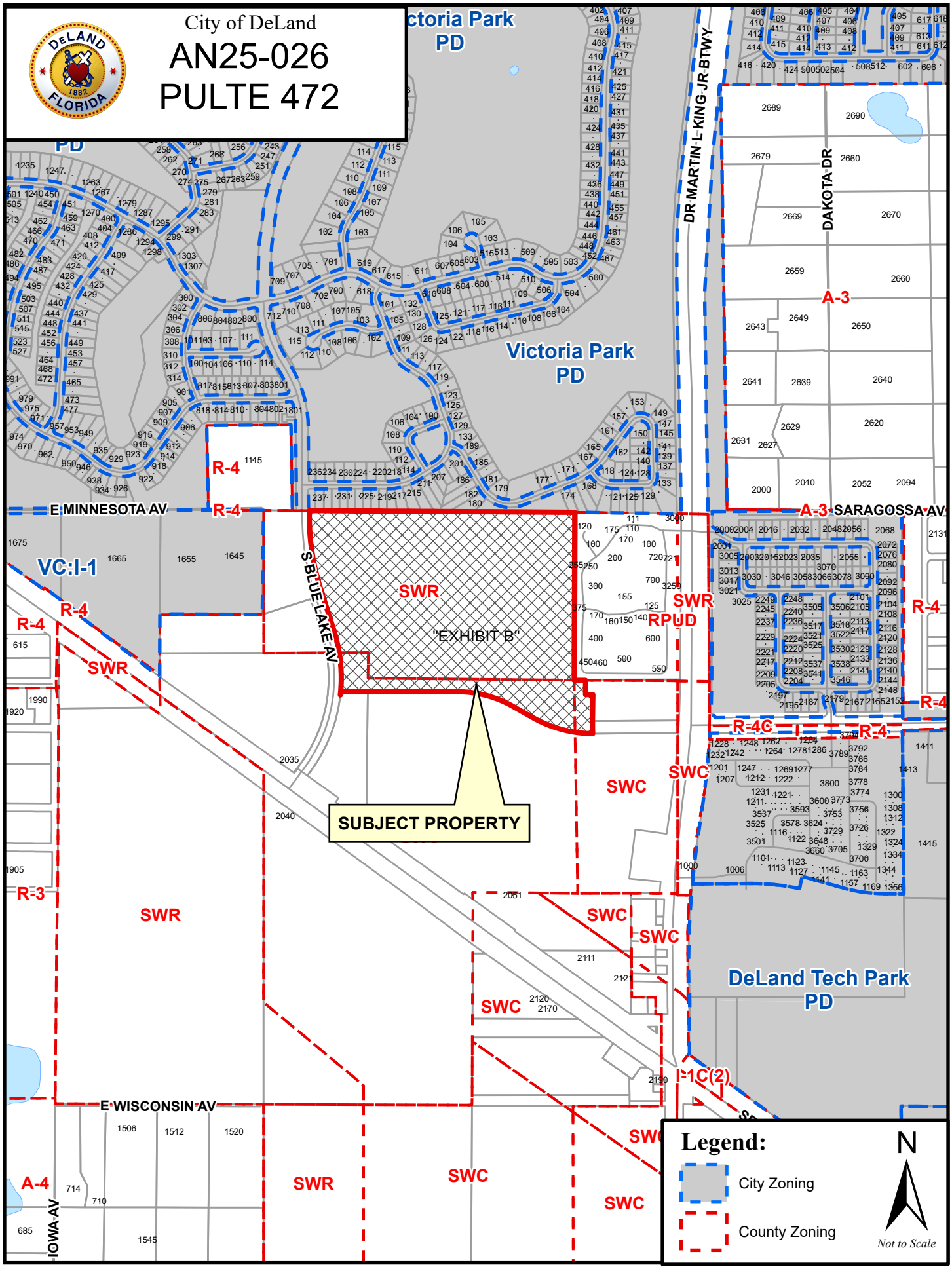
LEGAL DESCRIPTION

ANNEXATION

A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55’33” EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04’26” EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN SOUTH 29°31’20” WEST FOR A DISTANCE OF 40.00 FEET; THENCE RUN NORTH 60°28’40” WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 750.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 383.12 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 387.41 FEET TO A POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 759.38 FEET TO A POINT ON THE CENTERLINE OF SOUTH BLUE LAKE AVENUE, A 80.00 FOOT WIDE RIGHT OF WAY, ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF SAID PUBLIC RECORDS; BEING A POINT ON A NON TANGENT CURVE, CONCAVE WESTERLY HAVING A RADIUS OF 955.00 FEET, WITH A CHORD BEARING OF NORTH 08°13'06" WEST, AND A CHORD DISTANCE OF 328.11 FEET; THENCE RUN ALONG SAID CENTERLINE THE FOLLOWING BEARINGS AND DISTANCES THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 19°47'01" FOR A DISTANCE OF 329.75 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1528.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 453.98 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 455.67 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST FOR A DISTANCE OF 56.60 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 64.03 FEET TO THE POINT OF BEGINNING.

CONTAINS 41.41 ACRES MORE OR LESS.


City of DeLand
AN25-026
PULTE 472
Victoria Park PD
Victoria Park PD
DR MARTIN L KING JR BTWY
DAKOTA DR
E MINNESOTA AV
SARAGOSSA AV
S BLUE LAKE AV
E WISCONSIN AV
IOWA AV
VC:I-1
R-4
R-4C
R-3
A-3
A-4
SWR
SWC
RPUD
I-1C(2)
"EXHIBIT B"
SUBJECT PROPERTY
DeLand Tech Park PD
Legend:
City Zoning
County Zoning
N
Not to Scale

LEGAL DESCRIPTION

A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

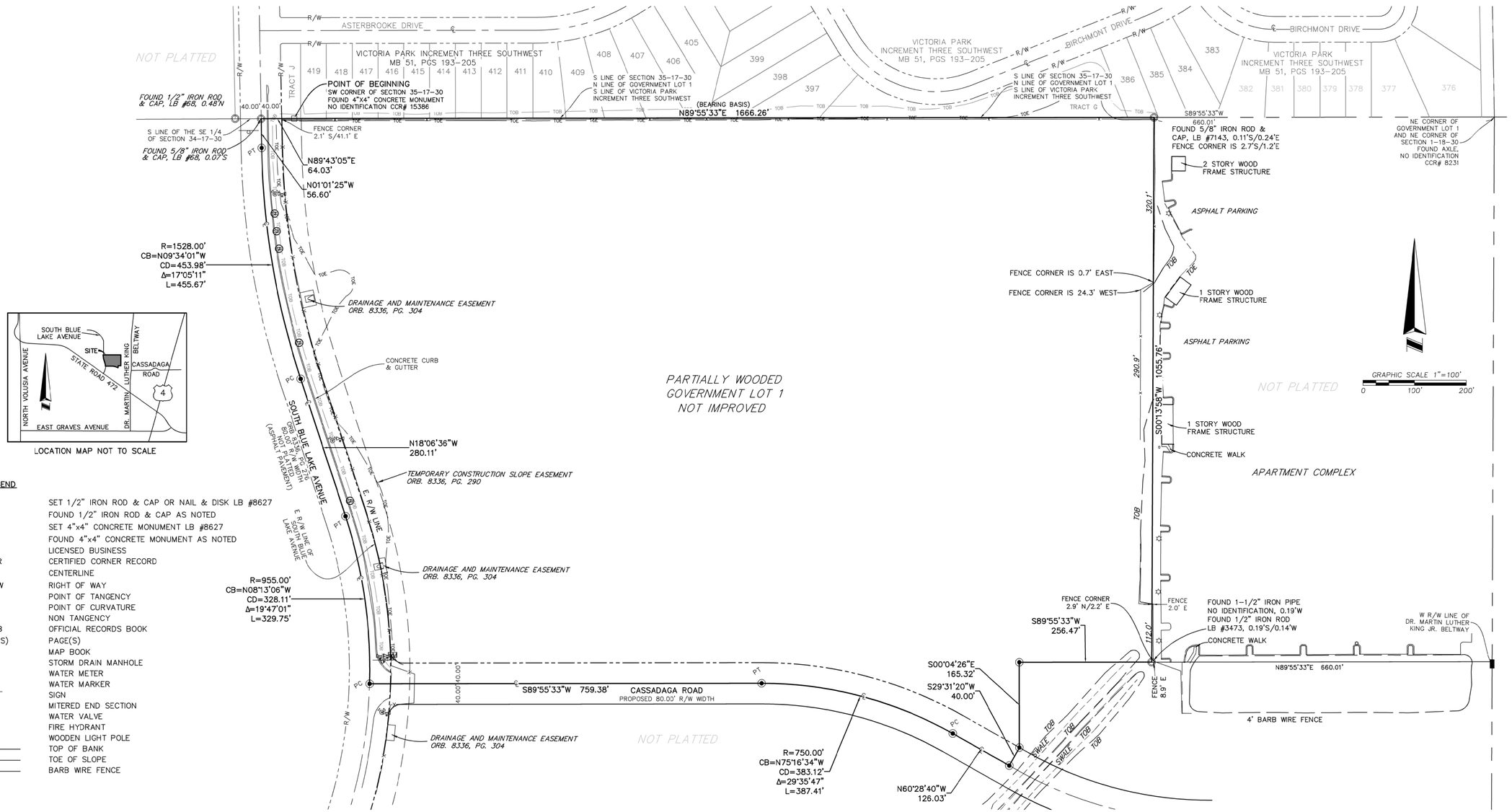
BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55'33" EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04'26" EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN SOUTH 29°31'20" WEST FOR A DISTANCE OF 40.00 FEET; THENCE RUN NORTH 60°28'40" WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 750.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 383.12 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 387.41 FEET TO A POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 759.38 FEET TO A POINT ON THE CENTERLINE OF SOUTH BLUE LAKE AVENUE, A 80.00 FOOT WIDE RIGHT OF WAY, ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF SAID PUBLIC RECORDS; BEING A POINT ON A NON TANGENT CURVE, CONCAVE WESTERLY HAVING A RADIUS OF 955.00 FEET, WITH A CHORD BEARING OF NORTH 08°13'06" WEST, AND A CHORD DISTANCE OF 328.11 FEET; THENCE RUN ALONG SAID CENTERLINE THE FOLLOWING BEARINGS AND DISTANCES THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 19°47'01" FOR A DISTANCE OF 329.75 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1528.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 453.98 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 455.67 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST FOR A DISTANCE OF 56.60 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 64.03 FEET TO THE **POINT OF BEGINNING.**

CONTAINS 41.41 ACRES MORE OR LESS.

SURVEYOR'S NOTES:

1. BEARINGS SHOWN HEREON ARE ASSUMED AND BASED ON THE NORTH LINE OF GOVERNMENT LOT 1 AS BEING NORTH 89°55'33" EAST FOR ANGULAR DESIGNATION ONLY.
2. THE LEGAL DESCRIPTION HEREON WAS PREPARED BY THIS FIRM AS THE CLIENT'S REQUEST.
3. THERE MAY BE EASEMENTS AND RESTRICTIONS OF RECORD AND/OR PRIVATE AGREEMENTS NOT FURNISHED TO THIS SURVEYOR OR SHOWN ON THIS BOUNDARY SURVEY THAT MAY AFFECT PROPERTY RIGHTS AND/OR LAND USE RIGHTS OF THE SUBJECT PROPERTY.
4. THERE MAY BE ENVIRONMENTAL ISSUES AND/OR OTHER MATTERS REGULATED BY VARIOUS DEPARTMENTS OF FEDERAL, STATE OR LOCAL GOVERNMENTS AFFECTING THE SUBJECT PROPERTY NOT SHOWN ON THIS SURVEY.
5. THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.
6. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER OR AN ELECTRONIC SIGNATURE THAT IS IN COMPLIANCE WITH FLORIDA ADMINISTRATIVE CODE 5J-17.062.
7. UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR VISIBLE, UNOBSTRUCTED, ABOVE GROUND IMPROVEMENTS WERE LOCATED. UNLESS NOTED OTHERWISE UNDERGROUND IMPROVEMENTS, SUCH AS FOUNDATIONS AND UTILITIES, WERE NOT LOCATED.
8. UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND THE PROFESSIONAL PURVIEW OF THE SURVEYOR AND SUBJECT TO LEGAL INTERPRETATION.
9. SUBJECT PROPERTY SHOWN HEREON IS IN ZONE X, AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 12127C0610J, MAP REVISED FEBRUARY 19, 2014.

   THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.
10. THE ACCURACY OF THE SURVEY MEASUREMENTS USED FOR THIS SURVEY MEETS OR EXCEEDS THE EXPECTED USE OF THE PROPERTY DESCRIBED HEREON. (SUBURBAN) 1 FOOT IN 7,500 FEET.
11. THE DELINEATION OF THE LANDS SHOWN HEREON ARE AS PER THE CLIENT'S INSTRUCTIONS.



LOCATION MAP NOT TO SCALE

LEGEND

◉	SET 1/2" IRON ROD & CAP OR NAIL & DISK LB #8627
○	FOUND 1/2" IRON ROD & CAP AS NOTED
■	SET 4"x4" CONCRETE MONUMENT LB #8627
⊡	FOUND 4"x4" CONCRETE MONUMENT AS NOTED
LB	LICENSED BUSINESS
CCR	CERTIFIED CORNER RECORD
℄	CENTERLINE
R/W	RIGHT OF WAY
PT	POINT OF TANGENCY
PC	POINT OF CURVATURE
NT	NON TANGENCY
ORB	OFFICIAL RECORDS BOOK
PG(S)	PAGE(S)
MB	MAP BOOK
	STORM DRAIN MANHOLE
WM	WATER METER
	WATER MARKER
	SIGN
	MITERED END SECTION
	WATER VALVE
	FIRE HYDRANT
	WOODEN LIGHT POLE
TOB	TOP OF BANK
TOE	TOE OF SLOPE
-x-	BARB WIRE FENCE

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BOUNDARY SURVEY OF FORD 472 DELAND

SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST
VOLUSIA COUNTY, FLORIDA

FOR: PULTE GROUP

FOR THE LICENSED BUSINESS #8627 BY:

JAMES L. RICKMAN, PSM #5633

LS5633
STATE OF
FLORIDA

This item has been electronically signed and Sealed by James L. Rickman, P.S.M. using A Digital Signature.

Printed Copies of this document are not considered signed and sealed and the signature Must be verified on any electronic copies.

Digitally signed by: James L Rickman
Date: 2025.08.08 08:19:08 -04'00'

DATE	REVISIONS
8-7-25	revision to legal desc.

JOB #:	20200713
DATE:	12/11/2024
SCALE:	1" = 100'
CALC BY:	SEJ
FIELD BY:	DB
DRAWN BY:	SEJ/KS
CHECKED BY:	SEJ

SHEET 1 OF 1

Drawing name: L:\Data\20200713\dwg\20200713 Ford 472 Bndy +-Annex 1

PLANNING DEPARTMENT STAFF REPORT
TO
PLANNING BOARD

September 10, 2025

A. **APPLICATION NO.**: AN25-026
APPLICANT: Mr. Mark Watts, Cobb & Cole, P.A.
OWNER: Pulte Home Company, LLC
STAFF PLANNER: Chris Carson, AICP, Senior Planner
REQUEST: Voluntary Annexation of ± 41.41 acres of property into the City limits of DeLand

B. **SITE FACTORS:**
PARCEL NUMBER: 800100000026
LOCATION: North of SR 472 and east of S. Blue Lake Ave.
SIZE OF PROPERTY: ±41.41 acres

C. **Surrounding Land Use & Zoning:**

Future Land Use: Volusia County: SWAC Community, SWAC Commerce
Existing Zoning: Volusia County: SWR, SWC
Existing Use: Vacant/Undeveloped

	LAND USE	ZONING
North:	New Community Development (NCD), VC: Urban Medium Intensity (UMI)	Victoria Park PD, VC: R-4
South:	VC: SWAC Commerce	VC: RFPUD
East:	VC: SWAC Community, VC: SWAC Commerce	VC: Integra Dunes RPUD
West:	VC: SWAC Community, VC: SWAC Commerce, VC: Industrial	VC: Light Industrial (I-1), VC: SWR, VC: SWC

D. **Background:** The ± 41.41 acre subject property is located in unincorporated Volusia County with Volusia County zoning designations of Southwest Activity Center Community (SWR) and Southwest Activity Center Commerce (SWC). The property's Volusia County future land uses are Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce).

The applicant has been working with the County to construct a subdivision with a combination of single-family homes and townhomes since 2021. The project was initially put on hold because of a conflict between the minimum density requirements of the County's Comprehensive Plan and the dimensional requirements for single-family residences in the Southwest Activity Center zoning designation. The Southwest Activity Center was originally visioned as a major employment and commerce center near the I-4 interchange with a variety of housing choices to support the employment base. To spur economic development, and to resolve the conflicts between the Comprehensive Plan and the Zoning, County staff modified the SWR and SWC zoning designations. The Ordinance was approved in 2023.

After modifications to the zoning were approved, the applicant proceeded with plat and construction plan review for the subdivision. During the review period, the City and County modified the City's Utility Service Area (USA) boundary which placed the subject property within the limits of the City's USA.

The applicant contacted City staff with a desire to incorporate into the City limits for future consistency. To avoid further project delays, the applicant continued with plat approval, while concurrently submitting applications for incorporation into the City. The application for annexation is accompanied by a request for a small-scale future land use map amendment (SMLU25-025) and a request for a Planned Development (PD) rezone (Z25-024).

During the review of those applications, the applicant received County approval to begin site and infrastructure work to service the development. That construction activity is currently ongoing. The property was partially wooded and undeveloped. It did not appear to contain any wetlands and does not lie within the 100-year flood zone.

If the requests are approved, the County will continue to monitor and inspect all improvements required by the development order. Prior to any vertical construction, the City will inspect access and utilities for life safety. A site plan will be required for the community amenity center. Building permits for the individual lots will be administered through the City.

E. Public Services & Utilities: The City's Utilities Department has provided a Utility Service agreement to serve water and sewer. City water is available via a 12" water main on Blue Lake Ave. and City sewer is available via a 8" gravity line along Asterbrooke Dr., just north of the subject property.

F. Growth Management Plan Consistency: The area surrounding the development is a mix of developed and undeveloped properties. To the north is a single-family residential neighborhood, east is a multi-family development, and to the west is some industrial properties. South of the subject property is currently vacant.

G. Analysis: Chapter 171 of the Florida Statutes sets forth procedures for adjusting municipal boundaries to ensure sound urban development, accommodation for growth, and ensure

that areas are not annexed unless municipal services can be provided in those areas. These procedures require the development be **reasonably compact**, **not circuitous**, and **does not create an enclave**. In addition, the City's guidelines for annexation require a property be sufficiently **contiguous** to property already within the city limits. The parcel is contiguous to the City's municipal's boundary on the north side and is reasonably compact. Annexation of the property does not create an area that is enclosed and bounded on all sides by the City. Therefore, staff finds the annexation request to be consistent with Chapter 171 of the State Statutes, the City's Comprehensive Plan, and Land Development Regulations.

H. Next Steps: The request for voluntary annexation will go before the City Commission on October 6, 2025 for first reading, followed by Volusia Growth Management Commission Review (VGMC). After VGMC review, the request is anticipated to go before City Commission on November 17, 2025 for second reading.

I. Recommendation: Staff recommends that the Planning Board forward this annexation petition to the City Commission, with a recommendation for approval.

Based upon the concurrency requirements of the State of Florida and the City's concurrency management plan, as adopted in Article 5, Sec. 33-41 of the Land Development Regulations, approval of the proposed annexation does not automatically provide vested development rights. At the time the developer applies for a development permit, adequate infrastructure must exist to support the proposed development. If such infrastructure does not exist, the developer may be required to incur additional expense to ensure that the necessary infrastructure is provided.

Scott W. Cichon
Robert A. Merrell III
John P. Ferguson
Mark A. Watts
Heather Bond Vargas
Michael J. Woods
Raymond L. Schumann
Kathleen L. Crotty
Michael O. Sznapstajler
Andrew C. Grant
Matthew S. Welch
Edward H. Thompson
Robert E. Doan
William A. Rice
Douglas J. Collins
Sara E. Glover
Holly W. Zitzka
Jessica L. Gow

COBB COLE
Attorneys at Law
Since 1925

Daytona Beach • DeLand
231 North Woodland Boulevard
DeLand, Florida 32720
(386) 736-7700 | CobbCole.Com

Sydney V. Cichon
Anthony E. Aguanno
Baylee D. Bunyard
Anne M. Kehrli
Alanna V. Smith

OF COUNSEL
Larry D. Marsh
Ira Halfond

William M. Cobb (1881-1939)
Thomas T. Cobb (1916-2004)
W. Warren Cole, Jr. (1926-2008)

February 26, 2025

Carol Kuhn, AICP
Planning Director
City of DeLand
120 South Florida Avenue
DeLand, FL 32720

Re: Revised Project Narrative – 472 PD, Annexation & Small-Scale CPA
Parcel ID No. 8001-00-00-0020 (northern portion of)

Dear Carol,

Cobb Cole represents Pulte Home Company, LLC, owners of the above-referenced parcel. The property is currently undergoing subdivision review and approval by the County of Volusia for the development of single family and townhome style residential units. The property is subject to an annexation, land use, and rezoning request to locate the property within the municipal boundaries of the City of DeLand.

We are requesting to amend the future land use and zoning designations for the property identified in the application ("Property") from Volusia County SWR (land use and zoning) and SWC (land use and zoning) to the City's Low Density Residential ("LDR") land use classification and PUD zoning. The purpose of the applications is to transition the Property while it is under development from the County to City's jurisdiction as a result of the recent shift in utility service area boundaries in the vicinity of the Martin Luther King, Jr. Beltway and S. R. 472. The Property is currently under development based on an approved preliminary subdivision plat for single family residential and townhome residential units and associated amenities. As the Property is developed, the developer is also obligated to extend Cassadaga Road from its current intersection with the MLK Beltway to the recent southern extension of Blue Lake Road.

As background information, the County's SWR and SWC future land use and zoning were created following the abandonment of the former S.R. 472 Areawide Development of Regional Impact ("472 DRI"). Similar to the City of DeLand, the County incorporated much of the development entitlements from the 472 DRI into the SWR and SWC classifications to continue implementing the overall goals, policies and objectives defined by the 472 DRI. The majority of the Property is included within the SWR classifications, which were designed to

provide residential development areas supporting the overall land use mix outlined in the 472 DRI. The SWC classification is primarily designed to support commercial development, however the only portions of the Property that are currently classified under SWC are the areas that will be improved with the Cassadaga Road extension and associated stormwater infrastructure.

Pulte Homes began working with County staff on subdivision approvals for the Property in 2021. When Pulte submitted initial applications, we determined that the Property could not be developed with the minimum required density of 4 units per acre required by the SWR land use classification based on the minimum dimensional requirements adopted in the SWR zoning classification for single family lots. As a result, we coordinated with County staff and the County Council approved revisions to the minimum single family lot dimensional requirements in order to permit development that would meet the minimum required density. During the time the County was processing administrative amendments to the SWR and SWC zoning classifications, consideration of the pending preliminary plat was put on hold. The subdivision review proceeded following the County's correction of the SWR zoning classification's dimensional criteria.

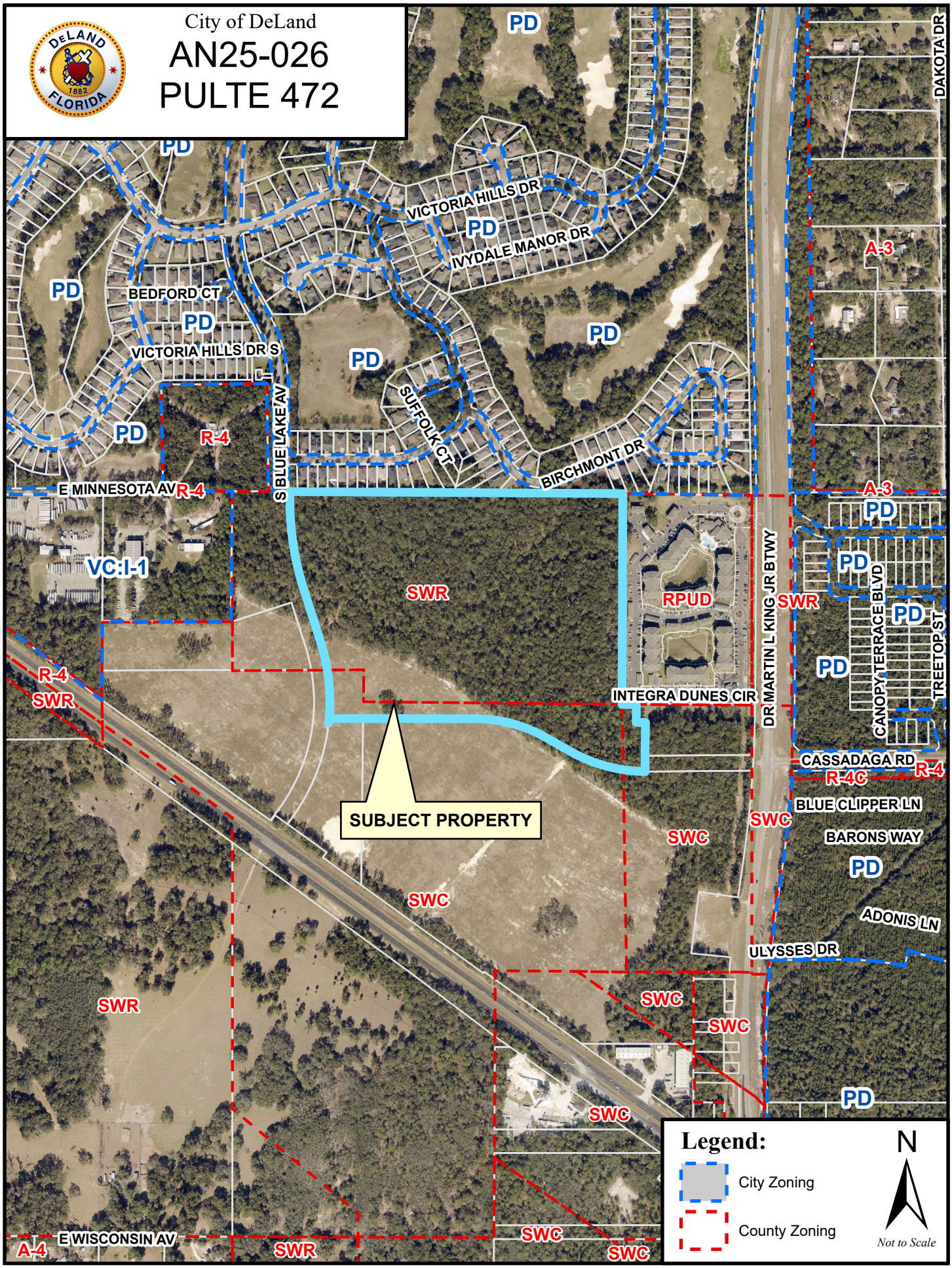
While the preliminary plat was under review and the SWR zoning classification revisions were being reviewed and approved, the City and County revised the boundaries of the utility service areas for the Property. The result of those revisions added the Property to the City's utility service boundary. Since the preliminary plat review was substantially underway at that point in time, we coordinated with City and County staff to proceed with annexation of the Property into the City once the preliminary plat review was completed.

Based on the approved preliminary plat, the Property is currently under development. Based on our coordination with City and County staff, the proposed applications submitted to the City with this letter will annex the Property, assign a land use classification consistent with the approved residential density and incorporate the development standards outlined in the County's SWR classification into a PUD for the Property. The County will continue to provide permit review and inspections for the subdivision improvements required by the approved preliminary plat development order. The City will inspect and improve all utility improvements included in the preliminary plat development order since it is the utility provider. Our intent is to finalize the PUD rezoning in time to allow vertical permitting for all single family and townhome residential structures through the City. In addition, since the City considers townhomes as a multi-family use and subject to the City's community design standards, review and approval of the proposed architectural design for the townhomes is also proposed as part of the PUD approval.
At completion, the development of the Property will include 112 townhome units and 91 single family units. The resulting density is 5.2 units/acre and complies with the minimum required density of the County's SWR land use classification. It is also consistent with the City's LDR land use classification. As noted above, the development includes construction of

extension of Cassadaga Road, and the provision of supporting open space and stormwater amenities. Site development and permitting of horizontal site improvements will be permitted through the County of Volusia, with vertical building permit review and issuance proposed under the City of DeLand and in accordance with the proposed PUD regulations.

Sincerely,

Mark A. Watts, Esq.
Mark.Watts@cobbcole.com


City of DeLand
AN25-026
PULTE 472
PD
VICTORIA HILLS DR
IVYDALE MANOR DR
BEDFORD CT
VICTORIA HILLS DR S
SUFFOLK CT
BIRCHMONT DR
S BLUE LAKE AV
E MINNESOTA AV
R-4
VC:I-1
SWR
RPUD
DR MARTIN L KING JR BTWY
INTEGRA DUNES CIR
SUBJECT PROPERTY
A-3
DAKOTA DR
CANOPY TERRACE BLVD
TREETOP ST
CASSADAGA RD
R-4C
BLUE CLIPPER LN
BARONS WAY
ADONIS LN
ULYSSES DR
SWC
E WISCONSIN AV
A-4
Legend:
City Zoning
County Zoning
N
Not to Scale

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Land Use for ±39.24 Acres of Property, Located North of SR 472 and East of South Blue Lake Avenue, from Volusia County Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce) to City Of Deland Low Density Residential (LDR).

DEPARTMENT: Planning

PREPARED BY: Christopher Carson, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A, Plat Boundary 5-22-25 S&S, SMLU25-025 Staff Report CanopyPreserve, Revised Project Narrative letter (2-26-2025), SMLU25-025 Current Land Use, SMLU25-025 Proposed Land Use, SMLU25-025 Aerial, SMLU25-025 Zoning, 25-02-25-001-R Signed Concurrency Letter (2), TIA 21145 Ford 472 v1.3 e-SS (rev 02-13-25)

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The applicant has been working with the County since 2021 seeking approval to construct a subdivision with a combination of single-family homes and townhomes. The project was initially put on hold because of a conflict between the minimum density requirements of the County's Comprehensive Plan and the dimensional requirements for single-family residences in the Southwest Activity Center zoning designation. The Southwest Activity Center was originally visioned as a major employment and commerce center near the I-4 interchange with a variety of housing choices to support the employment base. To spur economic development, and to resolve the conflicts between the Comprehensive Plan and the Zoning, County staff proposed modifications to the SWR and SWC zoning designations, which were approved in 2023. The applicant then proceeded with plat and construction plan review for the subdivision.

The City and the County of Volusia have a long-standing utility service agreement (USA) which regulates the provision of utilities by the City outside the corporate limits of the City. In November 2022, the City and the County concluded a years-long negotiation process to amend the USA to include additional areas outside City limits that would be served by City utilities. One of the areas added included the subject property.

If this project had been in the City's utility service area when it started the development review process, the developer would have been required to obtain utilities from the City and because of its contiguity to the city limits, would have been required to annex and then go through a land use and zoning change prior to undertaking development review. However, since the developer was already fairly far along in the development review and entitlement process, the developer was entitled to proceed with development in the County and under County regulations.

To avoid further project delays, the applicant continued with plat approval, while concurrently submitting applications for incorporation into the City. The application for a small-scale future land use map amendment is accompanied by a request for annexation (AN25-026) and a request for a Planned Development (PD) rezone (Z25-024).

The City could simply annex the property and not change the future land use and zoning designations for the

property, in which case the property would retain its county land use and zoning designations and would subject to the County's subdivision regulations pursuant to Section 171.062(2), Florida Statutes.

City staff believes that it is much better to change the land use and zoning designations to City designations as it will be much more conducive to the City's ongoing regulation of the development.

During the review of those applications, the applicant received County approval to begin site and infrastructure work to service the development. That construction activity is currently ongoing. The property was partially wooded and undeveloped. It did not appear to contain any wetlands and does not lie within the 100-year flood zone.

If the requests are approved, the County will continue to monitor and inspect all improvements required by the development order. Prior to any vertical construction, the City will inspect access and utilities for life safety. A site plan will be required for the community amenity center. Building permits for the individual lots will be administered through the City.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Strategic Focus Area: Institute Smart Growth Principles

SUSTAINABILITY:

N/A

FISCAL IMPACT:

There is no fiscal impact due to the future land use map amendment.

RECOMMENDATION:

Staff recommends approval of First Reading of the ordinance to amend the future land use from Volusia County's Southwest Activity Center Community (SWAC Community) and Volusia County Southwest Activity Center Commerce (SWAC Commerce) to the City of DeLand's Low Density Residential (LDR).

BACKGROUND/DISCUSSION:

The applicant is requesting to amend the future land use designation of a ±39.24-acre parcel located on the east side of S. Blue Lake Ave., north of SR 472 from Volusia County's Southwest Activity Center Community (SWAC Community) and Volusia County Southwest Activity Center Commerce (SWAC Commerce) to the City of DeLand's Low Density Residential (LDR) land use designation. The application for a small-scale future land use map amendment is accompanied by a request for annexation (AN25-026) and a request for a Planned Development (PD) rezone (Z25-024).

The facility analysis presented in the staff report suggests the proposed land use should not cause any of the City's facilities to degrade below the adopted or current operational level of service (LOS). The proposed land use designation, Low Density Residential, is consistent with the surrounding area, and is not expected to create any land use incompatibilities.

In accordance with standard practice from the Florida Department of Economic Opportunity (DEO) and other review agencies, an impact comparison analysis of the proposed amendment has been completed based upon the theoretical maximum development potential under the currently adopted future land use designation versus

the proposed designation. The proposed amendment results in decreased impacts to all public infrastructure and services based on the theoretical maximum impact analysis.

At the September 10, 2025, Planning Board meeting, the Board voted unanimously (5-0) to recommend approval of the request for a future land use map amendment.

The request for the land use amendment will be transmitted to Volusia Growth Management Commission (VGMC) for review. After VGMC review, the request is anticipated to go before City Commission on November 17, 2025 for second reading.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, AMENDING THE COMPREHENSIVE PLAN FOR THE CITY OF DELAND, BY CHANGING THE LAND USE DESIGNATION OF CERTAIN PROPERTY LOCATED NORTH OF STATE ROAD 472 AND EAST OF SOUTH BLUE LAKE AVENUE; FROM VOLUSIA COUNTY'S SOUTHWEST ACTIVITY CENTER COMMUNITY (SWAC COMMUNITY) AND SOUTHWEST ACTIVITY CENTER COMMERCE (SWAC COMMERCE) FUTURE LAND USE DESIGNATIONS TO CITY OF DELAND'S LOW DENSITY RESIDENTIAL FUTURE LAND USE DESIGNATION; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, F.S. §163.3161, et seq., creates the Community Planning Act (hereinafter the "Act"); and

WHEREAS, the Act allows each local government to approve comprehensive plan amendments related to small scale development activities at any time during the year under certain conditions; and

WHEREAS, the Act permits small area amendments to be approved without regard to statutory limits on the frequency of comprehensive plan amendments as long as:

1. The proposed amendment involves the change to the land use designation of a parcel of property that is 50 acres or less; and

2. The cumulative effect of the above amendment does not exceed 120 acres annually; and

WHEREAS, the City Commission adopted a comprehensive plan for the future growth and development of the City pursuant to Ordinance No. 90-4, as amended, (hereinafter the "Comprehensive Plan"); and

WHEREAS, the City Commission has received a request to amend the Comprehensive Plan by changing the land use designation of approximately +/- 39.24 acres of land located north of State Road 472 and east of South Blue Lake Avenue, from Volusia County's Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce) future land use designations to City of DeLand's Low Density Residential future land use designation; and

WHEREAS, the Planning Board held a public hearing, after due public notice, for the purpose of recommending the adoption of the proposed Comprehensive Plan amendment; and

WHEREAS, the City Commission held a public hearing after due public notice, in accordance with F.S. §163.3184(11); and

WHEREAS, this land use amendment has been transmitted to and reviewed by the Volusia Growth Management Commission.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission hereby amends the Future Land Use Map for the incorporated area by changing the land use designation of that certain parcel of land located north of State Road 472 and east of South Blue Lake Avenue, consisting of approximately +/- 39.24 acres of land from Volusia County's Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce) Future Land Use designations to City of DeLand's Low Density Residential Future Land Use designation, as more particularly described in the Exhibit "A" attached hereto and by this reference made a part hereof.

Section 2. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 3. The effective date of this Ordinance shall be the later date of the following events: (1) the date of issuance of a certificate of consistency or conditional certificate of consistency with regard to the land use designation of the subject property by the Volusia Growth Management Commission; (2) thirty-one (31) days after its adoption by the City Commission; or (3) if properly challenged by an affected person, after the state land planning agency or the Administration Commission, respectively, issues a final order determining this adopted small scale development amendment to be in compliance. No development orders, development permits or land uses dependent on this Ordinance may be issued or commence before it has become effective.

PASSED AND DULY ADOPTED this ___day of September, 2025.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

EXHIBIT "A"
LEGAL DESCRIPTION

A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17 SOUTH, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55'33" EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04'26" EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN NORTH 60°28'40" WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 790.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 403.56 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 408.08 FEET TO THE POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 694.57 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, WITH A CHORD BEARING OF NORTH 46°04'55" WEST, AND A CHORD DISTANCE OF 34.73 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°59'04" FOR A DISTANCE OF 38.39 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SOUTH BLUE LAKE AVENUE ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF AFORESAID PUBLIC RECORDS. ALSO BEING A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE WESTERLY HAVING A RADIUS OF 995.00 FEET. WITH A CHORD BEARING OF NORTH 10°06'00" WEST, AND A CHORD DISTANCE OF 277.30 FEET; THENCE RUN THE FOLLOWING BEARING AND DISTANCES ALONG SAID EASTERLY RIGHT-OF-WAY LINE: NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 16°01'13" FOR A DISTANCE OF 278.21 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1488.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 442.10 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 443.74 FEET TO THE POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST A DISTANCE OF 56.09 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 24.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 39.24 ACRES MORE OR LESS.

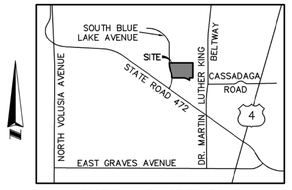
LEGAL DESCRIPTION

A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17 SOUTH, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55'33" EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04'26" EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN NORTH 60°28'40" WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 790.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 403.56 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 408.08 FEET TO THE POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 694.57 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, WITH A CHORD BEARING OF NORTH 46°04'55" WEST, AND A CHORD DISTANCE OF 34.73 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°59'04" FOR A DISTANCE OF 38.39 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SOUTH BLUE LAKE AVENUE ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF AFORESAID PUBLIC RECORDS, ALSO BEING A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE WESTERLY HAVING A RADIUS OF 995.00 FEET, WITH A CHORD BEARING OF NORTH 10°06'00" WEST, AND A CHORD DISTANCE OF 277.30 FEET; THENCE RUN THE FOLLOWING BEARING AND DISTANCES ALONG SAID EASTERLY RIGHT-OF-WAY LINE: NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 16°01'13" FOR A DISTANCE OF 278.21 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1488.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 442.10 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 443.74 FEET TO THE POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST A DISTANCE OF 56.09 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 24.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 39.24 ACRES MORE OR LESS.



LOCATION MAP NOT TO SCALE

SURVEYOR'S NOTES:

1. BEARINGS SHOWN HEREON ARE ASSUMED AND RELATIVE TO THE NORTH LINE OF GOVERNMENT LOT 1, SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, BEING NORTH 89°55'33" EAST.
2. THERE MAY BE ENVIRONMENTAL ISSUES AND/OR OTHER MATTERS REGULATED BY VARIOUS DEPARTMENTS OF FEDERAL, STATE OR LOCAL GOVERNMENTS AFFECTING THE SUBJECT PROPERTY NOT SHOWN ON THIS SURVEY.
3. THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.
4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT TO INSURE TITLE.
5. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
6. UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR VISIBLE, UNOBSTRUCTED, ABOVE GROUND IMPROVEMENTS WERE LOCATED. UNDERGROUND UTILITIES, FOUNDATIONS AND IMPROVEMENTS WERE NOT LOCATED, UNLESS SHOWN HEREON.
7. UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND PROFESSIONAL PURVIEW AND SUBJECT TO LEGAL INTERPRETATION.
8. THE LANDS SHOWN HEREON LIE IN ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 1251550610J, MAP NO. 12127C610J, MAP REVISED FEBRUARY 19, 2014. THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.
9. THERE WAS VISUAL EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WITHIN THE SURVEYED LANDS.
10. WHILE CONDUCTING THE SURVEY, THERE WAS NO OBSERVED EVIDENCE OF WETLANDS WITHIN THE SURVEYED LANDS.
11. ADJOINING PARCEL OWNER AND RECORDING INFORMATION DELINEATED HEREON WAS OBTAINED FROM THE VOLUSIA COUNTY PROPERTY APPRAISER'S PUBLIC ACCESS SYSTEM.
12. THE SUBJECT PROPERTY IS UNIMPROVED, NO BUILDINGS AND IS PARTIALLY WOODED
13. THERE WAS NO VISUAL EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WITHIN THE SURVEYED LANDS. THE SURVEYOR IS UNAWARE OF ANY PROPOSED CHANGES IN THE RIGHT-OF-WAY.
14. THE SUBJECT PROPERTY HAS ACCESS TO PUBLIC UTILITIES FROM THE PUBLIC STREETS ADJACENT TO THE SUBJECT PROPERTY.
15. THE SUBJECT PROPERTY ABUTS, WITHOUT GAPS GORES OR STRIPS, AND HAS VEHICULAR AND PEDESTRIAN INGRESS TO AND EGRESS FROM SOUTH BLUE LAKE AVENUE, WHICH IS COMPLETED, DEDICATED AND ACCEPTED PUBLIC RIGHT OF WAY.
16. EXCEPT AS SHOWN ON THE SURVEY, THE SUBJECT PROPERTY DOES NOT APPEAR TO SERVE ANY ADJOINING PROPERTY FOR UTILITIES, DRAINAGE, STRUCTURAL SUPPORT OR INGRESS OR EGRESS.
17. THE LEGAL DESCRIPTION SHOWN HEREON WAS PREPARED BY THE SURVEYOR AT THE CLIENT'S REQUEST.
18. THERE IS NO OBSERVED EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
19. THIS SURVEY IS CERTIFIED TO: LANDIS GRAHAM FRENCH, P.A.; OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; PULTE HOME COMPANY, LLC; FRANK A. FORD, INDIVIDUALLY AND AS TRUSTEE; RAY F. VEECH, AS TRUSTEE OF THE ALEX B. VEECH TRUST AND INDIVIDUALLY; KIRTLEY PENROD AS PERSONAL REPRESENTATIVE OF THE ESTATE OF JEAN FORD PENROD AND AS TRUSTEE OF THE JOHN PENROD TESTAMENTARY TRUST; SARAH R. FORD; FRANK A. FORD, JR.; ELIZABETH F. WILLIAMS; COURTNEY F. HAMIL; ATTORNEY'S TITLE FUND SERVICES

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WINTER GARDEN, FLORIDA 34787
(407) 654-5355 LB#8627

BOUNDARY SURVEY OF FORD 472

SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST
CITY OF DELAND, VOLUSIA COUNTY, FLORIDA

FOR: PULTE HOMES

JAMES L. RICKMAN, PSM #5633
FOR THE LICENSED BUSINESS #8627 BY:

JAMES LOUIS RICKMAN LICENSED NUMBER 5633 STATE OF FLORIDA PROFESSIONAL SURVEYOR AND MAPPER

LS5633
STATE OF
FLORIDA

This item has been electronically signed and Sealed by James L. Rickman, P.S.M. using A Digital Signature.

Printed Copies of this document are not considered signed and sealed and the signature Must be verified on any electronic copies.

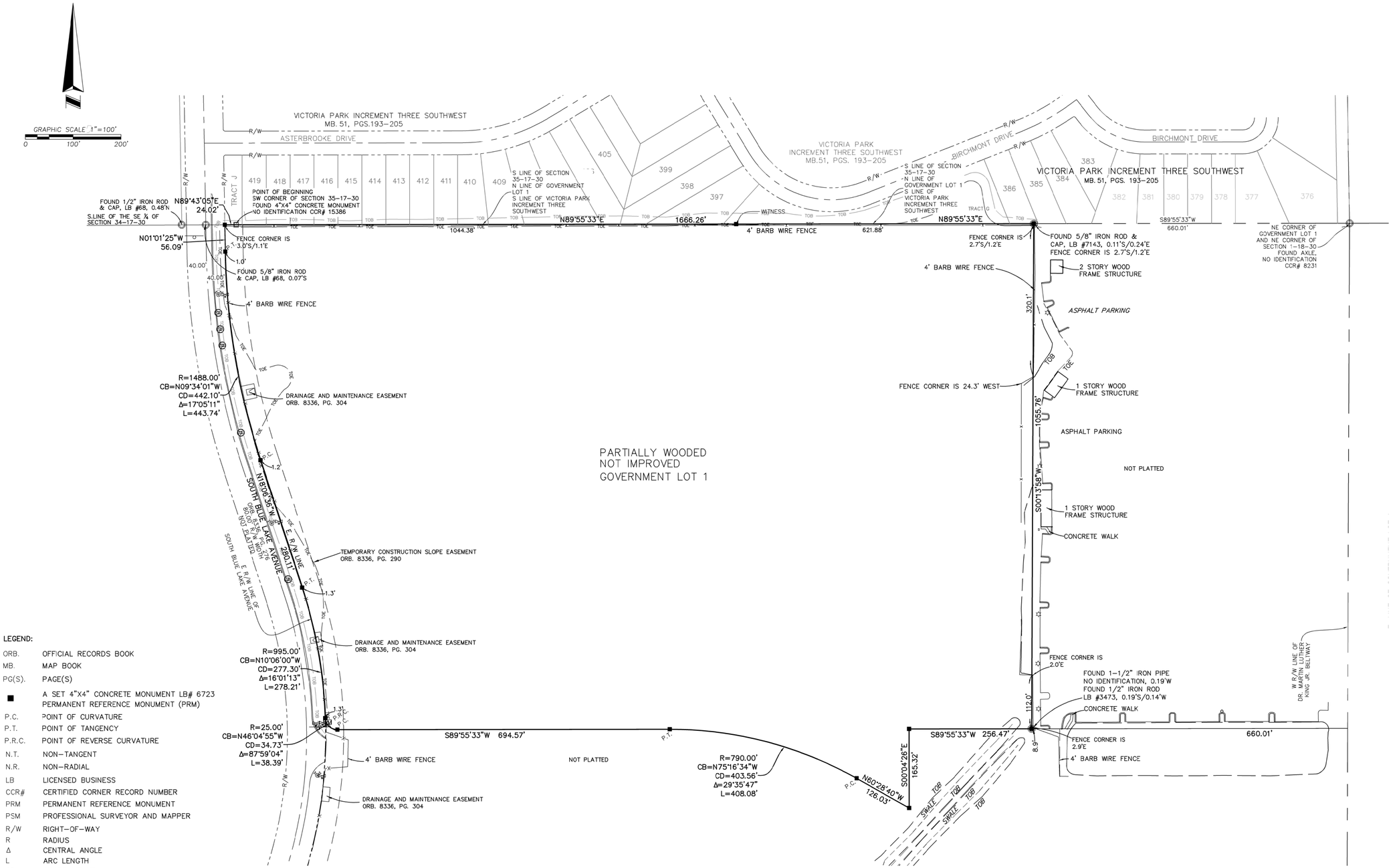
Digitally signed by: James L Rickman
Date: 2025.05.22 16:09:12 -04'00'

DATE	REVISIONS
1-17-25	REVISE ACREAGE ADD CERTIFICATIONS

JOB #: 20200713
DATE: 12-16-24
SCALE: 1"=100'
CALC BY: SEJ
FIELD BY: JDS
DRAWN BY: SEJ
CHECKED BY: MR

SHEET 1 OF 2

Drawing name: L:\Data\20200713\Plat\plat boundary 24x36-Brdy Sheet-1



LEGEND:

ORB.	OFFICIAL RECORDS BOOK
MB.	MAP BOOK
PG(S).	PAGE(S)
■	A SET 4"X4" CONCRETE MONUMENT LB# 6723 PERMANENT REFERENCE MONUMENT (PRM)
P.C.	POINT OF CURVATURE
P.T.	POINT OF TANGENCY
P.R.C.	POINT OF REVERSE CURVATURE
N.T.	NON–TANGENT
N.R.	NON–RADIAL
LB	LICENSED BUSINESS
CCR#	CERTIFIED CORNER RECORD NUMBER
PRM	PERMANENT REFERENCE MONUMENT
PSM	PROFESSIONAL SURVEYOR AND MAPPER
R/W	RIGHT–OF–WAY
R	RADIUS
Δ	CENTRAL ANGLE
L	ARC LENGTH
CD	CHORD LENGTH
CB	CHORD BEARING
TOB	TOP OF BANK
TOE	TOE OF SLOPE
	LIGHT POLE
	STORM DRAINAGE MANHOLE
	FIRE HYDRANT
	MITERED END SECTION
	WATER VALVE
	SINGLE STAND SIGN
WM	WATER METER
	WATERLINE MARKER

Drawing name: L:\Data\20200713\Plat\plat boundary 24x36-Body Sheet-2

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16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
(407) 654–5355 LB#8627

BOUNDARY SURVEY OF FORD 472

SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST
CITY OF DELAND, VOLUSIA COUNTY, FLORIDA

FOR: PULTE HOMES

JAMES LOUIS RICKMAN LICENSE NUMBER 5633 STATE OF FLORIDA PROFESSIONAL SURVEYOR AND MAPPER

LS5633
STATE OF
FLORIDA

This item has been electronically signed and Sealed by James L. Rickman, P.S.M. using A Digital Signature.

Printed Copies of this document are not considered signed and sealed and the signature Must be verified on any electronic copies.

Digitally signed by: James L Rickman
Date: 2025.05.22 16:09:54 -04'00'

DATE	REVISIONS

JOB #: 20200713
DATE: 12–16–24
SCALE: 1"=100'
CALC BY: SEJ
FIELD BY: FORD 472
DRAWN BY: SEJ
CHECKED BY: MR

SHEET 2 OF 2

PLANNING DEPARTMENT STAFF REPORT
TO
THE CITY OF DELAND PLANNING BOARD

September 10, 2025

A. **APPLICATION NO.**: SMLU25-025
APPLICANT: Mr. Mark Watts, Cobb & Cole, P.A.
STAFF PLANNER: Chris Carson, AICP, Senior Planner
REQUEST: To amend the future land use designation from Volusia County Southwest Activity Center Community (SWAC Community) and Volusia County Southwest Activity Center Commerce (SWAC Commerce) to City of DeLand Low Density Residential (LDR)

B. **SITE FACTORS:**

Location: North of SR 472 and east of S. Blue Lake Ave.
Parcel ID #: 800100000026
Parcel Size: ± 39.24 acres
Land Use: Volusia County Southwest Activity Center Community & Volusia County Southwest Activity Center Commerce
Existing Use: Vacant, undeveloped

	SURROUNDING USE:
North:	New Community Development (NCD), VC: Urban Medium Intensity (UMI)
South:	VC: SWAC Commerce
East:	VC: SWAC Community, VC: SWAC Commerce
West:	VC: SWAC Community, VC: SWAC Commerce, VC: Industrial

C. **REQUESTED ACTION & HISTORY:**

1. REQUEST: The applicant is requesting to amend the future land use designation of a ±39.24-acre parcel located on the east side of S. Blue Lake Ave., north of SR 472 from Volusia County's Southwest Activity Center Community (SWAC Community) and Volusia County Southwest Activity Center Commerce (SWAC Commerce) to the City of DeLand's Low Density Residential (LDR) land use designation.

2. History: The applicant has been working with the County to construct a subdivision with a combination of single-family homes and townhomes since 2021. The project was initially put on hold because of a conflict between the minimum density requirements of the County's Comprehensive Plan and the dimensional requirements for single-family residences in the Southwest Activity Center zoning designation.

The Southwest Activity Center was originally visioned as a major employment and commerce center near the I-4 interchange with a variety of housing choices to support the employment base. To spur economic development, and to resolve the conflicts between the Comprehensive Plan and Zoning, County staff modified the SWR and SWC zoning designations. The Ordinance was approved in 2023.

After modifications to the zoning were approved, the applicant proceeded with plat and construction plan review for the subdivision. During the review period, the City and County modified the City's Utility Service Area (USA) boundary which placed the subject property within the limits of the City's USA.

The applicant contacted City staff with a desire to incorporate into the City limits for future consistency. To avoid further project delays, the applicant continued with plat approval, while concurrently submitting applications for incorporation into the City. The application for a small-scale future land use map amendment is accompanied by a request for annexation (AN25-026) and a request for a Planned Development (PD) rezone (Z25-024).

During the review of those applications, the applicant received County approval to begin site and infrastructure work to service the development. That construction activity is currently ongoing. The property was partially wooded and undeveloped. It did not appear to contain any wetlands and does not lie within the 100-year flood zone.

If the requests are approved, the County will continue to monitor and inspect all improvements required by the development order. Prior to any vertical construction, the City will inspect access and utilities for life safety. A site plan will be required for the community amenity center. Building permits for the individual lots will be administered through the City.

D. ANALYSIS:

The purpose of this section is to analyze the reasonableness of the applicant's request for a small-scale Future Land Use Map amendment. Florida Statute 163.3187 allows for an small scale Future Land Use Map amendment when: the proposed amendment involves 50 acres or less, the proposed amendment does not invovle a text change to the goals, policies, and objectives of the Comprehensive Plan, and the property is not located within an area of critical state concern.

1. Availability of Public Facilities (water, sewer, drainage, traffic, and schools if residential):

The City's Utilities Department has provided a Utility Service Agreement (USA) to serve water and sewer. Water is available via a 12" water main on S. Blue Lake Ave. and sewer is available via a 8" gravity line along Asterbrooke Dr., just north of the subject property.

A Traffic Impact Analysis (TIA) was reviewed and approved by Volusia County during the preliminary plat review. During the review it was determined that the project would generate 1,728 new average daily trips, 121 AM peak hour trips, and 154 PM peak hour trips. A number of improvements were recommended based on the project's impacts within the study area, including the extension of Cassadaga Road and a number of turn lane improvements. The impacts are being mitigated through the applicant's dedication of the right of way required to extend Cassadaga Road from MLK Boulevard to S. Blue Lake Avenue and the construction of the Cassadaga Roadway and intersection improvements.

In a memo dated May 20, 2025, the Volusia County School Board issued a capacity determination letter which found no objection for the proposed project.

2. **Compatibility with Land Use and Other Elements:** The Future Land Use element requires that the subject property be consistent with surrounding development. The Comprehensive Plan describes the Low Density Residential land use designation as being typified by detached single-family housing types with a maximum density of 5.8 dwelling units per acre, serving in areas where more intense residential densities would cause environmental problems or would be incompatible with surrounding uses. Cluster housing may be permitted to provide common open space and conservation areas.

   To the north of the property is the Victoria Park PD, with a maximum density of 2.5 dwelling units per acre. To the east is the Integra Dunes RPUD, with a maximum density of 18 dwelling units per acre. South of the property is currently undeveloped, with a minimum density of 8 dwelling units per acre and a maximum density of 22 dwelling units per acre. West of the property is a combination of industrial and undeveloped land. The undeveloped land has a maximum density of 8 dwelling units per acre to the north and 22 dwelling units per acre to the south.

   The proposed maximum density of 5.8 dwelling units per acre provides a transition from the lower density residential to the higher density residential and nonresidential uses. Therefore, the request is compatible with the Comprehensive Plan.

3. **Future Land Use Map:** The proposed change in the land use designation to Low Density Residential (LDR) will be shown on the revised Future Land Use Map.

4. **Location of Lakes, Floodplains, and Wetlands:** The property does not contain bodies of water, nor is it located within a floodplain.

5. **Analysis of Natural Resources:**
   a. *Soil types:* Apopka fine sand, Astatula fine sand, Tavares fine sand

   b. *Presence of Endangered Species*: During the County's plat review, it was determined that eight (8) gopher tortoises were present on site. The applicant received Florida Fish and Wildlife Conservation Commission (FWCCC) approval prior to construction.

6. **Existing and Future Impact upon Infrastructure Capacity:**

   a. *Water and Sewer* – Since the project area is within the City's Utility Service Area, the applicant coordinated with the City's Utility Department during preliminary plat review. It was determined there is sufficient water and sewer supply available and a Utility Service Agreement was issued. There are no changes to the water demand resulting from the future land use map amendment.

   b. *Drainage* – Drainage was reviewed during plat review. The approved plat meets the County's stormwater requirement to retain the 100-year frequency, 24-hour storm event. There are no impacts from the future land use change to the City's stormwater capacity.

   c. *Solid Waste* – Solid waste services are available for the property. The County has landfill capacity available to receive waste projected to be generated from the

development. The Volusia County Waste Management Facility has capacity for the next twenty-seven (27) years.

d. *Transportation* – In order to estimate traffic generation by development on the subject property, Staff must make projections for the most intense type of development allowed under the existing and proposed land use designations. Development under the most intensive of the uses allowed under the current land use designation of Volusia County Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce) must be compared with the most intensive use proposed under the City's Low Density Residential (LDR) designation.

The Volusia County Southwest Activity Center Community land use designation allows a maximum density of 8 dwelling unit per acre; and with the most-intense allowable residential use, the property would currently be permitted to yield up to 313.9 units and would generate **2,292** trips per day according to the Institute of Transportation Engineers Trip Generation Manual. (11th ed.)

DeLand's Low Density Residential land use designation allows for a maximum density up to 5.8 dwelling units per acre. If the land use amendment is approved, the 39.24 acres of property could yield as many as 227 units with **1,661** trips per day, resulting in a net decrease of 631 average daily trips.

7. **Impact upon Recreation and Open Space:** The development includes 0.46 acres of park space to serve residents within the development. All residents will have access to recreational opportunities; therefore, the future land use amendment should not have an impact to the existing level of service.

8. **New Public Facilities Needed to Serve Land Use:** Per the feasibility analysis completed by staff, no need for new public facilities is anticipated.

9. **Impact upon Ability of the City to Fund Capital Improvements:** The development should not create an additional impact upon the City's ability to fund the projects listed in the adopted Five-Year Capital Improvement Program and will not require revision to the City's adopted Five-Year Capital Improvement Program.

10. **Compatibility with Existing Zoning Classification:** The proposed Canopy Preserve PD zoning designation is compatible with the Low Density Residential land use designation.

11. **Will the proposed land use change impact schools?** A school concurrency letter dated May 20, 2025, was provided, stating that the Volusia County School District has no objection to the proposed development plan.

12. **How does this proposal fit with the guidelines developed for DeLand 2050 Vision and the City's Strategic Plan?**

a. According to the City's 2050 Vision Plan, the proposal is located in the Urban Core (Category 2), which is where the majority of new growth will take place. It is also located within the City's Utility Service Area boundary. Therefore, the proposal is consistent with the DeLand 2050 Vision.

b. According to the City's Strategic Plan, to manage growth, the city will institute a number of smart growth principles. For reasons of both community identity and governmental efficiency, an annexation strategy is required which will square off the city's boundaries. The urban core is the key area to focus development, maintaining a strong job base and taking advantage of existing infrastructure. Locating higher intensity along select corridors or major centers will encourage transit and lessen traffic congestion.

The subject property is located within the Urban Core, as shown on the DeLand 2050 Land Use Map. The land use proposed is appropriate for the location as it is located along a collector road with existing infrastructure, and serving as a transition between lower density residential and higher density residential, and near employment areas and future commercial development.

E. **CONCLUSION:** The facility analysis presented in the above sections suggests the proposed land use should not cause any of the City's facilities to degrade below the adopted or current operational level of service (LOS). The proposed land use designation, Low Density Residential, is consistent with the surrounding area, and is not expected to create any land use incompatibilities.

F. **Next Steps:** The request for a small-scale future land use map amendment will go before the City Commission on October 6, 2025 for first reading, followed by Volusia Growth Management Commission Review (VGMC). After VGMC review, the request is anticipated to go before City Commission on November 17, 2025 for second reading.

G. **STAFF RECOMMENDATION:** Staff recommends that the Planning Board forward the request to the City Commission with a recommendation of approval of the proposed future land use map amendment from Volusia County's Southwest Activity Center Community (SWAC Community) and Volusia County Southwest Activity Center Commerce (SWAC Commerce) to the City of DeLand's Low Density Residential (LDR).

G. **VGMC INFRASTRUCTURE IMPACT ASSESSMENT:**

In accordance with standard practice from the Florida Department of Economic Opportunity (DEO) and other review agencies, an impact comparison analysis of the proposed amendment has been completed based upon the theoretical maximum development potential under the currently adopted future land use designation versus the proposed designation.

The following seven public facilities and services were examined: (Table 4)

1. Transportation
2. Sanitary Sewer
3. Potable Water
4. Solid Waste
5. Stormwater Drainage
6. Recreation
7. Schools

Table 4. Impact Analysis (Theoretical Max.)

Development Variable	Theoretical Maximums		
	EXISTING	PROPOSED	Net Change
Permitted Density/Intensity	8 du/acre	5.8 du/acre	-2.2 du/acre
Dwelling Units	313.92	227.59	-86
Non-residential Sq. Ft.	Not Applicable		
Population *2.44 persons per household (per 2020 Census)*	766	555	-211
Transportation ***(PM Peak Hr. Trips/Daily Trips)*** *(ITE Trip Generation Manual, 11th Edition): PM PEAK HR rate (215): 0.58 trips per unit; ADT rate RM (215): 7.30 trips per day per unit*	182 peak/2,292 ADT	132 peak/1,661 ADT	-50 peak/-631 ADT
Sanitary Sewer ***(gallons/day)*** *225 GPD per Equivalent Residential Unit (ERU)*	70,632	51,208	-19,424
Potable Water ***(gallons/day)*** *255 GPD per Equivalent Residential Unit (ERU)*	80,050	58,035	-22,015
Solid Waste ***(pounds/day)*** *8.6 pounds per person per day*	6,587.6	4,773	-1,814.6
Stormwater Drainage *LOS Standard 100-yr/24-hr event. Drainage system to be designed to meet the req. of the LDR during subdivision or site plan review.*	No Change		
Recreation/Open Space *4.6 parkland acres/1,000 persons (0.0046 acres/person)*	3.52	2.55	-0.97

The proposed amendment results in decreased impacts to all public infrastructure and services based on the theoretical maximum impact analysis.

Scott W. Cichon
Robert A. Merrell III
John P. Ferguson
Mark A. Watts
Heather Bond Vargas
Michael J. Woods
Raymond L. Schumann
Kathleen L. Crotty
Michael O. Sznapstajler
Andrew C. Grant
Matthew S. Welch
Edward H. Thompson
Robert E. Doan
William A. Rice
Douglas J. Collins
Sara E. Glover
Holly W. Zitzka
Jessica L. Gow

COBB COLE
Attorneys at Law
Since 1925

Daytona Beach • DeLand
231 North Woodland Boulevard
DeLand, Florida 32720
(386) 736-7700 | CobbCole.Com

Sydney V. Cichon
Anthony E. Aguanno
Baylee D. Bunyard
Anne M. Kehrli
Alanna V. Smith

OF COUNSEL
Larry D. Marsh
Ira Halfond

William M. Cobb (1881-1939)
Thomas T. Cobb (1916-2004)
W. Warren Cole, Jr. (1926-2008)

February 26, 2025

Carol Kuhn, AICP
Planning Director
City of DeLand
120 South Florida Avenue
DeLand, FL 32720

Re: Revised Project Narrative – 472 PD, Annexation & Small-Scale CPA
Parcel ID No. 8001-00-00-0020 (northern portion of)

Dear Carol,

Cobb Cole represents Pulte Home Company, LLC, owners of the above-referenced parcel. The property is currently undergoing subdivision review and approval by the County of Volusia for the development of single family and townhome style residential units. The property is subject to an annexation, land use, and rezoning request to locate the property within the municipal boundaries of the City of DeLand.

We are requesting to amend the future land use and zoning designations for the property identified in the application ("Property") from Volusia County SWR (land use and zoning) and SWC (land use and zoning) to the City's Low Density Residential ("LDR") land use classification and PUD zoning. The purpose of the applications is to transition the Property while it is under development from the County to City's jurisdiction as a result of the recent shift in utility service area boundaries in the vicinity of the Martin Luther King, Jr. Beltway and S. R. 472. The Property is currently under development based on an approved preliminary subdivision plat for single family residential and townhome residential units and associated amenities. As the Property is developed, the developer is also obligated to extend Cassadaga Road from its current intersection with the MLK Beltway to the recent southern extension of Blue Lake Road.

As background information, the County's SWR and SWC future land use and zoning were created following the abandonment of the former S.R. 472 Areawide Development of Regional Impact ("472 DRI"). Similar to the City of DeLand, the County incorporated much of the development entitlements from the 472 DRI into the SWR and SWC classifications to continue implementing the overall goals, policies and objectives defined by the 472 DRI. The majority of the Property is included within the SWR classifications, which were designed to

provide residential development areas supporting the overall land use mix outlined in the 472 DRI. The SWC classification is primarily designed to support commercial development, however the only portions of the Property that are currently classified under SWC are the areas that will be improved with the Cassadaga Road extension and associated stormwater infrastructure.

Pulte Homes began working with County staff on subdivision approvals for the Property in 2021. When Pulte submitted initial applications, we determined that the Property could not be developed with the minimum required density of 4 units per acre required by the SWR land use classification based on the minimum dimensional requirements adopted in the SWR zoning classification for single family lots. As a result, we coordinated with County staff and the County Council approved revisions to the minimum single family lot dimensional requirements in order to permit development that would meet the minimum required density. During the time the County was processing administrative amendments to the SWR and SWC zoning classifications, consideration of the pending preliminary plat was put on hold. The subdivision review proceeded following the County's correction of the SWR zoning classification's dimensional criteria.

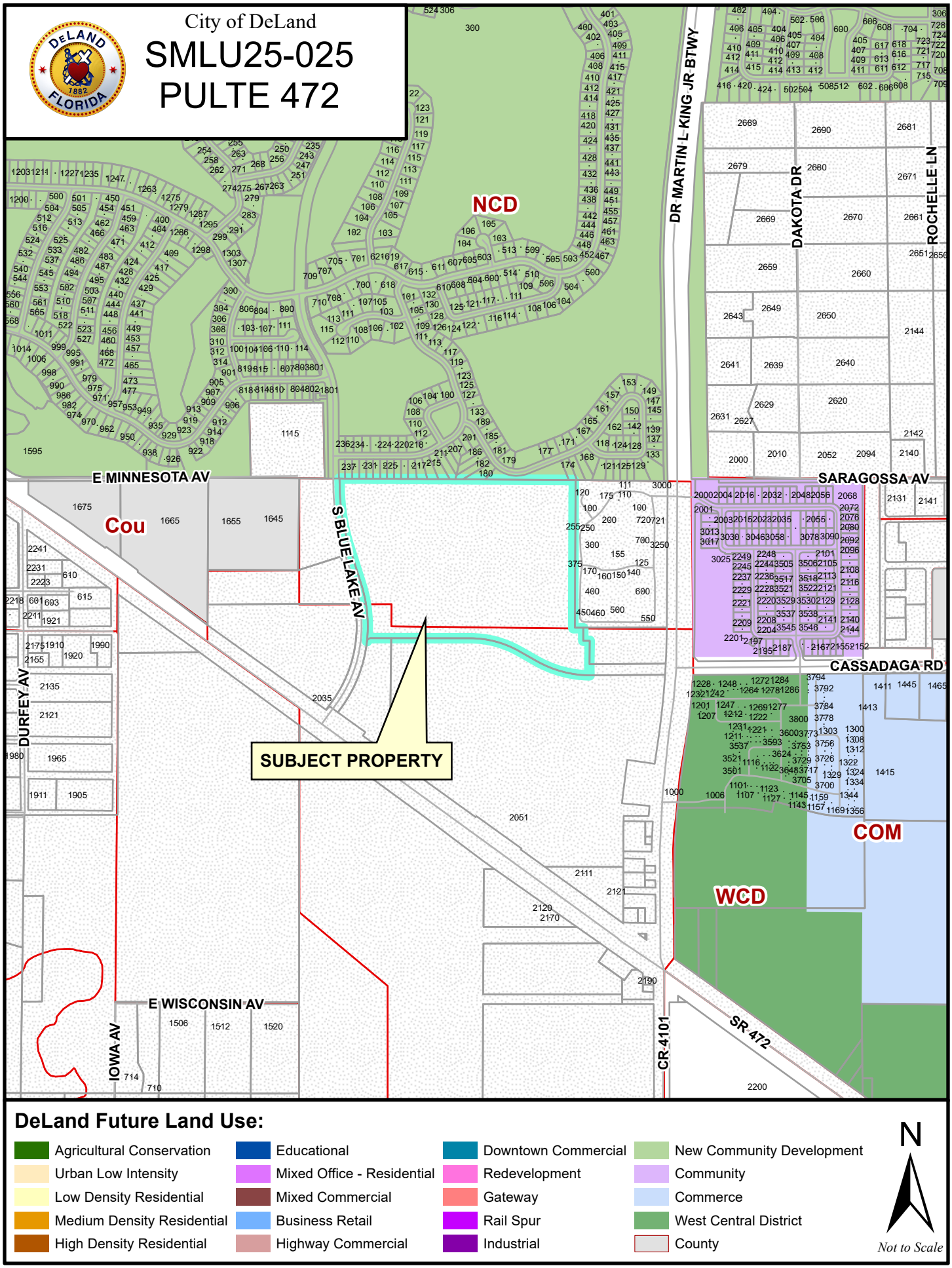
While the preliminary plat was under review and the SWR zoning classification revisions were being reviewed and approved, the City and County revised the boundaries of the utility service areas for the Property. The result of those revisions added the Property to the City's utility service boundary. Since the preliminary plat review was substantially underway at that point in time, we coordinated with City and County staff to proceed with annexation of the Property into the City once the preliminary plat review was completed.

Based on the approved preliminary plat, the Property is currently under development. Based on our coordination with City and County staff, the proposed applications submitted to the City with this letter will annex the Property, assign a land use classification consistent with the approved residential density and incorporate the development standards outlined in the County's SWR classification into a PUD for the Property. The County will continue to provide permit review and inspections for the subdivision improvements required by the approved preliminary plat development order. The City will inspect and improve all utility improvements included in the preliminary plat development order since it is the utility provider. Our intent is to finalize the PUD rezoning in time to allow vertical permitting for all single family and townhome residential structures through the City. In addition, since the City considers townhomes as a multi-family use and subject to the City's community design standards, review and approval of the proposed architectural design for the townhomes is also proposed as part of the PUD approval.
At completion, the development of the Property will include 112 townhome units and 91 single family units. The resulting density is 5.2 units/acre and complies with the minimum required density of the County's SWR land use classification. It is also consistent with the City's LDR land use classification. As noted above, the development includes construction of

extension of Cassadaga Road, and the provision of supporting open space and stormwater amenities. Site development and permitting of horizontal site improvements will be permitted through the County of Volusia, with vertical building permit review and issuance proposed under the City of DeLand and in accordance with the proposed PUD regulations.

Sincerely,

Mark A. Watts, Esq.
Mark.Watts@cobbcole.com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PULTE 472
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DAKOTA DR
ROCHELLE LN
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SARAGOSSA AV
CASSADAGA RD
DURFEY AV
SUBJECT PROPERTY
COM
WCD
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IOWA AV
CR 4101
SR 472
DeLand Future Land Use:
Agricultural Conservation
Urban Low Intensity
Low Density Residential
Medium Density Residential
High Density Residential
Educational
Mixed Office - Residential
Mixed Commercial
Business Retail
Highway Commercial
Downtown Commercial
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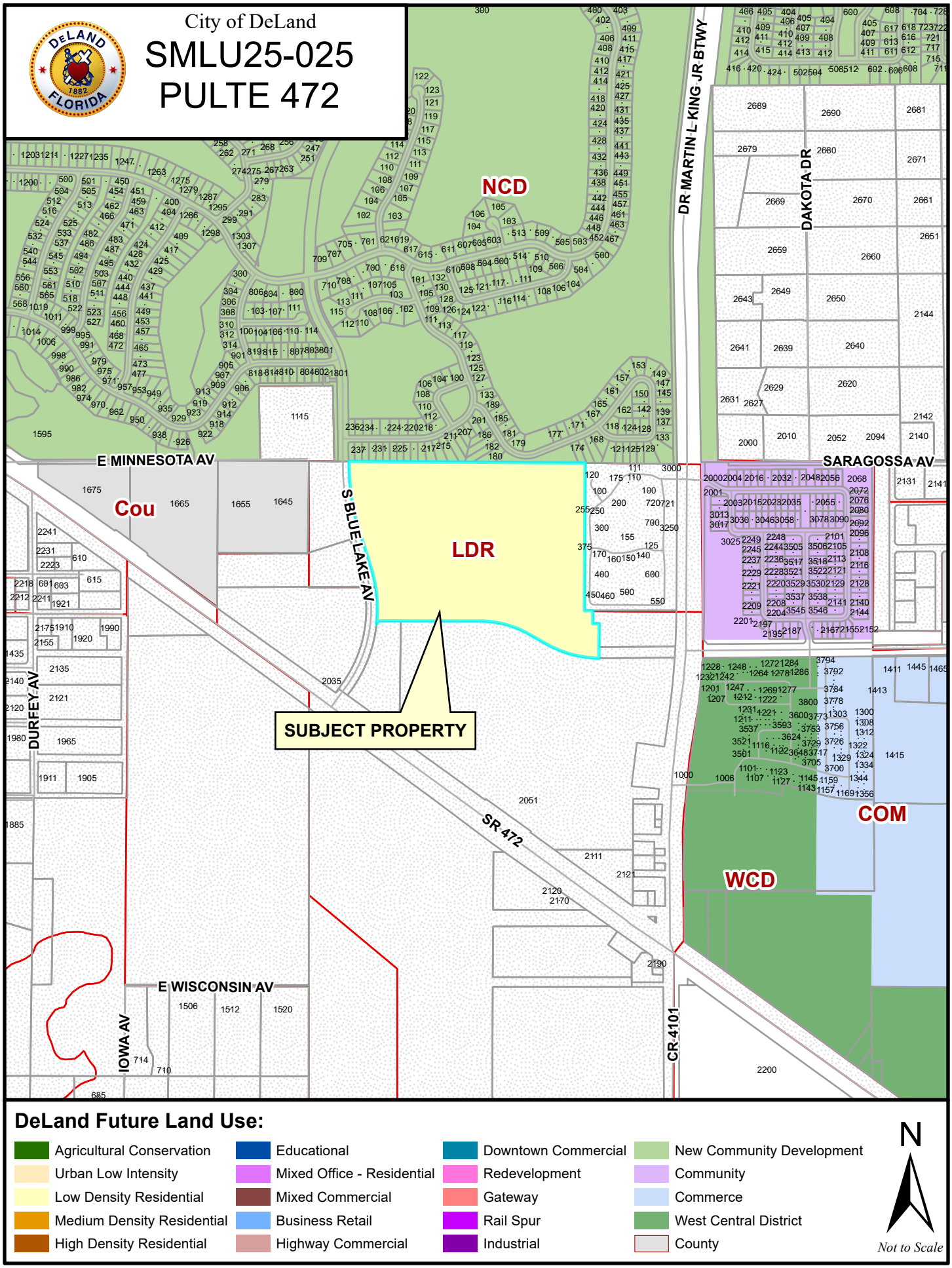
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Business Retail
Highway Commercial
Downtown Commercial
Redevelopment
Gateway
Rail Spur
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West Central District
County
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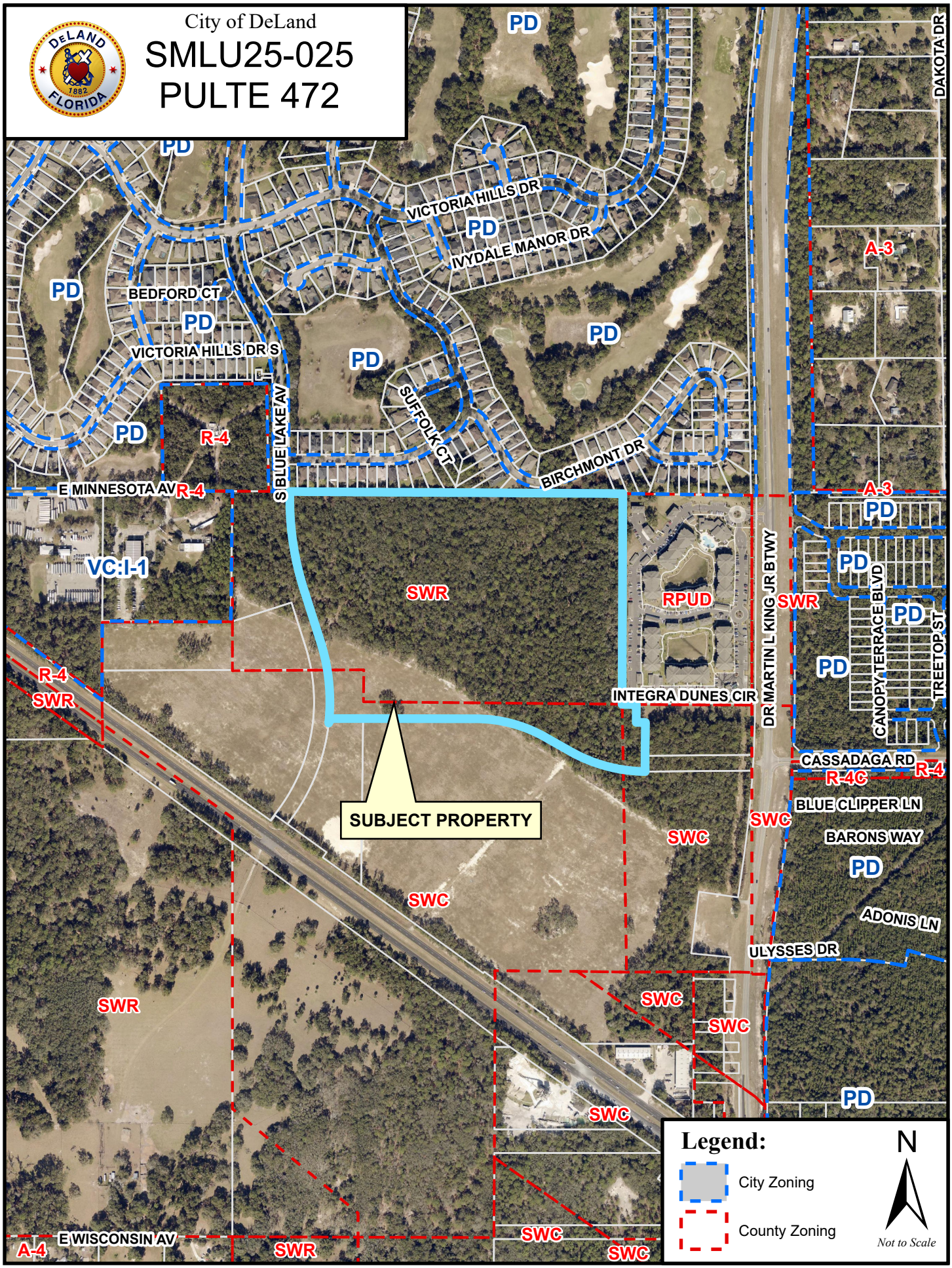
City of DeLand
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PULTE 472
SUBJECT PROPERTY
VICTORIA HILLS DR
IVYDALE MANOR DR
BEDFORD CT
VICTORIA HILLS DR S
SUFFOLK CT
BIRCHMONT DR
S BLUE LAKE AV
E MINNESOTA AV
INTEGRA DUNES CIR
DR MARTIN L KING JR BTWY
CANOPY TERRACE BLVD
TREETOP ST
CASSADAGA RD
BLUE CLIPPER LN
BARONS WAY
ADONIS LN
ULYSSES DR
DAKOTA DR
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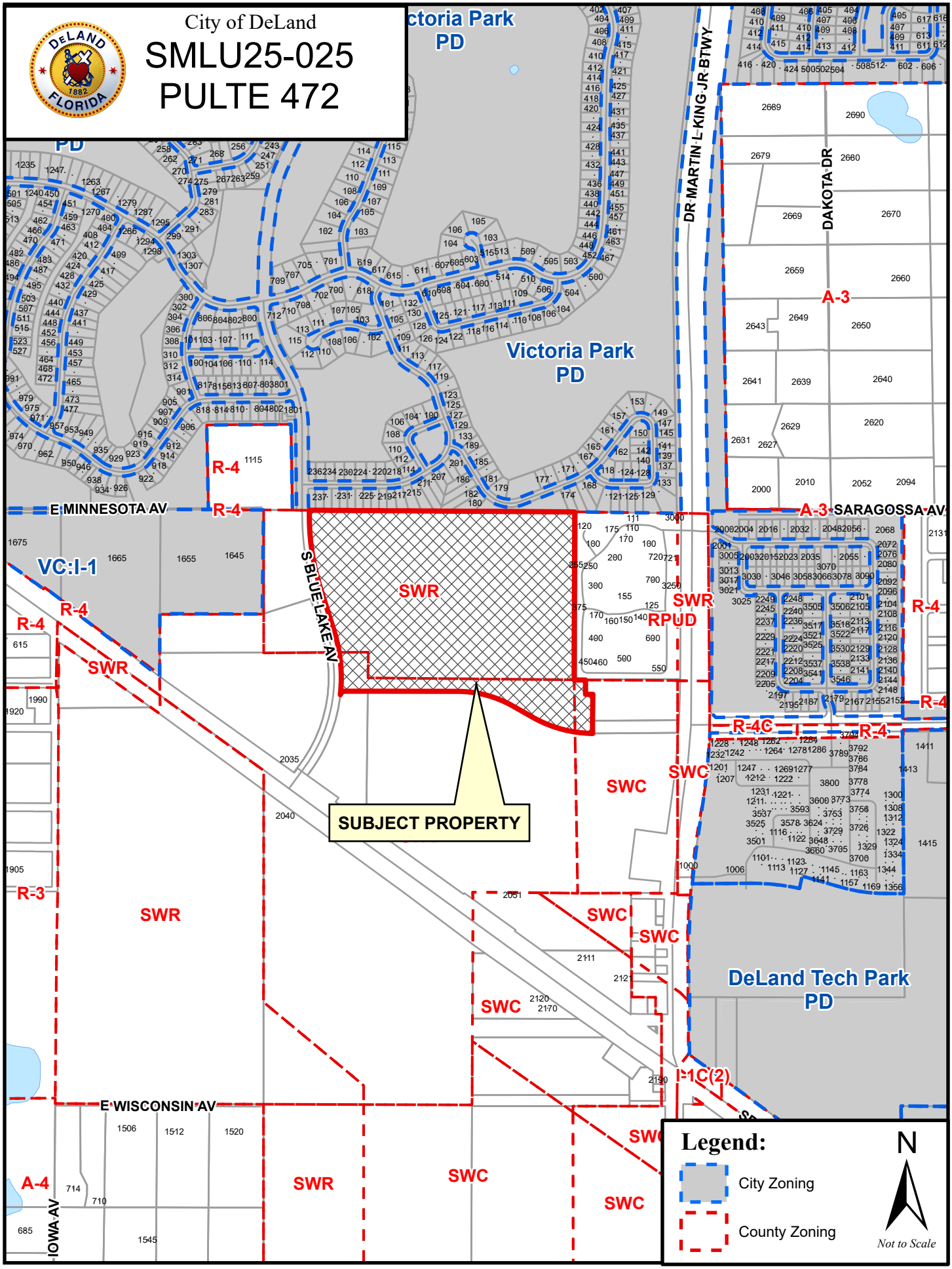
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SMLU25-025
PULTE 472
Victoria Park PD
Victoria Park PD
DR MARTIN L KING JR BTWY
DAKOTA DR
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SARAGOSSA AV
S BLUE LAKE AV
E WISCONSIN AV
IOWA AV
VC:I-1
R-4
R-4C
R-3
A-3
A-4
SWR
SWC
RPUD
I-1C(2)
SUBJECT PROPERTY
DeLand Tech Park PD
Legend:
City Zoning
County Zoning
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Not to Scale

VOLUSIA COUNTY SCHOOLS

Carmen J. Balgobin, Ed.D
Superintendent of Schools

School Board of Volusia County

Ms. Jamie M. Haynes, Chair
Mr. Ruben Colón, Vice Chair
Ms. Krista Goodrich
Mrs. Jessie Thompson
Ms. Donna Brosemer

School Concurrency Determination
Concurrency Letter

May 20, 2025

Mr. Mark A. Watts, Esq.
Cobb Cole
231 N. Woodland Blvd
DeLand, FL 32720

RE : Ford 472 – County of Volusia
School Concurrency Case # 25-02-25-001-R

Mr. Watts:

District staff has reviewed the school concurrency application for the residential project known as Ford 472, associated with 39.24 +/- acres of property. The property is located at or near the intersection of State Road 472 and Dr. Martin L King Jr. Blvd within an unincorporated area of Volusia county. Information provided in the application indicates the development activity will consist of ninety-one (91) single family units and one hundred twelve (112) multi-family.

The district uses a county wide Student Generation Rate (SGR) of (0.258) per single family and 0.137 per multi-family dwelling unit to calculate projected students. By applying the SGR to the use types in Table 1 below, the project could generate Thirty-Five (35) full time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	0.258	91	14
Multi Family Dwelling Unit	0.137	112	21
Mobile/ Manufactured Home Dwelling Unit	0.052	0	0
	Total	**203**	**35**

The Concurrency Analysis (Table 2, next page) adjusts for impacts to the Concurrency Service Areas (CSAs) by accounting for current school year enrollments, existing reservations at the impacted schools, and the projected students generated by the applicant. These factors give an associated utilization or Level of Service (LOS) percentage for each CSA.

The schools impacted by this development are Orange City Elementary School, Deland Middle School, and University High School.

Concurrency Analysis

Table 2

Schools	Adopted LOS	SY 2024/25 Enrollment	Active Reservations	Existing LOS w/ Res	Students Generated by Request	Result LOS
Orange City Elementary	115%	595	17	119%	15	122%
Deland Middle	115%	1067	85	100%	8	104%
<Planning Area> CSA (University High)	120%	2881	80	114%	13	115%
Other					35	

The adopted LOS standard for elementary and middle school is (115%) of permanent student stations, and (120%) for high school CSAs. This projected increase in students **will** exceed the adopted LOS at the elementary level. However, the classroom addition at Orange City elementary is projected to be completed within the coming school year, therefore the school district has no objection to this proposed residential development. Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering.

Please note that the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Therefore, students generated from this project may not attend the current assigned schools.

Should you need additional information, please contact me at (386) 947-8786, ext. 50754.

Sincerely,

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

CC: Carmen J. Balgobin, Ed.D, Superintendent of Schools
Ron Young, Director of Planning & Construction
Robert J. Voges, Ed.S, Planning Coordinator
Kimberly Reading, Land Development Manager, County of Volusia

VOLUSIA COUNTY SCHOOLS

Certificate of School Concurrency

VOLUSIA COUNTY SCHOOL BOARD

Project Information

Project Name	Ford 472
VCSB Project #	25-02-25-001-R
Jurisdiction Project #	
Parcel ID Numbers	8001-00-00-0020
Project Location	State Road 472 and Dr. Martin L King Jr. Blvd
# of Residential Units	203
Residential Unit Type	91 Single Family Homes 112 Multi-Family Townhomes
Property Owners	Pulte Home Company, LLC
Applicant/Agent Name	Mark A. Watts Esp., Cobb Cole

This School Concurrency Certificate shall reserve student stations for the above referenced project and shall confirm that said project meets the School Concurrency requirements of the adopted Interlocal Agreement for Public School Facility Planning.

School Concurrency Analysis

School Levels	Elementary	Middle	High	Other	Total Student Stations Reserved
Students Generated	**15**	**8**	**5**	0	**35**

Comments: This certificate is required to be included with the building permit submittal(s) as proof of school concurrency.

This concurrency reservation shall expire two (2) years from the date of issuance of this certificate.

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

May 20, 2025
Issue Date

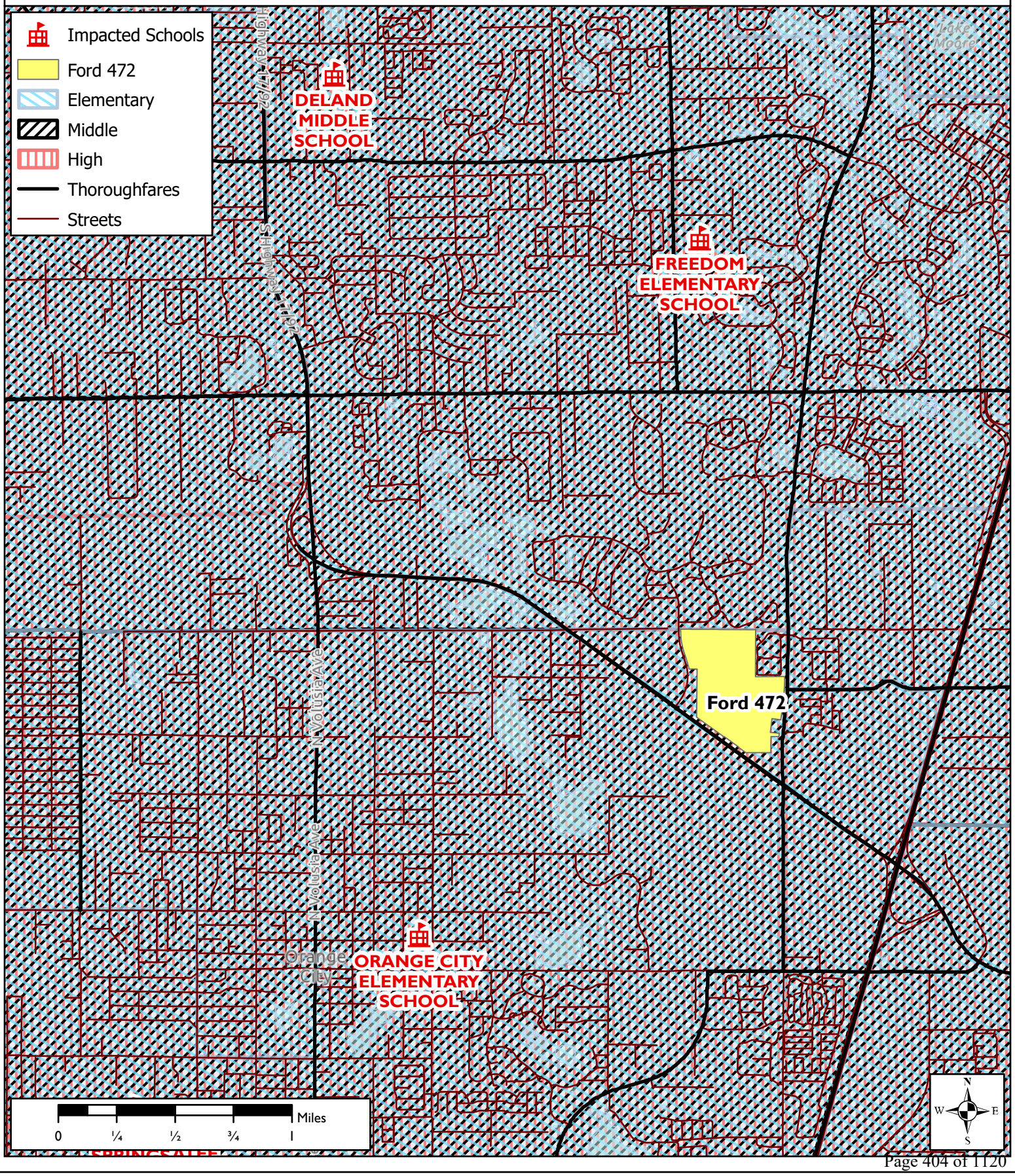
Created: 9/2007
Rev: 1/2018
Owner: Facilities Services

2008-072-VCS
Print Locally

VCSB Schools Impacted by Development

School Concurrency Review - Ford 472

VOLUSIA COUNTY SCHOOLS
Planning & Business Services
May 2025



Ford 472
Project № 21145, v1.3
February 2025

Traffic Impact Analysis
City of Deland
Florida

Prepared for:

Pulte Group
4901 Vineland Road, Suite 460
Orando, Florida 32811

Prepared by:

3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

EXECUTIVE SUMMARY

Project Information

Name:	Ford 472
Location:	West of Dr. Martin Luther King Jr. Beltway (MLK) and north of State Road 472 (SR 472)
Jurisdiction	City of Deland, Florida
Description:	91 single family dwelling units and 112 townhomes

Findings

Trip Generation: 1,728 Net New External ADT / 121 AM Peak / 154 PM Peak

Adverse Impacts: The proposed development impacts the following adverse roadways:

- Graves Avenue from Veterans Memorial Parkway to Normandy Boulevard
- Howland Boulevard from I-4/SR 472 to Wolf Pack Run
- Orange Camp Road from US 17/92 to Princeton Road
- West Volusia Beltway from Harley Strickland Boulevard to Rhode Island Avenue

SR 472 and MLK Beltway is currently experiencing delays and is projected to continue to do so at project buildout. However, with background improvements submitted by other projects, the intersection is expected to operate at an overall adequate LOS. The development adds approximately 1% to the total projected traffic.

Recommendations

Access Road Improvements:

<u>MLK Beltway and Cassadaga Road</u>
Install a 455-foot-long northbound left turn lane on MLK Beltway.
Install a 455-foot-long southbound right turn lane on MLK Beltway.
Install a 145-foot-long eastbound left turn lane and a shared right turn/thru lane on Cassadaga Road.

<u>Cassadaga Road Extension and Access I</u>
Install a 145-foot-long westbound left turn lane on Cassadaga Road.
Provide a 145-foot-long southbound egress lane for the left turn movement.

Off-Site Mitigation: The project's proportionate share mitigation is $234,281.24, which shall be paid in accordance with a mitigation agreement with Volusia County.

PROFESSIONAL ENGINEERING CERTIFICATION

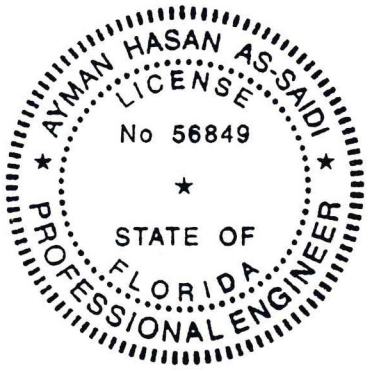
I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Ford 472

LOCATION: City of Deland, Florida

CLIENT: Pulte Group

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

AYMAN H AS-SAIDI

Digitally signed by AYMAN H AS-SAIDI
Date: 2025.02.13 15:18:53 -05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BOULEVARD, SUITE 265
ORLANDO, FLORIDA 32803

CERTIFICATE OF AUTHORIZATION CA-30024

AYMAN H. AS-SAIDI, P.E. № 56849

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1.0 INTRODUCTION

This analysis was prepared in support of a development application for the Ford 472 project. The project is a residential development that includes the land uses and quantities presented in **Table 1**. The project's anticipated buildout date is 2028. This analysis has been updated to address the comments received from Volusia County. The response to the comments letter is provided in **Appendix A**, along with the comment letter from Volusia County.

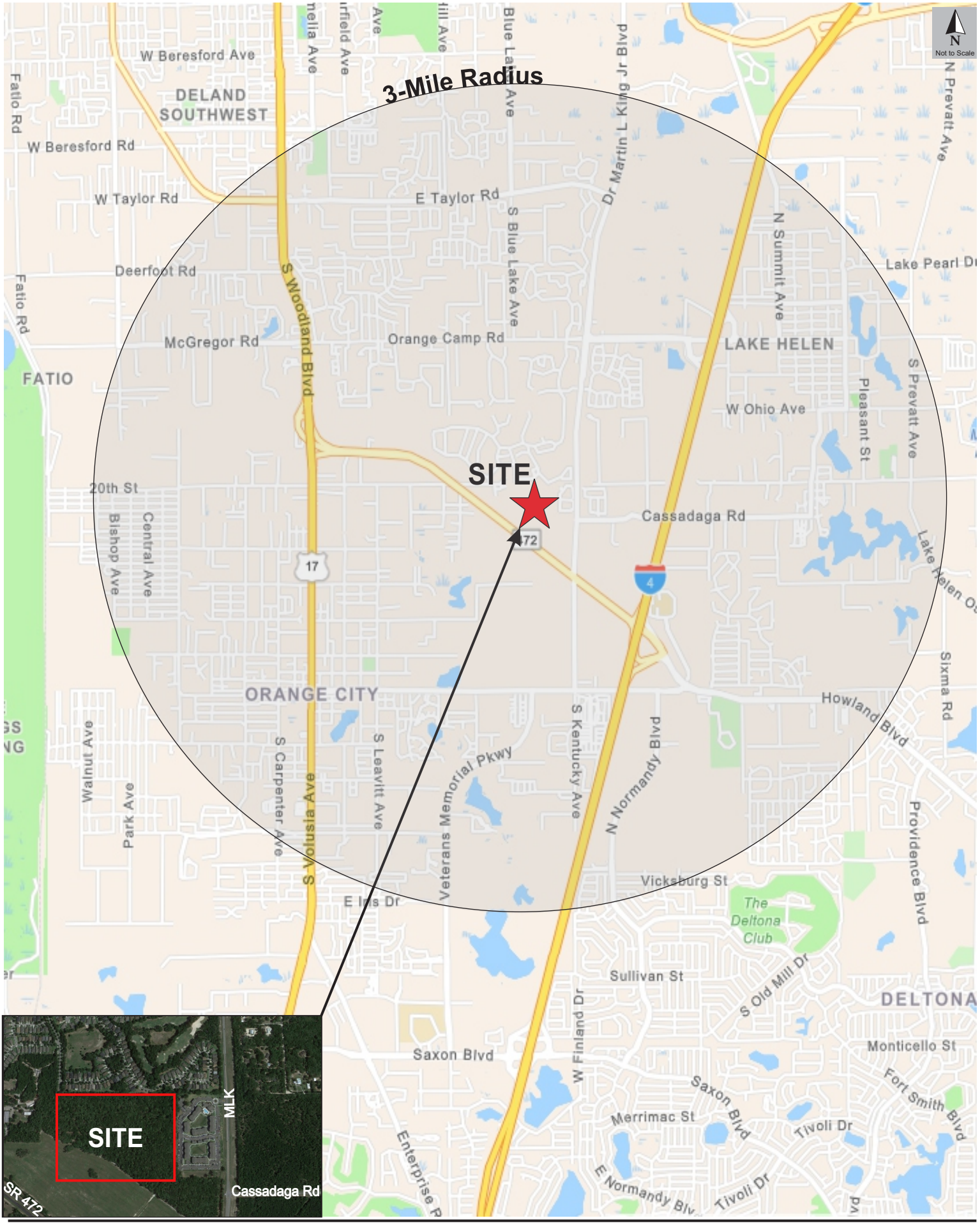
Table 1
Development Plan

Land Use	Size	ITE Code
Single Family Residential	91 DU	210
Townhomes	112 DU	215

The site is located west of Dr. Martin Luther King Jr. Beltway (MLK) and north of State Road 472 (SR 472) in the City of Deland, Florida. **Figure 1** depicts the site location and the surrounding transportation network. Cassadaga Road and Blue Lake Avenue are planned to be extended to facilitate access to the project site. Access will be provided via two driveways: one (1) full access driveway on the Cassadaga Road extension and one (1) full access driveway on the Blue Lake Avenue extension. The proposed access plan is illustrated in **Figure 2**. A conceptual site plan depicting the site layout, land uses, and access points is provided in **Appendix B**. The conceptual layout of the intersections along the Cassadaga Road extension and Blue Lake Avenue Extension along with the approved development plan are also provided in **Appendix B**.

The analysis was conducted in accordance with the methodology approved by Volusia County, which is provided along with the approval letter in **Appendix C**.

Information used in this analysis includes data collected by Traffic & Mobility Consultants, information provided by the project team, and/or other data and information obtained from Volusia County, the Institute of Transportation Engineers (ITE), and the Florida Department of Transportation (FDOT).



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Site Location Map **Figure 1**


N
Not to Scale
MLK
Proposed
Full Access
Proposed S.Blue Lake Ave Extension
Proposed Cassadaga Rd Extension
Proposed
Full Access
Existing Signal
Existing Median
Opening
SR 472
MLK

2.0 PROJECT TRAFFIC

2.1 Trip Generation

The trips generated by the proposed development were projected using data published in the ITE *Trip Generation Manual, 11th Edition*. Trip generation rates and/or equations published for the land uses were applied to the proposed development program to determine the total trips generated by the project.

The trip generation calculations are summarized in **Table 2** and detailed information is included in **Appendix D.**

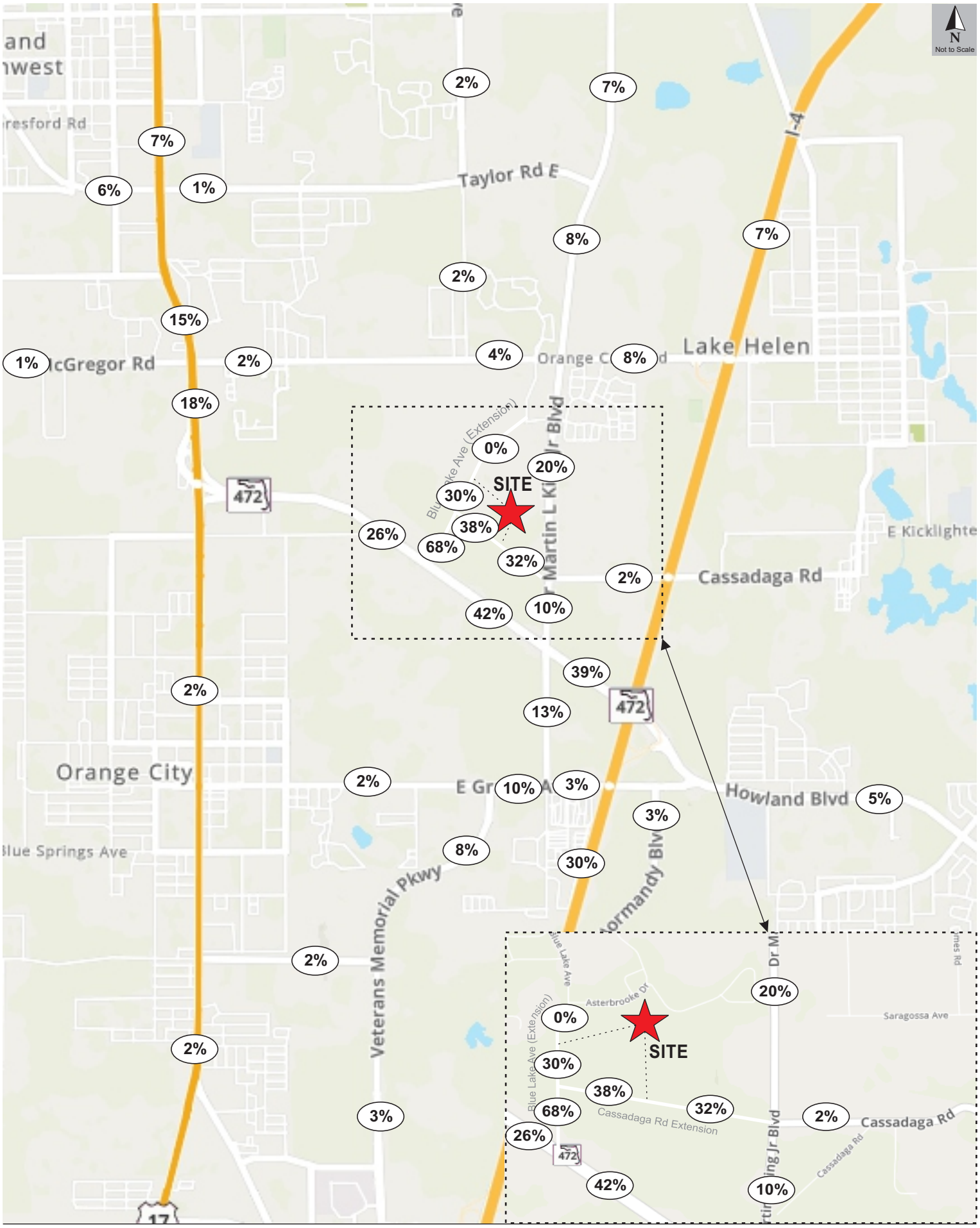
Table 2
Trip Generation Summary

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single Family Residential	91 DU	10.17	925	0.75	68	17	51	1.00	91	57	34
215	Single Family Attached (Townhomes)	112 DU	7.17	803	0.47	53	13	40	0.56	63	37	26
Total Trip Generation				**1,728**		**121**	**30**	**91**		**154**	**94**	**60**

Trip generation analysis based on ITE Trip Generation Manual, 11th Edition

2.2 Trip Distribution

A preliminary trip distribution pattern was developed using the *Central Florida Regional Planning Model (CFRPMv7)*. The adopted model was modified to include project specific Traffic Analysis Zones with the corresponding socio-economic data to reflect the proposed development. A Select Zone Analysis was executed to obtain a model-generated trip distribution pattern on the surrounding transportation network. Minor manual adjustments were applied to the model generated distribution pattern to better reflect the local transportation network and prevailing travel patterns. The final trip distribution pattern is illustrated in **Figure 3** and the model output plots are included **Appendix E**. The trip assignment at the project driveways was determined based on the relative trip generation of the different components of the site and their proximity to the driveways. The driveway trip assignment is illustrated in **Figure 4**.



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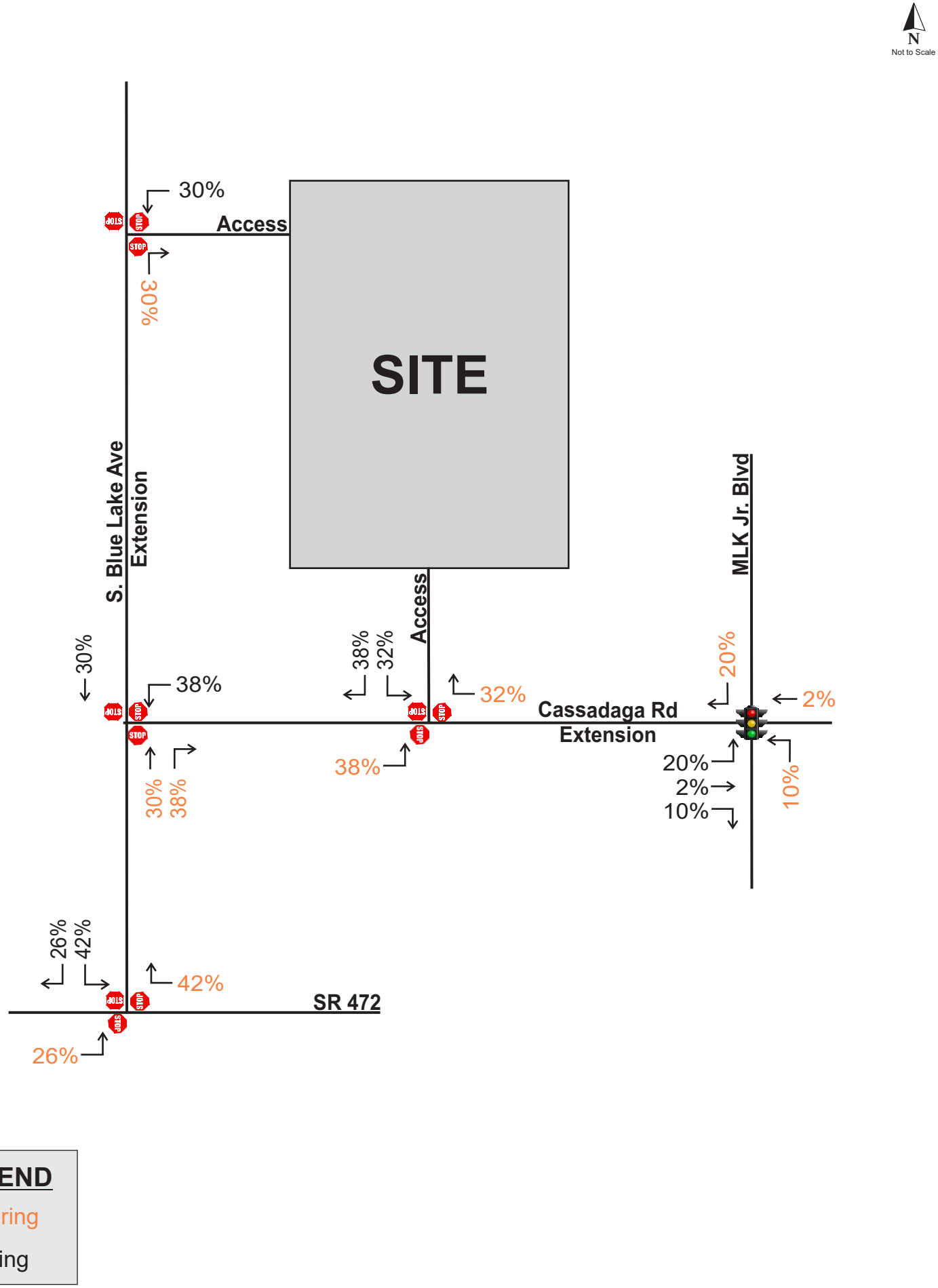
Project Trip Distribution **Figure 3**



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Driveway Trip Assignment
Figure 4
Page 416 of 1120

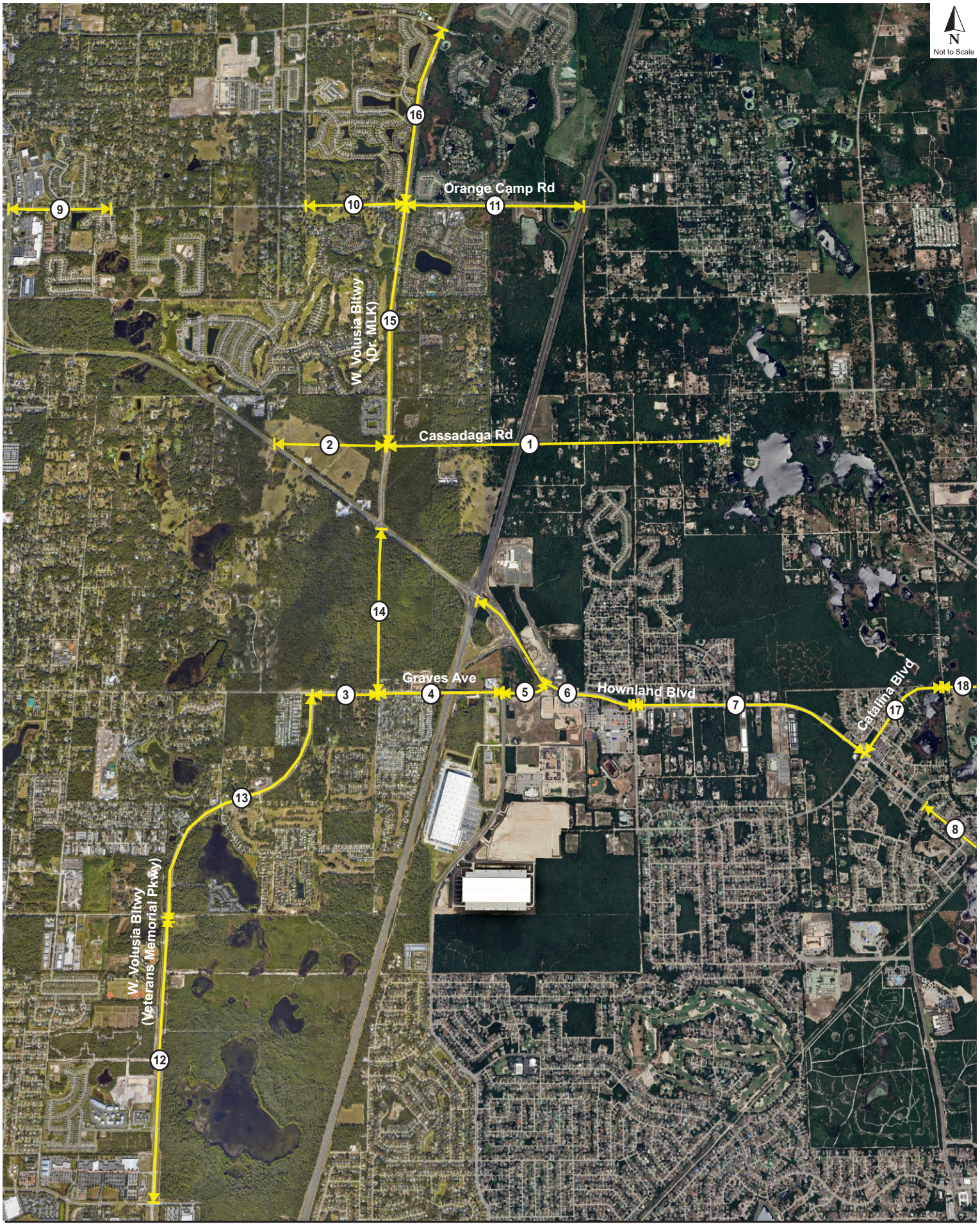
3.0 STUDY AREA

3.1 Study Roadways

The study area was established in accordance with the requirements of Volusia County and the TIA methodology. The impact area includes roadway segments where project trips are equivalent to 3% or more of the roadway segment's capacity and roadway segments within 3 miles that are designated as Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) facilities. The project's study roadway segments are listed in **Table 3** and displayed in **Figure 4.** The roadway segment information and characteristics were obtained from the 2021 Volusia County *Annual Average Daily Traffic (AADT) and Historical Counts*, which is included in **Appendix F.**

Table 3
Study Roadway Segments

Seg #	Segment Information		
	Roadway	From	To
1	Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave
2	Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	SR 472
3	Graves Ave	Veterans Memorial Pkwy	Kentucky Ave
4	Graves Ave	Kentucky Ave	Normandy Blvd
5	Graves Ave	Normandy Blvd	Howland Blvd
6	Howland Blvd	I-4/SR 472	Wolf Pack Run
7	Howland Blvd	Wolf Pack Run	Catalina Blvd
8	Howland Blvd	Providence Blvd	Elkcam Blvd
9	Orange Camp Rd	US 17/92	Princeton Rd
10	Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)
11	Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4
12	W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave
13	W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave
14	W. Volusia Bltwy (Veterans Memorial Pkwy)	Graves Ave	SR 472
15	W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd
16	W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd
17	Catalina Blvd	Howland Blvd	Sixma Rd
18	Catalina Blvd	Sixma Rd	Lake Helen Osteen


N
Not to Scale
Orange Camp Rd
Cassadaga Rd
Graves Ave
Hownland Blvd
Catalina Blvd
W Volusia Bltwy (Dr. MLK)
W Volusia Bltwy (Veterans Memorial Pkwy)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

3.2 Study Intersections

The study area encompasses major intersections that were identified in the methodology, which also include the two access points planned on the extensions of Blue Lake Avenue and Cassadaga Road. These two access points include one (1) full access driveway on Cassadaga Road Extension and one (1) full access driveway on Blue Lake Avenue Extension. The study intersections and access points are presented in **Table 4** and illustrated in **Figure 5**.

Table 4
Study Intersections

Int #	Intersection		Traffic Control
	Major Road	Minor Road	
1	Dr. MLK Bltwy	Orange Camp Rd	Roundabout
2	Dr. MLK Bltwy	Cassadaga Rd	Signal
3	Dr. MLK Bltwy / Kentucky Ave	SR 472	Signal
4	SR 472	Blue Lake Ave (Ext.)	Two-Way Stop
5	SR 472	Minnesota Ave	Two-Way Stop
6	Cassadaga Rd (Ext.)	Access I	Two-Way Stop
7	Blue Lake Ave (Ext.)	Access II	Two-Way Stop
8	Blue Lake Ave (Ext.)	Cassadaga Rd (Ext.)	Two-Way Stop


N
Not to Scale
Orange Camp Rd
1
Dr. MLK Bltwy
Minnesota Ave
5
7
Blue Lake Ave Extension
SR 472
8
6
Cassadaga Road Extension
2
Cassadaga Rd
4
3
Kentucky Ave

4.0 TRANSPORTATION IMPROVEMENTS

Transportation improvement programs published by Volusia County and the FDOT work program were reviewed to assess any planned or ongoing projects within the next few years that could impact the study area of the project. Improvements that are funded for construction within three (3) years were considered programmed and were incorporated in the analysis. The planned and programmed improvements are listed in **Table 5**.

Table 5
Planned and Programmed Improvements

Roadway	From	To	Improvement	Status
Howland Blvd	Providence Blvd	Elkcam Blvd	Widen From 2 to 4 Lanes	Under Construction
Orange Camp Rd	Dr. MLK Bltwy	I-4	Widen From 2 to 4 Lanes	Under Construction
Cassadaga Rd	Dr. MLK Bltwy	Blue Lake Ave (Ext)	Extension	Planned by Developer
Blue Lake Ave	SR 472	Asterbrooke Dr	Extension	Planned by Developer

Source: 2021-22 Volusia County Road Program & Development Plan

Two (2) improvements currently under construction were identified, each set to positively influence the area. Howland Boulevard is currently undergoing expansion from two (2) lanes to four (4) lanes between Providence Boulevard and Elkcam Boulevard. Additionally, Orange Camp Road is being widened from two (2) to four (4) lanes, stretching from Dr. MLK Beltway to I-4. Details from the *Volusia County Road Program 2021-22*, which illustrate these developments, are included in **Appendix G** for reference.

Furthermore, the developer has outlined plans to extend Cassadaga Road and Blue Lake Avenue to enhance access to the Project Site. These proposed extensions are depicted in the concept plan for the site, provided in **Appendix B**.

5.0 IMPROVEMENTS AT THE INTERSECTION OF SR 472 AND MLK BELTWAY

Following the county's directive to obtain City confirmation on whether additional projects should be included in the vested trip calculation, the City of DeLand was consulted, and they identified two approved projects near the Ford 472 site - Deland Tech Park and TM BTR (Yardley). These approved developments are located across from the Ford 472 site but are not listed in the Volusia County Database. These developments are anticipated to significantly impact traffic patterns near the Ford 472 project. To account for these influences, the traffic volumes from both Deland Tech Park and TM BTR have been included in the background traffic analysis as vested trips.

Previous studies have indicated that the intersection of SR 472 and MLK Beltway is currently experiencing and is projected to continue experiencing delays. Given that Deland Tech Park is a major development expected to substantially increase traffic at this intersection, several improvements were recommended in the traffic impact study. These recommendations include:

- Constructing a westbound left turn lane
- Constructing a northbound left turn lane and an additional through lane
- Constructing a southbound left turn lane and an additional through lane
- Optimizing signal timing to improve traffic flow

These recommended improvements from the Deland Tech Park study were also integrated into the TM BTR analysis. The queue evaluation and proportionate share calculations have been carried out based on the findings and recommendations in the Traffic Impact Analyses (TIAs). For further details, excerpts from the TIAs for these projects are provided in **Appendix H**. The proportionate share of this development reflecting those improvements have been calculated in accordance with the requirements of Volusia County using the *Master Proportionate Fair Share Table,* which is detailed in Section 11 of the report.

6.0 TRAFFIC PROJECTIONS

6.1 Projected Roadway Volumes

Existing roadway information was obtained from the 2022 Volusia County *AADT and Historical Counts.* The information includes roadway segment data, existing traffic volumes, and capacities.

Projected background traffic in the buildout year 2028 was derived by comparing historical growth rate trends and vested trips and applying the appropriate resulting background volume in accordance with the Volusia County *Segment Growth Rates and Vested Trips Instruction Policy*. Historical traffic count data was obtained from the 2022 Volusia County *AADT and Historical Counts* and the vested trips were obtained from the Volusia County *Vested Trip Database*. As noted in previous section, the two nearby developments, Deland Tech Park and TM BTR, were not included in the County database. Thus, trips from these projects were added to the vested trip calculation, along with those already listed in the database.

The historical growth trend analysis worksheets, vested trip information, and the *Segment Growth Rates and Vested Trips Instruction Policy* are included in **Appendix I**. The applicable growth rate calculations are summarized in **Table 6**. The total projected volumes on the roadway segments include background traffic and project trips, which were calculated based on the project's trip generation and distribution pattern.

Table 6
Growth Projection Methods

Segment Information			5 Years		10 Years		Applied	Exist	2028	Vested		Growth Calculation		Background +
Roadway	From	To	R^2	GR	R^2	GR	GR	Vol	Growth	Trips	VCTE Growth Rate Policy	Method	Growth	Vested Traffic
Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave	33.33%	3.21%	61.71%	2.56%	2.56%	210	32	120	GR + Vested Trips	GR + Vested Trips	152	362
Cassadaga Rd*	W. Volusia Bltwy (Dr. MLK Bltwy)	Blue Lake Ave (Extension)	--	--	--	--	--	--	--	--	--	--	--	0
Graves Ave	Veterans Memorial Pkwy	Kentucky Ave	3.40%	-0.59%	54.65%	1.69%	3.52%	1,635	345	573	Highest of GR or Vested Trips	Vested Trips	573	2208
Graves Ave	Kentucky Ave	Normandy Blvd	64.59%	5.20%	79.70%	3.52%	3.52%	1,675	354	931	Highest of GR or Vested Trips	Vested Trips	931	2,606
Graves Ave	Normandy Blvd	Howland Blvd	25.13%	2.13%	76.75%	3.02%	3.02%	1,340	243	997	Highest of GR or Vested Trips	Vested Trips	997	2,337
Howland Blvd	I-4/SR 472	Wolf Pack Run	77.13%	-5.22%	0.21%	0.15%	1.00%	2,410	145	1,054	GR + Vested Trips	GR + Vested Trips	1,199	3,609
Howland Blvd	Wolf Pack Run	Catalina Blvd	57.09%	-4.07%	0.10%	-0.12%	1.00%	1,460	88	925	GR + Vested Trips	GR + Vested Trips	1,013	2,473
Howland Blvd	Providence Blvd	Elkcam Blvd	76.18%	-10.47%	16.72%	-1.78%	1.00%	1,020	61	289	GR + Vested Trips	GR + Vested Trips	350	1,370
Orange Camp Rd	US 17/92	Princeton Rd	5.36%	-0.37%	77.38%	3.56%	3.56%	1,160	248	172	Highest of GR or Vested Trips	GR	248	1,408
Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)	27.91%	-2.02%	80.82%	1.14%	1.14%	1,075	74	262	GR + Vested Trips	GR + Vested Trips	336	1,411
Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4	55.67%	-2.76%	59.37%	2.51%	1.14%	1,170	80	361	GR + Vested Trips	GR + Vested Trips	441	1,611
W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave	24.78%	-1.58%	17.34%	0.67%	1.00%	1,480	89	403	GR + Vested Trips	GR + Vested Trips	492	1,972
W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave	0.02%	-0.11%	24.60%	-1.76%	1.00%	1,100	66	400	Highest of GR or Vested Trips	Vested Trips	400	1,500
W. Volusia Bltwy (Kentucky Ave)	Graves Ave	SR 472	2.86%	0.62%	36.04%	1.22%	2.00%	910	109	381	GR + Vested Trips	GR + Vested Trips	490	1,400
W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd	74.00%	-7.48%	1.76%	-0.45%	1.00%	755	45	642	GR + Vested Trips	GR + Vested Trips	687	1,442
W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd	70.70%	-2.00%	3.62%	-0.67%	1.00%	910	55	437	GR + Vested Trips	GR + Vested Trips	492	1,402
Catalina Blvd**	Howland Blvd	Sixma Rd	69.89%	-35.96%	43.83%	-12.19%	1.00%	155	8	126	GR + Vested Trips	GR + Vested Trips	134	289
Catalina Blvd**	Sixma Rd	Lake Helen Osteen	69.89%	-35.96%	43.83%	-12.19%	1.00%	155	8	110	GR + Vested Trips	GR + Vested Trips	118	273

Vested trips obtained from *Volusia County Vested Trip Database* and also include trips from Deland Tech Park and TM BTR (Yardley)

*This segments is an extension and do not currently exist.

**No data in *Volusia County 2022 AADT*. Historical AADT obtained from *Florida Traffic Online (FTO) 2023*. Existing PM Peak Hour Volume estimated using AADT, K factor and D Factor

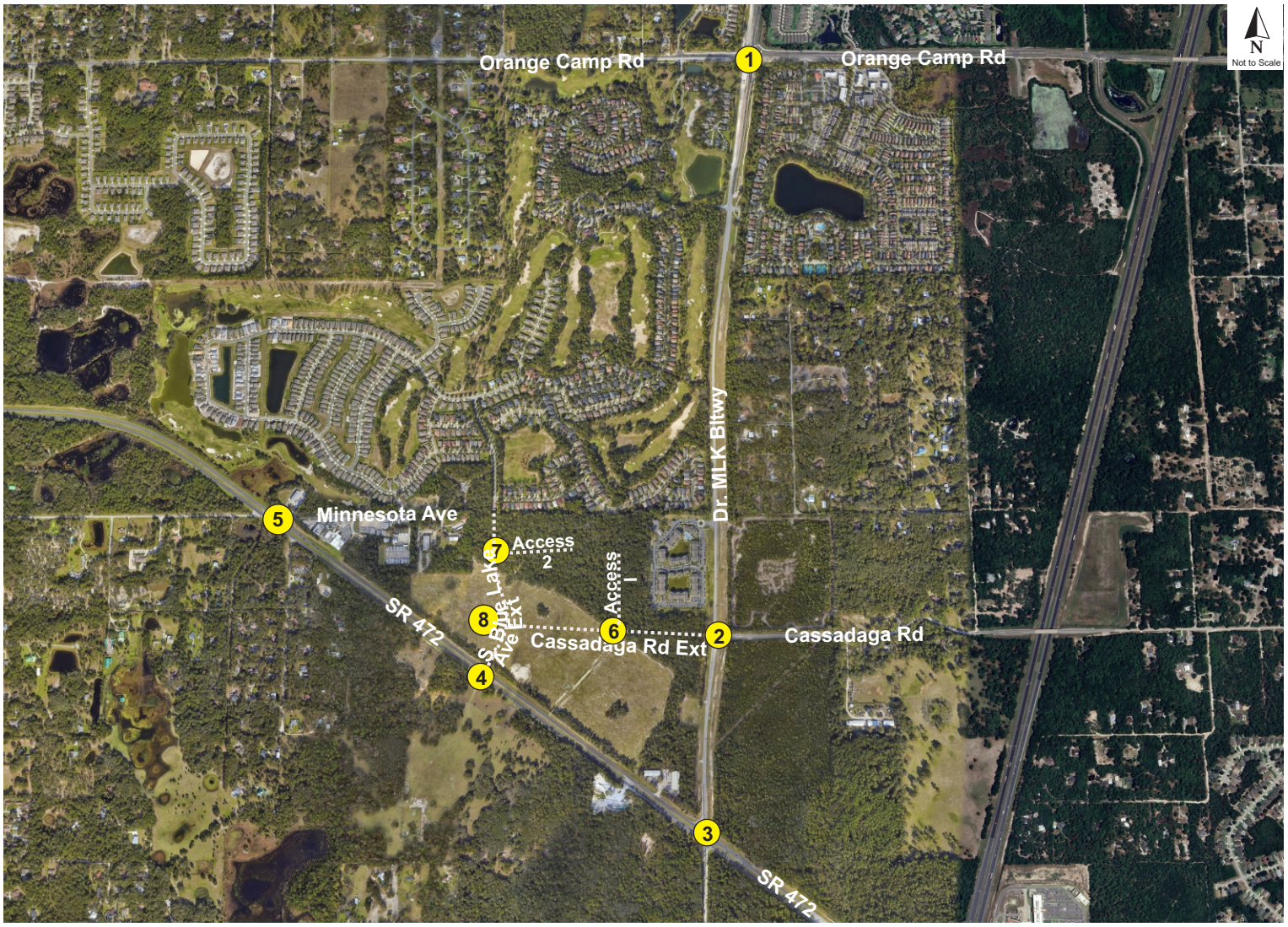
6.2 Projected Intersection Volumes

Existing AM and PM peak hour turning movement volumes were obtained at the study intersections on June 12, 2024. The counts were seasonally adjusted using the applicable seasonal factor obtained from the FDOT *Traffic Online Peak Season Factor Category Report*. The raw turning movement volumes and supporting information are provided in **Appendix J**.

The two developments, Deland Tech Park and TM BTR, located across from the Ford 472 project, are expected to significantly impact traffic patterns in the area. Therefore, trips from these developments have been included in the background traffic analysis as vested trips. Excerpts from the TIA detailing the vested trips added to the intersection volume for our project are provided in **Appendix K**. Projected background intersection volumes for the buildout year 2030 were estimated using the annual growth rates determined for the respective segment provided in **Table 6**, then adding the vested trips from Deland Tech Park and TM BTR.

There is no existing traffic volume data for the Blue Lake Avenue Extension and Cassadaga Road Extension as these segments do not currently exist. There are approximately 50 single family units close to the planned extension of Blue Lake Avenue Extension. It is assumed that 25 of these homes will use the Blue Lake Ave Extension to access SR 472 and 10 of these homes will use Cassadaga Road Extension to access MLK Beltway. To estimate the background traffic volume at the intersection of Blue Lake Avenue Extension and Access II, peak hour volumes were derived using the *ITE Trip Generation Manual, 11th edition* (using trips of both 25 units and 10 residential units). Additionally, the background traffic volume at the intersection of SR 472 and Blue Lake Avenue was divided into eastbound and westbound directions according to the existing split ratio at that intersection. It was done in a similar manner at Cassadaga Road Extension.

The total projected intersection volumes include background traffic and project trips, which were calculated based on the project's trip generation and assignment at each intersection. Detailed intersection volume calculations are provided in **Appendix L** and the resulting existing, background (including vested trips), and buildout volumes are illustrated in **Figure 7** and **Figure 8** for the AM peak hour and **Figure 9** and **Figure 10** for the PM peak hour.



1. Dr. MLK Bltwy & Orange Camp Rd

NB	L	173 + {14} + [4] + (4) = 195
	T	468 + {20} + [7] + (7) = 502
	R	54 + {25} + [4] + (7) = 90
SB	L	269
	T	250 + {51} + [2] + (2) = 305
	R	38
EB	L	51
	T	425
	R	54 + {38} + [1] + (2) = 95
WB	L	44 + {70} + [1] + (2) = 117
	T	328
	R	128

	BO	BK	EX	
NB	38	305	269	BO
	38	303	269	BK
	37	240	259	EX
	0	2	0	
WB	51	51	49	0
	425	425	406	2
	95	93	52	1
EB	0	122	128	128
	2	314	328	328
	0	42	115	117
		EX	BK	BO
	0	2	0	
EX	166	450	52	
BK	191	495	83	
BO	195	502	90	

2. Dr. MLK Bltwy & Cassadaga Rd

NB	L	1 + (3) = 4
	T	330 + {38} + [14] = 382
	R	228 + {14} + [2] = 242
SB	L	66 + {70} + [6] = 142
	T	387 + {143} = 530
	R	1 + (6) = 7
EB	L	2 + (18) = 20
	T	2 + (2) = 4
	R	3 + (9) = 12
WB	L	227 + {12} + [50] = 289
	T	(1)
	R	61 + {39} + [4] = 104

	BO	BK	EX	LN	
NB	7	530	142		BO
	1	530	142		BK
	0	372	63		EX
	0	1	1		LN
WB	20	2	0	1	
	4	2	0	1	
	12	3	0	0	
EB	0	55	104	104	
	1	0	0	1	
	1	206	289	289	
		LN	EX	BK	BO
	LN	0	1	1	
EX	0	317	219		
BK	1	382	242		
BO	4	382	242		

3. Dr. MLK Bltwy / Kentucky Ave & SR 472

NB	L	144 + (1) = 145
	T	255 + {9} + [5] + (3) = 272
	R	62 + {56} = 118
SB	L	212 + {116} + [25] = 353
	T	349 + {3} + [14] + (9) = 375
	R	64 + {5} + [11] = 80
EB	L	64 + {21} + [3] = 88
	T	965 + {82} + (35) = 1082
	R	106 + (3) = 109
WB	L	105 + {19} = 124
	T	901 + {34} + (11) = 946
	R	250 + {23} + [8] = 281

	BO	BK	EX	
NB	80	375	353	BO
	80	366	353	BK
	59	323	196	EX
	1	1	1	
WB	88	88	62	1
	1,082	1,047	928	2
	109	106	102	1
EB	1	240	281	281
	2	866	935	946
	1	101	124	124
		EX	BK	BO
	0	1	1	
EX	133	236	57	
BK	144	269	118	
BO	145	272	118	

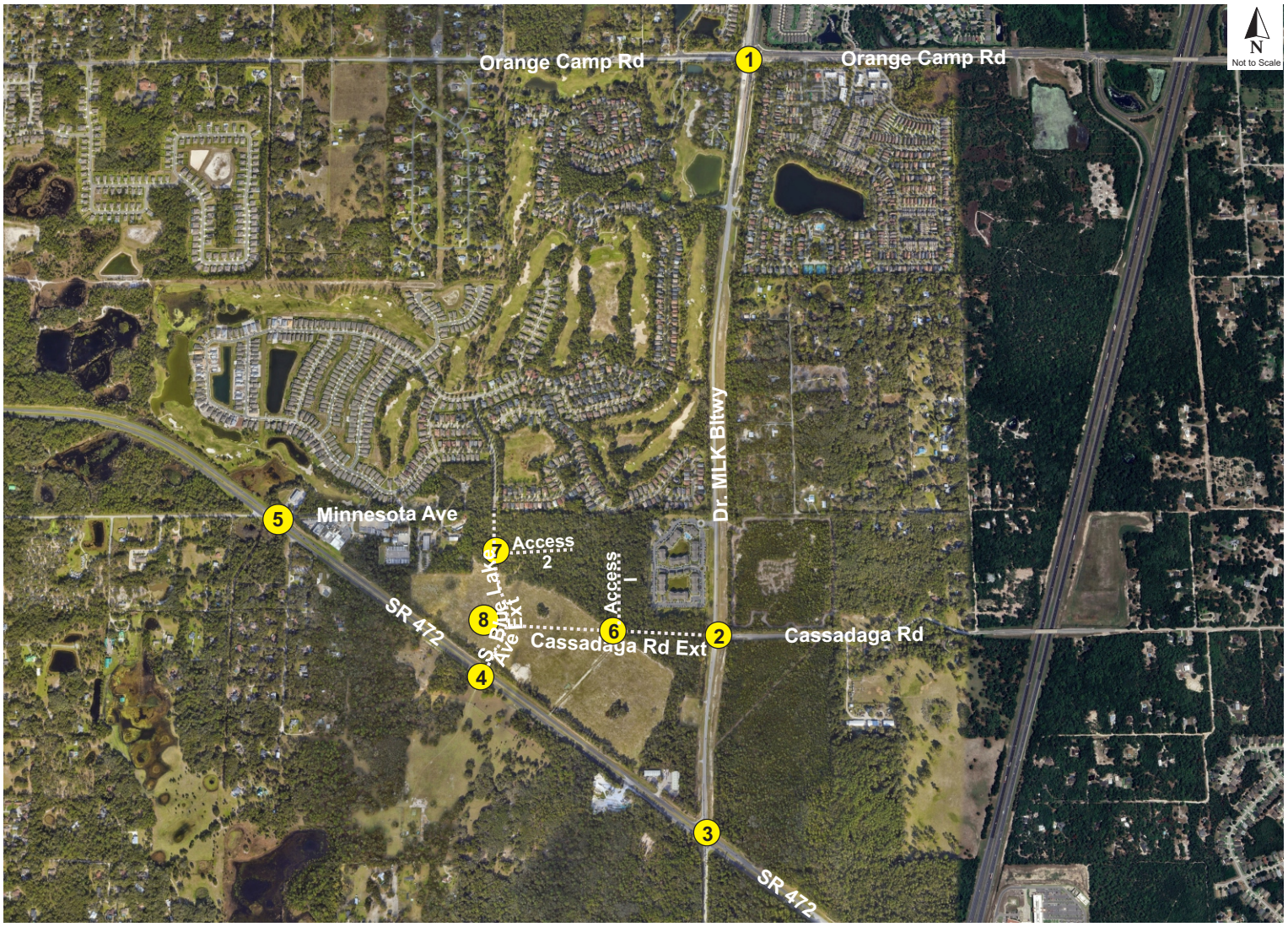
4. SR 472 & Blue Lake Ave (Ext.)

NB	L	
	T	
	R	
SB	L	8 + (38) = 46
	T	
	R	8 + (24) = 32
EB	L	3 + (8) = 11
	T	1136 + {103} + [3] = 1242
	R	
WB	L	
	T	1101 + {39} + [11] = 1151
	R	2 + (12) = 14

	BO	BK	EX	LN	
NB	32	0	46		BO
	8	0	8		BK
	0	0	0		EX
	1	1	0		LN
SB	11	3	0	1	
	1,242	1,242	1,092	2	
	0	0	0	0	
EB	1	0	2	14	
	2	1,059	1,151	1,151	
	0	0	0	0	
		LN	EX	BK	BO
	LN	0	0	0	
EX	0	0	0		
BK	0	0	0		
BO	0	0	0		

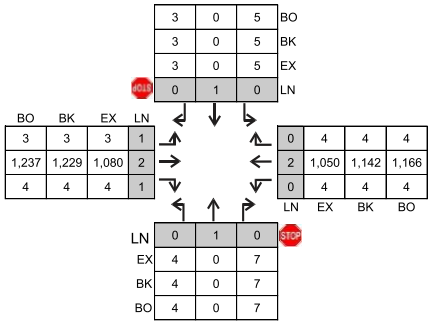
Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
1 Lanes by movement



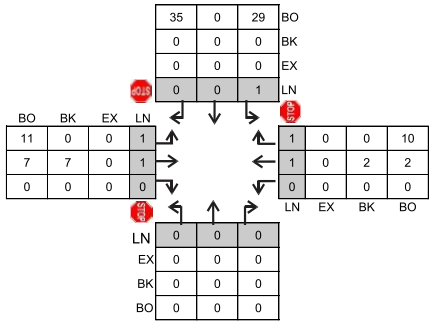
5. SR 472 & Minnesota Ave

NB	L	4
	T	
	R	7
SB	L	5
	T	
	R	3
EB	L	3
	T	1123 + {103} + [3] + (8) = 1237
	R	4
WB	L	4
	T	1092 + {39} + [11] + (24) = 1166
	R	4



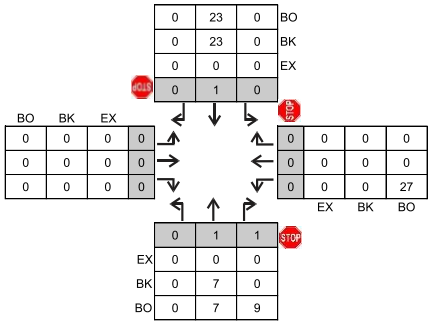
6. Cassadaga Rd (Ext.) & Access I

NB	L	
	T	
	R	
SB	L	(29)
	T	
	R	(35)
EB	L	(11)
	T	7
	R	
WB	L	
	T	2
	R	(10)



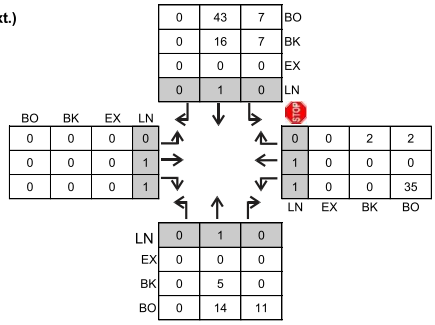
7. Blue Lake Ave (Ext.) & Access II

NB	L	
	T	7
	R	(9)
SB	L	
	T	23
	R	
EB	L	
	T	
	R	
WB	L	(27)
	T	
	R	



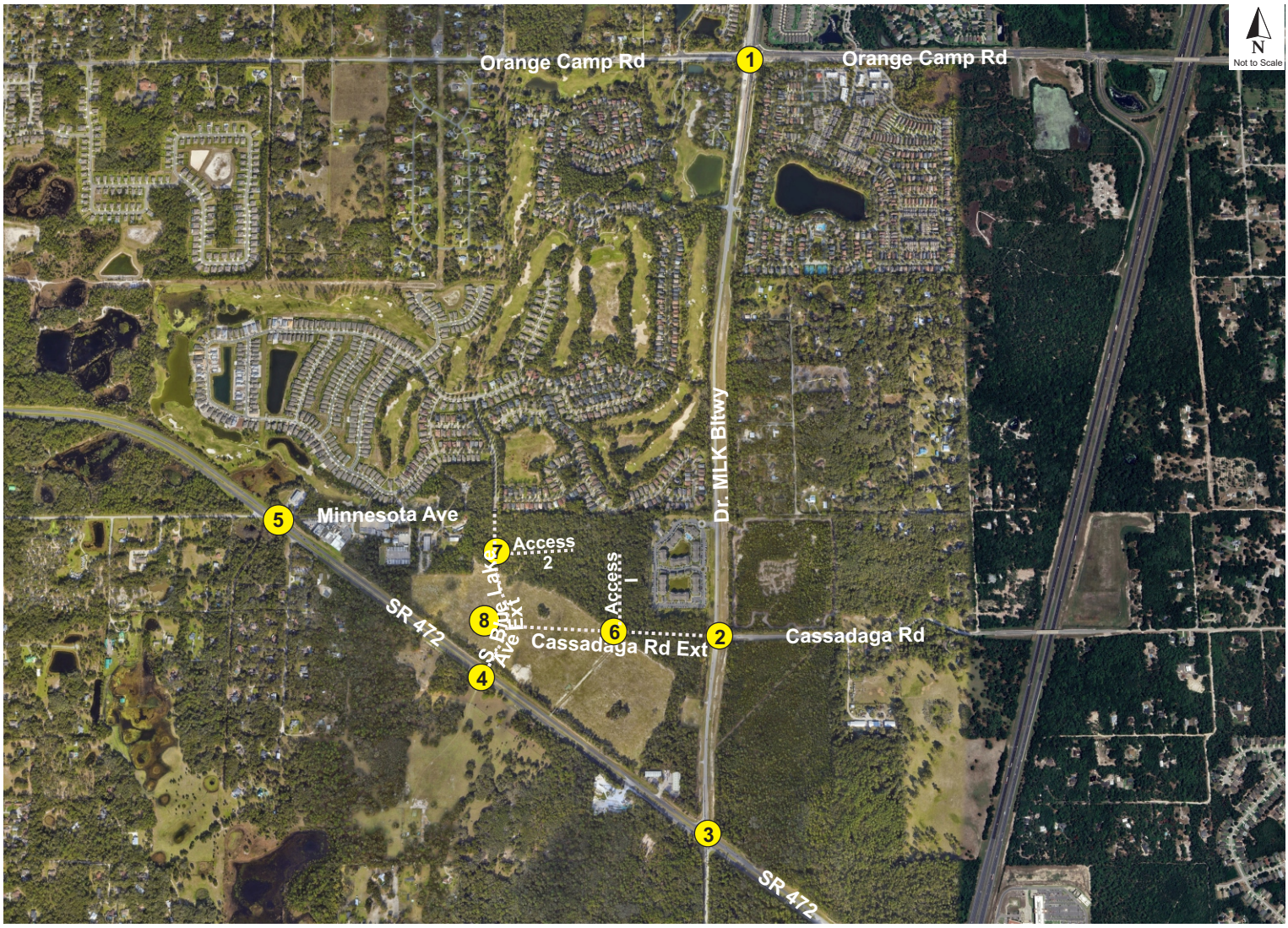
8. Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.)

NB	L	
	T	5 + (9) = 14
	R	(11)
SB	L	7
	T	16 + (27) = 43
	R	
EB	L	
	T	
	R	
WB	L	(35)
	T	
	R	2



Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
1 Lanes by movement



1. Dr. MLK Bltwy & Orange Camp Rd

	L	202 + {54} + [2] + (2) = 260
NB	T	487 + {73} + [5] + (5) = 570
	R	52 + {92} + [2] + (5) = 151
	L	271
SB	T	379 + {44} + [8] + (8) = 439
	R	48
	L	54
EB	T	405
	R	110 + {33} + [4] + (3) = 150
	L	58 + {60} + [4] + (8) = 130
WB	T	514
	R	175

				48	439	271	BO		
				48	431	271	BK		
				46	364	261	EX		
				0	2	0			
BO	BK	EX						0	167	175	175
54	54	52	0					2	492	514	514
405	405	387	2					0	55	122	130
150	147	105	1					EX	BK	BO	
				0	2	0			
			EX	194	468	50			
			BK	258	565	146			
			BO	260	570	151			

2. Dr. MLK Bltwy & Cassadaga Rd

	L	3 + (9) = 12
NB	T	485 + {142} + [9] = 636
	R	181 + {51} = 232
	L	63 + {60} + [19] = 142
SB	T	579 + {123} = 702
	R	3 + (19) = 22
	L	2 + (12) = 14
EB	T	(1)
	R	2 + (6) = 8
	L	134 + {46} + [32] = 212
WB	T	1 + (2) = 3
	R	42 + {145} + [2] = 189

				22	702	142	BO		
				3	702	142	BK		
				0	557	61	EX		
				0	1	1	LN		
BO	BK	EX	LN					0	38	189	189
14	2	0	1					1	0	1	3
1	0	0	1					1	122	212	212
8	2	0	0					LN	EX	BK	BO
			LN	0	1	1			
			EX	0	466	174			
			BK	3	636	232			
			BO	12	636	232			

3. Dr. MLK Bltwy / Kentucky Ave & SR 472

	L	116 + (3) = 119
NB	T	287 + {8} + [15] + (9) = 319
	R	75 + {48} = 123
	L	254 + {100} + [16] = 370
SB	T	399 + {13} + [9] + (6) = 427
	R	81 + {20} + [7] = 108
	L	87 + {18} + [11] = 116
EB	T	1101 + {71} + (23) = 1195
	R	138 + (2) = 140
	L	171 + {70} = 241
WB	T	888 + {127} + (37) = 1052
	R	301 + {106} + [27] = 434

				108	427	370	BO		
				108	421	370	BK		
				75	369	235	EX		
				1	1	1			
BO	BK	EX						1	289	434	434
116	116	84	1					2	854	1,015	1,052
1,195	1,172	1,059	2					1	164	241	241
140	138	133	1					EX	BK	BO	
				0	1	1			
			EX	107	266	69			
			BK	116	310	123			
			BO	119	319	123			

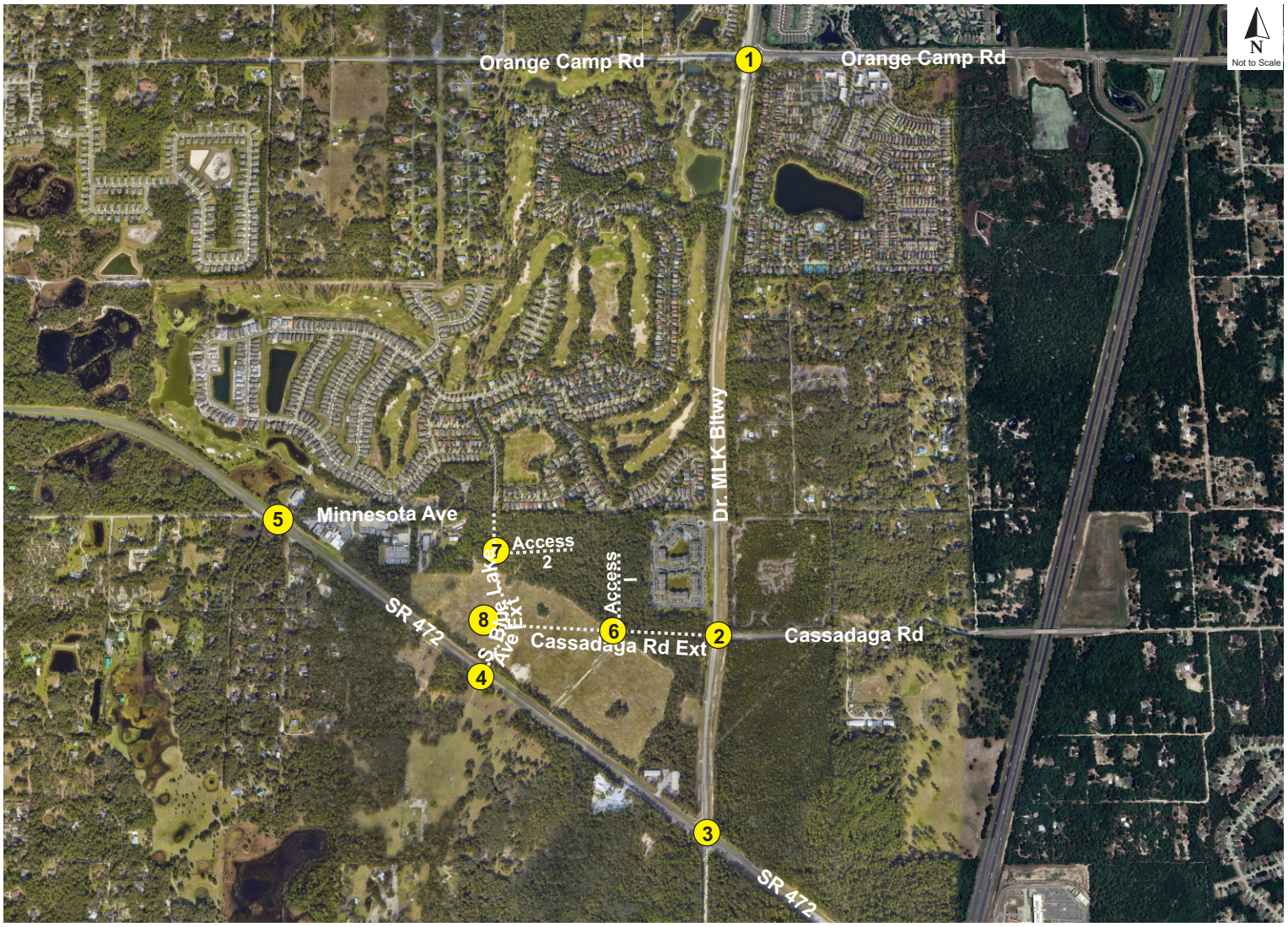
4. SR 472 & Blue Lake Ave (Ext.)

	L	
NB	T	
	R	
	L	6 + (25) = 31
SB	T	
	R	4 + (16) = 20
	L	10 + (24) = 34
EB	T	1363 + {89} + [11] = 1463
	R	
	L	
WB	T	1077 + {147} + [7] = 1231
	R	7 + (40) = 47

				20	0	31	BO		
				4	0	6	BK		
				0	0	0	EX		
				1	1	0	LN		
BO	BK	EX	LN					1	0	7	47
34	10	0	1					2	1,036	1,231	1,231
1,463	1,463	1,311	2					0	0	0	0
0	0	0	0					LN	EX	BK	BO
			LN	0	0	0			
			EX	0	0	0			
			BK	0	0	0			
			BO	0	0	0			

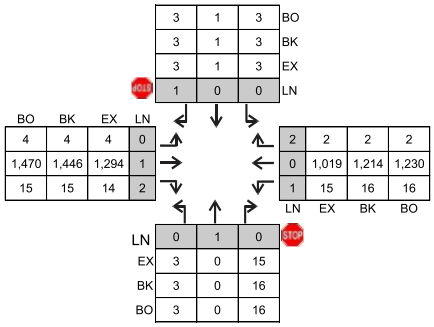
Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
1 Lanes by movement



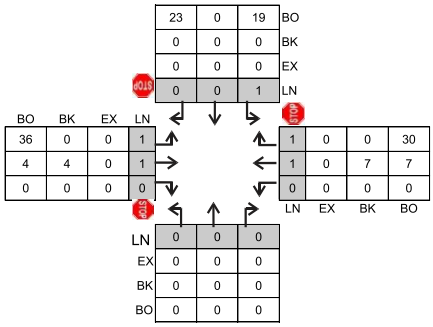
5. SR 472 & Minnesota Ave

NB	L	3
	T	
	R	16
SB	L	3
	T	1
	R	3
EB	L	4
	T	1346 + {89} + [11] + (24) = 1470
	R	15
WB	L	16
	T	1060 + {147} + [7] + (16) = 1230
	R	2



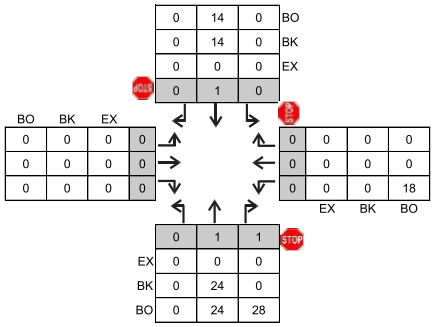
6. Cassadaga Rd (Ext.) & Access I

NB	L	
	T	
	R	
SB	L	(19)
	T	
	R	(23)
EB	L	(36)
	T	4
	R	
WB	L	
	T	7
	R	(30)



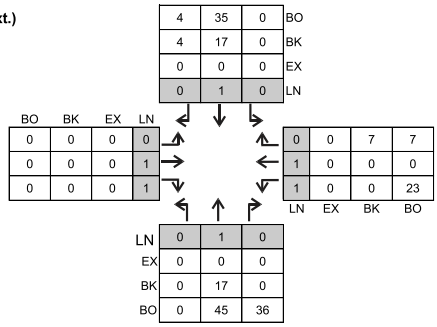
7. Blue Lake Ave (Ext.) & Access II

NB	L	
	T	24
	R	(28)
SB	L	
	T	14
	R	
EB	L	
	T	
	R	
WB	L	(18)
	T	
	R	



8. Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.)

NB	L	
	T	17 + (28) = 45
	R	(36)
SB	L	
	T	17 + (18) = 35
	R	4
EB	L	
	T	
	R	
WB	L	(23)
	T	
	R	7



Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
1 Lanes by movement

7.0 CAPACITY ANALYSIS

7.1 Roadway Segments

Roadway segment capacity was analyzed based on the adopted capacities and the corresponding traffic volumes, as summarized in **Table 7**. The results of the capacity analysis reveal the following:

- The following roadway segments are projected to exceed their adopted capacity due to existing or background traffic. Project trips do not have a significant impact on these segments.
    - Graves Avenue from Veterans Memorial Parkway to Kentucky Avenue
    - Graves Avenue from Kentucky Avenue to Normandy Boulevard
    - Howland Boulevard from I-4/SR 472 to Wolf Pack Run
    - Orange Camp Road from US 17/92 to Princeton Road
    - West Volusia Beltway (Veterans Memorial Parkway) from Harley Strickland Boulevard to Rhode Island Avenue

- All remaining segments are projected to operate within their adopted capacity at the project buildout.

Table 7
Segment Analysis

Seg #	Segment Information			Exist Lns	Imp Lns	Exist 2W PM Cap	Imp 2W PM Cap	2022 Existing Conditions PM Peak			Background Conditions PM Peak			Project		Buildout Conditions PM Peak			Trips % of Cap
	Roadway	From	To					Vol	V/C	Adeq?	Vol	V/C	Adeq?	Dist %	Trips	Vol	V/C	Adeq?	
1	Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave	2	2	1,020	1,020	210	0.21	YES	362	0.35	YES	2%	3	365	0.36	YES	0.3%
2	Cassadaga Rd*	W. Volusia Bltwy (Dr. MLK Bltwy)	Blue Lake Ave (Extension)	2	2	1,020	1,020	--	--	--	0	--	YES	38%	59	59	0.06	YES	5.8%
3	Graves Ave	Veterans Memorial Pkwy	Kentucky Ave	2	2	1,620	1,620	1,635	1.01	**NO**	2,208	1.36	**NO**	10%	15	2,223	1.37	**NO**	0.9%
4	Graves Ave	Kentucky Ave	Normandy Blvd	2	2	1,620	1,620	1,675	1.03	**NO**	2,606	1.61	**NO**	3%	5	2,611	1.61	**NO**	0.3%
5	Graves Ave	Normandy Blvd	Howland Blvd	4	4	2,740	2,740	1,340	0.49	YES	2,337	0.85	YES	3%	5	2,342	0.85	YES	0.2%
6	Howland Blvd	I-4/SR 472	Wolf Pack Run	4	4	3,410	3,410	2,410	0.71	YES	3,609	1.06	**NO**	39%	60	3,669	1.08	**NO**	1.8%
7	Howland Blvd	Wolf Pack Run	Catalina Blvd	4	4	3,410	3,410	1,460	0.43	YES	2,473	0.73	YES	5%	8	2,481	0.73	YES	0.2%
8	Howland Blvd	Providence Blvd	Elkcam Blvd	2	4	1,230	3,410	1,020	0.83	YES	1,370	0.40	YES	2%	3	1,373	0.40	YES	0.1%
9	Orange Camp Rd	US 17/92	Princeton Rd	2	2	1,270	1,270	1,160	0.91	YES	1,408	1.11	**NO**	2%	3	1,411	1.11	**NO**	0.2%
10	Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)	2	2	1,540	1,540	1,075	0.70	YES	1,411	0.92	YES	4%	6	1,417	0.92	YES	0.4%
11	Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4	2	4	1,540	3,410	1,170	0.76	YES	1,611	0.47	YES	8%	12	1,623	0.48	YES	0.4%
12	W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave	2	2	1,540	1,540	1,480	0.96	YES	1,972	1.28	**NO**	3%	5	1,977	1.28	**NO**	0.3%
13	W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave	2	2	1,620	1,620	1,100	0.68	YES	1,500	0.93	YES	8%	12	1,512	0.93	YES	0.7%
14	W. Volusia Bltwy (Kentucky Ave)	Graves Ave	SR 472	2	2	1,540	1,540	910	0.59	YES	1,400	0.91	YES	13%	20	1,420	0.92	YES	1.3%
15	W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd	2	2	1,540	1,540	755	0.49	YES	1,442	0.94	YES	20%	31	1,473	0.96	YES	2.0%
16	W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd	2	2	1,540	1,540	910	0.59	YES	1,402	0.91	YES	8%	12	1,414	0.92	YES	0.8%
17	Catalina Blvd**	Howland Blvd	Sixma Rd	2	2	960	960	155	0.16	YES	289	0.30	YES	0%	0	289	0.30	YES	0.0%
18	Catalina Blvd**	Sixma Rd	Lake Helen Osteen	2	2	960	960	155	0.16	YES	273	0.28	YES	0%	0	273	0.28	YES	0.0%

Source: *Volusia County 2022 AADT*

*This segments is an extension and do not currently exist. Peak Capacity assumed same as the adjacent segment of same road.

**No data in *Volusia County 2022 AADT*. Existing PM Peak Volume is of 2023 obtained from Florida Traffic Online. Existing Peak Capacity assumed same as in 2019 and obtained from Volusia County 2019 AADT

7.2 Intersections

The study intersections were analyzed in accordance with the methods of the *Highway Capacity Manual (HCM)* as applied in the *Synchro* analytical tool. The detailed *HCM* analysis sheets are provided in **Appendix M**. The analysis results for existing, background, and buildout conditions are summarized in **Table 8**, which reveals the following:

- The intersection of SR 472 and Dr. Martin Luther King Jr Beltway is projected to operate at an inadequate LOS, due to the existing and background traffic.
- All remaining intersections are projected to operate at adequate LOS at the project buildout.

7.3 Intersection Improvements

The following improvements were recommended for the intersection of SR 472 and MLK Beltway by other developments as reflected in their TIAs:

- Construct a westbound left turn lane
- Construct a northbound left turn lane and a through lane
- Construct a southbound left turn lane and a through lane
- Optimize the signal timing

With the recommended improvements, the intersection is projected to operate at an overall adequate LOS. The results of the analysis are summarized in **Table 9** for the background and buildout scenarios. The adjusted analysis worksheets are included in **Appendix N.**

Table 8
Intersection Analysis

Int	Intersection		Control	Time	Scenario	EB		WB		NB		SB		Overall	
#	Major Road	Minor Road		Period		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dr. MLK Bltwy	Orange Camp Rd	RAB	AM	Existing	8.7	A	9.9	A	14.0	B	8.6	A	10.6	B
					Backg'd+Vested	11.8	B	12.7	B	17.7	C	11.2	B	13.7	B
					Buildout	11.9	B	12.9	B	18.4	C	11.3	B	14.0	B
				PM	Existing	10.2	B	13.2	B	12.7	B	12.7	B	12.3	B
					Backg'd+Vested	13.7	B	21.3	C	20.3	C	19.0	C	19.0	C
					Buildout	14.2	B	22.0	C	20.9	C	19.7	C	19.6	C
2	Dr. MLK Bltwy	Cassadaga Rd	Signal	AM	Existing	--	--	22.9	C	13.9	B	7.3	A	13.4	B
					Backg'd+Vested	32.1	C	25.6	C	28.4	C	25.7	C	26.7	C
					Buildout	31.7	C	25.8	C	28.4	C	26.1	C	27.0	C
				PM	Existing	--	--	21.4	C	14.7	B	7.2	A	12.0	B
					Backg'd+Vested	39.1	D	37.7	D	28.7	C	25.6	C	29.2	C
					Buildout	39.0	D	37.9	D	28.6	C	26.5	C	29.6	C
3	Dr. MLK Bltwy / Kentucky Ave	SR 472	Signal	AM	Existing	55.6	E	50.6	D	153.8	F	92.6	F	71.8	E
					Backg'd+Vested	67.8	E	62.0	E	207.3	F	151.2	F	98.5	F
					Buildout	73.5	E	62.5	E	212.0	F	157.2	F	102.2	F
				PM	Existing	66.6	E	70.0	E	161.9	F	154.4	F	93.6	F
					Backg'd+Vested	93.0	F	119.5	F	226.9	F	248.9	F	145.9	F
					Buildout	98.9	F	120.9	F	242.9	F	253.2	F	150.7	F
4	SR 472	Blue Lake Ave (Ext.)	TWSC	AM	Buildout	11.8	B	27.8	D	--	--	--	--	--	--
				PM	Buildout	13.0	B	31.3	D	--	--	--	--	--	--
5	SR 472	Minnesota Ave	TWSC	AM	Existing	10.9	B	11.1	B	19.4	C	23.4	C	--	--
					Backg'd+Vested	11.5	B	12.0	B	22.5	C	26.4	D	--	--
					Buildout	11.6	B	12.1	B	22.7	C	27.1	D	--	--
				PM	Existing	10.8	B	12.9	B	19.6	C	25.1	D	--	--
					Backg'd+Vested	12.0	B	14.2	B	22.5	C	31.4	D	--	--
					Buildout	12.1	B	14.4	B	23.0	C	32.2	D	--	--
					Buildout		A		A		A		A	--	--
6	Cassadaga Rd (Ext)	Access I	TWSC	AM	Buildout	7.3	A	0.0	A	--	--	8.8	A	--	--
				PM	Buildout	7.4	A	0.0	A	--	--	8.9	A	--	--
7	Blue Lake Ave (Ext.)	Access II	TWSC	AM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
				PM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
8	Blue Lake Ave (Ext.)	Cassadaga Rd (Ext.)	TWSC	AM	Buildout	--	--	9.1	A	0.0	A	7.3	A	--	--
				PM	Buildout	--	--	9.1	A	0.0	A	7.4	A	--	--

Average delay expressed in seconds/vehicle

**These intersections will only exist at buildout so they do not have existing and background conditions.*

Table 9
Intersection Analysis with Improvements

Int #	Intersection		Control	Time Period	Scenario	EB		WB		NB		SB		Overall	
	Major Road	Minor Road				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dr. MLK Bltwy	Orange Camp Rd	RAB	AM	Backg'd+Vested	11.8	B	12.7	B	17.7	C	11.2	B	13.7	B
					Buildout	11.9	B	12.9	B	18.4	C	11.3	B	14.0	B
				PM	Backg'd+Vested	13.7	B	21.3	C	20.3	C	19.0	C	19.0	C
					Buildout	14.2	B	22.0	C	20.9	C	19.7	C	19.6	C
2	Dr. MLK Bltwy	Cassadaga Rd	Signal	AM	Backg'd+Vested	32.1	C	25.6	C	28.4	C	25.7	C	26.7	C
					Buildout	31.7	C	25.8	C	28.4	C	26.1	C	27.0	C
				PM	Backg'd+Vested	39.1	D	37.7	D	28.7	C	25.6	C	29.2	C
					Buildout	39.0	D	37.9	D	28.6	C	26.5	C	29.6	C
3	Dr. MLK Bltwy / Kentucky Ave	SR 472	Signal	AM	Backg'd+Vested	43.6	D	37.4	D	48.5	D	48.6	D	43.0	D
					Buildout	46.0	D	38.1	D	48.5	D	48.5	D	44.0	D
				PM	Backg'd+Vested	51.2	D	46.6	D	60.3	E	66.5	E	53.2	D
					Buildout	53.3	D	49.0	D	60.6	E	67.2	E	55.0	D
4	SR 472	Blue Lake Ave (Ext.)	TWSC	AM	Buildout	11.8	B	27.8	D	--	--	--	--	--	--
				PM	Buildout	13.0	B	31.3	D	--	--	--	--	--	--
5	SR 472	Minnesota Ave	TWSC	AM	Backg'd+Vested	11.5	B	12.0	B	22.5	C	26.4	D	--	--
					Buildout	11.6	B	12.1	B	22.7	C	27.1	D	--	--
				PM	Backg'd+Vested	12.0	B	14.2	B	22.5	C	31.4	D	--	--
					Buildout	12.1	B	14.4	B	23.0	C	32.2	D	--	--
6*	Cassadaga Rd (Ext)	Access I	TWSC	AM	Buildout	7.3	A	0.0	A	--	--	8.8	A	--	--
				PM	Buildout	7.4	A	0.0	A	--	--	8.9	A	--	--
7*	Blue Lake Ave (Ext.)	Access II	TWSC	AM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
				PM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
8*	Blue Lake Ave (Ext.)	Cassadaga Rd (Ext.)	TWSC	AM	Buildout	--	--	9.1	A	0.0	A	7.3	A	--	--
				PM	Buildout	--	--	9.1	A	0.0	A	7.4	A	--	--

Average delay expressed in seconds/vehicle

**These intersections will only exist at buildout so they do not have background conditions.*

7.4 Queue Evaluation

An evaluation was conducted to determine whether the existing turn lane lengths at the signalized study intersections are adequate to accommodate projected traffic at project buildout. The two signalized study intersections are MLK Beltway and Cassadaga Road, and SR 472 and MLK Beltway. The turn lanes that are projected to receive project trips at the MLK Beltway and Cassadaga Road intersection are not currently in place. These turn lanes are necessary for accessing the project site and are evaluated in the Access Review section.

This section focuses on the SR 472 and MLK Beltway intersection. As previously noted, this intersection is significantly impacted by new developments, particularly Deland Tech Park Queue lengths were obtained from the HCM analysis worksheets, which are included in **Appendix M** and **Appendix N**. Specifically:

- Existing condition queue lengths were derived from the HCM worksheets in **Appendix M**.
- Background and projected condition queue lengths were obtained from the HCM worksheets in **Appendix N**, which accounts for improvements recommended by Deland Tech Park.

The required deceleration lengths are based on the FDOT *Design Manual (FDM) Exhibit 212-1,* provided in **Appendix O**.

Total turn lane length was calculated as the sum of the deceleration length and projected queue length. The results of the evaluation, summarized in **Table 10**, show that the northbound left turn lane and the eastbound right turn lane planned for the SR 472 and MLK Beltway intersection should be approx. 550 feet and 530 feet long respectively in the background condition to accommodate traffic from the background condition and the traffic from the approved projects. The length of northbound left-turn lane required is determined by the AM peak hour, while the length of eastbound right-turn lane is determined by the PM peak hour, as the 95th percentile queue lengths are higher during these respective periods. The analysis indicated that the turn lanes required to accommodate background and vested trips will be sufficient to handle the additional project trips.

Table 10
Queue Evaluation

Intersection	Turn Lane	Posted Speed Limit	Existing Lane Length	Required Deceleration	Existing					Background + Vested w Improvements					Buildout w Improvements						Adequate?
					# of LNS	95th Percentile Queue		Length Needed	Length Deficiency	# of LNS	95th Percentile Queue		Length Needed	Length Deficiency	# of LNS	95th Percentile Queue		Length Needed	Length Deficiency	Project Trips	
						Vehicle	Length				Vehicle	Length				Vehicle	Length				
AM PEAK																					
SR 472 & MLK Beltway	NBL*	55	0'	350'	0	32	800'	1,150'	1,150'	1	8	200'	550'	550'	1	8	200'	550'	0'	1	YES
	EBR	60	540'	405'	1	4	100'	505'	0	1	3	75'	480'	0	1	3	75'	480'	0	3	YES
PM PEAK																					
SR 472 & MLK Beltway	NBL*	55	0'	350'	0	33	825'	1,175'	1,175'	1	7	175'	525'	525'	1	7	175'	525'	0'	3	YES
	EBR	60	540'	405'	1	6	150'	555'	15'	1	5	125'	530'	0	1	5	125'	530'	0	2	YES

95th percentile queue vehicle was rounded to whole number
*95th percentile queue length = vehicle * 25 ft*
**Length deficiency at buildout calculated compared to background condition considering improvements at the intersection of SR 472 and MLK Boulevard, as recommended by previous TIAs, are implemented.*
**Adequate or Not Based on Background Condition with Improvements*

8.0 ACCESS REVIEW

The development proposes to connect to the transportation network by extending Cassadaga Road and Blue Lake Avenue to intersect SR 472 at an existing full median opening and connect with MLK at Cassadaga Road. Access to the site will be provided via two full-access driveways: one (1) on the Cassadaga Road extension and one (1) on the Blue Lake Avenue extension.

SR 472 is a 4-lane divided roadway with a posted speed limit of 60 miles per hour (mph) near the access driveway at Blue Lake Avenue Extension. MLK Beltway is a 2-lane undivided roadway with a posted speed limit of 55 mph. The Blue Lake Avenue Extension is proposed to connect SR 472 to residential developments north of SR 472, while the Cassadaga Road Extension will connect to Blue Lake Avenue Extension to provide access to the site. Since both roadway extensions will lead to residential areas, it is expected that the speed limit for these roads will be 25 mph.

8.1 Access Road Improvements

Road improvements were evaluated to determine the need for deceleration lanes and egress lanes at the project driveways and the deceleration lanes at the nearby intersections. The need for deceleration lanes and the turn lane dimensions were evaluated based on the guidelines of the Volusia County *Land Development Code (LDC)*, provided in **Appendix P**. While these guidelines provided a framework, engineering judgment and planning considerations were also applied to ensure the most effective treatment. Consequently, the following turn lanes are recommended based on a combination of regulatory guidelines and professional assessment.

- Intersection #2 – MLK Beltway and Cassadaga Road
    - Northbound left turn lane
    - Southbound right turn lane

- Intersection # 4 – SR 472 and Blue Lake Avenue Extension
    - Westbound right turn lane

- Intersection #6 – Cassadaga Rd Extension and Access I
    - Eastbound left turn lane

Intersection #2 – MLK Beltway and Cassadaga Road

Deceleration Lanes

The intersection at MLK Beltway and Cassadaga Road is currently a signalized, 3-legged intersection. With the planned extension of Cassadaga Road, it will be reconfigured into a 4-legged intersection. To accommodate this change, it is recommended to add a northbound left turn deceleration lane and a southbound right turn deceleration lane. The eastbound approach is expected to function adequately with a two-lane configuration: one lane dedicated to left turns and the other shared between right turns and through movements.

- Northbound Left Turn Deceleration Lane
  Design Speed = 55 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (per Volusia County *LDC*)

- Southbound Right Turn Deceleration Lane
  Design Speed = 55 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (per Volusia County *LDC*)

- Eastbound Left Turn Deceleration Lane
  Assumed Design Speed = 25 mph
  A deceleration lane length of 145 feet is projected to sufficiently accommodate the left turn movement.

Intersection #4 – SR 472 and Blue Lake Avenue Extension

Deceleration Lanes

The intersection at SR 472 and Blue Lake Avenue Extension currently have approximately:

- 510-foot-long Westbound Right Turn Deceleration Lane
- 500-foot-long Eastbound Left Turn Deceleration Lane
- 440-foot-long Southbound Left Turn Deceleration Lane

The recommendations for turn lanes are as follows:

- Westbound Right Turn Deceleration Lane
  Design Speed = 60 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (There is no turn lane length recommended in *LDC* for speed > 55 mph, thus a turn lane length of 455 feet is recommended)

- Eastbound Left Turn Deceleration Lane
  Design Speed = 60 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (There is no turn lane length recommended in *LDC* for speed > 55 mph, thus a turn lane length of 455 feet is recommended)

- Southbound Left Turn Deceleration Lane
  Assumed Design Speed = 25 mph
  A deceleration lane length of 145 feet is projected to sufficiently accommodate the left turn movement.

The existing deceleration lanes at the intersection of SR 472 and Blue Lake Avenue Extension are longer than the recommended values. Thus, the intersection is not recommended for any improvements.

Intersection #6 – Cassadaga Road Extension and Access I

Deceleration Lanes

The full access driveway at Cassadaga Road is recommended to be improved with an eastbound left turn lane. This lane will primarily provide separation for left turn movements from through traffic while also offering some deceleration.

With an assumed speed limit of 25 mph for this segment, a conservative length of 145 feet (Incl. 50-foot taper) is recommended for the eastbound left turn lane.

Egress Lanes

The driveway is projected to operate adequately with the following egress lane configuration:

- One (1) southbound lane for the right turn movement
- One (1) southbound lane for the left turn movement - A deceleration lane length of 145 feet is projected to sufficiently accommodate the left turn movement.

Intersection #7 – Blue Lake Avenue Extension and Access II

Deceleration Lanes

Based on *Volusia County LDC* and engineering judgement, a deceleration lane is not necessary at this entrance.

Egress Lanes

The driveway is projected to operate adequately with the following egress lane configuration:

- One (1) westbound lane for the right turn and left turn movements

9.0 ALTERNATIVE TRANSPORTATION MODES

A review of pedestrian, bicycle, and transit facilities was conducted. This review consists of a visual inventory of available facilities to determine the context of alternative transportation modes in the vicinity of the proposed development.

9.1 Pedestrian and Bicycle Facilities

Google Earth maps and field observations indicate that the surrounding area in vicinity of the project site is generally undeveloped. TM BTR at Deland Crossings will construct sidewalks on the perimeter of the development.

There are no sidewalks on MLK Beltway or on SR 472 adjacent to the site. MLK Beltway and SR 472 are both equipped with bike lanes on both sides of the street, adjacent to the site.

9.2 Transit Facilities

The West Volusia transit route map was reviewed from *Volusia County's Public Transit System* website to determine the available transit route near the proposed development. Currently, there is not a transit route on MLK Beltway or Cassadaga Road, or SR 472 near the proposed development. The closest route (Route 20) is located on US 17/92, approximately 2.2-miles from the proposed development. The West Volusia bus service map is included in **Appendix Q**.

9.3 Proximity to Nearby Schools

A review of existing schools within a 2-mile radius of the project site was conducted to identify student walking routes from/to school. No school was identified within a 2-mile radius. The closest public school (Deltona High School) is located approximately 2.5-miles from the project site. As mentioned in the previous section, the area is not improved with pedestrian and bicyclist facilities. Therefore, it is likely that students will use buses to/from schools.

10.0 SAFETY ASSESSMENT

A safety assessment was performed for the intersections at MLK Beltway and Cassadaga Road and at SR 472 and Blue Lake Avenue. For the purpose of this assessment, five (5) years of historical crash data was obtained from *Signal 4 Analytics*. The study period for the assessment spans from 2019 to 2023 and the crash data is provided in **Appendix R**.

MLK Beltway and Cassadaga Road

Based on the crash data, five (5) crashes were reported in the vicinity of the access point at MLK Beltway and Cassadaga Road within the last five (5) years. All of these crashes were rear-end collisions. Of these, three (3) occurred in 2019, which may have been influenced by the intersection's previous stop-controlled configuration. The intersection has since been signalized, which may have contributed to the reduction in crashes. There has been only one (1) crash in 2022 and one (1) crash in 2023. None of the crashes resulted in fatalities. Out of the five (5) crashes, two (2) had no injuries, while three (3) involved possible or non-incapacitating injuries. A map of the crashes at this location is provided in **Figure 11**.

SR 472 and Blue Lake Avenue Extension

Based on the crash data, there have been no crashes reported directly at the SR 472 and proposed Blue Lake Avenue Extension intersection. However, two (2) crashes occurred in close proximity. One (1) of these was a rear-end collision, and the other (1) was a sideswipe collision. The rear-end crash, which resulted in a serious injury, occurred in 2019 and happened during daylight conditions. The sideswipe crash, which resulted in no injury, occurred in 2022 under clear day conditions. A map of the crashes at this location is provided in **Figure 12**.

Overall, the number of crashes at both intersections is relatively low, indicating that there is not a safety issue. The data suggests that the current conditions at these intersections are generally safe, with no significant patterns of frequent or severe crashes.


N
Not to Scale
Proposed Cassadaga Road Extension
LEGEND
Angle
Animal
Left Turn
Right Turn
Sidewsipe
Rear End
Other/Unkown



Traffic & Mobility CONSULTANTS

21145 Ford 472, v1.3

SR 472 and Blue Lake Avenue Crash Map **Figure 12**

11.0 PROPORTIONATE SHARE CALCULATION

The project's impacts on the adverse transportation facilities within the study area are proposed to be mitigated through a payment of the project's proportionate share of the cost to make the planned or identified mitigating improvements.

The proportionate share calculations for adopted roadway widening projects were prepared in accordance with the requirements of Volusia County using the *Master Proportionate Fair Share (PFS) Table*, provided in **Appendix S**.

For segments not available in the *Master PFS Table*, the cost of improving the same roadway and the length difference were used to calculate the proportionate share (PropShare). For example, the segment of Howland Boulevard from Forest Edge to Wolf Pack Run was available in the table. This segment was 0.25 miles long, with a total improvement cost of $2,021,542.48. The segment from I-4/SR 472 to Wolf Pack Run was 0.4 miles long. Therefore, the total cost of improving Howland Boulevard from I-4/SR 472 to Wolf Pack Run was calculated as:

$$\$2,021,542.48 \times (0.4/0.25) = \$3,234,467.96$$

This total cost was then multiplied by the project percentage to determine the PropShare Cost. A similar method was applied to calculate the PropShare Cost for Orange Camp Road (from US-17-92 to Princeton) and Veterans Memorial Parkway (from Harley Strickland Boulevard to Rhode Island Avenue).

The project's roadway segment proportionate share mitigation was calculated to be $142,189.78, as summarized in **Table 11**.

Table 11
Roadway Segments Proportionate Share Calculation

Roadway Segment	Roadway Improvement	Capacity			Project Trips	Prop Share %	Improvement Cost	Prop Share
		Base	Improved	Increase				
Graves Ave								
Veterans Memorial Pkwy to Kentucky Ave	Widen 2 to 4 Lanes	1,620	3,410	1,790	15	0.84%	$2,534,673.55	$21,240.28
Kentucky Ave to Normandy Blvd	Widen 2 to 4 Lanes	1,620	3,410	1,790	5	0.28%	$18,134,221.59	$50,654.25
Howland Blvd								
I-4/SR 472 to Wolf Pack Run	Widen 4 to 6 Lanes	3,410	5,120	1,710	14	0.82%	$3,234,467.96*	$26,481.02
Orange Camp Rd								
US 17-92 to Princeton	Widen 2 to 4 Lanes	1,270	3,410	2,140	3	0.14%	$5,329,975.45	$7,471.93
W. Volusia Bltwy (Veterans Memorial Pkwy)								
Harley Strickland Blvd to Rhode Island Ave	Widen 2 to 4 Lanes	1,540	3,410	1,870	5	0.27%	$13,592,020.00*	$36,342.30
							Total Roadway Segment Proportionate Share	**$142,189.78**

Volusia County Master Prop Fair Share Table
**Not listed in Master Table, improvement cost estimated using the portion of this segment listed in Master table taking into consideration the length difference*

The proportionate share calculations for improvements at the intersection of SR 472 and MLK Beltway were also carried out in accordance with the requirements of Volusia County using the Master Proportionate Fair Share Table. The Fair Share Table and other relevant information are provided in **Appendix S**. The project's total proportionate share mitigation was calculated to be $92,019.46, as summarized in calculations shown in **Table 12**.

Table 12
Proportionate Share Calculation of Improvements at SR 472 and MLK Beltway

Roadway Segment	Roadway Improvement	Capacity			Project Trips	Prop Share %	Improvement Cost	Prop Share
		Base	Improved	Increase				
West Volusia Beltway (MLK)								
Cassadaga Rd to SR 472	Widen 2 to 4 Lanes	1,540	3,410	1,870	15	0.80%	$2,707,186.81	$21,715.40
Kentucky Ave								
Graves Ave to SR 472	Widen 2 to 4 Lanes	1,540	3,410	1,870	20	1.07%	$5,890,388.87	$62,998.81
							Roadway Segment Proportionate Share	**$84,714.21**

Volusia County Master Prop Fair Share Table

Improvement	Capacity			Project Trips	Prop Share %	Improvement Cost	Prop Share
	Base	Improved	Increase				
Adding a WBL Turn Lane							
No project Trips in this approach so not responsible for PropShare							$0
Adding a NBL Turn Lane							
Add a 550' turn lane	119	203	84	1	1.19%	$619,688.72	$7,377.25
Adding a SBL Turn Lane							
No project Trips in this approach so not responsible for PropShare							$0
						Turn Lane Proportionate Share	**$7,377.25**

Improvement Cost Based on FDOT Generic Cost + 25% for Design/Consultant
Base and Improved Capacity for NBL Turn Lane Obtained from Synchro Analysis of Projected AM Peak Before and After Improvements

Thus, the project's total proportionate share cost was calculated to be $234,281.24. The applicant intends to enter into a proportionate share mitigation agreement with Volusia County to establish the payment of the mitigation funds, the allocation of impact fee credits, and any other applicable terms.

12.0 STUDY CONCLUSIONS

This traffic analysis was conducted to evaluate the impacts of Ford 472, a residential development. The site is located west of MLK Beltway and north of State Road 472 (SR 472) in the City of Deland, Florida.

The analysis included a determination of trip generation, a review of transportation capacity and operations, a review of the proposed site access plan, a review of alternative modes of transportation, and a safety assessment. The results of the traffic analysis are summarized as follows:

Summary of Findings

- The proposed development is projected to generate 1,728 net new external daily trips, of which 121 trips occur during the AM peak hour and 154 trips occur during the PM peak hour.

- A review of roadway capacity conditions indicates that the following adverse roadway segments are projected to be impacted by the proposed development:
    - Graves Avenue
        - Veterans Memorial Parkway to Kentucky Avenue
        - Kentucky Avenue to Normandy Boulevard
    - Howland Boulevard
        - I-4/SR 472 to Wolf Pack Run
    - Orange Camp Road
        - US 17/92 to Princeton
    - West Volusia Beltway
        - Harley Strickland Boulevard to Rhode Island Avenue

- A review of intersection operations indicates that the intersection of SR 472 and MLK Beltway is projected to operate below the adopted LOS due to existing and background traffic. However, with the improvements recommended by the previously approved projects, the intersection is projected to operate adequately.

Summary of Recommendations

- The recommended access improvements are:
    - MLK Beltway and Cassadaga Road
      Install a 455-foot-long northbound left turn deceleration lane on MLK Beltway
      Install a 455-foot-long southbound right turn deceleration lane on MLK Beltway
      Provide an eastbound shared lane for right turn and through movements
      Provide a 145-foot-long eastbound lane for the left turn movement

    - Cassadaga Road Extension and Access I
      Install a 145-foot-long eastbound left turn deceleration lane on Cassadaga Road
      Provide one (1) southbound egress lane for the right turn movement
      Provide a 145-foot-long southbound egress lane for the left turn movement

    - Blue Lake Avenue Extension and Access II
      Deceleration lane is not necessary
      Provide one (1) westbound shared lane for right turn and left turn movements

- The project's proportionate share mitigation is $234,281.24 which shall be paid in accordance with a mitigation agreement with Volusia County.

APPENDICES

Appendix A
Comment Letter and Response to Comment Letter

February 13, 2025

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Comments
TMC Project № 21145, v1.2
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by Volusia County Traffic Engineering dated January 8, 2025, regarding the above referenced Traffic Impact Analysis dated December 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised TIA is provided under separate cover reflecting the changes resulting from these comments.

1. **Synchro files are missing throughout document. Example missing existing, background, or projected (varies at a.m. & p.m. as well). Please provide all relevant output reports.**

   *TMC Response: Printouts of all HCM output are provided in **Appendices M** and **N** of the revised report (as included in version 1.2). The Synchro files will be provided to the County via electronic file.*

2. **Peak hour factors vary throughout TIA, please provide reasoning.**

   *TMC Response: Peak hour factors for the intersections are based on the Turning Movement Counts observed at each intersection. Some discrepancies in the Synchro sheets have been identified and corrected accordingly. The revised **Appendices M** and **N** now reflect the updated values.*

3. **There appears to be a significant amount of traffic that exits the network between intersection 4 and intersection 3 EB during peak hours, please review & explain.**

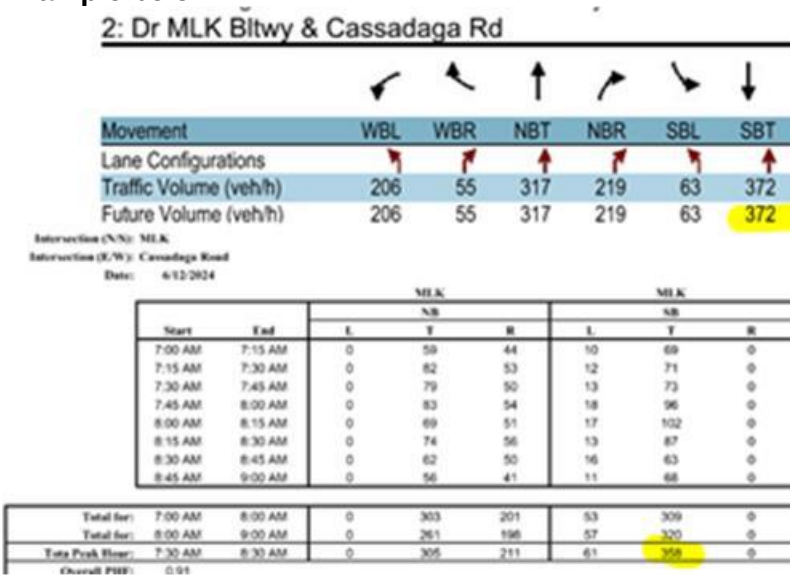
   TMC Response: The traffic exiting from intersection 4 towards intersection 3 eastbound follows the network and exits through intersection 3, rather than between the two intersections. As an example, during the AM peak hour:
   - *Project trips exiting from intersection 4 towards intersection 3 eastbound: 42% (38 trips) via southbound left movement*
   - *Project trips exiting from intersection 3 eastbound:*
     - *Eastbound through movement: 39% (35 trips)*
     - *Eastbound right movement: 3% (3 trips)*

- *Total: 42% (38 trips), which aligns with the trips exiting from intersection 4.*

Similarly, for vested trips during the AM peak hour, 103 trips exit intersection 4 eastbound through and continue through intersection 3 as:

- *82 trips via eastbound through movement*
- *21 trips via eastbound left movement*
- *Total: 103 trips, confirming that traffic follows the expected path through the network.*

4. There are differences in the existing data in synchro and the TMC, please clarify. Example below:



2: Dr MLK Bltwy & Cassadaga Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	55	317	219	63	372
Future Volume (veh/h)	206	55	317	219	63	372

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK NB			MLK NB		
Start	End	L	T	R	L	T	R
7:00 AM	7:15 AM	0	59	44	10	69	0
7:15 AM	7:30 AM	0	82	53	12	71	0
7:30 AM	7:45 AM	0	79	50	13	73	0
7:45 AM	8:00 AM	0	83	54	18	96	0
8:00 AM	8:15 AM	0	69	51	17	102	0
8:15 AM	8:30 AM	0	74	56	13	87	0
8:30 AM	8:45 AM	0	62	50	16	63	0
8:45 AM	9:00 AM	0	56	41	11	68	0
Total for:	7:00 AM	8:00 AM	0	303	201	53	309	0
Total for:	8:00 AM	9:00 AM	0	261	196	57	320	0
Tota Peak Hour:	7:30 AM	8:30 AM	0	305	211	61	358	0
Overall PHF:	0.91							

TMC Response: As explained in Section 6.2, the raw counts were adjusted by a seasonal factor of 1.04. The existing count data (358) was multiplied by 1.04 to total 372, the adjusted southbound through volume, as shown in the Volume Projections worksheet provided in ***Appendix L,*** *an excerpt of which follows:*

Intersection:		Dr. MLK Bltwy & Cassadaga Rd				
Appr	Mvmt	Lns	Raw	SF	Adjusted	GF
NB	L	0	0	1.04	0	1.0
	T	1	305	1.04	317	1.0
	R	1	211	1.04	219	1.0
SB	L	1	61	1.04	63	1.0
	T	1	358	1.04	372	1.0
	R	0	0	1.04	0	1.0
EB	L	1	0	1.04	0	1.1
	T	1	0	1.04	0	1.1
	R	0	0	1.04	0	1.1
WB	L	1	198	1.04	206	1.1
	T	1	0	1.04	0	1.1
	R	0	53	1.04	55	1.1

*Background Volumes Estimated using *ITE Trip Generation Manu*

5. The county has 2023 count data midblock on MLK between Cassadaga Rd and SR-472. The TIA 2024 existing count is significantly higher, please review & verify.

TMC Response:

W. Volusia Bltwy (Dr MLK Jr)	SR 472 to Cassadaga Rd.	1940	County	Yes	0.20	55	UA_NSSRC1_2W_2L_UWL	Minor Arterial - Urban	E	17,050	0.72	C	710	990	1,540	2

The AADT count data publicly available from Volusia County is from 2022. According to this data, the total count recorded was 710 during AM peak hours and 990 during PM peak hours as shown in the figure above. However, the Turning Movement Count (TMC) conducted in 2024 as part of this TIA recorded the following counts:

- *AM Peak Hour:*
  - *Southbound (SB): 358 + 198 = 556*
  - *Northbound (NB): 305 + 211 = 516*
  - *Total AM Peak: 1,072*
- *PM Peak Hour:*
  - *Southbound (SB): 536 + 117 = 653*
  - *Northbound (NB): 448 + 167 = 615*
  - *Total PM Peak: 1,268*

While it is true that the 2024 existing count is significantly higher than the 2022 count, the traffic count survey was conducted in accordance with standard procedures. The increase in traffic volumes could be attributed to ongoing developments in the area, which may have led to a growth in vehicular flow between 2022 and 2024.

6. Please show how annual growth rates were accounted for in the roadway segments and intersection analyses

*TMC Response: The methodology used for incorporating annual growth rates in roadway segments is detailed in Section 6.1 and further outlined in Table 6 of the revised report (as included in version 1.2). The approach for intersection analyses is explained in Section 6.2, with detailed calculations provided in **Appendix L** of the revised report (as included in version 1.2).*

7. Please show how seasonal factors were accounted for in the roadway segments and intersection analyses

*TMC Response: Seasonal factors were applied only to turning movement counts and are not applicable to roadway segments. The methodology for incorporating seasonal factors into intersection analyses is explained in Section 6.2, with detailed calculations provided in **Appendix L** of the revised report (as included in version 1.2).*

8. For Synchro analyses, please include the output reports that show the Q-length to verify against table 10 values.

*TMC Response: The queue lengths for turn lanes summarized in Table 10 are based on the Synchro worksheets were provided in **Appendix N** (as included in version 1.2). However,*

*the queue lengths for the existing condition are derived from the Synchro worksheets in **Appendix M** (as included in version 1.2). To avoid confusion, Section 7.4 has been updated to clarify this distinction. Please see TIA v1.3 attached.*

9. Please improve the intersection LOS E result at MLK Blvd & SR-472 analysis / PM Peak Hour (Buildout W Improvements) condition which is not in line with adopted LOS requirement.

TMC Response: As explained in Section 7.3, several improvements were previously recommended for the MLK Blvd and SR 472 intersection by other developments. With these improvements in place, the intersection operates in an adequate condition and is capable of accommodating project trips. Additionally, as per Volusia County's comment on September 16, 2024, a proportionate share cost for these improvements was requested to be calculated, as these improvements exceeded concurrency requirements. Consequently, this calculation was incorporated into the revised report (as included in version 1.2).

The allowable Level of Service (LOS) at MLK Blvd and SR 472 is LOS E, which aligns with the adopted LOS requirement. Therefore, the intersection's LOS at PM Peak Hour (Buildout with Improvements) condition remains in compliance with this standard. However, please note that with the revision of Synchro analysis, the overall LOS at MLK Blvd and SR 472 is improved to D.

10. Background traffic volumes (including vested trips) were adjusted manually in some cases. Appendix I and L should clearly justify these adjustments and match the volumes shown in Figures 7–10 (intersection volumes).

*TMC Response: Background traffic volumes (including vested trips) were not adjusted manually. Background traffic volumes were estimated by applying appropriate seasonal factors and growth factors to existing traffic counts and then adding vested trips from Deland Tech Park and TM BTR, as explained in Section 6.2 of the report. The vested trip data was obtained from the TIA of TM BTR and is highlighted in **Appendix K** of the revised report (as included in version 1.2)*.

11. Traffic counts from June 2024 might not fully reflect peak seasonal conditions despite adjustments using FDOT seasonal factors. Ensure accuracy of adjustment factors in Appendix J.

TMC Response: Per County guidelines, traffic counts must be no more than two years old and should be adjusted using FDOT seasonal factors. The traffic counts used in this analysis were collected less than a year ago, and the appropriate seasonal adjustment factor was applied to reflect peak seasonal conditions. This methodology is consistent with Volusia County's standard practice, aligns with procedures followed in other jurisdictions, and is considered an industry-standard practice. If an alternative method is preferred, we are open to incorporating it for this and future analysis.

12. For the intersection of SR 472 and MLK Beltway, Intersection delays and LOS under "Buildout with Improvements" conditions were marginally better than "Background with

Vested" conditions (Tables 8 and 9), Please clarify the improvement effectiveness from Appendix N.

TMC Response: The LOS and delay under the Buildout with Improvements condition are not significantly better because these improvements were already accounted for in the Background with Vested condition. The improvements included in this analysis were recommended in previous projects and were therefore factored into the background conditions of this project.

13. Queue lengths for turn lanes are summarized in Table 10, but discrepancies exist with Appendix M worksheets regarding 95th percentile values (e.g., SR 472 eastbound right-turn queue).

*TMC Response: The queue lengths for turn lanes summarized in Table 10 are based on the Synchro worksheets provided in **Appendix N**. However, the queue lengths for the existing condition are derived from the Synchro worksheets in **Appendix M**. To avoid confusion, Section 7.4 has been updated to clarify this distinction. Please see TIA v1.3 attached.*

14. For deceleration lanes at MLK and Cassadaga Road, ensure that lane lengths are consistent with Land Development Code values. Appendix O calculations occasionally deviate by ~5%.

TMC Response: Deceleration lanes at MLK and Cassadaga Road were previously recommended based on FDM Exhibit 212-2. In response to this comment, the deceleration lanes at MLK and Cassadaga Road have now been recommended in accordance with the Volusia County Land Development Code (LDC).

15. Westbound right-turn lane at SR 472 and Blue Lake Ave Extension recommended at 455 feet, but queue analysis (Table 10) suggests this length might be underestimated.

TMC Response: T The westbound right-turn lane at SR 472 and Blue Lake Ave Extension was originally recommended at 455 feet based on FDM Exhibit 212-1. However, there is currently an approximately 510-foot-long westbound right-turn lane at this location. The existing turn lane was initially overlooked, as it was recently installed as part of the Blue Lake Ave Extension. Analysis indicates that a 510-foot-long turn lane can adequately accommodate project trips, and thus, no improvements are required at SR 472 and Blue Lake Ave Extension. The TIA has been updated accordingly to include this information. Please see TIA v1.3 attached.

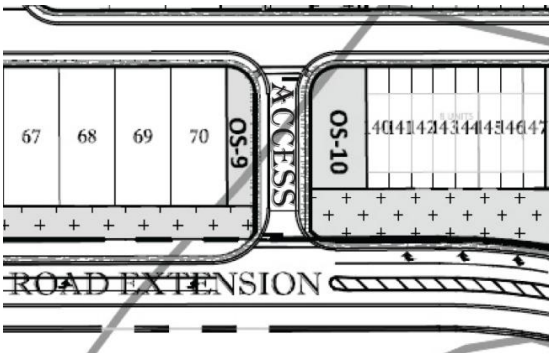
Also, it is important to note that the queue analysis in Table 10 reflects storage needs at SR 472 and MLK Beltway, a higher-volume intersection. In contrast, SR 472 and Blue Lake Ave Extension serves lower traffic volumes and does not require extensive queue storage. Thus, Table 10's analysis does not directly apply as the operational characteristics of these intersections differ.

16. Within Table 12, the total proportionate share ($233,945.91) includes estimated improvement costs. Check alignment of project share percentages with Appendix S, particularly for improvements not listed in the Master PFS Table.

*TMC Response: Table 12 only accounts for the total proportionate share cost of the improvements at the intersection of SR 472 and MLK Beltway. These improvements were recommended by previous developments and based on the comments from the County on September 16, 2024, the proportionate share was calculated and included in this project's proportionate share cost. The total cost of $233,945.91 included this amount as well as the proportionate share cost of improving roadway segments impacted by this project. Please note that because of Synchro revision the new cost is updated to $234,281.24. The project share percentages have been verified against **Appendix S**, and adjustments have been made where necessary to ensure consistency (as included in version 1.2). Additionally, for improvements not listed in the Master Proportionate Fair Share (PFS) Table, the cost allocation methodology was applied in accordance with County guidelines and has been explained in section 11.0 and also reflected in **Appendix S** (as included in version 1.2).*

17. Within Appendix B Intersections layouts should match operational assumptions in LOS analysis (e.g., shared lanes at Cassadaga Road). Potential conflicts observed for eastbound left turn at Access I.

TMC Response: The intersection layouts in Appendix B have been reviewed and confirmed to match the operational assumptions used in the LOS analysis. An example of Cassadaga Road and Access I have been provided with in the figure below for reference.



HCM 7th TWSC
6: Cassadaga Rd Ext & Access I

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	7	2	10	29	35
Future Vol, veh/h	11	7	2	10	29	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %		0	0		0	

HCM 7th TWSC
6: Cassadaga Rd Ext & Access I

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	4	7	30	19	23
Future Vol, veh/h	36	4	7	30	19	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %		0	0		0	

18. Please submit soft copy of the Synchro files used.

TMC Response: A soft copy of the Synchro file has been submitted along with the revised TIA, as requested.

19. Please submit a soft copy of the excel spreadsheet used for your PFS calculation.

TMC Response: A soft copy of the PFS spreadsheet has been submitted along with the revised TIA, as requested.

20. Present traffic count results to account for all modes of movements and provide soft copy of all count survey data using the following file types:

- **Intersection data - .txt export from PetraPro; .txt export from Traffic Data Online.**
- **Midblock data: .prn export from TraxPro/StarNEXT; .csv export from VIAS; .prn export from TrafficViewerPro**

TMC Response: The raw counts collected by the field technician have been submitted along with the revised TIA, as requested.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman H. As-Saidi, PE
VP of Engineering

Volusia County
Traffic Engineering

Project Name: **Ford 472**
Subject: **TIA Comments**
Date: **1/8/2025**

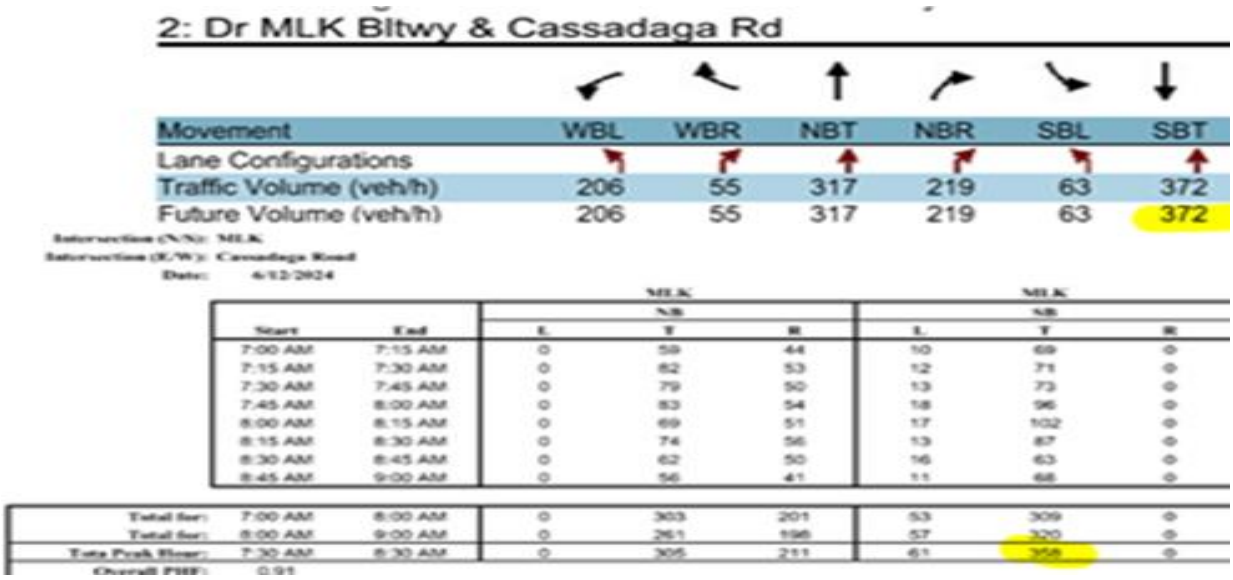
TIA Comments

1. Synchro files are missing throughout document. Example missing existing, background, or projected (varies at a.m. & p.m. as well). Please provide all relevant output reports.

2. Peak hour factors vary throughout TIA, please provide reasoning.

3. There appears to be a significant amount of traffic that exits the network between intersection 4 and intersection 3 EB during peak hours, please review & explain.

4. There are differences in the existing data in synchro and the TMC, please clarify. Example below:



2: Dr MLK Bltwy & Cassadaga Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	55	317	219	63	372
Future Volume (veh/h)	206	55	317	219	63	372

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 4/12/2024

		MLK NB			MLK NB		
Start	End	L	T	R	L	T	R
7:00 AM	7:15 AM	0	59	44	10	69	0
7:15 AM	7:30 AM	0	62	53	12	71	0
7:30 AM	7:45 AM	0	79	50	13	73	0
7:45 AM	8:00 AM	0	83	54	18	96	0
8:00 AM	8:15 AM	0	69	51	17	102	0
8:15 AM	8:30 AM	0	74	56	13	87	0
8:30 AM	8:45 AM	0	62	50	16	63	0
8:45 AM	9:00 AM	0	56	41	11	68	0
Total for:	7:00 AM	8:00 AM	0	303	201	53	309	0
Total for:	8:00 AM	9:00 AM	0	261	196	57	320	0
Tote Peak Hour:	7:30 AM	8:30 AM	0	305	211	61	358	0
Overall PHF:	0.91							

5. The county has 2023 count data midblock on MLK between Cassadaga Rd and SR-472. The TIA 2024 existing count is significantly higher, please review & verify.

6. Please show how annual growth rate were accounted for in the roadway segments and intersection analyses

7. Please show how seasonal factors were accounted for in the roadway segments and intersection analyses

8. For Synchro analyses, please include the output reports that show the Q-length to verify against table 10 values.

9. Please improve the intersection LOS E result at MLK Blvd & SR-472 analysis / PM Peak Hour (Buildout W Improvements) condition which is not in line with adopted LOS requirement.

10. Background traffic volumes (including vested trips) were adjusted manually in some cases. Appendix I and L should clearly justify these adjustments and match the volumes shown in Figures 7–10 (intersection volumes).

11. Traffic counts from June 2024 might not fully reflect peak seasonal conditions despite adjustments using FDOT seasonal factors. Ensure accuracy of adjustment factors in Appendix J.

12. For the intersection of SR 472 and MLK Beltway, Intersection delays and LOS under "Buildout with Improvements" conditions were marginally better than "Background with Vested" conditions(Tables 8 and 9), Please clarify the improvement effectiveness from Appendix N.

13. Queue lengths for turn lanes are summarized in Table 10, but discrepancies exist with Appendix M worksheets regarding 95th percentile values (e.g., SR 472 eastbound right-turn queue).

14. For deceleration lanes at MLK and Cassadaga Road, ensure that lane lengths are consistent with Land Development Code values. Appendix O calculations occasionally deviate by ~5%.

15. Westbound right-turn lane at SR 472 and Blue Lake Ave Extension recommended at 455 feet, but queue analysis (Table 10) suggests this length might be underestimated.\

16. Within Table 12, the total proportionate share ($233,945.91) includes estimated improvement costs. Check alignment of project share percentages with Appendix S, particularly for improvements not listed in the Master PFS Table.

17. Within Appendix B Intersections layouts should match operational assumptions in LOS analysis (e.g., shared lanes at Cassadaga Road). Potential conflicts observed for eastbound left turn at Access I.

18. Please submit soft copy of the Synchro files used.

19. Please submit a soft copy of the excel spreadsheet used for your PFS calculation.

20. Present traffic count results to account for all modes of movements and provide soft copy of all count survey data using the following file types:

    - Intersection data - .txt export from PetraPro; .txt export from Traffic Data Online.
    - Midblock data: .prn export from TraxPro/StarNEXT; .csv export from VIAS; .prn export from TrafficViewerPro

December 10, 2024

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Comments
TMC Project № 21145, v1.1
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by the Volusia County Traffic Engineering dated December 9, 2024, regarding the above referenced Traffic Impact Analysis dated October 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. The **bold** typeface in **red** are the edits made by Volusia County to the comments provided on December 3, 2024. Additionally, a revised TIA is provided under cover reflecting the changes resulting from these comments.

1. **Please revise table 10 to include all study intersections to confirm the development buildout 2028- year and corresponding Development Buildout LOS using the following format, noting the referenced vested project in appendix H&N reflects a buildout Yr 2027. Provide in a tabulated format the results of all studied signalized intersections to include current / Projected plus vested / Projected plus vested plus development to include the following parameters:**
    1. **Intersection delay (sec/veh)** **Shown on tables 8 & 9**
    2. **Movement delay (sec/veh)** **Shown on tables 8 & 9**
    3. **Intersection LOS** **Shown on tables 8 & 9**
    4. **Movement LOS** **Shown on tables 8 & 9**
    5. **Back of queue Ft/ln (95th percentile)** **Update Table 10 to include all study intersections with project trips, separated by AM and PM as shown in the attached Queue Length Analysis.**

    Confirmation of sufficient storage length left/right turn movement(s) if turning lanes are available.

Intersection	Turn Lane	Posted Speed Limit (mph)	Existing Lane Length (ft)	Required Deceleration (ft)	Current Yr. Traffic				Future Yr. Traffic + Vested				Development Build-Out					
					# of Lanes	95th Percentile Queue Length (veh x 25 ft)	Total Required Turn Lane Length (ft)	Lane Length Deficiency (ft)	# of Lanes	95th Percentile Queue Length (veh x 25 ft)	Total Required Turn Lane Length (ft)	Lane Length Deficiency (ft)	# of Lanes	95th Percentile Queue Length (veh x 25 ft)	Total Required Turn Lane Length (ft)	Lane Length Deficiency (ft)	Lane Length Deficiency Difference from Future & Vested to Build-Out (ft)	Project Trips
AM PEAK																		
Name	NBL																	
	NBR																	
	SBL																	
PM PEAK																		
Name	NBL																	
	NBR																	
	SBL																	

TMC Response: Table 10 has been revised to include the study intersection with project trips for both AM and PM periods, consistent with the provided Queue Length Analysis. Please refer to Table 10 in the revised TIA v1.2 attached.

2. Please use the updated PFS spreadsheet dated July 2024 and forward a soft copy of your PFS spreadsheet.

TMC Response: The TIA has been updated in accordance with the PFS spreadsheet dated July 2024, provided by the County. Please see Section 11 in the revised TIA v1.2 attached. Additionally, a soft copy of the updated PFS spreadsheet has been submitted along with the revised TIA, as requested.

.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman H. As-Saidi, PE
VP of Engineering

Nikesh Poudel

From: William White <WDWhite@volusia.org>
Sent: Monday, December 9, 2024 2:23 PM
To: Nikesh Poudel
Cc: Jay I Williams; Omar Atallah; Ayman As-Saidi; 21145 FORD 472
Subject: Fw: Follow-Up on Revised TIA for Ford 472 Project – October 2024
Attachments: TIA Comment Letter Dec 2024.pdf; Queue Length Analysis Table.docx; Master PFS table 2024-01 TWK - July 2024.xlsx

Nikesh,

1. Please revise table 10 to include all study intersections to confirm the development buildout 2028-year and corresponding Development Buildout LOS using the following format, noting the referenced vested project in appendix H&N reflects a buildout Yr 2027
   Provide in a tabulated format the results of all studied signalized intersections to include current / Projected plus vested / Projected plus vested plus development to include the following parameters:
   1. ~~Intersection delay (sec/veh)~~ **Shown on tables 8 & 9**
   2. ~~Movement delay (sec/veh)~~ **Shown on tables 8 & 9**
   3. ~~Intersection LOS~~ **Shown on tables 8 & 9**
   4. ~~Movement LOS~~ **Shown on tables 8 & 9**
   5. Back of queue Ft/ln (95TH percentile) **Update Table 10 to include all study intersections with project trips, separated by AM and PM as shown in the attached Queue Length Analysis.**

   Confirmation of sufficient storage length left/right turn movement(s) if turning lanes are available.

6. Please use the updated PFS spreadsheet dated July 2024 and forward a soft copy of your PFS spreadsheet.

October 23, 2024

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Comments
TMC Project № 21145
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by the Volusia County Traffic Engineering dated September 16, 2024, regarding the above referenced Traffic Impact Analysis dated September 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised TIA is provided under cover reflecting the changes resulting from these comments.

1. **Refer to the attached traffic growth policy for compliance.**

   TMC Response: The attached traffic growth policy has been adhered to in the Traffic Impact Analysis v1.0.

2. **Referencing TIA report page 12 section 5 Improvement at intersection of SR 472 & MLK, recommendation of improvements by other vested project shall be considered but also confirmed in line with the concurrency laws requirement that developments maintain the adopted LOS standards to ensure that growth does not outpace infrastructure capacity. The TIA's proposed improvements to deficient intersections not only meet these standards but exceed them, potentially resulting in a higher LOS than required. Given that these improvements offer benefits that surpass the basic concurrency requirements, it is equitable that the costs associated with these enhancements be allocated proportionately to the developments that generate the additional traffic demand. The Proportionate Fair Share (PFS) mechanism is designed to ensure that developments contribute fairly to the costs of necessary infrastructure improvements. When improvements elevate an intersection's LOS beyond the adopted standard, the additional capacity created is primarily intended to accommodate the increased traffic generated by the development. Therefore, it is appropriate for the development to bear the cost of this additional capacity in proportion to its usage of the intersection. This approach ensures that existing residents and businesses are not subsidizing infrastructure improvements that disproportionately benefit new developments. By tying the PFS costs directly to the proportion of trips generated by the development, we ensure a fair and transparent distribution of costs. The improvements beyond the adopted LOS represent an added**

benefit to the transportation network, and it is logical that the entities creating the need for these improvements should fund them accordingly.

TMC Response: Acknowledged. The Proportionate Fair Share for all improvements listed in the TIAs of previous developments have been evaluated. The report has been updated to reflect the Proportionate Fair Share costs that Ford 472 is responsible for at the intersection of SR 472 and MLK. Please refer to Table 12 in the revised TIA v1.1 attached.

3. **Please provide for all studied intersections in tabulated format the LOS of: Existing AM/PM Peak Hour, Projected background + vested AM/PM Peak Hour, Projected background + vested with improvement AM/PM Peak Hour, & Buildout AM/PM Peak Hour.**

TMC Response: The report has been updated to include the requested LOS information in a tabulated format for all studied intersections under all conditions: Existing AM/PM Peak Hour, Projected background + vested AM/PM Peak Hour, Projected background + vested with improvement AM/PM Peak Hour, & Buildout AM/PM Peak Hour. Please refer to Table 8 and Table 9 in the revised TIA v1.1 attached.

4. **To verify proper connectivity, provide intersections concept layouts that correspond to LOS analysis for the new roadway intersections along S Blue Lake Ave. & Cassadaga Rd.**

TMC Response: The TIA report has been updated to include the LOS analysis and concept layouts for the new roadway intersections along S Blue Lake Ave. & Cassadaga Rd. Please refer to Appendix B for the concept layout and Table 8 and Table 9 for the updated LOS analysis in the revised TIA v1.1 attached.

5. **CTE confirmation with your listed proposed improvement(s) would be in line with County improvement strategy ahead of being assumed as acceptable improvement(s) as stated in the TIA guideline.**

Access Rd Improvement(s)	Valid Assumption	Invalid Assumption	Alternative Improvement to be considered	Comment
Intersection #2 – MLK Beltway and Cassadaga Road				
Northbound left turn lane	X			
Southbound right turn lane	X			
Intersection # 4 – SR 472 and Blue Lake Avenue Extension				
Westbound right turn lane	X			
Intersection #6 – Cassadaga Rd Extension and Access I				
Eastbound left turn lane	X			

TMC Response: The confirmation of the assumptions by the County has been acknowledged.

6. **Please include the following statement if applicable**
   Given the staged nature of the development and recognizing the potential evolution of traffic patterns over time, the developer is required to conduct a comprehensive reevaluation of the access control type in conjunction with each stage of development. This process is essential to ensure that access control measures align with the changing transportation needs and conditions associated with the different phases of the project. The developer must collaborate closely with the CTE to assess and adjust the access control type based on the specific requirements and challenges presented by each stage. This reevaluation should consider factors such as the increasing population density, changing land use patterns, and corresponding shifts in traffic volumes. For each stage, the developer is expected to submit a revised access control proposal that reflects the current and anticipated traffic conditions. This proposal should outline any necessary modifications to the initially proposed access control type, taking into account factors such as peak traffic periods, pedestrian movements, and the integration of alternative transportation modes. The CTE will review each stage's access control proposal, ensuring that it complies with established standards and guidelines. The goal is to adapt the access control type to the evolving demands of the development, promoting an efficient and safe transportation network throughout the different phases. This staged approach to access control evaluation aims to create a flexible and responsive framework that accommodates the dynamic nature of the development. It is imperative that the developer remains proactive in reassessing and refining access control measures to uphold the highest standards of transportation planning and engineering throughout the entire staged development process.

   TMC Response: Please note that this project will be developed in one (1) phase/stage; therefore, the proposed access driveway points have been analyzed for the full buildout of the project and access management has been evaluated accordingly, and the above statement is not applicable.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman H. As-Saidi, PE
VP of Engineering

Volusia County
Traffic Engineering

Project Name: **Ford 472**
Subject: **TIA Comments**
Date: **9-16-24**

TIA Comments

1. Refer to the attached traffic growth policy for compliance.

2. Referencing TIA report page 12 section 5 Improvement at intersection of SR 472 & MLK, recommendation of improvements by other vested project shall be considered but also confirmed in line with the concurrency laws requirement that developments maintain the adopted LOS standards to ensure that growth does not outpace infrastructure capacity. The TIA's proposed improvements to deficient intersections not only meet these standards but exceed them, potentially resulting in a higher LOS than required. Given that these improvements offer benefits that surpass the basic concurrency requirements, it is equitable that the costs associated with these enhancements be allocated proportionately to the developments that generate the additional traffic demand. The Proportionate Fair Share (PFS) mechanism is designed to ensure that developments contribute fairly to the costs of necessary infrastructure improvements. When improvements elevate an intersection's LOS beyond the adopted standard, the additional capacity created is primarily intended to accommodate the increased traffic generated by the development. Therefore, it is appropriate for the development to bear the cost of this additional capacity in proportion to its usage of the intersection. This approach ensures that existing residents and businesses are not subsidizing infrastructure improvements that disproportionately benefit new developments. By tying the PFS costs directly to the proportion of trips generated by the development, we ensure a fair and transparent distribution of costs. The improvements beyond the adopted LOS represent an added benefit to the transportation network, and it is logical that the entities creating the need for these improvements should fund them accordingly.

Background Conditions									
Intersection	Adopted LOS	AM Peak Hour				PM Peak Hour			
		Delay (sec.)	LOS	Overall Highest V/C	Movement(s) with V/C > 1	Delay (sec.)	LOS	Overall Highest V/C	Movement(s) with V/C > 1

3. Please provide for all studied intersections in tabulated format the LOS of: Existing AM/PM Peak Hour, Projected background + vested AM/PM Peak Hour, Projected

background + vested with improvement AM/PM Peak Hour, & Buildout AM/PM Peak Hour,

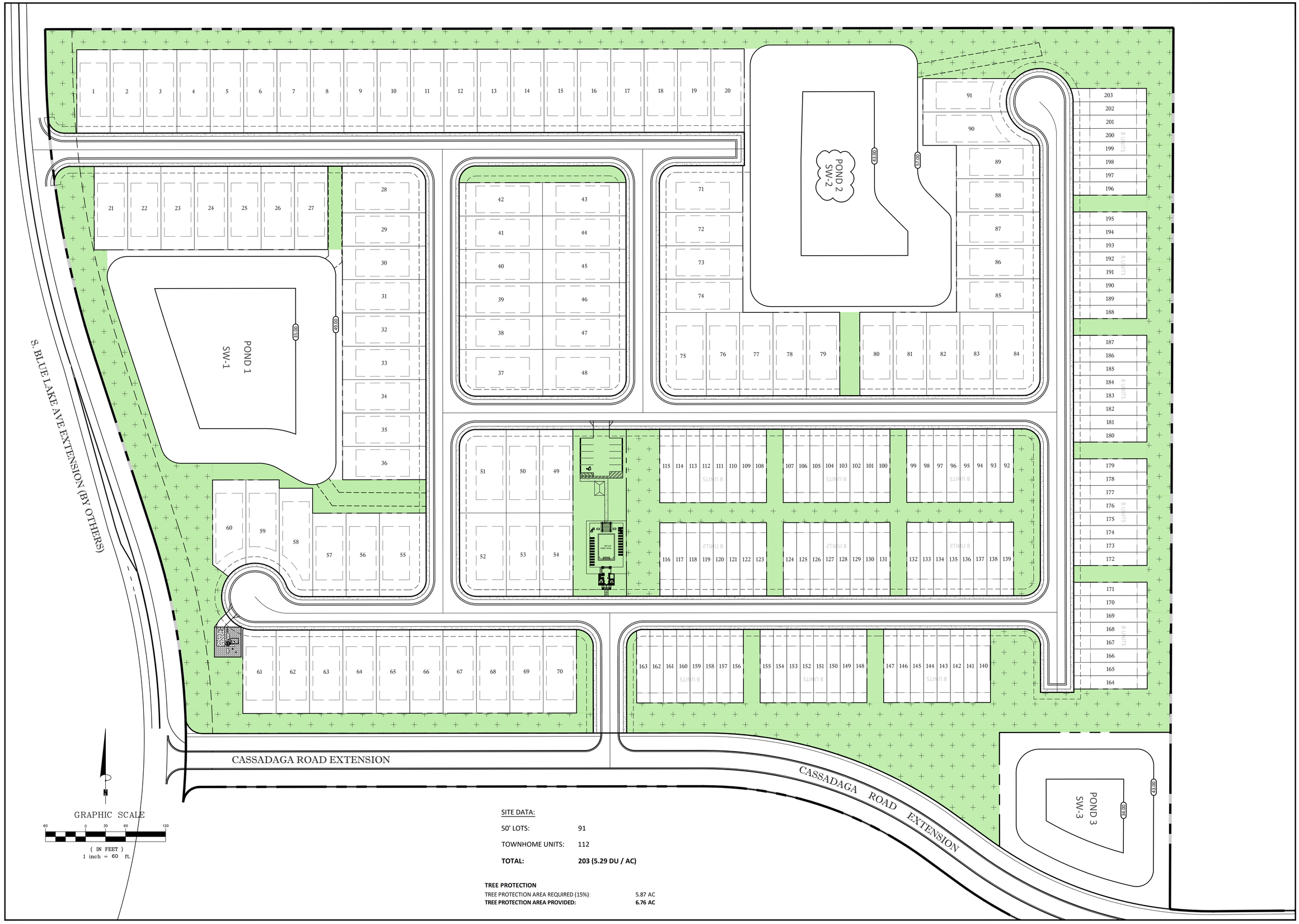
4. To verify proper connectivity, provide intersections concept layouts that correspond to LOS analysis for the new roadway intersections along S Blue Lake Ave. & Cassadaga Rd.

5. CTE confirmation with your listed proposed improvement(s) would be in line with County improvement strategy ahead of being assumed as acceptable improvement(s) as stated in the TIA guideline

Access Rd Improvement(s)	Valid Assumption	Invalid Assumption	Alternative Improvement to be considered	Comment
Intersection #2 – MLK Beltway and Cassadaga Road				
Northbound left turn lane	X			
Southbound right turn lane	X			
Intersection # 4 – SR 472 and Blue Lake Avenue Extension				
Westbound right turn lane	X			
Intersection #6 – Cassadaga Rd Extension and Access I				
Eastbound left turn lane	X			

6. Please include the following statement (if applicable)
Given the staged nature of the development and recognizing the potential evolution of traffic patterns over time, the developer is required to conduct a comprehensive reevaluation of the access control type in conjunction with each stage of development. This process is essential to ensure that access control measures align with the changing transportation needs and conditions associated with the different phases of the project. The developer must collaborate closely with the CTE to assess and adjust the access control type based on the specific requirements and challenges presented by each stage. This reevaluation should consider factors such as the increasing population density, changing land use patterns, and corresponding shifts in traffic volumes. For each stage, the developer is expected to submit a revised access control proposal that reflects the current and anticipated traffic conditions. This proposal should outline any necessary modifications to the initially proposed access control type, taking into account factors such as peak traffic periods, pedestrian movements, and the integration of alternative transportation modes. The CTE will review each stage's access control proposal, ensuring that it complies with established standards and guidelines. The goal is to adapt the access control type to the evolving demands of the development, promoting an efficient and safe transportation network throughout the different phases. This staged approach to access control evaluation aims to create a flexible and responsive framework that accommodates the dynamic nature of the development. It is imperative that the developer remains proactive in reassessing and refining access control measures to uphold the highest standards of transportation planning and engineering throughout the entire staged development process.

Appendix B
Site Information



SITE DATA:

50' LOTS:	91
TOWNHOME UNITS:	112
TOTAL:	**203 (5.29 DU / AC)**

TREE PROTECTION

TREE PROTECTION AREA REQUIRED (15%):	5.87 AC
TREE PROTECTION AREA PROVIDED:	**6.76 AC**

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

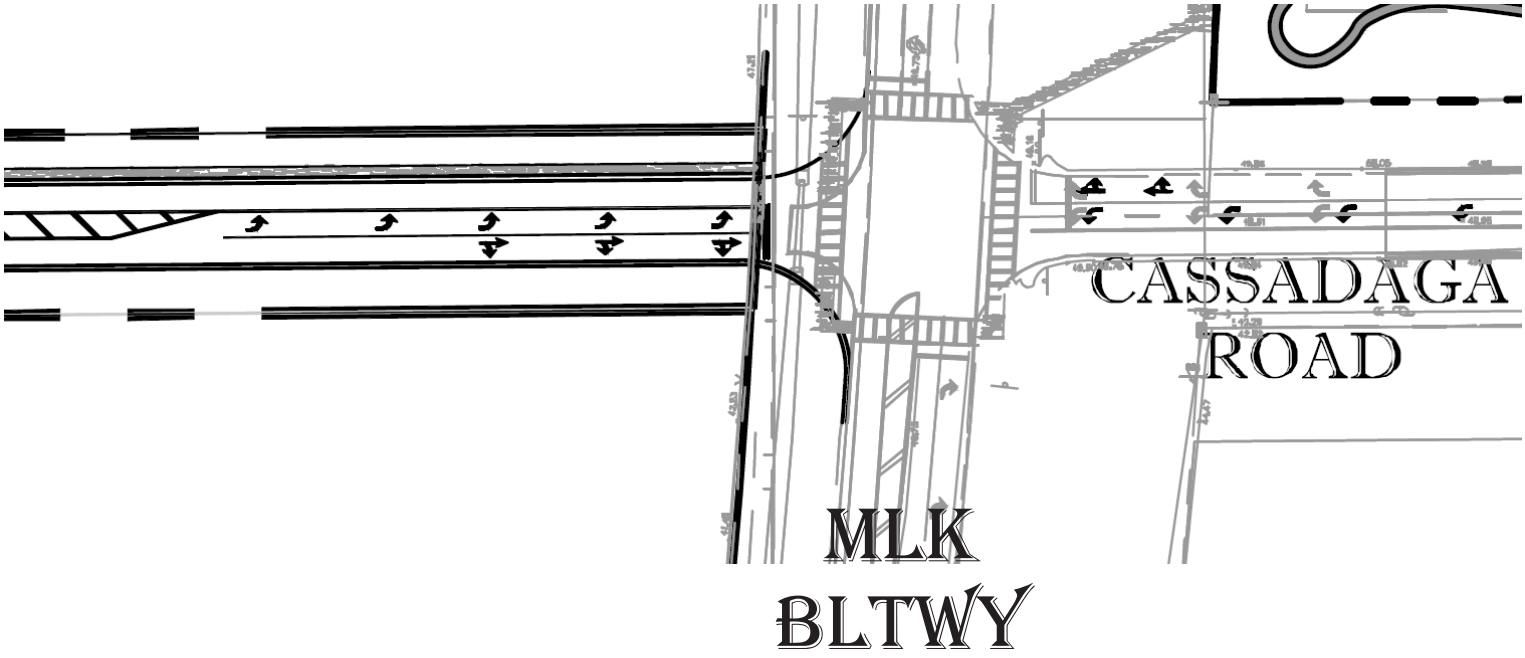
FORD 472
SUBDIVISION

CONCEPT PLAN

DRAWN:	GPR
DESIGN:	GPR
CHECKED:	SCF
JOB NO.:	1496.000
DATE:	07/25/2023

SHEET
1 OF 1

N
Not to Scale



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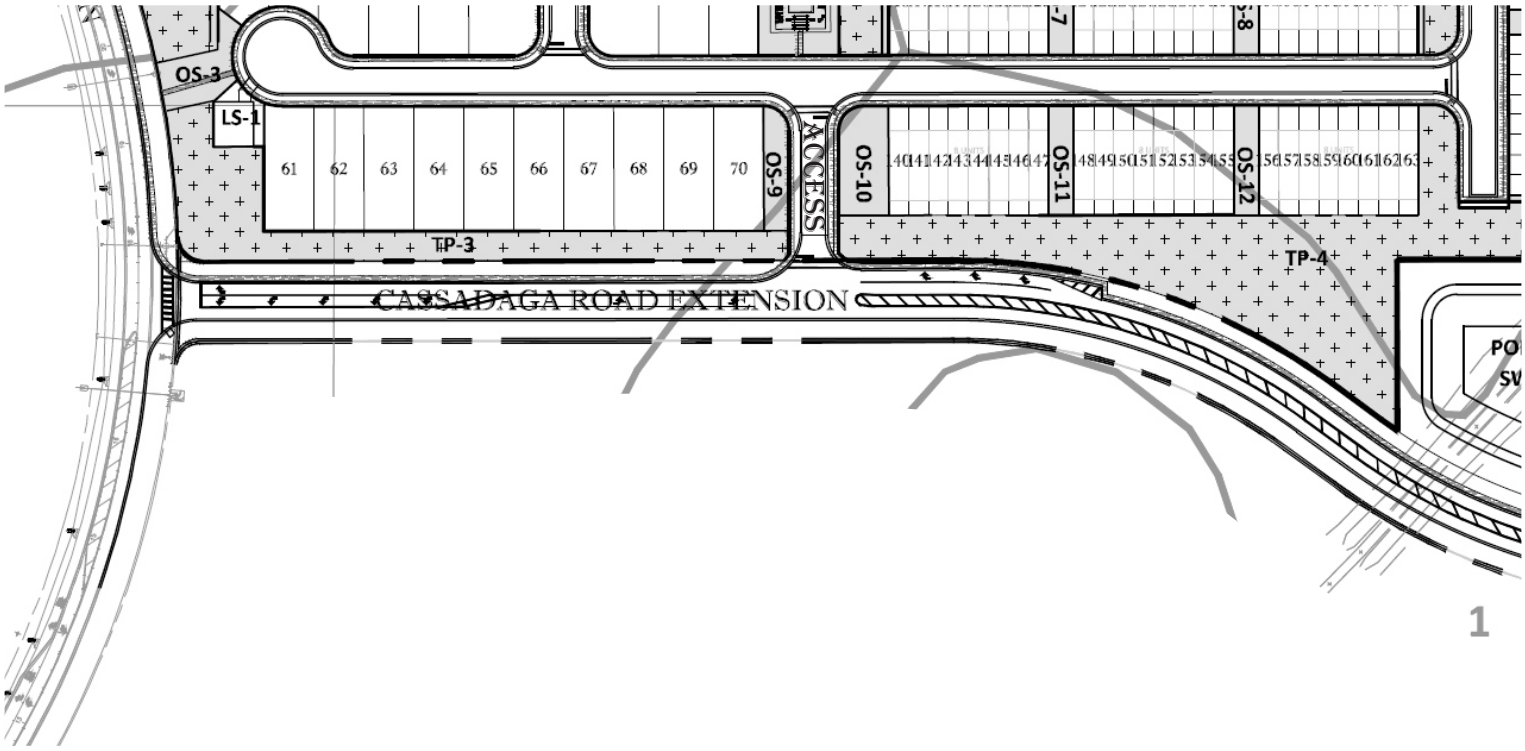

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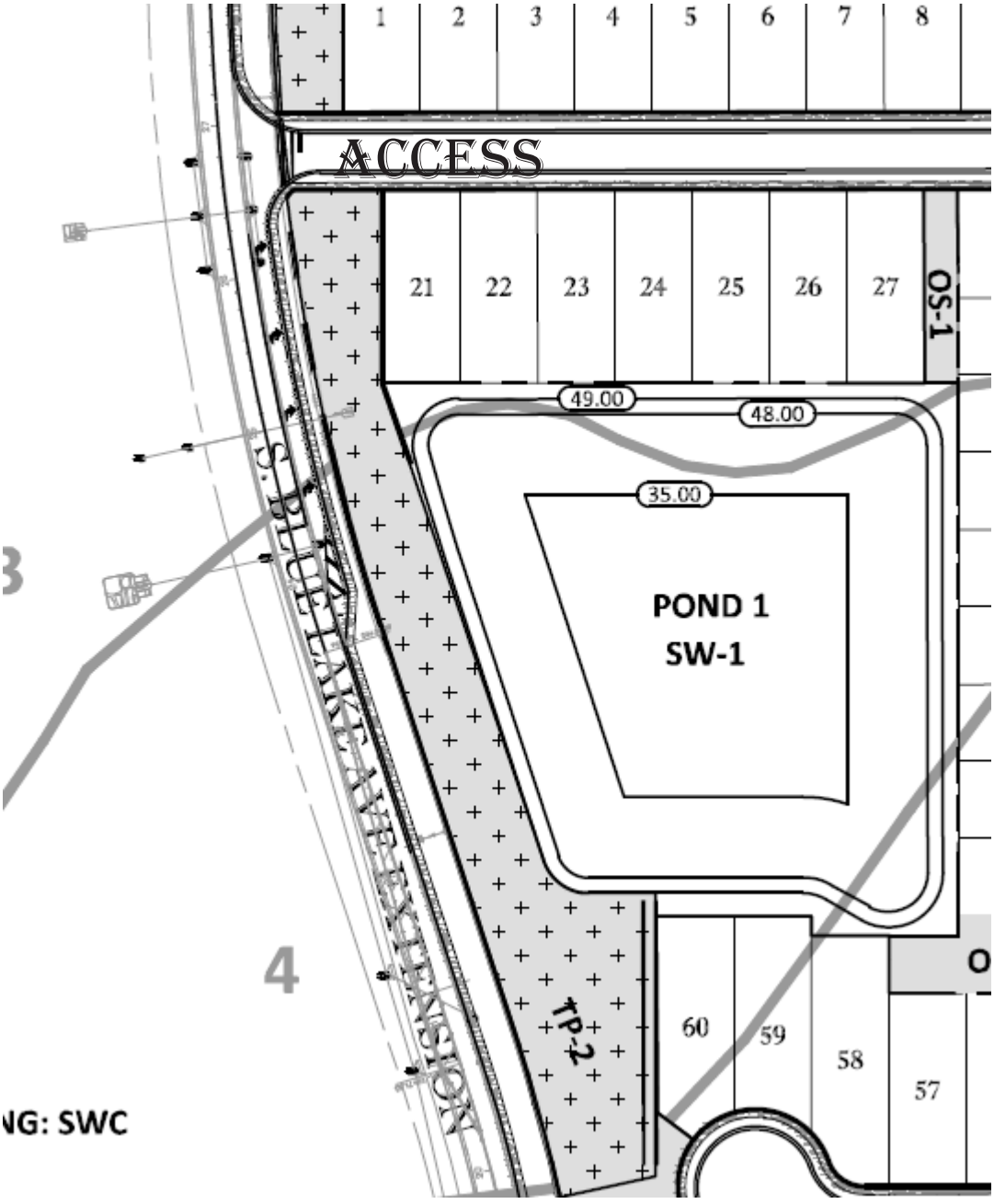

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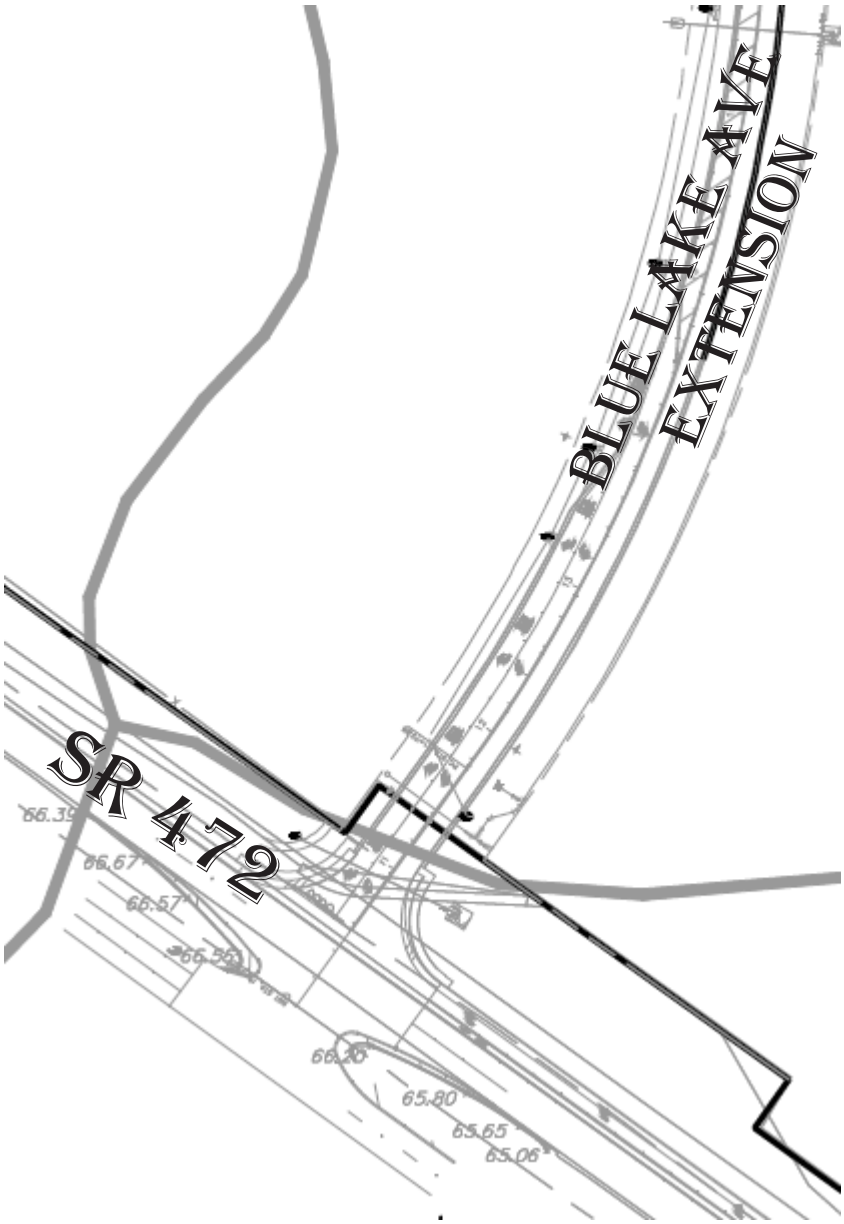


Volusia County
FLORIDA

Growth & Resource Management
Land Development

November 27, 2023

Christopher Wrenn
PulteGroup, Inc.
4901 Vineland Rd
Orlando, FL 32811

Re: Subdivision Overall Development Plan Preliminary Development Order
2022-S-ODP-0353 / 1072480
Ford 472 Subdivision

Dear Mr. Wrenn:

This letter is the Subdivision Overall Preliminary Development Order for the above-referenced development. Pursuant to the following findings, the DRC has approved the application:

1. The application was accepted on May 15, 2023, and discussed at the June 14, 2023, Technical Staff Review Meeting.

2. The DRC considered the application at their regularly scheduled meeting of October 10, 2023, and approved the Overall Development Plan application 2022-S-ODP-0353, subject to the submittal of revised plans to the satisfactory resolution of staff comments.

3. Revised plans were accepted on October 26, 2023.

A copy of the approved version of the plan, last revision dated October 18, 2023, by Sean Fortier, is enclosed.

Based on this letter you may submit an application for a Preliminary Plat Development Order. A blank application form and a checklist of exhibits and procedures are attached. A fee, as outlined in the attached fee schedule, must be paid at the time of application submittal. The Preliminary Plat application must be consistent with the approved Overall Development Plan and any remaining conditions imposed by the DRC.

Section 72-536(b) of the LDC states, “It is a violation of this division for anyone who is the owner or agent of the owner of any land to transfer, sell, agree to sell, or negotiate to sell such land by reference to, exhibition of, or other use of a plat of a subdivision of such land without having the plat approved as required by this division.”

Pursuant to Section 125.022(5), F.S., issuance of this development order by the county does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the county for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law. All other applicable state or federal permits shall be obtained before commencement of this development.

Pursuant to Section 72-502(g) of Article III Land Development, Chapter 72 Code of Ordinances (LDC), any person claiming to be aggrieved by a decision of the Enforcement Official or the DRC may file a written appeal within thirty (30) days after said decision with the Land Development Manager to have the decision reviewed by the Volusia County Council. The appeal shall state fully the specific grounds for the appeal and all of the facts relied upon by the petitioner. The County Council shall consider only those items specified in this petition.

Please feel free to contact the Land Development office if you have any questions. The project name and number must be referenced on all inquiries.

Sincerely,



Carol McFarlane, AICP
Planning and Land Development Director
cmcfarlane@volusia.org

CRM/rc
Enclosures

c: James L Rickman, Allen & Company, 16 E Plant St, Winter Garden, FL 34787
Ford Frank A, Group 7 87 5 / Group 4 12 5, Po Box 457, Deland Fl 32721
Sean Fortier, Kelly, Collins & Gentry, Inc, 1700 N Orange Av, Orlando, FL 32804
Todd Bonnett, Bonnett Design Group, LLC, 400 S Orlando Av Suite 201, Maitland, FL 32751
David Romero (via e-mail)

PARCEL DESCRIPTION

PARCEL 1
GOVERNMENT LOT 2, EXCEPT THE W 1/4 THEREOF LYING NORTH OF S.R. 15A, AND LYING SOUTH OF A LINE PARALLEL TO AND 900 FEET SOUTH OF THE NORTH LINE OF SAID GOV'T LOT 2, AND EXCEPT THE EAST 660 FEET OF THE NORTH 1056 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

AND
THE NORTH 900 FEET OF THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF S.R. 15A, EXCEPT THE NORTH 660 FEET THEREOF, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

PARCEL2
THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET THEREOF, AND THE WEST 1/4 OF GOVERNMENT LOT 1, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

NOTE:

PARCEL DESCRIPTION PROVIDED BY ALLEN & COMPANY, DATED 06/08/2021.

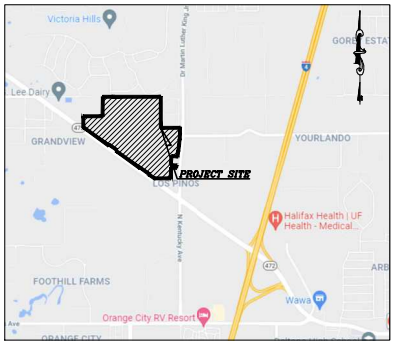
OVERALL DEVELOPMENT PLAN

FOR:

FORD 472 SUBDIVISION

NORTH OF SR 472 & WEST OF DR MARTIN LUTHER KING JR BELTWAY VOLUSIA COUNTY, FLORIDA

VICINITY MAP



SCALE: 1"=2000'

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

PARCEL ID #:
800100000020

PREPARED FOR:

PULTE GROUP

4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

DEVELOPMENT TEAM:

DEVELOPER
PULTE GROUP
4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

ENGINEER
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE,
SUITE 400
ORLANDO, FLORIDA 32804
PHONE: (407) 898-7858
FAX: (407) 898-1488

SURVEYOR
ALLEN & COMPANY
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
PHONE: (407) 654-5355

LANDSCAPE ARCHITECT
BONNET DESIGN GROUP, LLC
PHONE: (407) 463-0136

UTILITIES:

WATER & SEWER
CITY OF DELAND
1101 SOUTH AMELIA AVENUE,
DELAND, FLORIDA 32724
PHONE: (386) 626-7250

RECLAIM WATER
VOLUSIA COUNTY UTILITIES
123 W INDIANA AVE, DELAND, FLORIDA 32720
PHONE: (386) 736-2700

PREPARED BY:

KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE
SUITE 400
ORLANDO, FLORIDA 32804
PHONE (407) 898-7858
FAX (407) 898-1488

SECTION 01 TOWNSHIP 18, RANGE 30, VOLUSIA COUNTY, FLORIDA

SHEET INDEX

SHEET TITLE	SHEET NO.
COVER SHEET	C-1.0
EROSION CONTROL & TREE PROTECTION	EC-1.0
OVERALL PLAN	C-2.0 TO C-2.1
DIMENSION PLAN	C-3.0 TO C-3.2
PAVING, GRADING, & DRAINAGE PLAN	C-4.0 TO C-4.2
UTILITY PLAN	C-5.0 TO C-5.2

Sean Fortier
2023.10.18
13:29:01-04'00'

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SEAN C. FORTIER, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

FOR REVIEW ONLY
NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NO.
NOT VALID FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

REVISIONS:

DATE	DESCRIPTION

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-1.0

FORD 472 SUBDIVISION VOLUSIA COUNTY, FL

EROSION CONTROL:

1. GENERAL: CONTRACTOR SHALL INSTALL ANY ADDITIONAL EROSION CONTROL WHEN NECESSARY IN ORDER TO MEET STATE AND LOCAL STANDARDS.
2. EXISTING SYSTEMS: CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. CONFLICTS: CONTRACTOR SHALL COORDINATE ALL UTILITY CROSSINGS AND ADDRESS CONFLICTS PRIOR TO BEGINNING WORK IN A GIVEN AREA(S).
4. STABILIZATION:
   A. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER, AND REGULATORY AGENCIES.
   B. AREAS DISTURBED THAT WILL NOT BE IMPROVED FOR A PERIOD OF 30 DAYS OR MORE SHALL RECEIVE TEMPORARY STABILIZATION AS DEEMED NECESSARY BY THE MUNICIPAL INSPECTOR.
5. BMPs:
   A. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES BMP TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
   B. WITH UTILIZING CONSTRUCTION PHASES, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ON-SITE BMPs AS DEEMED NECESSARY AND SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
   C. ALL BMPs SHALL BE CLEANED OF SEDIMENT WHEN 50% OR LESS OF BMP IS REACHED.
   D. ALL BMPs SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE MUNICIPAL INSPECTOR ALLOWS REMOVAL.
   E. APPROPRIATE BMPs MUST BE IMPLEMENTED TO ENSURE THAT DISCHARGES DO NOT EXCEED SURFACE WATER QUALITY STANDARDS PER THE FDEP CONSTRUCTION GENERIC PERMIT (CGP). IF DEWATERING OFFSITE OR INTO A COUNTY MS4, TURBIDITY MUST BE MONITORED TO ENSURE THAT DISCHARGES DO NOT EXCEED 29 NTU OVER BACKGROUND PER 62-302.530 FAC. REFER TO THE DEWATERING REQUIREMENTS IN 62-621.300(4)(a) CONSTRUCTION GENERIC PERMIT OR 62-621.300(2)(a) DEWATERING GENERIC PERMIT AS APPLICABLE.
   F. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAIN EVENT OF 1/2" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REVEGETATING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED SHALL BE REQUIRED.
   G. CONTRACTOR SHALL INSPECT BMPs AT END OF EACH WORKING DAY.
   H. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TEMPORAL STOCKPILES.
   I. BMPs USED ON SITE MUST MEET THE MINIMUM SPECIFICATIONS IN THE 2013 STATE OF FLORIDA E&SC DESIGNER AND REVIEWER MANUAL.
6. MULCH:
   A. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER.
   B. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
7. ENTRANCE/EXIT:
   A. CONSTRUCTION ENTRANCE SHALL BE GRADED SO THAT NO SEDIMENTS LEAVE THE SITE.
   B. ALL EMPLOYEES, SUBCONTRACTORS, AND SUPPLIERS SHALL UTILIZE CONSTRUCTION ACCESS.
   C. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT ONE LOCATION.
   D. ALL EXIT LOCATIONS INTENDED SHALL BE USED CONTINUOUSLY AND FOR A PERIOD OF TIME SHALL HAVE STABILIZED CONSTRUCTION ENTRANCE/EXIT BMPs (TC-1 "STABILIZED CONSTRUCTION ENTRANCE/EXIT" OR TC-2 "ENTRANCE/OUTLET TIRE WASH").
   E. INSPECT ROUTINELY FOR DAMAGE AND ASSESS EFFECTIVENESS OF THE BMP. REMOVE AGGREGATE, SEPARATE AND DISPOSE OF SEDIMENT IF CONSTRUCTION ENTRANCE/EXIT IS CLOGGED NO MORE THAN 50% WITH SEDIMENT.
   F. IF APPLICABLE, ROUTE RUNOFF FROM STABILIZED ENTRANCES THROUGH A SEDIMENT TRAPPING DEVICE BEFORE DISCHARGE.
8. INLETS:
   G. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND, AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED BY CONTRACTOR.
   H. PROVIDE GEOHAY HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AND PROVIDE FILTER FABRIC UNDER THE GRATE OF ALL DITCH BOTTOM INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
9. DAILY:
   A. CONSTRUCTION SITE SHALL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". A RAIN GAUGE SHALL BE ON SITE TO MEASURE THE FALL AMOUNTS.
   B. THE ADJACENT STREETS SHALL BE SWEPT AT THE END OF EACH DAY OF DIRT FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL IMPLEMENT STREET SWEEPING AND VACUUMING AS NEEDED. CLEAN DIRT FROM ROADWAYS DAILY.
   C. CONSTRUCTION SITE SHALL BE CLEANED OF LITTER AND TRASH EACH DAY AND DISPOSED OF OFF-SITE.
   D. INSPECT ALL SEDIMENT CONTROL DEVICES FOR DAMAGE DAILY AND REPAIRS AS NEEDED.
   E. CONTRACTOR SHALL EMPLOY SAFETY AND ROADWAY ENTRY AND EXIT PLANS ON A DAILY/WEEKLY BASIS.
   F. HUMAN WASTEWATER SHALL BE COLLECTED ON-SITE BY THE USE OF TEMPORARY SANITARY SERVICE.
10. SILT FENCE:
   A. SILT FENCE SHALL BE IN PLACE AS SHOWN PRIOR TO CONSTRUCTION.
   B. PRIOR TO CONSTRUCTION, SILT FENCE SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL.
   C. SILT FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. SOD: ALL DISTURBED AREAS SHALL BE SODDED EXCEPT AS SHOWN ON PLAN. ALL SOD IN RIGHT OF WAY SHALL BE ARGENTINE BAHIA. ALL SLOPES 4:1 OR GREATER SHALL BE SODDED.
12. STOCKPILES: SHALL BE ENCOMPASSED WITH SILT FENCE, SHALL NOT EXCEED 35' IN HEIGHT, AND SHALL NOT BE LOCATED NEAR SITE PERIMETER. LOCATION AND SLOPE SHALL BE APPROVED BY MUNICIPAL INSPECTOR AND OTHER JURISDICTIONAL AUTHORITIES AS REQUIRED.
13. TOXIC SUBSTANCES: ALL TOXIC SUBSTANCES (IF ANY) BROUGHT ON-SITE SHALL BE HANDLED AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STANDARDS. ALL SUBSTANCES THAT MAY BE CONSIDERED TOXIC SHALL ALSO BE HANDLED AND STORED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS AND STANDARDS.
14. DRAINAGE/GRADE: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER; DIRECT CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE; AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. GRAVEL LAYER: GRAVEL LAYER SHALL BE 12" MIN THICK AND PLACED OVER GEOTEXTILE MAT.
16. SPEED: TRUCK SPEED TO BE REDUCED TO CONTROL DUST.
17. DITCHES: KEEP ALL TEMPORARY ROADWAY DITCHES CLEAR.
18. WATER DOWN: CONTRACTOR TO WATER DOWN AREAS WHEN AND WHERE DISTURBED SOIL IS RAISING AND BECOMING AIRBORNE IN ORDER TO SETTLE IT. PERMIT AS NEEDED.
19. SEDIMENT BASIN: LARGE SITES MAY REQUIRE A TEMPORARY SEDIMENT BASIN. CONTRACTOR SHALL DETERMINE LOCATION. TEMPORARY SEDIMENT BASIN SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
20. STORMWATER DISCHARGE: CONTRACTOR TO ABIDE BY ALL PROVISIONS OF THE FDEP GENERAL PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.
21. DUST ABATEMENT: CONTRACTOR TO PROVIDE A DUST ABATEMENT PLAN INCLUDING A 6-FOOT HIGH SCREEN FENCE ALONG ALL PROPERTY LINES.

DEMOLITION NOTES:

1. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
2. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
3. THIS PLAN IS TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS. DO NOT REMOVE ANY ITEMS WITHOUT VERIFYING AND COORDINATING WITH ALL GENERAL TRADES AS TO HOW THEY RELATE TO THE OVERALL PROJECT.
4. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTIONS OF ACCIDENTS.
5. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORTS, INSULATIONS, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.

CONTRACTOR CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PLAN THEREUNDER."

NAME: _____ TITLE: _____

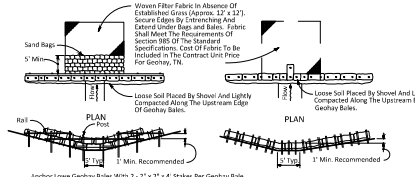
CONTRACTING FIRM: _____ ADDRESS: _____

TELEPHONE #: _____ DATE: _____

THIS SOIL EROSION/SEDIMENT CONTROL & DUST ABATEMENT PLAN IS FOR THE PURPOSE OF SHOWING INTENTION OF METHOD TO CONTROL STORM WATER RUNOFF & DUST DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL ADJUST AND/OR ADD BMP'S BASED ON SPECIFIC SITE CONDITIONS & CONSTRUCTION ACTIVITY SATISFYING NPDES REQUIREMENTS. CONTRACTOR TO OBTAIN GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)



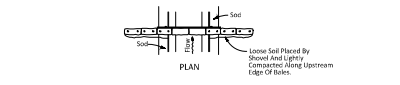
BARRIERS FOR FILL SLOPES



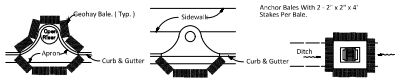
BARRIER FOR UNPAVED DITCHES



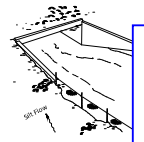
BALES BACKED BY FENCE

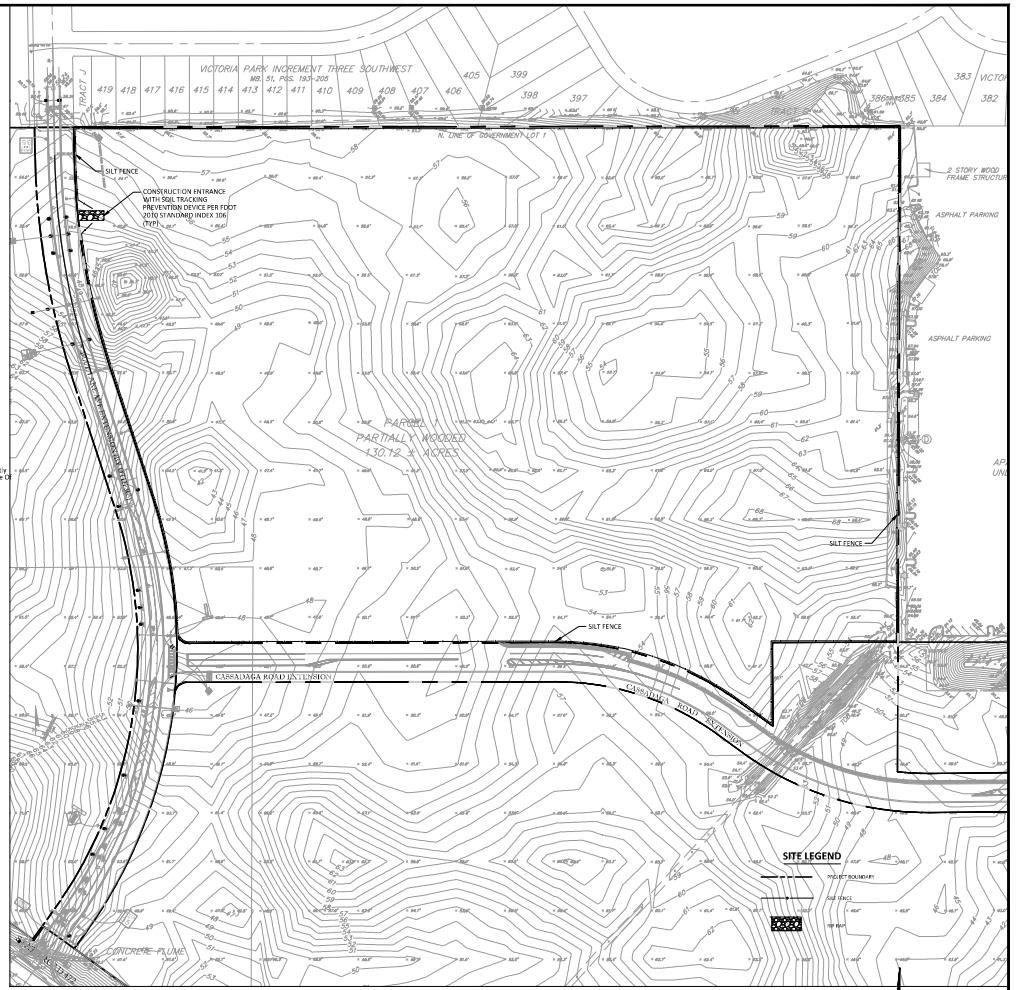


BARRIER FOR PAVED DITCH

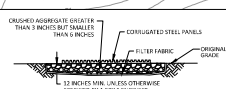


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

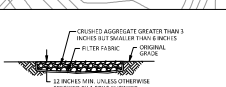




NOTE:
SILT FENCE SHOWN FOR SCHEMATIC PURPOSES ONLY. SILT FENCE SHOULD BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET.



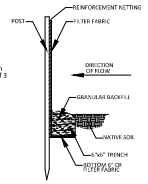
SECTION A-A
NTS



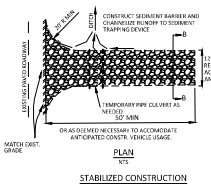
SECTION B-B
NTS

GRAPHIC SCALE

(IN FEET)
1 inch = 150 ft.

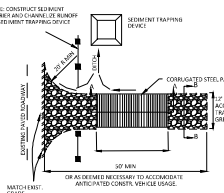


SILT BARRIER DETAIL
N.T.S.



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1)



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 2)

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

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CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 27868
LICENSE No. 85018
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #85018
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
17700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32824
(407) 586-7800 FAX (407) 896-1486

REVISION | DATE

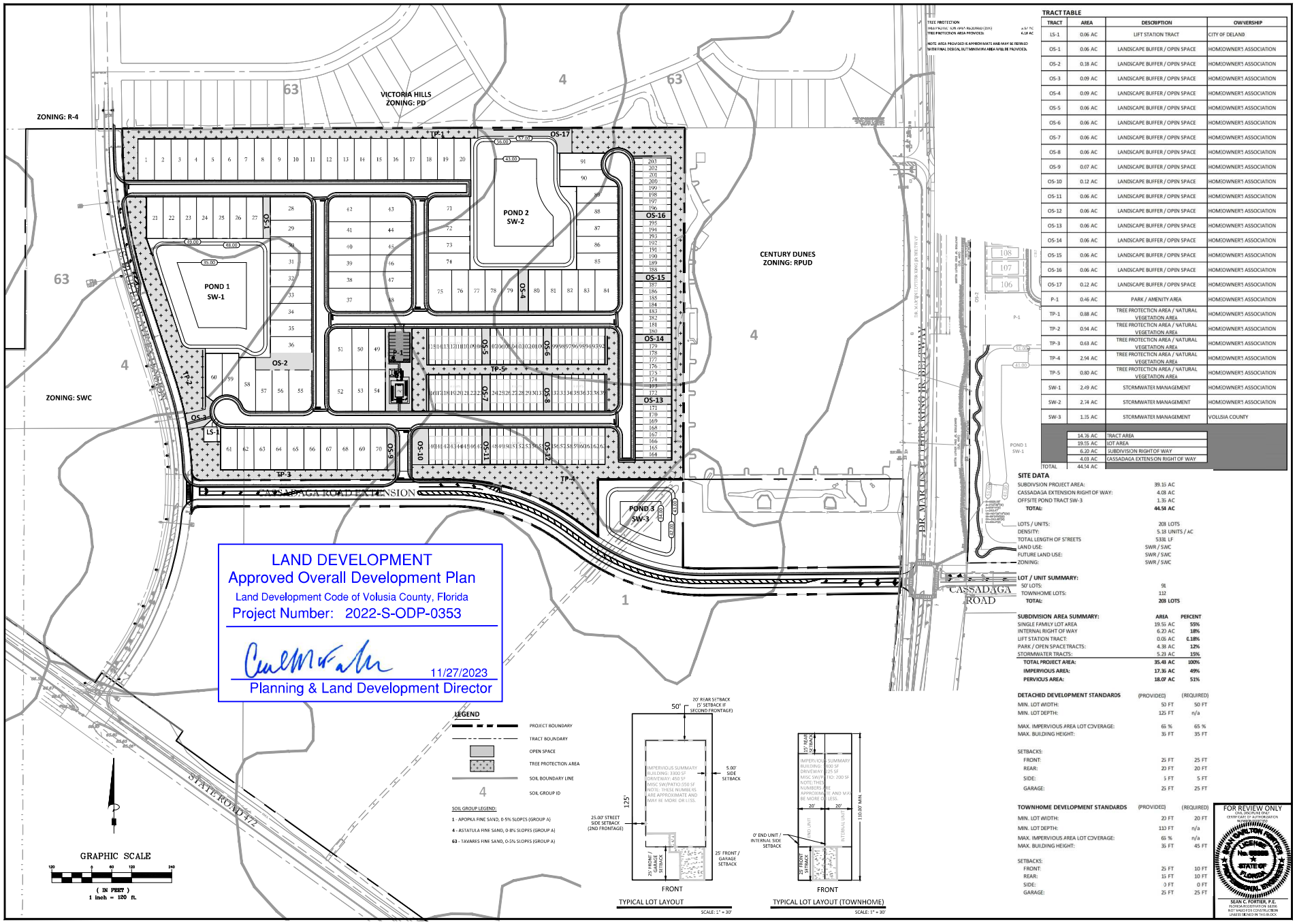
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

EROSION CONTROL & TREE REMOVAL-PROTECTION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
EC-1.0



TRACT TABLE

TRACT	AREA	DESCRIPTION	OWNERSHIP
LS-1	0.06 AC	LIFT STATION TRACT	CITY OF DELAND
OS-1	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-2	0.18 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-3	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-4	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-5	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-6	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-7	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-8	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-9	0.07 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-10	0.12 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-11	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-12	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-13	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-14	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-15	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-16	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-17	0.22 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
P-1	0.46 AC	PARK / AMENITY AREA	HOMEOWNER'S ASSOCIATION
TP-1	0.88 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-2	0.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-3	0.63 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-4	2.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-5	0.80 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
SW-1	2.49 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-2	2.74 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-3	1.35 AC	STORMWATER MANAGEMENT	VOLUSIA COUNTY

	14.76 AC	TRACT AREA
	19.55 AC	LOT AREA
	6.20 AC	SUBDIVISION RIGHT OF WAY
	4.03 AC	CASSADAGA EXTENSION RIGHT OF WAY
TOTAL	44.54 AC	

TREE PROTECTION
TREE PROTECTION REQUIRED (15%) 6.67 AC
TREE PROTECTION AREA PROVIDED: 6.18 AC
NOTE: AREA PROVIDED IS APPROXIMATE AND MAY BE REVISED WITH FINAL DESIGN, BUT MINIMUM AREA WILL BE PROVIDED.

SITE DATA

SUBDIVISION PROJECT AREA:	39.15 AC
CASSADAGA EXTENSION RIGHT OF WAY:	4.03 AC
OFFSITE POND TRACT SW-3	1.35 AC
TOTAL:	44.54 AC
LOTS / UNITS:	208 LOTS
DENSITY:	5.18 UNITS / AC
TOTAL LENGTH OF STREETS	5331 LF
LAND USE:	SWR / SWC
FUTURE LAND USE:	SWR / SWC
ZONING:	SWR / SWC

LOT / UNIT SUMMARY:

50' LOTS:	96
TOWNHOME LOTS:	112
TOTAL:	208 LOTS

SUBDIVISION AREA SUMMARY:

	AREA	PERCENT
SINGLE FAMILY LOT AREA	19.55 AC	55%
INTERNAL RIGHT OF WAY	6.20 AC	18%
LIFT STATION TRACT:	0.06 AC	0.18%
PARK / OPEN SPACE TRACTS:	4.38 AC	12%
STORMWATER TRACTS:	5.23 AC	15%
TOTAL PROJECT AREA:	35.43 AC	100%
IMPERVIOUS AREA:	17.35 AC	49%
PERVIOUS AREA:	18.07 AC	51%

DETACHED DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	50 FT	50 FT
MIN. LOT DEPTH:	125 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	65 %
MAX. BUILDING HEIGHT:	35 FT	35 FT
SETBACKS:		
FRONT:	25 FT	25 FT
REAR:	20 FT	20 FT
SIDE:	5 FT	5 FT
GARAGE:	25 FT	25 FT

TOWNHOME DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	20 FT	20 FT
MIN. LOT DEPTH:	110 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	n/a
MAX. BUILDING HEIGHT:	35 FT	45 FT
SETBACKS:		
FRONT:	25 FT	10 FT
REAR:	15 FT	10 FT
SIDE:	0 FT	0 FT
GARAGE:	25 FT	25 FT

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CERTIFICATE OF AUTHORIZATION
NUMBER 27194
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #63936
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KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1488

REVISION
DATE

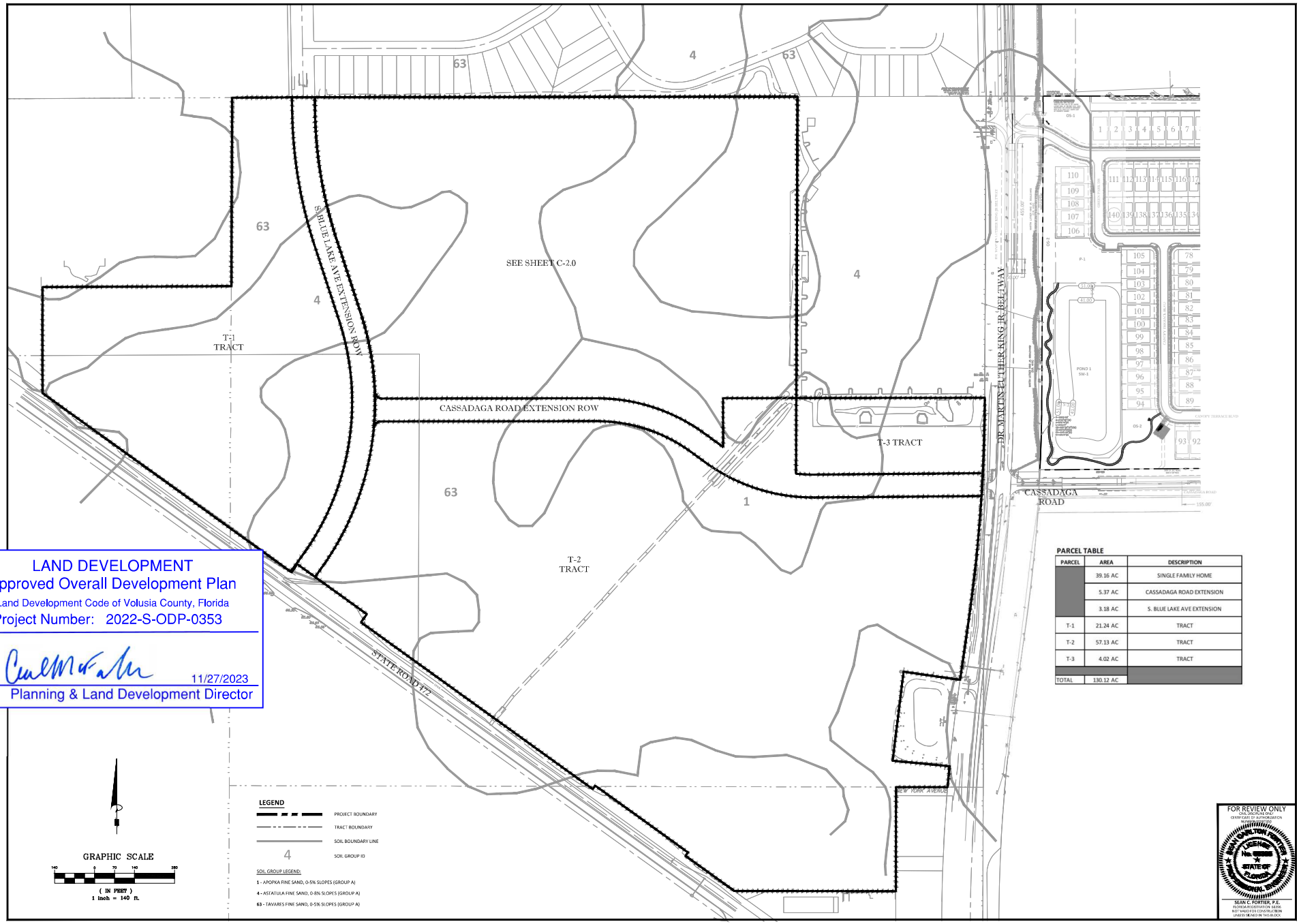
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

OVERALL PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-2.0



PARCEL TABLE

PARCEL	AREA	DESCRIPTION
	39.16 AC	SINGLE FAMILY HOME
	5.37 AC	CASSADAGA ROAD EXTENSION
	3.18 AC	S. BLUE LAKE AVE EXTENSION
T-1	21.24 AC	TRACT
T-2	57.13 AC	TRACT
T-3	4.02 AC	TRACT
TOTAL	130.12 AC	

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SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68395
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KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

OVERALL PLAN

DRAWN: GPR
DESIGN: DWC
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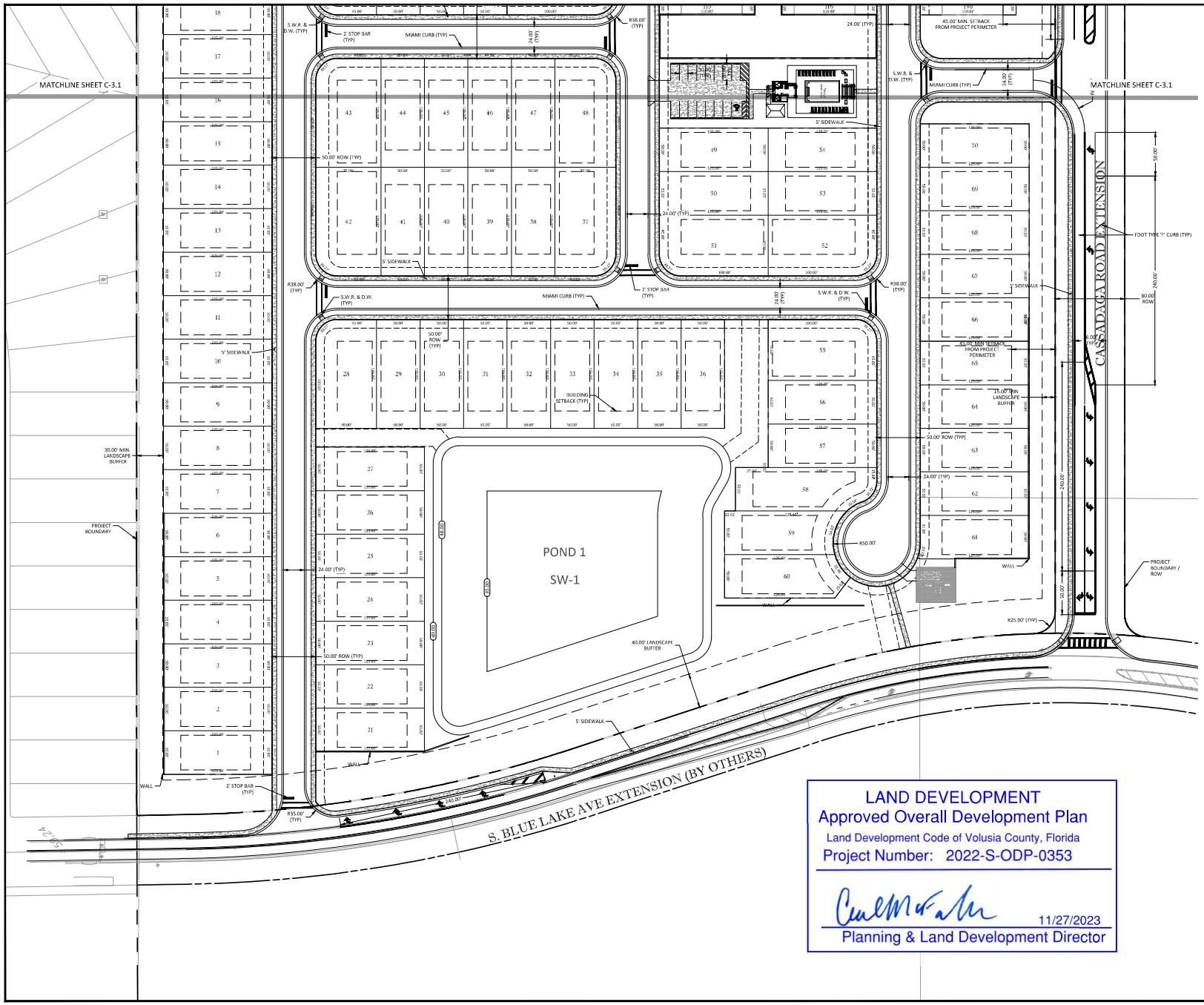
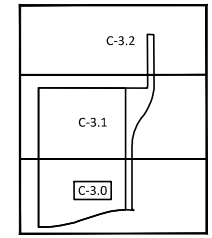
SHEET
C-2.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- TRACT BOUNDARY
- SETBACKS
- 33 LOT NUMBER
- SW-1 TRACT ID

C.W. : ALL CROSSWALKS TO BE HEAVY DUTY CONCRETE. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FOOT INDEX 522-002.

D.W. : DETECTABLE WARNING TO MEET ADA SPECIFICATIONS

S.W.R. (CR 6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FOOT INDEX 522-002 FOR CURB RAMP DETAILS.

NOTES:

1. ALL CONSTRUCTION DETAILS ARE CONCEPTUAL & SUBJECT TO REVIEW & MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.
2. DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. ALL PAVEMENT MARKINGS WILL BE THERMOPLASTIC.
4. DETECTABLE WARNING SURFACE WILL BE REQUIRED AT ALL PLACES WHERE PEDESTRIAN PATH MEETS VEHICULAR PATH.

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

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KCG
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ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

DIMENSION PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-3.0

LAND DEVELOPMENT
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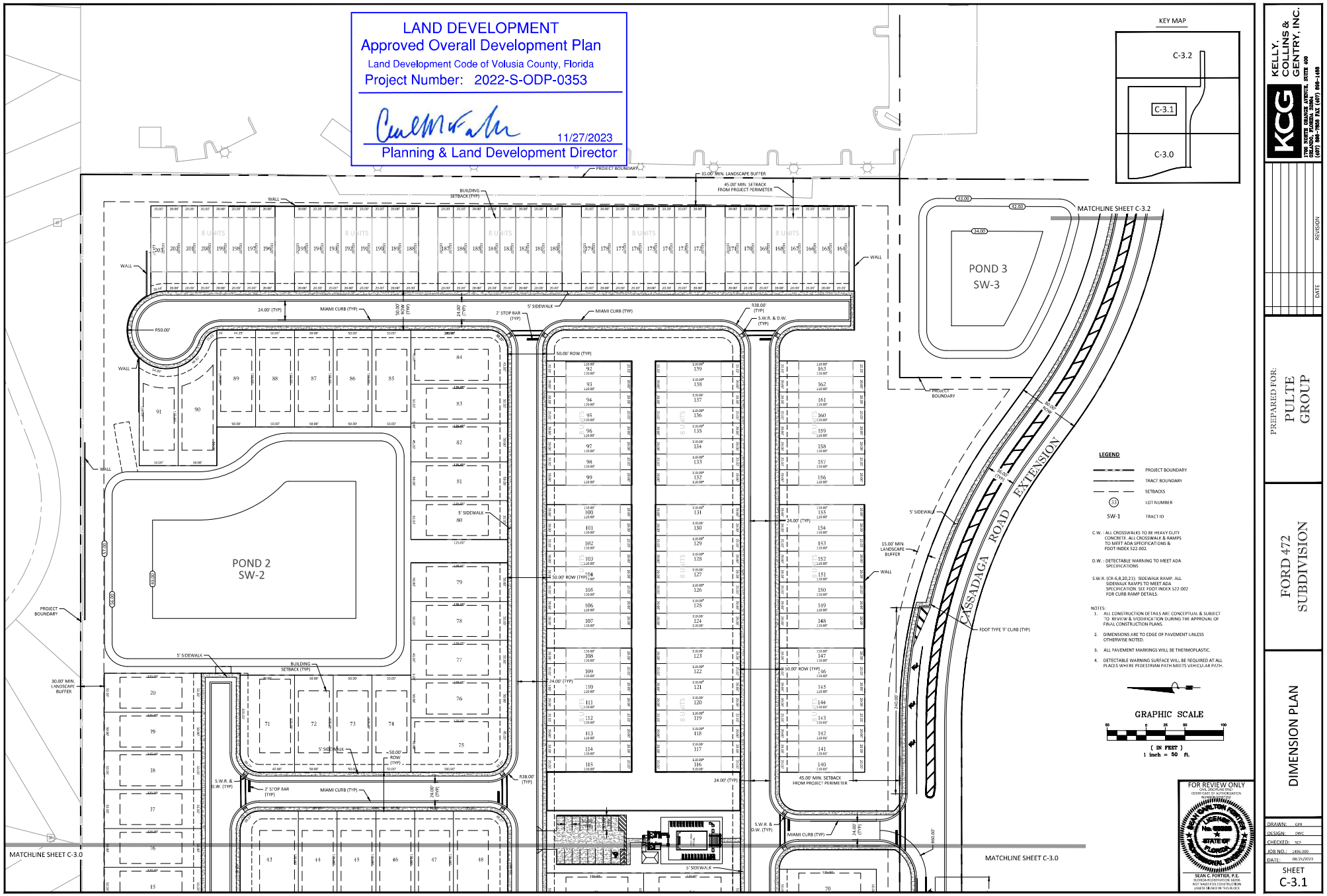

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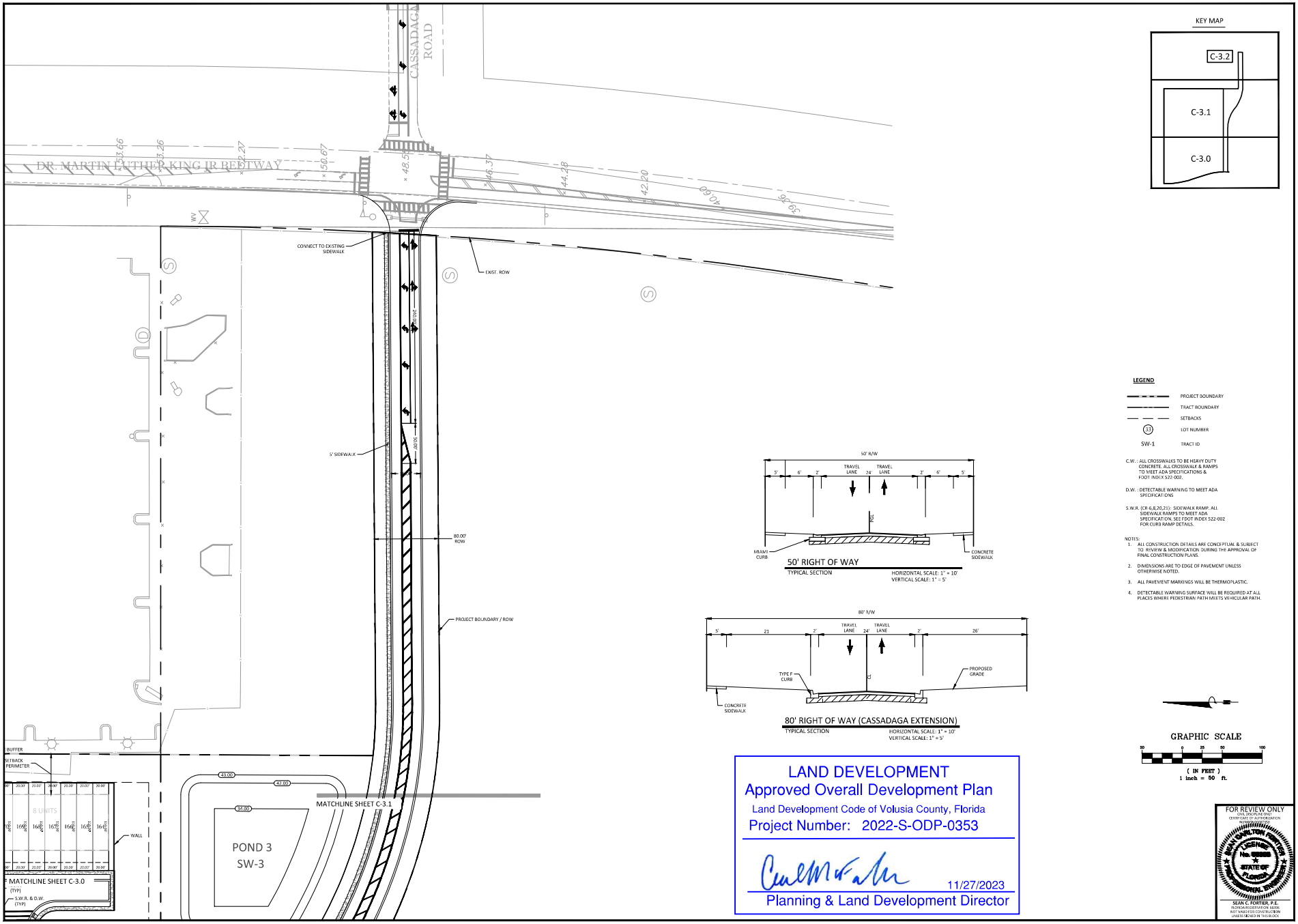
REVISION | DATE

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023
SHEET
C-3.1



50' RIGHT OF WAY
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

80' RIGHT OF WAY (CASSADAGA EXTENSION)
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

KEY MAP

LEGEND

PROJECT BOUNDARY
TRACT BOUNDARY
SETBACKS
LOT NUMBER
TRACT ID

C.W. : ALL CROSSWALKS TO BE HEAVY DUTY CONCRETE. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

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GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
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CERTIFICATE OF AUTHORIZATION
NO. 35000

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #83306
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1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

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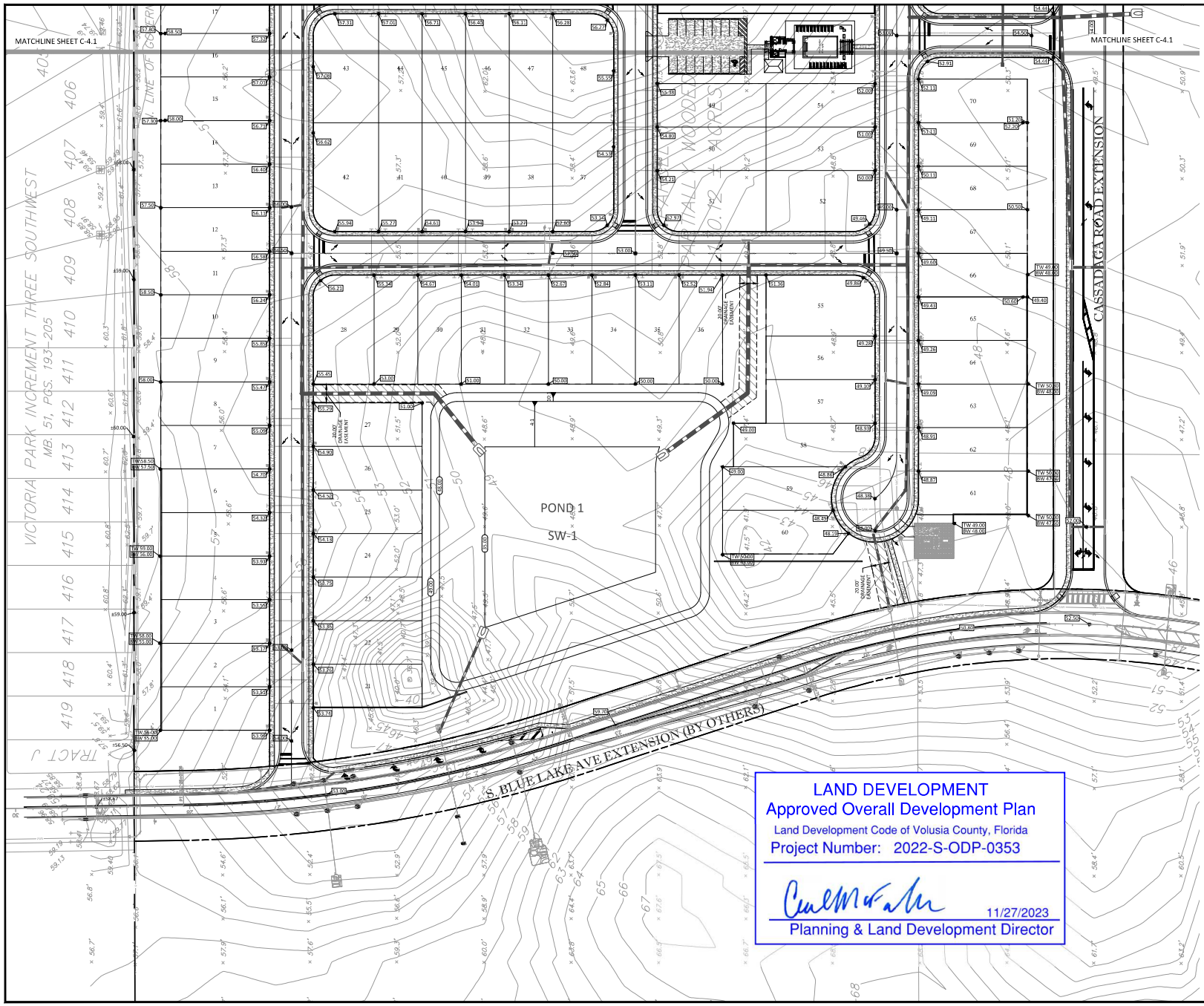
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-3.2



LAND DEVELOPMENT
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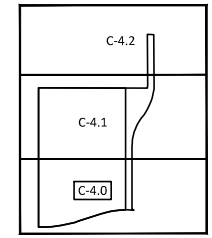
KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- 71 PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
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GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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CERTIFICATE OF AUTHORIZATION
NO. 00000000
LICENSED
No. 00000
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68395
NOT VALID FOR CONSTRUCTION
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KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

PAVING, GRADING, & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
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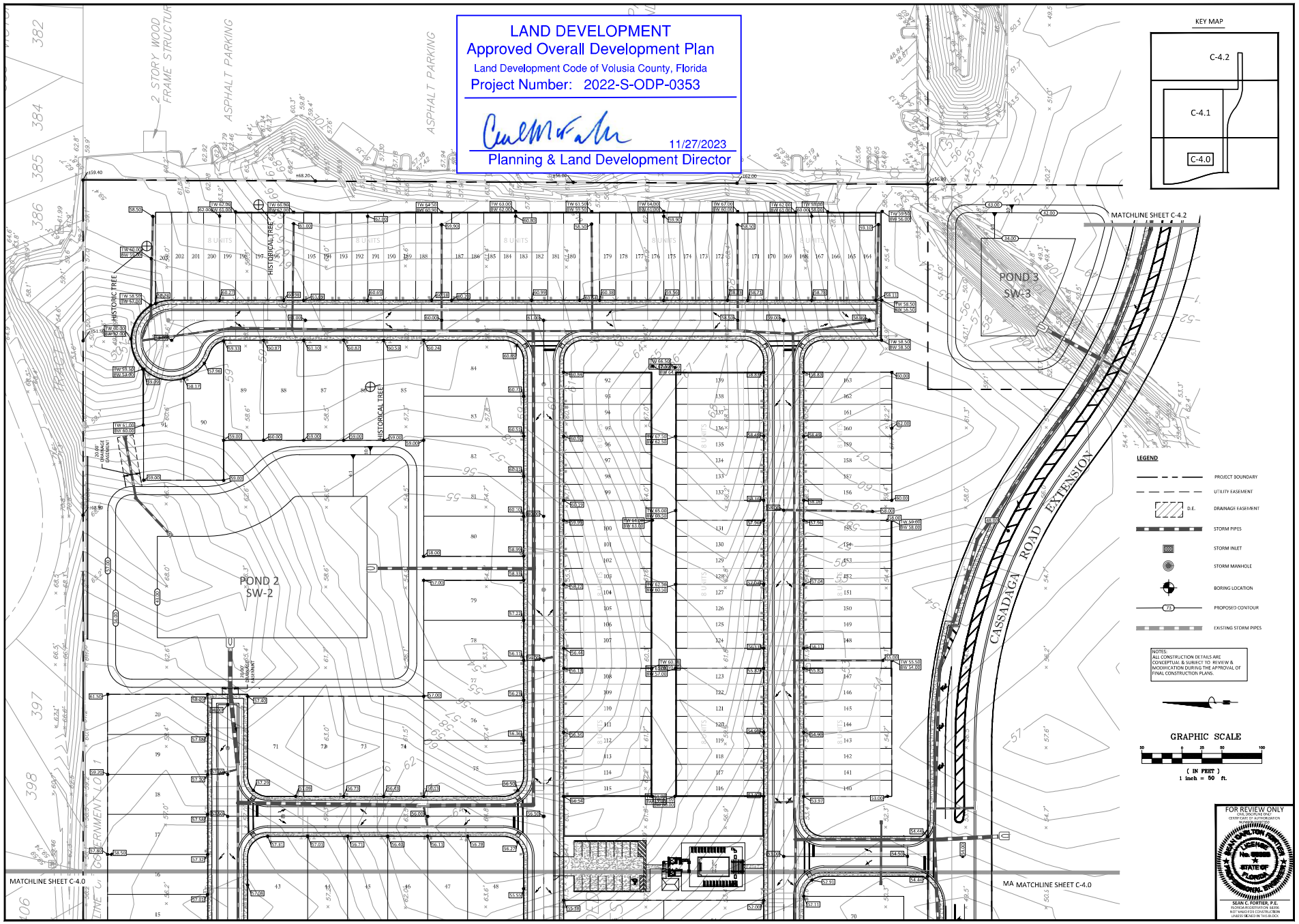
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-4.0



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ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

REVISION | DATE

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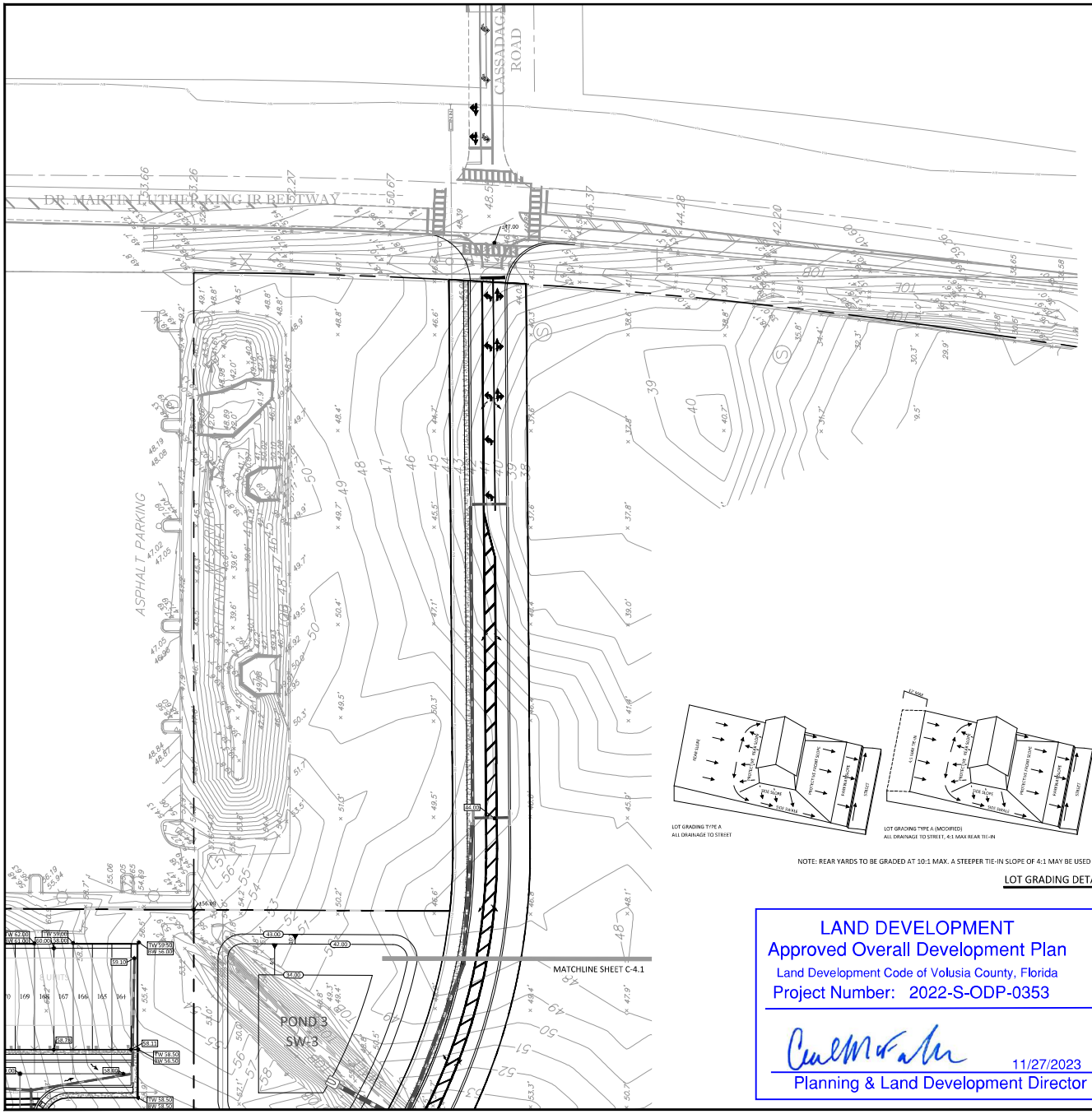
PULTE GROUP

FORD 472
SUBDIVISION

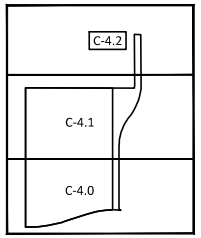
PAVING, GRADING, & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1486.000
DATE: 08/21/2023

SHEET
C-4.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
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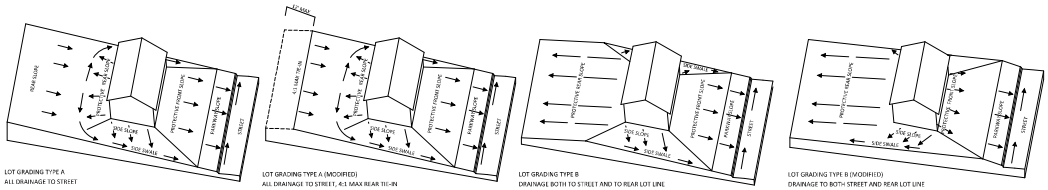

NOTE: REAR YARDS TO BE GRADED AT 10:1 MAX. A STEEPER TIE-IN SLOPE OF 4:1 MAY BE USED WITHIN 12' OF REAR PROPERTY LINE ONLY.

LOT GRADING DETAILS

NTS

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11/27/2023
Planning & Land Development Director

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50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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CERTIFICATE OF AUTHORIZATION
NUMBER 6988

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #82696
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KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1486

REVISION | DATE

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

PAVING, GRADING & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
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JOB NO.: 1496.000
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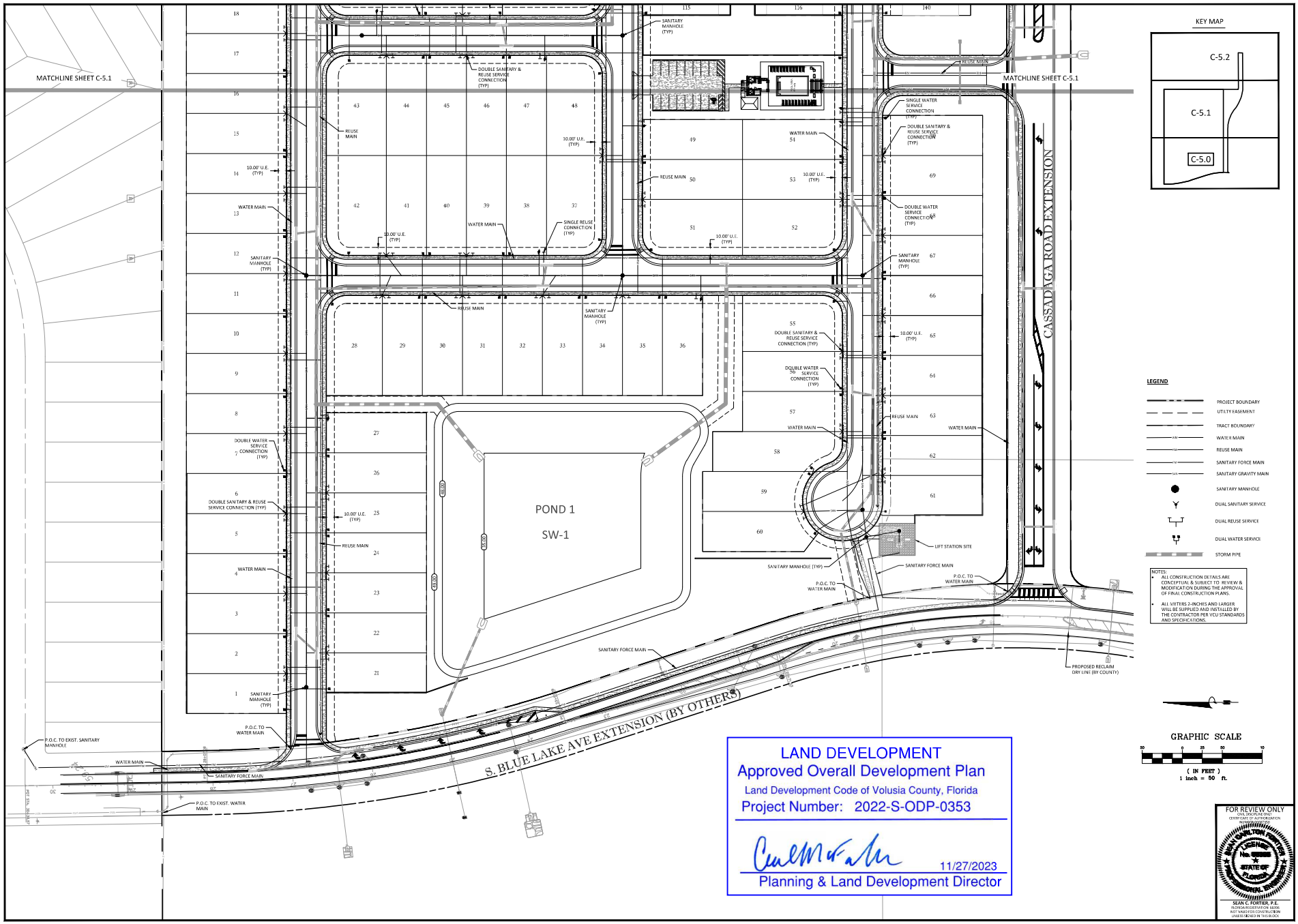
SHEET
C-4.2



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FLORIDA REGISTRATION #82696
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REVISION
DATE

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

UTILITY PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
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DATE: 08/21/2023

SHEET
C-5.0

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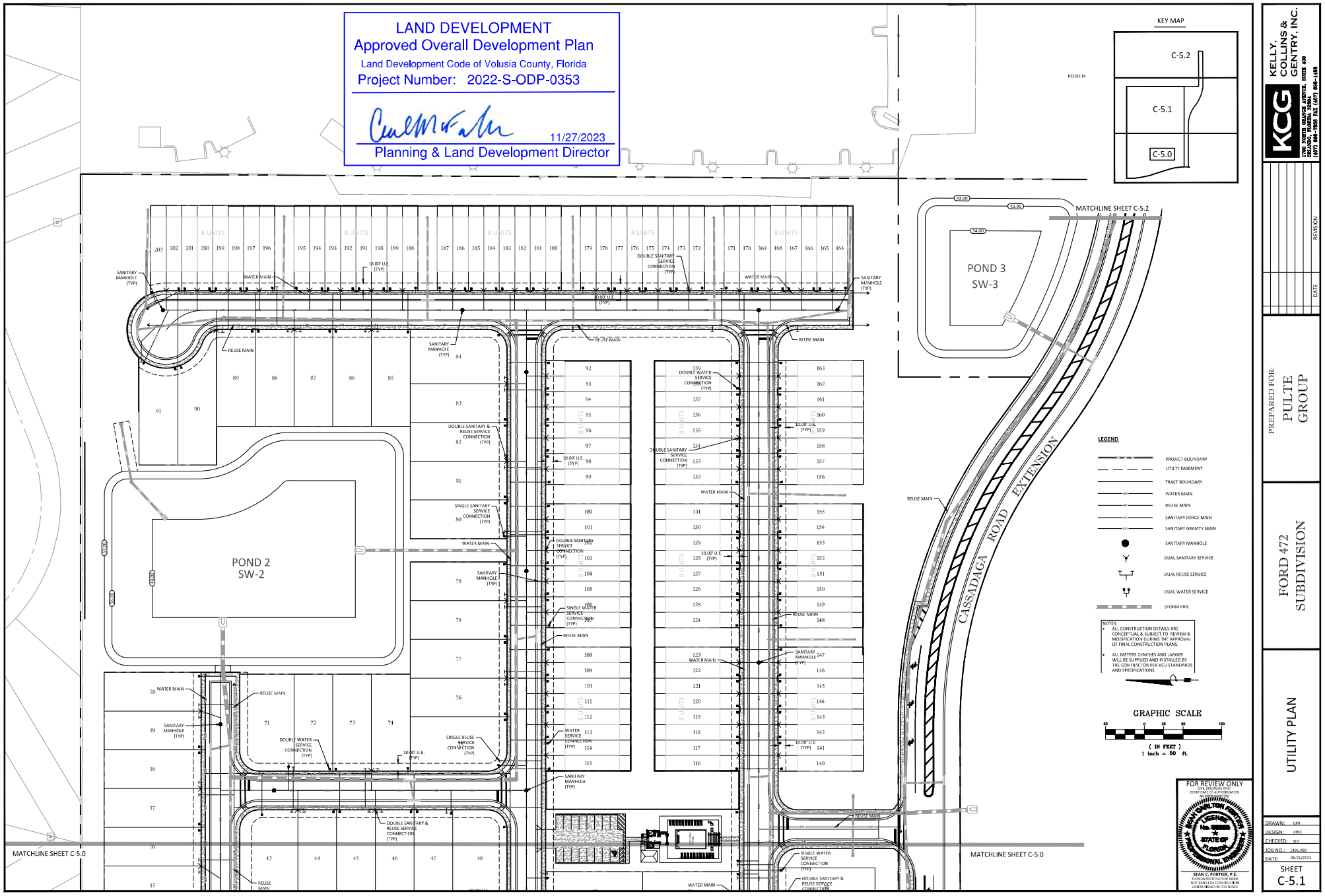

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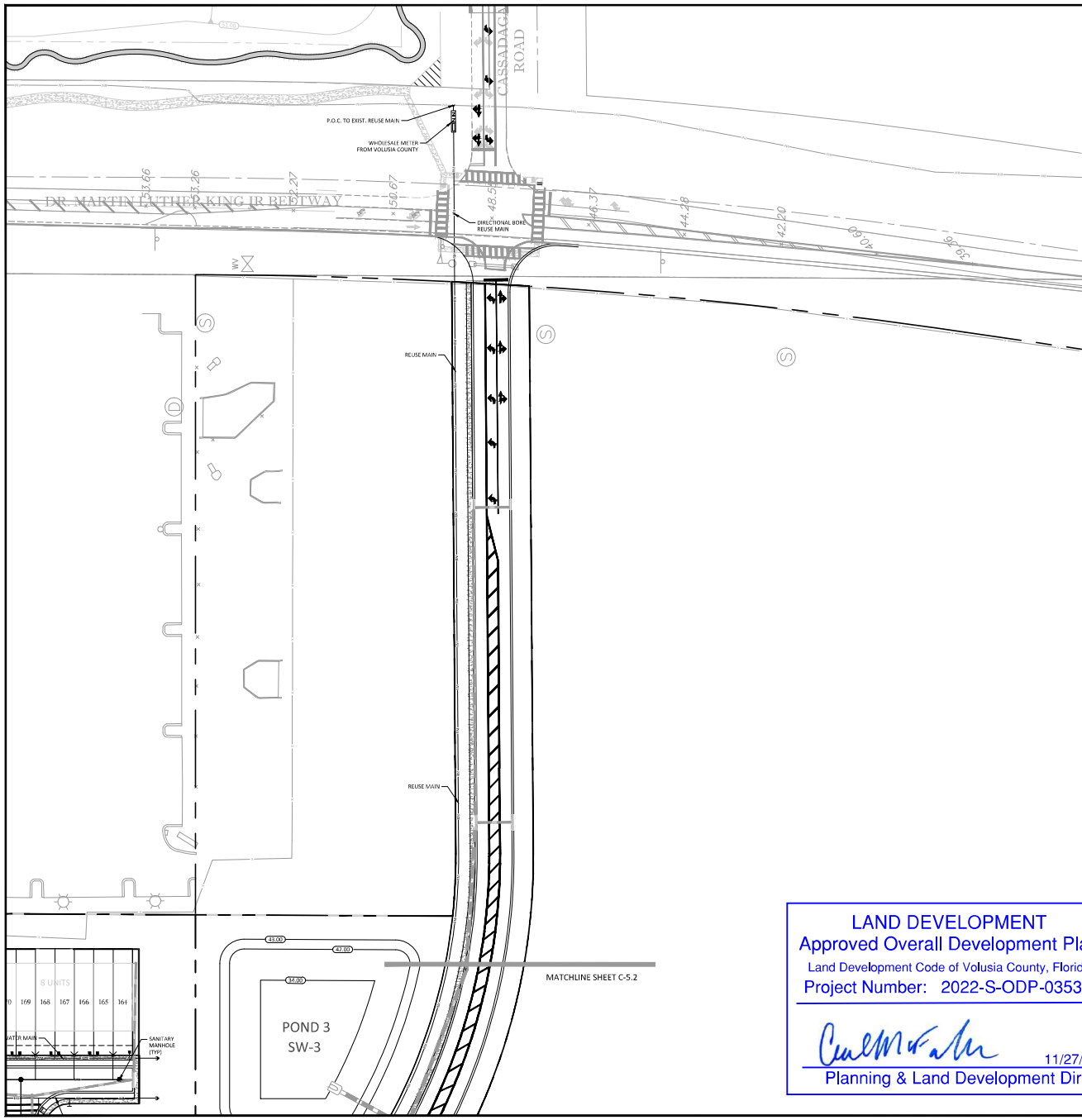
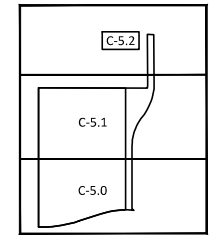
SHEET
C-5.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILTY EASEMENT
- TRACT BOUNDARY
- WATER MAIN
- REUSE MAIN
- SANITARY FORCE MAIN
- SANITARY GRAVITY MAIN
- SANITARY MANHOLE
- DUAL SANITARY SERVICE
- DUAL REUSE SERVICE
- DUAL WATER SERVICE
- STORM PIPE

NOTES:
- ALL CONSTRUCTION DETAILS ARE CONCEPTUAL & SUBJECT TO REVIEW & MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.
- ALL METERS 2-INCHES AND LARGER WILL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR PER VCU STANDARDS AND SPECIFICATIONS.

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

FOR REVIEW ONLY
ONE DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
#0000[illegible]

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68395
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

UTILITY PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-5.2

Appendix C
Study Methodology and Approval

Volusia County
Traffic Engineering

The following proposed development project has an *APPROVED TIA METHODOLOGY:*

Project: **Ford 472**

Date of Approval: **July 18, 2024**

Date of Expiration*: **January 18, 2025**

TIA Approval Required By*: **July 18, 2025**

Conditions:

The respective TIA can now be accepted for review by the county. TIAs must be completed per the River-to-Sea TPO TIA Guidelines, which can be found on the R2CTPO.org website.

Approval Signature: _____

TIA SUBMISSION TO COUNTY:

Two steps are required:

1) Submit the following items through email to Omar Atallah (Oatallah@volusia.org) and William White (Wdwhite@volusia.org)
- *PDF copy of the complete TIA (TIA needs to include completed TIA checklist)*
- *Response to Comments (if resubmitted)*

2) Due size limitations and computer input file incompatibility issues, send the following directly to VCTE by Mail or Delivery:
- *CD or USB drive containing all computer input files*

***REMINDERS:**

- TIA approval needs to be obtained within a year of the approved methodology based on the interpretation of the TPO TIA Guidelines, which state that an approved methodology is valid for up to 6 months and a TIA is valid for up to a year..
- The TIA submitted to support a development plan or use permit cannot be older than one year.
- Advisory: If the applicant waits to submit the TIA or TIA revisions, requested updates to vested trip data, growth rates, traffic count data, etc. are likely to occur. (Example: Applicant submits TIA, receives comments, but doesn't update the TIA and respond to comments until 10 months later.)

Questions about TIAs and TIA methodologies should be addressed to Omar Atallah at Oatallah@volusia.org

MEMORANDUM

June 5, 2024

Re: Ford 472 Subdivision
Traffic Impact Analysis Methodology
City of DeLand, Florida
Project № 21145, v2.1

The following is an outline of the Traffic Impact Analysis (TIA) methodology for the above referenced project. In general, the TIA will conform to the methodology requirements and guidelines documented by the River to Sea Transportation Planning Organization (R2CTPO). The memorandum also addresses Volusia County comments, as detailed in the response to comment letters provided in the **Attachments.**

Project

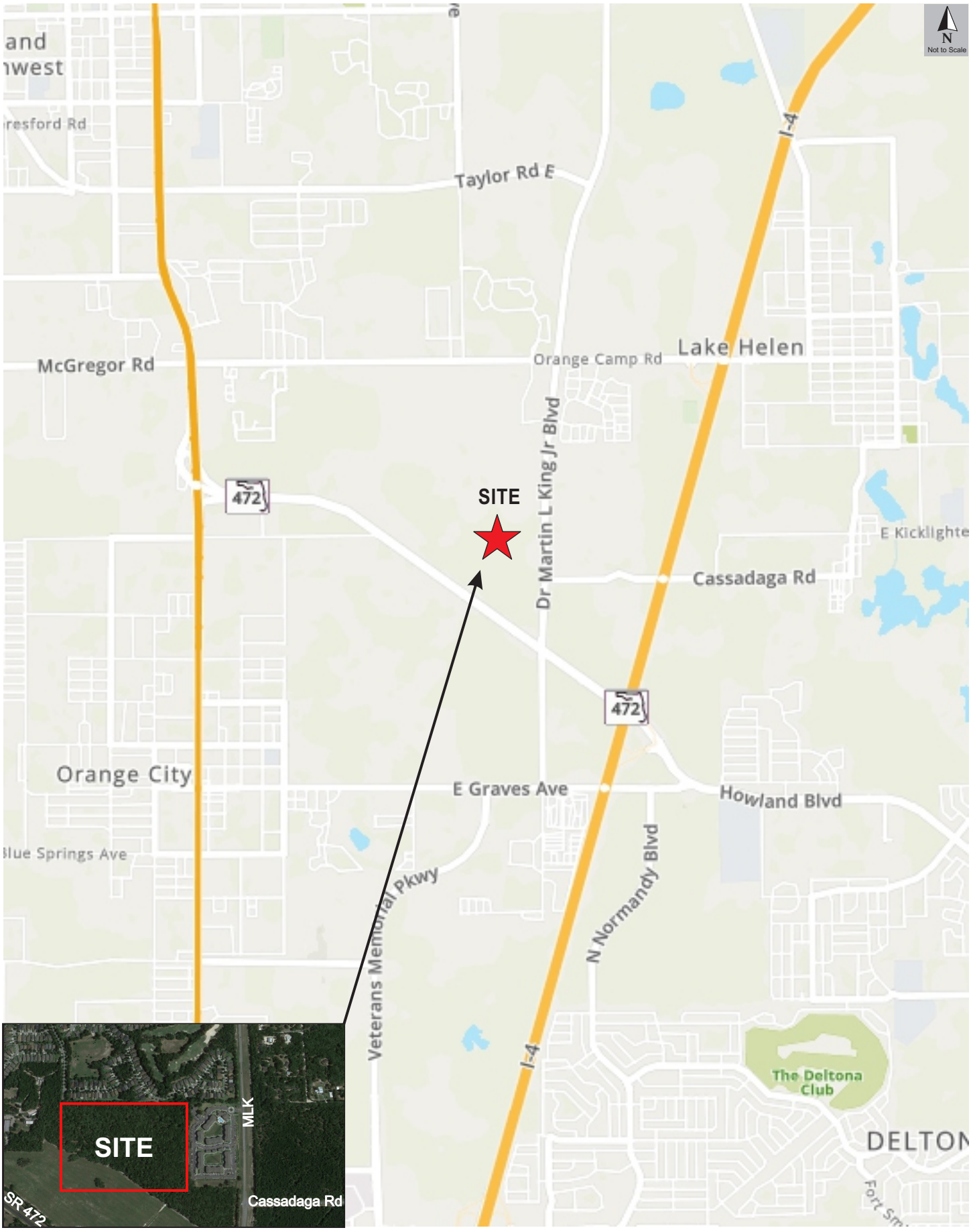
The proposed development consists of 91 single family dwelling units and 112 townhomes with an anticipated buildout year of 2028. The proposed conceptual site plan along with the approved development plan is provided in the **Attachments**. An excerpt of the contract depicting the right to create an easement for Cassadaga Road extension is also provided in the **Attachments**.

Project Location

The site is located west of Dr. Martin Luther King Jr. Beltway (MLK) and north of State Road 472 (SR 472) in the City of DeLand, Florida, as shown in **Figure 1**.

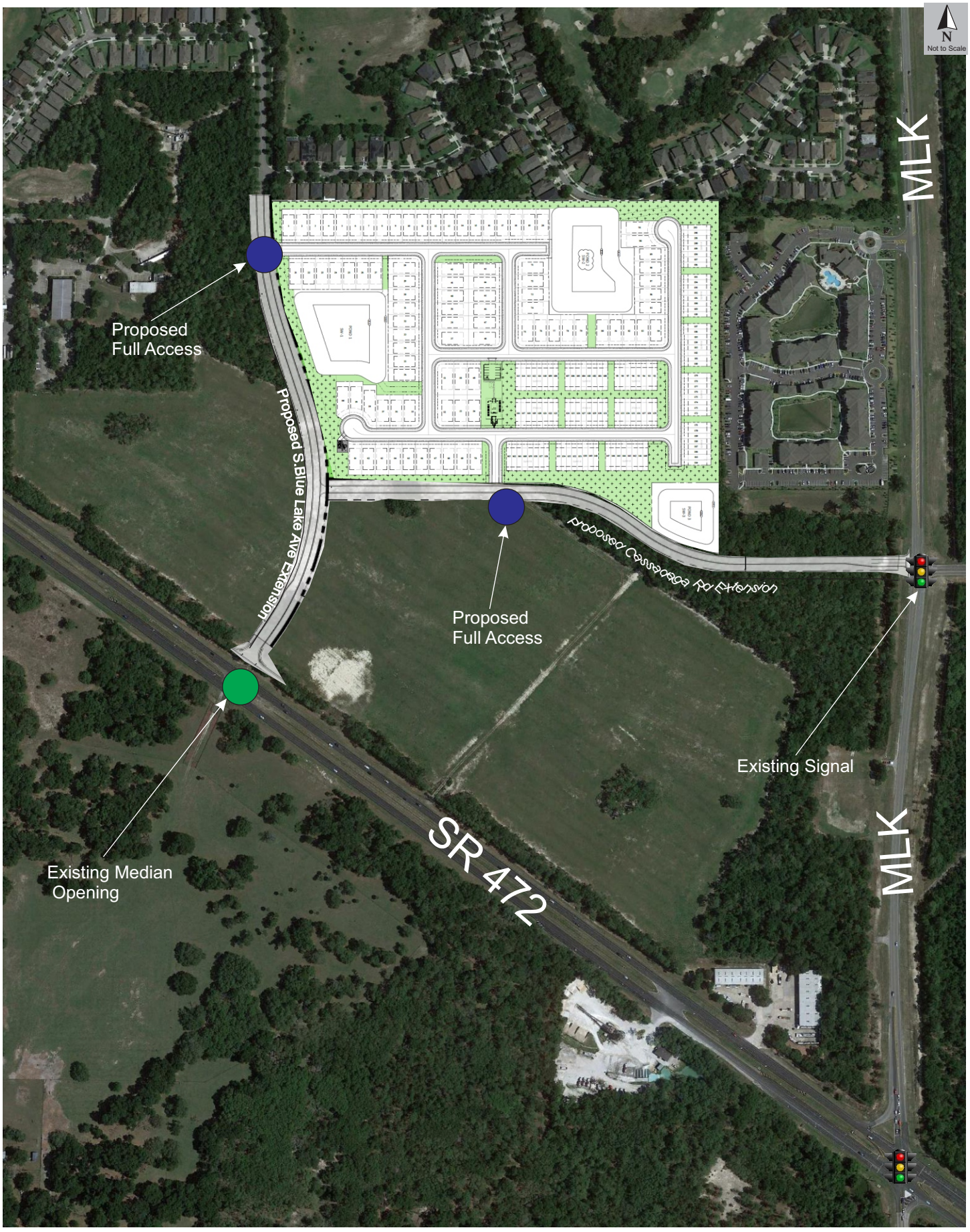
Project Access

The development is proposing to connect to the transportation network by extending Cassadaga Road and South Blue Lake Avenue to connect at SR 472 at an existing full median opening and to MLK at Cassadaga Road. Access to the site is proposed via two (2) full access driveways, one (1) each on Cassadaga Road extension and one (1) on Blue Lake Avenue Extension. The proposed access plan is shown in **Figure 2.**



Site Location Map
Ford 472
21145, v2.1

Figure 1



TMC Traffic & Mobility CONSULTANTS

Proposed Access Plan
Ford 472
21145, v2.1

Figure
2

Trip Generation

The trip generation analysis for the proposed development was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, *11th Edition*. The trip generation calculation for the project is summarized in **Table 1** and detailed trip generation sheets are provided in **Attachments**. **Table 1** summarizes the resulting trip generation analysis.

Table 1

Trip Generation Calculation

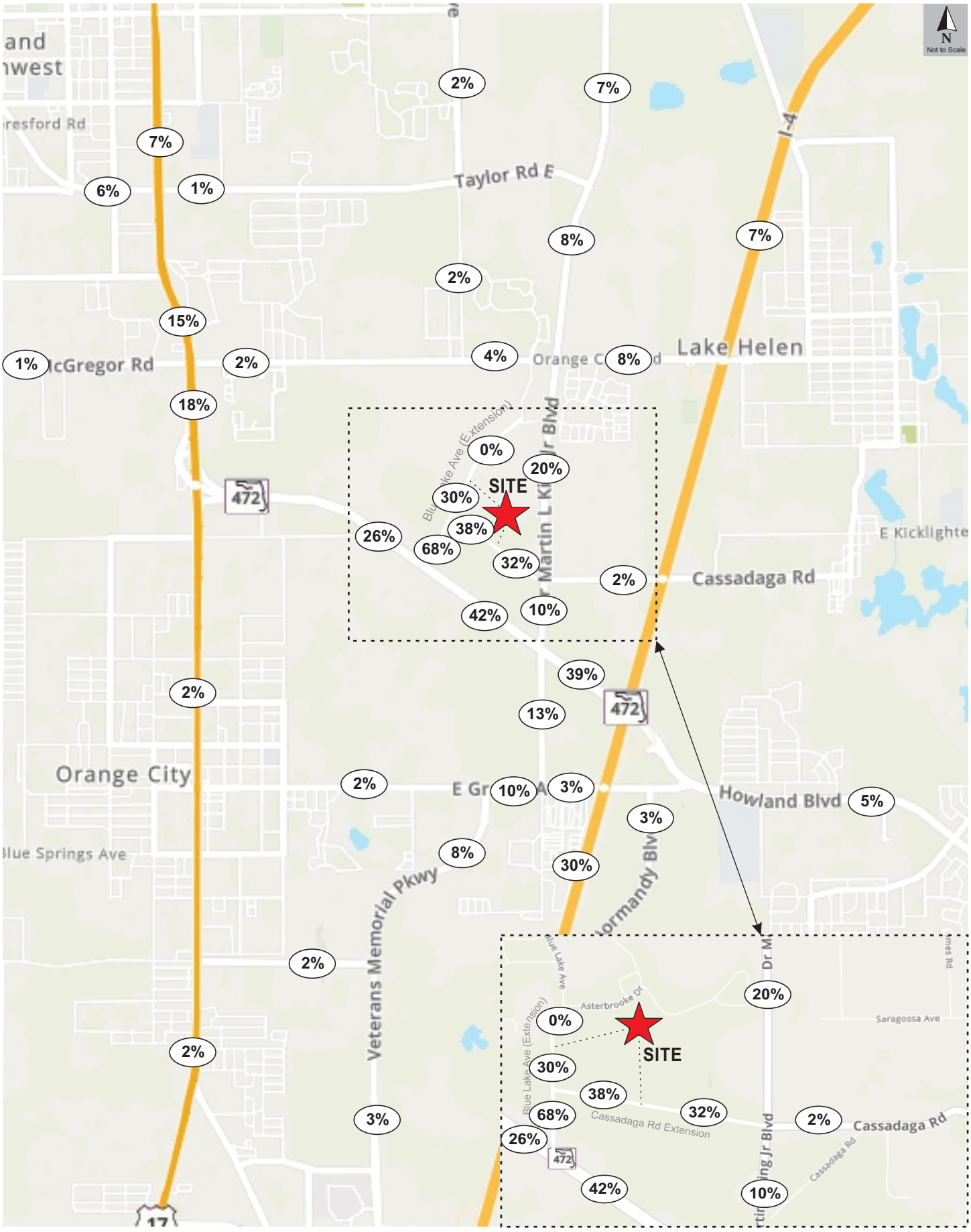
ITE			Daily		AM Peak Hour				PM Peak Hour			
Code	Land Use	Size	Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single Family Residential	91 DU	10.17	925	0.75	68	17	51	1.00	91	57	34
215	Single Family Attached (Townhomes)	112 DU	7.17	803	0.47	53	13	40	0.56	63	37	26
Net Trip Generation				1,728		121	30	91		154	94	60

ITE Trip Generation Manual, 11th Edition

The proposed development is projected to generate 1,728 new daily trips, of which 121 trips occur during the AM peak hour and 154 trips occur during the PM peak hour. Per the River to Sea Transportation Planning (R2CTPO) traffic study guidelines, the development requires a traffic impact analysis as it generates more than 1,000 daily new trips.

Trip Distribution

A trip distribution pattern was estimated using the *Central Florida Regional Planning Model (CFRPM v7.0).* The model highway network was modified to add the proposed Cassadaga Road extension and S. Blue Lake Avenue connection to SR 472. The distribution was slightly adjusted to reflect modification to the local network as well as prevailing traffic flow patterns in the general area. The raw model output is included in the **Attachments.** The adjusted trip distribution is shown in **Figure 3.**

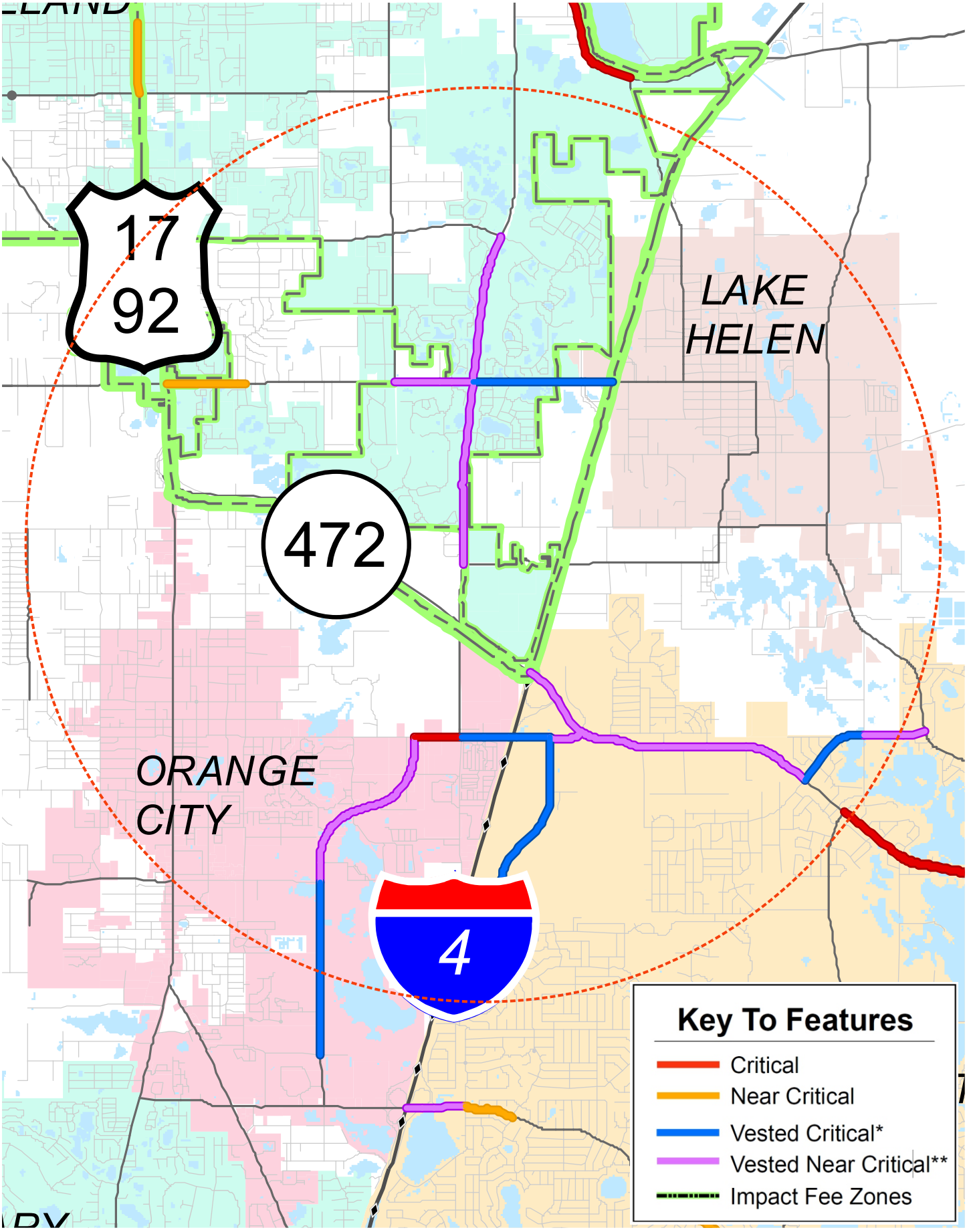


Project Trip Distribution
Ford 472
21145, v2.1

Figure 3

Study Area

Per the TIA requirements, if a project generates between 100 and 300 2-way peak hour external trips, the study area will encompass roadways with direct connection to the site or where the project's peak hour trips consume three percent (3%) or more of the 2-way peak hour generalized service volume based on the adopted level of service (LOS). In addition, the study will include Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) roadway segments within a 3-mile radius. A map of the C/NC/VC/NVC segments is shown in **Figure 4**. Roadway segments, daily volumes and 2-way peak hour capacities were obtained from the *Volusia County 2021 AADT & Historical Counts*, included in the **Attachments**. The significance test for roadway segments within the 3-mile radius is provided in **Table 2.**



TMC Traffic & Mobility CONSULTANTS

3-Mile Critical/Near Critical Roadway Map
Ford 472
21145, v2.1

Figure 4

Table 2
Significance Test

Road	Segment	Sta ID	Lns	LOS Std	PK 2W Cap	C/ NC?	Project Trips				
							Dist	Volume	Signif	y/n?	Study
US 17/92	Rhode Island Ave. to Graves Ave.	5165	4	D	3,580		2%	3	0.08%	NO	NO
US 17/92	Graves Ave. to New York Ave.	5166	4	D	3,580		2%	3	0.08%	NO	NO
US 17/92	New York Ave to SR 472	445	4	D	3,580		2%	3	0.08%	NO	NO
US 17/92	SR 472 to SR 15A/Taylor Rd.	1004	6	D	5,390		18%	28	0.52%	NO	NO
US 17/92	SR 15A/Taylor Rd. to Beresford Ave.	1006	4	E	3,790		7%	11	0.29%	NO	NO
I-4	Saxon Blvd. to SR 472	1003	6	D	10,510		30%	46	0.44%	NO	NO
I-4	SR 472 to Orange Camp Rd.	485	6	D	10,510		7%	11	0.10%	NO	NO
I-4	Orange Camp Rd. to SR 44	497	6	D	10,510		7%	11	0.10%	NO	NO
SR 472	US 17/92 to CR 4101/MLK Blvd	472	4	D	5,960		42%	65	1.09%	NO	NO
SR 472	CR 4101/MLK Blvd to I-4 (end of state road)	535	4	D	3,580		39%	60	1.68%	NO	NO
Blue Lake Ave.	Orange Camp Rd. to Taylor Rd.	231	2	E	1,540		2%	3	0.19%	NO	NO
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	2	E	1,020		2%	3	0.29%	NO	**YES**
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	775	2	E	1,620	C	10%	15	0.93%	NO	**YES**
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	2	E	1,620	VC	3%	5	0.31%	NO	**YES**
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	4	E	2,740	VNC	3%	5	0.18%	NO	**YES**
Hill Ave.	Taylor Rd. to Beresford Ave.	878	2	E	1,020		1%	2	0.20%	NO	NO
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	4	E	3,410	VNC	39%	60	1.76%	NO	**YES**
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	4	E	3,410	VNC	5%	8	0.23%	NO	**YES**
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905	4	E	3,410		3%	5	0.15%	NO	NO
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	2	E	1,230	C	2%	3	0.24%	NO	**YES**
Macy Ave.	Ohio St. to Cassadaga Rd.	1150	2	C	1,020		2%	3	0.29%	NO	NO
McGregor Rd.	Spring Garden Ave. to US17/92	1211	2	E	1,230		1%	2	0.16%	NO	NO
Orange Camp Rd.	US 17/92 to Princeton	1380	2	E	1,270	NC	2%	3	0.24%	NO	**YES**
Orange Camp Rd.	Princeton. to Blue Lake Ave.	1382	2	E	1,540		2%	3	0.19%	NO	NO
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (Dr MLK	1384	2	E	1,540	VNC	4%	6	0.39%	NO	**YES**
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385	2	E	1,540	VC	8%	12	0.78%	NO	**YES**
Summit Ave.	SR 44 to Main St.	1791	2	E	1,230		1%	2	0.16%	NO	NO
Taylor Rd. (DL)	Stratford Dr. to Blue Lake Ave.	1818	2	E	1,540		1%	2	0.13%	NO	NO
Taylor Rd. (DL)	Blue Lake Ave. to Martin Luther King Bltwy.	1819	2	E	1,230		1%	2	0.16%	NO	NO
W. Volusia Bltwy (Vetera	Harley Strickland Blvd. to Rhode Island Ave.	1901	2	E	1,540	VC	3%	5	0.32%	NO	**YES**
W. Volusia Bltwy (Vetera	Rhode Island Ave. to Graves Ave.	1902	2	E	1,620	VNC	8%	12	0.74%	NO	**YES**
W. Volusia Bltwy (Vetera	Graves Ave to SR 472	1030	2	E	1,540		13%	20	1.30%	NO	NO
W. Volusia Bltwy (Dr MLK	SR 472 to Cassadaga Rd.	1940	2	E	1,540		10%	15	0.97%	NO	NO
W. Volusia Bltwy (Dr MLK	Cassadaga Rd. to Orange Camp Rd.	1942	2	E	1,540	VNC	20%	31	2.01%	NO	**YES**
W. Volusia Bltwy (Dr MLK	Orange Camp Rd. to Taylor Rd.	1943	2	E	1,540	VNC	8%	12	0.78%	NO	**YES**
W. Volusia Bltwy (Dr MLK	Taylor Rd. to Beresford Ave. Ext.	1945	2	E	1,540		7%	11	0.71%	NO	NO
Normandy Blvd	Graves Ave to Rhode Island	DLT-105.000	2	D	1,150	VC	3%	5	0.43%	NO	**YES**
Catalina Blvd	Howland Blvd to Sixma Road	DLT-20.020	2	D	960	VC	0%	0	0.00%	NO	**YES**
Catalina Blvd	Sixma Road to Lake Helen Osteen	DLT-20.030	2	D	960	VNC	0%	0	0.00%	NO	**YES**

NOTE: The segment **W. Volusia Bltwy.** to **Macy Ave** in **Cassadaga Rd.** requires study because it has direct connection to the site.

Based on the significance test above, the study roadway segments are as follows:

- Cassadaga Road/Cassadaga Road Extension
  - West Volusia Beltway (MLK) to Macy Avenue
  - West Volusia Beltway (MLK) to SR 472 (Proposed)
- Graves Avenue/CR 4145
  - Veterans Memorial Parkway to Kentucky Avenue
  - Kentucky Avenue to Normandy Boulevard
  - Normandy Boulevard to Howland Boulevard
- Howland Boulevard
  - I-4/SR 472 to Wolf Pack Run
  - Wolf Pack Run to Catalina Boulevard
  - Providence Boulevard to Elkcam Boulevard
- Orange Camp Road
  - US 17/92 to Princeton Road
  - Blue Lake Avenue to W. Volusia Beltway (Dr. MLK Jr)
  - W. Volusia Beltway (Dr. MLK Jr) to I-4
- W. Volusia Beltway/MLK
  - Harley Strickland to Rhode Island Avenue
  - Rhode Island Avenue to Graves Avenue
  - Graves Avenue to SR 472 (Normandy Boulevard)
  - Cassadaga Road to Orange Camp Road
  - Orange Camp Road to Taylor Road
- Catalina Boulevard
  - Howland Boulevard to Sixma Road
  - Sixma Road to Lake Helen Osteen

The study intersections are as follows:

- MLK & Orange Camp Road (roundabout)
- MLK & Cassadaga Road (unsignalized/future signal)
- MLK/Kentucky Avenue & SR 472 (signalized)
- SR 472 & Blue Lake Avenue Extension (unsignalized)
- Howland Boulevard and Minnesota Avenue (unsignalized)
- Project Access driveway on Cassadaga Road Extension (unsignalized)
- Project Access driveway on Blue Lake Avenue Extension (unsignalized)

Roadway Segment and Intersection Analysis

The traffic analysis will include existing and 2028 buildout conditions for both roadway segment and intersection capacity analysis. Roadway segments will be analyzed for the PM peak 2-way volumes. The analysis will be based on existing and service volumes as obtained from the most recent *Volusia County Average Annual Daily Traffic & Historical Counts,* included in the **Attachments***.* The intersection analysis will be conducted for the PM peak hours based on field counts, projected movements, *Synchro* software and the methods of the *Highway Capacity Manual, 7th edition (HCM)*.

Background and Buildout Traffic

Background traffic will be projected to the buildout year 2028 based on *Volusia County's Segment Growth Rates and Vested Trips Instruction Policy,* included in the **Attachments**. Buildout conditions will be analyzed by comparing the total projected traffic volumes to their service volumes at the adopted level of service LOS standard for the roadway segments and intersections. Total projected traffic volumes at buildout year 2028 will be calculated as the sum of background traffic and project trips.

Intersections volumes at buildout will be computed by adjusting the raw field counts based on the appropriate seasonal factor obtained from *FDOT Traffic Online*, then adding it to the projected traffic growth and trips generated by the development. An intersection analysis will be conducted for the AM and PM peak hour conditions, based on field counts, buildout traffic, *Synchro* software and the methods of *HCM, 7th edition*.

Planned and Programmed Improvements

The Transportation Improvements Programs for the City, County, and FDOT were reviewed to determine if any roadway or intersection improvements were funded for construction within the next few years. **Table 3** summarizes the list of roadway segments programmed for improvement as obtained from the Volusia County Road Program 2021-22, excerpts of which are included in the **Attachments.** The first two rows listed in the table below will be considered in the buildout condition analysis for this project.

Table 3

Planned & Programmed Improvements

Roadway	From	To	Improvement	Status
Howland Boulevard	Providence Blvd	Elkcam Boulevard	Widen From 2 to 4 Lanes	Under Construction
Orange Camp Road	MLK Jr. Beltway	I-4	Widen From 2 to 4 Lanes	Under Construction
Graves Avenue	Veterans Memorial Parkway	Kentucky Avenue	Widen From 2 to 3 Lanes	Design Underway
Veterans Memorial Parkway	Current limit of 4 lanes	Rhode Island Avenue	Widen From 2 to 4 Lanes	Design Underway
Beresford Road	Blue Lake Avenue	Kepler Road/MLK Jr Beltway	Extension	Design and Row Acquisition Underway
Blue Lake Avenue	Victoria Park	SR 472	Extension	Conceptual Preparation Underway

Source: 2021-22 Volusia County Road Program

Proportionate Share

If the development results in offsite impacts, the development will mitigate its impact to the deficient facilities by contributing a proportionate share. The proportionate share calculation will be based on costs approved by Volusia County Engineering and Construction Division. All proposed mitigation improvements will be consistent with the appropriate City and County comprehensive plans' transportation elements. In particular, if a proposed mitigation improvement is to widen a county roadway beyond that which is indicated on the County's adopted *Future Number of Lanes Map* (or allowed by the County Transportation Engineering since a county map amendment is pending), an alternative mitigation improvement project must be proposed.

Alternative Mode Analysis

A review of transit, pedestrian and bicycle facilities will be conducted in accordance with the R2CTPO and Volusia County requirements.

Report

A report detailing the methods, findings, and recommendations of the traffic analysis will be prepared for submittal to the City and County.

ATTACHMENTS

June 5, 2024

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Methodology Comments
TMC Project № 21145
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by the Volusia County Traffic Engineering dated April 15, 2024, regarding the above referenced Methodology dated November 23, 2023. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology is provided under cover reflecting the changes resulting from these comments.

1. **Traffic study will require concept plans for the development as part of the review and approval.**
   Refer to the municode code Sec. 72-577. - Conceptual or final site plan review. Conceptual site plan application.
   a) **Current zoning classification(s);**
   b) **Schematic representation of proposed use, including building size, shape and location on the site;**
   c) **Schematic representation of vehicular circulation within the site, including driveways, parking areas and loading areas;**
   d) **Schematic representation of points of connection to the public right-of-way.**

   TMC Response: Approved Overall Development Plan is provided in the Attachments.

2. **The proposed build-out as stated is year 2026. Please confirm that this is realistic build-out date.**

   TMC Response: Buildout Year is now anticipated for 2028. Relevant changes have been made in the revised Methodology.

3. **Land use used in table 2 project trip generation shall replicate the project Concept layout proposed uses and building sizes data.**

   TMC Response: The land use data in the Trip Generation table (Table 2) has been updated to reflect the concept layout proposed uses and building sizes data.

4. **Confirm if there are any planned phases for the development and full development buildout year.**

   TMC Response: The development is planned to be built in a single phase with the buildout year 2028.

5. **Refer to the attached traffic growth policy for compliance.**

   TMC Response: Noted. The traffic policy provided will be referred to for the Traffic Impact Analysis Report.

6. **Please state any planned or programmed improvements that will be assumed for future conditions.**

   TMC Response: Improvements that will be assumed for buildout condition are updated and stated in the revised Methodology.

7. **For vested Trip Database, please confirm with relevant agency/city for their updated list of vested developments.**

   TMC Response: Most recent vested trip database from Volusia County will be obtained and used in the final TIA report.

8. **Submit a recorded right-of-way / easement agreement for Cassadaga Rd extension.**

   TMC Response: We do not yet have an easement for the roadway extension, but the client is working on it. However, please see the Attachments regarding the rights to create an easement.

9. **Intersection analyses the use of latest version "HCM 7th Edition" for TIAs.**

   TMC Response: HCM 7th Edition will be used in the TIA and has been updated in the Methodology.

10. **Signal warrant analysis will be required for the signalized intersection at MLK & proposed Cassadaga Rd extension.**

    TMC Response: There is an existing traffic signal at the MLK & Cassadaga Road intersection.

11. **Please include the following statement if applicable**
    Given the staged nature of the development and recognizing the potential evolution of traffic patterns over time, the developer is required to conduct a comprehensive reevaluation of the access control type in conjunction with each stage of development. This process is essential to ensure that access control measures align with the changing transportation needs and conditions associated with the different phases of the project. The developer must collaborate closely with the CTE to assess and adjust

the access control type based on the specific requirements and challenges presented by each stage. This reevaluation should consider factors such as the increasing population density, changing land use patterns, and corresponding shifts in traffic volumes. For each stage, the developer is expected to submit a revised access control proposal that reflects the current and anticipated traffic conditions. This proposal should outline any necessary modifications to the initially proposed access control type, taking into account factors such as peak traffic periods, pedestrian movements, and the integration of alternative transportation modes. The CTE will review each stage's access control proposal, ensuring that it complies with established standards and guidelines. The goal is to adapt the access control type to the evolving demands of the development, promoting an efficient and safe transportation network throughout the different phases. This staged approach to access control evaluation aims to create a flexible and responsive framework that accommodates the dynamic nature of the development. It is imperative that the developer remains proactive in reassessing and refining access control measures to uphold the highest standards of transportation planning and engineering throughout the entire staged development process.

TMC Response: Please note that this project will be developed in one (1) phase/stage; therefore, the proposed access driveway points will be analyzed for the full buildout of the project and access management will be evaluated accordingly.

12. **Refer to TIA guideline section 7 (though an analysis of safety and access management issues may still need to be completed) and provide documentation that support this requirement. A crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period. The crash analysis is to include all listed study intersection(s) /segment(s) adjoining the development and intersection(s)/segment(s) with mitigated development measure(s).**

TMC Response: Acknowledged. The TIA will include a section for crash analysis to include study intersections and roadway segments adjoining the development and intersection(s)/segment(s) with mitigated development measures.

END OF COMMENTS

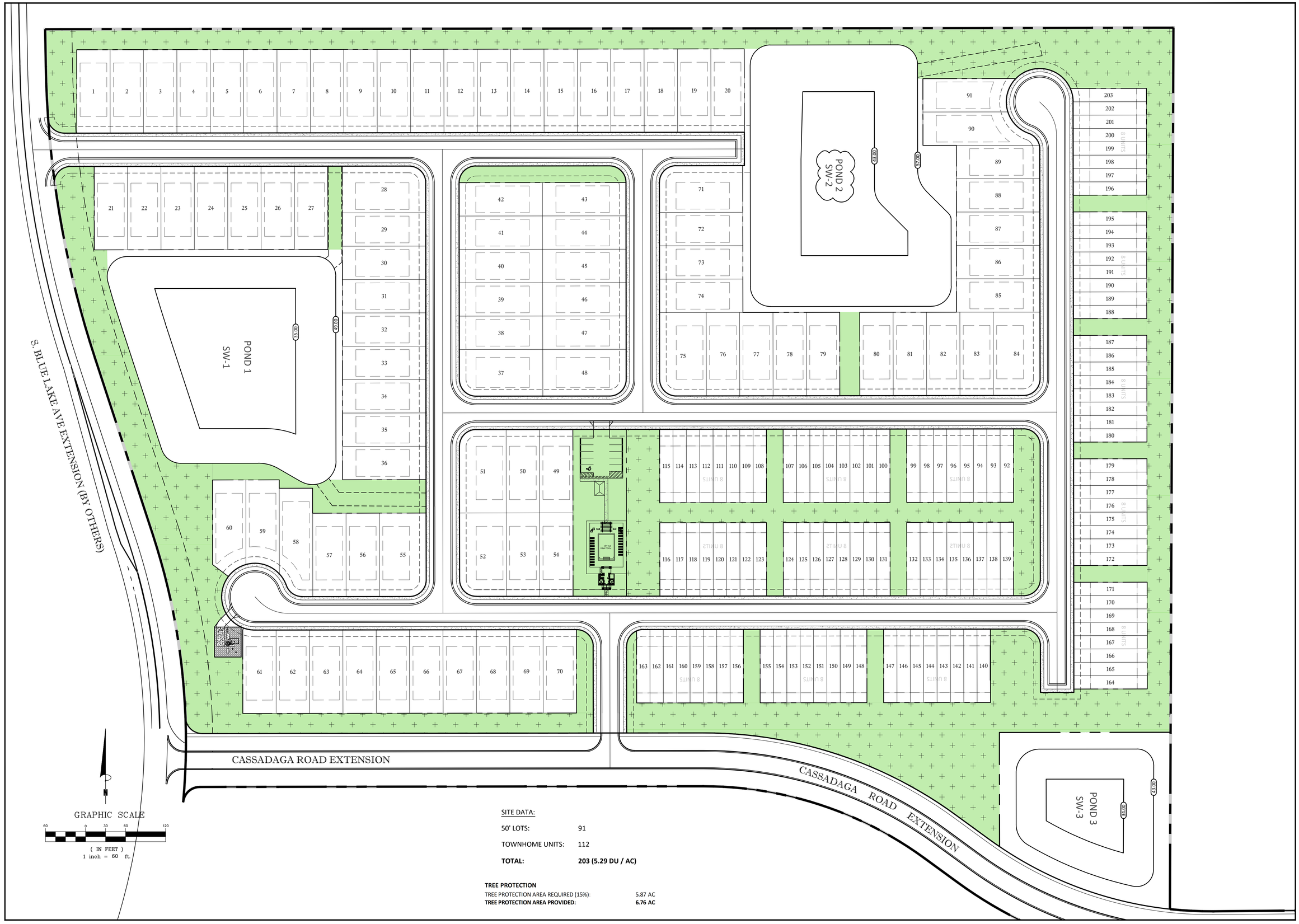
We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman As-Saidi, PE
VP of Engineering



SITE DATA:

50' LOTS:	91
TOWNHOME UNITS:	112
TOTAL:	**203 (5.29 DU / AC)**

TREE PROTECTION

TREE PROTECTION AREA REQUIRED (15%):	5.87 AC
TREE PROTECTION AREA PROVIDED:	**6.76 AC**

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

CONCEPT PLAN

DRAWN:	GPR
DESIGN:	GPR
CHECKED:	SCF
JOB NO.:	1496.000
DATE:	07/25/2023

SHEET
1 OF 1

Volusia County
FLORIDA

Growth & Resource Management
Land Development

November 27, 2023

Christopher Wrenn
PulteGroup, Inc.
4901 Vineland Rd
Orlando, FL 32811

Re: Subdivision Overall Development Plan Preliminary Development Order
2022-S-ODP-0353 / 1072480
Ford 472 Subdivision

Dear Mr. Wrenn:

This letter is the Subdivision Overall Preliminary Development Order for the above-referenced development. Pursuant to the following findings, the DRC has approved the application:

1. The application was accepted on May 15, 2023, and discussed at the June 14, 2023, Technical Staff Review Meeting.

2. The DRC considered the application at their regularly scheduled meeting of October 10, 2023, and approved the Overall Development Plan application 2022-S-ODP-0353, subject to the submittal of revised plans to the satisfactory resolution of staff comments.

3. Revised plans were accepted on October 26, 2023.

A copy of the approved version of the plan, last revision dated October 18, 2023, by Sean Fortier, is enclosed.

Based on this letter you may submit an application for a Preliminary Plat Development Order. A blank application form and a checklist of exhibits and procedures are attached. A fee, as outlined in the attached fee schedule, must be paid at the time of application submittal. The Preliminary Plat application must be consistent with the approved Overall Development Plan and any remaining conditions imposed by the DRC.

Section 72-536(b) of the LDC states, “It is a violation of this division for anyone who is the owner or agent of the owner of any land to transfer, sell, agree to sell, or negotiate to sell such land by reference to, exhibition of, or other use of a plat of a subdivision of such land without having the plat approved as required by this division.”

Pursuant to Section 125.022(5), F.S., issuance of this development order by the county does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the county for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law. All other applicable state or federal permits shall be obtained before commencement of this development.

Pursuant to Section 72-502(g) of Article III Land Development, Chapter 72 Code of Ordinances (LDC), any person claiming to be aggrieved by a decision of the Enforcement Official or the DRC may file a written appeal within thirty (30) days after said decision with the Land Development Manager to have the decision reviewed by the Volusia County Council. The appeal shall state fully the specific grounds for the appeal and all of the facts relied upon by the petitioner. The County Council shall consider only those items specified in this petition.

Please feel free to contact the Land Development office if you have any questions. The project name and number must be referenced on all inquiries.

Sincerely,



Carol McFarlane, AICP
Planning and Land Development Director
cmcfarlane@volusia.org

CRM/rc
Enclosures

c: James L Rickman, Allen & Company, 16 E Plant St, Winter Garden, FL 34787
Ford Frank A, Group 7 87 5 / Group 4 12 5, Po Box 457, Deland Fl 32721
Sean Fortier, Kelly, Collins & Gentry, Inc, 1700 N Orange Av, Orlando, FL 32804
Todd Bonnett, Bonnett Design Group, LLC, 400 S Orlando Av Suite 201, Maitland, FL 32751
David Romero (via e-mail)

PARCEL DESCRIPTION

PARCEL 1
GOVERNMENT LOT 2, EXCEPT THE W 1/4 THEREOF LYING NORTH OF S.R. 15A, AND LYING SOUTH OF A LINE PARALLEL TO AND 900 FEET SOUTH OF THE NORTH LINE OF SAID GOV'T LOT 2, AND EXCEPT THE EAST 660 FEET OF THE NORTH 1056 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

AND
THE NORTH 900 FEET OF THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF S.R. 15A, EXCEPT THE NORTH 660 FEET THEREOF, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

PARCEL2
THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET THEREOF, AND THE WEST 1/4 OF GOVERNMENT LOT 1, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

NOTE:

PARCEL DESCRIPTION PROVIDED BY ALLEN & COMPANY, DATED 06/08/2021.

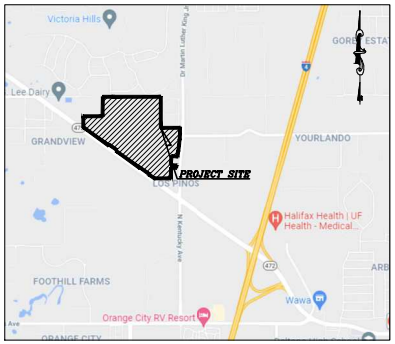
OVERALL DEVELOPMENT PLAN

FOR:

FORD 472 SUBDIVISION

NORTH OF SR 472 & WEST OF DR MARTIN LUTHER KING JR BELTWAY VOLUSIA COUNTY, FLORIDA

VICINITY MAP



SCALE: 1"=2000'

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

PARCEL ID #:
800100000020

PREPARED FOR:

PULTE GROUP

4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

DEVELOPMENT TEAM:

DEVELOPER
PULTE GROUP
4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

ENGINEER
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE,
SUITE 400
ORLANDO, FLORIDA 32804
PHONE: (407) 898-7858
FAX: (407) 898-1488

SURVEYOR
ALLEN & COMPANY
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
PHONE: (407) 654-5355

LANDSCAPE ARCHITECT
BONNET DESIGN GROUP, LLC
PHONE: (407) 463-0136

UTILITIES:

WATER & SEWER
CITY OF DELAND
1101 SOUTH AMELIA AVENUE,
DELAND, FLORIDA 32724
PHONE: (386) 626-7250

RECLAIM WATER
VOLUSIA COUNTY UTILITIES
123 W INDIANA AVE, DELAND, FLORIDA 32720
PHONE: (386) 736-2700

PREPARED BY:

KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE
SUITE 400
ORLANDO, FLORIDA 32804
PHONE (407) 898-7858
FAX (407) 898-1488

SECTION 01 TOWNSHIP 18, RANGE 30, VOLUSIA COUNTY, FLORIDA

SHEET INDEX

SHEET TITLE	SHEET NO.
COVER SHEET	C-1.0
EROSION CONTROL & TREE PROTECTION	EC-1.0
OVERALL PLAN	C-2.0 TO C-2.1
DIMENSION PLAN	C-3.0 TO C-3.2
PAVING, GRADING, & DRAINAGE PLAN	C-4.0 TO C-4.2
UTILITY PLAN	C-5.0 TO C-5.2

Sean Fortier
2023.10.18
13:29:01-04'00'

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SEAN C. FORTIER, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

FOR REVIEW ONLY
NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

REVISIONS:

DATE	DESCRIPTION

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-1.0

FORD 472 SUBDIVISION VOLUSIA COUNTY, FL

EROSION CONTROL:

1. GENERAL: CONTRACTOR SHALL INSTALL ANY ADDITIONAL EROSION CONTROL WHEN NECESSARY IN ORDER TO MEET STATE AND LOCAL STANDARDS.
2. EXISTING SYSTEMS: CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. CONFLICTS: CONTRACTOR SHALL COORDINATE ALL UTILITY CROSSINGS AND ADDRESS CONFLICTS PRIOR TO BEGINNING WORK IN A GIVEN AREA(S).
4. STABILIZATION:
   A. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER, AND REGULATORY AGENCIES.
   B. AREAS DISTURBED THAT WILL NOT BE IMPROVED FOR A PERIOD OF 30 DAYS OR MORE SHALL RECEIVE TEMPORARY STABILIZATION AS DEEMED NECESSARY BY THE MUNICIPAL INSPECTOR.
5. BMPs:
   A. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES BMP TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
   B. WITH UTILIZING CONSTRUCTION PHASES, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ON-SITE BMPs AS DEEMED NECESSARY AND SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
   C. ALL BMPs SHALL BE CLEANED OF SEDIMENT WHEN 50% OR LESS OF BMP IS REACHED.
   D. ALL BMPs SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE MUNICIPAL INSPECTOR ALLOWS REMOVAL.
   E. APPROPRIATE BMPs MUST BE IMPLEMENTED TO ENSURE THAT DISCHARGES DO NOT EXCEED SURFACE WATER QUALITY STANDARDS PER THE FDEP CONSTRUCTION GENERIC PERMIT (CGP). IF DEWATERING DEPOSITS OR INTO A COUNTY MS4, TURBIDITY MUST BE MONITORED TO ENSURE THAT DISCHARGES DO NOT EXCEED 29 NTU OVER BACKGROUND PER 62-302.530 FAC. REFER TO THE DEWATERING REQUIREMENTS IN 62-621.300(4)(a) CONSTRUCTION GENERIC PERMIT OR 62-621.300(2)(a) DEWATERING GENERIC PERMIT AS APPLICABLE.
   F. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAIN EVENT OF 1/2" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REVEGETATING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED SHALL BE REQUIRED.
   G. CONTRACTOR SHALL INSPECT BMPs AT END OF EACH WORKING DAY.
   H. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TEMPORAL STOCKPILES.
   I. BMPs USED ON SITE MUST MEET THE MINIMUM SPECIFICATIONS IN THE 2013 STATE OF FLORIDA E&SC DESIGNER AND REVIEWER MANUAL.
6. MULCH:
   A. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER.
   B. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
7. ENTRANCE/EXIT:
   A. CONSTRUCTION ENTRANCE SHALL BE GRADED SO THAT NO SEDIMENTS LEAVE THE SITE.
   B. ALL EMPLOYEES, SUBCONTRACTORS, AND SUPPLIERS SHALL UTILIZE CONSTRUCTION ACCESS.
   C. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT ONE LOCATION.
   D. ALL EXIT LOCATIONS INTENDED SHALL BE USED CONTINUOUSLY AND FOR A PERIOD OF TIME SHALL HAVE STABILIZED CONSTRUCTION ENTRANCE/EXIT BMPs (TC-1 "STABILIZED CONSTRUCTION ENTRANCE/EXIT" OR TC-2 "ENTRANCE/OUTLET TIRE WASH").
   E. INSPECT ROUTINELY FOR DAMAGE AND ASSESS EFFECTIVENESS OF THE BMP. REMOVE AGGREGATE, SEPARATE AND DISPOSE OF SEDIMENT IF CONSTRUCTION ENTRANCE/EXIT IS CLOGGED NO MORE THAN 50% WITH SEDIMENT.
   F. IF APPLICABLE, ROUTE RUNOFF FROM STABILIZED ENTRANCES THROUGH A SEDIMENT TRAPPING DEVICE BEFORE DISCHARGE.
8. INLETS:
   G. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND, AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED BY CONTRACTOR.
   H. PROVIDE GEOHAY HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AND PROVIDE FILTER FABRIC UNDER THE GRATE OF ALL DITCH BOTTOM INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
9. DAILY:
   A. CONSTRUCTION SITE SHALL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". A RAIN GAUGE SHALL BE ON SITE TO MEASURE THE FALL AMOUNTS.
   B. THE ADJACENT STREETS SHALL BE SWEPT AT THE END OF EACH DAY OF DIRT FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL IMPLEMENT STREET SWEEPING AND VACUUMING AS NEEDED. CLEAN DIRT FROM ROADWAYS DAILY.
   C. CONSTRUCTION SITE SHALL BE CLEANED OF LITTER AND TRASH EACH DAY AND DISPOSED OF OFF-SITE.
   D. INSPECT ALL SEDIMENT CONTROL DEVICES FOR DAMAGE DAILY AND REPAIRS AS NEEDED.
   E. CONTRACTOR SHALL EMPLOY SAFETY AND ROADWAY ENTRY AND EXIT PLANS ON A DAILY/WEEKLY BASIS.
   F. HUMAN WASTEWATER SHALL BE COLLECTED ON-SITE BY THE USE OF TEMPORARY SANITARY SERVICE.
10. SILT FENCE:
   A. SILT FENCE SHALL BE IN PLACE AS SHOWN PRIOR TO CONSTRUCTION.
   B. PRIOR TO CONSTRUCTION, SILT FENCE SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL.
   C. SILT FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. SOD: ALL DISTURBED AREAS SHALL BE SODDED EXCEPT AS SHOWN ON PLAN. ALL SOD IN RIGHT OF WAY SHALL BE ARGENTINE BAHIA. ALL SLOPES 4:1 OR GREATER SHALL BE SODDED.
12. STOCKPILES: SHALL BE ENCOMPASSED WITH SILT FENCE, SHALL NOT EXCEED 35' IN HEIGHT, AND SHALL NOT BE LOCATED NEAR SITE PERIMETER. LOCATION AND SLOPE SHALL BE APPROVED BY MUNICIPAL INSPECTOR AND OTHER JURISDICTIONAL AUTHORITIES AS REQUIRED.
13. TOXIC SUBSTANCES: ALL TOXIC SUBSTANCES (IF ANY) BROUGHT ON-SITE SHALL BE HANDLED AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STANDARDS. ALL SUBSTANCES THAT MAY BE CONSIDERED TOXIC SHALL ALSO BE HANDLED AND STORED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS AND STANDARDS.
14. DRAINAGE/GRADE: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER; EFFECT CONTROL OF SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE; AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. GRAVEL LAYER: GRAVEL LAYER SHALL BE 12" MIN THICK AND PLACED OVER GEOTEXTILE MAT.
16. SPEED: TRUCK SPEED TO BE REDUCED TO CONTROL DUST.
17. DITCHES: KEEP ALL TEMPORARY ROADWAY DITCHES CLEAR.
18. WATER DOWN: CONTRACTOR TO WATER DOWN AREAS WHEN AND WHERE DISTURBED SOIL IS RAISING AND BECOMING AIRBORNE IN ORDER TO SETTLE IT. PERMIT AS NEEDED.
19. SEDIMENT BASIN: LARGE SITES MAY REQUIRE A TEMPORARY SEDIMENT BASIN. CONTRACTOR SHALL DETERMINE LOCATION. TEMPORARY SEDIMENT BASIN SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
20. STORMWATER DISCHARGE: CONTRACTOR TO ABIDE BY ALL PROVISIONS OF THE FDEP GENERAL PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.
21. DUST ABATEMENT: CONTRACTOR TO PROVIDE A DUST ABATEMENT PLAN INCLUDING A 6-FOOT HIGH SCREEN FENCE ALONG ALL PROPERTY LINES.

DEMOLITION NOTES:

1. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
2. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
3. THIS PLAN IS TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS. DO NOT REMOVE ANY ITEMS WITHOUT VERIFYING AND COORDINATING WITH ALL GENERAL TRADES AS TO HOW THEY RELATE TO THE OVERALL PROJECT.
4. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTIONS OF ACCIDENTS.
5. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORTS, INSULATIONS, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.

CONTRACTOR CERTIFICATION:

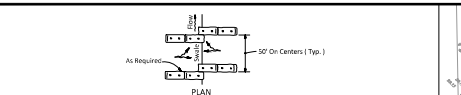
" I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PLAN THEREUNDER."

NAME: TITLE:

CONTRACTING FIRM: ADDRESS:

TELEPHONE #: DATE:

THIS SOIL EROSION/SEDIMENT CONTROL & DUST ABATEMENT PLAN IS FOR THE PURPOSE OF SHOWING INTENTION OF METHOD TO CONTROL STORM WATER RUNOFF & DUST DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL ADJUST AND/OR ADD BMP'S BASED ON SPECIFIC SITE CONDITIONS & CONSTRUCTION ACTIVITY SATISFYING NPDES REQUIREMENTS. CONTRACTOR TO OBTAIN GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)

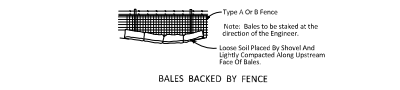


BARRIERS FOR FILL SLOPES

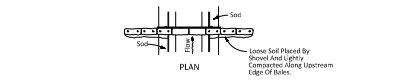


Application and Spacing: The use of Types I & II Geohay bale barriers should be limited to the conditions outlined in Chart1, Sheet 1 of 3, Index No. 102

BARRIER FOR UNPAVED DITCHES

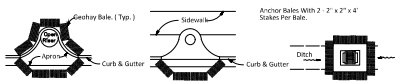


BALES BACKED BY FENCE

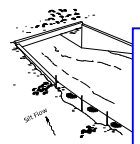


Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart1, Sheet 1 of 3, Index No. 102

BARRIER FOR PAVED DITCH

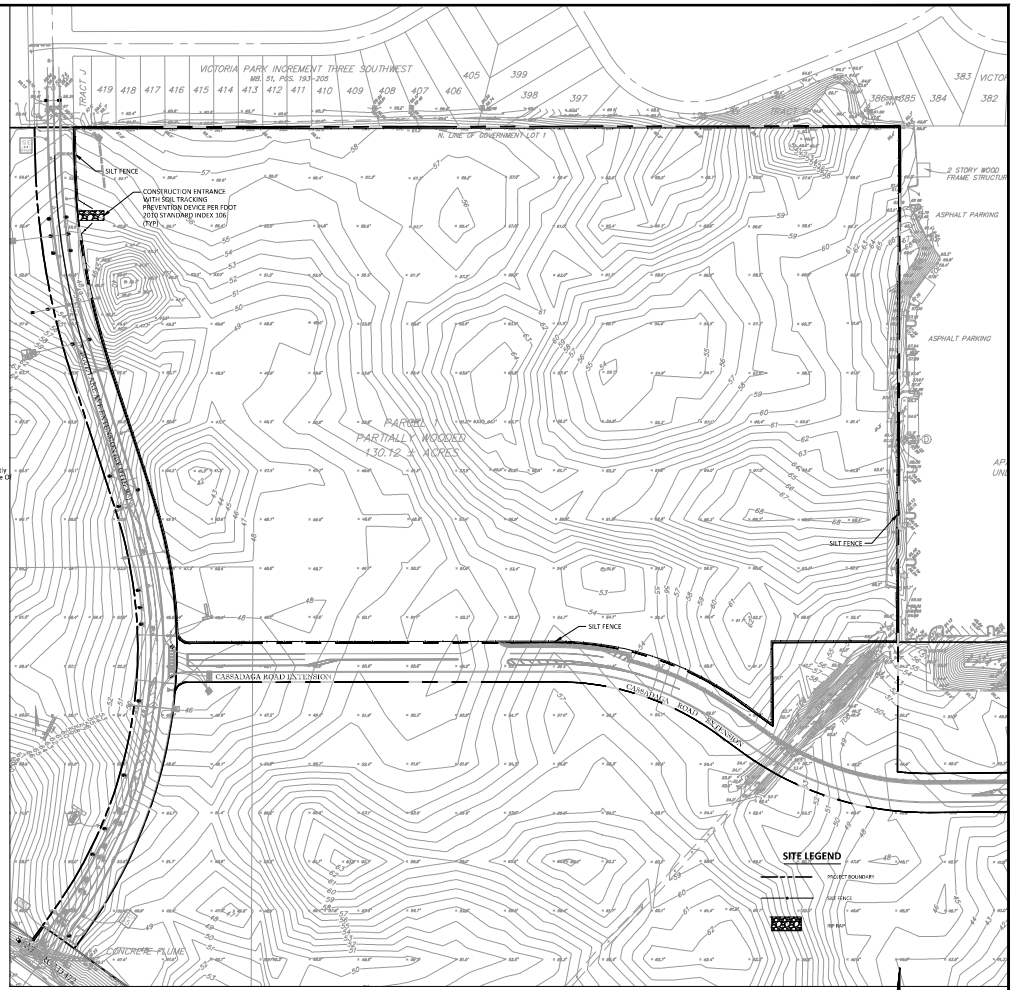


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

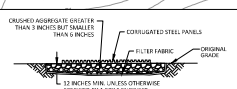


LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

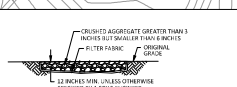
11/27/2023
Planning & Land Development Director



NOTE:
SILT FENCE SHOWN FOR SCHEMATIC PURPOSES ONLY. SILT FENCE SHOULD BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET.

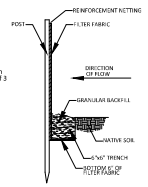


SECTION A-A
NTS

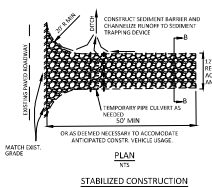


SECTION B-B
NTS

GRAPHIC SCALE
150 0 75 150 300
(IN FEET)
1 inch = 150 ft.

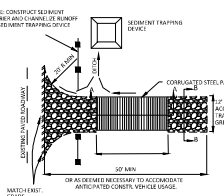


SILT BARRIER DETAIL
N.T.S.



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1)



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 2)

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 27000
FLORIDA REGISTERED ENGINEER
No. 56
STATE OF FLORIDA
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #56956
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1488

REVISION | DATE

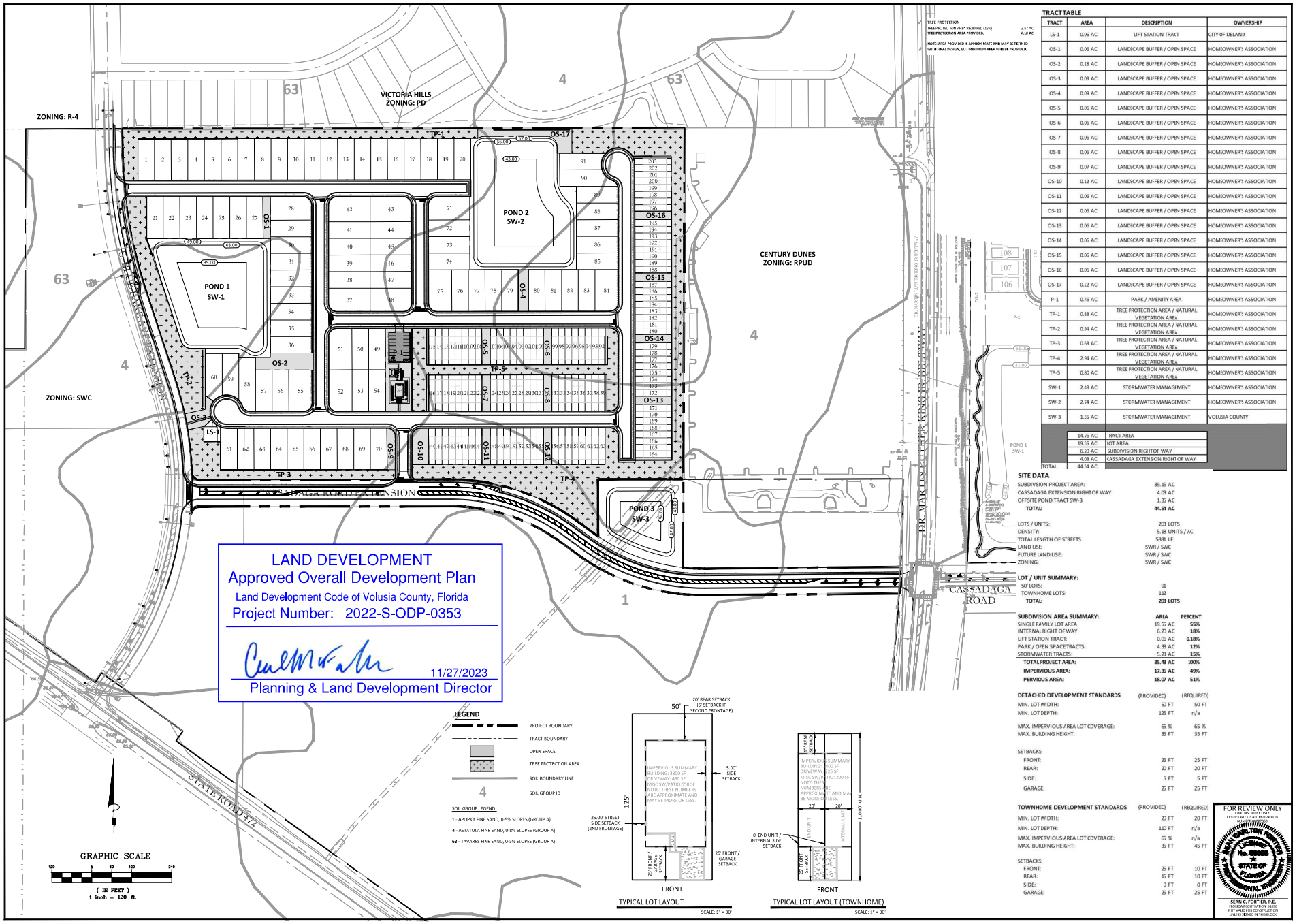
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

EROSION CONTROL & TREE REMOVAL-PROTECTION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
EC-1.0



TREE PROTECTION
TREE PROTECTION REQUIRED (15%) 6.97 AC
TREE PROTECTION AREA PROVIDED: 6.18 AC

NOTE: AREA PROVIDED IS APPROXIMATE AND MAY BE REVISED WITH FINAL DESIGN, BUT MINIMUM AREA WILL BE PROVIDED.

TRACT TABLE

TRACT	AREA	DESCRIPTION	OWNERSHIP
LS-1	0.06 AC	LIFT STATION TRACT	CITY OF DELAND
OS-1	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-2	0.18 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-3	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-4	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-5	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-6	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-7	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-8	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-9	0.07 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-10	0.12 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-11	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-12	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-13	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-14	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-15	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-16	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-17	0.22 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
P-1	0.46 AC	PARK / AMENITY AREA	HOMEOWNER'S ASSOCIATION
TP-1	0.88 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-2	0.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-3	0.63 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-4	2.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-5	0.80 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
SW-1	2.49 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-2	2.74 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-3	1.35 AC	STORMWATER MANAGEMENT	VOLUSIA COUNTY
	14.76 AC	TRACT AREA	
	19.55 AC	LOT AREA	
	6.20 AC	SUBDIVISION RIGHT OF WAY	
	4.03 AC	CASSADAGA EXTENSION RIGHT OF WAY	
TOTAL	44.54 AC		

SITE DATA

SUBDIVISION PROJECT AREA:	39.15 AC
CASSADAGA EXTENSION RIGHT OF WAY:	4.03 AC
OFFSITE POND TRACT SW-3	1.35 AC
TOTAL:	**44.54 AC**
LOTS / UNITS:	208 LOTS
DENSITY:	5.18 UNITS / AC
TOTAL LENGTH OF STREETS	5331 LF
LAND USE:	SWR / SWC
FUTURE LAND USE:	SWR / SWC
ZONING:	SWR / SWC

LOT / UNIT SUMMARY:

50' LOTS:	96
TOWNHOME LOTS:	112
TOTAL:	**208 LOTS**

SUBDIVISION AREA SUMMARY:	AREA	PERCENT
SINGLE FAMILY LOT AREA	19.55 AC	55%
INTERNAL RIGHT OF WAY	6.20 AC	18%
LIFT STATION TRACT:	0.06 AC	0.18%
PARK / OPEN SPACE TRACTS:	4.38 AC	12%
STORMWATER TRACTS:	5.23 AC	15%
TOTAL PROJECT AREA:	**35.43 AC**	**100%**
IMPERVIOUS AREA:	**17.35 AC**	**49%**
PERVIOUS AREA:	**18.07 AC**	**51%**

DETACHED DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	50 FT	50 FT
MIN. LOT DEPTH:	125 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	65 %
MAX. BUILDING HEIGHT:	35 FT	35 FT
SETBACKS:		
FRONT:	25 FT	25 FT
REAR:	20 FT	20 FT
SIDE:	5 FT	5 FT
GARAGE:	25 FT	25 FT

TOWNHOME DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	20 FT	20 FT
MIN. LOT DEPTH:	110 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	n/a
MAX. BUILDING HEIGHT:	35 FT	45 FT
SETBACKS:		
FRONT:	25 FT	10 FT
REAR:	15 FT	10 FT
SIDE:	0 FT	0 FT
GARAGE:	25 FT	25 FT

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CERTIFICATE OF AUTHORIZATION
NUMBER 30013
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #65936
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KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1488

REVISION
DATE

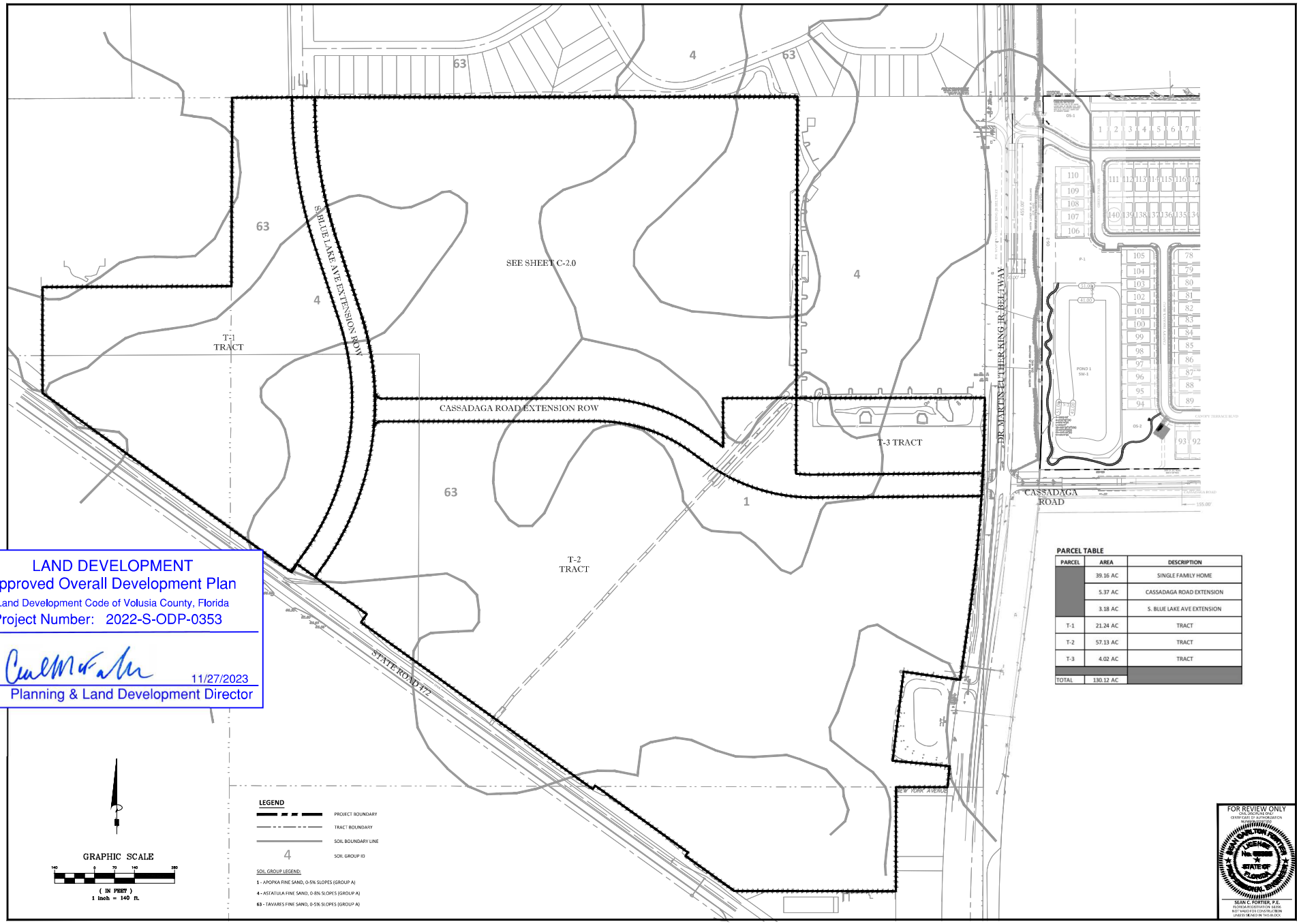
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

OVERALL PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-2.0



LAND DEVELOPMENT
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Land Development Code of Volusia County, Florida
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11/27/2023
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PARCEL TABLE

PARCEL	AREA	DESCRIPTION
	39.16 AC	SINGLE FAMILY HOME
	5.37 AC	CASSADAGA ROAD EXTENSION
	3.18 AC	S. BLUE LAKE AVE EXTENSION
T-1	21.24 AC	TRACT
T-2	57.13 AC	TRACT
T-3	4.02 AC	TRACT
TOTAL	130.12 AC	

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DATE	REVISION

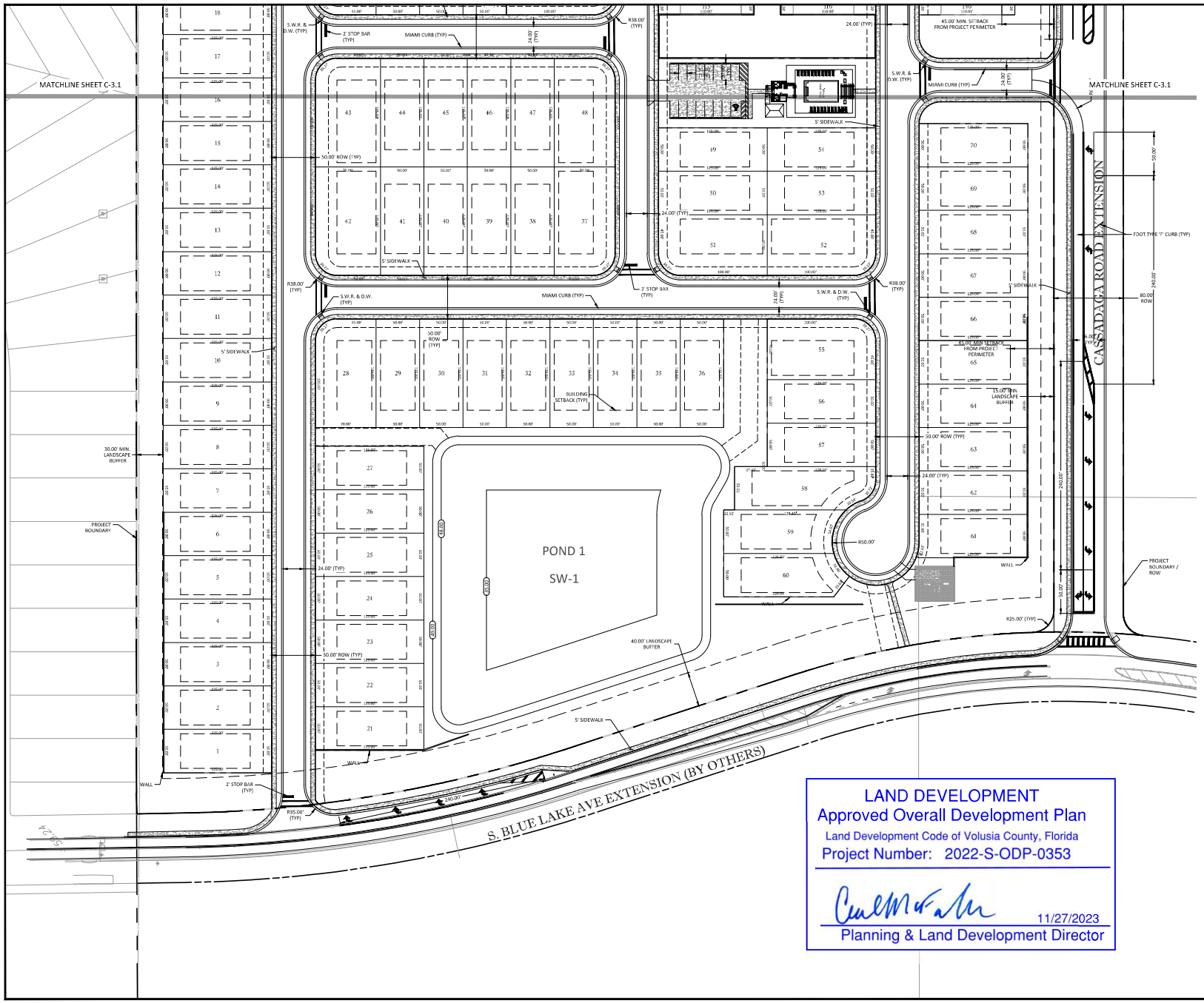
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

OVERALL PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-2.1



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ORLANDO, FLORIDA 32804
(407) 586-1700 FAX (407) 896-1486

REVISION
DATE

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-3.0

LAND DEVELOPMENT
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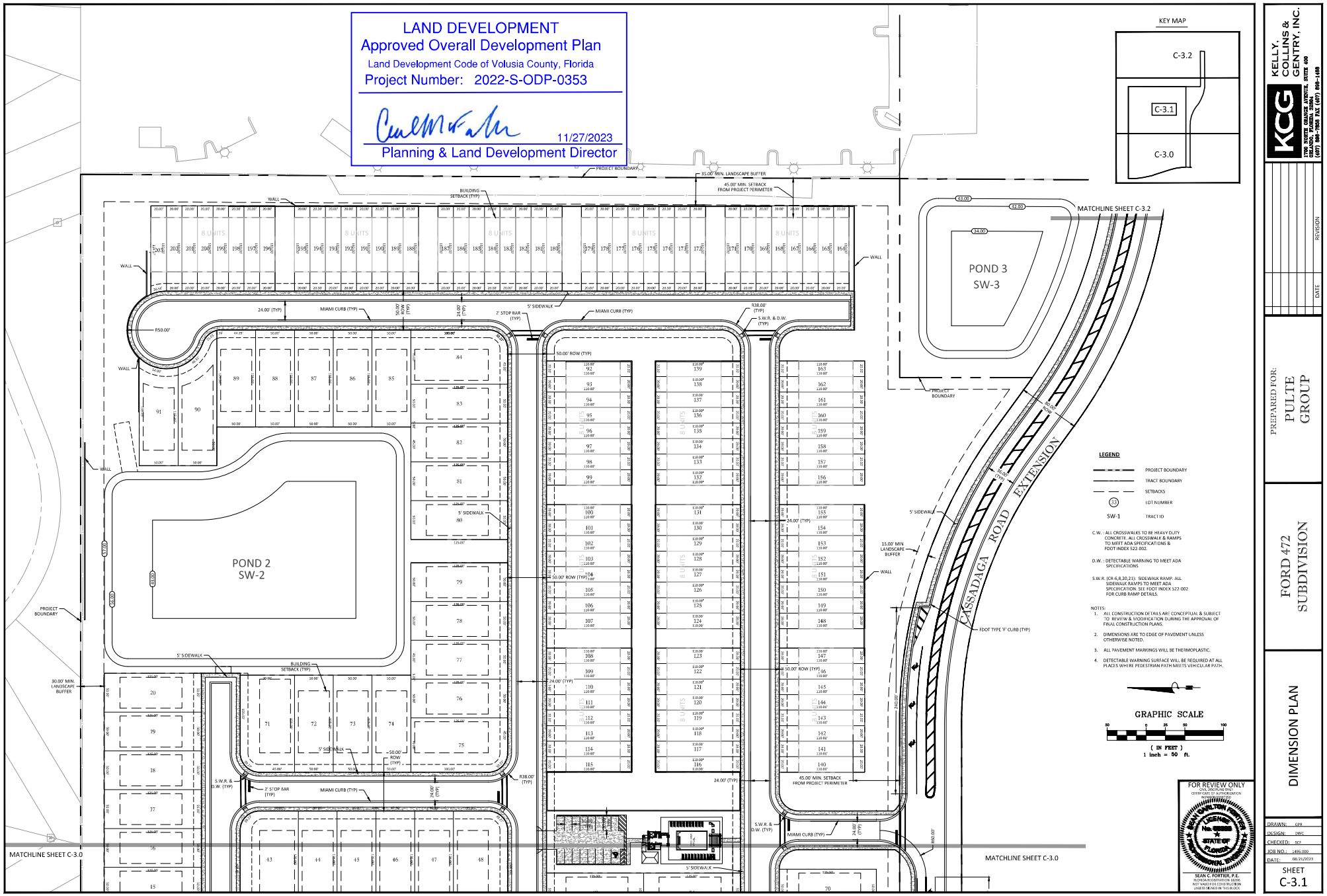
Planning & Land Development Director



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ORLANDO, FLORIDA 32804
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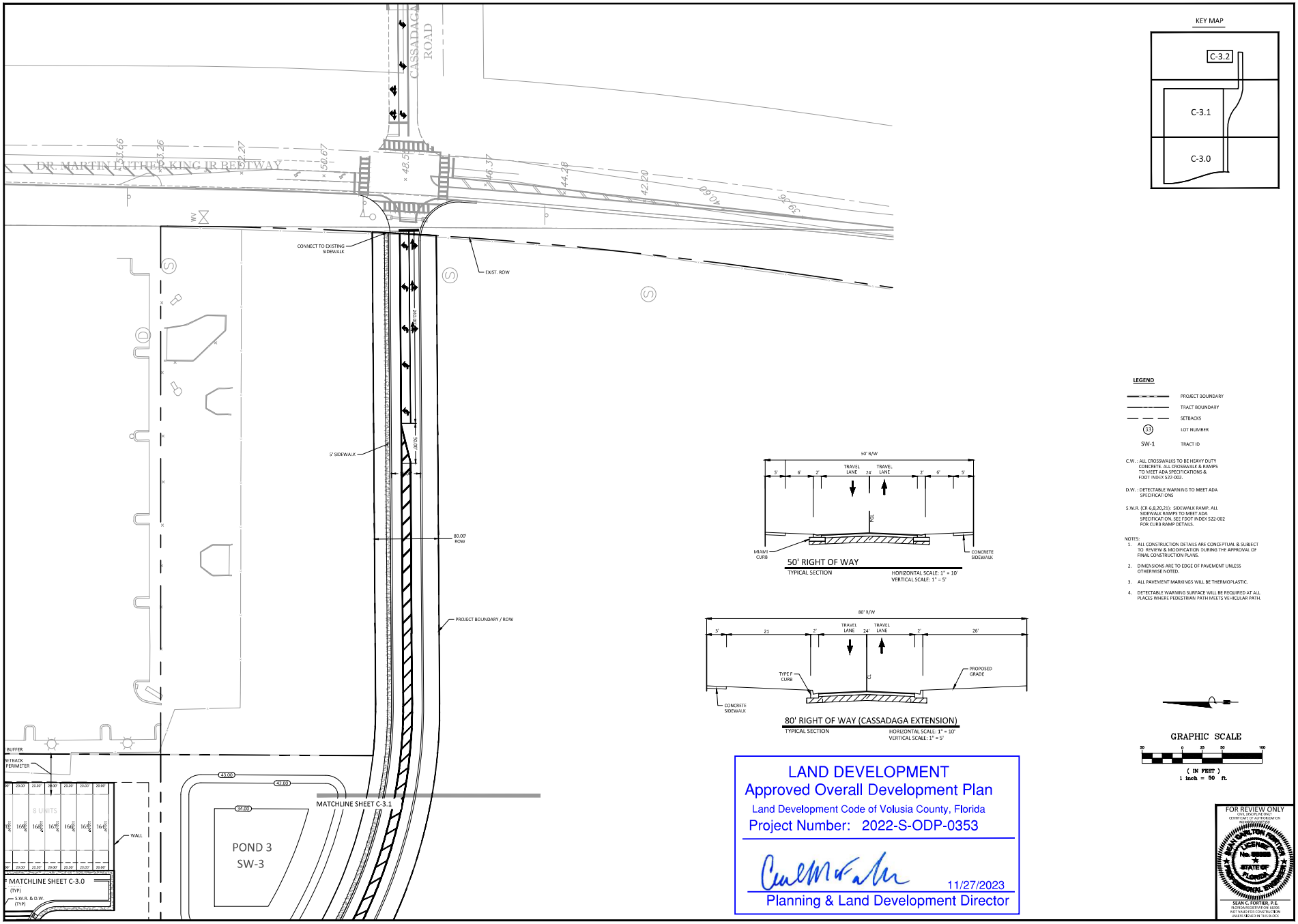
DATE

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023
SHEET
C-3.1



KEY MAP

50' RIGHT OF WAY
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

80' RIGHT OF WAY (CASSADAGA EXTENSION)
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

LEGEND

- PROJECT BOUNDARY
- TRACT BOUNDARY
- SETBACKS
- (33) LOT NUMBER
- SW-1 TRACT ID

C.W. : ALL CROSSWALKS TO BE HEAVY DUTY CONCRETE. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

D.W. : DETECTABLE WARNING TO MEET ADA SPECIFICATIONS

S.W.R. (CR-6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522-002 FOR CURB RAMP DETAILS.

NOTES:
1. ALL CONSTRUCTION DETAILS ARE CONCEPTUAL & SUBJECT TO REVIEW & MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.
2. DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. ALL PAVEMENT MARKINGS WILL BE THERMOPLASTIC.
4. DETECTABLE WARNING SURFACE WILL BE REQUIRED AT ALL PLACES WHERE PEDESTRIAN PATH MEETS VEHICULAR PATH.

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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11/27/2023
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CERTIFICATE OF AUTHORIZATION NUMBER 35169
SEAN C. FORTIER
LICENSE No. 93868
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #93868
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
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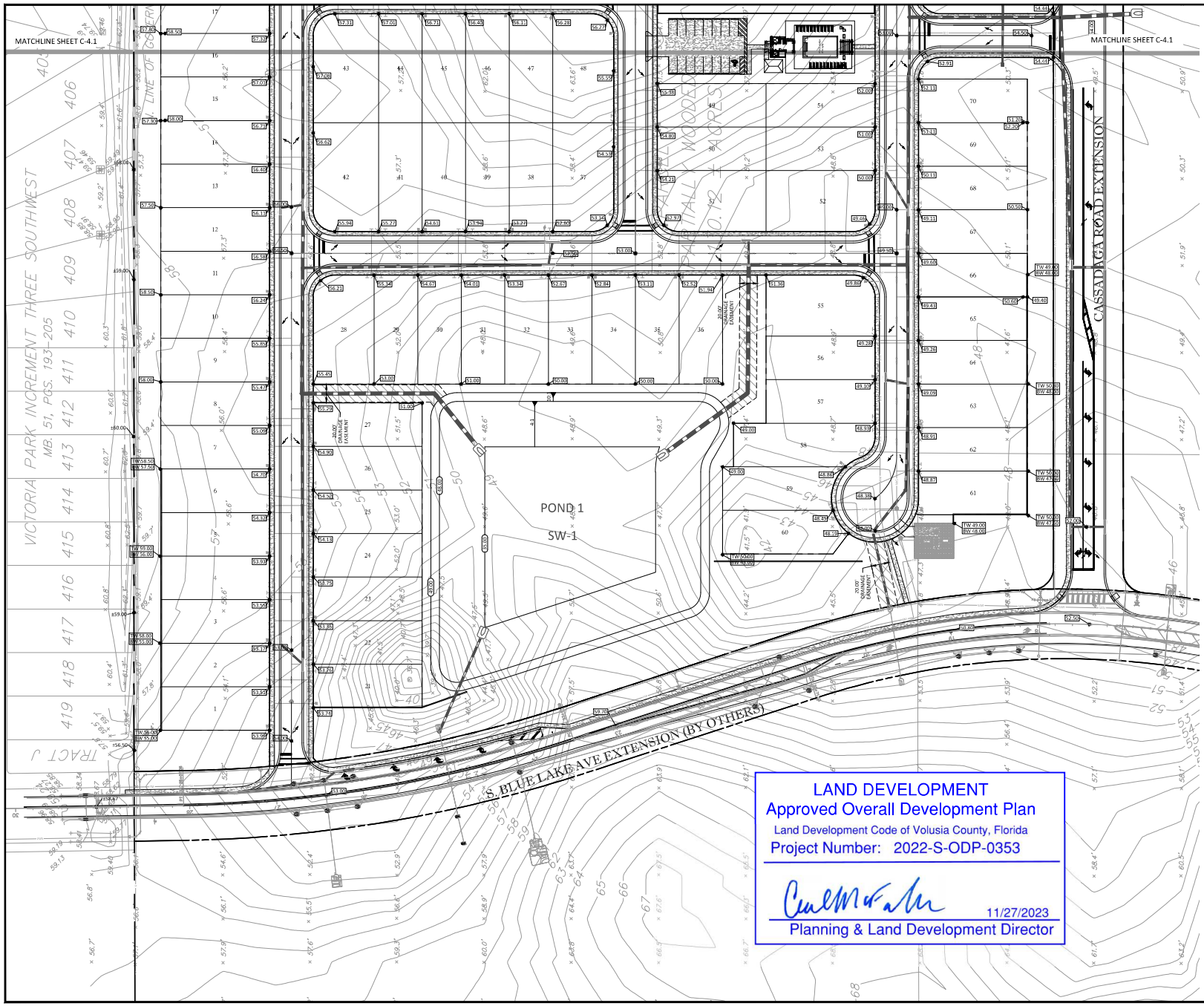
FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-3.2



LAND DEVELOPMENT
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11/27/2023
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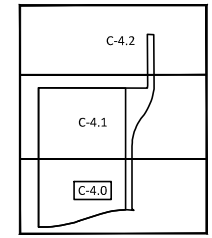
KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- 71 PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
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GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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CERTIFICATE OF AUTHORIZATION
NO. 00000000
LICENSED
No. 00000
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68395
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KCG
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DATE	REVISION

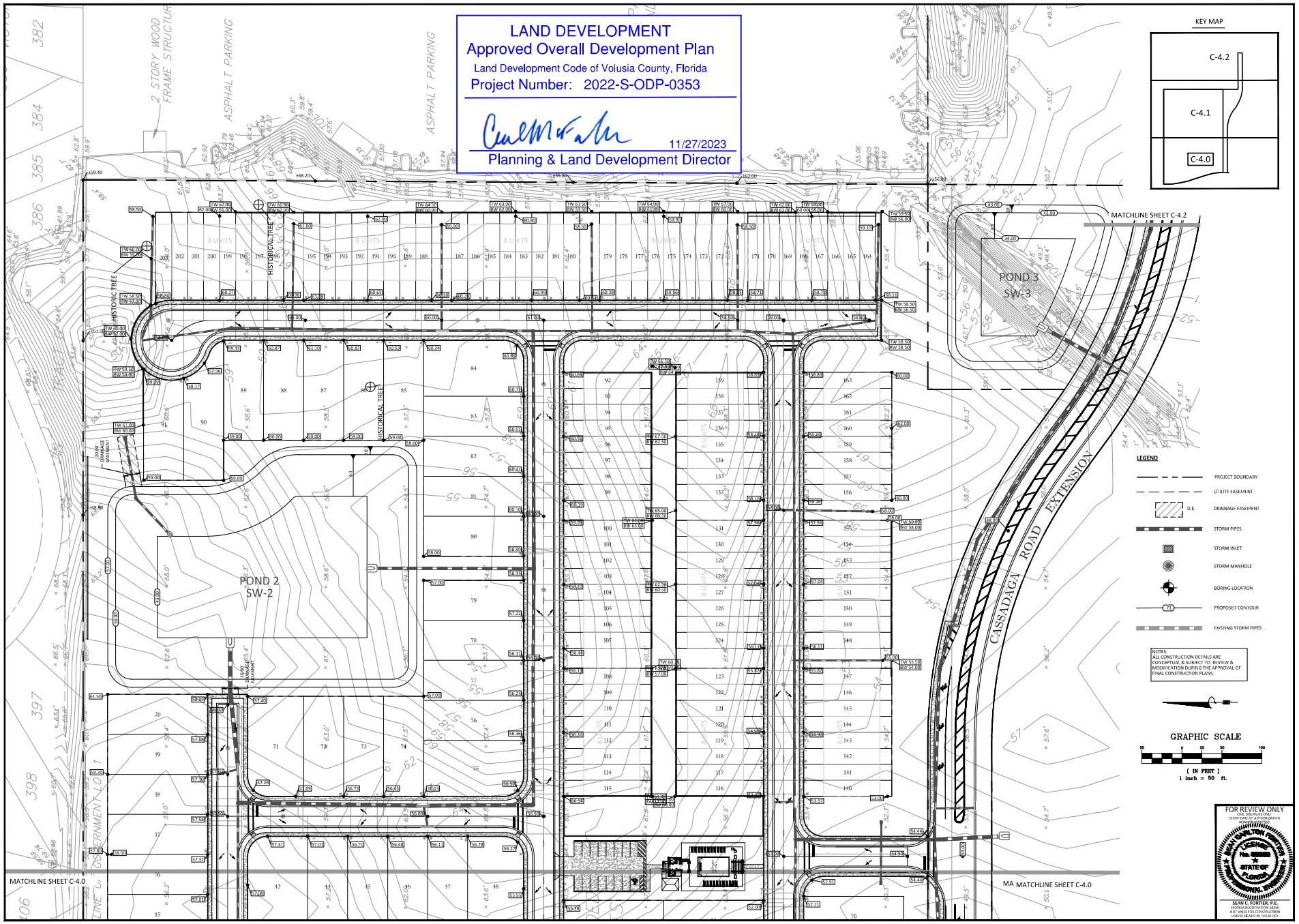
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

PAVING, GRADING, & DRAINAGE PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-4.0



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REVISION
DATE

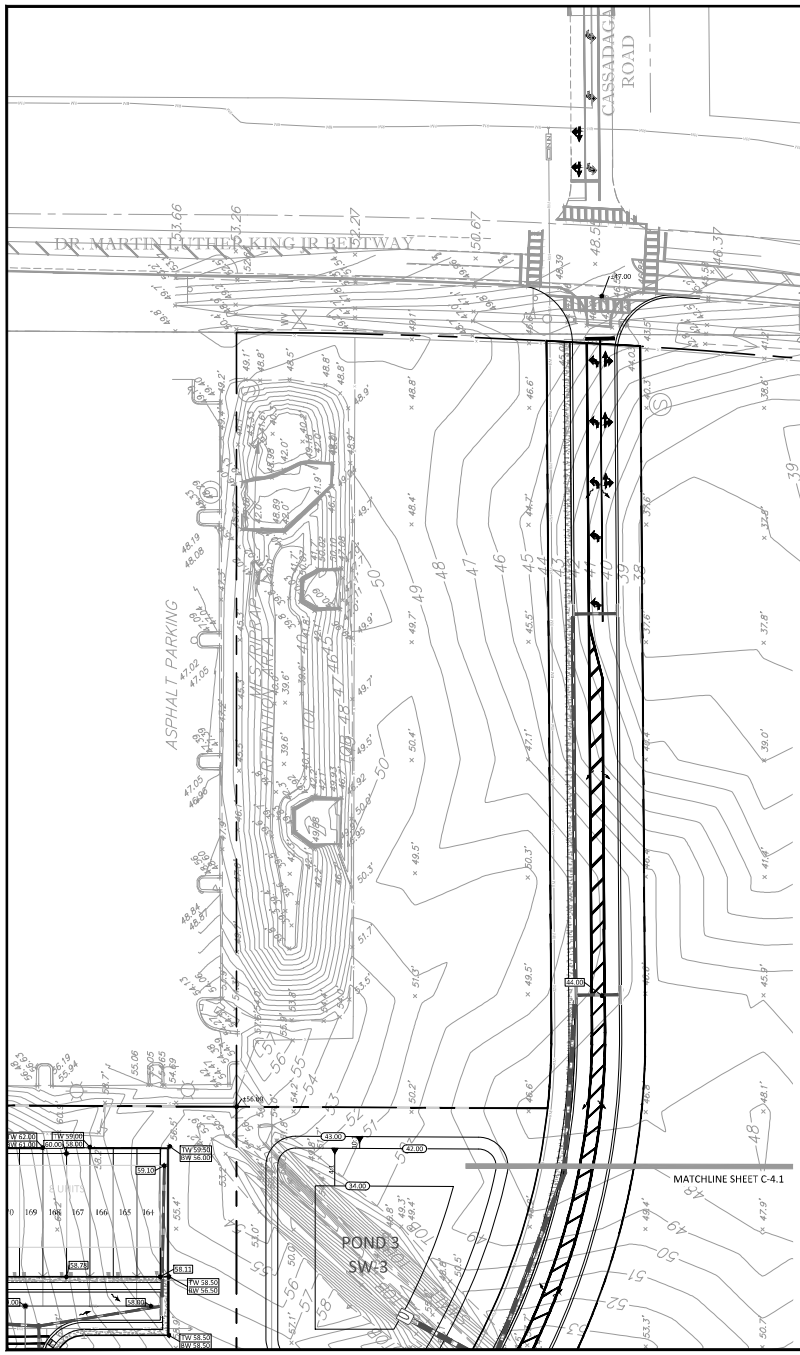
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

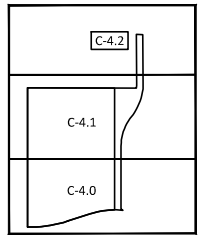
PAVING, GRADING, & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1490.000
DATE: 08/21/2023

SHEET
C-4.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- 73 PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
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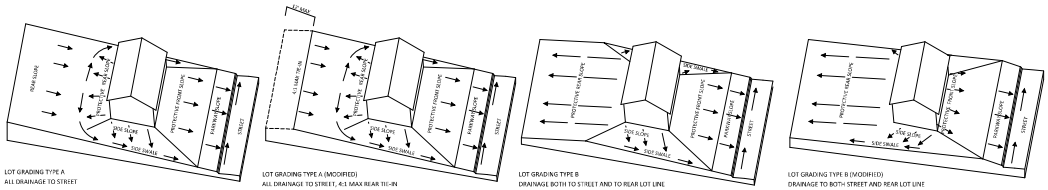

NOTE: REAR YARDS TO BE GRADED AT 10:1 MAX. A STEEPER TIE-IN SLOPE OF 4:1 MAY BE USED WITHIN 12' OF REAR PROPERTY LINE ONLY.

LOT GRADING DETAILS

NTS

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Planning & Land Development Director

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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#0000030

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PREPARED FOR:
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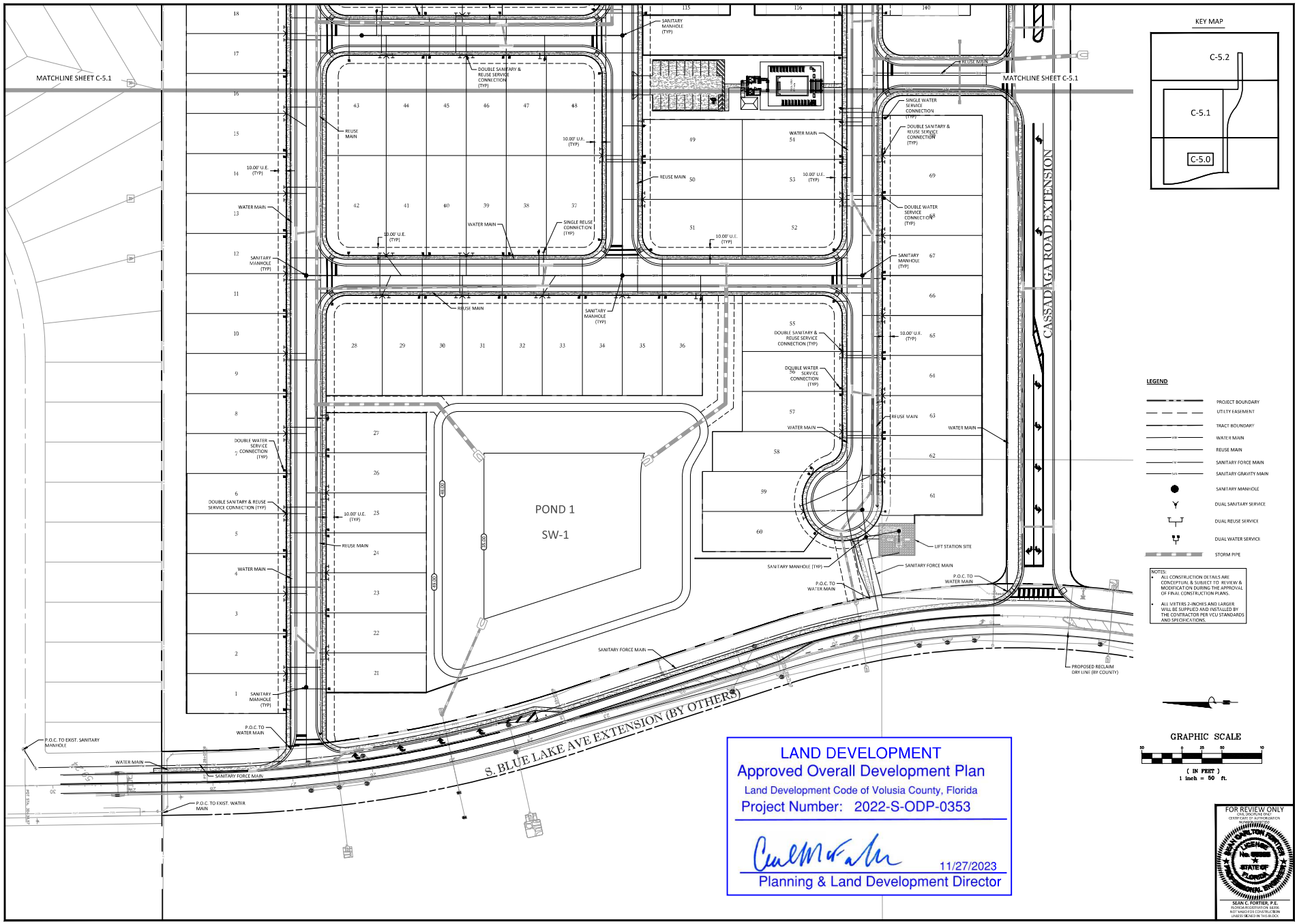
FORD 472 SUBDIVISION

PAVING, GRADING & DRAINAGE PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-4.2



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SUBDIVISION

UTILITY PLAN

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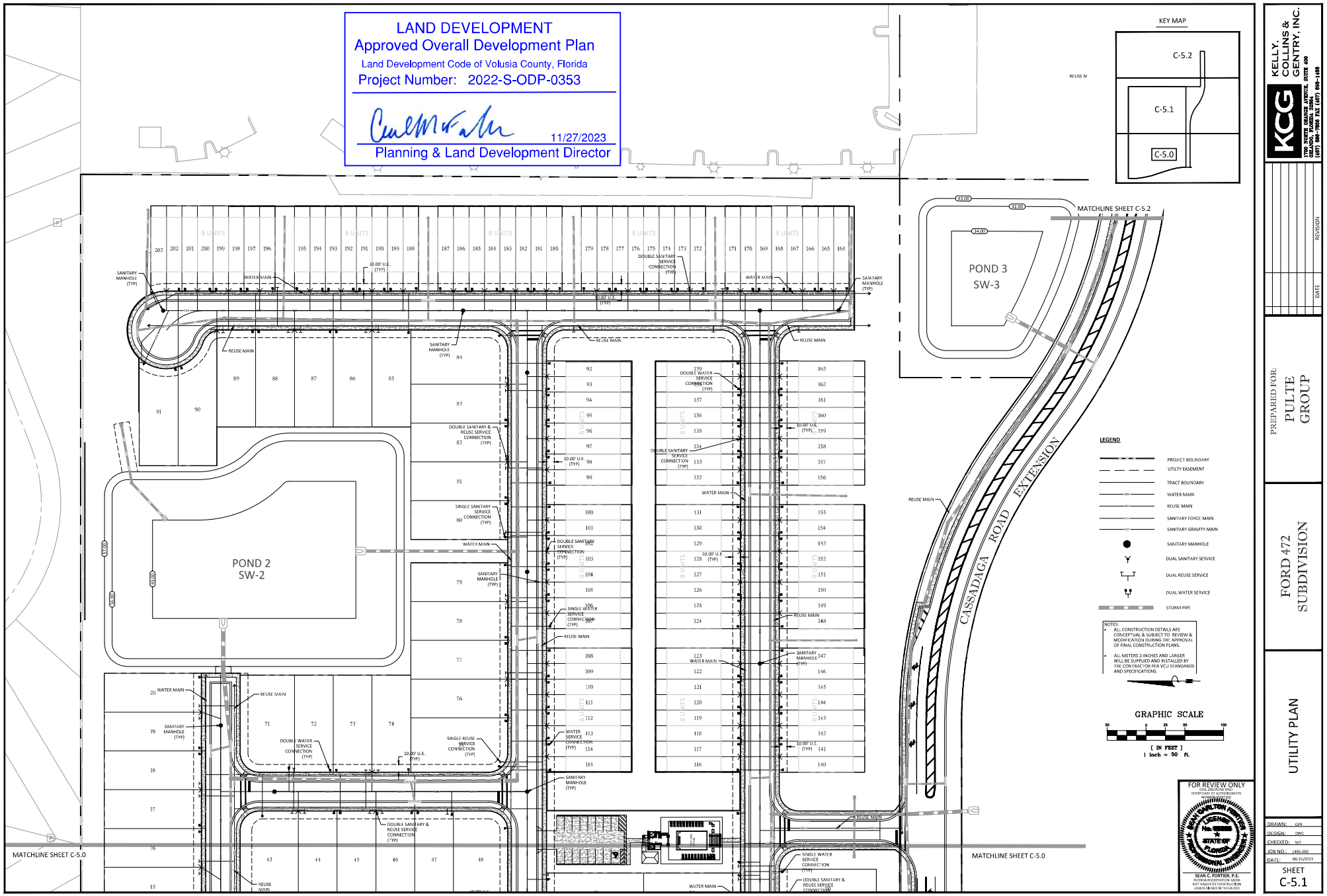
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-5.0


LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353
11/27/2023
Planning & Land Development Director
KEY MAP
C-5.2
C-5.1
C-5.0
POND 2
SW-2
POND 3
SW-3
CASSADAGA ROAD EXTENSION
MATCHLINE SHEET C-5.2
MATCHLINE SHEET C-5.0
LEGEND
PROJECT BOUNDARY
UTILTY EASEMENT
TRACT BOUNDARY
WATER MAIN
REUSE MAIN
SANITARY FORCE MAIN
SANITARY GRAVITY MAIN
SANITARY MANHOLE
DUAL SANITARY SERVICE
DUAL REUSE SERVICE
DUAL WATER SERVICE
STORM PIPE
NOTES:
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ALL METERS 2-INCHES AND LARGER WILL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR PER VCU STANDARDS AND SPECIFICATIONS.
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
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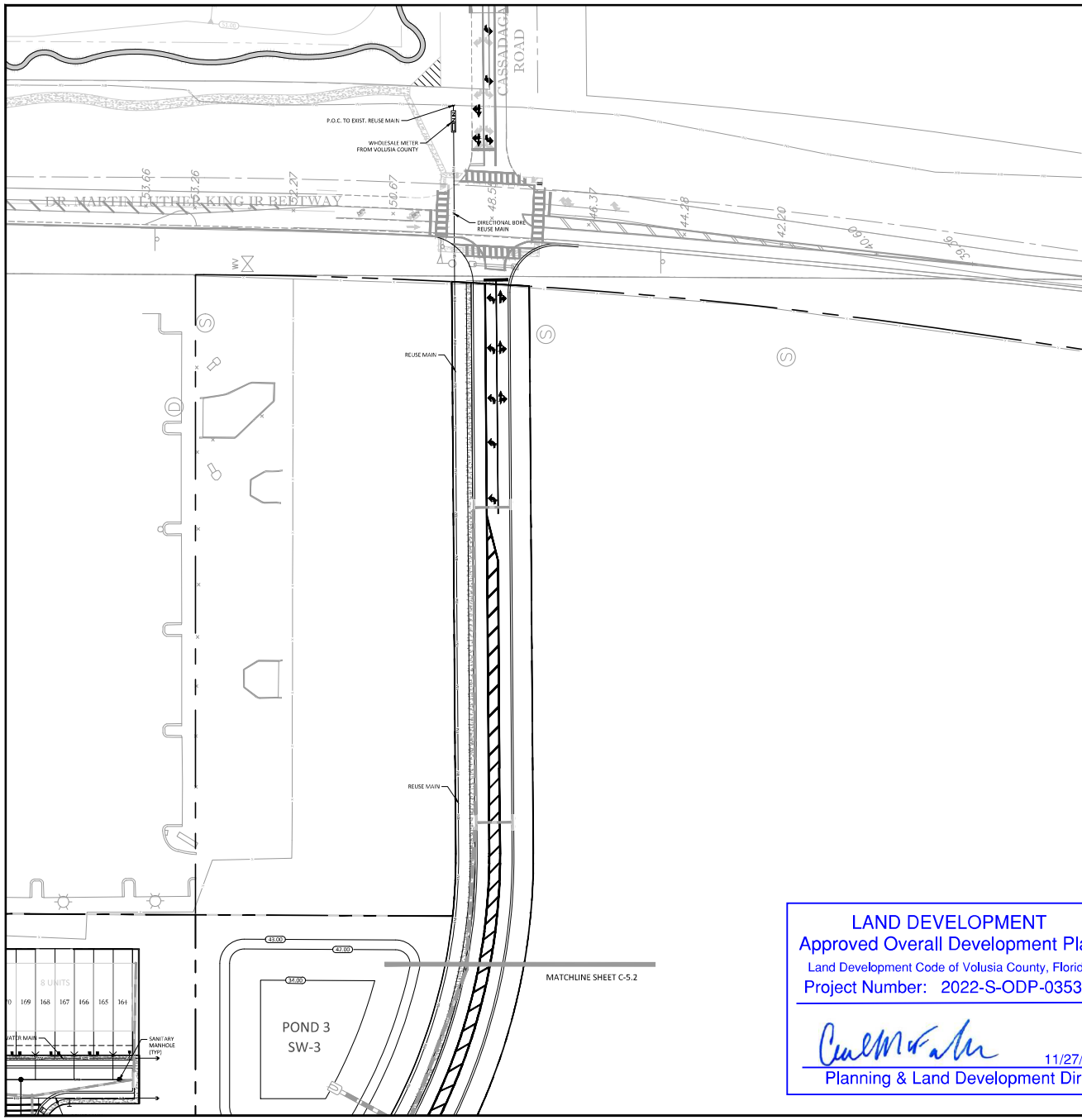
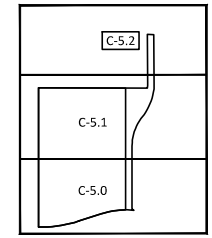
SEAN C. FORTIER, P.E.
KELLY, COLLINS & GENTRY, INC.
PREPARED FOR:
PULTE GROUP
FORD 472 SUBDIVISION
UTILITY PLAN
DRAWN:
DESIGN:
CHECKED:
JOB NO.:
DATE:
SHEET
C-5.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILTY EASEMENT
- TRACT BOUNDARY
- WATER MAIN
- REUSE MAIN
- SANITARY FORCE MAIN
- SANITARY GRAVITY MAIN
- SANITARY MANHOLE
- DUAL SANITARY SERVICE
- DUAL REUSE SERVICE
- DUAL WATER SERVICE
- STORM PIPE

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GRAPHIC SCALE

50 0 25 50 100

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1 inch = 50 ft.

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SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68356
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KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

UTILITY PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-5.2

6.3. Access Road. In the event a governmental authority requires, or Buyer desires, an access road (the "**Access Road**") connecting the Property to Dr. Martin Luther King, Jr. Boulevard, Seller agrees to dedicate or (at Seller's option) grant the easement or right of way necessary to satisfy such requirements across property Seller owns or controls, located to the east of the Property. Seller agrees to provide the easement or right of way at no additional cost to Buyer, and Buyer agrees to design, permit

and construct, at Buyer's expense, the necessary road, utilities and improvements related to the Access Road as provided in the Development Permits. Buyer and Seller will work together in good faith to determine the exact location, dimensions, terms and conditions of the Access Road to be documented by written agreement of the parties prior to the expiration of the Inspection Period, to the extent it is a requirement. Seller's obligation under this section are conditioned upon the parties agreeing to and entering into such written agreement and agreeing upon the design, plans and specifications of the Access Road.

Single-Family Detached Housing
(210)

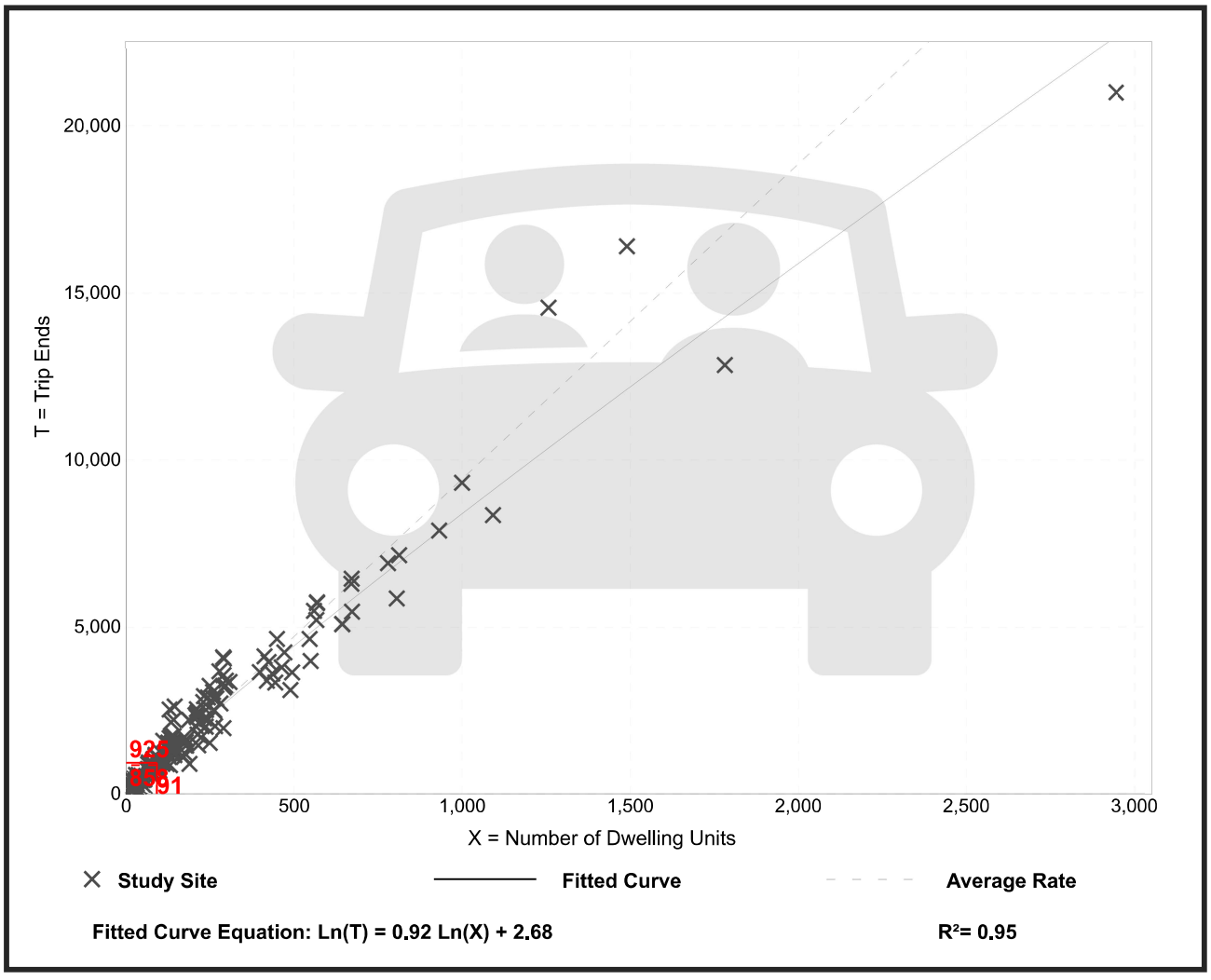
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



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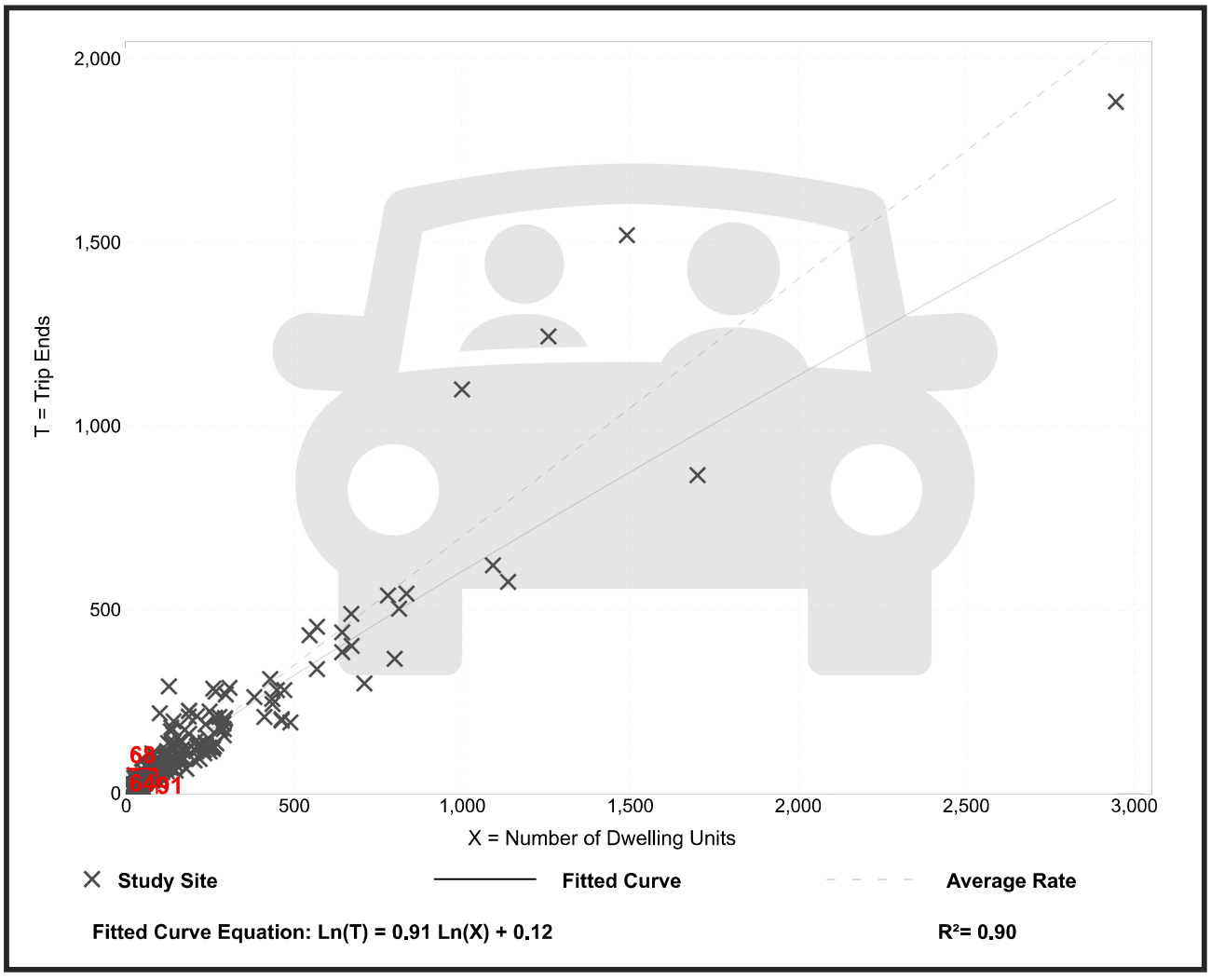
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	192
Avg. Num. of Dwelling Units:	226
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



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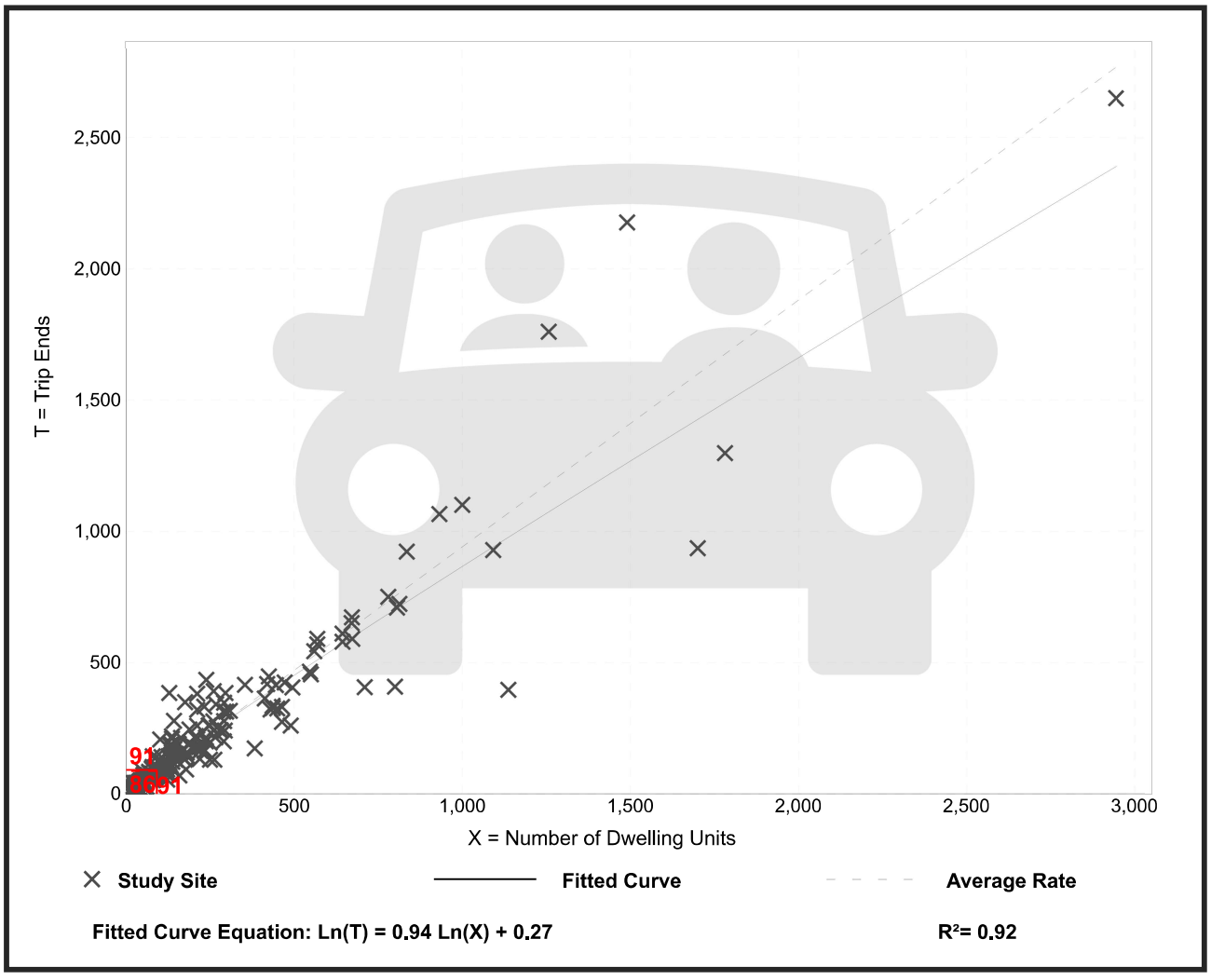
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



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Single-Family Attached Housing
(215)

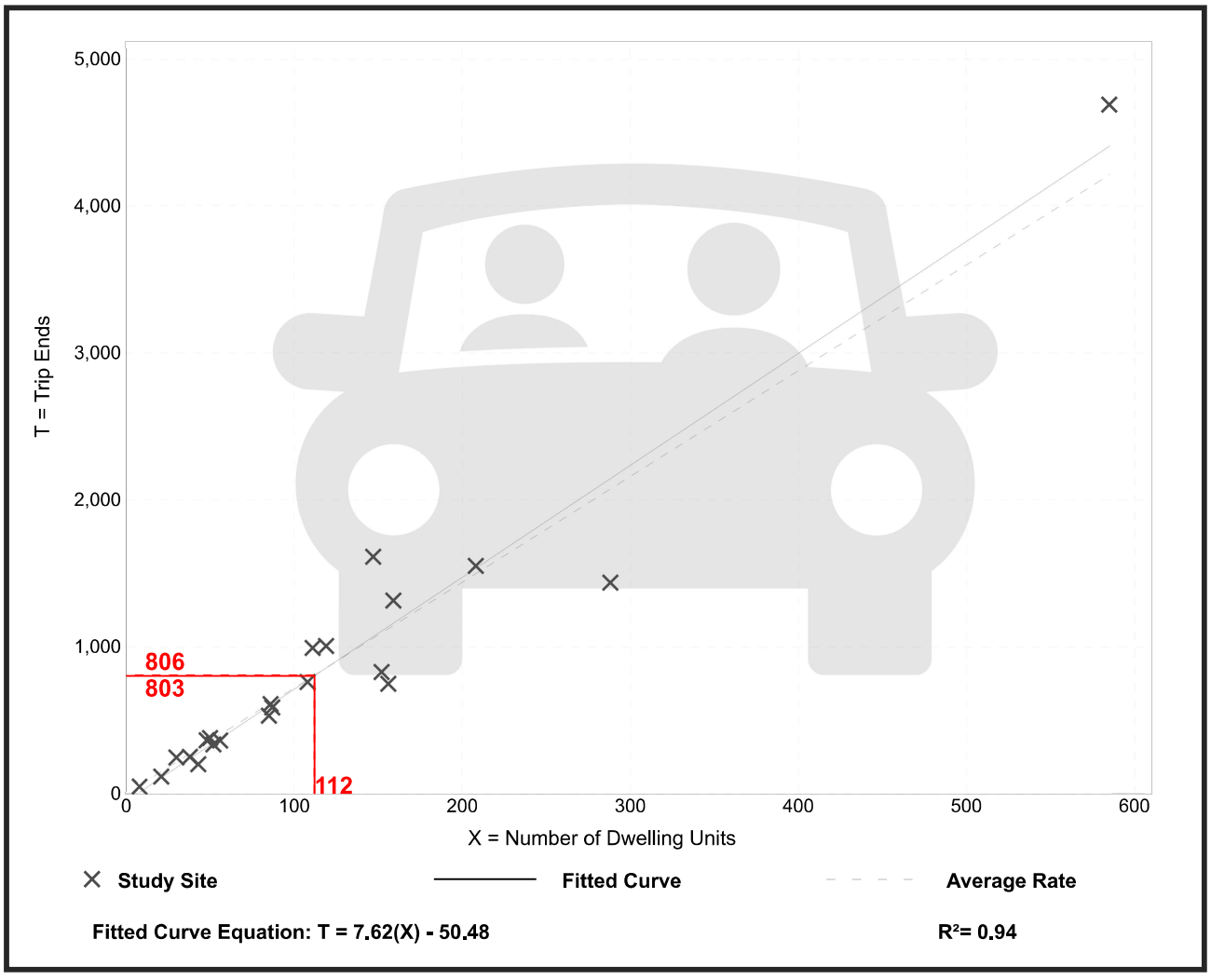
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



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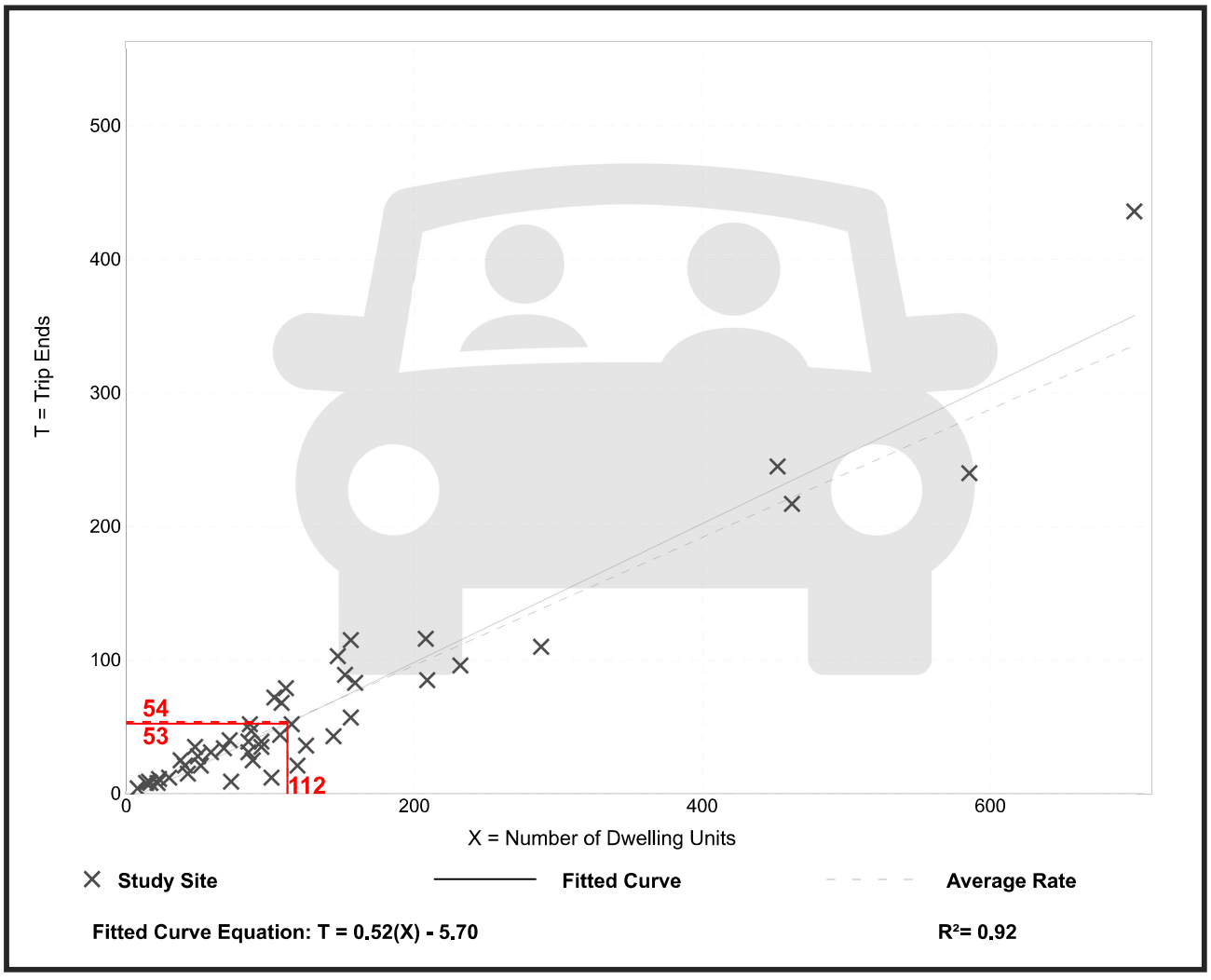
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	46
Avg. Num. of Dwelling Units:	135
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



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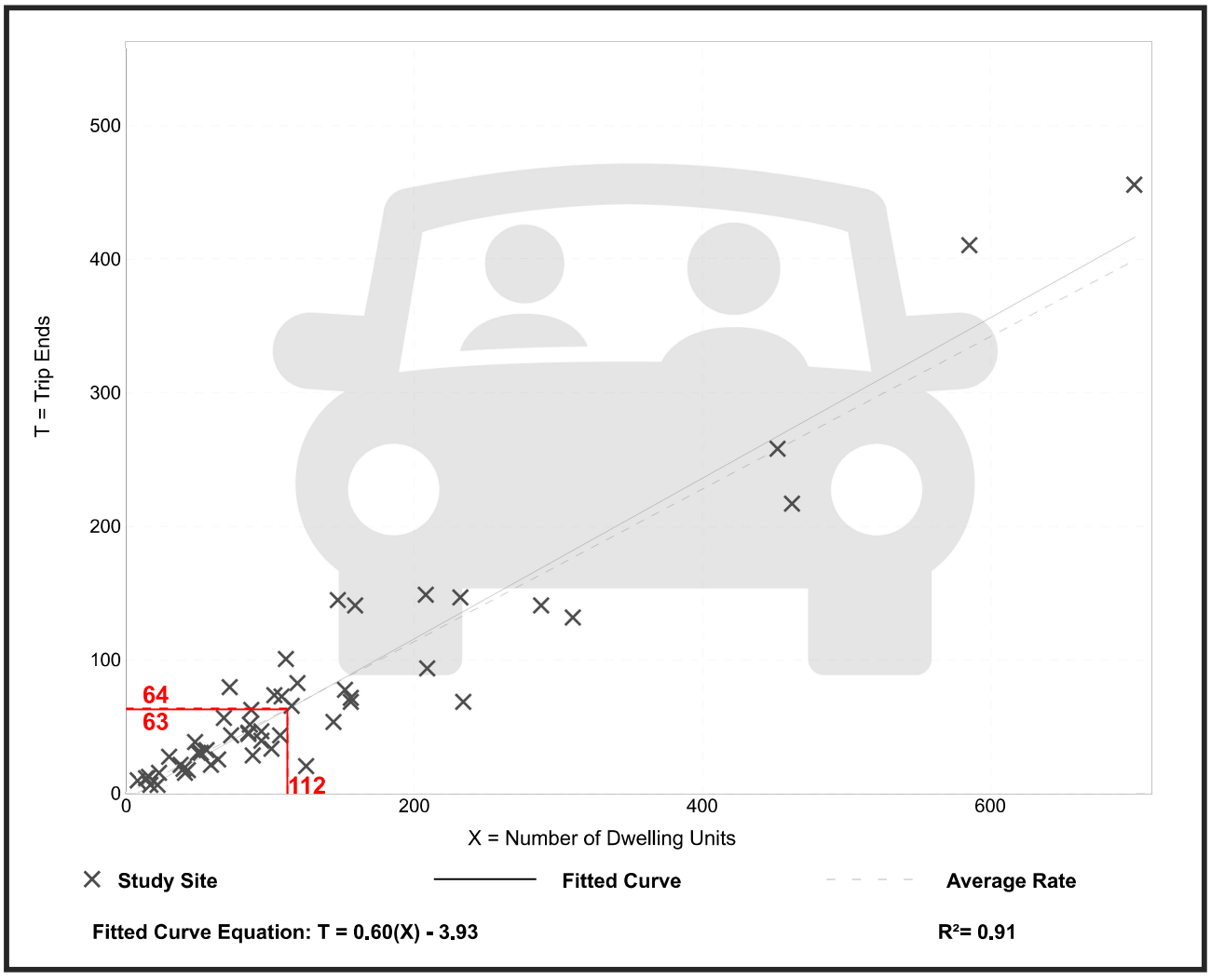
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



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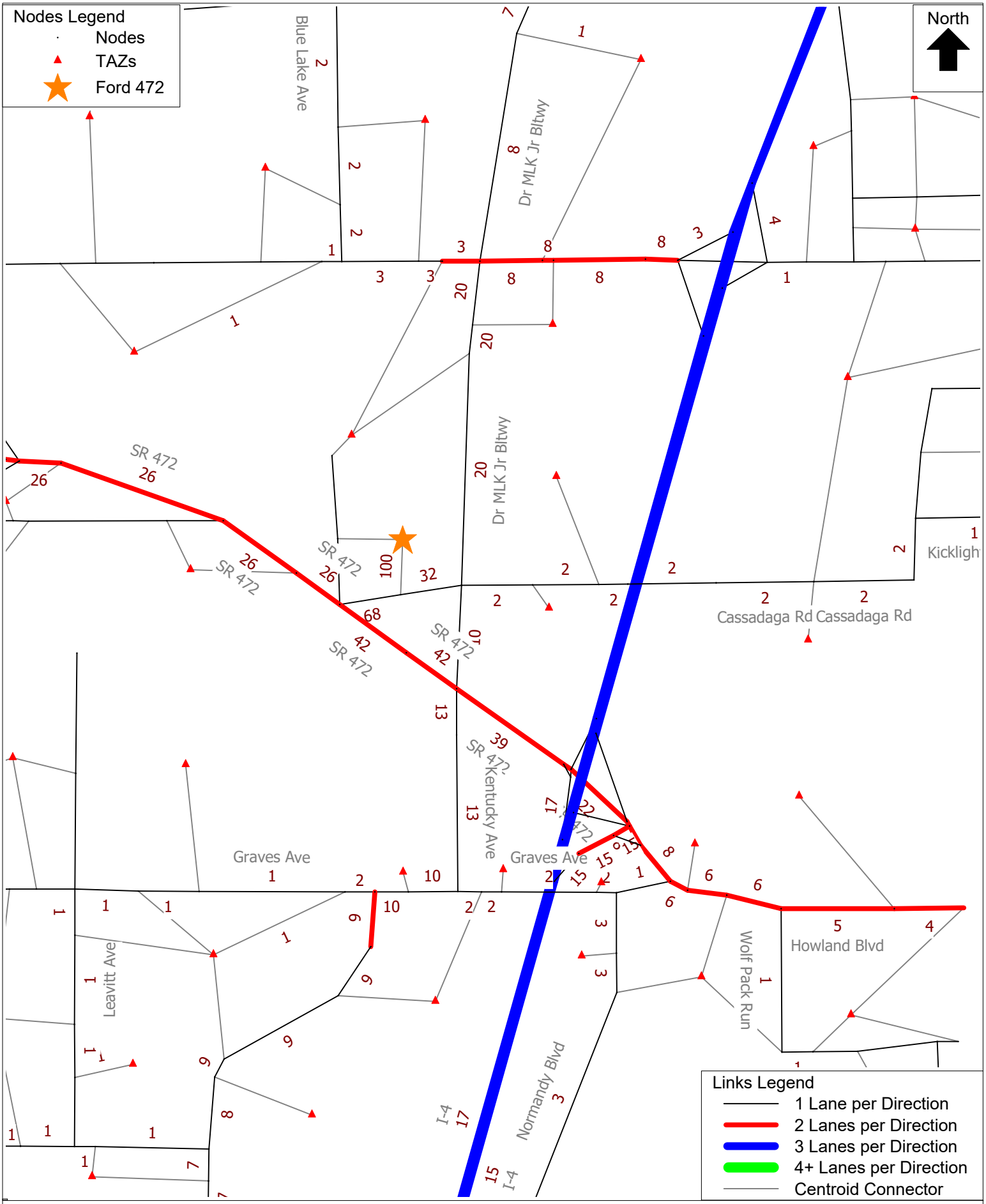

CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
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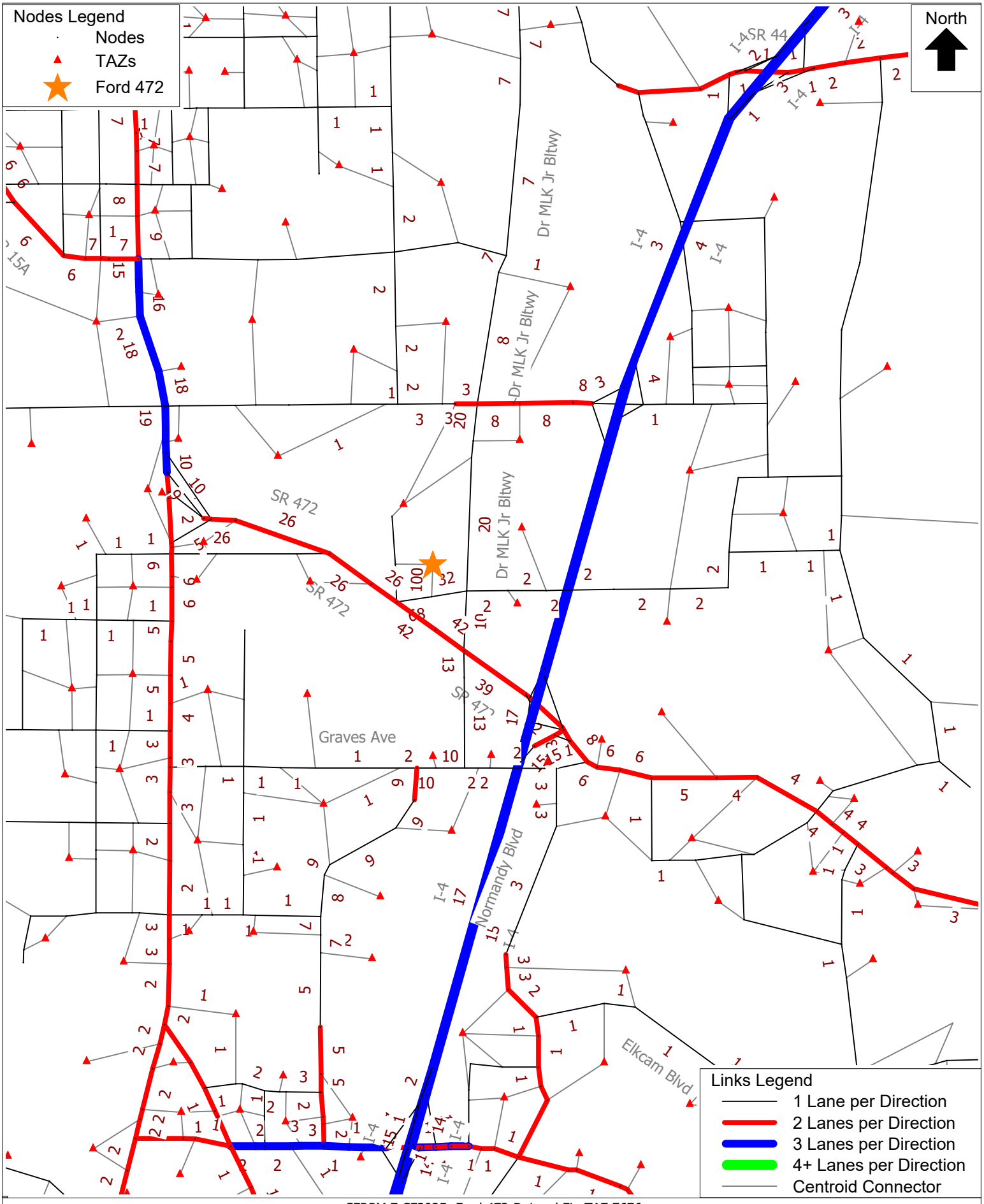

CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
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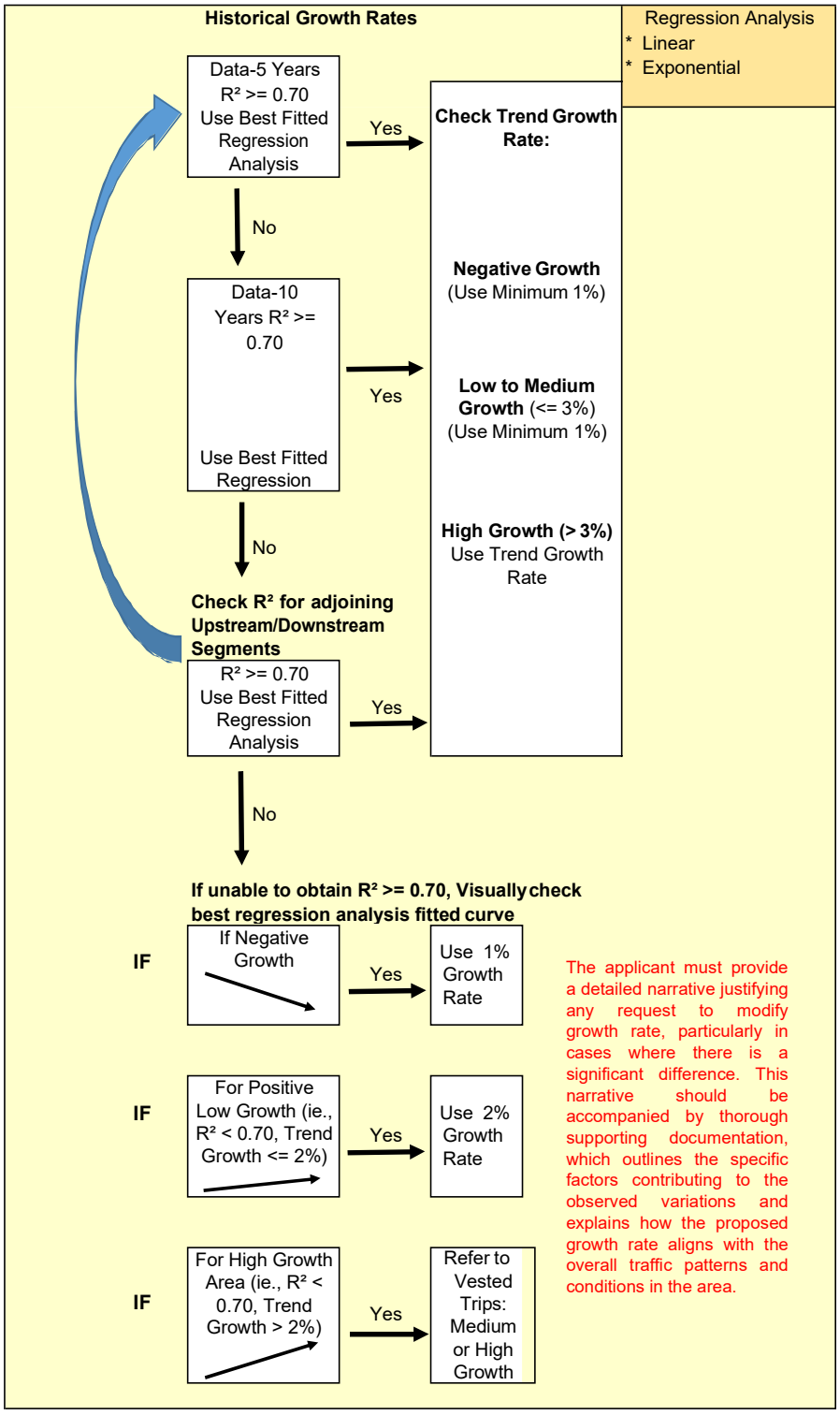
Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed	2020 QLOS Facility Type	2010 Federal Functional Classification	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	EST 2021 AADT	VC 2021 Allowable LOS	DAILY 2021 LOS Capacity	DAILY V/C Ratio	DAILY LOS	EST 2021 AM Peak	EST 2021 PM Peak	PEAK 2Way 2021 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	F_Type_20	Fun_Class_2010	AADT_11	AADT_12	AADT_13	AADT_14	AADT_15	AADT_16	AADT_17	AADT_18	AADT_19	AADT_20	AADT_21	VCA_LOS_21	Cap_21	VCRatio_20	LOS_20	AMPKHR_2	PMPKHR_2	2W_Cap_21	Lanes_20
I-4	Seminole Co. to Dirksen Dr.	484	FDOT	Yes	3.58	65	UA_FWIS_6L	Principal Arterial - Interstate - Urban	102,500	106,500	108,000	110,000	113,000	110,000	112,000	114,000	111,000	104,000		D	113,600	0.92	D			10,510	6
I-4	Dirksen Dr. to Saxon Blvd.	484	FDOT	Yes	2.79	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	93,600	93,900	96,400	99,800	106,510	108,000	-	112,700	111,000	104,000		D	113,600	0.92	D			10,510	6
I-4	Saxon Blvd. to SR 472	1003	FDOT	Yes	3.15	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	79,500	88,000	88,500	89,500	92,500	90,000	92,000	94,000	99,000	93,000		D	113,600	0.82	C			10,510	6
I-4	SR 472 to Orange Camp Rd.	485	FDOT	Yes	2.12	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	70,500	77,500	77,000	78,000	80,500	71,000	72,500	74,000	82,000	77,000		D	113,600	0.68	C			10,510	6
I-4	Orange Camp Rd. to SR 44	497	FDOT	Yes	2.56	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	62,000	55,500	60,500	65,500	71,500	74,500	77,000	79,000	80,000	78,000		D	113,600	0.69	C			10,510	6
I-4	SR 44 to US 92 Connector	486	FDOT	Yes	10.31	70	UA_FWIS_6L	Principal Arterial - Interstate - Rural	54,000	55,000	55,000	56,000	57,000	58,000	65,500	65,500	66,500	59,500		C	93,900	0.63	B			8,450	6
I-4	US 92 Connector to I-95	491	FDOT	Yes	3.52	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	43,000	40,000	40,000	41,000	41,500	42,000	46,000	47,000	48,000	51,000		D	113,600	0.45	B			10,510	6
I-95	Brevard Co. to SR 442/Indian River Blvd.	0436-B	FDOT	Yes	11.45	70	RUA_FW_6L	Principal Arterial - Interstate - Urban/Rural	30,500	30,000	26,500	27,500	36,000	29,000	29,000	30,500	33,000	32,000		C	69,000	0.46	B			7,250	6
I-95	SR 442/Indian River Blvd. to SR 44	503	FDOT	Yes	4.84	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	31,000	31,000	32,500	35,000	36,000	46,500	41,500	42,500	47,000	46,000		D	113,600	0.40	B			10,510	6
I-95	SR 44 to SR 421/Dunlawton Ave.	133	FDOT	Yes	6.99	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	36,600	36,900	36,600	37,700	37,000	40,700	-	-	24,000	43,000		D	113,600	0.38	B			10,510	6
I-95	SR 421/Dunlawton Ave. to I-4/SR 400/Beville	494	FDOT	Yes	4.57	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	44,500	42,500	45,000	46,500	47,500	49,500	51,500	-	68,000	74,500		D	113,600	0.66	C			10,510	6
I-95	I-4/SR 400/Beville Rd. to US 92/ISB	494	FDOT	Yes	1.26	65	UA_FWIS_6L + AUX	Principal Arterial - Interstate - Urban	74,500	71,500	71,500	75,500	77,000	66,500	62,500	66,500	68,000	74,500		D	113,600	0.66	C			10,510	6
I-95	US 92/ISB to LPGA Blvd.	494	FDOT	Yes	3.56	65	UA_FWIS_6L	Principal Arterial - Interstate - Urban	74,500	71,500	71,500	75,500	77,000	66,500	62,500	66,500	68,000	74,500		D	113,600	0.66	C			10,510	6
I-95	LPGA Blvd. to SR 40/Granada Blvd	534	FDOT	Yes	2.64	70	UA_FWIS_6L + AUX	Principal Arterial - Interstate - Urban	76,000	69,500	70,000	74,000	77,000	85,000	87,000	78,500	85,500	83,000		D	133,600	0.62	B			12,310	6
I-95	SR 40/Granada Blvd to US 1	495	FDOT	Yes	5.55	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	62,500	66,500	63,500	64,500	66,000	50,500	47,500	50,500	53,000	58,000		D	113,600	0.51	B			10,510	6
I-95	US 1 to Flagler Co. Line/Old Dixie	496	FDOT	Yes	5.00	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	60,500	64,500	69,500	70,500	72,500	66,000	62,000	65,500	67,000	73,500		D	113,600	0.65	C			10,510	6
US 1	Brevard Co. to Kennedy Pkwy.	531	FDOT	Yes	3.97	55	RUA_UFH_2W_4L	Principal Arterial - Other - Rural	3,400	3,100	3,100	3,200	3,400	3,600	3,400	3,400	4,200	4,000		C	31,200	0.13	B			4,270	4
US 1	Kennedy Pkwy. to Putnam Grove Rd.	531	FDOT	Yes	1.63	65	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	3,400	3,100	3,100	3,200	3,400	3,600	3,400	3,400	4,200	4,000		C	42,300	0.09	B			4,020	4
US 1	Putnam Grove Rd. to Halifax Ave.	531	FDOT	Yes	0.57	65	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	3,400	3,100	3,100	3,200	3,400	3,600	3,400	3,400	4,200	4,000		C	42,300	0.09	B			4,020	4
US 1	Halifax Ave. to H.H. Birch Rd.	9929	FDOT	Yes	2.05	45	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	11,000	11,100	11,100	11,400	12,400	13,300	13,600	14,100	14,300	13,400		C	42,300	0.32	B			4,020	4
US 1	H.H. Birch Rd. to Volco Rd.	9929	FDOT	Yes	3.70	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	11,000	11,100	11,100	11,400	12,400	13,300	13,600	14,100	14,300	13,400		D	39,800	0.34	C			3,580	4
US 1	Volco Rd. to SR 442/Indian River Blvd.	27	FDOT	Yes	2.26	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	18,900	19,000	18,800	18,200	20,400	21,500	21,500	22,500	23,500	22,500		D	39,800	0.57	C			3,580	4
US 1	SR 442/Indian River Blvd. to Park Ave.	5170	FDOT	Yes	1.49	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,500	25,500	25,000	24,500	25,500	27,500	28,500	29,500	25,500	24,500		D	39,800	0.62	C			3,580	4
US 1	Park Ave. to 10th Ave.	5168	FDOT	Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	25,500	25,000	25,000	26,000	26,000	26,000	27,000	26,000	25,000		D	39,800	0.63	C			3,580	4
US 1	10th Ave. to Canal St./Bus. SR 44	5154	FDOT	Yes	1.52	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	22,000	21,500	18,600	18,700	19,500	24,000	22,500	22,000	22,000	22,000		D	32,400	0.68	D			2,920	4
US 1	Canal St./Bus. SR 44 to Turnbull Bay Rd.	5155	FDOT	Yes	1.34	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	22,500	24,500	22,000	23,000	24,000	26,500	24,500	25,500	26,500	24,000		D	39,800	0.60	C			3,580	4
US 1	Turnbull Bay Rd. to Art Center Ave.	5159	FDOT	Yes	2.24	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	23,500	22,500	23,500	24,500	25,500	26,500	27,500	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
US 1	Art Center Ave. to SR 5A/Nova Rd.	13	FDOT	Yes	3.19	45	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	19,400	19,600	20,500	21,500	21,500	25,000	26,000	25,500	24,500	23,500		D	66,200	0.35	B			5,960	4
US 1	SR 5A/Nova Rd. to Commonwealth	152	FDOT	Yes	1.23	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	14,100	13,800	13,900	13,200	13,800	15,400	15,700	15,700	15,900	15,500		D	39,800	0.39	C			3,580	4
US 1	Commonweath to SR 421/Dunlawton Ave.	5057	FDOT	Yes	1.37	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,500	19,600	20,300	20,500	21,500	20,500	20,400	21,000	21,000	20,200		D	39,800	0.51	C			3,580	4
US 1	SR 421/Dunlawton Ave. to Reed Canal Rd.	213	FDOT	Yes	1.18	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	24,500	24,500	24,500	26,500	25,000	28,500	25,500	26,500	25,000	24,000		D	39,800	0.60	C			3,580	4
US 1	Reed Canal Rd. to Big Tree Rd.	5061	FDOT	Yes	1.17	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	25,000	26,500	27,500	28,500	27,000	28,000	27,500	27,500	23,000		D	39,800	0.58	C			3,580	4
US 1	Big Tree Rd. to Bellewood Ave.	5063	FDOT	Yes	0.45	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,500	24,500	27,000	29,000	30,000	-	-	-	24,500	23,500		D	39,800	0.59	C			3,580	4
US 1	Bellewood Ave. to SR 400/Beville Rd	5063	FDOT	Yes	0.27	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	28,000	27,500	26,000	29,000	30,000	26,500	26,000	27,000	24,500	23,500		D	39,800	0.59	C			3,580	4
US 1	SR 400/Beville Rd to Bellevue Ave.	452	FDOT	Yes	1.05	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	32,500	30,000	29,500	33,000	32,000	34,000	30,500	33,000	33,000	32,000		D	39,800	0.80	C			3,580	4
US 1	Bellevue Ave. to Orange Ave.	5066	FDOT	Yes	0.72	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	28,000	29,500	28,000	29,500	30,500	28,500	29,000	30,000	30,500	29,500		D	39,800	0.74	C			3,580	4
US 1	Orange Ave. to US 92/ISB	5070	FDOT	Yes	0.30	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	28,000	26,000	29,000	26,500	27,500	31,000	28,500	29,500	31,000	30,000		D	32,400	0.93	D			2,920	4
US 1	US 92/ISB to Fairview/Main St.	5074	FDOT	Yes	0.66	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	24,000	23,500	26,000	30,500	31,500	-	-	-	28,000	27,000		D	32,400	0.83	D			2,920	4
US 1	Fairview/Main St. to SR 430/Mason Ave.	5074	FDOT	Yes	0.54	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	27,000	27,000	27,500	27,000	28,000	27,000	27,000	26,000	28,000	27,000		D	32,400	0.83	D			2,920	4
US 1	SR 430/Mason Ave. to LPGA Blvd.	1018	FDOT	Yes	1.47	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	26,000	21,500	24,000	24,500	23,500	24,500	24,000	25,500	25,500	24,000		D	32,400	0.74	D			2,920	4
US 1	LPGA Blvd. to Hand Ave.	1018	FDOT	Yes	2.00	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,000	21,500	24,000	24,500	23,500	24,500	24,000	25,500	25,500	24,000		D	39,800	0.60	C			3,580	4
US 1	Hand Ave. to SR 40/Granada Blvd.	5142	FDOT	Yes	0.84	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,500	19,000	20,300	20,800	21,500	22,000	23,000	23,500	24,000	23,000		D	39,800	0.58	C			3,580	4
US 1	SR 40/Granada Blvd. to SR 5A/Nova Rd.	1019	FDOT	Yes	1.83	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,300	16,400	16,600	17,500	18,100	19,300	20,000	19,100	19,300	19,500		D	39,800	0.49	C			3,580	4
US 1	SR 5A/Nova Rd. to Airport Rd.	100	FDOT	Yes	1.13	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,000	22,500	25,500	26,500	26,000	28,500	29,500	30,500	32,000	31,000		D	39,800	0.78	C			3,580	4
US 1	Airport Rd. to I-95	351	FDOT	Yes	2.81	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,500	19,400	20,200	21,000	22,500	23,000	24,500	23,500	23,500	22,500		D	39,800	0.57	C			3,580	4
US 1	I-95. to Flagler Co Line	536	FDOT	Yes	1.53	60	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	15,100	13,400	14,300	14,200	14,800	16,000	16,800	17,200	18,200	17,600		D	66,200	0.27	B			5,960	4
US 17/92	Seminole Co. to Barwick Rd.	0040-S	FDOT	Yes	0.52	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,800	19,300	22,000	22,500	26,500	27,500	29,500	31,000	33,000	32,000		D	39,800	0.80	C			3,580	4
US 17/92	Barwick Rd to Ft. Florida Rd.	0040-S	FDOT	Yes	0.76	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,800	19,300	22,000	22,500	26,500	27,500	29,500	31,000	33,000	32,000		D	39,800	0.80	C			3,580	4
US 17/92	Ft. Florida Rd. to Dirksen Dr.	101	FDOT	Yes	0.72	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,800	19,300	23,000	24,000	23,000	28,500	28,000	30,000	30,000	29,000		D	39,800	0.73	C			3,580	4
US 17/92	Dirksen Dr. to Valencia Rd.	479.1	FDOT	Yes	1.05	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	21,500	21,500	21,000	22,500	22,000	24,000	25,000	24,500	23,500		D	39,800	0.59	C			3,580	4
US 17/92	Valencia Rd to Highbanks Rd.	7	FDOT	Yes	0.74	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	21,500	21,500	21,500	24,000	24,500	25,500	25,500	25,500	24,500		D	39,800	0.62	C			3,580	4
US 17/92	Highbanks Rd. to DeBary Plantation Blvd	8	FDOT	Yes	0.92	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	26,000	22,000	23,000	24,500	25,500	25,000	25,000	25,000	24,000		D	39,800	0.60	C			3,580	4
US 17/92	DeBary Plantation Blvd to Saxon Blvd.	509	FDOT	Yes	0.61	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	26,000	26,000	25,500	27,500	30,500	29,500	32,000	31,500	30,500		D	39,800	0.77	C			3,580	4
US 17/92	Saxon Blvd. to Enterprise Rd.	539	FDOT	Yes	0.80	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	26,000	17,600	18,600	19,400	21,000	22,000	23,000	24,000	23,000		D	39,800	0.58	C			3,580	4
US 17/92	Enterprise Rd. to Rhode Island Ave.	444	FDOT	Yes	0.75	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	32,500	29,500	30,500	29,000	32,000	31,500	31,000	33,000	32,000	31,000		D	39,800	0.78	C			3,580	4
US 17/92	Rhode Island Ave. to Graves Ave.	5165	FDOT	Yes	1.01	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	29,000	26,500	29,000	27,500	28,500	31,000	32,000	32,000	32,000	31,000		D	39,800	0.78	C			3,580	4
US 17/92	Graves Ave. to New York Ave.	5166	FDOT	Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	29,000	27,500	26,500	27,500	28,500	29,500	29,500	30,500	31,000	30,000		D	39,800	0.75	C			3,580	4
US 17/92	New York Ave to SR 472	445	FDOT	Yes	0.75	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,000	27,000	25,000	28,000	29,000	30,000	30,000	30,000	29,000		D	39,800	0.73	C			3,580	4
US 17/92	SR 472 to SR 15A/Taylor Rd.	1004	FDOT	Yes	1.75	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	44,000	41,000	45,000	42,000	47,000	47,000	47,500	55,500	54,500	52,500		D	59,900	0.88	C			5,390	6
US 17/92	SR 15A/Taylor Rd. to Beresford Ave.	1006	FDOT	Yes	1.02	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	27,000	27,000	27,500	23,500	33,500	30,000	31,000	32,000	31,000		E	42,190	0.73	C			3,790	4
US 17/92	Beresford Ave. to Euclid Ave.	5173	FDOT	Yes	0.49	35	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	18,000	16,800	16,600	16,400	17,000	16,300	18,500	19,300	19,400	18,700		E	16,380	1.14	F			1,480	2
US 17/92	Euclid Ave. to SR 44/New York Ave.	5004	FDOT	Yes	0.49	30	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	16,600	15,100	16,300	14,800	15,400	17,200	17,800	13,000	13,200	12,800		E	15,600	0.82	D			1,410	2
US 17/92	SR 44/New York Ave. to Plymouth Ave.	5008	FDOT	Yes	1.01	30	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	16,400	16,000	16,300	15,500	16,100	18,200	16,200	19,100	19,300	18,700		DeLand	19,150	0.98	DeLand			1,410	2
US 17/92	Plymouth Ave. to US 92/ISB	66	FDOT	Yes	0.83	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,500	22,500	20,500	21,000	22,000	23,000	21,500	22,500	23,000	22,000		E	42,190	0.52	C			3,790	4
US 17	US 92 to Mercers Fernery Rd.	1000	FDOT	Yes	0.68	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	30,000	27,500	29,000	29,000	30,000	33,500	29,000	37,500	33,000	32,000		E	42,190	0.76	C			3,790	4
US 17	Mercers Fernery Rd. to Glenwood Rd.	69	FDOT	Yes	0.51	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	20,500	20,500	19,500	21,000	24,500	25,500	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
US 17	Glenwood Rd. to SR 15A/CR 15A	236	FDOT	Yes	1.64	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	14,500	13,700	13,500	13,500	14,800	14,800	17,300	15,200	15,000	14,600		D	39,800	0.37	C			3,580	4
US 17	SR 15A/CR 15A to Reynolds Rd	476	FDOT	Yes	2.76	45	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	16,400	16,000	15,800	16,200	17,200	17,200	18,500	18,100	18,300	17,700		D	66,200	0.27	B			5,960	4
US 17	Reynolds Rd to Spring Garden Ranch Rd.	519	FDOT	Yes	1.09	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	10,100	10,200	10,100	10,000	10,400	11,400	11,600	12,000	11,600	11,200		D	24,200	0.46	B			2,180	2
US 17	Spring Garden Ranch Rd. to Lake Winona Rd	104	FDOT	Yes	0.56	45	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	7,500	7,400	7,300	7,400	8,100	8,400	8,600	9,000	9,600	9,400		D	24,200	0.39	B			2,180	2
US 17	Lake Winona Rd. to SR 40	104	FDOT	Yes	4.93	45	RUA_UFH_2W_2L_	Principal Arterial - Other - Rural	7,500	7,400	7,300	7,400	8,100	8,400	8,600	9,000	9,600	9,400		C	18,000	0.52	B			1,620	2
US 17	SR 40 to Washington Ave.	448	FDOT	Yes	5.02	45	RDA_UFH_2W_2L_	Principal Arterial - Other - Rural	6,300	5,700	6,200	5,500	6,100	6,200	6,600	7,400	7,600	7,400		C	15,700	0.47	B			1,490	2
US 17	Washington Ave. to CR 305/Lk George Rd	46	FDOT	Yes	5.28	55	RDA_UFH_2W_2L_	Principal Arterial - Other - Rural	4,600	4,300	4,500	4,400	4,900	5,000	5,400	5,300	6,100	5,900		C	15,700	0.38	B			1,490	2
US 17	CR 305/Lk George Rd to Putnam County	280	FDOT	Yes	3.41	60	RUA_UFH_2W_2L_	Principal Arterial - Other - Rural	4,400	4,400	4,400	4,200	4,800	5,200	5,400	5,900	5,900	5,700		C	18,000	0.32	B			1,620	2
US 92	US 17 to Jacobs Rd.	1001	FDOT	Yes	1.41	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	24,500	25,500	24,500	25,500	28,000	28,500	28,500	24,500	26,500		D	39,800	0.67	C			3,580	4
US 92	Jacobs Rd. to Kepler Rd.	5	FDOT	Yes	1.23	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	22,500	22,500	22,500	26,000	26,000	25,000	25,000	25,000	24,000		D	39,800	0.60	C			3,580	4
US 92	Kepler Rd. to Old Daytona Rd.	9925	FDOT	Yes	1.32	65	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	13,400	13,000	13,000	14,100	15,100	16,400	16,200	16,200	16,200	14,200		D	39,800	0.36	C			3,580	4
US 92	Old Daytona Rd. to Red John Dr.	9925	FDOT	Yes	7.20	55	RUA_UFH_2W_4L	Principal Arterial - Other - Urban/Rural	13,400	13,000	13,000	14,100	15,100	16,400	16,200	16,200	16,200	14,200		C	44,900	0.32	B			4,270	4
US 92	Red John Dr. to I-4 EB Ramp	478.2	FDOT	Yes	2.26	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,000	19,800	19,800	16,400	17,600	18,600	19,100	18,400	19,500	18,900		D	39,800	0.47	C			3,580	4
US 92	I-4 EB Ramp to LPGA Blvd.	478.1	FDOT	Yes	0.58	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,000	19,800	25,200	16,400	17,600	18,600	19,100	18,400	19,500	18,900		D	39,800	0.47	C			3,580	4
US 92	LPGA Blvd. to I-95	532	FDOT	Yes	2.03	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	24,500	25,000	26,500	27,000	32,000	30,000	29,500	31,000	30,000		D	39,800	0.75	C			3,580	4
US 92	I-95 to Williamson Blvd.	508	FDOT	Yes	0.71	50	UA_SSAC1_2W_8L	Principal Arterial - Other - Urban	40,500	40,500	37,500	43,000	45,000	39,000	39,000	46,500	47,500	46,500		C	78,800	0.59	C			7,090	8
US 92	Williamson Blvd. to Bill France Blvd.	5172	FDOT	Yes	1.13	50	UA_SSAC1_2W_8L	Principal Arterial - Other - Urban	43,000	41,500	42,000	43,500	41,000	50,500	40,500	41,500	46,000	45,000		C	78,800	0.57	C			7,090	8
US 92	Bill France Blvd. to SR 483/Clyde Morris Blvd.	5094	FDOT	Yes	0.86	50	UA_SSAC1_2W_8L	Principal Arterial - Other - Urban	39,500	35,500	36,000	35,500	36,500	37,500	38,500	38,000	39,000	38,000		D	78,800	0.48	C			7,210	8
US 92	SR 483/Clyde Morris Blvd. to SR 5A/Nova Rd.	5096	FDOT	Yes	0.93	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	43,000	39,000	36,000	36,500	37,500	44,500	41,500	40,000	41,000	40,000		D	59,900	0.67	C			5,390	6
US 92	SR 5A/Nova Rd. to Martin Luther King Blvd.	5099	FDOT	Yes	0.78	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,500	27,500	26,000	28,500	29,500	28,000	27,500	28,500	29,000	28,000		D	39,800	0.70	C			3,580	4
US 92	Martin Luther King Blvd. to US 1	5104	FDOT	Yes	0.38	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,500	26,000	22,000	24,500	25,500	26,000	27,000	-	23,500	22,500		D	39,800	0.57	C			3,580	4
US 92	US 1 to Beach St.	5105	FDOT	Yes	0.23	30	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	17,500	17,300	15,200	18,100	18,800	23,500	22,500	23,000	23,000	15,000		D	32,400	0.46	D			2,920	4
US 92	Beach St. to SR 441/Peninsula Dr.	337	FDOT	Yes	0.88	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	13,500	18,100	13,200	14,300	16,100	22,300	27,000	25,000	23,000	22,000		D	39,800	0.55	C			3,580	4
US 92	SR 441/Peninsula Dr. to SR A1A/Atlantic	5109	FDOT	Yes	0.30	30	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	8,900	9,900	8,200	7,900	8,200	11,700	12,400	14,300	14,500	14,100		D	32,400	0.44	C			2,920	4
SR A1A - Dunlawton Ave.	US 1 to SR A1A/Atlantic Ave.	427	FDOT	Yes	1.25	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	27,000	26,000	26,000	28,000

SR A1A - Atlantic Ave. North	Harvard Dr. to SR 40/Granada Blvd.	5124	FDOT		Yes	1.70	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	16,600	17,600	16,400	15,600	16,200	17,200	17,800	19,400	19,500	18,900		D	32,400	0.58	D			2,920	4
SR A1A - Ocean Shore Blvd.	SR 40/Granada Blvd. to Neptune Ave	5125	FDOT		Yes	0.70	35	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	15,600	12,300	14,000	16,600	17,200	16,200	17,000	17,400	15,900	15,500		D	24,200	0.64	C			2,180	2
SR A1A - Ocean Shore Blvd.	Neptune Ave to Ormond Mall	174	FDOT		Yes	1.69	40	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	18,500	15,100	15,400	15,700	16,000	15,800	16,400	15,000	15,200	14,700		D	24,200	0.61	C			2,180	2
SR A1A - Ocean Shore Blvd.	Ormond Mall to High Bridge Rd	368	FDOT		Yes	6.42	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	15,500	15,300	15,800	15,500	16,100	15,500	16,200	16,600	16,700	16,300		D	24,200	0.67	C			2,180	2
SR A1A - Ocean Shore Blvd.	High Bridge Rd toFlagler Co Line	368	FDOT		Yes	1.26	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	15,500	15,300	15,800	15,500	16,100	15,500	16,200	16,600	16,700	16,300		D	24,200	0.67	C			2,180	2
SR 5A - Nova Rd.	US 1. to Spruce Creek Rd	458	FDOT		Yes	1.44	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,800	16,300	16,800	17,900	17,200	17,800	19,100	18,800	21,500	20,500		D	39,800	0.52	C			3,580	4
SR 5A - Nova Rd.	Spruce Creek Rd. to SR 421/Dunlawton Ave.	1016	FDOT		Yes	1.08	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	23,500	25,000	24,500	26,000	27,000	26,000	29,500	25,000	28,000	27,000		D	39,800	0.68	C			3,580	4
SR 5A - Nova Rd.	SR 421/Dunlawton Ave. to Madeline Ave	1017.2	FDOT		Yes	1.30	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,500	25,500	26,000	27,000	28,000	26,500	27,500	27,000	27,000	18,000		D	39,800	0.45	C			3,580	4
SR 5A - Nova Rd.	Madeline Ave. to Big Tree	363.2	FDOT		Yes	1.61	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	27,000	25,500	26,500	26,500	26,500	27,000	26,000	27,000	29,500	28,500		D	49,850	0.57	C			4,490	5
SR 5A - Nova Rd.	Big Tree to SR 400/Beville Rd.	363.1	FDOT		Yes	0.70	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	27,000	25,500	26,500	26,500	26,500	27,000	26,000	27,000	29,500	28,500		D	59,900	0.48	C			5,390	6
SR 5A - Nova Rd.	SR 400/Beville Rd. to Bellevue Ave.	348	FDOT		Yes	1.00	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	34,000	33,000	33,000	34,500	35,500	37,000	36,500	37,500	36,000	35,000		D	59,900	0.58	C			5,390	6
SR 5A - Nova Rd.	Bellevue Ave. to US 92/ISB	5090	FDOT		Yes	1.07	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	32,500	32,000	33,000	32,500	34,500	36,000	35,000	36,000	37,000	35,000		D	59,900	0.58	C			5,390	6
SR 5A - Nova Rd.	US 92/ISB to SR 430/Mason Ave.	5088	FDOT		Yes	1.22	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	30,000	30,000	31,000	31,500	31,000	32,000	36,000	31,500	35,500	34,500		D	59,900	0.58	C			5,390	6
SR 5A - Nova Rd.	SR 430/Mason Blvd to LPGA Blvd.	366	FDOT		Yes	1.47	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	27,500	27,000	25,500	26,500	28,500	29,000	34,500	35,500	32,500	31,500		D	59,900	0.53	C			5,390	6
SR 5A - Nova Rd.	LPGA Blvd. to Hand Ave.	528	FDOT		Yes	2.06	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	28,000	28,500	26,000	26,500	27,500	29,000	34,000	26,500	29,000	28,000		D	59,900	0.47	C			5,390	6
SR 5A - Nova Rd.	Hand Ave. to SR 40/Granada Ave	510	FDOT		Yes	1.15	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	24,000	28,500	27,500	25,500	26,500	27,500	28,000	29,000	28,500	27,500		D	59,900	0.46	C			5,390	6
SR 5A - Nova Rd.	SR 40/Granada Ave to Wilmette Ave.	518	FDOT		Yes	0.51	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	24,000	23,500	23,500	23,500	24,500	24,000	25,500	25,500	25,500	21,500		D	59,900	0.36	C			5,390	6
SR 5A - Nova Rd.	Wilmette Ave. to US 1	459	FDOT		Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	12,800	12,300	12,400	13,100	13,600	14,000	13,600	14,300	14,800	14,400		D	39,800	0.36	C			3,580	4
SR 11	US 17 to CR 15A	4	FDOT		Yes	2.45	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	6,100	6,000	6,300	6,200	6,400	7,700	6,900	7,100	6,700	6,500		D	24,200	0.27	B			2,180	2
SR 11	CR 15A to SR 40	527	FDOT		Yes	9.19	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	2,700	2,700	2,800	2,900	3,100	3,400	3,700	3,900	3,900	3,900		C	6,450	0.60	C			620	2
SR 11	SR 40 to Flagler Co. Line	0009-F	FDOT		Yes	2.42	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	2,000	2,200	2,100	2,400	2,400	2,800	2,800	2,700	2,700	3,500		C	6,450	0.54	C			620	2
SR 15A	US 17/92/Taylor to New Hampshire Ave.	1005	FDOT		Yes	1.17	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,700	19,000	20,500	21,000	21,900	22,500	25,000	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
SR 15A	New Hampshire Ave. to Beresford Ave.	6	FDOT		Yes	0.59	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	20,500	21,000	20,100	23,000	23,500	24,000	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
SR 15A	Beresford Ave. to SR 44/New York Ave.	474	FDOT		Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,500	21,000	22,000	22,000	24,000	25,000	25,500	26,500	27,000	26,000		D	39,800	0.65	C			3,580	4
SR 15A	SR 44/New York Ave. to Plymouth Ave.	463	FDOT		Yes	1.01	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,900	23,000	23,000	25,000	25,000	26,000	27,000	28,000	28,000	27,000		D	39,800	0.68	C			3,580	4
SR 15A	Plymouth Ave. to CR 92	537	FDOT		Yes	0.83	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	22,500	18,900	21,500	20,800	21,500	21,800	25,500	24,000	25,000	24,000		D	39,800	0.60	C			3,580	4
SR 15A	CR 92 to Glenwood Rd.	465	FDOT		Yes	1.20	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	13,800	13,100	13,600	13,400	14,000	14,700	15,600	17,400	17,600	13,600		D	39,800	0.34	C			3,580	4
SR 15A	Glenwood Rd. to US 17	466	FDOT		Yes	1.11	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	10,300	10,200	10,600	10,500	10,900	10,900	12,200	12,600	12,600	12,200		D	39,800	0.31	C			3,580	4
SR 40	Lake County to Emporia Rd.	533	FDOT		Yes	0.86	55	RDA_UFH_2W_2L	Principal Arterial - Other - Rural	7,000	6,800	6,300	6,800	7,000	8,700	8,500	9,800	8,700	8,500		C	15,700	0.54	B			1,490	2
SR 40	Emporia Rd. to US 17	344	FDOT		Yes	5.58	55	RDA_UFH_2W_2L	Principal Arterial - Other - Rural	6,500	6,600	5,900	6,200	7,600	8,500	8,000	8,200	8,400	8,200		C	15,700	0.52	B			1,490	2
SR 40	US 17 to SR 11	530	FDOT		Yes	6.69	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	4,800	5,400	5,500	5,600	5,800	6,900	6,800	7,200	6,900	6,700		C	8,600	0.78	C			820	2
SR 40	SR 11 to Pinto Lane	530	FDOT		Yes	6.83	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	4,800	5,400	5,500	5,600	5,800	6,900	6,800	7,200	6,900	6,700		C	8,600	0.78	C			820	2
SR 40	Pinto Lane to Rima Ridge Rd (urban boundar	523	FDOT		Yes	1.25	60	RDA_UFH_2W_4L	Principal Arterial - Other - Urban/Rural	10,600	9,400	9,400	10,000	10,400	11,100	11,800	11,600	13,700	13,300		C	#REF!	#REF!	B			4,020	4
SR 40	Rima Ridge Rd to Tymber Creek Rd.	499	FDOT		Yes	4.36	60	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,500	27,000	27,000	28,000	30,500	35,000	31,500	31,500	26,500		D	39,800	0.67	C			3,580	4
SR 40	Tymber Creek Rd. to I-95	499	FDOT		Yes	0.79	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,500	27,000	27,000	28,000	30,500	35,000	31,500	31,500	26,500		D	39,800	0.67	C			3,580	4
SR 40	I-95 to Clyde Morris Blvd.	522	FDOT		Yes	1.58	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	36,000	33,000	33,500	34,500	35,500	35,500	38,000	34,500	35,500	36,000		D	39,800	0.90	C			3,580	4
SR 40	Clyde Morris Blvd. to SR 5A/Nova Rd.	489	FDOT		Yes	1.06	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	33,000	33,000	32,000	33,000	33,000	32,000	34,000	34,500	36,500	35,500		D	39,800	0.89	C			3,580	4
SR 40	SR5A/Nova Rd. to US 1	1020	FDOT		Yes	1.33	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	30,000	30,000	30,000	30,000	31,000	31,000	32,000	33,500	34,000	31,000		D	39,800	0.78	C			3,580	4
SR 40	US 1 to Halifax Ave.	171	FDOT		Yes	1.11	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	34,000	33,500	34,000	31,500	31,000	34,500	38,500	39,500	39,500	38,500		D	32,400	1.19	F			2,920	4
SR 40	Halifax Ave. to SR A1A	5128	FDOT		Yes	0.37	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	20,500	18,000	18,900	19,500	20,400	20,200	21,000	21,000	19,200	18,500		D	32,400	0.57	D			2,920	4
SR 44	Lake Co. to Shell Rd.	1007	FDOT		Yes	1.19	55	RDA_UFH_2W_2L	Principal Arterial - Other - Rural	9,000	9,400	9,200	9,600	10,000	12,900	11,000	12,200	12,300	11,900		C	15,700	0.76	C			1,490	2
SR 44	Shell Rd. to Grand Ave.	1007	FDOT		Yes	1.26	45	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	9,000	9,400	9,200	9,600	10,000	12,900	11,000	12,200	12,300	11,900		D	24,200	0.49	C			2,180	2
SR 44	Grand Ave. to Old New York/Hazen Rd.	290	FDOT		Yes	0.70	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	9,700	9,300	9,700	9,800	10,100	10,800	11,200	12,400	12,600	12,200		D	24,200	0.50	C			2,180	2
SR 44	Old New York/Hazen Rd. to SR 15A/Spring G	274	FDOT		Yes	0.71	40	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	11,800	11,500	11,700	11,600	11,900	12,800	13,200	13,900	14,100	13,700		D	24,200	0.57	C			2,180	2
SR 44	SR 15A/Spring Garden Ave. to Stone St.	447	FDOT		Yes	0.50	40	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	11,300	11,300	10,600	10,800	11,500	11,700	11,500	11,700	10,500	10,100		E	18,939	0.53	C			1,712	2
SR 44	Stone St. to Clara Ave.	5012	FDOT		Yes	0.51	35-40	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	11,100	10,900	10,600	10,300	10,700	10,800	11,200	11,000	11,200	10,800		E	18,939	0.57	C			1,712	2
SR 44	Clara Ave. to Amelia Ave.	5015	FDOT		Yes	0.50	25-35	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	9,200	8,600	8,700	8,600	9,000	9,300	9,700	9,900	7,700	7,500		D	14,800	0.51	D			1,410	2
SR 44	Amelia Ave. to Hill Ave.	80	FDOT		Yes	1.00	35/40/45	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	13,300	13,000	14,100	12,200	12,600	13,100	13,500 -		12,300	11,900		E	18,939	0.63	C			1,712	2
SR 44	Hill Ave. to Blue Lake Ave.	80	FDOT		Yes	0.51	45	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	13,300	13,000	12,600	11,900	14,000	12,600	12,500	12,900	12,300	11,900		DeLand	19,800	0.60				1,712	2
SR 44	Blue Lake Ave. to Kepler Rd.	19	FDOT		Yes	0.94	45	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	16,400	15,600	15,900	14,300	16,900	15,700	17,500	17,300	17,300	16,700		DeLand	20,800	0.80				1,712	2
SR 44	Kepler Rd. to Summit Ave.	259	FDOT		Yes	1.18	45-50	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	18,300	17,800	18,000	16,700	17,200	20,200	19,400	21,500	19,800	19,200		DeLand	19,800	0.97				1,712	2
SR 44	Summit Ave. to I-4	538	FDOT		Yes	0.98	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,800	17,500	17,000	15,200	15,800	18,100	21,500	20,500	22,000	21,000		D	39,800	0.53	C			3,580	4
SR 44	I-4 to Prevatt Ave.	480	FDOT		Yes	0.74	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,400	17,200	19,900	18,700	20,500	21,500	21,500	21,500	22,500	21,500		D	39,800	0.54	C			3,580	4
SR 44	Prevatt Ave. to Pioneer Tr.	41	FDOT		Yes	5.93	65	RUA_UFH_2W_4L	Principal Arterial - Other - Rural	13,600	14,900	16,700	16,400	17,600	19,500	13,900	14,300	15,800	15,400		C	44,900	0.34	B			4,270	4
SR 44	Pioneer Tr. to SR 415/CR 415	1011	FDOT		Yes	3.56	65	RUA_UFH_2W_4L	Principal Arterial - Other - Rural	10,500	9,900	12,200	12,500	12,900	14,500	15,600	15,700	15,200	14,800		C	44,900	0.33	B			4,270	4
SR 44	SR 415/CR 415 to Samsula Dr.	1012	FDOT		Yes	1.14	65	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	15,800	13,500	15,700	17,000	17,600	20,500	22,000	21,500	22,000	21,000		C	42,300	0.50	B			4,020	4
SR 44	Samsula Dr. to Airport Rd	423	FDOT		Yes	1.70	65	RDA_UFH_2W_4L	Principal Arterial - Other - Urban/Rural	16,200	14,400	18,300	17,400	19,200	20,000	22,000	15,600	15,800	15,400		C	42,300	0.36	B			4,020	4
SR 44	Airport Rd. to I-95	423	FDOT		Yes	2.05	65	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,200	14,400	18,300	17,400	19,200	20,000	22,000	15,600	15,800	15,400		D	39,800	0.39	C			3,580	4
SR 44	I-95 to Mission Dr	515	FDOT		Yes	2.83	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	27,500	30,000	27,500	28,500	35,000	31,500	35,500	34,500	33,500		D	39,800	0.84	C			3,580	4
SR 44	Mission Dr. to Live Oak	514	FDOT		Yes	1.35	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	17,800	18,700	19,600	18,300	19,000	19,500	18,000	23,500	20,500	19,700		D	39,800	0.49	C			3,580	4
SR 44/SR A1A/S Causeway	Live Oak to Peninsula Ave.	207	FDOT		Yes	1.30	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	24,000	26,500	26,500	27,000	29,500	30,000	23,500	32,500	27,500	26,500		D	39,800	0.67	C			3,580	4
SR 44/SR A1A/S Causeway	Peninsula Ave. to Saxon Dr.	5180	FDOT		Yes	0.35	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	22,500	23,000	22,000	23,000	24,500	25,500	28,000	28,000	22,000		D	39,800	0.55	C			3,580	4
SR 44/SR A1A/3rd Ave/Atlantic	Saxon Dr. to 6th Ave	5043	FDOT		Yes	0.50	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	14,000	15,300	14,200	14,000	14,600	12,700	17,500	17,900	13,300	12,900		D	39,800	0.32	C			3,580	4
SR 44 (Business) - Canal St.	SR 44/Lytle St to Pioneer Trail	516	FDOT		Yes	0.17	40	UA_SSAC1_2W_2L	Minor Arterial - Urban	11,400	10,800	11,300	10,500	10,900	9,500	9,800	10,000	10,200	9,900		D	17,700	0.56	C			1,600	2
SR 44 (Business) - Canal St.	Pioneer Tr. to US 1	111	FDOT		Yes	0.76	40	UA_SSAC1_2W_2L	Minor Arterial - Urban	11,700	11,100	11,600	11,500	12,500	11,500	11,900	12,600	12,800	12,400		D	17,700	0.70	C			1,600	2
SR 46	Seminole Co. to Brevard Co.	0416-B			Yes	5.44	55	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	5,600	6,000	5,600	5,300	7,100	5,900	7,400	7,600	8,100	7,900		C	18,000	0.44	B			1,620	2
SR 400 - Beville Rd.	I-95 to Williamson Blvd.	501	FDOT		Yes	0.28	55	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	24,000	24,000	26,500	28,000	29,000	26,000	28,500	29,000	31,500	30,500		D	59,900	0.51	C			5,390	6
SR 400 - Beville Rd.	Williamson Blvd. to SR 483/Clyde Morris Blvc	5189	FDOT		Yes	1.91	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,500	28,500	31,000	32,000	30,500	30,500	31,500	30,500	29,500		D	39,800	0.74	C			3,580	4
SR 400 - Beville Rd.	SR 483/Clyde Morris Blvd. to SR 5A/Nova Rd.	511	FDOT		Yes	0.68	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	32,000	33,000	33,000	33,000	34,000	32,000	33,000	33,500	35,500	34,500		D	39,800	0.87	C			3,580	4
SR 400 - Beville Rd.	SR 5A/Nova Rd. to US 1	502	FDOT		Yes	1.34	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	23,000	24,000	24,500	25,500	26,500	27,000	26,500	26,000	24,500	23,500		D	39,800	0.59	C			3,580	4
SR 415	Seminole Co. to Enterprise-Osteen Rd.	25	FDOT		Yes	4.39	55	UA_UFH_2W_4L_D	Minor Arterial - Urban/Rural	16,800	16,800	16,800	17,000	17,500	18,300	21,500	23,000	24,000	23,000		D	66,200	0.35	D			5,960	4
SR 415	Enterprise-Osteen Rd. to Howland Blvd.	437	FDOT		Yes	1.83	45	UA_SSAC1_2W_4L	Minor Arterial - Urban	15,100	15,200	15,200	15,400	15,500	17,300	17,700	19,800	19,900	19,300		D	39,800	0.48	C			3,580	4
SR 415	Howland Blvd. to Acorn Lake Rd	321	FDOT		Yes	0.88	45	UA_SSAC1_2W_4L	Minor Arterial - Urban	5,900	6,500	6,500	6,600	7,300	8,600	7,900	8,100	8,600	8,400		D	39,800	0.21	C			3,580	4
SR 415	Acorn Lake Rd to SR 44	1009	FDOT		Yes	10.49	55	RUA_UFH_2W_2L	Minor Arterial - Rural	8,300	7,700	9,000	9,000	9,400	11,700	12,700	13,200	12,200	11,400		C	18,000	0.63	C			1,620	2
SR 421 - Dunlawton Ave.	Williamson to Clyde Morris Blvd.	517	FDOT		Yes	1.07	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	39,500	38,500	45,500	48,000	46,000	47,500	49,000	52,500	53,500	52,000		D	59,900	0.87	C			5,390	6
SR 421 - Dunlawton Ave.	Clyde Morris Blvd. to SR 5A/Nova Rd.	1014	FDOT		Yes	1.31	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	28,500	26,500	28,500	29,000	38,500	41,500	42,500	41,000	40,000	39,000		D	59,900	0.65	C			5,390	6
SR 421 - Dunlawton Ave.	SR5A/Nova Rd. to Spruce Creek Rd.	1015	FDOT		Yes	0.91	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	28,000	27,500	29,500	30,500	31,500	33,000	32,000	33,000	32,000		D	39,800	0.80	C			3,580	4
SR 421 - Dunlawton Ave.	Spruce Creek Rd. to US 1	5181	FDOT		Yes	0.71	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	25,500	25,000	26,000	27,000	27,500	28,500	28,500	26,500	25,500		D	39,800	0.64	C			3,580	4
SR 430 - Mason Ave.	SR 483/Clyde Morris Blvd. to SR 5A/Nova Rd.	5197	FDOT		Yes	0.99	35	UA_SSAC2_2W_4L	Minor Arterial - Urban	18,200	17,800	18,200	18,500	19,000	20,600	22,000	21,500	21,500	20,700		D	24,300	0.85	D			2,190	4
SR 430 - Mason Ave.	SR 5A/Nova Rd. to US 1	5197	FDOT		Yes	1.08	35	UA_SSAC2_2W_4L	Minor Arterial - Urban	18,200	17,800	18,200	18,500	19,000	20,600	22,000	21,500	21,500	20,700		D	24,300	0.85	D			2,190	4
SR 430 - Mason Ave.	US 1 to Beach St.	5197	FDOT		Yes	0.30	35	UA_SSAC2_2W_4L	Minor Arterial - Urban	18,200	17,800	18,200	18,500	19,000	20,600	22,000	21,500	21,500	20,700		D	32,400	0.64	D			2,920	4
SR 430 - Oakridge Blvd. - EB	Beach St. to Peninsula Dr	5196E	FDOT		Yes	0.70	40	UA_SSAC1_1W_2L	Minor Arterial - Urban	5,500	5,300	5,600	5,900	6,400	7,200	6,500	7,500	11,000	9,200		D	23,880	0.39	C			2,150	2
SR 430 - Oakridge Blvd. - EB	Peninsula Dr to SR A1A/Atlantic	5195	FDOT		Yes	0.28	40	UA_SSAC1_1W_2L	Minor Arterial - Urban	4,700	3,600	4,100	4,200	4,400	4,600	5,400	6,000	4,900	4,800		D	23,880	0.20	C			2,150	2
SR 430 - Seabreeze Bridge - WB	Beach St. to Peninsula Dr	5196W	FDOT		Yes	1.01	40	UA_SSAC1_1W_2L	Minor Arterial - Urban	8,100	7,100	7,200	6,400	6,600 -	-	-		11,500	9,900		D	23,880	0.41	C			2,150	2
SR 430 - Seabreeze Bridge - WB	Peninsula Dr to SR A1A/Atlantic	5191	FDOT		Yes	0.29	30	UA_SSAC2_1W_2L	Minor Arterial - Urban	5,300	4,300	4,900	4,900	5,100	5,800	6,400	7,000	6,000	5,800		D	19,440	0.30	C			1,750	2
SR 441 - Peninsula Dr.	SR A1A/Dunlawton to Florida Shores	5188	FDOT		Yes	2.42	40	UA_SSAC1_2W_2L	Minor Arterial - Urban	5,600	5,300	5,400	5,600	5,400	5,600	5,900	5,700	6,000	5,800		D	17,700	0.33	C			1,600	2
SR 441 - Peninsula Dr.	Florida Shores to Silver Beach Ave.	5187	FDOT		Yes	2.34	35	UA_SSAC1_2W_2L	Minor Arterial - Urban	8,700	9,400	9,300	8,300	8,700	9,000	8,800	8,800	9,000	8,400		D	17,700	0.47	C			1,600	2
SR 441 - Peninsula Dr.	Silver Beach Ave. to US 92/ISB	5187	FDOT		Yes	0.65	35	UA_SSAC1_2W_2L	Minor Arterial - Urban	8,700	9,400	9,300	8,300	8,700	9,000	8,800	8,800	9,000	8,400		D	17,700	0.47	C			1,600	2
SR 442 - Indian River Blvd.	I-95 to Air Park Rd.	170	FDOT		Yes	2.09	55	UA_SSAC1_2W_4L	Minor Arterial - Urban	8,900	9,500	9,920	10,200	10,800	11,400	12,100	12,600	13,200	12,300		D	39,800	0.31	C			3,580	4
SR 442 - Indian River Blvd.	Air Park Rd. to US 1	5190	FDOT		Yes	1.69	45	UA_SSAC1_2W_4L	Minor Arterial - Urban	16,400	16,100	16,800	16,400	17,000	17,600	17,000	16,500	18,000	17,500		D	39,800	0.44	C			3,580	4
SR 472	US 17/92 to CR 4101/MLK Blvd	472	FDOT		Yes	2.31	60	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	19,700	20,100	21,000	21,400	23,000	24,000	24,000	29,000	29,000	24,000		D	66,200	0.36	B			5,960	4
SR 472	CR 4101/MLK Blvd to I-4 (end of state

Airport Rd. (PO)	Williamson Blvd to Pioneer Tr.	64	County		Yes	2.50	45	UA_UFH_2W_2L_U	Major Collector - Urban	6,000	6,160	6,040	6,120	7,690	8,430	7,590	7,170	6,600	6,260	7,380	E	32,600	0.23	B	520	630	2,930	2
Airport Rd. (NSB)	Pioneer Tr. to Luna Bella Ln	67	County		Yes	1.60	45	UA_UFH_2W_2L_D	Major Collector - Urban	3,110	3,300	3,320	3,550	3,930	4,570	7,590	4,180	4,320	4,540	5,020	E	34,230	0.15	B	320	420	3,080	2
Airport Rd. (NSB)	Luna Bella Ln to SR 44	68	County		Yes	1.80	45	UA_UFH_2W_2L_D	Major Collector - Urban	2,250	2,610	2,770	3,270	3,760	4,780	7,590	5,150	5,470	6,160	6,860	E	34,230	0.20	B	490	530	3,080	2
Amelia Ave.	SR 44 to Ohio Ave.	73	County		Yes	0.15	30	UA_NSSRC2_2W_4	Major Collector - Urban	10,380	10,580	10,650	10,430	9,410	10,990	11,250	11,780	14,830	8,480	8,530	E	22,820	0.37	C	510	760	2,060	4
Amelia Ave.	Ohio Ave. to Minnesota Ave.	74	County		Yes	0.15	30	UA_NSSRC2_2W_2	Major Collector - Urban	10,310	10,260	10,380	10,320	9,310	11,630	11,140	12,110	12,230	8,650	9,470	E	13,640	0.69	D	530	730	1,020	2
Amelia Ave.	Minnesota Ave. to Plymouth Ave.	75	County		Yes	0.50	30	UA_NSSRC2_2W_2	Major Collector - Urban	10,610	10,230	10,590	10,630	9,170	11,890	11,500	12,840	11,030	8,720	9,850	E	14,040	0.70	D	550	800	1,270	2
Amelia Ave.	Plymouth Ave. to US 92	77	County		Yes	0.85	35	UA_NSSRC2_2W_2	Major Collector - Urban	6,610	6,080	6,700	6,980	6,050	7,430	7,050	6,870	6,360	5,040	5,530	E	14,040	0.39	C	280	500	1,270	2
Ariel Rd.	Beacon Light Rd. to US 1	91	County			1.20	35	RUA_UFH_2W_2L_	Local	560	540	540	540	640	670	550	690	590	590	660	C	6,450	0.10	B	50	70	620	2
Arredondo Grant Rd.	Spring Garden Ranch Rd. to James St.	100	County		Yes	0.60	30	RUA_UFH_2W_2L_	Major Collector - Urban/Rural	1,100	1,140	1,020	1,000	-	1,030	1,150	1,230	1,240	1,120	1,260	C	6,450	0.20	B	110	130	620	2
Arredondo Grant Rd.	James St. to SR 11	101	County		Yes	2.00	35	RUA_UFH_2W_2L_	Major Collector - Rural	510	580	600	610	-	700	780	810	860	850	880	C	6,450	0.14	B	70	100	620	2
Atlantic Ave. (PI)	Beach St. to Major St	110	County		Yes	2.80	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,760	2,930	2,910	2,630	8,840	3,310	3,420	3,000	2,740	2,390	4,030	E	13,640	0.30	C	210	370	1,020	2
Atlantic Ave. (DBS)	Major St to Marcelle Ave.	111	County		Yes	1.30	35	UA_NSSRC2_2W_2	Minor Collector - Urban	6,780	9,420	9,420	9,260	9,600	9,670	9,720	7,680	11,050	9,940	11,030	E	13,640	0.81	D	660	890	1,020	2
Atlantic Ave. (DBS)	Marcelle Ave. to Phillis Ave.	113	County		Yes	0.75	35	UA_NSSRC2_2W_2	Minor Collector - Urban	8,250	11,990	11,760	11,450	11,850	12,920	12,330	9,970	12,090	11,040	12,890	E	14,740	0.87	D	710	1,040	1,330	2
Atlantic Ave. (DBS)	Phillis Ave. to SR A1A/Dunlawton Ave	115	County		Yes	0.40	35	UA_NSSRC2_2W_2	Minor Collector - Urban	9,170	13,680	13,050	12,920	14,770	15,190	13,540	12,970	15,730	11,290	11,850	E	14,740	0.80	D	740	960	1,330	4
Atlantic Ave/Turtle Mound Rd.	Canaveral Nat'l Park to Turtle Mound Rd.	1872	County		Yes	7.65	45	UA_NSSRC2_2W_2	Principal Arterial - Other - Urban	2,230	2,610	2,450	2,180	2,960	3,050	1,770	2,170	3,140	3,440	3,260	E	13,640	0.24	C	180	300	1,020	2
Atlantic Ave/Turtle Mound Rd.	Turtle Mound Rd. to Saxon Dr.	116	County		Yes	1.60	45	UA_NSSRC1_2W_2	Principal Arterial - Other - Urban	5,580	6,560	6,390	5,520	4,190	6,690	4,850	5,000	7,370	7,030	6,780	E	17,050	0.40	C	430	570	1,540	2
Atlantic Ave/Turtle Mound Rd.	Saxon Dr to Hiles Blvd.	118	County		Yes	0.45	45	UA_NSSRC1_2W_2	Principal Arterial - Other - Urban	5,650	6,530	6,370	5,450	7,470	7,300	5,380	5,000	7,310	7,560	7,100	E	17,050	0.42	C	450	560	1,540	2
Atlantic Ave/Turtle Mound Rd.	Hiles Blvd. to 27th Ave.	120	County		Yes	1.55	45	UA_NSSRC1_2W_2	Principal Arterial - Other - Urban	9,900	11,900	11,400	9,650	8,370	11,630	9,600	9,600	13,370	12,250	13,440	E	17,050	0.79	C	740	1,030	1,540	2
Atlantic Ave/Turtle Mound Rd.	27th Ave. to 6th Ave.	122	County		Yes	1.45	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	13,430	16,510	14,560	12,960	14,450	12,070	15,900	12,720	11,630	18,120	15,010	E	37,970	0.40	C	1,120	1,140	3,410	4
Beach/Riverside/Beach (OB)	Division Ave. to SR 40	131	County		Yes	0.60	35	UA_NSSRC2_2W_2	Major Collector - Urban	6,860	6,800	6,620	7,280	6,700	8,530	6,940	8,090	7,480	6,610	7,490	E	13,640	0.55	D	520	650	1,020	2
Beach/Riverside/Beach (OB)	SR 40 to Wilmette Ave.	132	County		Yes	0.70	35	UA_NSSRC2_2W_2	Major Collector - Urban	8,780	8,780	8,070	8,950	8,610	9,310	7,800	9,700	8,870	9,580	9,180	E	16,000	0.57	D	700	790	1,440	2
Beach/Riverside/Beach (OB)	Wilmette Ave. to Inglesa Ave.	135	County		Yes	2.55	35	UA_NSSRC2_2W_2	Major Collector - Urban	5,660	5,740	5,300	5,410	7,390	6,250	5,410	6,930	6,330	7,250	6,490	E	16,000	0.41	D	470	630	1,440	2
Beach/Riverside/Beach (OB)	Inglesa Ave to Pine Tree Dr.	137	County		Yes	1.10	35	UA_NSSRC2_2W_2	Major Collector - Urban	2,000	1,950	1,830	1,840	2,010	2,160	2,140	2,650	2,500	3,570	2,860	E	16,000	0.18	C	180	290	1,440	2
Beacon Light Rd.	Halifax Ave. to Ariel Rd.	140	County		Yes	2.75	35	RUA_UFH_2W_2L_	Minor Collector - Rural	190	210	170	180	190	240	250	240	280	290	300	C	6,450	0.05	B	20	30	620	2
Beacon Light Rd.	Ariel Rd. to Volco Rd.	141	County		Yes	1.25	35	RUA_UFH_2W_2L_	Minor Collector - Rural	430	370	380	410	390	500	520	460	400	470	600	C	6,450	0.09	B	40	60	620	2
Bellevue Ave. Extension	CR 415/Tomoka Farms Rd to Williamson Blv	151	County		Yes	0.50	35	UA_NSSRC2_2W_2	Minor Collector - Urban	4,970	5,010	5,290	5,290	6,210	5,520	6,100	7,310	6,940	5,880	6,260	E	13,640	0.46	D	440	550	1,020	2
Bellevue Ave. Extension	Williamson Blvd to SR 483/Clyde Morris Blvd	153	County		Yes	2.50	45	UA_NSSRC1_2W_2	Minor Collector - Urban	2,760	2,410	2,570	2,880	2,540	3,250	3,160	4,350	4,060	3,430	3,130	E	13,640	0.23	C	230	310	1,230	2
Beresford Ave.	Beresford Rd. to Fatio Rd	161	County		Yes	0.70	35	UA_NSSRC1_2W_2	Major Collector - Urban	1,280	1,340	1,340	820	1,320	1,560	2,110	1,810	2,100	2,180	2,310	E	13,640	0.17	C	190	220	1,020	2
Beresford Ave.	Fatio Rd. to SR 15A	162	County		Yes	1.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	3,590	3,720	3,540	3,750	3,240	3,440	4,160	4,320	4,650	4,100	4,490	E	13,640	0.33	C	370	400	1,020	2
Beresford Ave.	SR 15A to US 17/92	164	County		Yes	1.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	4,810	4,760	4,740	4,130	-	4,780	5,210	5,070	5,010	5,050	5,170	E	13,640	0.38	C	260	440	1,020	2
Beresford Ave.	US 17/92 to Amelia Ave	165	County		Yes	0.25	35	UA_NSSRC2_2W_2	Major Collector - Urban	9,700	9,520	9,750	9,520	9,490	10,410	10,480	12,250	11,380	10,310	10,530	E	14,740	0.71	D	600	900	1,330	2
Beresford Ave.	Amelia Ave. to Hill Ave.	167	County		Yes	1.00	40	UA_NSSRC1_2W_2	Major Collector - Urban	5,600	5,970	6,070	5,710	5,280	5,710	7,090	7,930	6,570	6,610	7,320	E	17,900	0.41	C	550	690	1,620	2
Beresford Ave.	Hill Ave. to Blue Lake Ave.	169	County		Yes	1.35	40	UA_NSSRC1_2W_2	Future - Major Collector - Urban	2,980	3,300	3,460	3,240	-	3,780	4,440	5,170	4,380	4,300	3,950	E	13,640	0.29	C	300	370	1,230	2
Beresford Ave.	Blue Lake Ave. to MLK (Kepler Rd.)	Future Rd	County		Yes	0.80	40	UA_NSSRC1_2W_2	Future - Major Collector - Urban	-	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	-	-	1,230	0
Beresford Ave.	MLK (Kepler Rd.) to SR 44	Future Rd	County		Yes	0.75	40	UA_NSSRC1_2W_2	Future - Major Collector - Urban	-	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	-	-	1,230	0
Beresford Rd.	SR 15A to Spring Garden Ave.	180	County			0.40	30	UA_NSSRC2_2W_2	Major Collector - Urban	470	940	890	860	-	3,520	1,000	5,270	620	480	530	E	13,640	0.04	C	40	50	1,020	2
Beresford Rd.	Spring Garden Ave. to Fatio Rd.	181	County			0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	670	710	630	670	-	850	780	690	850	550	840	E	13,640	0.06	C	60	80	1,020	2
Beresford Rd.	Fatio Rd. to Beresford Ave	182	County			1.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,050	1,060	950	1,120	1,150	1,370	1,370	1,630	1,700	1,740	1,930	E	13,640	0.14	C	160	200	1,020	2
Beresford Rd.	Beresford Ave. to Old New York Ave.	183	County			0.30	35	UA_NSSRC2_2W_2	Major Collector - Urban	1,990	2,050	1,980	2,100	2,130	2,640	2,620	2,980	2,970	3,420	3,640	E	13,640	0.27	C	280	360	1,020	2
Big Tree Rd.	Clyde Morris Blvd. to Nova Rd.	192	County		Yes	1.10	35	UA_NSSRC2_2W_2	Minor Collector - Urban	7,700	8,080	7,200	7,670	5,680	8,750	5,850	6,520	6,920	6,040	6,550	E	13,640	0.48	D	420	570	1,020	2
Big Tree Rd.	Nova Rd. to Magnolia Ave.	193	County		Yes	0.40	35	UA_NSSRC2_2W_2	Minor Collector - Urban	12,230	11,460	11,040	11,350	11,820	13,740	13,190	13,990	12,950	11,220	12,370	E	14,740	0.84	D	830	1,030	1,330	2
Big Tree Rd.	Magnolia Ave. to Kenilworth Ave.	195	County		Yes	0.45	35	UA_NSSRC2_2W_2	Minor Collector - Urban	10,850	10,160	9,290	10,010	9,970	12,190	11,380	11,860	10,810	9,690	10,670	E	14,740	0.72	D	750	720	1,330	3
Big Tree Rd.	Kenilworth Ave. to US 1	196	County		Yes	0.55	35	UA_NSSRC2_2W_2	Minor Collector - Urban	7,270	6,790	6,570	6,970	8,930	8,880	8,110	8,640	8,180	7,200	7,770	E	14,740	0.53	D	470	620	1,330	3
Blackburn Rd.	CR 3 to Emporia Rd	211	County			1.25	35	RUA_UFH_2W_2L_	Minor Collector - Rural	550	550	550	560	640	650	580	590	610	640	730	C	6,450	0.11	B	60	70	620	2
Blackwelder Rd.	Lake Winona Rd. to SR 11	221	County			3.25	35	RUA_UFH_2W_2L_	Local	180	180	170	170	220	210	150	210	200	210	210	C	6,450	0.03	B	20	20	620	2
Blue Lake Ave.	SR 472 to Orange Camp Rd	Future Rd	County		Yes	1.05	45	UA_NSSRC1_2W_2	Major Collector - Urban	-	-	-	-	-	-	-	-	-	-	-	E	17,050	-	-	-	-	1,540	2
Blue Lake Ave.	Orange Camp Rd. to Taylor Rd.	231	County		Yes	1.05	45	UA_NSSRC1_2W_2	Major Collector - Urban	4,110	4,250	3,980	4,180	-	4,660	5,140	4,750	6,480	5,470	5,480	E	17,050	0.32	C	620	530	1,540	2
Blue Lake Ave.	Taylor Rd. to Beresford Ave.	232	County		Yes	1.05	45	UA_NSSRC1_2W_2	Major Collector - Urban	5,200	5,730	5,440	5,820	5,080	5,770	6,910	8,240	8,800	7,460	7,580	E	13,640	0.56	C	600	730	1,230	2
Blue Lake Ave.	Beresford Ave. to Voorhis Ave.	234	County		Yes	0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	4,180	4,310	4,010	3,750	4,480	4,420	4,610	5,290	4,950	4,970	5,270	E	13,640	0.39	C	410	530	1,020	2
Blue Lake Ave.	Voorhis Ave. to SR 44	235	County		Yes	0.25	30	UA_NSSRC2_2W_2	Major Collector - Urban	3,480	3,520	3,370	3,520	3,550	3,570	3,900	4,560	3,640	3,890	4,140	E	13,640	0.30	C	330	400	1,020	2
Blue Lake Ave.	SR 44 to Minnesota Ave.	236	County		Yes	0.55	30	UA_NSSRC2_2W_2	Major Collector - Urban	4,330	4,190	4,060	4,500	3,880	4,200	5,380	4,920	6,290	5,390	5,720	E	13,640	0.42	D	430	520	1,020	2
Blue Lake Ave.	Minnesota Ave. to Plymouth Ave.	237	County		Yes	1.00	40	UA_NSSRC1_2W_2	Major Collector - Urban	5,780	5,380	5,200	5,670	5,680	5,790	6,750	7,750	7,950	7,040	7,250	E	13,640	0.53	C	560	670	1,230	2
Blue Springs Av (West)	Sparkman Dr to Lawton Dr	239	County			0.60	35	UA_NSSRC2_2W_2	Minor Collector - Urban	5,830	5,410	5,080	5,460	4,020	4,200	5,920	5,600	5,920	5,140	5,090	E	13,640	0.37	C	470	450	1,020	2
Brownlee Rd.	Raulerson Rd. #1 to Raulerson Rd.	240	County			1.70	35	RUA_UFH_2W_2L_	Local	140	180	180	190	160	180	170	190	160	140	200	C	6,450	0.03	B	10	20	620	2
Cardinal Blvd.	SR 421/Dunlawton Ave. to Demotte Ave	245	County			0.15	30	UA_NSSRC2_2W_2	Minor Collector - Urban					1,280	1,690	1,110	1,110	1,080	1,450	1,440	E	13,640	0.11	C	70	130	1,020	2
Cardinal Blvd.	Demotte Ave. to Marcelle Ave	260	County			0.90	30	UA_NSSRC2_2W_2	Minor Collector - Urban	5,090	5,160	4,740	4,740	5,230	7,190	5,030	5,190	5,780	5,380	5,650	E	13,640	0.41	D	350	470	1,020	2
Cardinal Blvd.	Marcelle Ave to Major St.	261	County			1.00	30	UA_NSSRC2_2W_2	Local	790	870	730	820	880	1,330	810	690	780	810	910	E	13,640	0.07	C	50	80	1,020	2
Carter Rd.	SR 11 to Marsh Rd.	270	County			1.75	40	UA_NSSRC1_2W_2	Local	1,400	1,460	1,420	1,520	-	1,700	1,700	1,800	1,860	1,750	1,830	E	13,640	0.13	C	120	160	1,230	2
Cassadaga Rd.	W. Volusia Bltvy. to Macy Ave.	280	County		Yes	1.80	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,970	2,190	2,010	1,900	2,260	2,200	2,500	2,400	2,220	2,380	2,720	E	13,640	0.20	C	350	250	1,020	2
Clara Ave.	SR 15A to New Hampshire Ave.	301	County			0.50	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,640	1,640	1,850	1,870	-	1,820	2,100	2,050	2,080	1,780	1,820	E	13,640	0.13	C	120	160	1,020	2
Clara Ave.	New Hampshire Ave. to Beresford Ave.	303	County			0.50	30	UA_NSSRC2_2W_2	Major Collector - Urban	2,070	2,040	2,270	2,200	-	2,350	3,050	2,860	2,710	2,660	2,770	E	13,640	0.20	C	170	270	1,020	2
Clifton Rd.	Lake Winona Rd. to SR 11	311	County			1.70	30	RUA_UFH_2W_2L_	Local	190	160	170	160	170	230	170	210	180	210	190	C	6,450	0.03	B	20	20	620	2
Clyde Morris Blvd.	Taylor Rd. to SR 421/Dunlawton Ave	330	County		Yes	0.95	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	10,060	9,900	9,190	9,390	8,810	11,220	10,440	10,520	9,910	8,210	9,520	E	17,050	0.56	C	1,010	930	1,540	2
Clyde Morris Blvd.	SR 421/Dunlawton Ave. to Willow Run Blvd.	332	County		Yes	0.65	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	21,310	19,060	18,420	19,280	21,080	21,990	20,230	21,070	18,660	16,850	19,850	E	37,970	0.52	C	1,210	1,560	3,410	4
Clyde Morris Blvd.	Willow Run Blvd. to Madeline Ave.	333	County		Yes	1.30	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	22,750	21,460	20,000	21,710	20,770	22,480	23,240	24,390	21,430	18,820	23,970	E	37,970	0.63	C	1,440	1,950	3,410	4
Clyde Morris Blvd.	Madeline Ave. to Big Tree Rd.	335	County		Yes	1.00	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	24,200	22,260	20,800	22,910	25,110	20,770	24,230	21,490	20,350	21,160	22,050	E	37,970	0.58	C	1,280	1,860	3,410	4
Clyde Morris Blvd.	Big Tree Rd. to SR 400/Beville Rd.	337	County		Yes	0.90	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	24,600	22,880	21,790	23,460	21,760	23,500	24,140	24,280	23,720	19,700	20,620	E	36,070	0.57	C	1,240	1,700	3,240	4
Clyde Morris Blvd.	SR 430/Mason Ave. to Bill France Blvd.	338	County		Yes	0.60	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	13,140	12,310	11,990	12,960	13,930	14,960	14,750	17,520	15,440	13,530	14,860	E	37,970	0.39	C	970	1,170	3,410	4
Clyde Morris Blvd.	Bill France Blvd. to LPGA Blvd.	341	County		Yes	1.25	50	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	13,450	12,880	12,290	13,370	14,540	13,480	15,910	16,280	15,950	13,940	15,900	E	37,970	0.42	C	1,090	1,330	3,410	4
Clyde Morris Blvd.	LPGA Blvd. to Hand Ave.	343	County		Yes	1.50	50	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	14,070	13,560	12,280	13,520	13,440	15,250	15,620	15,440	14,640	13,350	17,350	E	37,970	0.46	C	1,240	1,470	3,410	4
Clyde Morris Blvd.	Hand Ave to SR 40/Granada Blvd.	348	County		Yes	0.80	35	UA_NSSRC2_2W_4	Principal Arterial - Other - Urban	12,340	11,940	11,230	11,670	12,230	12,130	12,460	14,400	12,900	11,980	12,700	E	30,420	0.42	C	880	1,030	2,740	4
Commonwealth Blvd.	Spruce Creek Rd. to Orange Ave.	360	County			0.55	30	UA_NSSRC2_2W_2	Minor Collector - Urban	5,250	5,450	5,220	5,180	5,460	5,450	5,530	5,430	5,540	5,260	5,570	E	13,640	0.41	C	350	470	1,020	2
Commonwealth Blvd.	Orange Ave. to US 1	361	County			0.35	30	UA_NSSRC2_2W_2	Minor Collector - Urban	3,670	3,540	3,530	3,620	3,890	3,920	3,840	3,680	3,870	3,850	3,870	E	13,640	0.28	C	230	330	1,020	2
CR 3	Ponce DeLeon Blvd. to Lake Winona Rd.	380	County		Yes	0.45	45	UA_NSSRC1_2W_2	Local	670	610	690	680	-	870	850	910	940	960	1,180	E	13,640	0.09	C	70	110	1,230	2
CR 3	Lake Winona Rd. to SR 40	380	County		Yes	5.04	35	RDA_UFH_2W_2L_	Local	670	610	680	680	-	870	850	910	940	960	1,180	C	11,775	0.10	B	70	110	1,230	2
CR 3	SR 40 to Emporia Rd	382	County		Yes	3.40	45	RDA_UFH_2W_2L_	Minor Collector - Rural	700	680	720	690	-	890	1,030	1,060	910	1,310	1,490	C	11,775	0.13	B	100	120	1,230	2
CR 3	Emporia Rd to Washington Ave.	384	County		Yes	1.20	30	RDA_UFH_2W_2L_	Minor Collector - Rural	1,650	1,680	1,660	1,580	1,750	2,190	2,300	2,130	2,130	1,780	1,890	C	11,775	0.16	B	130	200	1,230	2
CR 3	Washington Ave. to 'US 17	386	County		Yes	2.20	35	RDA_UFH_2W_2L_	Minor Collector - Rural	1,040	1,100	1,060	1,250	1,160	1,330	1,100	1,140	1,140	1,240	1,230	C	11,775	0.10	B	70	100	1,230	2
CR 15A	US 17 to Airport Rd.	440	County		Yes	0.90	50	UA_UFH_2W_2L_U	Minor Arterial - Urban	4,220	4,060	3,980	4,120		4,770	4,810	4,720	4,390	5,420	5,230	E	24,450	0.21	B	330	480	2,200	2
CR 15A	Airport Rd. to SR 11	441	County		Yes	1.25	40	UA_UFH_2W_2L_U	Minor Arterial - Urban	2,190	2,060	2,070	2,130	-	2,680	2,610	2,480	2,780	3,070	2,940	E	24,450	0.12	B	200	280	2,200	2
CR 92 (Intn'l Spdwy Blvd.)	SR 15A to Stone St.	450	County		Yes	0.25	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	11,970	11,770	12,070	11,940	13,310	14,620	14,060	13,620	15,300	14,360	13,780	E	37,970	0.36	C	780	1,100	3,410	4
CR 92 (Intn'l Spdwy Blvd.)	Stone St. to US 17/92	452	County		Yes	0.75	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	14,370	14,000	14,510	13,800	15,230	16,440	15,250	13,230	14,530	13,960	14,720	E	37,970	0.39	C	790	1,220	3,410	4
CR 305 (Bunnell Rd.)	US 17 to Cowart Rd.	460	County		Yes	1.50	50	RUA_UFH_2W_2L_	Major Collector - Rural	1,490	1,420	1,360	1,460	1,560	1,790	1,750	1,850	1,900	1,780	2,110	C	6,450	0.33	B	200	210	620	2
CR 305 (Bunnell Rd.)	Cowart Rd. to Flagler Co.	461	County		Yes	3.00	50	RUA_UFH_2W_2L_	Major Collector - Rural	990	890	910	990	-	1,370	1,270	1,360	1,390	1,330	1,600	C	6,450	0.25	B	160	170	620	2
Cow Creek Rd.	SR 442 to Volco Rd.	420	County		Yes	3.50	50	RUA_UFH_2W_2L_	Local	750	740	760	850	840	860	800	900	1,050	750	990	C	6,450	0.15	B	70	90	620	2
Cowart Rd.	Bunnell Rd to Little Brown Church Rd.	430	County			2.05	40	RUA_UFH_2W_2L_	Local	260	230	220	250	230	250	290	320	230	240	280	C	6,450	0.04	B	20	20	620	2
Daugharty Rd. (S. End)	Marsh Rd. to SR 11	470	County		Yes	0.80	35	RUA_UFH_2W_2L_	Local	510	510	490	520	-	560	500	520	530	520	520	C	6,450	0.08	B	30	50	620	2
Daugharty Rd.	SR 11 to Marsh Rd.	472	County			0.95	35	RUA_UFH_2W_2L_	Minor Collector - Rural	550	550	510	580	-	760	720	700	800	830	860	C	6,450	0.13	B	70	80	620	2
Demotte Ave.	Peninsula Dr. to Cardinal Blvd	500	County			0.20	35	UA_NSSRC2_2W_2	Minor Collector - Urban	3,940	4,480	4,050	4,120	4,690	6,270	4,610	4,740	5,190	5,060	5,090	E	13,640	0.47	C	340	490	1,020	2
Derbyshire Rd.	SR 430/Mason Ave. to LPGA Blvd.	511	County			1.45	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,950	5,980	5,870	6,130	6,330	6,590	6,410	8,230	7,940	7,310	8,000	E	13,640	0.59	D	480	650	1,020	2
Derbyshire Rd.	LPGA Blvd. to Flomich St.	512	County	Yes		0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	7,930	7,470	7,320	7,280	6,040	8,020	7,300	8,790	8,890	8,010	7,900	E	13,640	0.58	D	460	650	1,020	2
Dirksen/DeBary/Doyle	US 17/92 to Sunrise Blvd.	520	County	Yes		1.75	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	6,910	6,230	6,190	6,680	7,780	10,270	8,050	8,290	8,360	7,400	8,470	E	13,640	0.62	C	590	930	1,230	2
Dirksen/DeB

Dunn/George Engram/Fairview/Main	Bill France Blvd. to Clyde Morris Blvd.	718	County		Yes	0.85	35	UA_NSSRC2_2W_2	Minor Arterial - Urban	10,550	10,400	10,150	10,730	#REF!	12,880	10,510	14,510	14,390	11,550	11,600	E	14,740	0.79	D	730	960	1,330	2
Dunn/George Engram/Fairview/Main	Clyde Morris Blvd. to SR 5A/Nova Rd.	719	County		Yes	1.00	40	UA_NSSRC1_2W_4	Minor Arterial - Urban	10,430	10,310	10,230	10,830	10,640	10,870	10,800	11,500	11,760	8,360	9,330	E	37,970	0.25	C	600	770	3,410	4
Dunn/George Engram/Fairview/Main	SR 5A/Nova Rd. to US 1	720	County		Yes	1.20	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	5,570	5,060	5,380	4,990	9,640	10,550	10,750	11,790	11,040	8,950	9,260	E	30,420	0.30	C	550	770	2,740	4
Dunn/George Engram/Fairview/Main	US 1 to Beach St	631	County		Yes	0.40	30	UA_NSSRC2_2W_2	Minor Arterial - Urban	6,980	6,330	6,560	6,190	5,880	5,350	5,620	6,080	6,290	4,870	5,710	E	14,040	0.41	C	300	490	1,270	2
Dunn/George Engram/Fairview/Main	Beach St. to Peninsula Dr.	1170	County		Yes	0.60	30	UA_NSSRC2_2W_2	Minor Arterial - Urban	6,010	5,700	5,540	5,210	8,020	7,190	7,440	8,410	8,470	5,280	6,330	E	14,040	0.45	C	330	540	1,270	2
Emporia Rd.	SR 40 to Peterson/Blackburn	560	County		Yes	3.00	40	RUA_UFH_2W_2L	Minor Collector - Rural	690	720	690	660	-	910	860	850	920	920	1,090	C	6,450	0.17	B	70	100	620	2
Emporia Rd.	Peterson/Blackburn to US 17	564	County		Yes	1.45	40	RUA_UFH_2W_2L	Minor Collector - Rural	1,280	1,230	1,320	1,060	-	1,250	1,220	1,110	1,100	1,290	1,700	C	6,450	0.26	B	150	130	620	2
Enterprise Ave. (NSB)	Pioneer Tr. to Halleck St.	570	County			0.10	35	UA_NSSRC2_2W_2	Major Collector - Urban	7,460	7,000	7,740	7,900	8,210	8,550	9,760	9,230	9,530	9,080	9,800	E	13,640	0.72	D	630	830	1,020	2
Enterprise Rd.	DeBary Ave. to Deltona Blvd.	581	County		Yes	1.10	35	UA_NSSRC2_2W_2	Minor Arterial - Urban	7,800	7,150	7,270	7,390	7,050	8,300	8,660	9,320	7,630	7,680	8,520	E	14,040	0.61	D	640	720	1,270	2
Enterprise Rd.	Deltona Blvd. to Highbanks Rd.	582	County		Yes	0.50	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	15,330	14,620	14,110	15,010	15,820	14,130	16,650	16,720	17,920	15,730	16,690	E	30,420	0.55	D	1,010	1,370	2,740	4
Enterprise Rd.	Highbanks Rd. to Saxon Blvd.	584	County		Yes	1.55	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	23,460	23,750	21,590	23,790	20,550	20,510	25,710	19,820	25,290	19,830	20,900	E	37,970	0.55	C	1,270	1,740	3,410	4
Enterprise Rd.	Saxon Blvd. to Harley Strickland Blvd.	585	County		Yes	0.50	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	23,670	22,790	20,710	22,110	23,120	23,900	23,240	19,220	23,680	22,540	23,370	E	37,970	0.62	C	1,370	1,940	3,410	4
Enterprise Rd.	Harley Strickland Blvd. to US 17/92	586	County		Yes	0.50	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	22,090	20,900	19,330	20,650	20,860	21,370	21,970	23,760	20,970	24,510	25,680	E	30,420	0.84	D	1,500	2,070	2,740	4
Enterprise-Osteen Rd.	Providence to Garfield Rd	600	County		Yes	1.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,690	2,470	2,470	2,490	2,630	3,110	3,360	3,350	3,920	3,490	3,500	E	13,640	0.26	C	240	370	1,020	2
Enterprise-Osteen Rd.	Garfield Rd to Reed Ellis Rd.	601	County		Yes	1.70	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,850	1,690	1,690	1,760	1,960	2,400	2,930	2,860	3,100	2,900	2,970	E	13,640	0.22	C	220	330	1,020	2
Enterprise-Osteen Rd.	Reed Ellis Rd. to SR 415	602	County		Yes	2.50	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,160	1,080	1,160	1,140	1,250	1,480	1,360	1,250	1,250	1,310	1,280	E	13,640	0.09	C	70	120	1,020	2
Euclid Ave.	Grand to Fatio Rd.	610	County			0.25	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,190	1,080	1,150	1,030	1,130	1,190	1,310	1,300	1,420	1,220	1,390	E	13,640	0.10	C	90	120	1,020	2
Euclid Ave.	Fatio Rd. to Woodward Ave.	611	County			0.25	30	UA_NSSRC2_2W_2	Minor Collector - Urban	1,360	1,270	1,330	1,220	1,360	1,390	1,460	1,570	1,590	1,490	1,620	E	13,640	0.12	C	110	140	1,020	2
Euclid Ave.	Woodward Ave. to SR 15A	612	County			0.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,310	2,300	2,290	2,140	2,280	2,320	2,440	2,640	2,570	2,530	2,650	E	13,640	0.19	C	200	240	1,020	2
Euclid Ave.	SR 15A to Adelle Ave.	613	County			0.75	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,440	2,510	2,430	2,380	2,450	2,830	2,790	3,130	2,970	2,880	2,960	E	13,640	0.22	C	200	270	1,020	2
Euclid Ave.	Adelle Ave. to US 17/92	614	County			0.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,150	2,200	2,150	2,210	-	2,260	2,190	2,330	2,060	2,100	2,260	E	13,640	0.17	C	130	200	1,020	2
Flomich St.	Derbyshire Rd. to SR 5A/Nova Rd.	650	County		Yes	0.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,450	5,570	5,430	5,140	4,900	5,300	5,470	5,540	5,510	4,820	5,100	E	13,640	0.37	C	280	440	1,020	2
French Ave.	Beginning of road to Blue Springs Park	690	County			1.00	30	UA_NSSRC2_2W_2	Minor Collector - Urban	140	180	130	270	-	200	-	160	150	150	230	E	13,640	0.02	C	10	30	1,020	2
French Ave.	Blue Springs Park to Lawton Ave./Hamilton	691	County			1.25	35	UA_NSSRC2_2W_2	Minor Collector - Urban	520	670	480	1,260	-	710	-	1,000	1,040	1,100	1,090	E	13,640	0.08	C	40	130	1,020	2
Garfield Ave.	SR 44 to Plymouth Ave.	700	County			1.00	30	UA_NSSRC2_2W_2	Local	2,350	2,280	1,980	1,910	-	2,430	2,270	2,400	2,070	1,920	2,130	E	13,640	0.16	C	140	180	1,020	2
Garfield Ave.	Plymouth Ave. to US 92	702	County			0.85	30	UA_NSSRC2_2W_2	Local	2,310	2,220	2,100	2,280	-	2,390	2,760	3,100	2,830	2,370	2,510	E	13,640	0.18	C	160	210	1,020	2
Garfield Rd.	Doyle Rd. to Enterprise-Osteen Rd	711	County			0.90	40	UA_NSSRC1_2W_2	Minor Collector - Urban	1,860	1,680	1,530	1,550	1,670	1,900	2,130	1,850	2,220	1,920	2,020	E	13,640	0.15	C	140	200	1,230	2
Glencoe Rd.	Taylor Rd. to Paige Ave.	730	County			1.50	40	UA_NSSRC1_2W_2	Minor Collector - Urban	1,310	1,300	1,410	1,510	1,660	1,740	1,810	2,040	2,110	2,260	2,540	E	13,640	0.19	C	190	250	1,230	2
Glencoe Rd.	Paige Ave. to SR 44	731	County			1.10	35	UA_NSSRC2_2W_2	Minor Collector - Urban	3,710	3,780	3,820	3,720	4,030	4,280	-	-		4,500	5,360	E	13,640	0.39	C	380	460	1,020	2
Glencoe Rd.	SR 44 to Pioneer Tr.	732	County			0.85	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,670	1,820	1,930	1,870	1,570	1,500	1,590	1,770	1,800	1,850	2,080	E	13,640	0.15	C	140	190	1,020	2
Glenwood Rd.	Grand Ave. to SR 15A	741	County			1.60	35	UA_NSSRC2_2W_2	Major Collector - Urban	4,210	4,170	4,030	4,040	-	4,360	4,120	4,380	4,500	4,360	4,210	E	13,640	0.31	C	250	370	1,020	2
Glenwood Rd.	SR 15A to US 17	743	County			1.25	35	UA_NSSRC2_2W_2	Major Collector - Urban	2,140	2,140	2,050	2,000	-	2,400	2,260	2,340	2,390	2,110	1,750	E	13,640	0.13	C	120	200	1,020	2
Grand Av/CR 4053	Old New York Ave. to SR 44	748	County		Yes	0.60	30	UA_NSSRC2_2W_2	Major Collector - Urban	810	860	830	940	970	-	-	1,230	1,550	1,870	1,980	2,290	E	13,640	0.17	C	170	250	1,020	2
Grand Av/CR 4053	SR 44 to Minnesota Ave.	750	County		Yes	0.90	35	UA_NSSRC2_2W_2	Major Collector - Urban	2,250	1,820	2,190	2,280	2,570	3,090	3,010	3,630	4,090	3,860	4,440	E	13,640	0.33	C	310	470	1,020	2
Grand Av/CR 4053	Minnesota Ave. to Plymouth Ave.	751	County		Yes	0.50	40	UA_NSSRC1_2W_2	Major Collector - Urban	1,240	1,270	1,260	1,240	1,410	1,760	1,530	1,680	1,900	1,780	1,880	E	13,640	0.14	C	130	180	1,230	2
Grand Av/CR 4053	Plymouth Ave. to Glenwood Rd.	752	County		Yes	2.10	40	UA_NSSRC1_2W_2	Major Collector - Urban	1,910	2,010	2,080	1,990	2,330	2,680	2,310	2,570	2,650	2,570	2,800	E	13,640	0.21	C	200	250	1,230	2
Grand Av/CR 4053	Glenwood Rd. to Lemon St.	754	County		Yes	1.30	35	UA_NSSRC2_2W_2	Major Collector - Urban	3,700	3,630	3,550	3,550	3,860	4,010	4,020	4,200	4,270	3,950	4,070	E	14,740	0.28	C	270	370	1,330	2
Grand Av/CR 4053	Lemon St. to Retta St.	756	County		Yes	1.80	40	UA_NSSRC1_2W_2	Major Collector - Urban	1,740	1,720	1,700	1,740	1,990	2,100	1,860	2,190	2,200	2,280	2,300	E	13,640	0.17	C	160	210	1,230	2
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	775	County		Yes	0.30	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	17,570	17,140	16,750	17,160	18,780	19,180	19,190	19,590	21,760	19,090	19,750	E	17,900	1.10	F	1,180	1,640	1,620	2
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	County		Yes	0.60	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	15,580	16,370	E	17,900	0.91	C	1,000	1,420	1,620	2
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	County		Yes	0.25	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	16,310	19,290	E	30,420	0.63	D	1,290	1,650	2,740	4
Greens Dairy Rd.	SR 15A to Stone St.	780	County			0.50	30	UA_NSSRC2_2W_2	Local	120	90	100	120	-	150	200	210	230	200	160	E	13,640	0.01	C	10	20	1,020	2
Halleck St. (NSB)	Wayne Ave. to Enterprise Ave.	810	County		Yes	0.20	30	UA_NSSRC2_2W_2	Major Collector - Urban	6,170	5,780	5,890	6,450	6,530	6,410	6,940	7,200	6,940	6,830	7,390	E	13,640	0.54	D	110	180	1,020	2
Hand Ave.	Williamson Blvd. to Clyde Morris Blvd.	830	County		Yes	1.25	50	UA_NSSRC1_2W_2	Major Collector - Urban	7,660	7,900	6,750	8,330	9,520	8,720	6,880	9,860	9,590		9,480	E	17,050	0.56	A	640	770	1,540	2
Hand Ave.	Clyde Morris Blvd. to Shangri La Dr.	832	County		Yes	0.75	50	UA_NSSRC1_2W_2	Major Collector - Urban	13,220	13,090	10,230	13,950	14,870	15,370	16,690	17,010	16,350	14,340	15,180	E	17,050	0.89	C	1,050	1,230	1,540	2
Hand Ave.	Shangri La Dr. to SR 5A/Nova Rd.	833	County		Yes	0.25	45	UA_NSSRC1_2W_4	Major Collector - Urban	14,880	14,320	13,350	14,950	16,320	15,820	17,270	18,250	17,000	13,370	16,410	E	37,970	0.43	C	1,090	1,360	3,410	4
Hazen Rd.	SR 44 to Plymouth Ave.	850	County		Yes	1.00	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	1,050	1,240	1,250	1,400	1,480	1,680	1,680	1,980	1,650	1,440	1,790	E	13,640	0.13	C	140	180	1,230	2
Hazen Rd.	Plymouth Ave. to Mercers Fernery Rd.	852	County			1.50	35	UA_NSSRC2_2W_2	Minor Collector - Urban	720	700	800	820	680	850	910	1,020	1,380	840	910	E	13,640	0.07	C	130	80	1,020	2
Highbridge Rd.	Walter Boardman Ln. to John Anderson Dr.	871	County		Yes	1.60	30	RDA_UFH_2W_2L	Major Collector - Rural	1,830	2,100	1,750	2,020	2,480	2,770	2,210	2,570	3,160		3,390	C	11,775	0.29	A	200	290	1,120	2
Highbridge Rd.	John Anderson Dr. to SR A1A	872	County		Yes	0.20	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,520	1,780	1,490	1,660	2,170	2,380	2,120	2,110	2,680	2,490	2,940	E	13,640	0.22	C	170	240	1,020	2
Hill Ave.	Taylor Rd. to Beresford Ave.	878	County			1.00	30	UA_NSSRC2_2W_2	Local	430	480	550	820	-	1,070	1,030	1,260	1,140	1,060	1,080	E	13,640	0.08	C	80	110	1,020	2
Hill Ave.	Beresford Ave. to Voorhis Ave.	881	County			0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	2,310	2,370	2,200	2,510	-	2,680	2,780	2,840	2,980	2,430	2,450	E	13,640	0.18	C	230	240	1,020	2
Hill Ave.	Voorhis Ave. to SR 44	882	County			0.25	30	UA_NSSRC2_2W_2	Major Collector - Urban	2,530	2,780	2,540	2,760	-	3,220	3,150	3,710	3,590	3,060	3,130	E	13,640	0.23	C	270	280	1,020	2
Hill Ave./Jacobs Rd.	Plymouth Ave. to US 92	950	County		Yes	0.85	40	UA_NSSRC1_2W_2	Major Collector - Urban	5,870	5,190	5,820	5,900	6,170	7,590	7,510	8,420	8,270	7,230	7,390	E	13,640	0.54	C	600	560	1,230	2
Hontoon Rd.	end of road to Botts Landing Rd.	890	County			2.00	35	UA_NSSRC2_2W_2	Minor Collector - Urban	870	790	840	880	1,000	1,090	1,040	930	970	970	1,120	C	5,260	0.21	C	80	100	1,020	2
Hontoon Rd.	Botts Landing Rd. to Old New York Ave.	891	County			1.15	40	UA_NSSRC1_2W_2	Minor Collector - Urban	3,050	2,840	2,820	2,990	3,180	3,450	3,240	3,020	3,190	2,950	3,540	C	12,100	0.29	C	240	290	1,230	2
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	FDOT		Yes	0.40	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	30,490	29,890	27,480	30,590	36,570	32,320	38,300	36,990	34,320	30,660	31,360	E	37,970	0.83	C	2,080	2,530	3,410	4
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	County		Yes	1.15	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	28,010	27,440	25,280	27,770	31,520	30,270	30,040	31,480	30,520	26,130	28,510	E	37,970	0.75	C	1,860	2,310	3,410	4
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905	County		Yes	0.35	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	22,110	21,930	20,070	22,700	23,710	23,950	25,520	23,110	23,670	19,360	20,570	E	37,970	0.54	C	1,360	1,670	3,410	4
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	County		Yes	2.10	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	16,890	14,140	15,150	16,430	16,780	17,220	18,800	18,930	17,430	13,580	14,120	E	13,640	1.04	E	970	1,110	1,230	2
Howland Blvd.	Elkcam Blvd. to Lake Helen-Osteen Rd.	908	County		Yes	0.30	45/40	UA_NSSRC1_2W_4	Minor Arterial - Urban	15,300	15,620	14,220	15,090	16,530	15,940	18,760	18,190	17,500	13,670	16,110	E	37,970	0.42	C	950	1,260	3,410	4
Howland Blvd.	Lake Helen-Osteen Rd. to Newmark Dr.	909	County		Yes	0.70	40	UA_NSSRC1_2W_4	Minor Arterial - Urban	20,350	20,990	19,330	19,900	19,690	21,360	25,290	23,160	21,860	19,970	22,640	E	37,970	0.60	C	1,470	1,890	3,410	4
Howland Blvd.	Newmark Dr. to Courtland Blvd.	911	County		Yes	1.15	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	16,640	16,990	15,600	15,490	16,060	17,440	20,200	18,130	20,630	16,480	19,260	E	37,970	0.51	C	1,310	1,640	3,410	4
Howland Blvd.	Courtland Blvd. to Ft Smith Blvd.	913	County		Yes	1.80	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	13,280	12,920	11,770	11,240	10,990	12,000	16,230	14,620	14,080	12,970	15,700	E	37,970	0.41	C	1,280	1,360	3,410	4
Howland Blvd.	Ft Smith Blvd. to SR 415	915	County		Yes	0.65	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	12,650	12,180	12,530	12,960	14,030	13,600	18,230	16,400	17,200	15,690	17,850	E	37,970	0.47	C	1,230	1,590	3,410	4
I-4 Frontage Rd.	Summit Ave. to Orange Camp Rd.	Future Ro	County		Yes	2.00	45	UA_NSSRC1_2W_2	n/c	-	-	-	-	-	-	-	-	-	-	-		12,100	-	-	-	-	1,230	0
I-4 Frontage Rd.	Orange Campe Rd. to Cassadaga Rd.	Future Ro	County		Yes	1.35	45	UA_NSSRC1_2W_4	n/c	-	-	-	-	-	-	-	-	-	-	-	E	37,970	-	-	-	-	3,410	0
I-4 Frontage Rd.	Cassadaga Rd. to SR 472	Future Ro	County		Yes	0.70	45	UA_NSSRC1_2W_4	n/c	-	-	-	-	-	-	-	-	-	-	-	E	37,970	-	-	-	-	3,410	0
Indian Lake Rd.	Tiger Bay Rd. to US 92	935	County			0.80	40	UA_NSSRC1_2W_2	Local	6,090	5,550	5,180	5,150	5,870	6,660	6,590	6,370	6,470	4,710	5,250	E	13,640	0.38	C	490	490	1,230	2
John Anderson Dr.	Halifax Dr to Lynnhurst	972	County		Yes	0.85	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,390	5,520	6,730	4,370	5,180	5,790	5,520	5,200	5,570	5,060	3,590	E	13,640	0.26	C	280	290	1,020	2
John Anderson Dr.	Lynnhurst to Highbridge Rd.	974	County		Yes	7.40	35	UA_NSSRC2_2W_2	Major Collector - Urban	3,590	3,960	4,570	3,240	3,700	4,190	4,080	3,870	3,940	3,670	3,890	E	13,640	0.29	C	290	340	1,020	2
John Anderson Hwy.	Walter Boardman Lane to Flagler Co.	990	County		Yes	1.00	5 NB / 30 S	RDA_UFH_2W_2L	Minor Collector - Rural	1,000	1,140	900	950	1,150	1,190	1,170	1,200	1,180	1,230	1,420	C	11,775	0.12	B	90	130	1,120	2
Josephine St./10th St.	Old Mission Rd. to Tatum Blvd.	1000	County		Yes	0.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,810	5,860	5,910	5,820	4,830	6,650	6,230	5,590	7,020	5,840	6,010	E	13,640	0.44	D	610	530	1,020	2
Josephine St./10th St. (NSB)	Tatum Blvd. to US 1	1002	County		Yes	1.80	35	UA_NSSRC2_2W_2	Major Collector - Urban	7,350	7,140	-	-	4,940	6,990	-	-	-	-	-	E	14,040		A	30	40	1,270	2
Kathy Dr. (N. Penin.)	John Anderson Dr. to SR A1A	1011	County			0.44	30	UA_NSSRC2_2W_2	Local	420	460	470	460	410	500	410	440	430	430	470	E	13,640	0.03	C	690	910	1,020	2
Kennedy Pkwy (Old SR 3)	US 1 to Park Entrance	1020	Federal			4.00	55	RUA_UFH_2W_2L	Major Collector - Rural	700	660	-	-	-			850	850	850		C	6,450		B	120	140	620	2
Kicklighter Rd.	Macy Ave. to Lake Helen-Osteen/Prevatt	1051	County		Yes	0.75	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,080	1,810	1,690	1,680	1,820	2,020	2,100	2,190	2,110	1,880	1,950	E	13,640	0.14	C	410	200	1,020	2
Lake George Rd.	Bream Dr. to US 17	1062	County			3.90	30	RUA_UFH_2W_2L	Local	860	820	740	780	810	810	850	880	790	710	730	C	6,450	0.11	B	50	60	620	2
Lake Helen-Osteen Rd.	Howland Blvd. to Elkcam Blvd.	1070	County		Yes	0.40	35	UA_NSSRC2_2W_2	Minor Arterial - Urban	6,140	6,050	6,060	5,920	6,140	6,360	7,430	7,800	6,910	6,710	7,970	E	13,640	0.58	D	570	730	1,020	2
Lake Helen-Osteen Rd.	Elkcam Blvd. to Haulover Blvd.	1071	County		Yes	1.75	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	7,690	7,540	7,220	6,920	5,440	5,680	5,490	9,500	8,270	8,160	9,470	E	13,640	0.69	C	690	820	1,230	2
Lake Helen-Osteen Rd.	Haulover Blvd. to Catalina Blvd.	1072	County		Yes	0.50	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	10,320	9,740	9,570	9,850	10,510	11,000	11,260	12,610	11,300	11,210	12,740	E	13,640	0.93	C	1,040	1,090	1,230	2
Lake Helen-Osteen Rd.	Catalina Blvd. to Captain Dr	1073	County		Yes	0.40	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	7,410	7,090	6,840	7,110	7,420	7,700	7,830	8,560	7,580	7,650	8,480	E	13,640	0.62	C	700	750	1,230	2
Lake Helen-Osteen Rd.	Captain Dr. to Kicklighter Rd.	1076	County		Yes	1.40	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	7,030	6,570	6,750	6,760	6,990	7,280	7,910	7,590	8,260	7,750	8,940	E	13,640	0.66	C	1,050	840	1,230	2
Prevatt Ave.	Kicklighter Rd to Lake Pearl Dr.	1520	County		Yes	1.50	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	4,800	4,390	4,570	3,910	-	4,640	5,070	5,220	4,600	4,540	6,080	C	15,120	0.40	C	590	530	1,540	2
Prevatt Ave.	Lake Pearl Dr. to SR 44	1523	County		Yes	1.80	55	UA_NSSRC1_2W_2	Minor Arterial - Urban	4,630	4,230	4,470	4,200	4,570	5,680	5,510	4,800	4,700	5,710	7,210	E	17,050	0.42	C	650	560	1,540	2
Lake Winona Rd.	CR 3 to US 17	1080	County		Yes	0.15	35	RUA_UFH_2W_2L	Local	160	170	170	220	-	350	290	260	200	220	280	C	6,450	0.04	B	20	30	620	2
Lake Winona Rd.	US 17 to Blackwelder Rd.	1081	County		Yes	2.25	35	RUA_UFH_2W_2L	Minor Collector - Rural	880	800	800	980	-	1,030	980	1,110	1,130	1,070	1,050	C	6,450	0.16	B	80	90	620	2
Lake Winona Rd.	Blackwelder Rd. to SR 40	1082	County		Yes	3.70	35	RUA_UFH_2W_2L	Minor Collector - Rural	150	120	140	160	-	200	170	190	200	130	190	C	6,450	0.03	B	20	20	620	2
Children's Way/Lakeshore Dr.	Main St. to Providence Blvd.	1090	County		Yes	0.70	30	UA_NSSRC2_2W_2	Local	1,000	960	900	870	940	1,000	1,000	840	830	1,500	940	E	13,640	0.07	C	60	110	1,020	2
Lakeshore Dr.	Providence Blvd. to Garfield Rd	1092	County		Yes	0.45	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,590	2,610	2,520	2,570	2,820	3,170	3,180	2,970	3,120	1,770	3,130	E	13,640	0.23	C	180	300	1,020	2
Lakeview Dr. (LH)	Ohio Ave. to Main St.	1100	County		Yes	0.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,600	2,790	2,740	3,280	3,690	3,280	4,330	4,390	3,890	3,420	3,830	C	5,260	0.73	C	440	390	1,020	2
Lakeview Dr. (LH)	Main St. to New York Ave.	1101	County			0.25	30	UA_NSSRC2_2W_2	Minor Collector - Urban	1,130	1,190	1,110	1,140	1,250	1,150	1,420	1,170	1,120	1,230	1,330

Volusia County's Segment Growth Rates and Vested Trips Instructions Policy



The applicant must provide a detailed narrative justifying any request to modify growth rate, particularly in cases where there is a significant difference. This narrative should be accompanied by thorough supporting documentation, which outlines the specific factors contributing to the observed variations and explains how the proposed growth rate aligns with the overall traffic patterns and conditions in the area.

AND

IF there are - Vested Trips

Negative Growth (Use Minimum 1%):

\+ Vested Trips

Low to Medium Growth (<= 3%)(Use Minimum 1%):

\+ Vested Trips

High Growth (> 3%):

Use the Highest # of the two (growth rate or vested trips). Need to submit supporting documentation & justification.

HIGH GROWTH & HIGH VESTED TRIPS

If there are Vested Trips from multiple approved projects on segment.
And, Vested Trips comprise of multiple uses that would normally have significant interaction (residential, retail, office, restaurant, etc…).

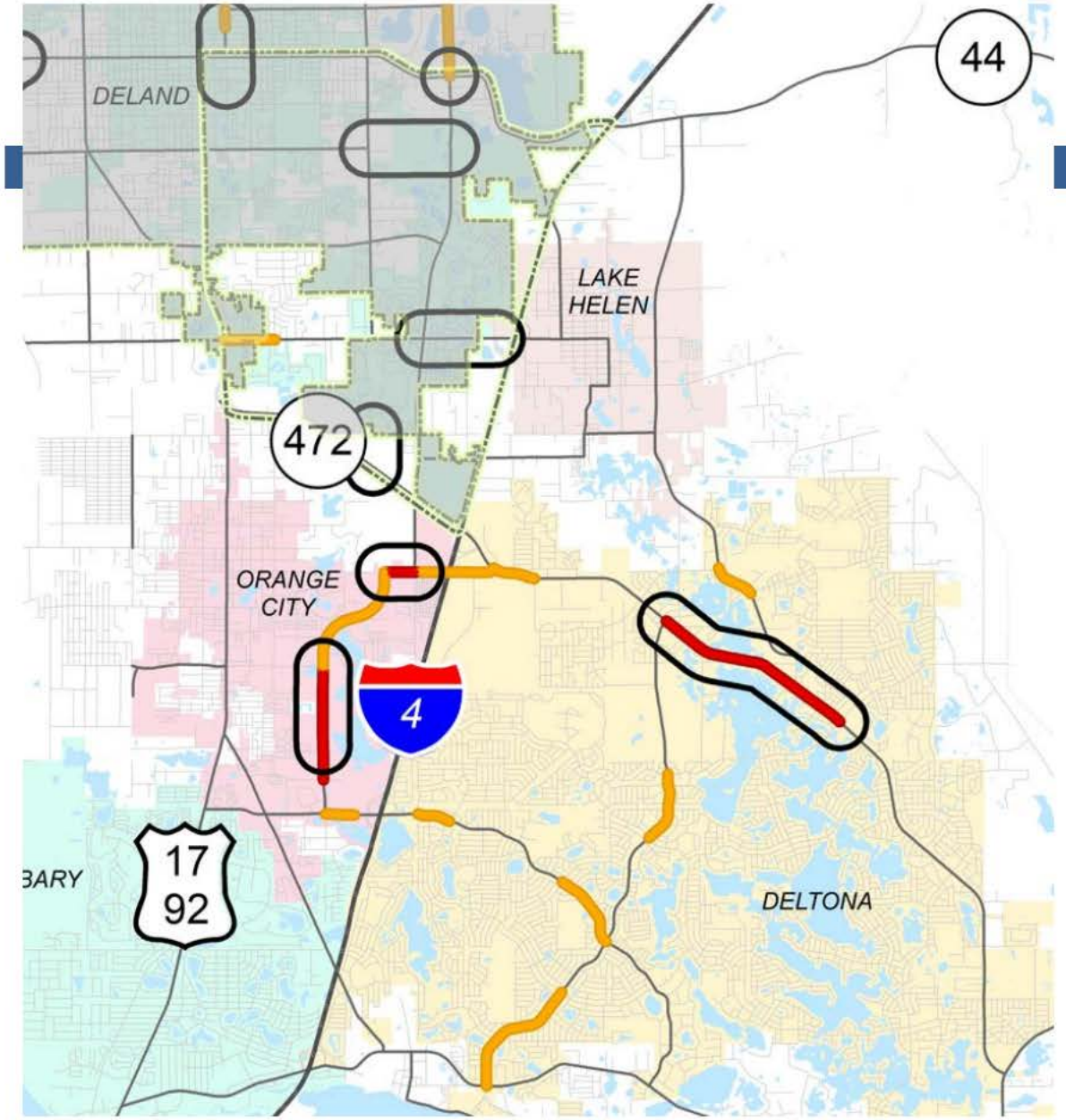
And, Vested Trips make up more than 30% of the total future background traffic.

Then, Vested Trips can be reduced by 30% upon request by the Applicant

Signed:_____ Date:_____

Jay Williams, PE, PTOE

ZONE 3



Deltona

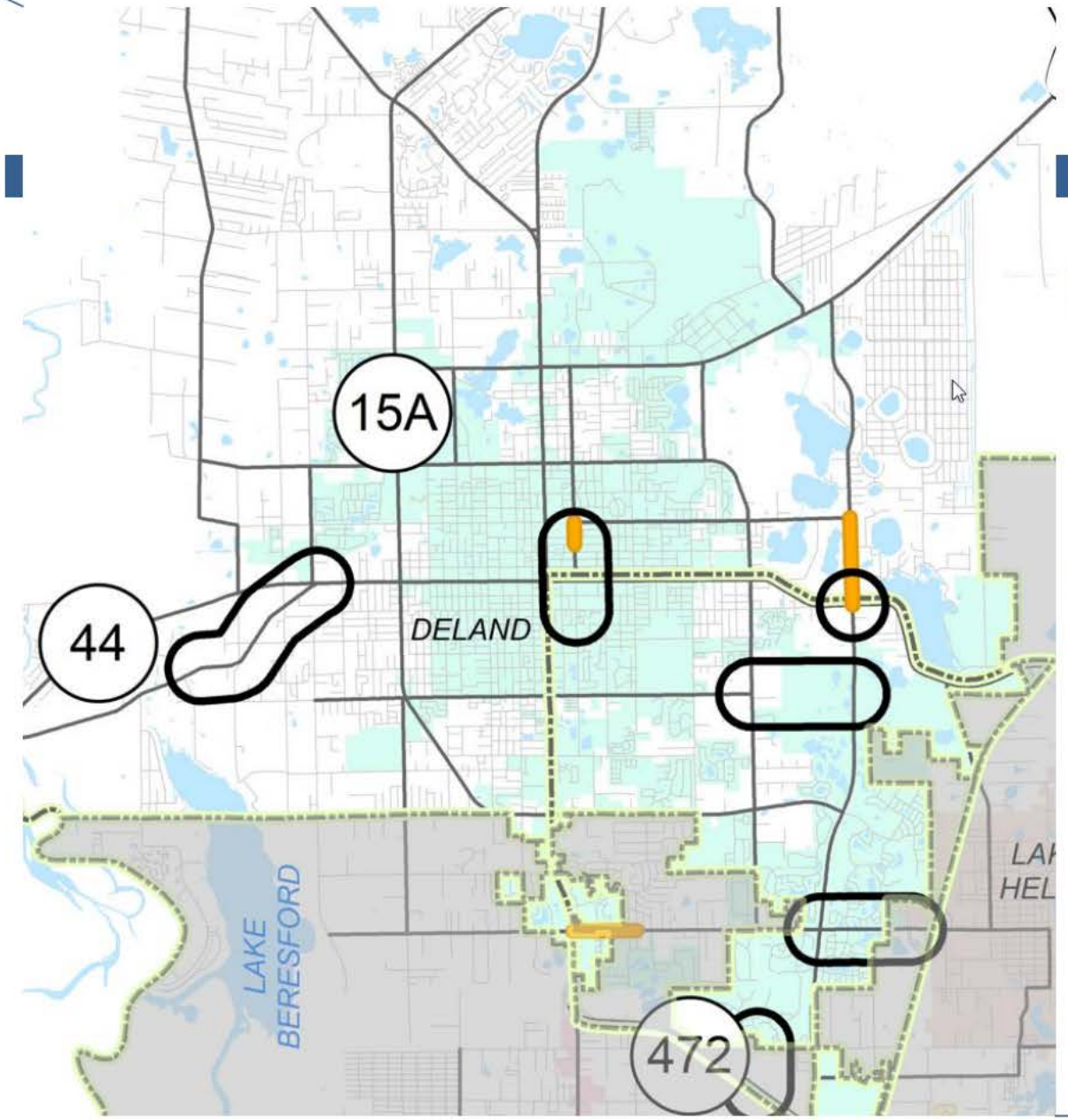
- Howland Blvd widening from Providence Blvd to Elkcam Blvd
  (Construction Underway)

Orange City

- Graves Ave widening from 2 Lanes to 3 Lanes Veterans Memorial Pkwy to Kentucky Av
  (Design Underway)

- Veterans Memorial Pkwy widening from current limits of 4 Lanes to Rhode Island Av
  (Design Underway)

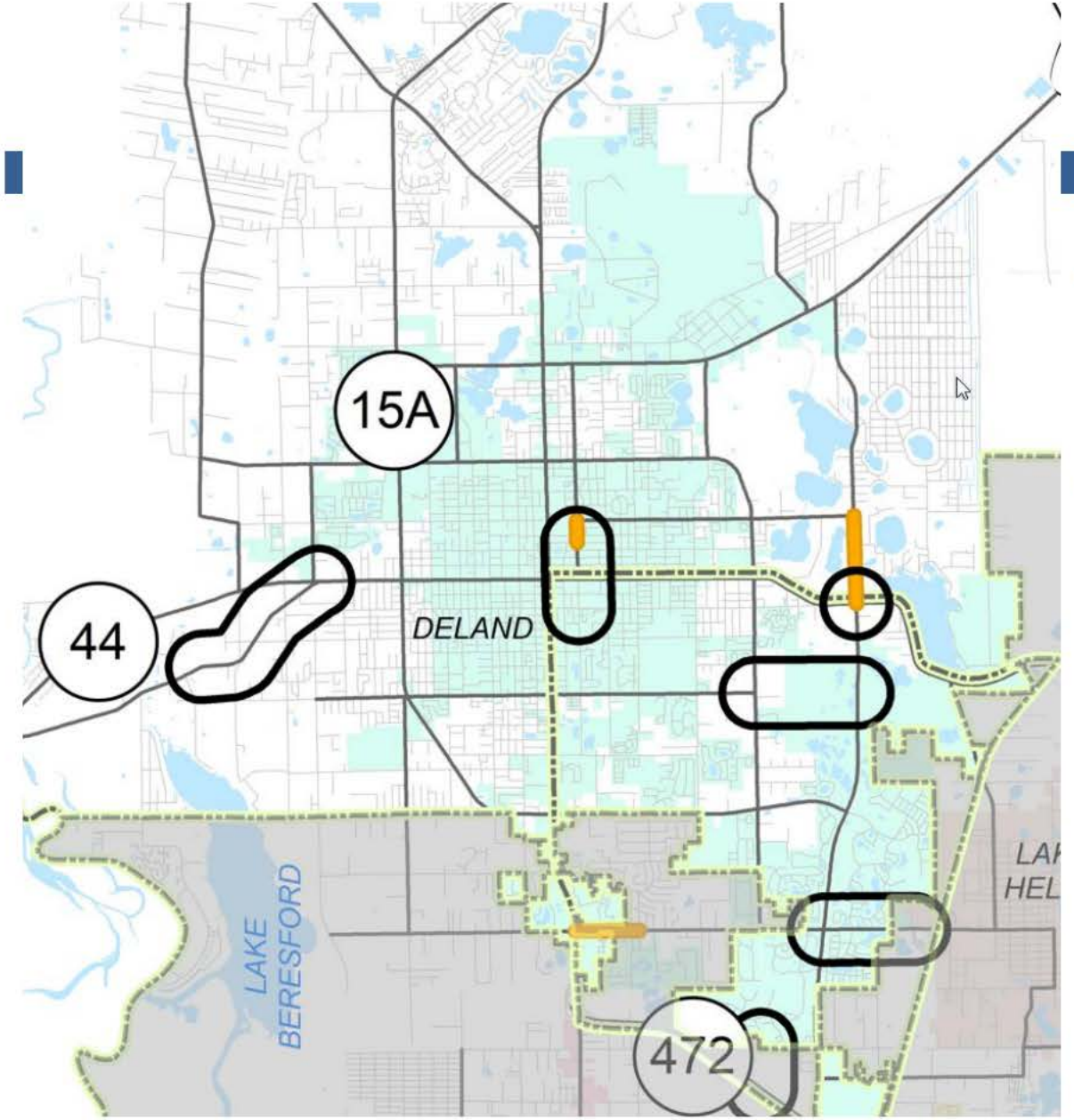
ZONE 4



DeLand

- **Orange Camp Rd widening from Martin Luther King Jr. Btwy to I-4**
  (Construction Underway)
- **Old New York Av Add Paved Shoulders SR 44 to Shell Rd**
  (Design Underway)
- **Beresford Rd Extension from Blue Lake Av to Kepler Rd/Martin Luther King Jr. Btwy**
  (Design & ROW Acquisition Underway)

ZONE 4



- **Amelia Av Lane Reduction from Voorhis Ave to Ohio Ave**
  (Design & ROW Acquisition Underway)
- **Blue Lake Av Extension from Blue Lake Av in Victoria Park to SR 472**
  (Design & ROW Acquisition Underway)

Appendix D
ITE Trip Generation Sheets

Single-Family Detached Housing
(210)

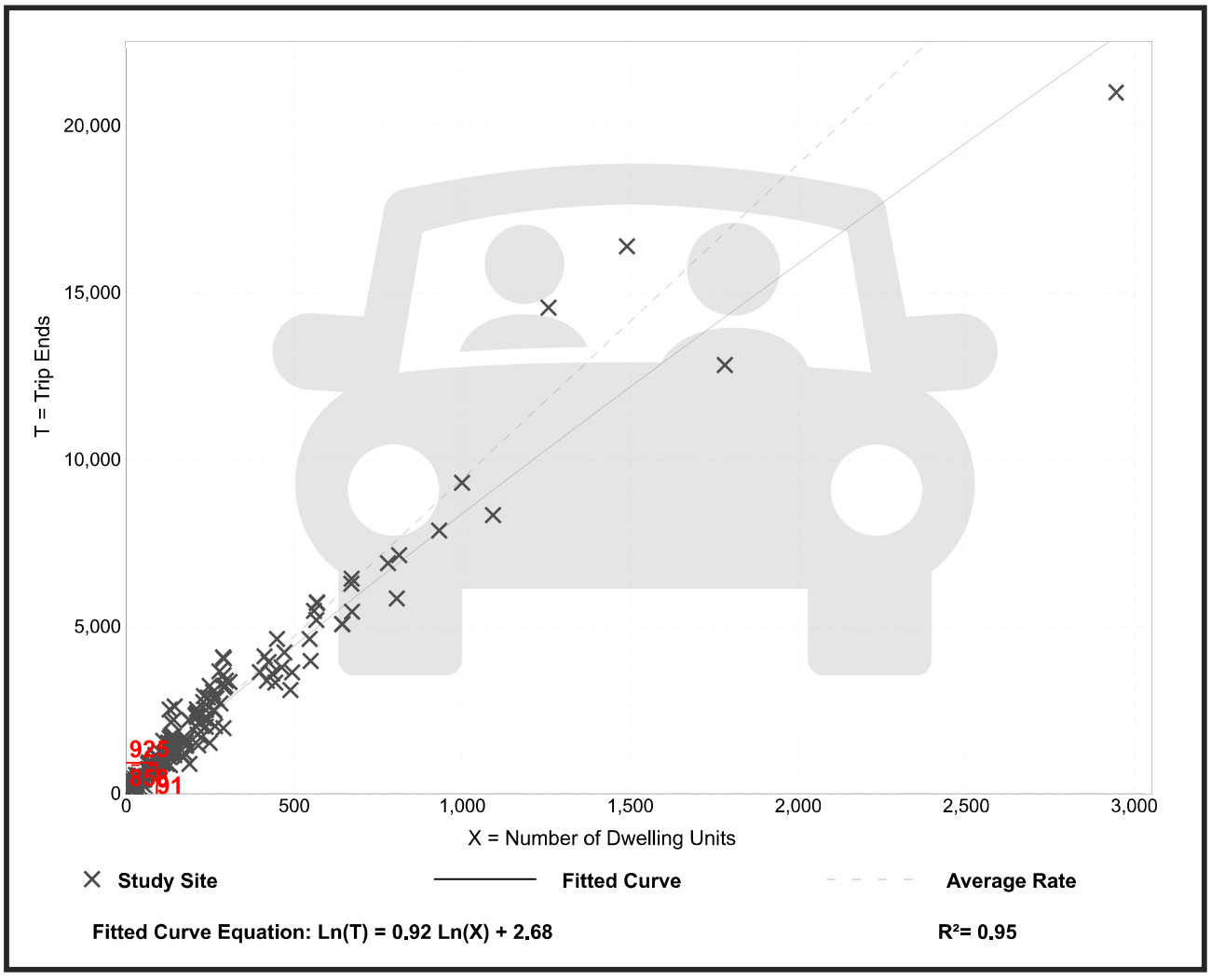
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



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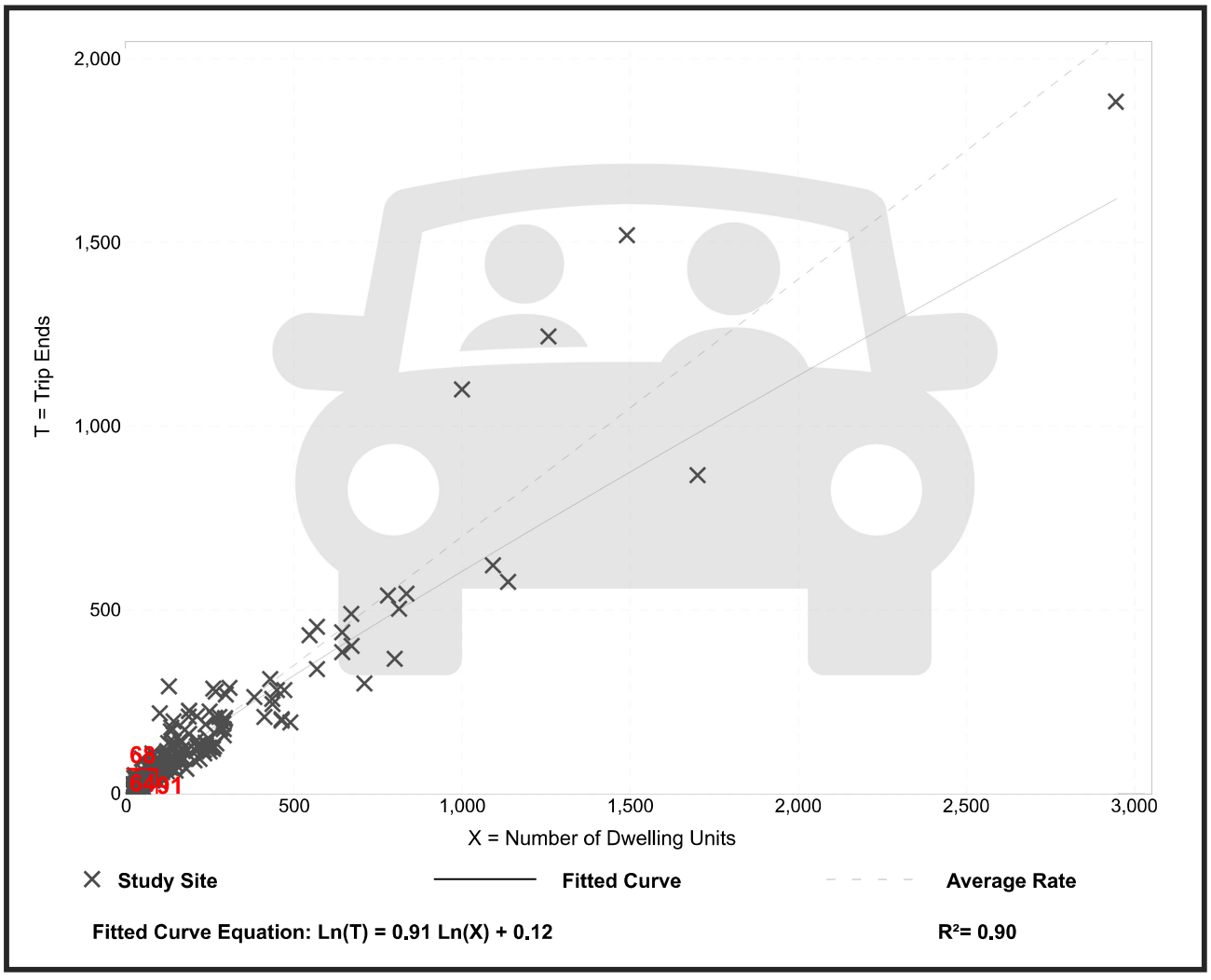
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	192
Avg. Num. of Dwelling Units:	226
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



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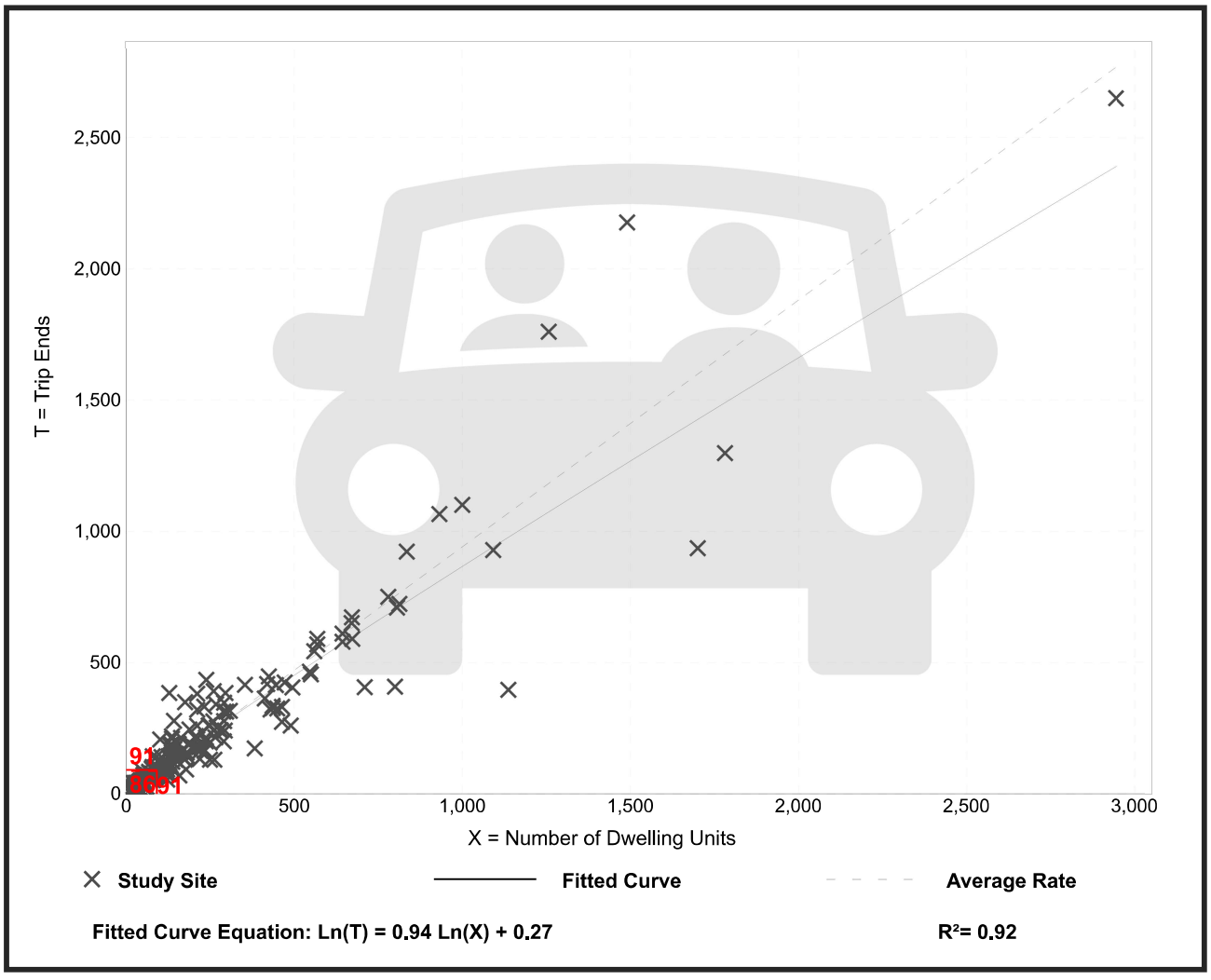
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



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Single-Family Attached Housing
(215)

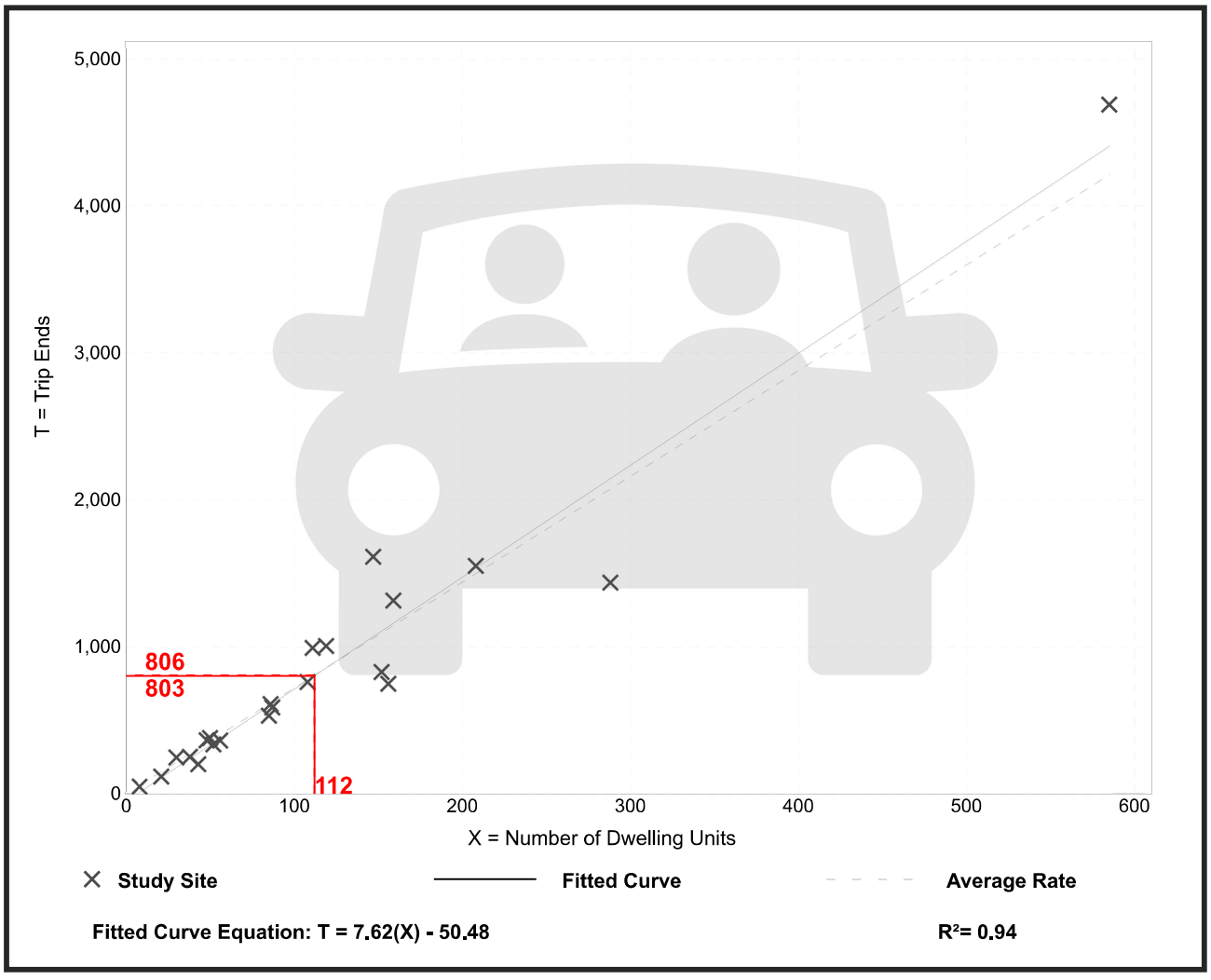
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



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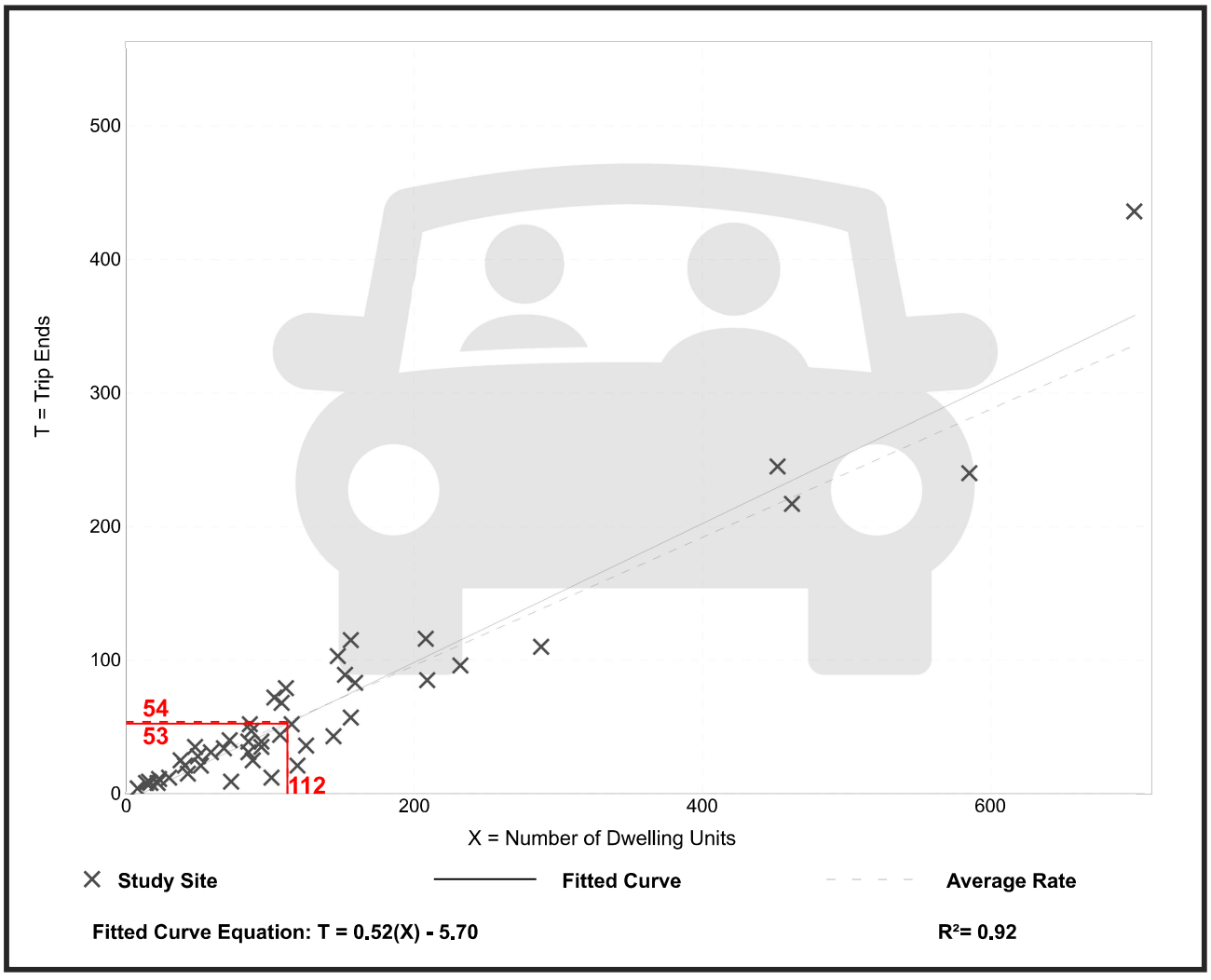
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



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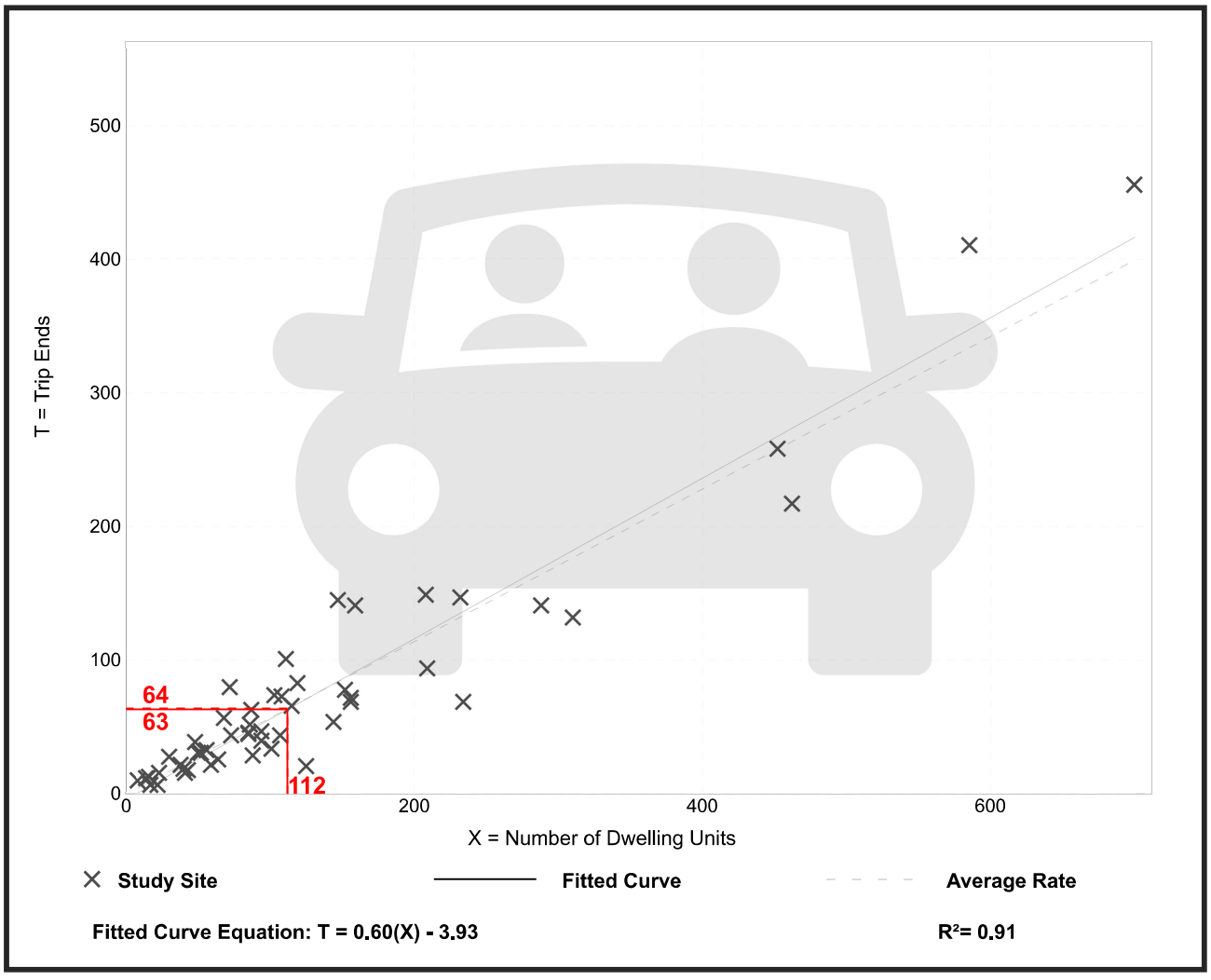
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



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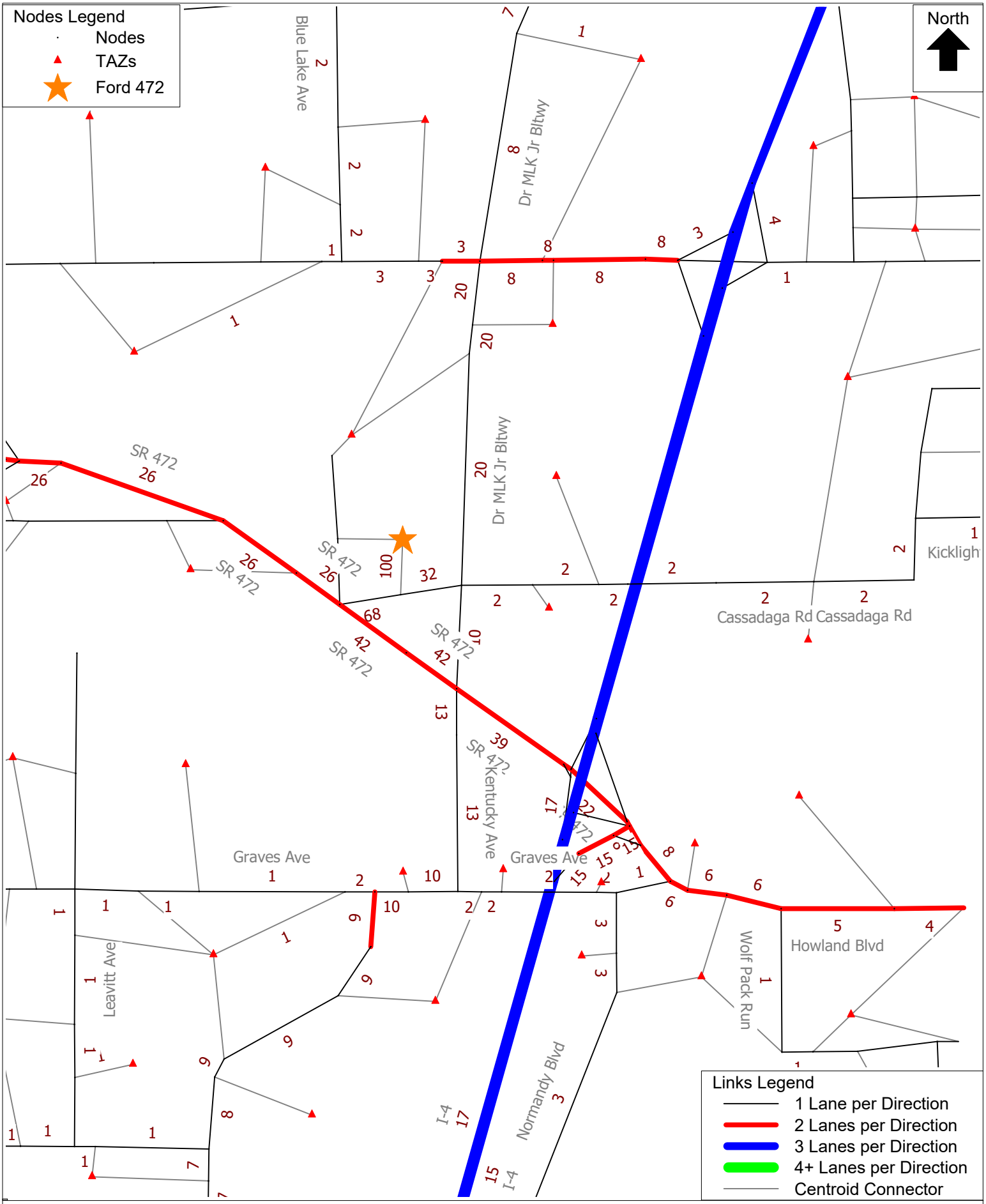
Appendix E
Model Distribution Plots



CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
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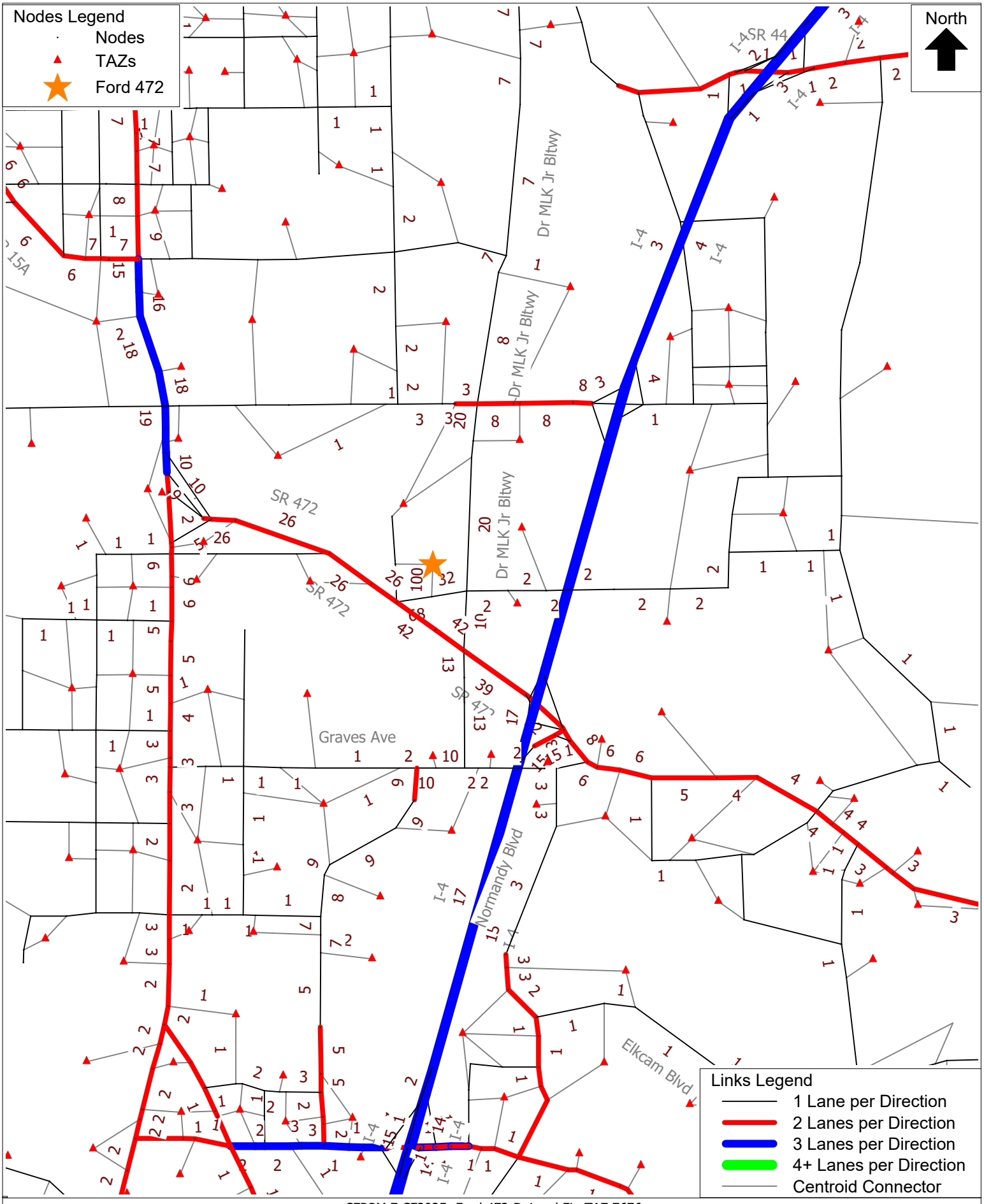

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Project Distribution
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Appendix F
2022 Volusia County AADT and Historical Counts

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed	2021 QLOS Facility Type	2010 Federal Functional Classification	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	F_Type_21	Fun_Class_2010	AADT_11	AADT_12	AADT_13	AADT_14	AADT_15	AADT_16	AADT_17	AADT_18	AADT_19	AADT_20	AADT_21	AADT_22	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	County	Yes	1.80	30	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	1,970	2,190	2,010	1,900	2,260	2,200	2,500	2,400	2,220	2,380	2,750	2,500	E	13,640	0.18	C	140	210	1,020	2
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentuck	775	County	Yes	0.30	45	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	**17,570**	17,140	16,750	17,160	18,780	19,180	19,190	19,590	**21,760**	19,090	19,750	20,000	E	17,900	1.12	F	1,230	1,635	1,620	2
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	County	Yes	0.60	45	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	15,580	16,370	19,700	E	17,900	1.10	C	1,420	1,675	1,620	2
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	County	Yes	0.25	35	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	16,310	18,540	16,100	E	30,420	0.53	D	1,140	1,340	2,740	4
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	FDOT	Yes	0.40	45	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	30,490	29,890	27,480	30,590	36,570	32,320	38,300	36,990	34,320	30,660	31,040	30,900	E	37,970	0.81	C	2,185	2,410	3,410	4
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	County	Yes	1.15	45	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	28,010	27,440	25,280	27,770	31,520	30,270	30,040	31,480	30,520	26,130	28,510	27,100	E	37,970	0.71	C	1,975	2,125	3,410	4
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	County	Yes	2.10	45	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	16,890	14,140	15,150	16,430	16,780	17,220	18,800	18,930	**17,430**	13,580	13,980	13,900	E	13,640	1.02	E	945	1,020	1,230	2
Orange Camp Rd.	US 17/92 to Princeton	1380	County	Yes	0.75	35	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	9,020	9,640	9,080	9,320	11,480	11,800	12,370	13,170	14,220	13,570	13,600	13,200	E	14,040	0.94	E	840	1,160	1,270	2
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (I	1384	County	Yes	0.55	50	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	8,880	9,600	9,330	9,980	11,700	12,110	12,650	13,910	14,220	13,660	14,510	12,400	E	17,050	0.73	C	845	1,075	1,540	2
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385	County	Yes	1.00	50	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	10,910	11,300	10,870	10,700	12,020	12,050	13,080	15,040	14,430	13,230	14,200	13,300	E	17,050	0.78	C	1,310	1,170	1,540	2
W. Volusia Bltwy (Veteran	Harley Strickland Blvd. to Rhode Islan	1901	County	Yes	1.22	55	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	13,810	15,170	18,000	17,750	**18,830**	**20,170**	**19,290**	**19,420**	**21,190**	**19,030**	**19,440**	**18,800**	E	**17,050**	**1.10**	F	**1,030**	**1,480**	**1,540**	2
W. Volusia Bltwy (Veteran	Rhode Island Ave. to Graves Ave.	1902	County	Yes	1.50	45	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	14,100	14,830	15,510	15,510	18,510	16,430	14,420	13,400	16,420	13,800	14,870	14,100	E	17,900	0.79	C	850	1,100	1,620	2
W. Volusia Bltwy (Veteran	Graves Ave to SR 472	1030	County	Yes	0.80	45	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	7,970	9,010	9,050	9,320	10,380	10,670	10,350	10,570	10,900	9,420	10,830	11,000	E	17,050	0.65	C	690	910	1,540	2
W. Volusia Bltwy (Dr MLK	Cassadaga Rd. to Orange Camp Rd.	1942	County	Yes	1.40	55	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	9,940	10,280	10,320	10,840	11,860	12,050	11,130	12,540	12,370	10,760	11,570	9,150	E	17,050	0.54	C	620	755	1,540	2
W. Volusia Bltwy (Dr MLK	Orange Camp Rd. to Taylor Rd.	1943	County	Yes	1.00	55	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	11,240	11,850	11,440	12,050	14,330	13,800	12,670	14,480	12,240	12,210	12,840	11,000	E	17,050	0.65	C	845	910	1,540	2

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2023 HISTORICAL AADT REPORT

COUNTY: 79 - VOLUSIA

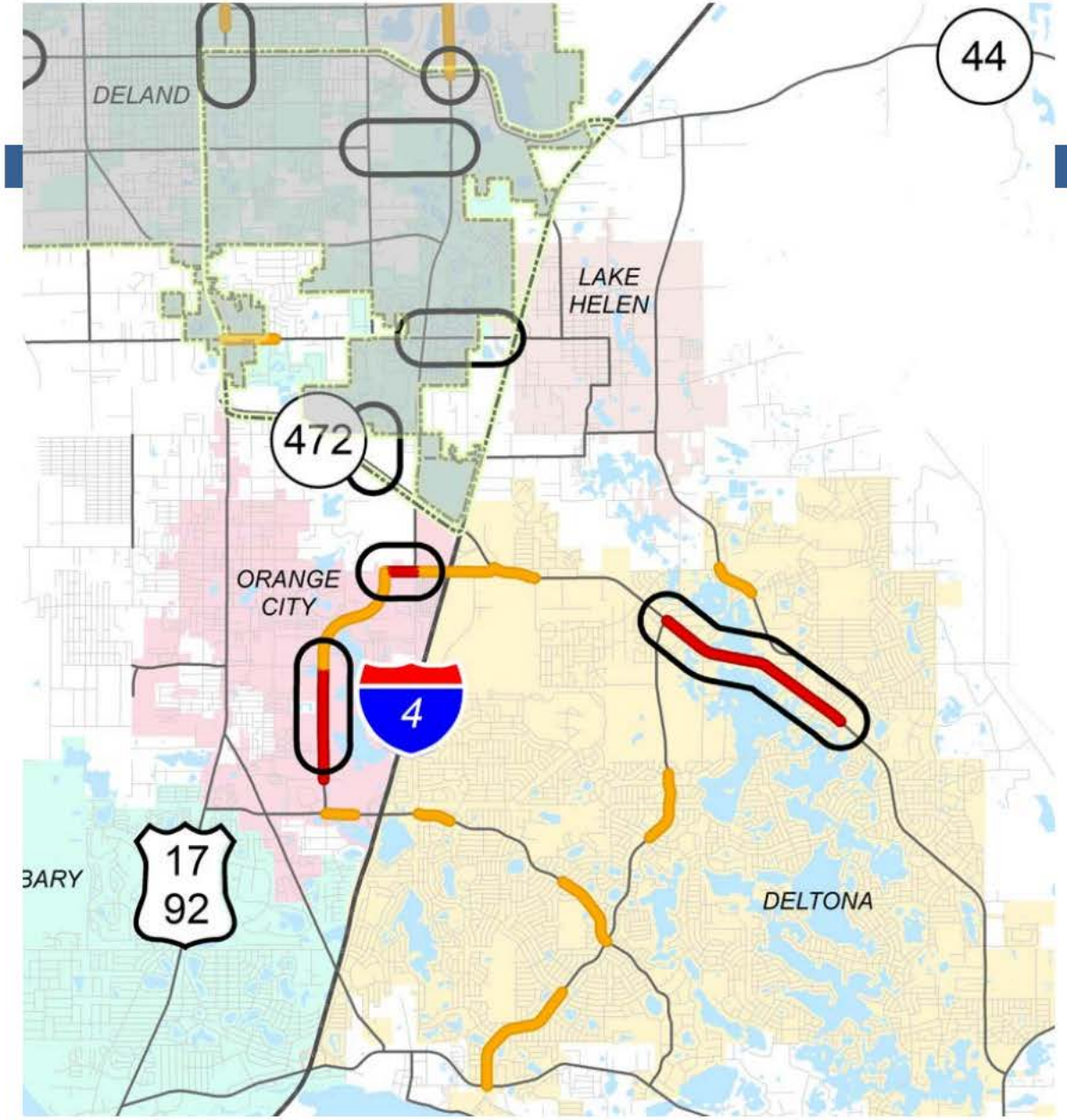
SITE: 8193 - CATALINA BLVD, 800' N OF HOWLAND BLVD - OFF SYSTEM HPMS 21

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2023	2900 F	N 1400	S 1500	9.00	59.10	9.80
2022	2700 C	N 1300	S 1400	9.00	58.80	3.50
2021	12500 C	N 6100	S 6400	9.00	58.20	10.90
2020	10900 S	N 5200	S 5700	9.00	58.70	4.00
2019	11300 F	N 5400	S 5900	9.00	59.00	6.70
2018	11100 C	N 5300	S 5800	9.00	60.00	5.10
2017	12000 T	N 6000	S 6000	9.00	60.90	3.10
2016	11600 S	N 5800	S 5800	9.00	61.40	2.40
2015	11000 F	N 5500	S 5500	9.00	60.20	2.90
2014	10600 C	N 5300	S 5300	9.00	59.20	3.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix G
Planned and Programmed Improvements

ZONE 3



Deltona

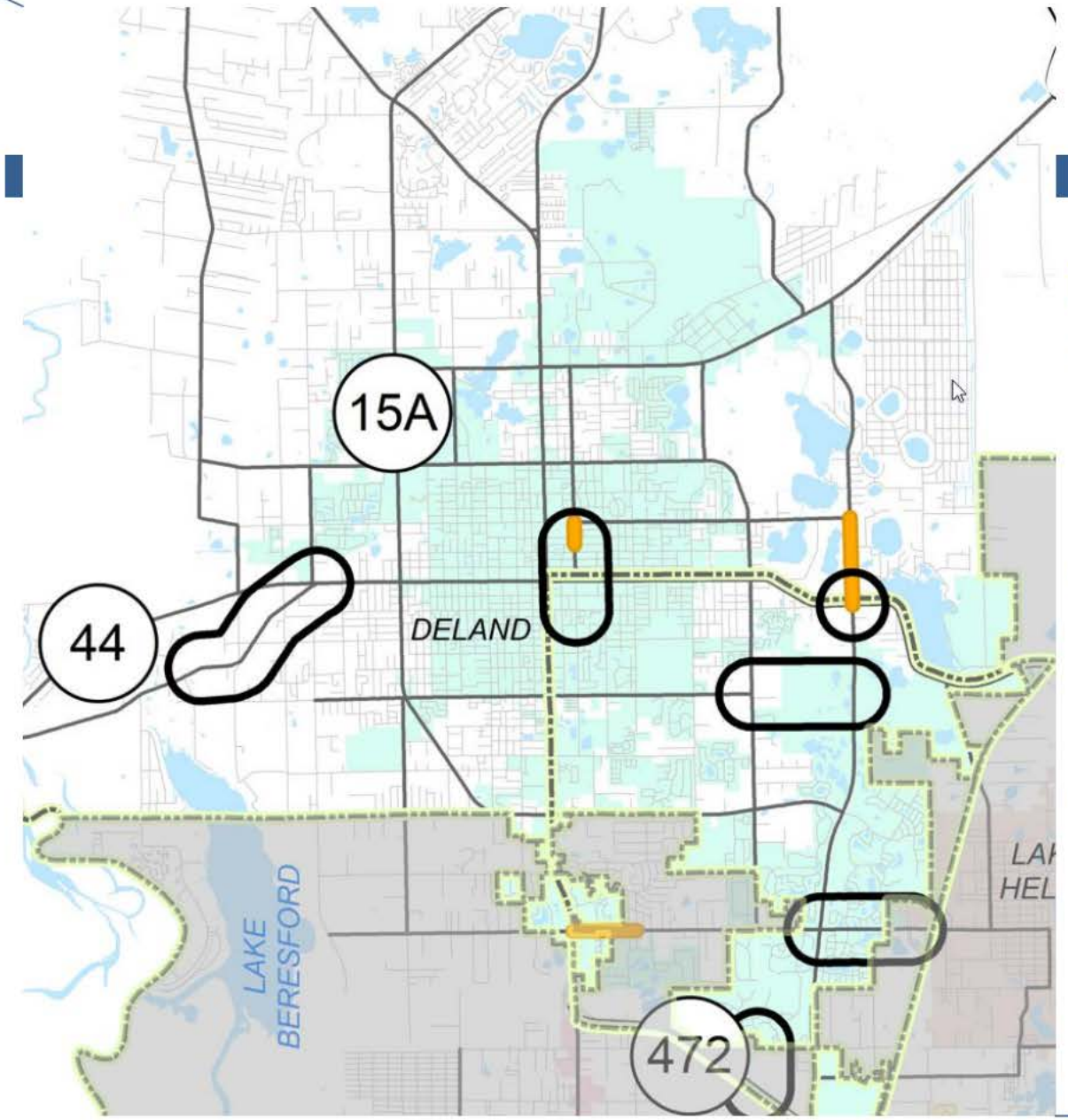
- Howland Blvd widening from Providence Blvd to Elkcam Blvd
  (Construction Underway)

Orange City

- Graves Ave widening from 2 Lanes to 3 Lanes Veterans Memorial Pkwy to Kentucky Av
  (Design Underway)

- Veterans Memorial Pkwy widening from current limits of 4 Lanes to Rhode Island Av
  (Design Underway)

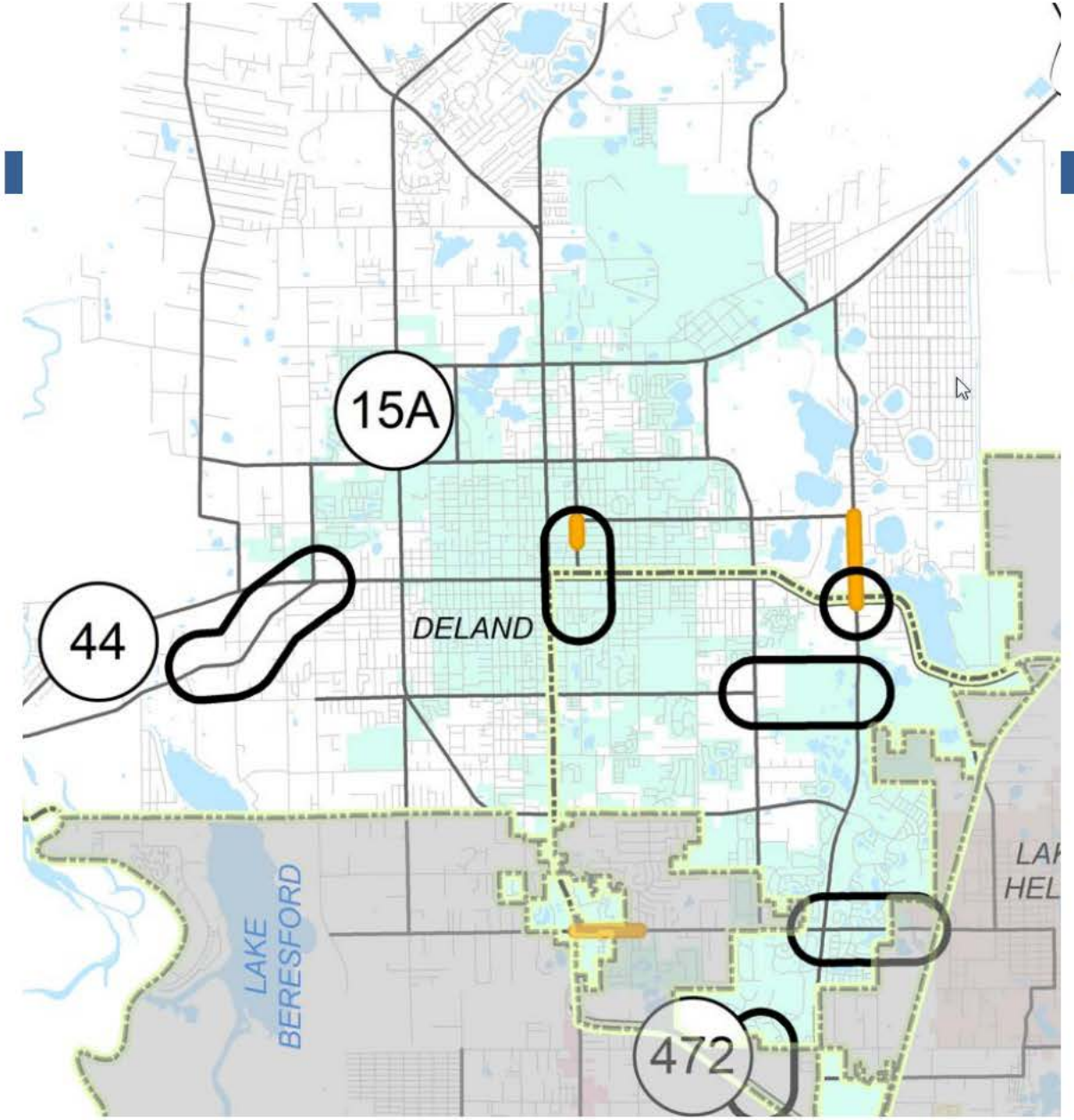
ZONE 4



DeLand

- **Orange Camp Rd widening from Martin Luther King Jr. Btwy to I-4**
  (Construction Underway)
- **Old New York Av Add Paved Shoulders SR 44 to Shell Rd**
  (Design Underway)
- **Beresford Rd Extension from Blue Lake Av to Kepler Rd/Martin Luther King Jr. Btwy**
  (Design & ROW Acquisition Underway)

ZONE 4



- **Amelia Av Lane Reduction from Voorhis Ave to Ohio Ave**
  (Design & ROW Acquisition Underway)
- **Blue Lake Av Extension from Blue Lake Av in Victoria Park to SR 472**
  (Design & ROW Acquisition Underway)

Appendix H
Recommended Improvements in Previous TIAs

TM BTR AT DELAND CROSSINGS
Project № 22012, v1.1
December 2022

TRAFFIC IMPACT ANALYSIS
CITY OF DELAND
FLORIDA

Prepared by:

Traffic & Mobility Consultants
3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

Prepared for:

Taylor Morrison of Florida Inc
2600 Lake Lucien Drive, Suite 350
Maitland, Florida 32751

3.6 Intersection Improvements

The following improvements are recommended at the intersection of SR 472 and Dr. Martin Luther King Jr Beltway and should be incorporated at project buildout:

- SR 472 and Dr. Martin Luther King Jr Beltway –
  - Construct a westbound left turn lane
  - Construct a northbound left turn lane and a through lane
  - Construct a southbound left turn lane and a through lane
  - Optimize the signal timing

With the recommended improvements, the intersection is projected to operate at an overall adequate LOS. The results of the analysis are summarized in **Table 8** for the background and buildout scenarios**.**

Table 8
Improved Intersection Capacity Analysis Summary

Intersection	Traffic Control	Time Period	Scenario	EB			WB			NB			SB			Overall	
				Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
SR 472 & Dr. MLK Jr Bltwy	Signal	AM	Background	42.3	D	0.97	37.2	D	0.76	72.7	E	0.87	68.6	E	0.86	48.9	D
			Buildout	43.4	D	0.99	37.5	D	0.76	71.8	E	0.87	70.7	E	0.87	49.7	D
		PM	Background	52.9	D	1.14	49.0	D	1.03	71.9	E	0.86	65.6	E	0.86	55.7	E
			Buildout	58.7	E	1.23	49.6	D	1.03	65.9	E	0.86	66.7	E	0.86	57.4	E

Average delay is expressed in seconds/vehicle

The analysis indicates that the intersection of SR 472 and Dr. Martin Luther King Jr Beltway is projected to operate at adequate LOS due to the improvements. The adjusted analysis worksheets are included in **Appendix L**.

KITTELSON & ASSOCIATES

DELAND TECH PARK TRAFFIC IMPACT ANALYSIS

DELAND, FLORIDA

July 2023



YEAR 2027 FUTURE BACKGROUND INTERSECTION CAPACITY ANALYSIS (WITH BACKGROUND RELATED IMPROVMENTS)

The background intersection lane configurations are shown in **Figure 12**. To help improve operations at the intersections showing an overall LOS F or overcapacity movements under the year 2027 PM peak hour future background conditions, the following background related improvements are recommended:

- SR 472 at Kentucky Avenue/Dr Martin Luther King Jr Beltway
  - Add one additional eastbound through lane (v/c ratio is 0.97 on east leg of intersection)
  - Add one additional westbound through lane (v/c ratio is 0.97 on east leg of intersection)
  - Add exclusive northbound left turn lane
  - Use protected/permitted phasing for northbound/southbound left turn movements
  - Optimize signal timings/splits (eliminate the split phase operation)
- Kentucky Avenue at Graves Avenue
  - Add one additional eastbound through lane (v/c ratio is 1.36 on west leg of intersection in background condition)
  - Add one additional southbound left turn lane
  - Add overlap phasing on the southbound right turn movement
  - Optimize signal timings/splits)
- Veteran's Memorial Parkway at Rhode Island Avenue
  - Add southbound shared through-right lane and remove exclusive southbound right turn lane. There is an acceleration lane on the south leg of this intersection that can be converted to a second receiving lane.
- Howland Boulevard at Graves Avenue/Halifax Crossing Boulevard
  - Add one additional eastbound through lane (v/c ratio is 1.05 on both legs of intersection)
  - Add one additional westbound through lane (v/c ratio is 1.05 on both legs of intersection)

With the above recommended improvements, these intersections are expected to operate at an overall LOS E or better and no overcapacity movements. The results of the improved background conditions are presented in **Table 9** and the Synchro intersection report printouts are provided in **Appendix M**.

Table 9: Year 2027 Future Background Intersection Capacity Analysis (With Background Improvements)

Intersection	Intersection Control Type	PM Peak Hour		
		v/c	Delay	LOS
SR 472 at Kentucky Ave./Dr Martin Luther King Jr Bltwy.	Signalized	0.98	58.2	E
Kentucky Ave. at Graves Ave.	Signalized	0.93	42.0	D
Veteran's Memorial Pkwy. at Rhode Island Ave.	Signalized	0.92	38.2	D
Howland Blvd. at Graves Ave./Halifax Crossing Blvd.	Signalized	0.94	39.6	D

Note: The operational results presented for each intersection represent the worst movement v/c ratio and overall intersection delay and LOS.

Appendix I

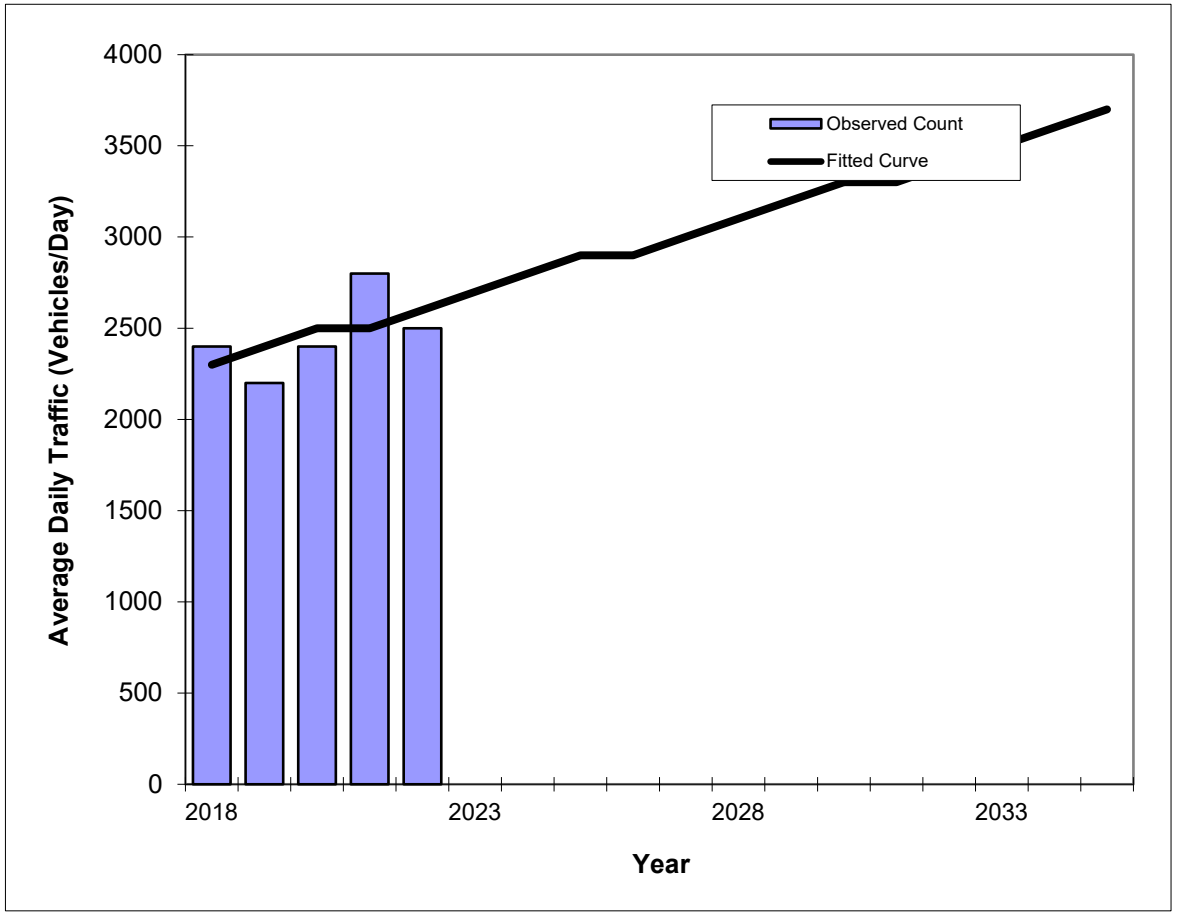
Historical Growth trend Analysis Worksheets, Vested Trip Information and Segment Growh Rates and Vested Trips Instruction Policy

Traffic Trends - V03.a

CASSADAGA RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	280
Highway:	CASSADAGA RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	2400	2300
2019	2200	2400
2020	2400	2500
2021	2800	2500
2022	2500	2600
2026 Opening Year Trend		
2026	N/A	2900
2027 Mid-Year Trend		
2027	N/A	3000
2028 Design Year Trend		
2028	N/A	3100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	80
Trend R-squared:	33.33%
Trend Annual Historic Growth Rate:	3.26%
Trend Growth Rate (2022 to Design Year):	3.21%
Printed:	6-Aug-24

Straight Line Growth Option

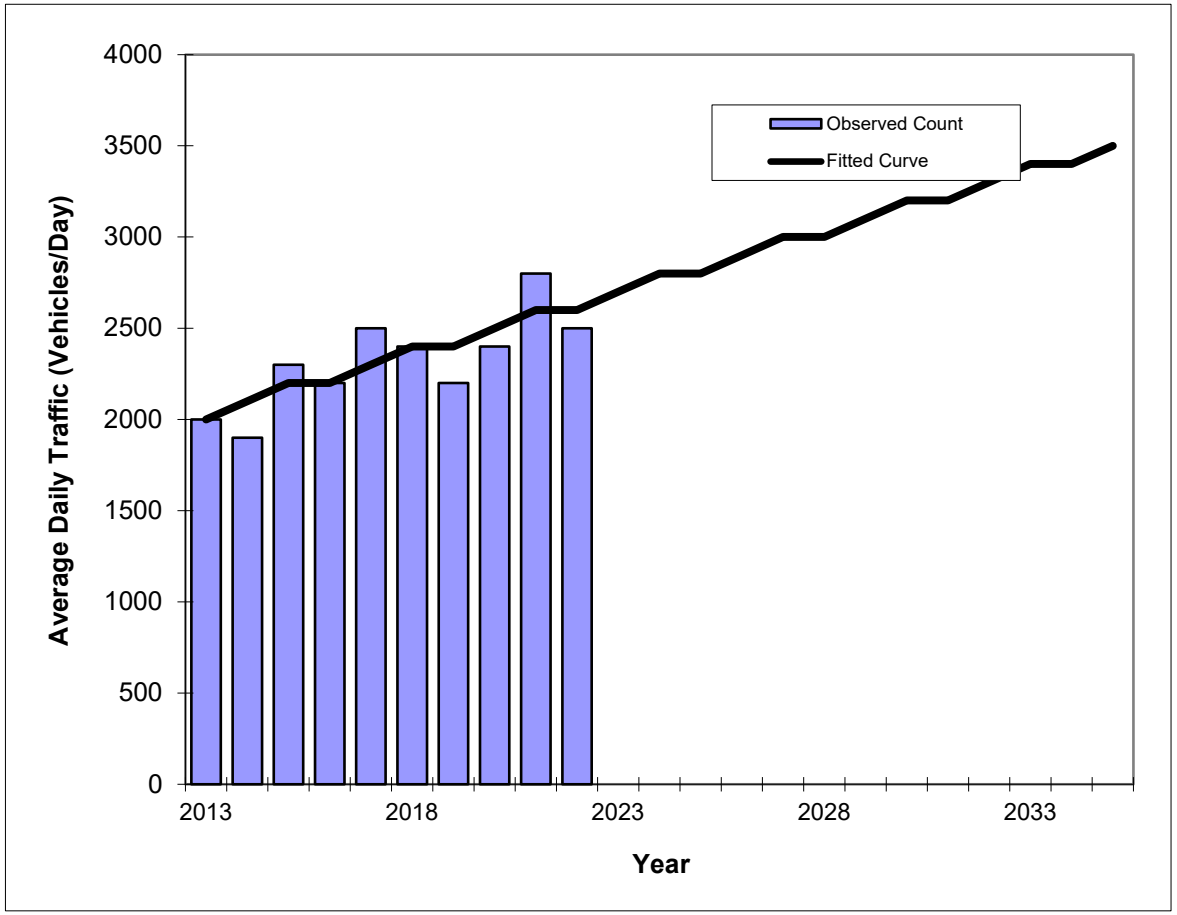
***Axle-Adjusted**

Traffic Trends - V03.a

CASSADAGA RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	280
Highway:	CASSADAGA RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	2000	2000
2014	1900	2100
2015	2300	2200
2016	2200	2200
2017	2500	2300
2018	2400	2400
2019	2200	2400
2020	2400	2500
2021	2800	2600
2022	2500	2600
2026 Opening Year Trend		
2026	N/A	2900
2027 Mid-Year Trend		
2027	N/A	3000
2028 Design Year Trend		
2028	N/A	3000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	68
Trend R-squared:	61.71%
Trend Annual Historic Growth Rate:	3.33%
Trend Growth Rate (2022 to Design Year):	2.56%
Printed:	6-Aug-24

Straight Line Growth Option

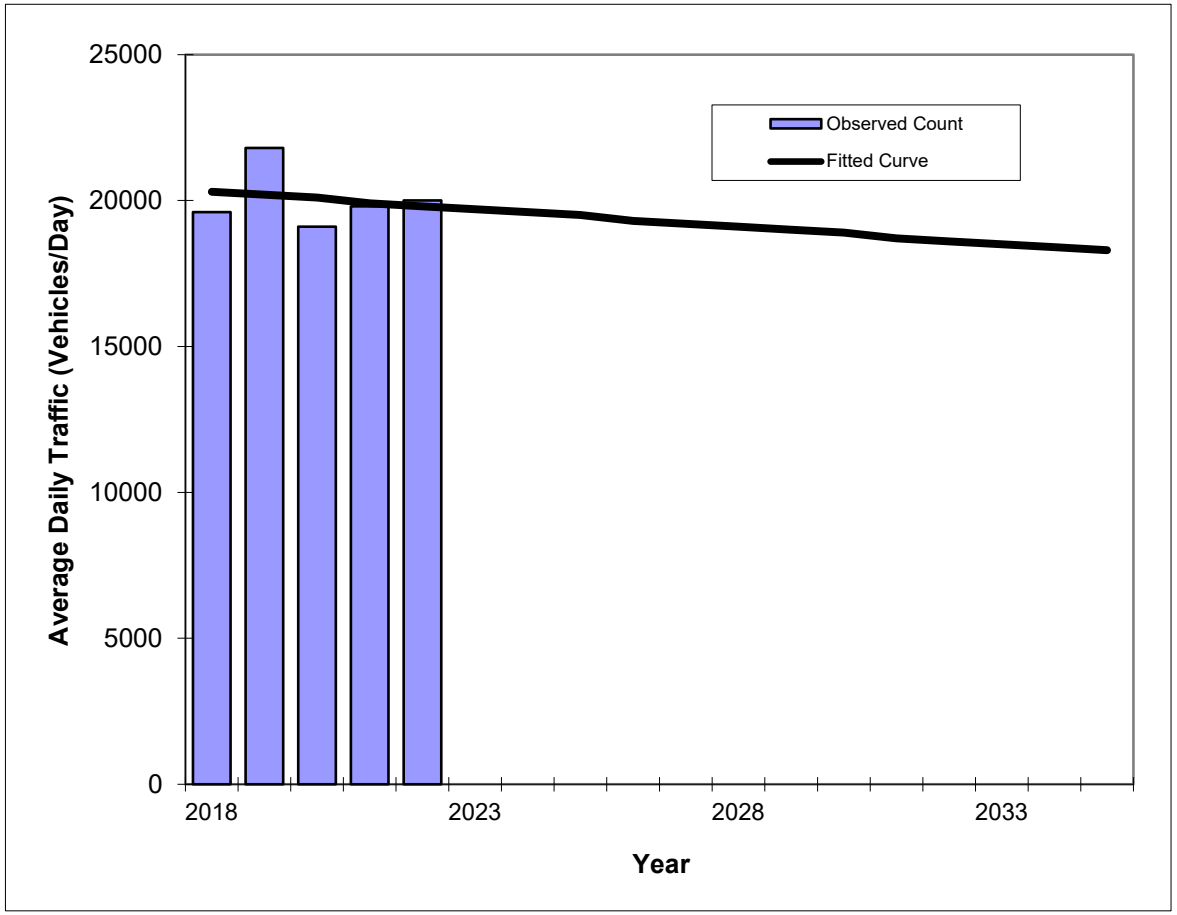
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	775
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2018	19600	20300
2019	21800	20200
2020	19100	20100
2021	19800	19900
2022	20000	19800
2026 Opening Year Trend		
2026	N/A	19300
2027 Mid-Year Trend		
2027	N/A	19200
2028 Design Year Trend		
2028	N/A	19100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-120
Trend R-squared:	3.40%
Trend Annual Historic Growth Rate:	-0.62%
Trend Growth Rate (2022 to Design Year):	-0.59%
Printed:	6-Aug-24

Straight Line Growth Option

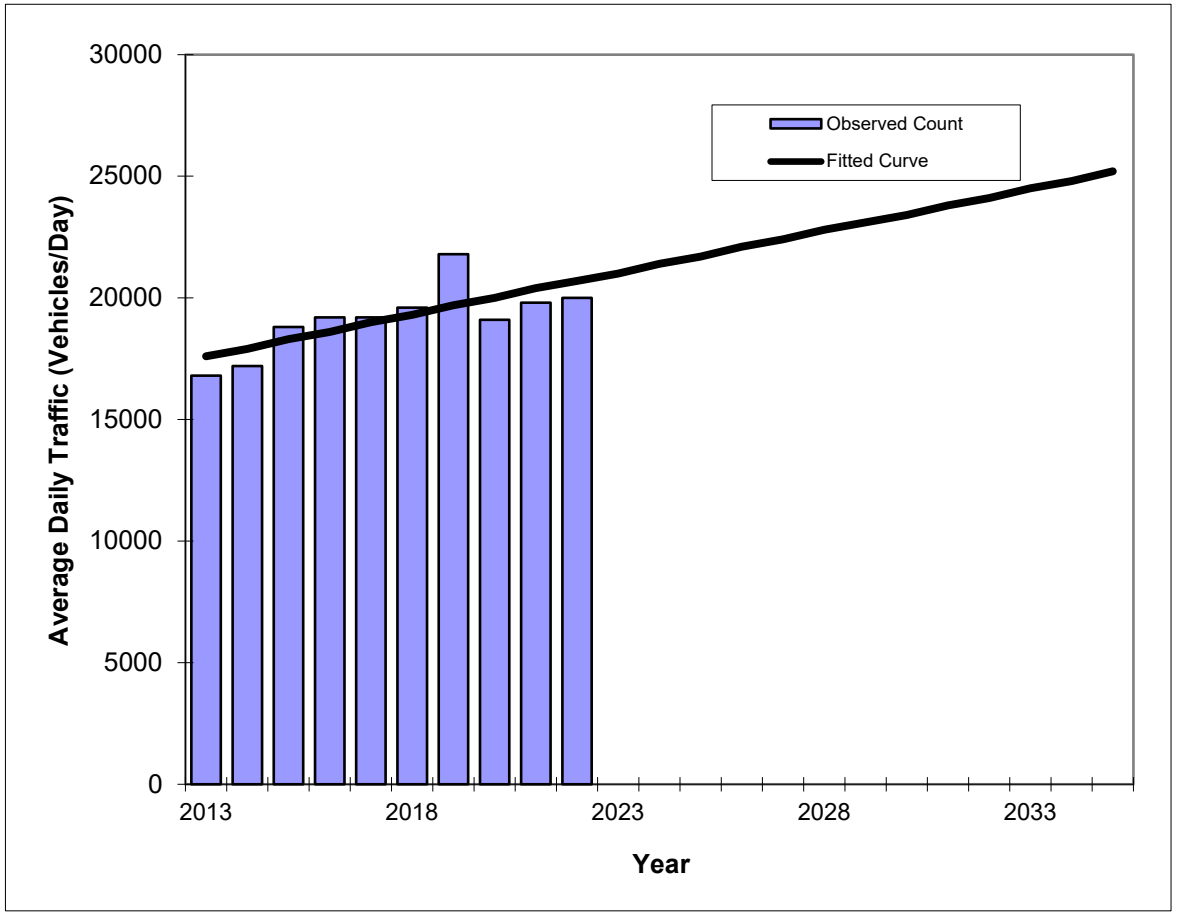
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	775
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2013	16800	17600
2014	17200	17900
2015	18800	18300
2016	19200	18600
2017	19200	19000
2018	19600	19300
2019	21800	19700
2020	19100	20000
2021	19800	20400
2022	20000	20700
2026 Opening Year Trend		
2026	N/A	22100
2027 Mid-Year Trend		
2027	N/A	22400
2028 Design Year Trend		
2028	N/A	22800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	344
Trend R-squared:	54.65%
Trend Annual Historic Growth Rate:	1.96%
Trend Growth Rate (2022 to Design Year):	1.69%
Printed:	6-Aug-24

Straight Line Growth Option

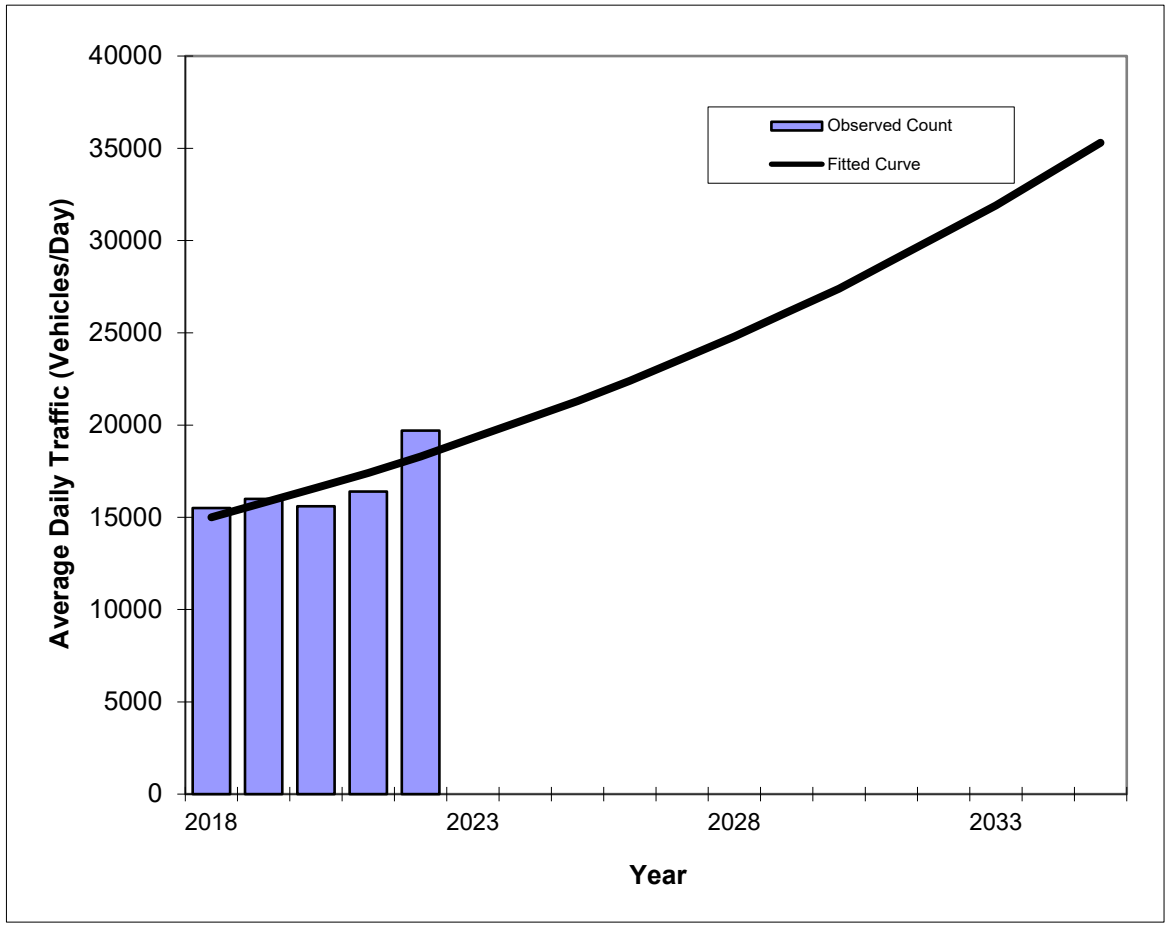
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900a
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2018	15500	15000
2019	16000	15800
2020	15600	16600
2021	16400	17400
2022	19700	18300
2026 Opening Year Trend		
2026	N/A	22400
2027 Mid-Year Trend		
2027	N/A	23600
2028 Design Year Trend		
2028	N/A	24800
TRANPLAN Forecasts/Trends		

Trend R-squared:	64.59%
Compounded Annual Historic Growth Rate:	5.10%
Compounded Growth Rate (2022 to Design Year):	5.20%
Printed:	20-Aug-24

Exponential Growth Option

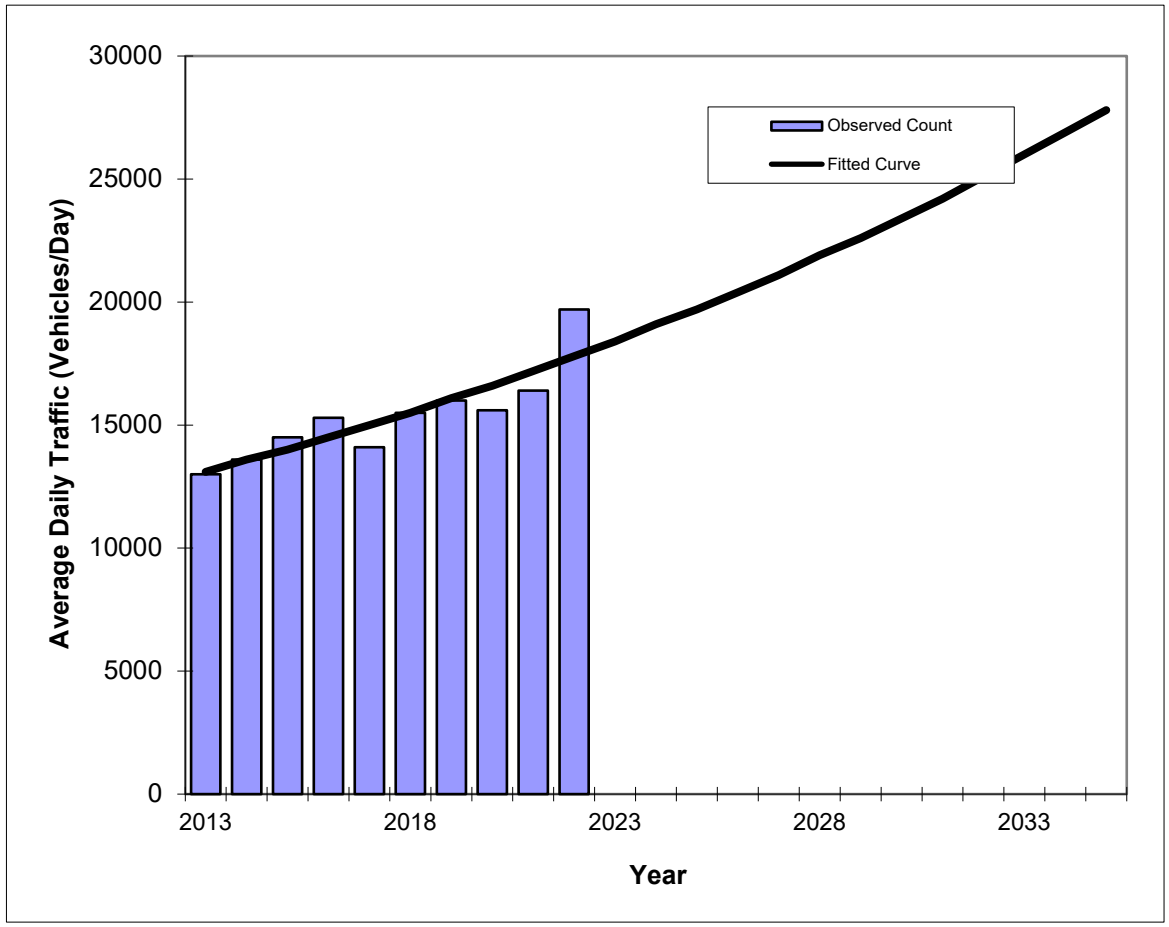
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900a
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2013	13000	13100
2014	13600	13600
2015	14500	14000
2016	15300	14500
2017	14100	15000
2018	15500	15500
2019	16000	16100
2020	15600	16600
2021	16400	17200
2022	19700	17800
2026 Opening Year Trend		
2026	N/A	20400
2027 Mid-Year Trend		
2027	N/A	21100
2028 Design Year Trend		
2028	N/A	21900
TRANPLAN Forecasts/Trends		

Trend R-squared:	79.70%
Compounded Annual Historic Growth Rate:	3.47%
Compounded Growth Rate (2022 to Design Year):	3.52%
Printed:	20-Aug-24

Exponential Growth Option

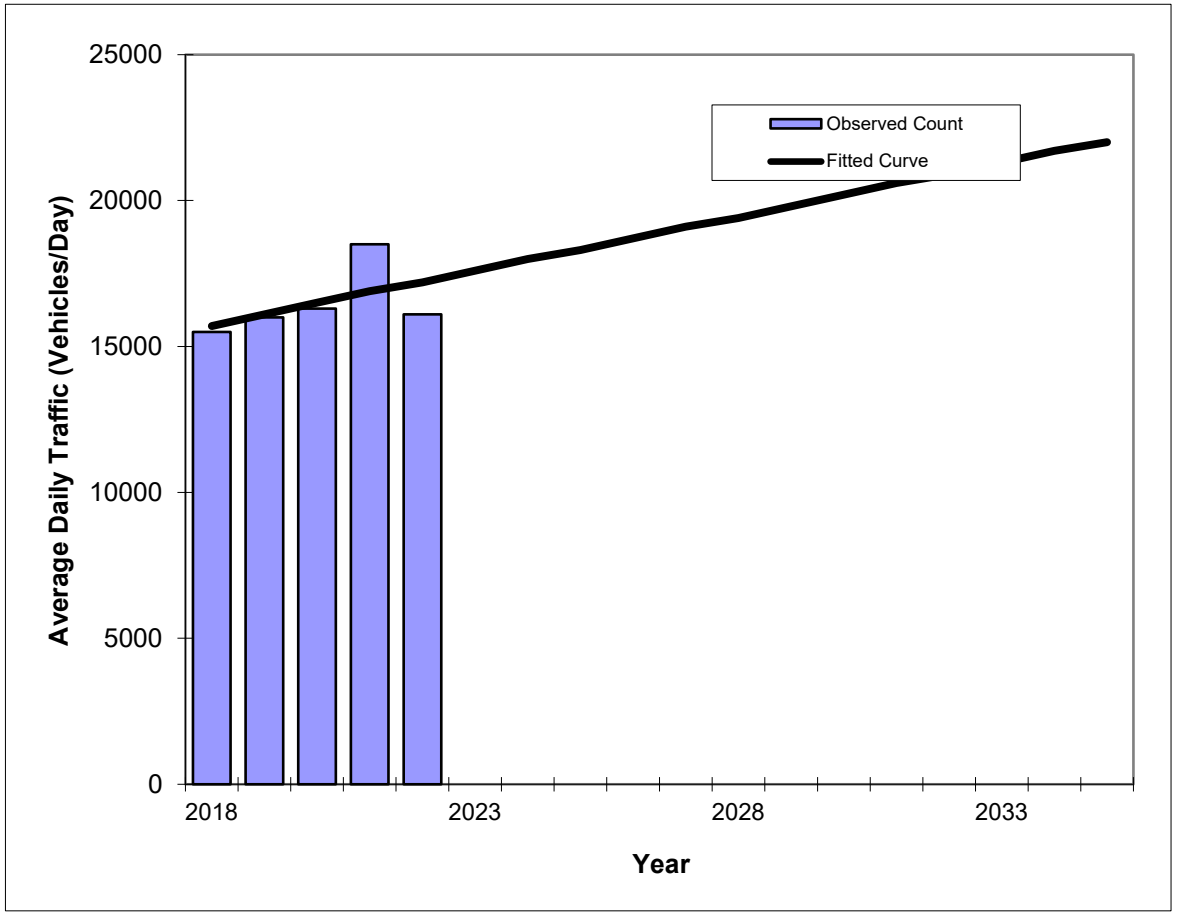
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900b
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2018	15500	15700
2019	16000	16100
2020	16300	16500
2021	18500	16900
2022	16100	17200
2026 Opening Year Trend		
2026	N/A	18700
2027 Mid-Year Trend		
2027	N/A	19100
2028 Design Year Trend		
2028	N/A	19400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	370
Trend R-squared:	25.13%
Trend Annual Historic Growth Rate:	2.39%
Trend Growth Rate (2022 to Design Year):	2.13%
Printed:	6-Aug-24

Straight Line Growth Option

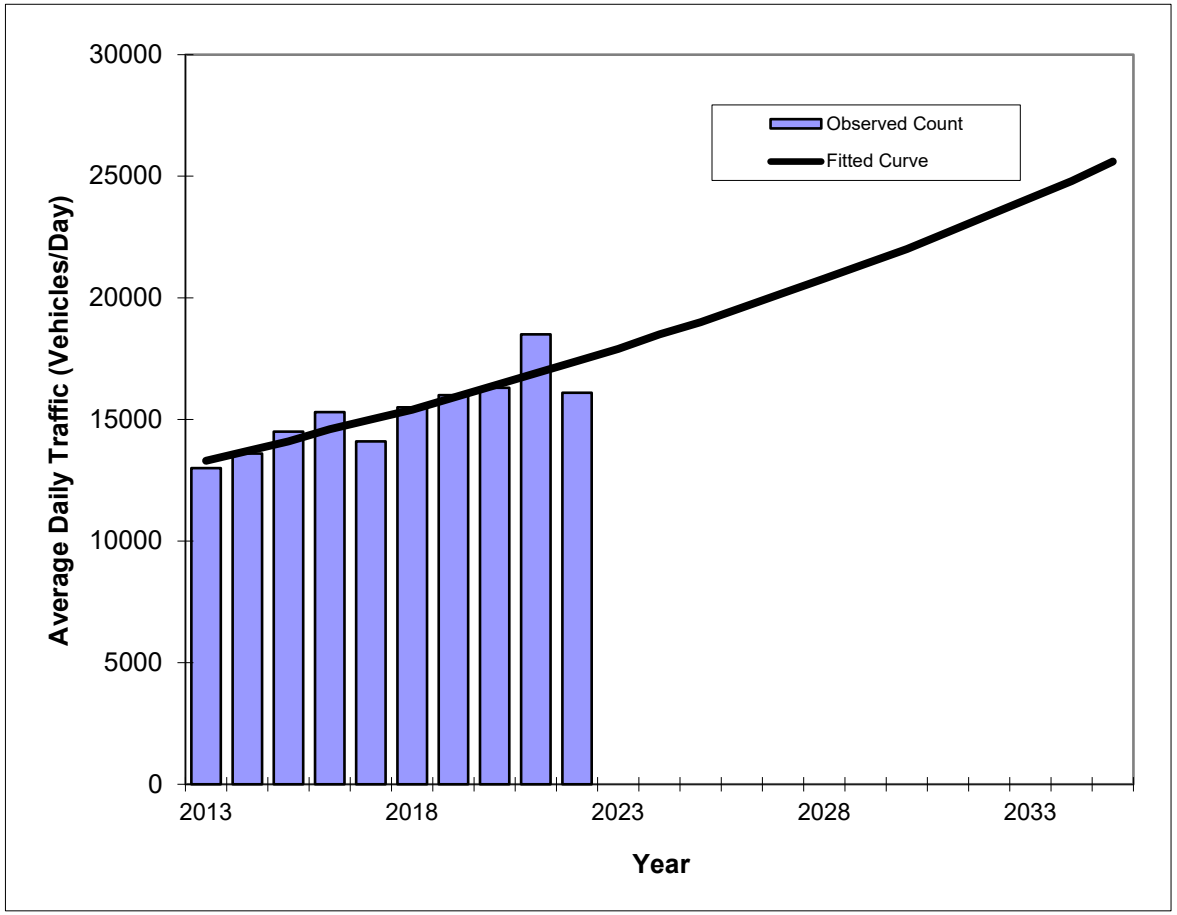
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900b
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2013	13000	13300
2014	13600	13700
2015	14500	14100
2016	15300	14600
2017	14100	15000
2018	15500	15400
2019	16000	15900
2020	16300	16400
2021	18500	16900
2022	16100	17400
2026 Opening Year Trend		
2026	N/A	19600
2027 Mid-Year Trend		
2027	N/A	20200
2028 Design Year Trend		
2028	N/A	20800
TRANPLAN Forecasts/Trends		

Trend R-squared:	76.75%
Compounded Annual Historic Growth Rate:	3.03%
Compounded Growth Rate (2022 to Design Year):	3.02%
Printed:	6-Aug-24

Exponential Growth Option

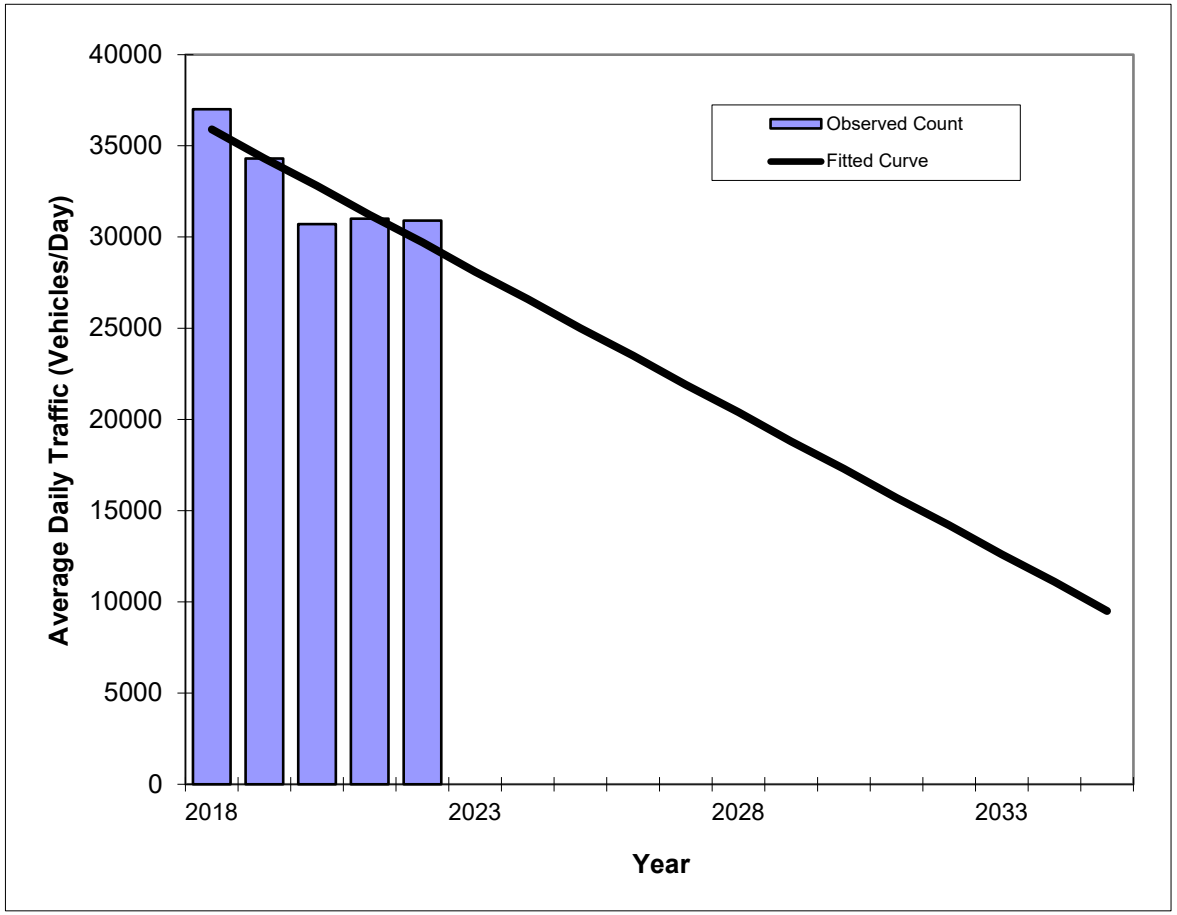
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	901
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	37000	35900
2019	34300	34300
2020	30700	32800
2021	31000	31200
2022	30900	29700
2026 Opening Year Trend		
2026	N/A	23500
2027 Mid-Year Trend		
2027	N/A	21900
2028 Design Year Trend		
2028	N/A	20400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,550
Trend R-squared:	77.13%
Trend Annual Historic Growth Rate:	-4.32%
Trend Growth Rate (2022 to Design Year):	-5.22%
Printed:	6-Aug-24

Straight Line Growth Option

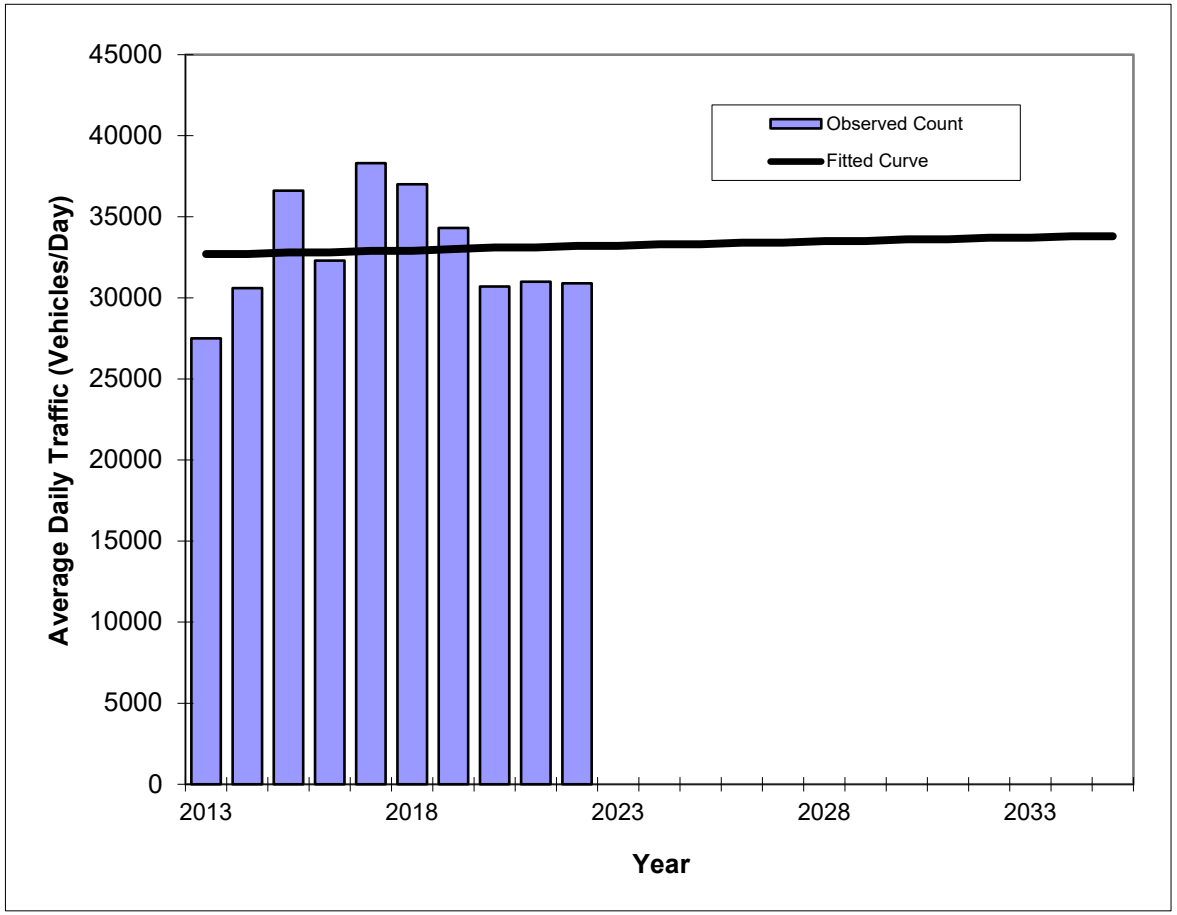
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	901
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	27500	32700
2014	30600	32700
2015	36600	32800
2016	32300	32800
2017	38300	32900
2018	37000	32900
2019	34300	33000
2020	30700	33100
2021	31000	33100
2022	30900	33200
2026 Opening Year Trend		
2026	N/A	33400
2027 Mid-Year Trend		
2027	N/A	33400
2028 Design Year Trend		
2028	N/A	33500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	52
Trend R-squared:	0.21%
Trend Annual Historic Growth Rate:	0.17%
Trend Growth Rate (2022 to Design Year):	0.15%
Printed:	6-Aug-24

Straight Line Growth Option

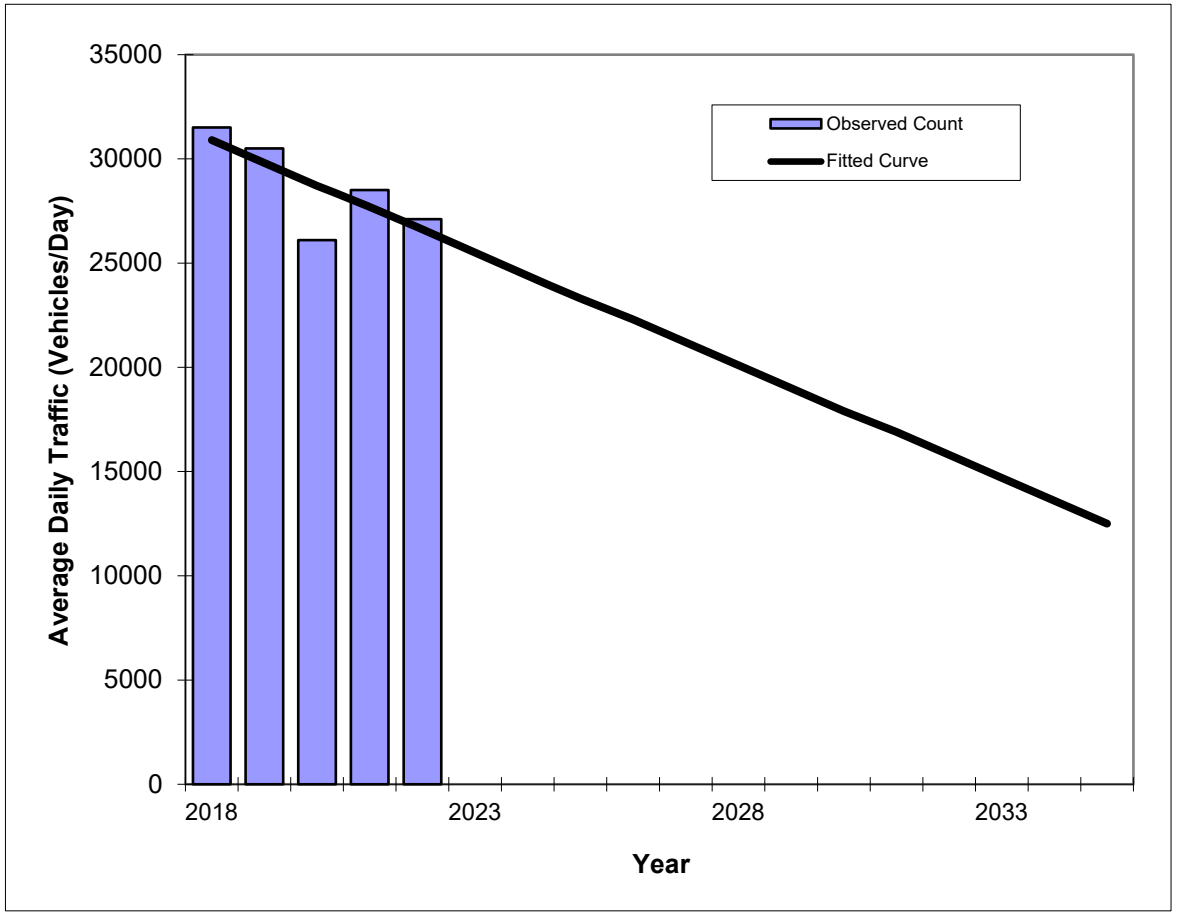
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	903
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	31500	30900
2019	30500	29800
2020	26100	28700
2021	28500	27700
2022	27100	26600
2026 Opening Year Trend		
2026	N/A	22300
2027 Mid-Year Trend		
2027	N/A	21200
2028 Design Year Trend		
2028	N/A	20100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,080
Trend R-squared:	57.09%
Trend Annual Historic Growth Rate:	-3.48%
Trend Growth Rate (2022 to Design Year):	-4.07%
Printed:	6-Aug-24

Straight Line Growth Option

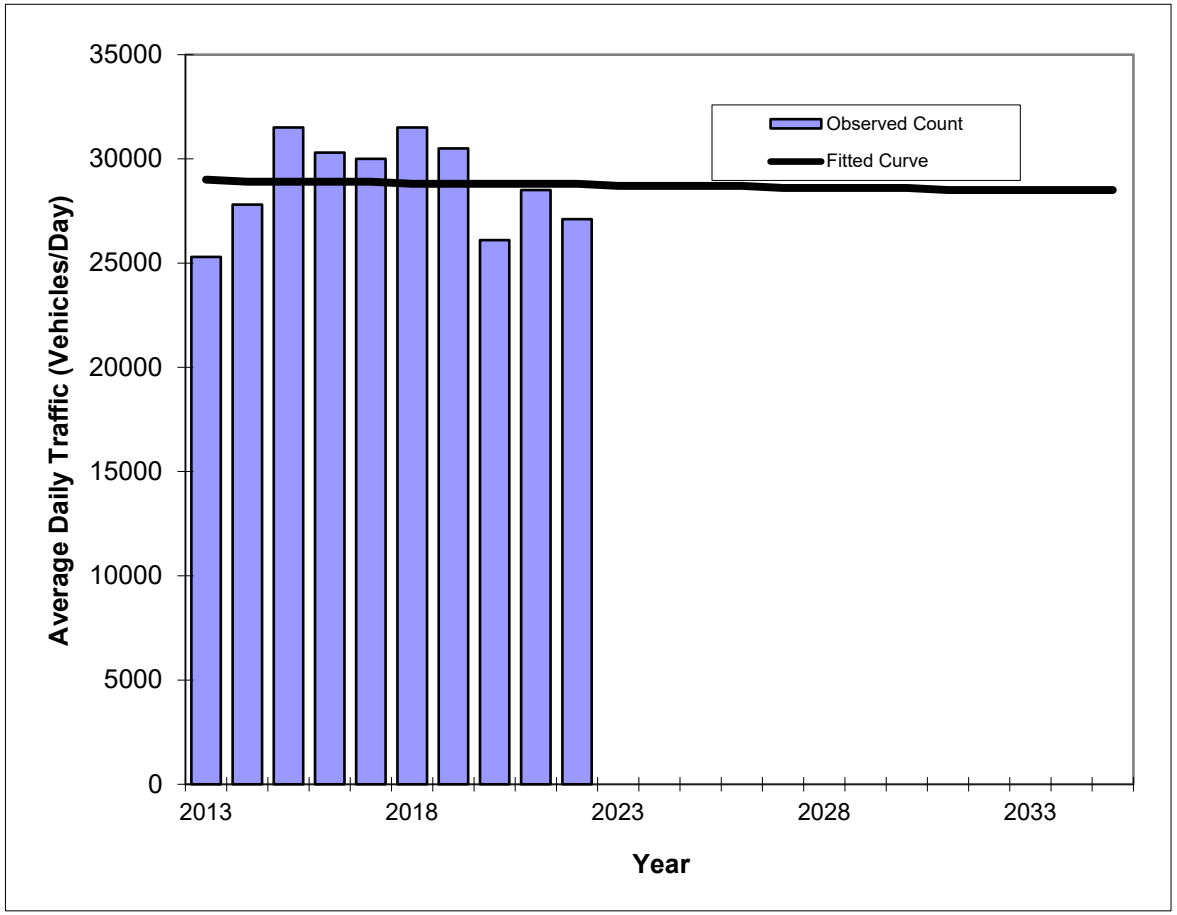
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	903
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	25300	29000
2014	27800	28900
2015	31500	28900
2016	30300	28900
2017	30000	28900
2018	31500	28800
2019	30500	28800
2020	26100	28800
2021	28500	28800
2022	27100	28800
2026 Opening Year Trend		
2026	N/A	28700
2027 Mid-Year Trend		
2027	N/A	28600
2028 Design Year Trend		
2028	N/A	28600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-23
Trend R-squared:	0.10%
Trend Annual Historic Growth Rate:	-0.08%
Trend Growth Rate (2022 to Design Year):	-0.12%
Printed:	6-Aug-24

Straight Line Growth Option

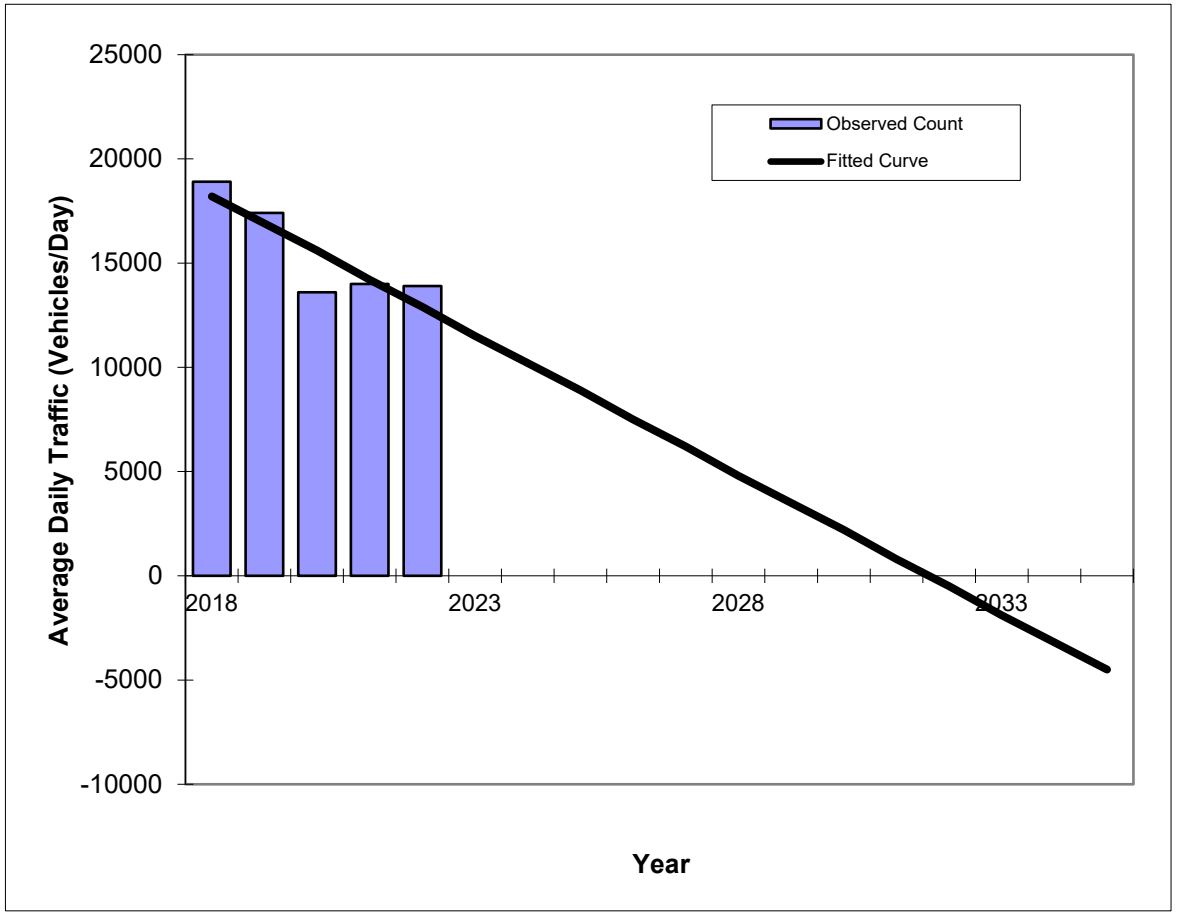
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	906
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	18900	18200
2019	17400	16900
2020	13600	15600
2021	14000	14200
2022	13900	12900
2026 Opening Year Trend		
2026	N/A	7500
2027 Mid-Year Trend		
2027	N/A	6200
2028 Design Year Trend		
2028	N/A	4800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,340
Trend R-squared:	76.18%
Trend Annual Historic Growth Rate:	-7.28%
Trend Growth Rate (2022 to Design Year):	-10.47%
Printed:	6-Aug-24

Straight Line Growth Option

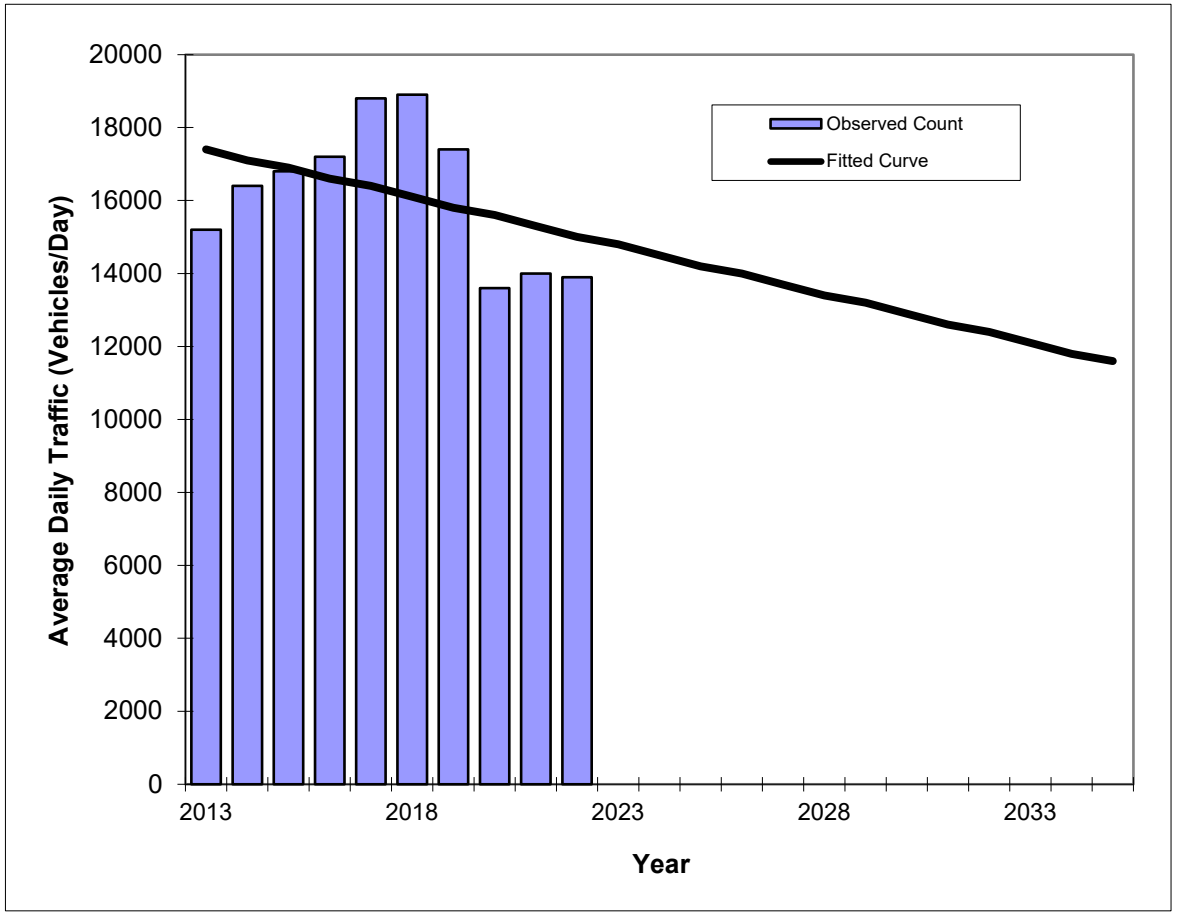
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	906
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	15200	17400
2014	16400	17100
2015	16800	16900
2016	17200	16600
2017	18800	16400
2018	18900	16100
2019	17400	15800
2020	13600	15600
2021	14000	15300
2022	13900	15000
2026 Opening Year Trend		
2026	N/A	14000
2027 Mid-Year Trend		
2027	N/A	13700
2028 Design Year Trend		
2028	N/A	13400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-265
Trend R-squared:	16.72%
Trend Annual Historic Growth Rate:	-1.53%
Trend Growth Rate (2022 to Design Year):	-1.78%
Printed:	6-Aug-24

Straight Line Growth Option

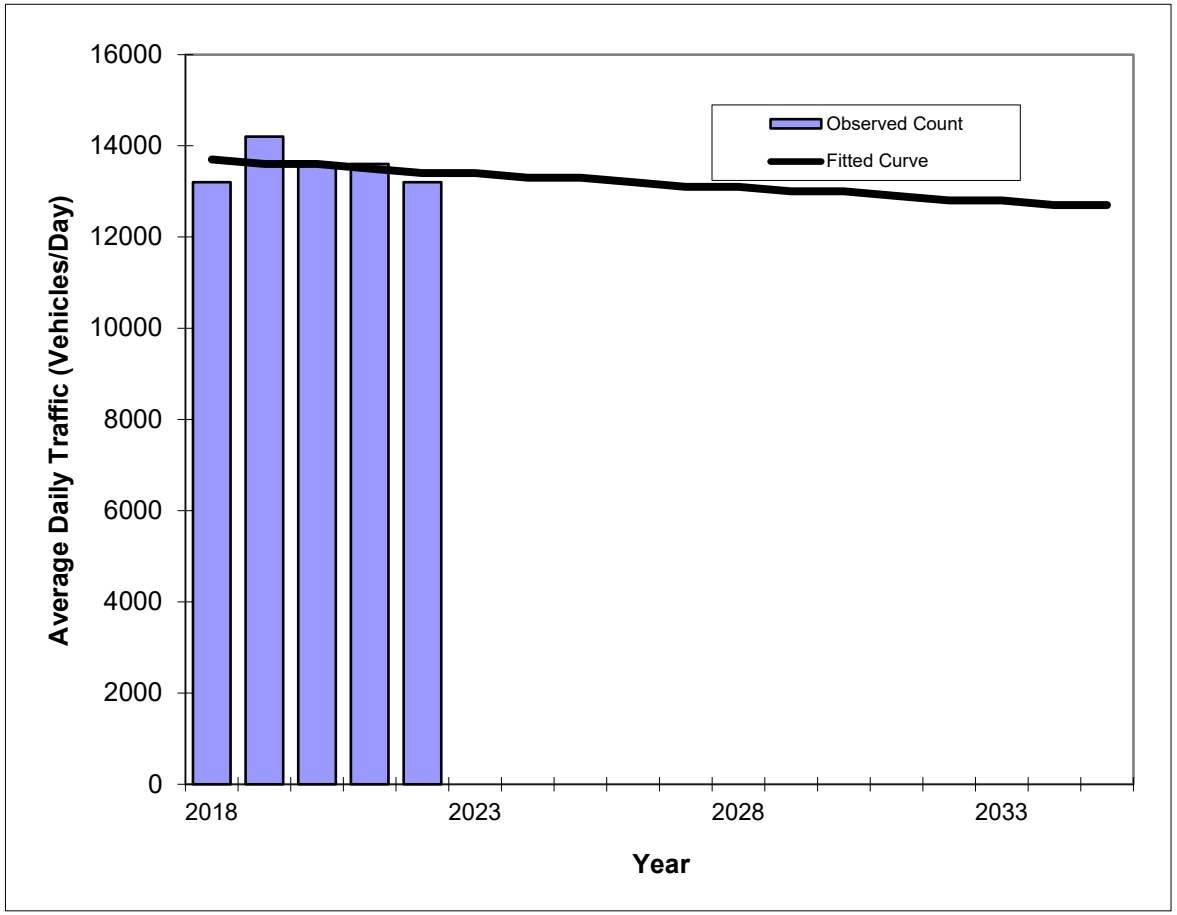
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1380
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	13200	13700
2019	14200	13600
2020	13600	13600
2021	13600	13500
2022	13200	13400
2026 Opening Year Trend		
2026	N/A	13200
2027 Mid-Year Trend		
2027	N/A	13100
2028 Design Year Trend		
2028	N/A	13100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-60
Trend R-squared:	5.36%
Trend Annual Historic Growth Rate:	-0.55%
Trend Growth Rate (2022 to Design Year):	-0.37%
Printed:	6-Aug-24

Straight Line Growth Option

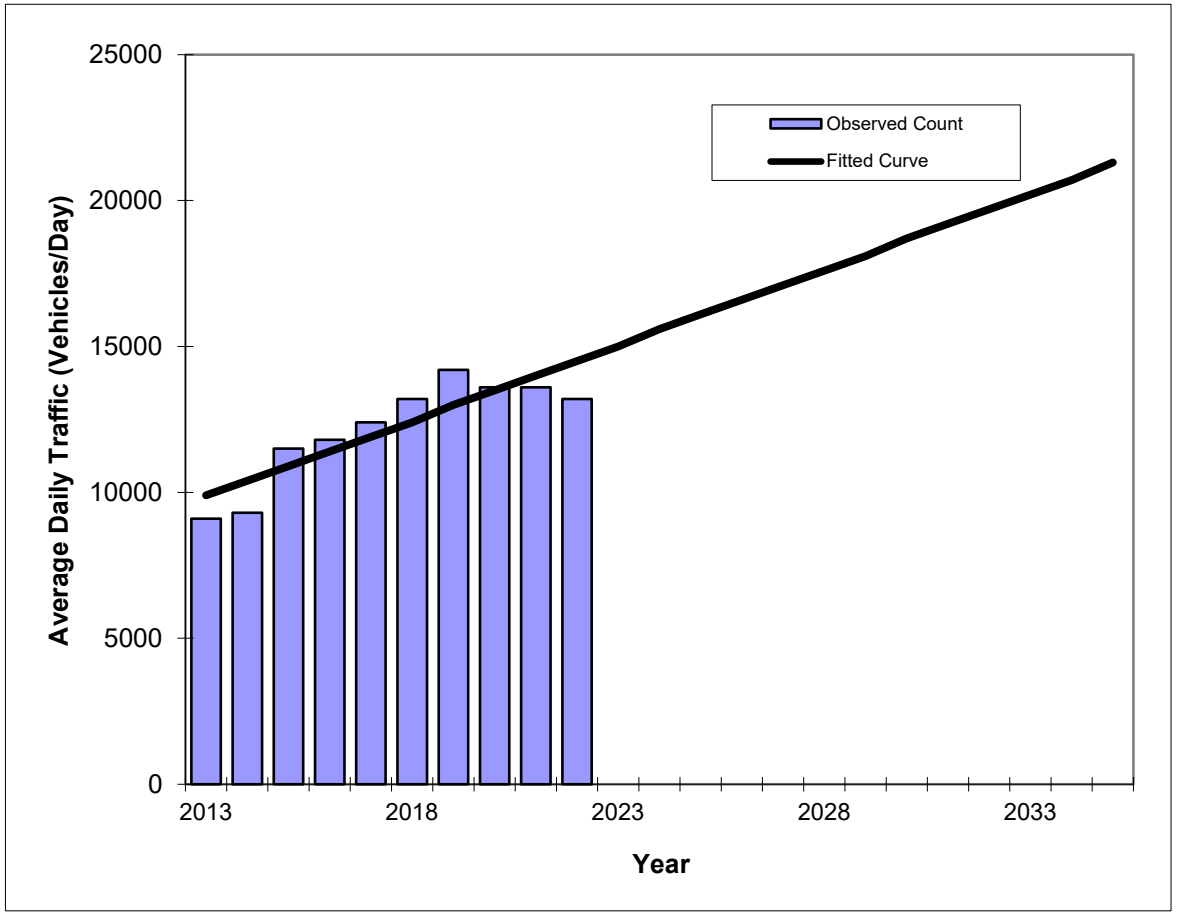
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1380
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	9100	9900
2014	9300	10400
2015	11500	10900
2016	11800	11400
2017	12400	11900
2018	13200	12400
2019	14200	13000
2020	13600	13500
2021	13600	14000
2022	13200	14500
2026 Opening Year Trend		
2026	N/A	16600
2027 Mid-Year Trend		
2027	N/A	17100
2028 Design Year Trend		
2028	N/A	17600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	518
Trend R-squared:	77.38%
Trend Annual Historic Growth Rate:	5.16%
Trend Growth Rate (2022 to Design Year):	3.56%
Printed:	6-Aug-24

Straight Line Growth Option

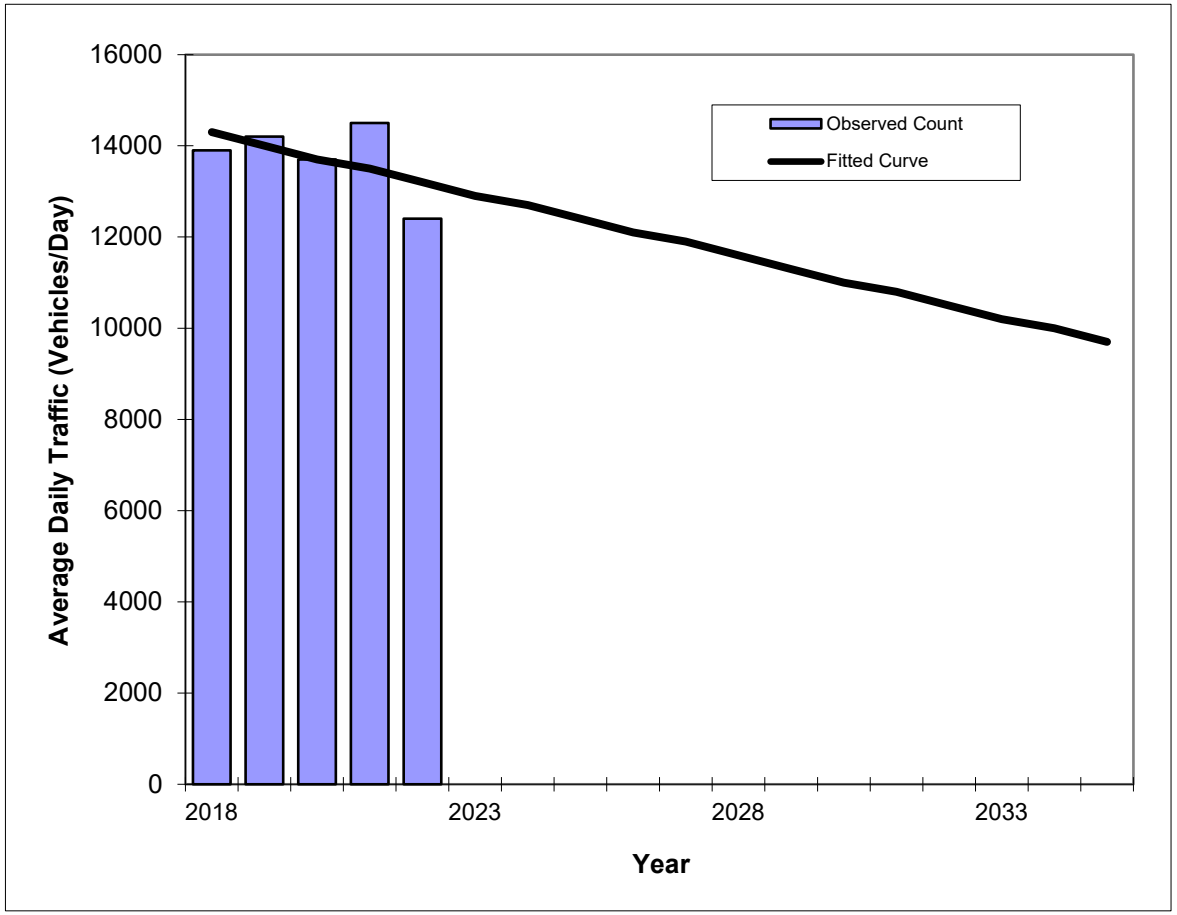
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1384
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	13900	14300
2019	14200	14000
2020	13700	13700
2021	14500	13500
2022	12400	13200
2026 Opening Year Trend		
2026	N/A	12100
2027 Mid-Year Trend		
2027	N/A	11900
2028 Design Year Trend		
2028	N/A	11600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-270
Trend R-squared:	27.91%
Trend Annual Historic Growth Rate:	-1.92%
Trend Growth Rate (2022 to Design Year):	-2.02%
Printed:	6-Aug-24

Straight Line Growth Option

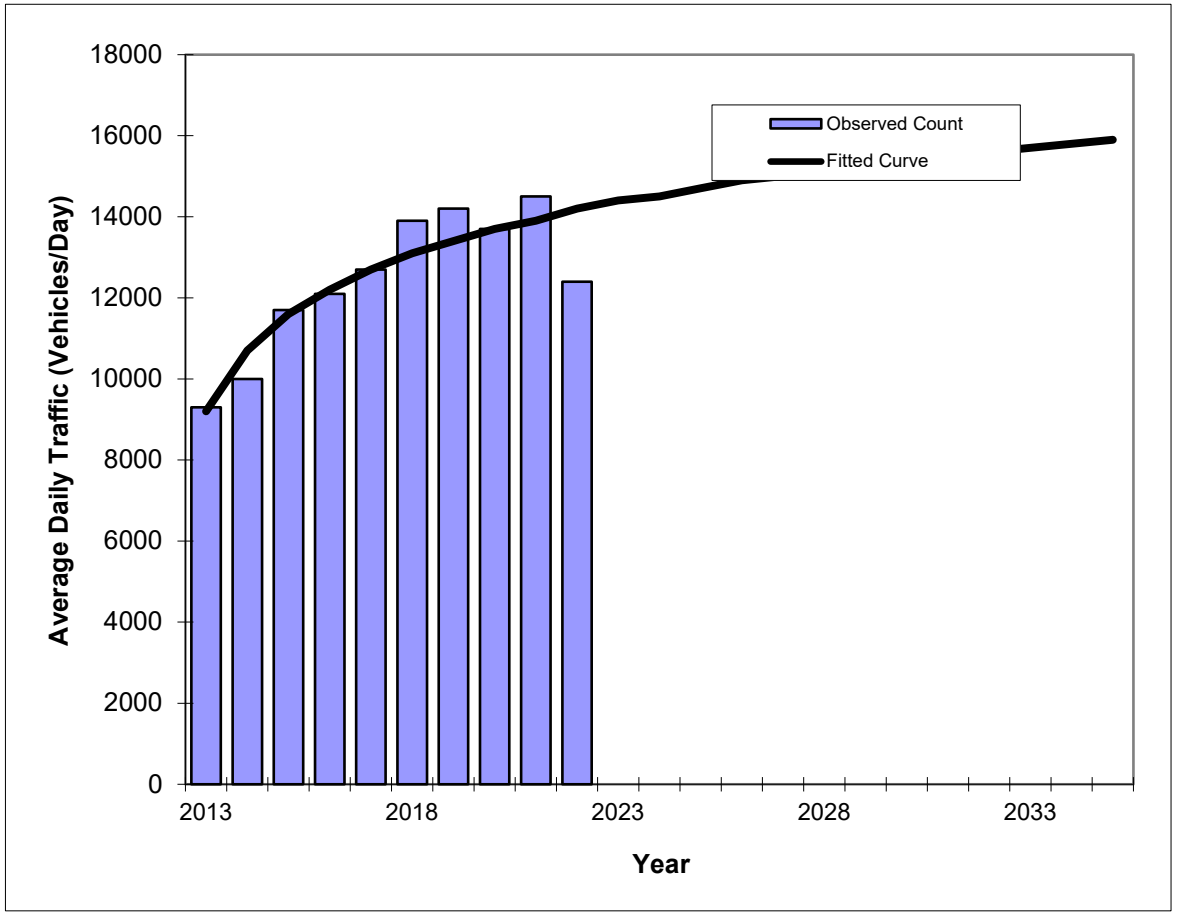
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1384
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	9300	9200
2014	10000	10700
2015	11700	11600
2016	12100	12200
2017	12700	12700
2018	13900	13100
2019	14200	13400
2020	13700	13700
2021	14500	13900
2022	12400	14200
2026 Opening Year Trend		
2026	N/A	14900
2027 Mid-Year Trend		
2027	N/A	15000
2028 Design Year Trend		
2028	N/A	15200
TRANPLAN Forecasts/Trends		

Trend R-squared:	80.82%
Compounded Annual Historic Growth Rate:	4.94%
Compounded Growth Rate (2022 to Design Year):	1.14%
Printed:	6-Aug-24

Decaying Exponential Growth Option

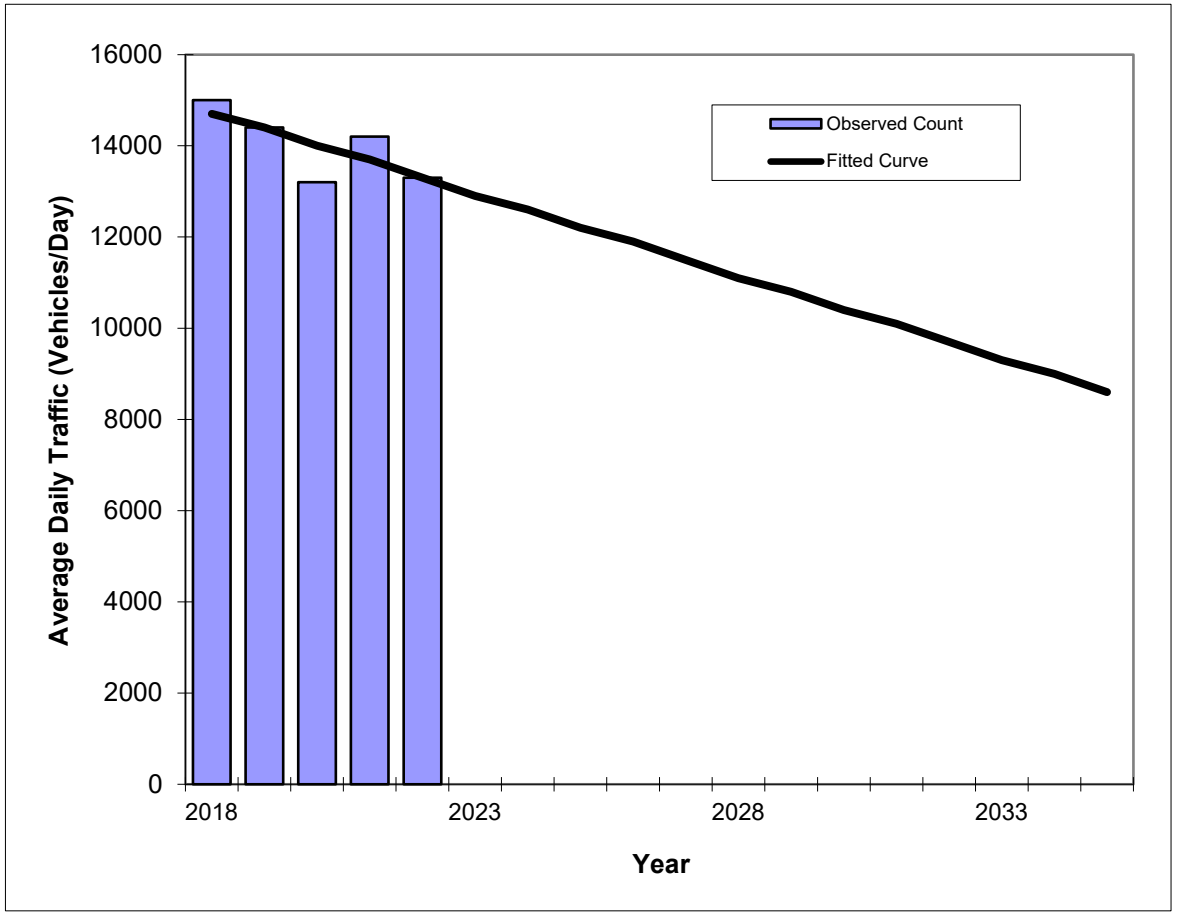
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1385
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	15000	14700
2019	14400	14400
2020	13200	14000
2021	14200	13700
2022	13300	13300
2026 Opening Year Trend		
2026	N/A	11900
2027 Mid-Year Trend		
2027	N/A	11500
2028 Design Year Trend		
2028	N/A	11100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-360
Trend R-squared:	55.67%
Trend Annual Historic Growth Rate:	-2.38%
Trend Growth Rate (2022 to Design Year):	-2.76%
Printed:	6-Aug-24

Straight Line Growth Option

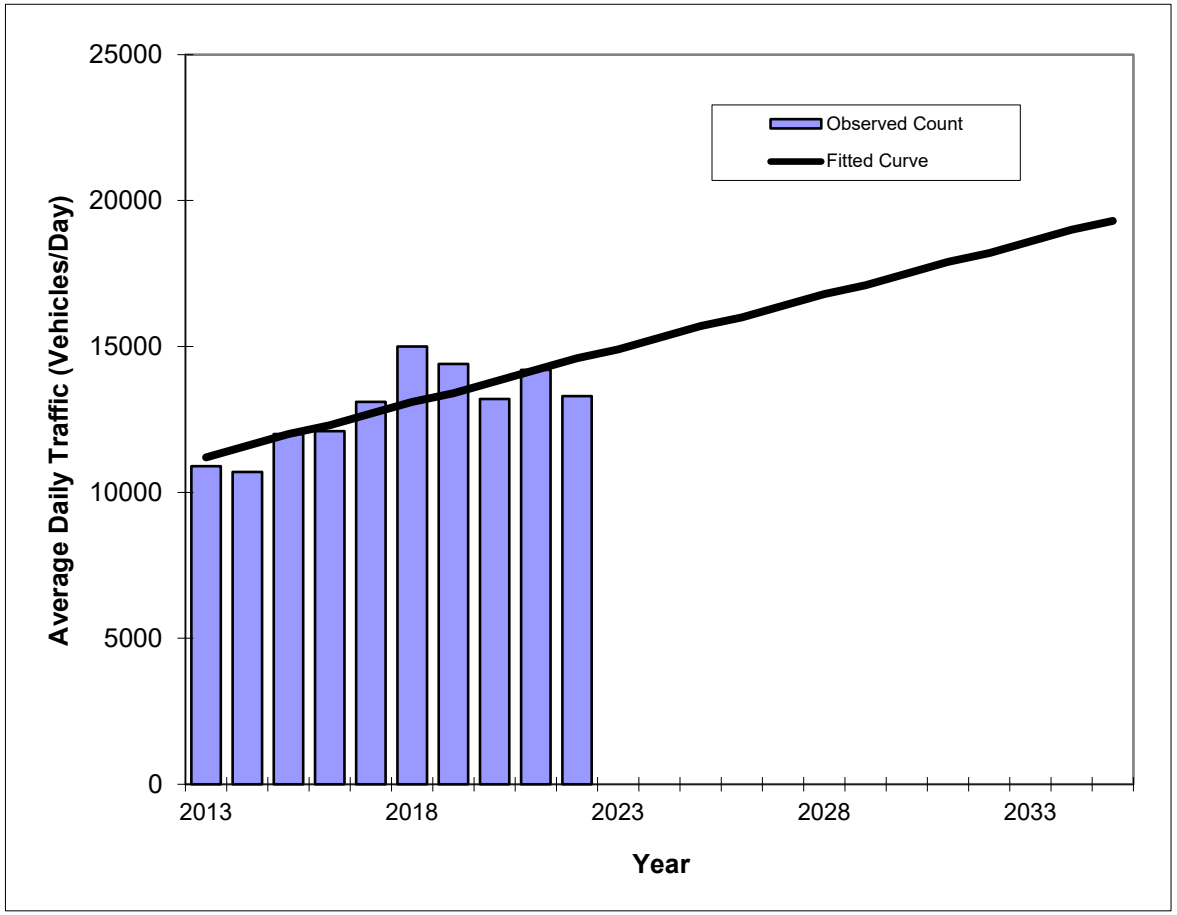
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1385
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	10900	11200
2014	10700	11600
2015	12000	12000
2016	12100	12300
2017	13100	12700
2018	15000	13100
2019	14400	13400
2020	13200	13800
2021	14200	14200
2022	13300	14600
2026 Opening Year Trend		
2026	N/A	16000
2027 Mid-Year Trend		
2027	N/A	16400
2028 Design Year Trend		
2028	N/A	16800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	369
Trend R-squared:	59.37%
Trend Annual Historic Growth Rate:	3.37%
Trend Growth Rate (2022 to Design Year):	2.51%
Printed:	6-Aug-24

Straight Line Growth Option

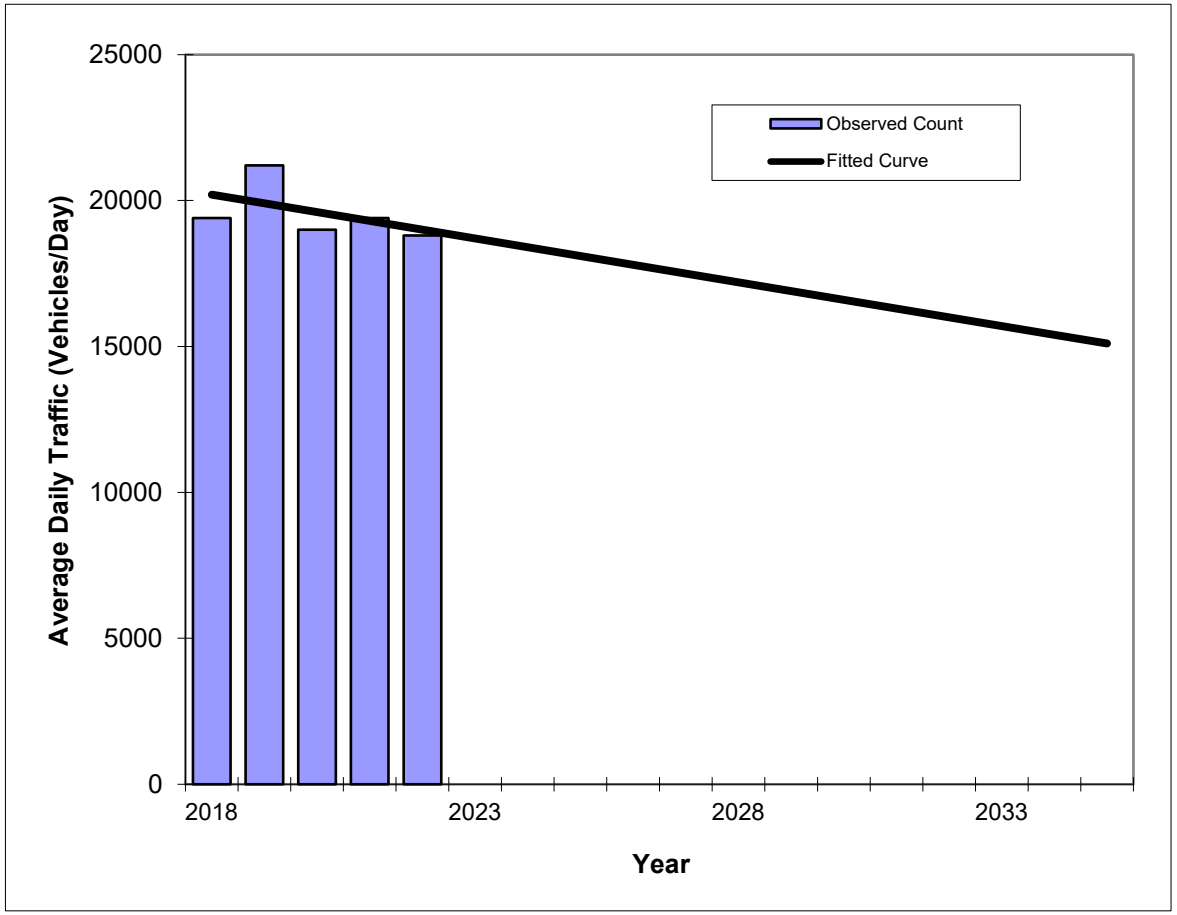
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1901
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	19400	20200
2019	21200	19900
2020	19000	19600
2021	19400	19300
2022	18800	19000
2026 Opening Year Trend		
2026	N/A	17800
2027 Mid-Year Trend		
2027	N/A	17500
2028 Design Year Trend		
2028	N/A	17200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-300
Trend R-squared:	24.78%
Trend Annual Historic Growth Rate:	-1.49%
Trend Growth Rate (2022 to Design Year):	-1.58%
Printed:	6-Aug-24

Straight Line Growth Option

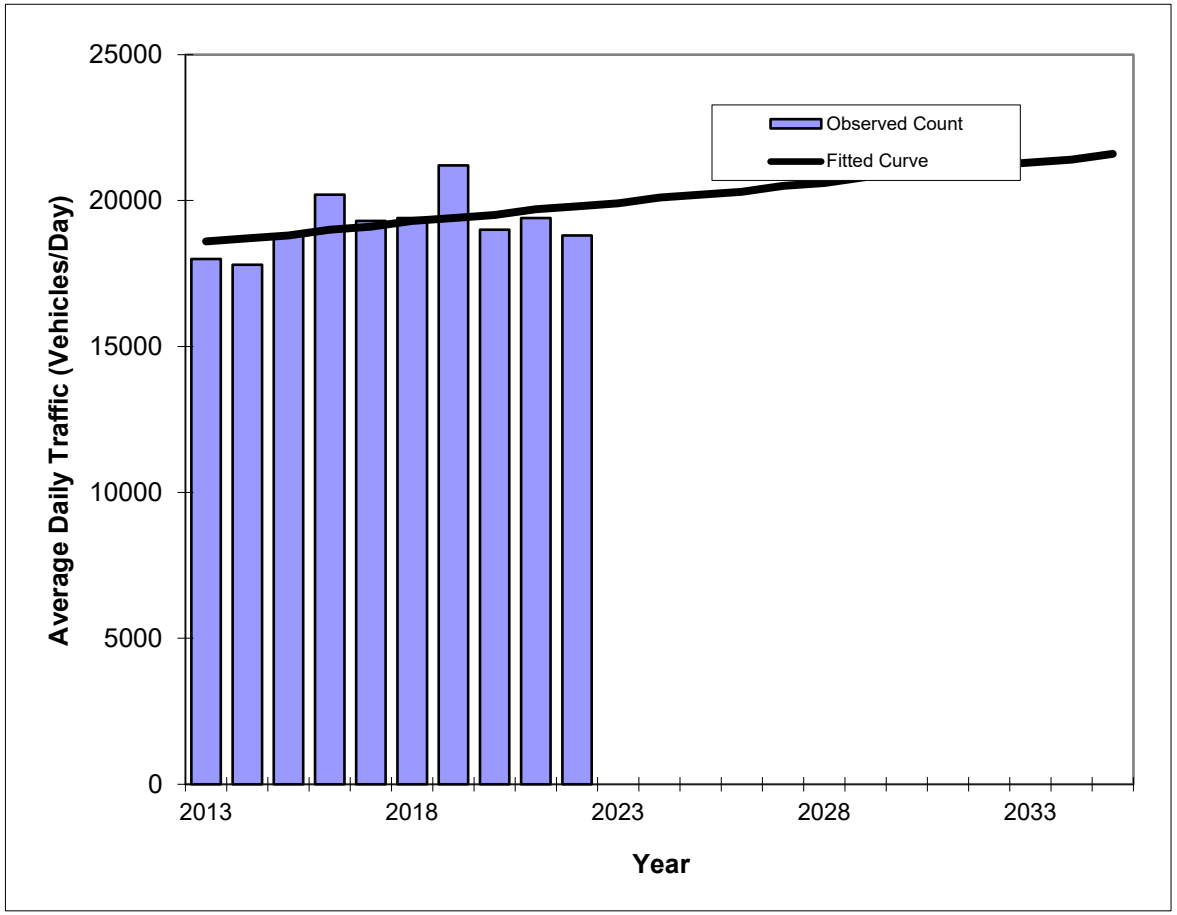
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1901
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	18000	18600
2014	17800	18700
2015	18800	18800
2016	20200	19000
2017	19300	19100
2018	19400	19300
2019	21200	19400
2020	19000	19500
2021	19400	19700
2022	18800	19800
2026 Opening Year Trend		
2026	N/A	20300
2027 Mid-Year Trend		
2027	N/A	20500
2028 Design Year Trend		
2028	N/A	20600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	136
Trend R-squared:	17.34%
Trend Annual Historic Growth Rate:	0.72%
Trend Growth Rate (2022 to Design Year):	0.67%
Printed:	6-Aug-24

Straight Line Growth Option

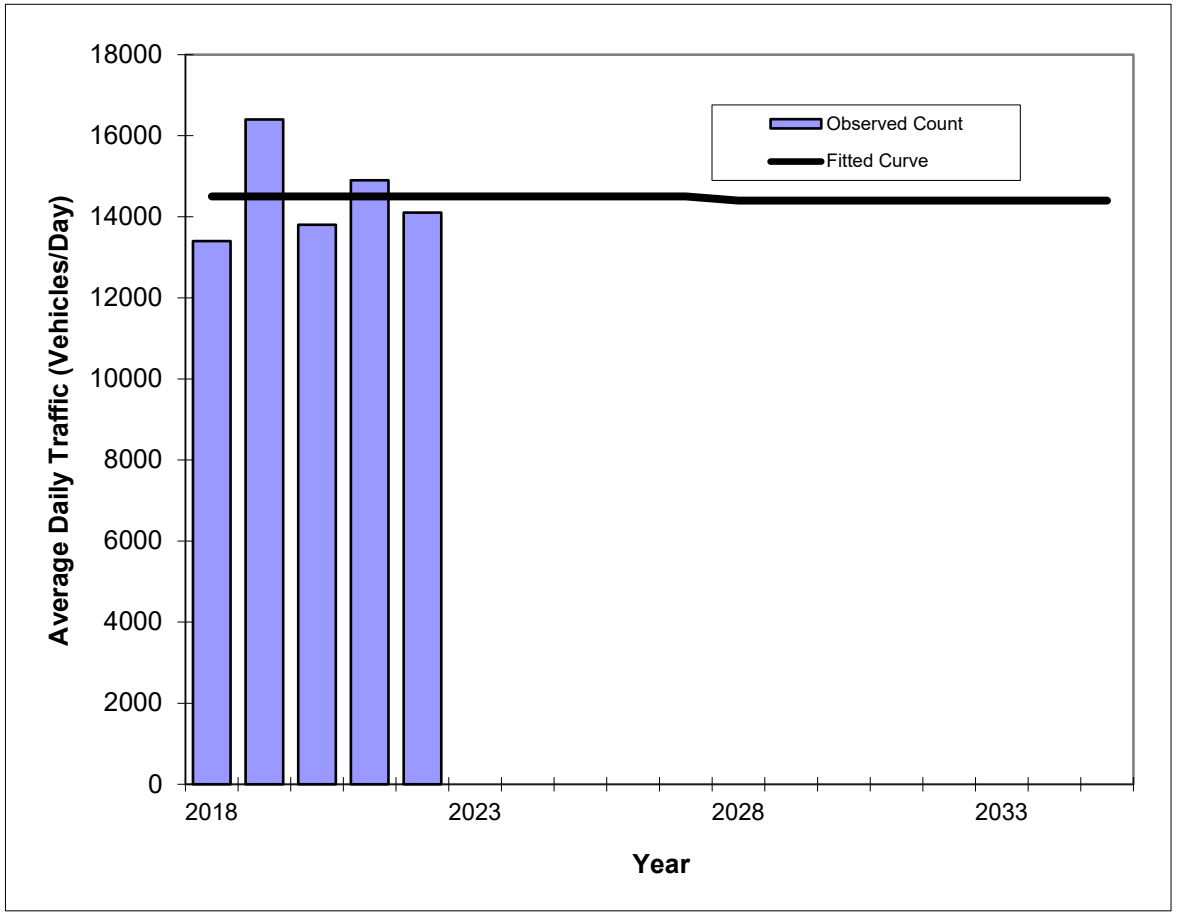
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1902
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	13400	14500
2019	16400	14500
2020	13800	14500
2021	14900	14500
2022	14100	14500
2026 Opening Year Trend		
2026	N/A	14500
2027 Mid-Year Trend		
2027	N/A	14500
2028 Design Year Trend		
2028	N/A	14400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-10
Trend R-squared:	0.02%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2022 to Design Year):	-0.11%
Printed:	6-Aug-24

Straight Line Growth Option

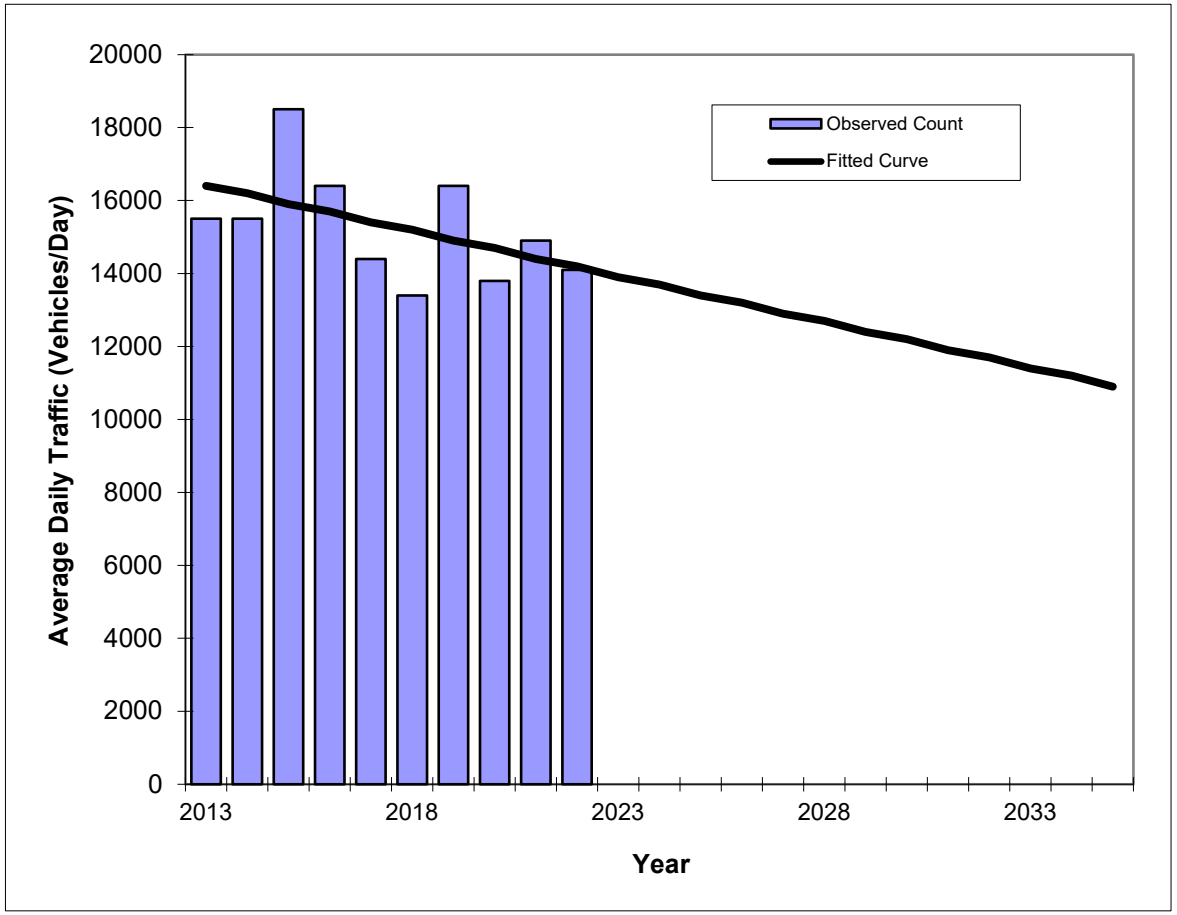
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1902
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	15500	16400
2014	15500	16200
2015	18500	15900
2016	16400	15700
2017	14400	15400
2018	13400	15200
2019	16400	14900
2020	13800	14700
2021	14900	14400
2022	14100	14200
2026 Opening Year Trend		
2026	N/A	13200
2027 Mid-Year Trend		
2027	N/A	12900
2028 Design Year Trend		
2028	N/A	12700
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-250
Trend R-squared:	24.60%
Trend Annual Historic Growth Rate:	-1.49%
Trend Growth Rate (2022 to Design Year):	-1.76%
Printed:	6-Aug-24

Straight Line Growth Option

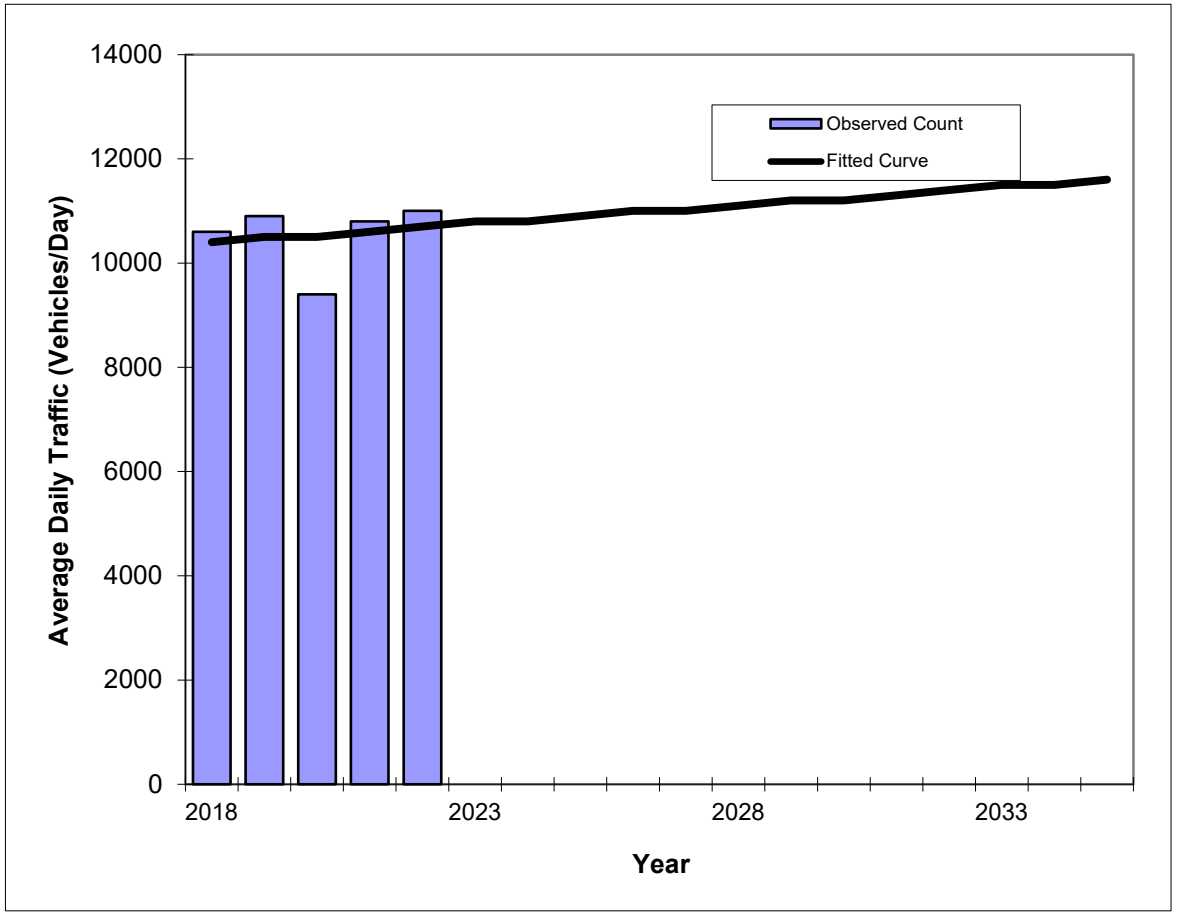
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1030
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	10600	10400
2019	10900	10500
2020	9400	10500
2021	10800	10600
2022	11000	10700
2026 Opening Year Trend		
2026	N/A	11000
2027 Mid-Year Trend		
2027	N/A	11000
2028 Design Year Trend		
2028	N/A	11100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	70
Trend R-squared:	2.86%
Trend Annual Historic Growth Rate:	0.72%
Trend Growth Rate (2022 to Design Year):	0.62%
Printed:	6-Aug-24

Straight Line Growth Option

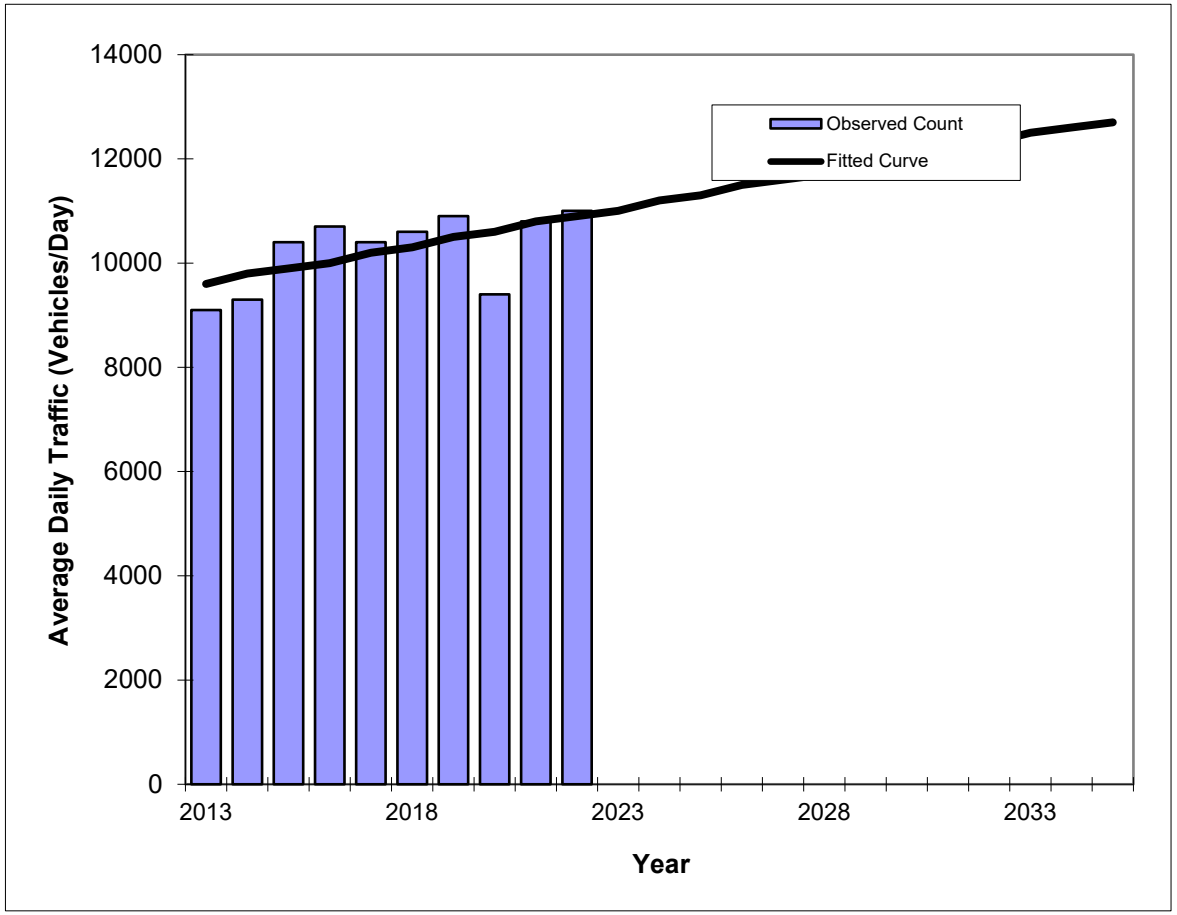
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1030
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	9100	9600
2014	9300	9800
2015	10400	9900
2016	10700	10000
2017	10400	10200
2018	10600	10300
2019	10900	10500
2020	9400	10600
2021	10800	10800
2022	11000	10900
2026 Opening Year Trend		
2026	N/A	11500
2027 Mid-Year Trend		
2027	N/A	11600
2028 Design Year Trend		
2028	N/A	11700
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	142
Trend R-squared:	36.04%
Trend Annual Historic Growth Rate:	1.50%
Trend Growth Rate (2022 to Design Year):	1.22%
Printed:	6-Aug-24

Straight Line Growth Option

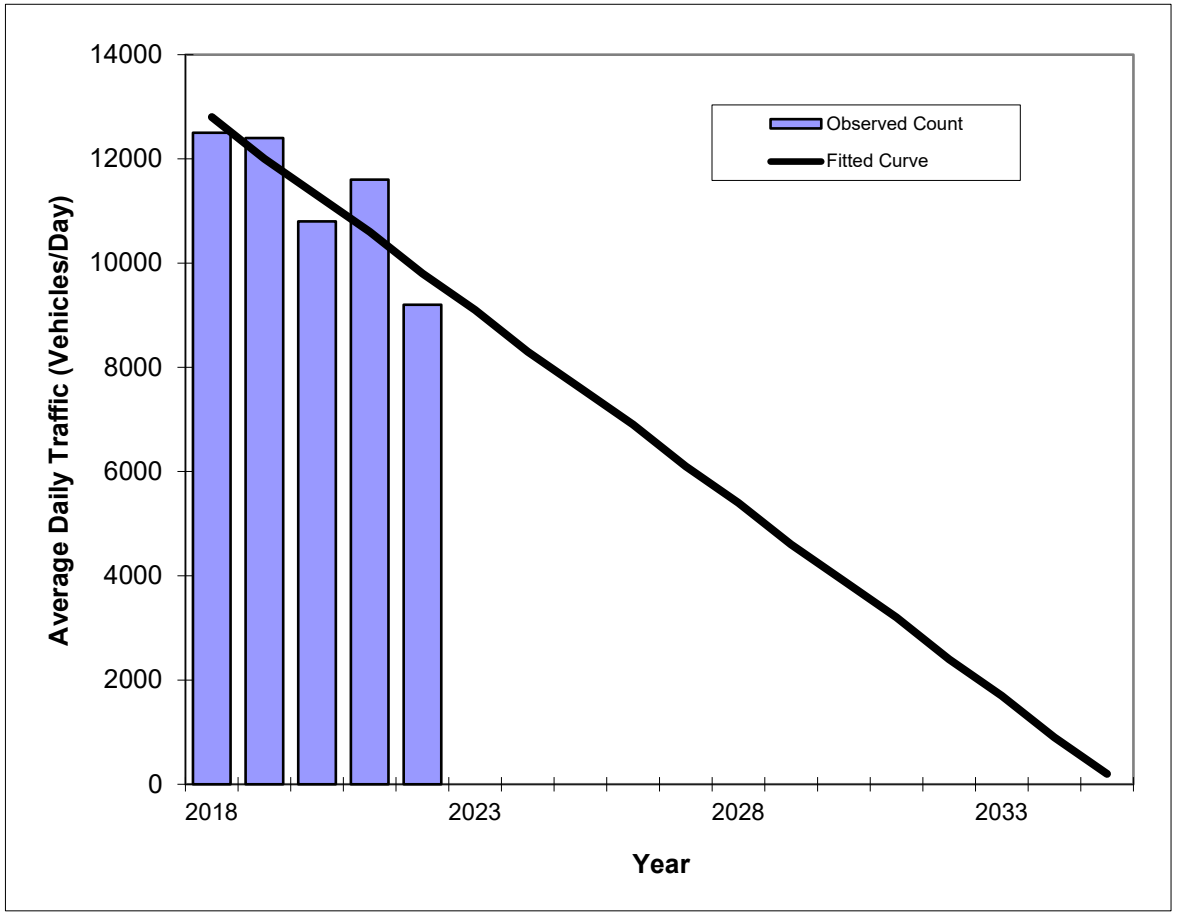
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1942
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	12500	12800
2019	12400	12000
2020	10800	11300
2021	11600	10600
2022	9200	9800
2026 Opening Year Trend		
2026	N/A	6900
2027 Mid-Year Trend		
2027	N/A	6100
2028 Design Year Trend		
2028	N/A	5400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-740
Trend R-squared:	74.00%
Trend Annual Historic Growth Rate:	-5.86%
Trend Growth Rate (2022 to Design Year):	-7.48%
Printed:	6-Aug-24

Straight Line Growth Option

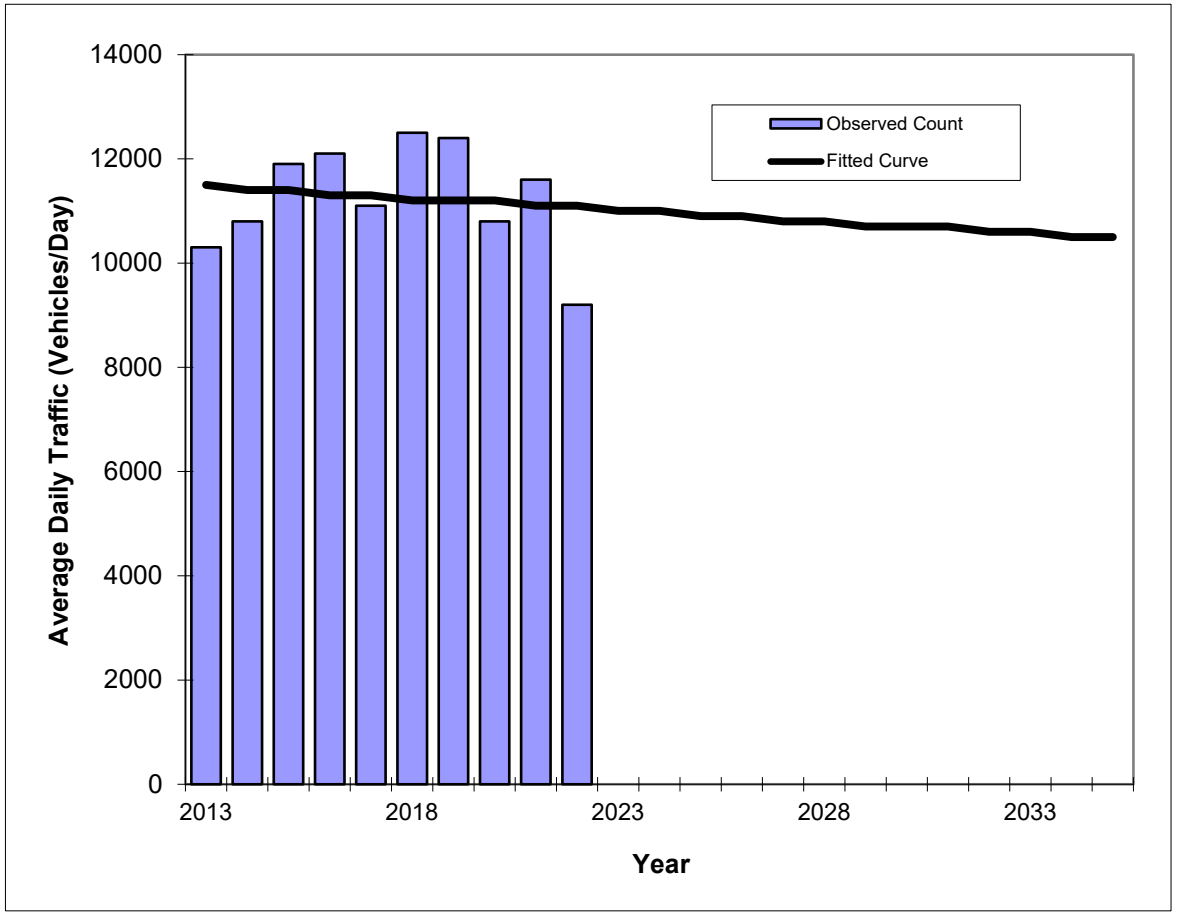
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1942
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	10300	11500
2014	10800	11400
2015	11900	11400
2016	12100	11300
2017	11100	11300
2018	12500	11200
2019	12400	11200
2020	10800	11200
2021	11600	11100
2022	9200	11100
2026 Opening Year Trend		
2026	N/A	10900
2027 Mid-Year Trend		
2027	N/A	10800
2028 Design Year Trend		
2028	N/A	10800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-45
Trend R-squared:	1.76%
Trend Annual Historic Growth Rate:	-0.39%
Trend Growth Rate (2022 to Design Year):	-0.45%
Printed:	6-Aug-24

Straight Line Growth Option

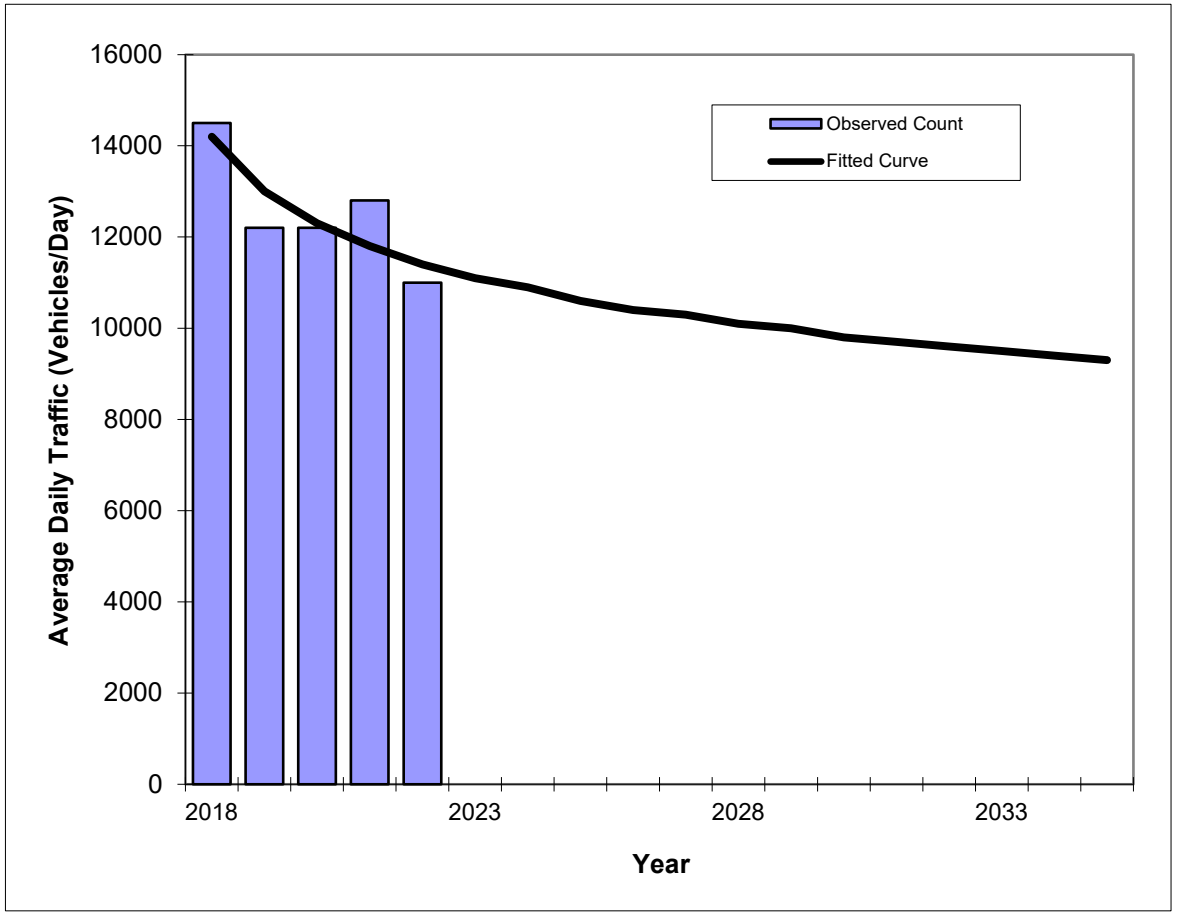
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1943
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	14500	14200
2019	12200	13000
2020	12200	12300
2021	12800	11800
2022	11000	11400
2026 Opening Year Trend		
2026	N/A	10400
2027 Mid-Year Trend		
2027	N/A	10300
2028 Design Year Trend		
2028	N/A	10100
TRANPLAN Forecasts/Trends		

Trend R-squared:	70.70%
Compounded Annual Historic Growth Rate:	-5.34%
Compounded Growth Rate (2022 to Design Year):	-2.00%
Printed:	6-Aug-24

Decaying Exponential Growth Option

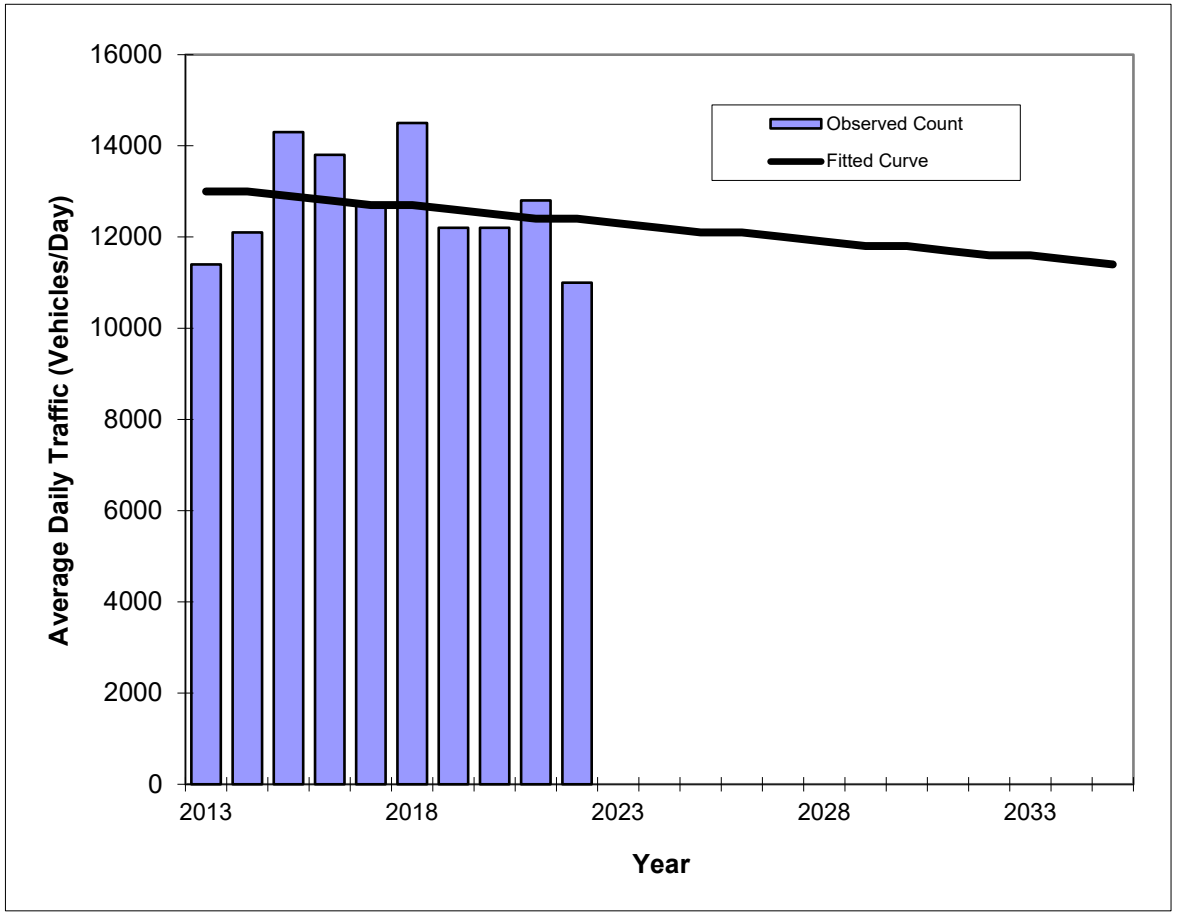
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1943
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	11400	13000
2014	12100	13000
2015	14300	12900
2016	13800	12800
2017	12700	12700
2018	14500	12700
2019	12200	12600
2020	12200	12500
2021	12800	12400
2022	11000	12400
2026 Opening Year Trend		
2026	N/A	12100
2027 Mid-Year Trend		
2027	N/A	12000
2028 Design Year Trend		
2028	N/A	11900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-74
Trend R-squared:	3.62%
Trend Annual Historic Growth Rate:	-0.51%
Trend Growth Rate (2022 to Design Year):	-0.67%
Printed:	6-Aug-24

Straight Line Growth Option

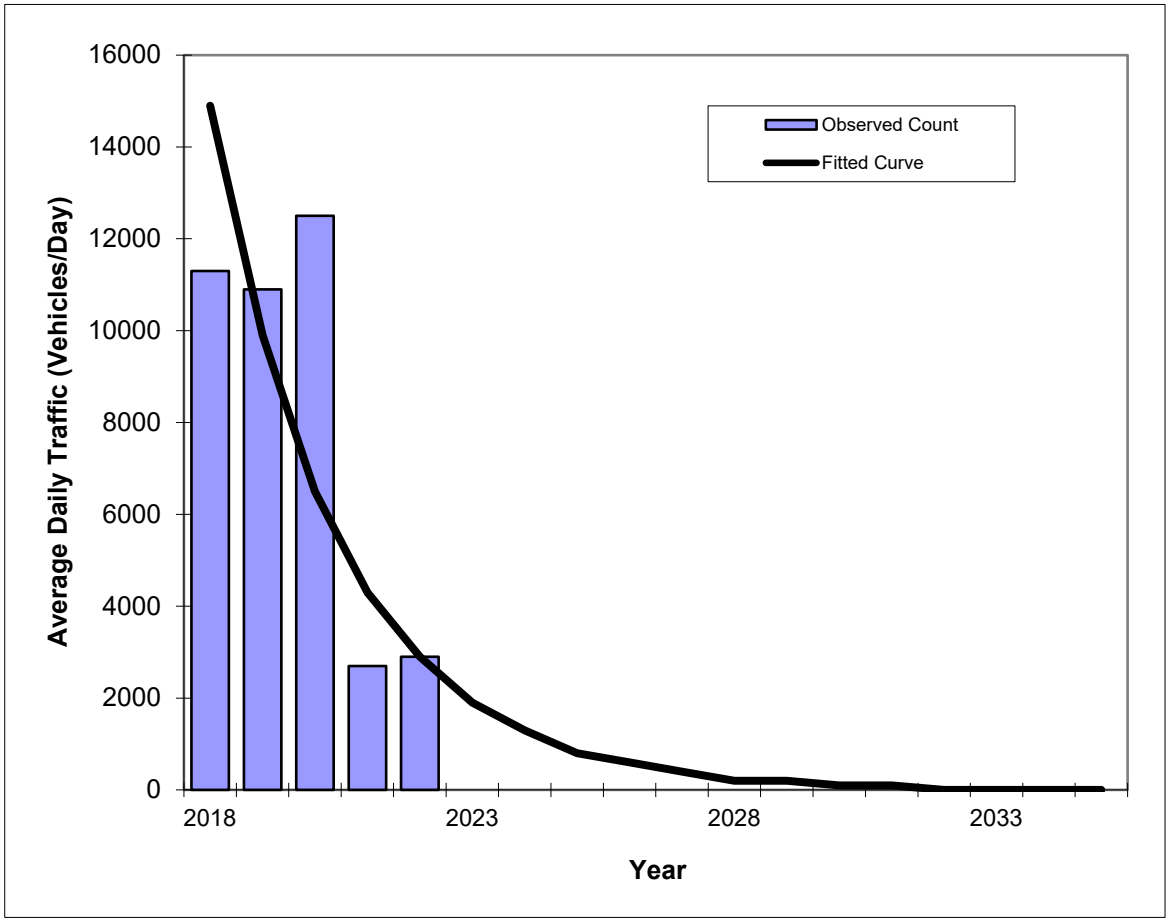
***Axle-Adjusted**

Traffic Trends - V03.a

CATALINA BLVD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	8193
Highway:	CATALINA BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	11300	14900
2019	10900	9900
2020	12500	6500
2021	2700	4300
2022	2900	2900
2026 Opening Year Trend		
2026	N/A	600
2027 Mid-Year Trend		
2027	N/A	400
2028 Design Year Trend		
2028	N/A	200
TRANPLAN Forecasts/Trends		

Trend R-squared:	69.89%
Compounded Annual Historic Growth Rate:	-33.58%
Compounded Growth Rate (2022 to Design Year):	-35.96%
Printed:	6-Aug-24

Exponential Growth Option

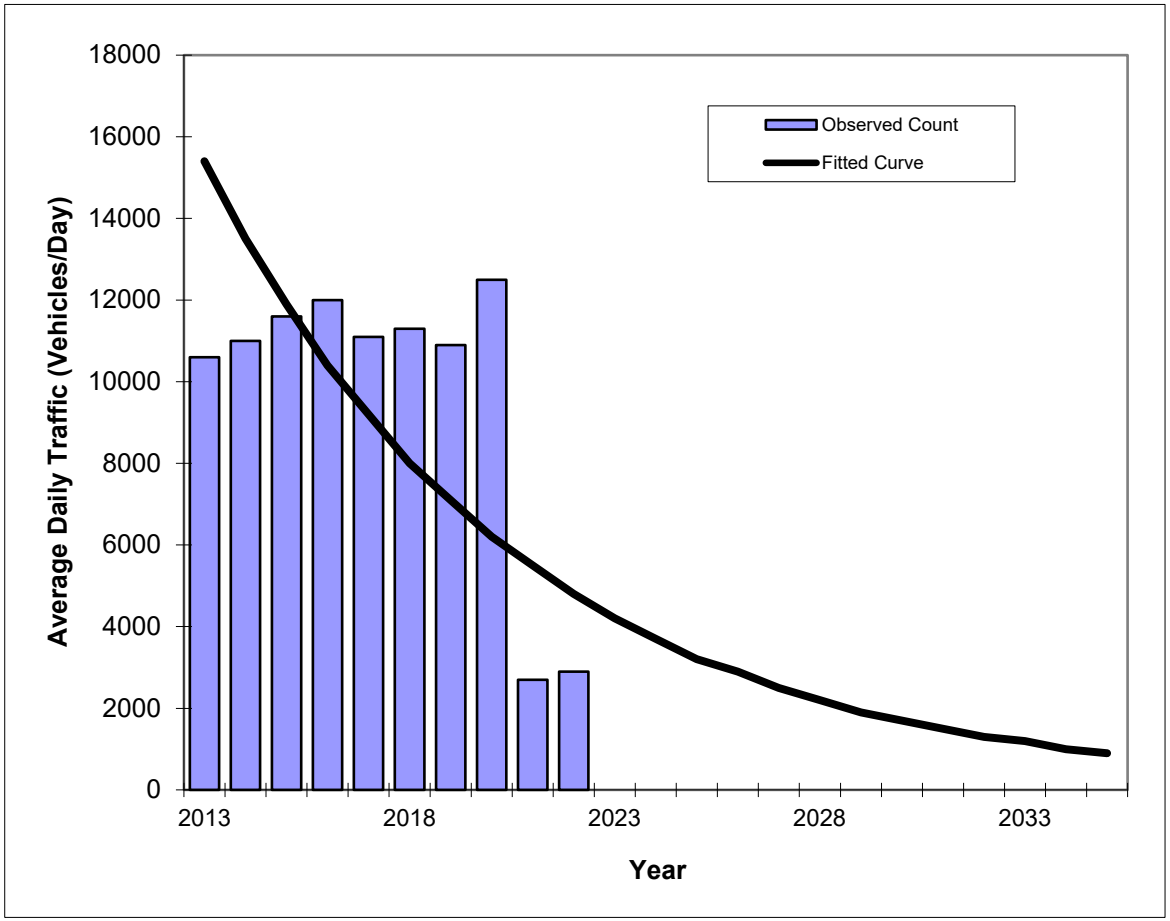
***Axle-Adjusted**

Traffic Trends - V03.a

CATALINA BLVD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	8193
Highway:	CATALINA BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	10600	15400
2014	11000	13500
2015	11600	11900
2016	12000	10400
2017	11100	9200
2018	11300	8000
2019	10900	7100
2020	12500	6200
2021	2700	5500
2022	2900	4800
2026 Opening Year Trend		
2026	N/A	2900
2027 Mid-Year Trend		
2027	N/A	2500
2028 Design Year Trend		
2028	N/A	2200
TRANPLAN Forecasts/Trends		

Trend R-squared:	43.83%
Compounded Annual Historic Growth Rate:	-12.15%
Compounded Growth Rate (2022 to Design Year):	-12.19%
Printed:	6-Aug-24

Exponential Growth Option

***Axle-Adjusted**

Volusia County Vested Trip Database on Critical/Non-Critical Roads -
By Critical Area, PM Peak

Approved Devts and Devts under Review
Developments not considered vested
Parent Tract trips - should not be included in overall, only for informational purposes

****ALWAYS REFER TO THE VC AADT SPREADSHEET FOR COUNT AND CAPACITY INFO. (Not this spreadsheet)****

Updated #######

****ALWAYS REFER TO THE VC AADT SPREADSHEET FOR COUNT AND CAPACITY INFO. (Not this spreadsheet)****

Roadway	Segment	2021PM Pk Hr (VCTE) (VCTE Staff note. RED font = FDOT pk volumes based on daily V/C proportion.)	Capacity	2020 Parc Hill (50% Removed)	SWAC Phase IA Trips 11,444 (removed 13% Innegra Dunes)	Victoria Park Ph 2 Remaining Trips per city (reduced by 75%)	Victoria Park Ph 3 trips per city (0% removed)	Halifax Crossing s SPUD (37% Removed)	Hawthorne Landing	Rivera Bella East Unit 8&9 REMOVED 50%	Ft Florida Commons	Riverbend 2008	Springview Unit 8 REMOVED 90%	Canterwood ALF	Vineland Reserve	Fernanda Place (85% removed)	Enterprise Osteen (Reflects only 189 units as woodS)	Enterprise Osteen East	Lincoln Oaks 2019	133 S. Courtland Blvd	Doyle Road Tract	Reserve at Victoria 2019	Park Lake Estates 2020	Crosswinds 2020	Beresford Woods 2019	DeBary Town Center	T.11 Kepler at SR 44 2019	Azalea Walk 2019 (20% removed)	Estates at Pelham Square 2019	Animal ER Critical Care 2019	Liberty Station, Orange City 2019	The Crossings, Orange City 2020	Eloah Estates 2022	Deltona Village PUD 2010 (see PUD trip tracker) 375 remaining not reflected on network	Deltona Village 2020/Mango Street	Portland Industrial 2020	Orange City Oncology 2025	Canopy Terrace/Kirk Subdivision	Grandview Gardens	Three Island Lake South	Villages at Pelham Square	Oak Hammock Reserve	Dean River Estates	Circle K at SR 40/US 17	Total Vested Trips	Lastest AADT plus Vested trips	V/C with Vested trips	V/C without Vested Trips	
I-4 Segments based on AADT V/C																																														
Graves Ave	VMP to Kentucky Ave	1640	1620	38	40	1	9	111																					13	141	44		94											479	2116	1.30	1.01	Critical
Graves Ave	Kentucky to Normandy	1420	1620		80	1	9	352																						311	44	19	109											925	2345	1.45	0.88	Vested Critical
Graves Ave	Normandy Blvd to Howland Blvd	1590	2740		80	1	9	352																						311	44	19	175											991	2581	0.94	0.58	Vested Near Critical
Howland Blvd	I-4 to Wolf Pack Run	2530	3410		130	15		254							9														10	187	82	57	116						8					868	3398	1.00	0.74	Vested Near Critical
Howland Blvd	Wolf Pack Run to Catalina Blvd	2310	3410		119			238							10															152	133	25	98						8					783	3093	0.91	0.68	Vested Near Critical
Howland Blvd	Providence Blvd to Elkcam	1110	1080					89							10															83	82		94						8					289	1389	1.14	0.99	Critical
Orange Camp Rd+B14	I-7/32 to Princeton	1,150	1270	0	20	8	57															19	16		11					3	20			14										168	1318	1.04	0.91	Near Critical
Orange Camp Rd	Blue Lake Ave to MLK	1,210	1540	0	20	11	80															22	16	4						3	20	2		21										197	1407	0.91	0.75	Vested Near Critical
Orange Camp Rd	MLK to I-4	1,170	1540		40	17	111															59	49	9						3	10	3		54										353	1523	0.99	0.76	Vested Critical
MLK	Taylor to Orange Camp	1030	1540				8	59														123	101	0										54										345	1375	0.89	0.67	Vested Near Critical
MLK	Orange Camp to Cassadaga Rd	990	1540	0	90	12	83															54	44	3						14	51	10		21										382	1372	0.89	0.64	Vested Near Critical
Kentucky	SR 472 to Graves	910	1540																											67	162	10		31										270	1180	0.77	0.59	
VMP	Graves Ave to Rhode Island	1200	1620	49	90	1	10																							48	91	8		35										332	1532	0.95	0.74	Vested Near Critical
VMP	Rhode Island to Harley Strickland	1490	1620	235	80	1	3																											23										397	1887	1.16	0.92	Vested Critical
Catalina Blvd	Howland Blvd to Sixma Road	1002	960																																				3					*126*	1128	1.18	1.04	Vested Critical
Catalina Blvd	Sixma Rd to Lake Helen Osteen	856	960																																									*110*	966	1.01	0.89	Vested Near Critical

Table 5: Future Buildout Roadway Volumes

Roadway	Segment	2027 2-Way PM Background Volume	Model Distribution	Buildout Trips	2027 2-Way PM Buildout Volume
Dr Martin Luther King Jr Beltway	SR 472 to Cassadaga Rd.	1,524	16.25%	198	1,722
	Cassadaga Rd. to Orange Camp Rd.	1,685	21.30%	260	1,945
	Orange Camp Rd. to Taylor Rd.	1,634	7.50%	92	1,726
	Taylor Rd. to Beresford Ave.	1,425	6.60%	81	1,506
Kentucky Avenue	Graves Ave. to SR 472	1,489	9.10%	111	1,600
Veteran's Memorial Parkway	Rhode Island Ave. to Graves Ave.	1,566	4.60%	56	1,622
Cassadaga Road	Dr. Martin Luther King Jr Bltwy. to Macy Ave.	308	9.80%	120	428
Orange Camp Road	Blue Lake Ave. to Dr Martin Luther King Jr Bltwy.	1,670	4.80%	59	1,729
Graves Avenue	Veteran's Memorial Pkwy. to Kentucky Ave.	2,203	7.00%	85	2,288
Howland Boulevard	I-4/SR 472 to Wolf Pack Rn.	3,580	15.28%	186	3,766
	Wolf Pack Rn. to Catalina Blvd.	3,307	11.60%	142	3,449
	Catalina Blvd. to Providence Blvd.	2,336	10.07%	123	2,459
SR 472	US 17/92 to Martin Luther King Jr Bltwy.	3,193	16.74%	204	3,397
	Martin Luther King Jr Bltwy. to I-4	3,466	26.40%	322	3,788
Macy Avenue	Ohio St. to Cassadaga Rd.	193	6.60%	81	274
Kicklighter Road	Macy Ave. to Lake Helen-Osteen Rd./Prevatt Ave.	270	5.60%	68	338
Normandy Blvd.	Graves Ave. to Rhode Island Ave.	1,547	5.65%	69	1,616

3.3 Roadway Segment Analysis

Roadway segment capacity was analyzed based on the adopted peak hour capacities, as obtained from the *Volusia County 2021 AADT & Historical Counts*. The analysis compares the roadway PM peak traffic to the segment capacity to determine if the segment's LOS operation is adequate. The analysis was conducted for the existing, projected background, and projected buildout traffic. **Table 4** summarizes the roadway capacity analysis.

Table 4
Roadway Capacity Analysis

Roadway Segment	Seg ID	# of Lns	2Way Cap	Existing		Background		Project Total			
				Vol	Adeq?	Vol	Adeq?	Dist	Trips	Vol	Adeq?
US 17 / 92											
SR 472 to SR 15A / Taylor Rd*	1,004	6	5,390	1,027	YES	1,190	YES	10%	12	1,202	YES
Graves Ave / CR 4145											
Veteran's Memorial Pkwy to Kentucky Ave	775	2	1,620	1,640	**NO**	1,905	**NO**	15%	18	1,923	**NO**
Kentucky Ave to Normandy Blvd	900a	2	1,620	1,420	YES	1,880	**NO**	5%	6	1,886	**NO**
Normandy Blvd to Howland Blvd	900b	4	2,740	1,590	YES	2,050	YES	5%	6	2,056	YES
Orange Camp Rd											
US 17 / 92 to Princeton Rd	1,380	2	1,270	1,160	YES	1,364	**NO**	3%	4	1,368	**NO**
Princeton Rd to Blue Lake Ave	1,382	2	1,540	1,170	YES	1,402	YES	4%	5	1,407	YES
Blue Lake Ave to W Volusia Bltwy (Dr. MLK Jr)	1,384	2	1,540	1,220	YES	1,531	YES	5%	6	1,537	YES
W Volusia Bltwy (Dr. MLK Jr) to I-4	1,385	2	1,540	1,920	**NO**	2,409	**NO**	5%	6	2,415	**NO**
W. Volusia Bltwy											
Saxon Blvd to Harley Strickland Blvd	1,900	4	3,410	1,280	YES	1,527	YES	5%	6	1,533	YES
Harley Strickland Blvd to Rhode Island Ave	1,901	2	1,540	1,490	YES	1,748	**NO**	5%	6	1,754	**NO**
Rhode Island Ave to Graves Ave	1,902	2	1,620	1,200	YES	1,408	YES	10%	12	1,420	YES
SR 472 to Cassadaga Rd	1,940	2	1,540	1,050	YES	1,232	YES	70%	85	1,317	YES

** 2021 volume obtained from FDOT's Florida Traffic Online*

The following roadway segments are projected to operate above their adopted capacities due to existing traffic volumes or projected background growth:

- Graves Avenue / CR 4145 from Veteran's Memorial Parkway to Normandy Boulevard
- Orange Camp Road from US 17/92 to Princeton Road
- Orange Camp Road from W Volusia Beltway to I-4
- W Volusia Beltway from Harley Strickland Boulevard to Rhode Island Avenue

It is recommended that the four (4) roadway segments be widened from 2-lanes to 4-lanes, and it should also be noted that the proposed development does not cause any roadway segments to become deficient.

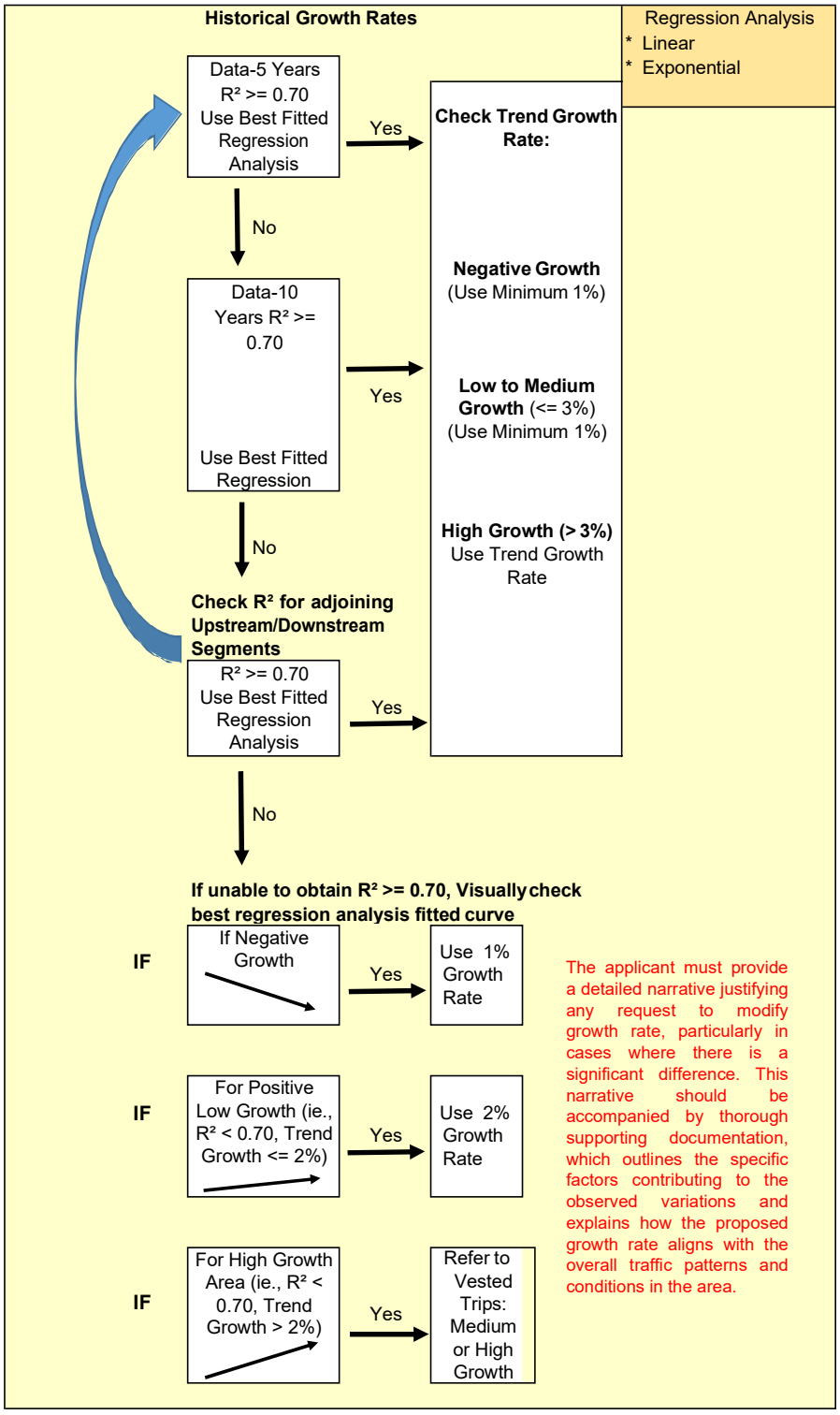
Segment Information			Deland Tech Park	TM BTR	Vested Trip Database
Roadway	From	To			
Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave	120	0	0
Cassadaga Rd*	W. Volusia Bltwy (Dr. MLK Bltwy)	Blue Lake Ave (Extension)	0	0	0
Graves Ave	Veterans Memorial Pkwy	Kentucky Ave	85	18	470
Graves Ave	Kentucky Ave	Normandy Blvd	0	6	925
Graves Ave	Normandy Blvd	Howland Blvd	0	6	991
Howland Blvd	I-4/SR 472	Wolf Pack Run	186	0	868
Howland Blvd	Wolf Pack Run	Catalina Blvd	142	0	783
Howland Blvd	Providence Blvd	Elkcam Blvd	0	0	289
Orange Camp Rd	US 17/92	Princeton Rd	0	4	168
Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)	59	6	197
Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4	0	6	355
W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave	0	6	397
W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave	56	12	332
W. Volusia Bltwy (Kentucky Ave)	Graves Ave	SR 472	111	0	270
W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd	260	0	382
W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd	92	0	345
Catalina Blvd**	Howland Blvd	Sixma Rd	0	0	126
Catalina Blvd**	Sixma Rd	Lake Helen Osteen	0	0	110

Vested trips obtained from *Volusia County Vested Trip Database* and also include trips from Deland Tech Park and TM BTR (Yardley)

*This segments is an extension and do not currently exist. The only trips that will be using this segment would be the project trips.

**No data in *Volusia County 2022 AADT* . Historical AADT obtained from *Florida Traffic Online (FTO) 2023* . Existing PM Peak Hour Volume estimated using AADT, K factor and D Factor

Volusia County's Segment Growth Rates and Vested Trips Instructions Policy



The applicant must provide a detailed narrative justifying any request to modify growth rate, particularly in cases where there is a significant difference. This narrative should be accompanied by thorough supporting documentation, which outlines the specific factors contributing to the observed variations and explains how the proposed growth rate aligns with the overall traffic patterns and conditions in the area.

AND

IF there are - Vested Trips

Negative Growth (Use Minimum 1%):

\+ Vested Trips

Low to Medium Growth (<= 3%)(Use Minimum 1%):

\+ Vested Trips

High Growth (> 3%):

Use the Highest # of the two (growth rate or vested trips). Need to submit supporting documentation & justification.

HIGH GROWTH & HIGH VESTED TRIPS

If there are Vested Trips from multiple approved projects on segment.
And, Vested Trips comprise of multiple uses that would normally have significant interaction (residential, retail, office, restaurant, etc…).

And, Vested Trips make up more than 30% of the total future background traffic.

Then, Vested Trips can be reduced by 30% upon request by the Applicant

Signed:_____ Date:_____

Jay Williams, PE, PTOE

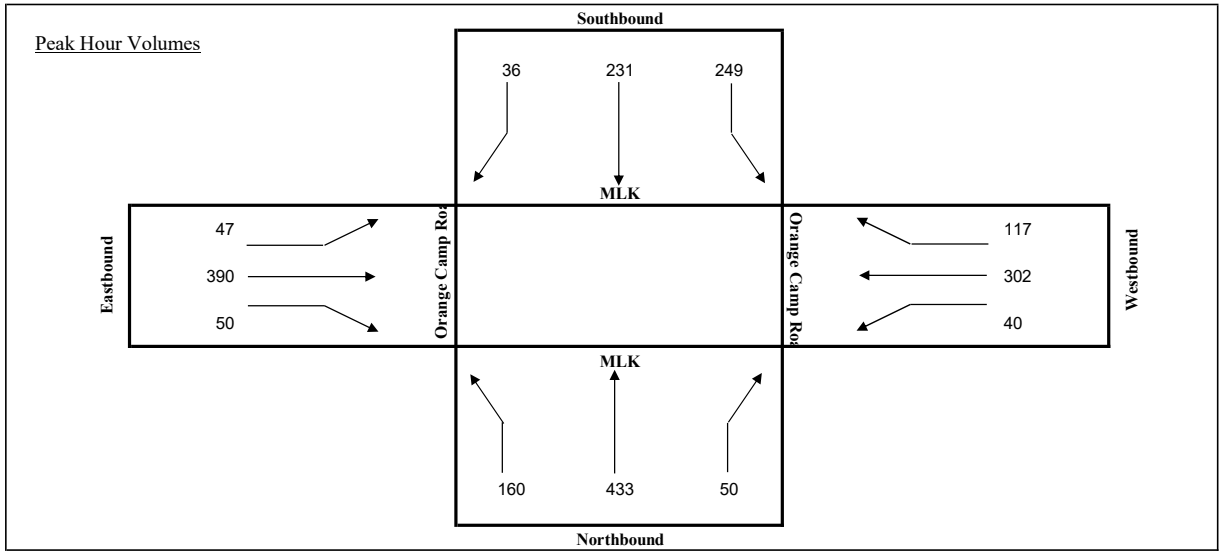
Appendix J
Turning Movement Counts, Seasonal Factor Report and Signal Timing

TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

			MLK			MLK			Orange Camp Road			Orange Camp Road			
			NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	21	56	8	44	49	6	10	90	10	5	59	14	372
7:15 AM	7:30 AM	25	64	13	62	65	7	7	110	11	6	67	17	454
7:30 AM	7:45 AM	40	88	10	74	66	10	12	116	14	6	69	28	533
7:45 AM	8:00 AM	41	127	14	69	53	12	14	103	11	11	77	31	563
8:00 AM	8:15 AM	35	111	12	56	59	5	10	92	9	10	86	30	515
8:15 AM	8:30 AM	44	107	14	50	53	9	11	79	16	13	70	28	494
8:30 AM	8:45 AM	40	85	10	66	60	4	13	89	11	9	58	30	475
8:45 AM	9:00 AM	31	77	14	58	50	7	9	75	12	8	65	22	428
Total for:	7:00 AM	8:00 AM	127	335	45	249	233	35	43	419	46	28	272	90	1922
Total for:	8:00 AM	9:00 AM	150	380	50	230	222	25	43	335	48	40	279	110	1912
Tota Peak Hour:	7:30 AM	8:30 AM	160	433	50	249	231	36	47	390	50	40	302	117	2105
Overall PHF:	0.93														

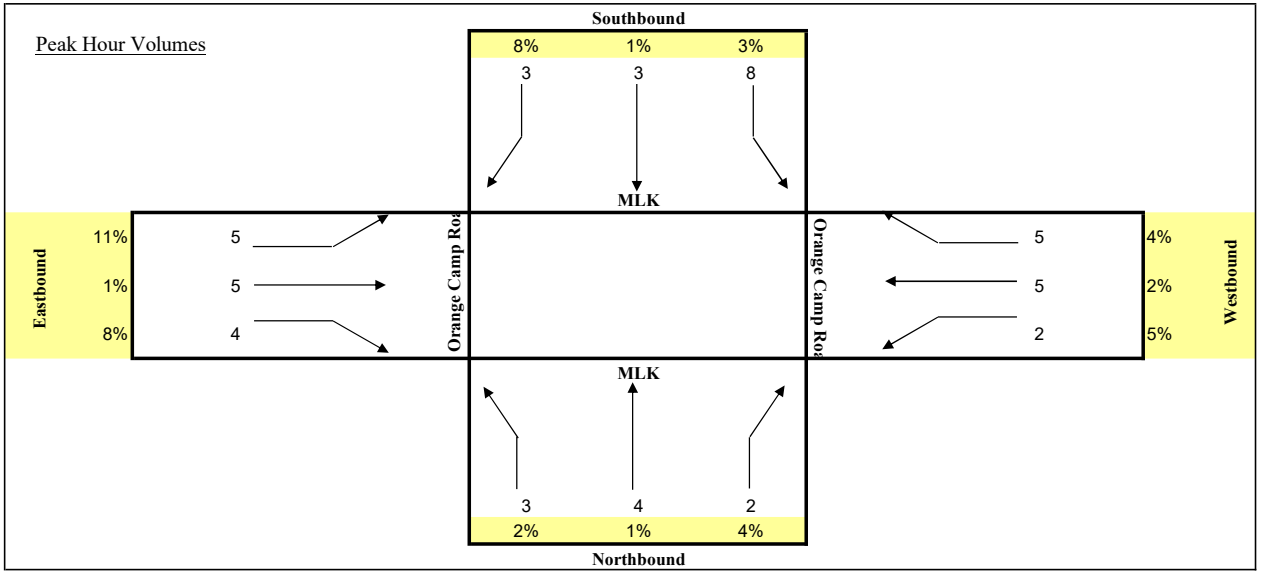


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

		MLK NB			MLK SB			Orange Camp Road EB			Orange Camp Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	2	2	1	0	1	1	3	1	1	0	2	2	16
7:15 AM	7:30 AM	0	1	1	2	1	0	0	2	0	0	1	1	9
7:30 AM	7:45 AM	1	0	0	1	0	1	1	0	0	2	0	0	6
7:45 AM	8:00 AM	1	1	0	4	0	1	2	1	1	1	3	1	16
8:00 AM	8:15 AM	1	0	1	1	2	0	0	1	0	0	1	1	8
8:15 AM	8:30 AM	0	0	1	0	1	1	2	0	2	0	1	3	11
8:30 AM	8:45 AM	1	3	0	3	0	1	1	3	1	1	0	0	14
8:45 AM	9:00 AM	0	0	0	1	1	0	1	0	0	0	2	1	6
Total for:	7:00 AM	8:00 AM	4	4	2	7	2	3	6	4	2	3	6	4	47
Total for:	8:00 AM	9:00 AM	2	3	2	5	4	2	4	4	3	1	4	5	39
Tota Peak Hour:	7:45 AM	8:45 AM	3	4	2	8	3	3	5	5	4	2	5	5	49
Overall PHF:	0.77														

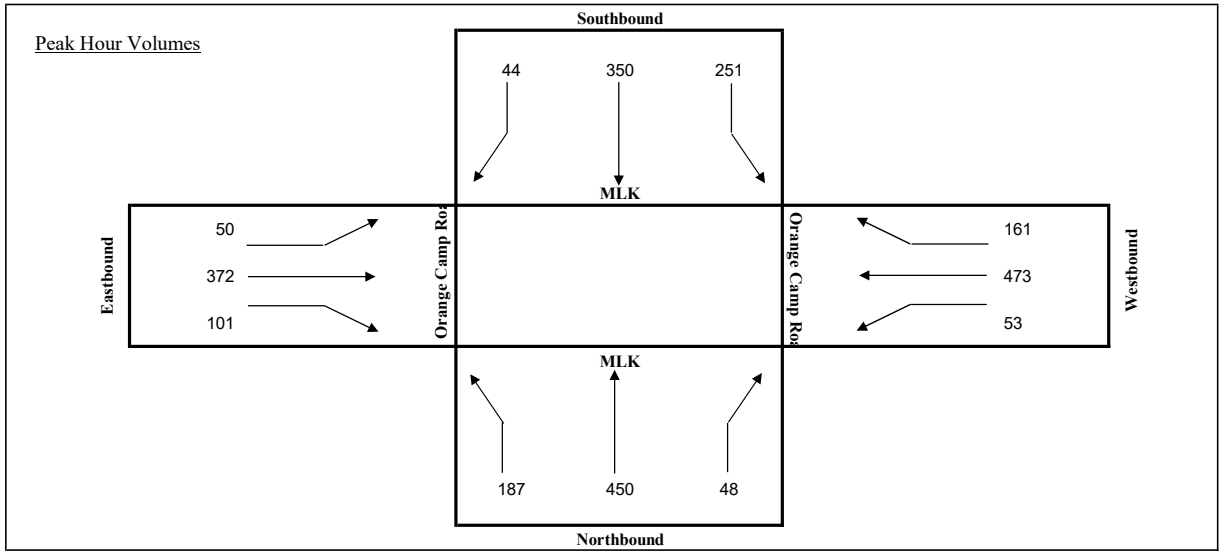


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

		MLK			MLK			Orange Camp Road			Orange Camp Road			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	31	131	6	49	67	8	12	86	22	7	110	36	565
4:15 PM	4:30 PM	35	132	11	61	70	11	16	96	20	12	125	42	631
4:30 PM	4:45 PM	49	115	11	66	88	9	11	89	28	15	111	41	633
4:45 PM	5:00 PM	53	98	15	59	92	14	9	102	24	16	117	37	636
5:00 PM	5:15 PM	50	105	11	65	100	10	14	85	29	10	120	41	640
5:15 PM	5:30 PM	62	113	14	62	84	10	10	79	24	17	111	40	626
5:30 PM	5:45 PM	52	94	8	55	74	14	15	91	30	21	99	35	588
5:45 PM	6:00 PM	49	102	11	60	80	10	13	82	26	16	102	34	585
Total for:	4:00 PM	5:00 PM	168	476	43	235	317	42	48	373	94	50	463	156	2465
Total for:	5:00 PM	6:00 PM	213	414	44	242	338	44	52	337	109	64	432	150	2439
Tota Peak Hour:	4:15 PM	5:15 PM	187	450	48	251	350	44	50	372	101	53	473	161	2540
Overall PHF:	0.99														

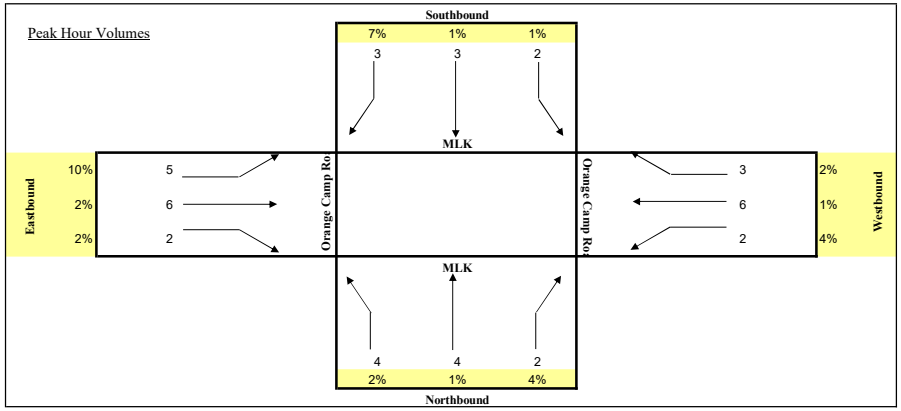


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

		MLK NB			MLK SB			Orange Camp Road EB			Orange Camp Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	1	2	0	0	2	1	3	2	0	0	1	1	13
4:15 PM	4:30 PM	0	2	1	1	0	0	1	3	0	1	2	0	11
4:30 PM	4:45 PM	2	0	1	1	0	0	0	1	1	1	3	1	11
4:45 PM	5:00 PM	1	0	0	0	1	2	1	0	1	0	0	1	7
5:00 PM	5:15 PM	0	1	0	1	1	0	1	1	0	0	0	0	5
5:15 PM	5:30 PM	1	0	1	2	0	1	0	0	0	0	2	0	7
5:30 PM	5:45 PM	0	0	0	0	1	0	0	1	0	1	2	0	5
5:45 PM	6:00 PM	1	1	0	1	0	0	1	1	1	0	1	1	8
Total for:	4:00 PM	5:00 PM	4	4	2	2	3	3	5	6	2	2	6	3	42
Total for:	5:00 PM	6:00 PM	2	2	1	4	2	1	2	3	1	1	5	1	25
Tota Peak Hour:	4:00 PM	5:00 PM	4	4	2	2	3	3	5	6	2	2	6	3	42
Overall PHF:	0.81														

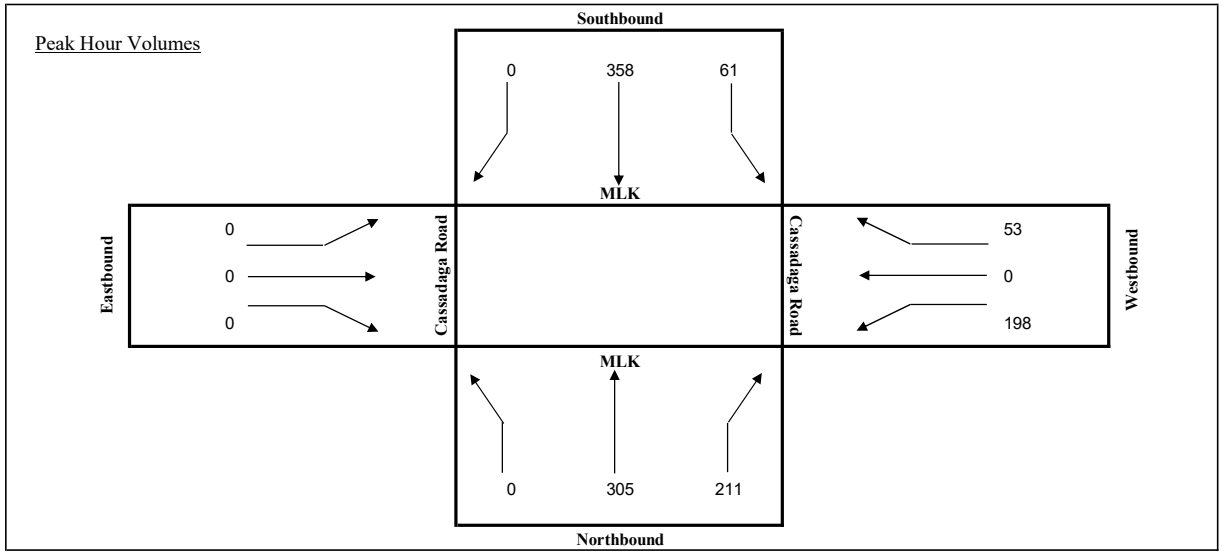


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

			MLK			MLK			Cassadaga Road			Cassadaga Road			
			NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	0	59	44	10	69	0	0	0	0	27	0	7	216
7:15 AM	7:30 AM	0	82	53	12	71	0	0	0	0	35	0	8	261
7:30 AM	7:45 AM	0	79	50	13	73	0	0	0	0	47	0	12	274
7:45 AM	8:00 AM	0	83	54	18	96	0	0	0	0	58	0	16	325
8:00 AM	8:15 AM	0	69	51	17	102	0	0	0	0	51	0	11	301
8:15 AM	8:30 AM	0	74	56	13	87	0	0	0	0	42	0	14	286
8:30 AM	8:45 AM	0	62	50	16	63	0	0	0	0	37	0	10	238
8:45 AM	9:00 AM	0	56	41	11	68	0	0	0	0	34	0	12	222
Total for:	7:00 AM	8:00 AM	0	303	201	53	309	0	0	0	0	167	0	43	1076
Total for:	8:00 AM	9:00 AM	0	261	198	57	320	0	0	0	0	164	0	47	1047
Tota Peak Hour:	7:30 AM	8:30 AM	0	305	211	61	358	0	0	0	0	198	0	53	1186
Overall PHF:	0.91														

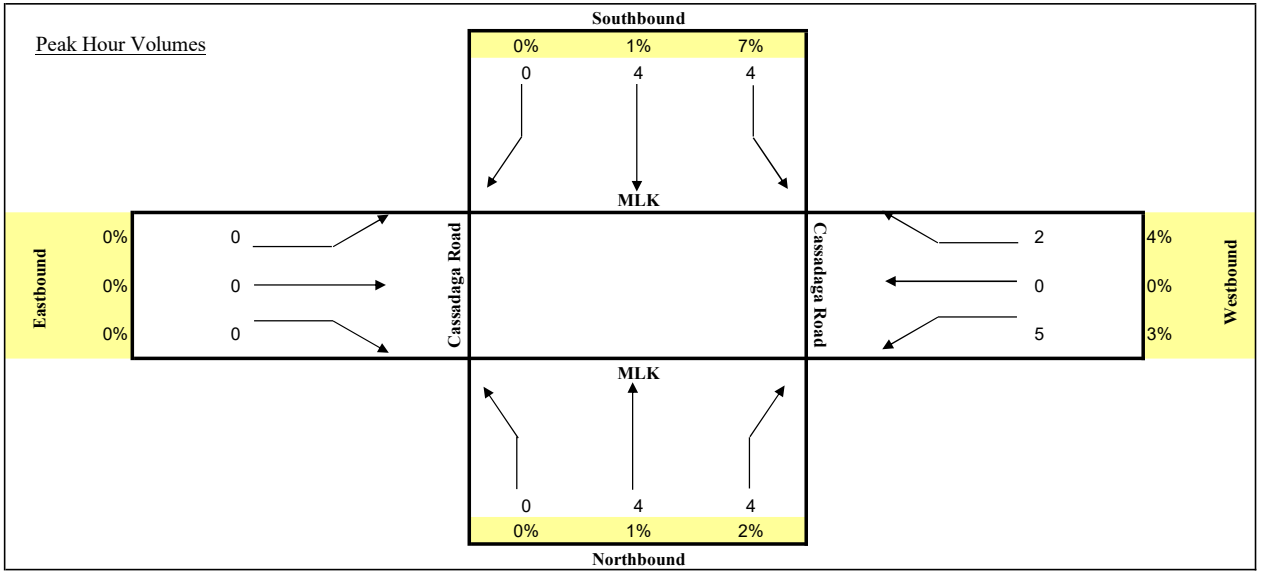


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK NB			MLK SB			Cassadaga Road EB			Cassadaga Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	0	2	0	1	2	0	0	0	0	2	0	1	8
7:15 AM	7:30 AM	0	1	2	1	1	0	0	0	0	1	0	0	6
7:30 AM	7:45 AM	0	0	1	0	0	0	0	0	0	0	0	1	2
7:45 AM	8:00 AM	0	1	0	1	1	0	0	0	0	3	0	0	6
8:00 AM	8:15 AM	0	2	1	2	2	0	0	0	0	1	0	1	9
8:15 AM	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	8:45 AM	0	0	2	2	0	0	0	0	0	1	0	1	6
8:45 AM	9:00 AM	0	2	0	1	1	0	0	0	0	2	0	1	7
Total for:	7:00 AM	8:00 AM	0	4	3	3	4	0	0	0	0	6	0	2	22
Total for:	8:00 AM	9:00 AM	0	5	3	5	3	0	0	0	0	4	0	3	23
Tota Peak Hour:	7:15 AM	8:15 AM	0	4	4	4	4	0	0	0	0	5	0	2	23
Overall PHF:	0.64														

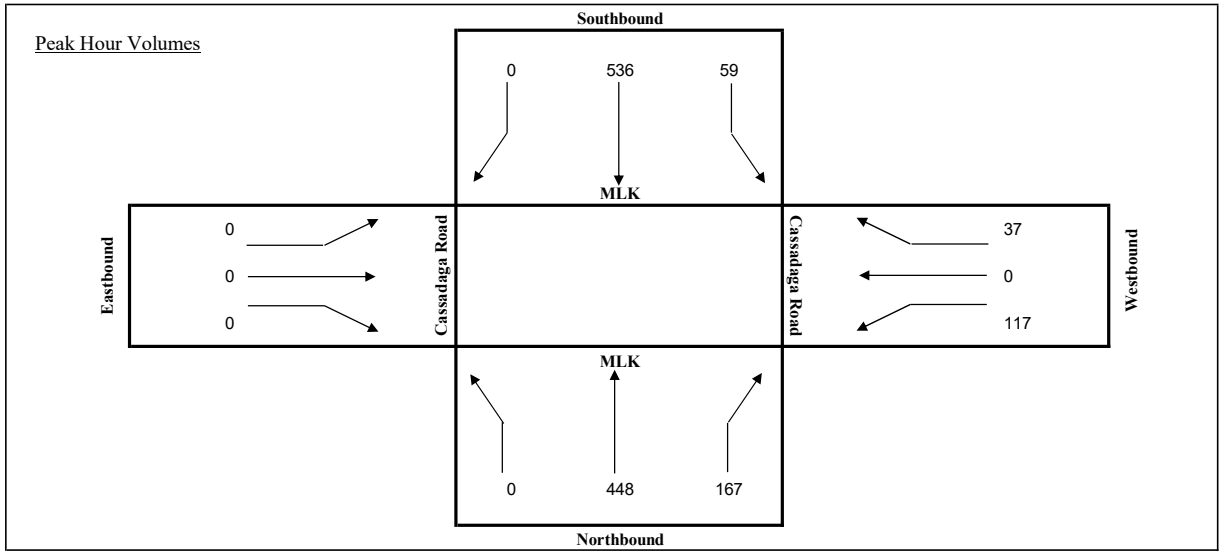


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK			MLK			Cassadaga Road			Cassadaga Road			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	0	101	24	11	111	0	0	0	0	17	0	11	275
4:15 PM	4:30 PM	0	101	33	13	112	0	0	0	0	26	0	7	292
4:30 PM	4:45 PM	0	100	39	22	136	0	0	0	0	36	0	13	346
4:45 PM	5:00 PM	0	116	45	16	131	0	0	0	0	32	0	9	349
5:00 PM	5:15 PM	0	107	41	12	115	0	0	0	0	21	0	7	303
5:15 PM	5:30 PM	0	125	42	9	154	0	0	0	0	28	0	8	366
5:30 PM	5:45 PM	0	116	37	17	128	0	0	0	0	35	0	3	336
5:45 PM	6:00 PM	0	96	30	13	118	0	0	0	0	30	0	7	294
Total for:	4:00 PM	5:00 PM	0	418	141	62	490	0	0	0	0	111	0	40	1262
Total for:	5:00 PM	6:00 PM	0	444	150	51	515	0	0	0	0	114	0	25	1299
Tota Peak Hour:	4:30 PM	5:30 PM	0	448	167	59	536	0	0	0	0	117	0	37	1364
Overall PHF:	0.93														

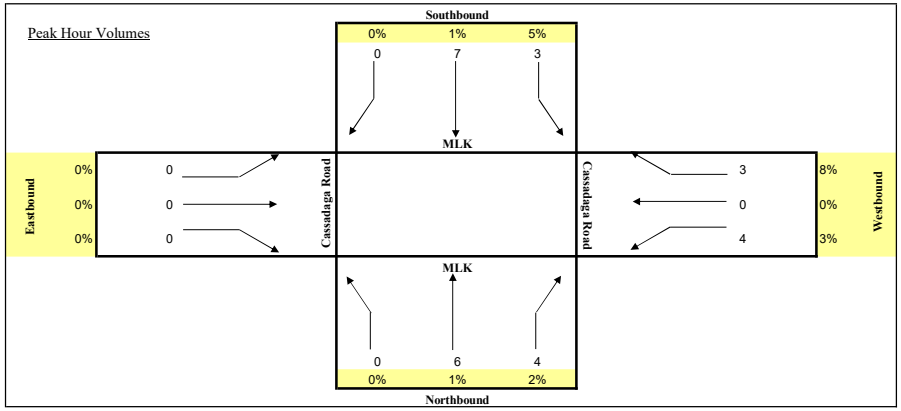


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK NB			MLK SB			Cassadaga Road EB			Cassadaga Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	0	3	0	1	2	0	0	0	0	0	0	1	7
4:15 PM	4:30 PM	0	0	0	0	1	0	0	0	0	1	0	1	3
4:30 PM	4:45 PM	0	3	3	2	0	0	0	0	0	0	0	0	8
4:45 PM	5:00 PM	0	1	0	0	2	0	0	0	0	2	0	0	5
5:00 PM	5:15 PM	0	0	1	1	1	0	0	0	0	0	0	2	5
5:15 PM	5:30 PM	0	2	0	0	4	0	0	0	0	2	0	1	9
5:30 PM	5:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	3
5:45 PM	6:00 PM	0	1	0	1	1	0	0	0	0	0	0	1	4
Total for:	4:00 PM	5:00 PM	0	7	3	3	5	0	0	0	0	3	0	2	23
Total for:	5:00 PM	6:00 PM	0	3	2	2	6	0	0	0	0	4	0	4	21
Tota Peak Hour:	4:30 PM	5:30 PM	0	6	4	3	7	0	0	0	0	4	0	3	27
Overall PHF:	0.75														

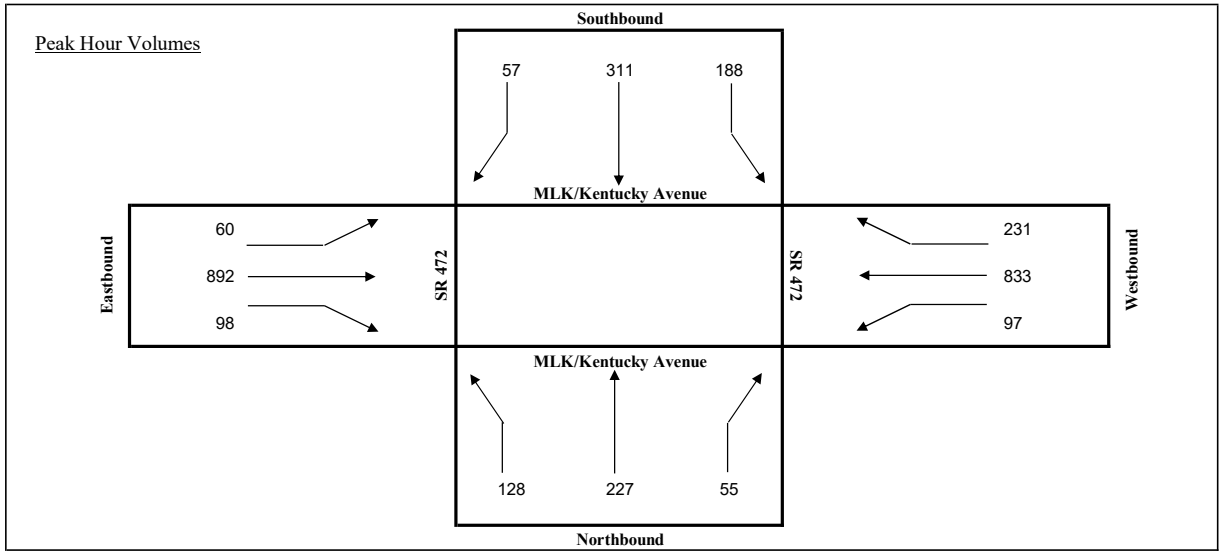


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

			MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
			NB			SB			EB			WB			
Start	End		L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM		27	51	6	29	53	13	10	209	11	17	187	43	656
7:15 AM	7:30 AM		30	62	11	36	60	10	16	209	11	11	199	57	712
7:30 AM	7:45 AM		25	67	12	44	67	9	12	210	19	20	212	50	747
7:45 AM	8:00 AM		35	59	17	52	86	16	11	237	21	22	214	67	837
8:00 AM	8:15 AM		37	50	12	51	81	21	17	240	33	30	210	54	836
8:15 AM	8:30 AM		31	51	14	41	77	11	20	205	25	25	197	60	757
8:30 AM	8:45 AM		23	42	11	37	57	6	15	217	31	19	191	55	704
8:45 AM	9:00 AM		21	52	12	29	62	10	12	180	24	17	169	33	621
Total for:	7:00 AM	8:00 AM	117	239	46	161	266	48	49	865	62	70	812	217	2952
Total for:	8:00 AM	9:00 AM	112	195	49	158	277	48	64	842	113	91	767	202	2918
Tota Peak Hour:	7:30 AM	8:30 AM	128	227	55	188	311	57	60	892	98	97	833	231	3177
Overall PHF:	0.95														

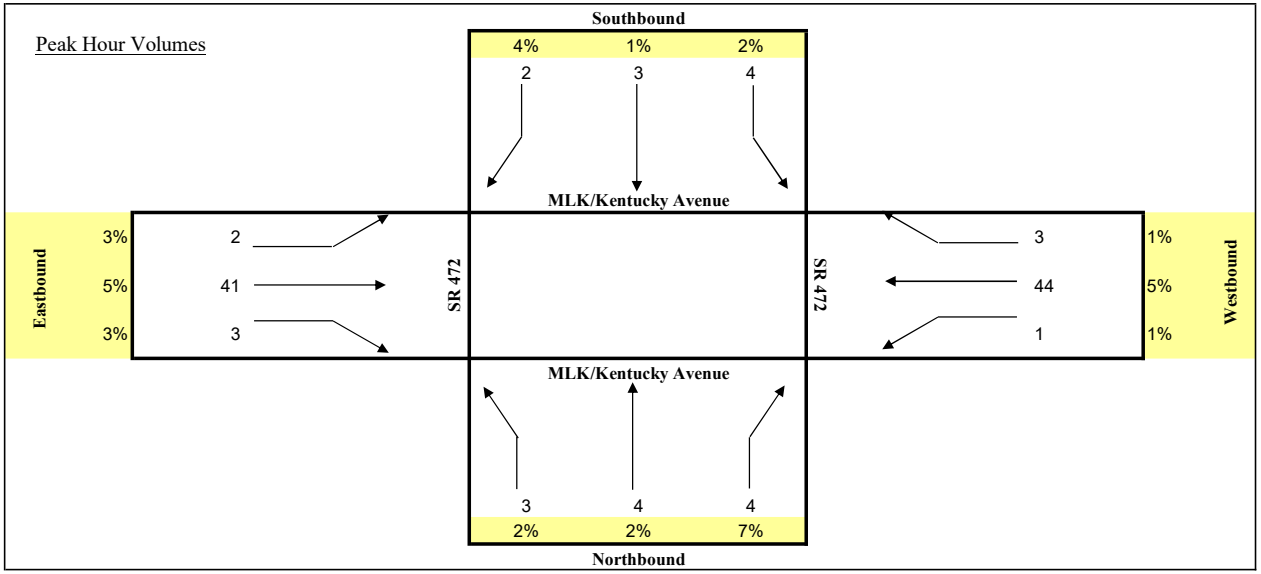


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

		MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	1	2	1	1	2	1	0	8	2	2	10	1	31
7:15 AM	7:30 AM	0	1	2	0	2	0	1	11	0	0	9	1	27
7:30 AM	7:45 AM	0	1	1	0	0	0	0	7	0	1	13	0	23
7:45 AM	8:00 AM	2	1	1	3	0	1	0	13	1	0	10	0	32
8:00 AM	8:15 AM	1	1	0	1	1	1	1	10	2	0	12	2	32
8:15 AM	8:30 AM	0	1	0	0	0	0	0	9	0	1	8	1	20
8:30 AM	8:45 AM	0	0	1	1	0	0	1	9	1	1	11	1	26
8:45 AM	9:00 AM	1	2	0	0	1	1	0	5	0	0	6	0	16
Total for:	7:00 AM	8:00 AM	3	5	5	4	4	2	1	39	3	3	42	2	113
Total for:	8:00 AM	9:00 AM	2	4	1	2	2	2	2	33	3	2	37	4	94
Tota Peak Hour:	7:15 AM	8:15 AM	3	4	4	4	3	2	2	41	3	1	44	3	114
Overall PHF:	0.89														

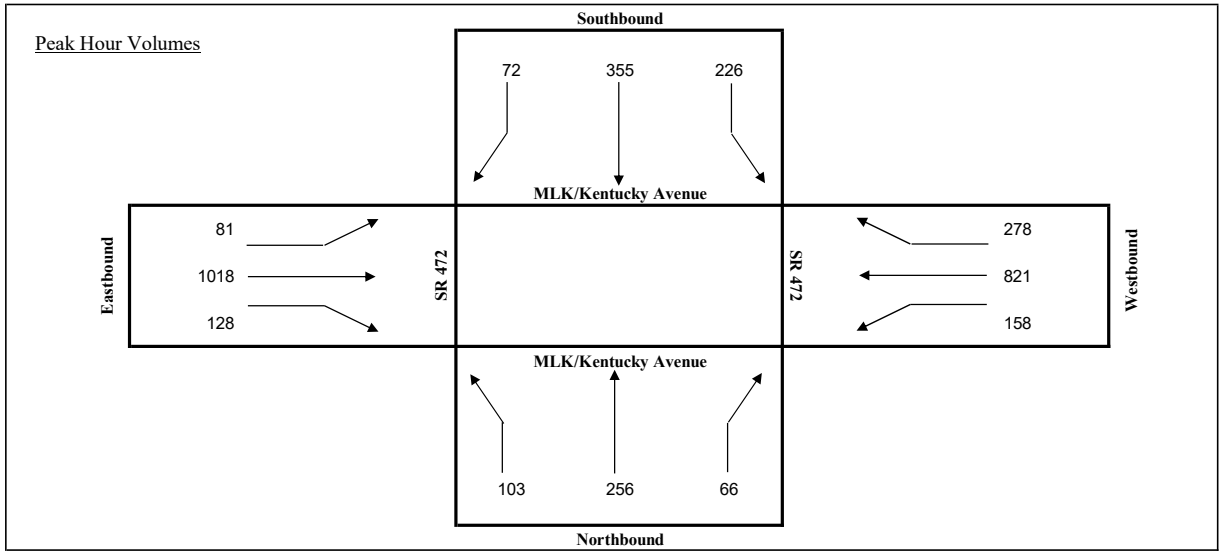


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

		MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	25	53	22	51	63	14	21	205	30	34	193	50	761
4:15 PM	4:30 PM	30	59	19	48	71	19	21	247	36	31	202	54	837
4:30 PM	4:45 PM	28	64	21	58	95	19	20	296	42	37	212	55	947
4:45 PM	5:00 PM	25	65	13	56	92	15	22	257	28	41	224	74	912
5:00 PM	5:15 PM	25	60	16	49	70	17	21	242	26	43	181	67	817
5:15 PM	5:30 PM	25	67	16	63	98	21	18	223	32	37	204	82	886
5:30 PM	5:45 PM	18	58	16	52	99	19	16	242	26	35	193	79	853
5:45 PM	6:00 PM	20	44	11	53	86	15	14	212	22	37	185	68	767
Total for:	4:00 PM	5:00 PM	108	241	75	213	321	67	84	1005	136	143	831	233	3457
Total for:	5:00 PM	6:00 PM	88	229	59	217	353	72	69	919	106	152	763	296	3323
Tota Peak Hour:	4:30 PM	5:30 PM	103	256	66	226	355	72	81	1018	128	158	821	278	3562
Overall PHF:	0.94														

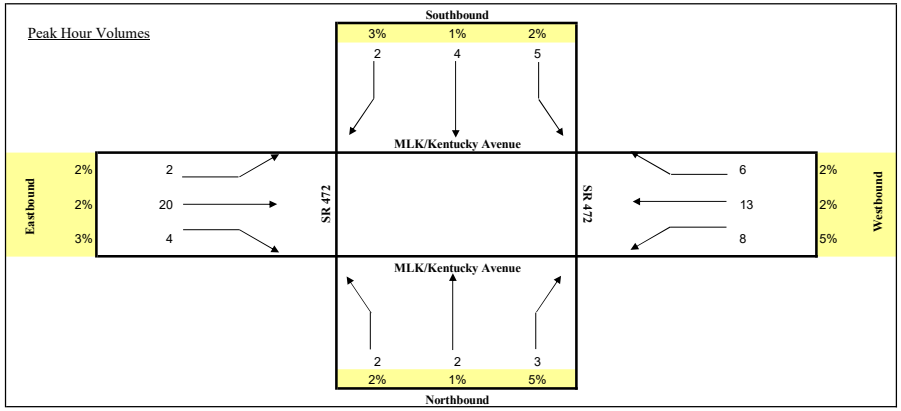


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

		MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	1	0	2	1	1	0	1	2	0	1	5	2	16
4:15 PM	4:30 PM	0	0	0	1	0	1	0	1	1	1	6	0	11
4:30 PM	4:45 PM	0	1	0	0	0	0	2	5	2	3	5	3	21
4:45 PM	5:00 PM	1	0	0	2	1	1	0	3	2	2	4	1	17
5:00 PM	5:15 PM	1	0	1	0	1	0	0	6	0	1	2	1	13
5:15 PM	5:30 PM	0	1	2	3	2	1	0	6	0	2	2	1	20
5:30 PM	5:45 PM	0	0	0	0	2	0	0	2	1	2	4	1	12
5:45 PM	6:00 PM	0	0	1	1	0	0	1	4	0	1	3	0	11
Total for:	4:00 PM	5:00 PM	2	1	2	4	2	2	3	11	5	7	20	6	65
Total for:	5:00 PM	6:00 PM	1	1	4	4	5	1	1	18	1	6	11	3	56
Tota Peak Hour:	4:30 PM	5:30 PM	2	2	3	5	4	2	2	20	4	8	13	6	71
Overall PHF:	0.85														

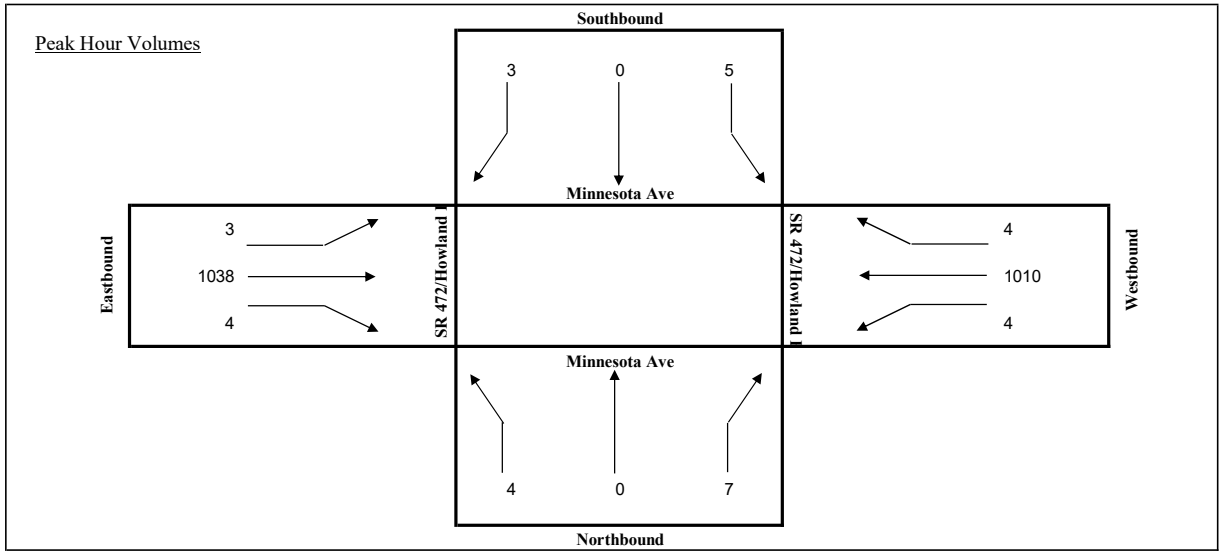


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	1	0	3	1	0	0	2	226	0	0	223	4	460
7:15 AM	7:30 AM	1	0	2	1	0	0	2	232	0	2	234	2	476
7:30 AM	7:45 AM	1	0	0	0	0	1	2	240	1	1	243	1	490
7:45 AM	8:00 AM	0	0	1	1	0	0	1	269	0	1	263	1	537
8:00 AM	8:15 AM	3	0	5	1	0	1	0	281	2	1	266	2	562
8:15 AM	8:30 AM	0	0	1	3	0	1	0	248	1	1	238	0	493
8:30 AM	8:45 AM	1	0	1	0	0	0	2	261	1	0	219	2	487
8:45 AM	9:00 AM	1	0	1	2	0	0	0	217	3	2	197	0	423
Total for:	7:00 AM	8:00 AM	3	0	6	3	0	1	7	967	1	4	963	8	1963
Total for:	8:00 AM	9:00 AM	5	0	8	6	0	2	2	1007	7	4	920	4	1965
Tota Peak Hour:	7:30 AM	8:30 AM	4	0	7	5	0	3	3	1038	4	4	1010	4	2082
Overall PHF:	0.93														

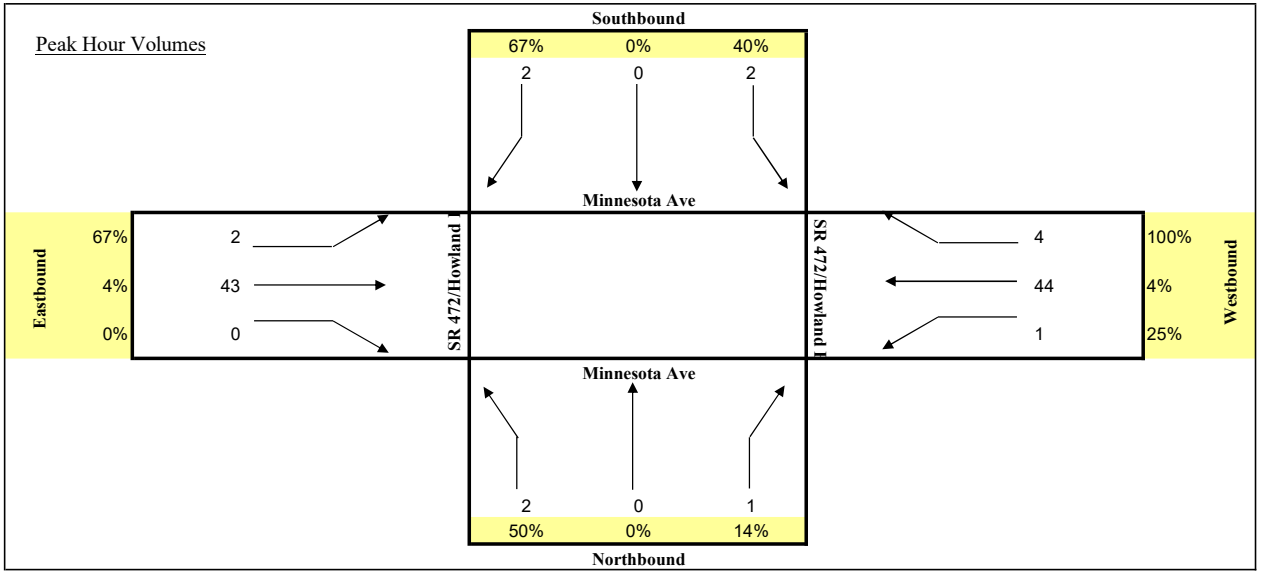


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	0	0	0	1	0	0	2	9	0	0	10	2	24
7:15 AM	7:30 AM	1	0	0	1	0	0	1	11	0	0	8	1	23
7:30 AM	7:45 AM	0	0	0	0	0	1	0	7	0	0	13	0	21
7:45 AM	8:00 AM	0	0	0	0	0	0	1	14	0	1	11	1	28
8:00 AM	8:15 AM	1	0	1	1	0	1	0	11	0	0	12	2	29
8:15 AM	8:30 AM	0	0	0	2	0	0	0	7	0	0	8	0	17
8:30 AM	8:45 AM	1	0	0	0	0	0	1	11	1	0	10	1	25
8:45 AM	9:00 AM	0	0	1	1	0	0	0	6	1	1	7	0	17
Total for:	7:00 AM	8:00 AM	1	0	0	2	0	1	4	41	0	1	42	4	96
Total for:	8:00 AM	9:00 AM	2	0	2	4	0	1	1	35	2	1	37	3	88
Tota Peak Hour:	7:15 AM	8:15 AM	2	0	1	2	0	2	2	43	0	1	44	4	101
Overall PHF:	0.87														

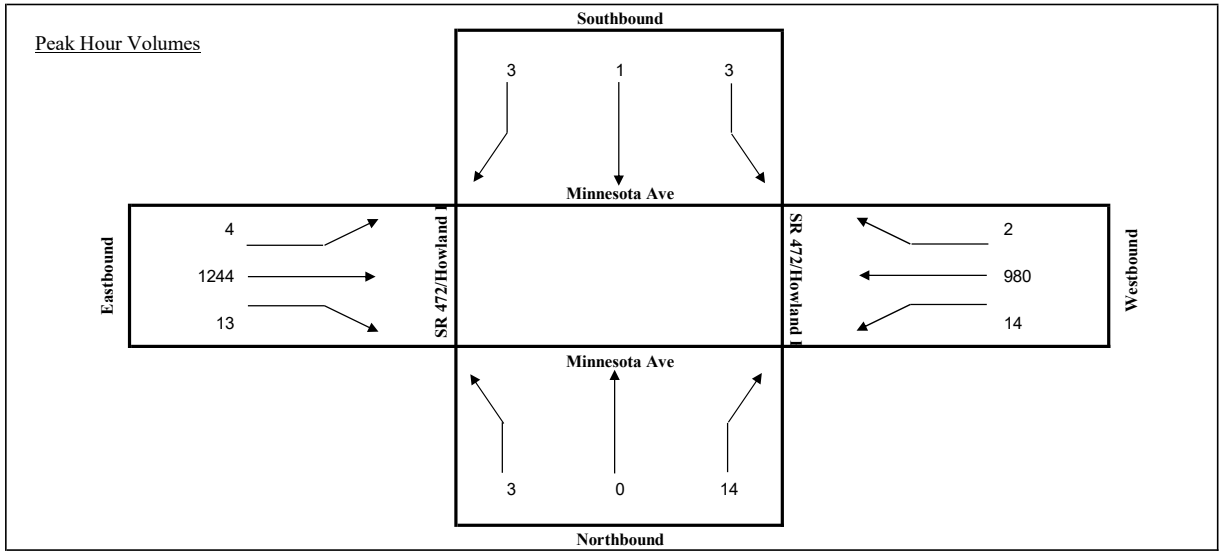


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

			Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
			NB			SB			EB			WB			
	Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
	4:00 PM	4:15 PM	2	0	6	0	0	3	1	250	7	3	227	2	501
	4:15 PM	4:30 PM	0	0	4	2	0	1	0	300	3	6	244	1	561
	4:30 PM	4:45 PM	1	0	5	0	0	0	0	354	5	2	256	0	623
	4:45 PM	5:00 PM	2	0	2	1	0	1	1	305	3	5	258	0	578
	5:00 PM	5:15 PM	0	0	3	0	1	1	3	285	2	1	222	1	519
	5:15 PM	5:30 PM	0	1	2	1	0	0	3	271	7	4	253	2	544
	5:30 PM	5:45 PM	1	0	2	2	0	1	0	279	5	4	225	0	519
	5:45 PM	6:00 PM	0	0	4	1	0	0	1	245	7	5	213	1	477
Total for:	4:00 PM	5:00 PM	5	0	17	3	0	5	2	1209	18	16	985	3	2263
Total for:	5:00 PM	6:00 PM	1	1	11	4	1	2	7	1080	21	14	913	4	2059
Tota Peak Hour:	4:15 PM	5:15 PM	3	0	14	3	1	3	4	1244	13	14	980	2	2281
Overall PHF:	0.92														

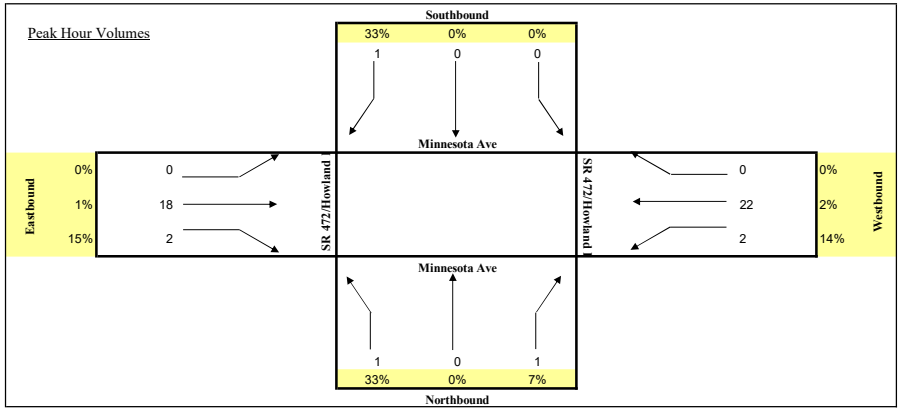


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	1	0	0	0	0	1	0	3	1	0	6	0	12
4:15 PM	4:30 PM	0	0	1	0	0	0	0	1	0	1	6	0	9
4:30 PM	4:45 PM	0	0	0	0	0	0	0	9	0	0	5	0	14
4:45 PM	5:00 PM	0	0	0	0	0	0	0	5	1	1	5	0	12
5:00 PM	5:15 PM	0	0	1	0	0	1	0	5	0	0	3	0	10
5:15 PM	5:30 PM	0	0	0	0	0	0	0	6	0	0	3	0	9
5:30 PM	5:45 PM	0	0	0	0	0	0	0	3	0	0	4	0	7
5:45 PM	6:00 PM	0	0	0	0	0	0	0	5	0	0	3	0	8
Total for:	4:00 PM	5:00 PM	1	0	1	0	0	1	0	18	2	2	22	0	47
Total for:	5:00 PM	6:00 PM	0	0	1	0	0	1	0	19	0	0	13	0	34
Tota Peak Hour:	4:00 PM	5:00 PM	1	0	1	0	0	1	0	18	2	2	22	0	47
Overall PHF:	0.84														



2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7900 VOLUSIA COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2023 - 01/07/2023	1.01	1.06
2	01/08/2023 - 01/14/2023	1.01	1.06
3	01/15/2023 - 01/21/2023	1.01	1.06
4	01/22/2023 - 01/28/2023	0.99	1.04
5	01/29/2023 - 02/04/2023	0.98	1.03
* 6	02/05/2023 - 02/11/2023	0.96	1.01
* 7	02/12/2023 - 02/18/2023	0.95	1.00
* 8	02/19/2023 - 02/25/2023	0.94	0.99
* 9	02/26/2023 - 03/04/2023	0.93	0.98
*10	03/05/2023 - 03/11/2023	0.92	0.97
*11	03/12/2023 - 03/18/2023	0.92	0.97
*12	03/19/2023 - 03/25/2023	0.93	0.98
*13	03/26/2023 - 04/01/2023	0.94	0.99
*14	04/02/2023 - 04/08/2023	0.95	1.00
*15	04/09/2023 - 04/15/2023	0.97	1.02
*16	04/16/2023 - 04/22/2023	0.97	1.02
*17	04/23/2023 - 04/29/2023	0.98	1.03
*18	04/30/2023 - 05/06/2023	0.98	1.03
19	05/07/2023 - 05/13/2023	0.99	1.04
20	05/14/2023 - 05/20/2023	1.00	1.05
21	05/21/2023 - 05/27/2023	1.01	1.06
22	05/28/2023 - 06/03/2023	1.02	1.07
23	06/04/2023 - 06/10/2023	1.03	1.08
24	06/11/2023 - 06/17/2023	1.04	1.09
25	06/18/2023 - 06/24/2023	1.04	1.09
26	06/25/2023 - 07/01/2023	1.05	1.11
27	07/02/2023 - 07/08/2023	1.06	1.12
28	07/09/2023 - 07/15/2023	1.06	1.12
29	07/16/2023 - 07/22/2023	1.06	1.12
30	07/23/2023 - 07/29/2023	1.06	1.12
31	07/30/2023 - 08/05/2023	1.06	1.12
32	08/06/2023 - 08/12/2023	1.06	1.12
33	08/13/2023 - 08/19/2023	1.06	1.12
34	08/20/2023 - 08/26/2023	1.05	1.11
35	08/27/2023 - 09/02/2023	1.05	1.11
36	09/03/2023 - 09/09/2023	1.04	1.09
37	09/10/2023 - 09/16/2023	1.04	1.09
38	09/17/2023 - 09/23/2023	1.03	1.08
39	09/24/2023 - 09/30/2023	1.02	1.07
40	10/01/2023 - 10/07/2023	1.01	1.06
41	10/08/2023 - 10/14/2023	1.00	1.05
42	10/15/2023 - 10/21/2023	0.99	1.04
43	10/22/2023 - 10/28/2023	0.99	1.04
44	10/29/2023 - 11/04/2023	0.99	1.04
45	11/05/2023 - 11/11/2023	0.99	1.04
46	11/12/2023 - 11/18/2023	1.00	1.05
47	11/19/2023 - 11/25/2023	1.00	1.05
48	11/26/2023 - 12/02/2023	1.00	1.05
49	12/03/2023 - 12/09/2023	1.00	1.05
50	12/10/2023 - 12/16/2023	1.01	1.06
51	12/17/2023 - 12/23/2023	1.01	1.06
52	12/24/2023 - 12/30/2023	1.01	1.06
53	12/31/2023 - 12/31/2023	1.01	1.06

* PEAK SEASON

09-MAR-2024 18:41:41 830UPD 5_7900_PKSEASON.TXT

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Sig #471, CR 4101 (MLK Beltway) @ Cassadaga Rd.
Orange City

FREE: X

DATE: 10/24/2022

SIGNAL #: 471

CO-ORD:

Design By: Sean Castello

NETWORK #:

Volusia County FLORIDA

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION		SB		WB	SBL	NB			
TURN TYPE		-		SPLIT LAG	PROT	-			
MIN GREEN		17		7	5	17			
EXTENSION		3		3	3	3			
YELLOW		5.5		4.0	5.5	5.5			
RED CLR		2.0		2.8	2.0	2.0			
WALK									
PED CLR									
MAX 1		70		50	30	70			
MAX 2									
MAX 3		-		-		-			
DYM MAX									
DYM STP									
RECALL		MIN		-		MIN			
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK			
FLASH		YELLOW		RED	RED	YELLOW			

COORDINATION TIMINGS

PATTERN	1	2	3	4	5	6	7	8	
CYCLE				-	-	-	-	-	
OFFSET				-	-	-	-	-	

PHASE	1	2	3	4	5	6	7	8	
PATTERN 1									
PATTERN 2									
PATTERN 3									
PATTERN 4	-	-	-	-	-	-	-	-	
PATTERN 5	-	-	-	-	-	-	-	-	
PATTERN 6	-	-	-	-	-	-	-	-	
PATTERN 7	-	-	-	-	-	-	-	-	

Controller IP		Switch IP		Camera IP	
Controller Gateway		Switch Gateway		Camera Gateway	

REMARKS:

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: I-71, CR 4101 (MLK Beltway) @ Cassada
Orange City

FREE: X

DATE: 10/24/2022

SIGNAL #: 471

CO-ORD:

Design By: Sean Castello

NETWORK #:

Volusia County FLORIDA

TIME OF DAY SCHEDULE

BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
	TIME	00:00-00:00							
MON #1	PATTERN	FREE							P2
	TIME	00:00-00:00							
TUES #1	PATTERN	FREE							
	TIME	00:00-00:00							
WED #1	PATTERN	FREE							P4
	TIME	00:00-00:00							
THU #1	PATTERN	FREE							
	TIME	00:00-00:00							
FRI #1	PATTERN	FREE							P6
	TIME	00:00-00:00							
SAT #1	PATTERN	FREE							
	TIME	00:00-00:00							
SUN #1	PATTERN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	GOOD	PROGRAM NUMBER
Econolite ASC/3		OVERHEAD STREET NAMES	NO	
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	YES	Controller IP Address / FDOT
CABINET DATE		PRE-EMPTION TYPE	INFRARED	0 / LED: YES

REMARKS:

Seq #4	2	1	4	3	Seq #5	1	2	3	4	Seq #7	1	2	4	3
	5	6				6	5				6	5		

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 @ CR 4101 (MLK Beltway)
Orange City

FREE: [ ]

DATE: 5/16/2022

SIGNAL #: 222

CO-ORD: [X]

Design By: Sean Castello

NETWORK #: OC/Deltona Area Network # 90

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	EBL	WB	SB	NB	WBL	EB			
TURN TYPE	PROT	-	SPLIT LEAD	SPLIT LAG	PROT	-			
MIN GREEN	5	17	7	7	5	17			
EXTENSION	3	4	4	4	3	4			
YELLOW	5.5	5.5	5.6	5.5	5.5	5.5			
RED CLR	2.8	2.8	3.8	3.3	2.8	2.8			
WALK									
PED CLR									
MAX 1	25	60	35	35	35	60			
MAX 2									
MAX 3		-		-		-			
DYM MAX		90		35		90			
DYM STP		10		10		10			
RECALL		MIN		-		MIN			
DETECTOR	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK			
FLASH	RED	YELLOW	RED	RED	RED	YELLOW			

COORDINATION TIMINGS

PATTERN	1	2	3	4	5	6	7	8	
CYCLE	150	130	150	-	-	-	-	-	
OFFSET	93	99	0	-	-	-	-	-	

PHASE	1	2	3	4	5	6	7	8	
PATTERN 1	19	57	37	37	19	57			
PATTERN 2	19	43	31	37	19	43			
PATTERN 3	19	59	35	37	20	58			
PATTERN 4	-	-	-	-	-	-	-	-	
PATTERN 5	-	-	-	-	-	-	-	-	
PATTERN 6	-	-	-	-	-	-	-	-	
PATTERN 7	-	-	-	-	-	-	-	-	

Controller IP	10.40.91.25	Switch IP	10.40.90.25	Camera IP	10.40.92.25
Controller Gateway	10.40.91.1	Switch Gateway	10.40.90.1	Camera Gateway	10.40.92.1

REMARKS:

Pattern #1		2	1	4	3	Pat #2		1	2	3	4	Pat #3		1	2	4	3	
Seq #4		5	6			Seq #5		6	5			Seq #7		6	5			

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 @ CR 4101 (MLK Beltway)
Orange City

FREE: [ ]

DATE: 5/16/2022

SIGNAL #: 222

CO-ORD: [X]

Design By: Sean Castello

Volusia County FLORIDA

NETWORK #: OC/Deltona Area Network # 90

TIME OF DAY SCHEDULE

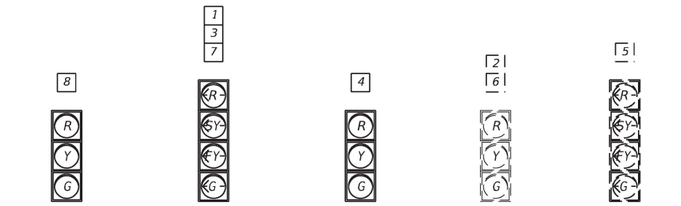
BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
MON #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				P2
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
TUES #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
WED #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				P4
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
THU #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
FRI #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				P6
	TIME	00:00-00:00							
SAT #2	PATTERN	FREE							
	TIME	00:00-00:00							
SUN #2	PATTERN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	GOOD	PROGRAM NUMBER	
Econolite ASC/3		OVERHEAD STREET NAMES	NO		
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	02.62.00	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	YES	Controller IP Address	FDOT
CABINET DATE	03/2008	PRE-EMPTION TYPE	INFRARED	10.40.91.25	LED YES

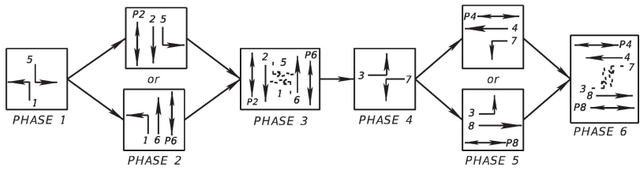
REMARKS:

Seq #4					Seq #5					Seq #7				
	2	1	4	3		1	2	3	4		1	2	4	3
	5	6				6	5				6	5		

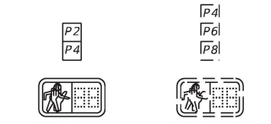
TRAFFIC SIGNAL HEAD DETAILS



S.O.P. 10 (MOD)



PEDESTRIAN SIGNAL HEAD DETAILS



EXISTING RADAR DETECTION

(R2) (R4)

(SEE VEHICLE DETECTION NOTES)

RADAR DETECTION PAY ITEMS

R1	R5	R6	R7	R8

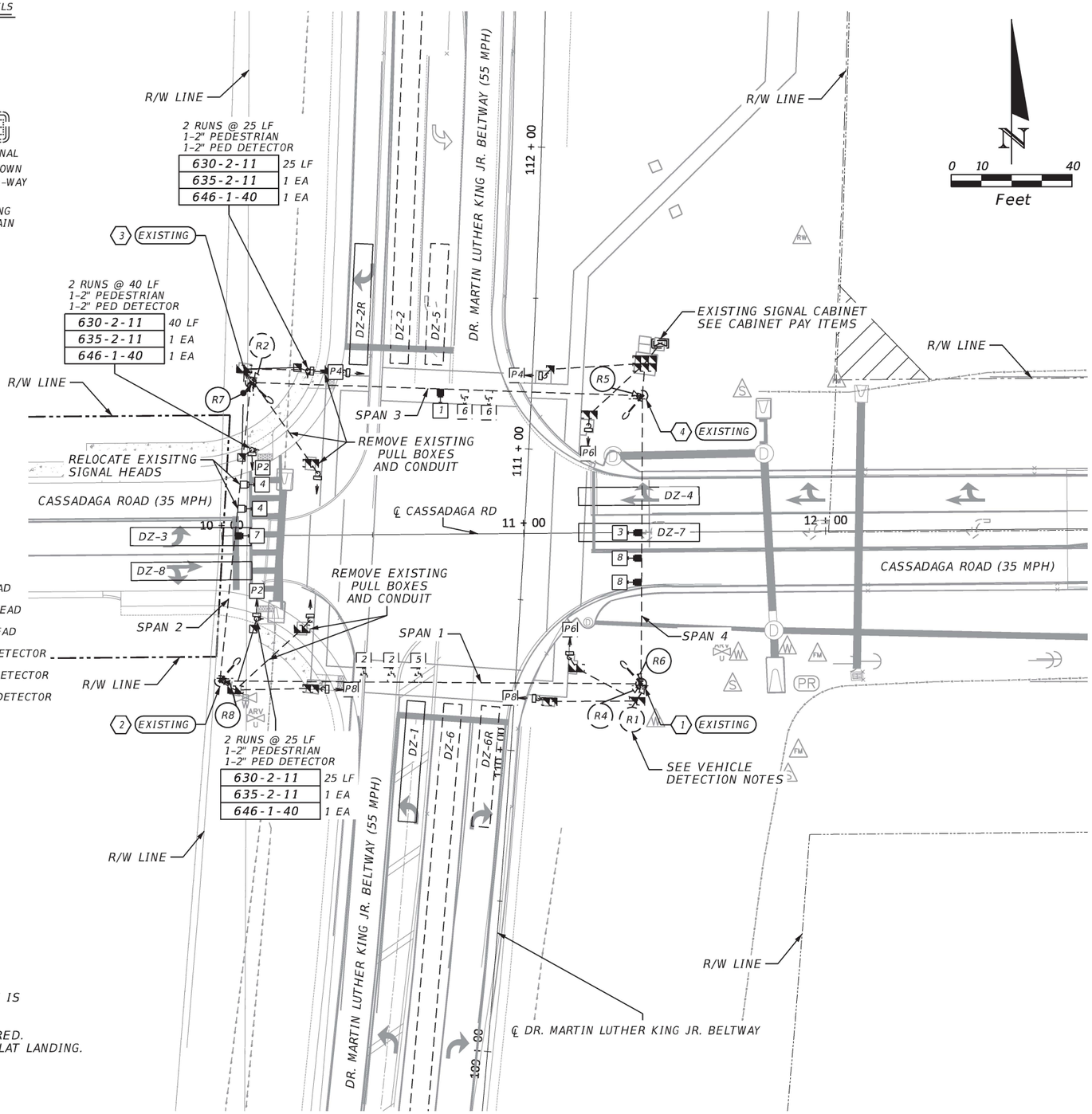
660-3-12	2 EA
660-3-52	2 EA
660-3-62	1 EA

CABINET PAY ITEMS

632-7-1	1 PI
660-3-51	1 EA
671-2-40	1 EA

LEGEND:

- EXISTING SIGNAL HEAD
- RELOCATED SIGNAL HEAD
- PROPOSED SIGNAL HEAD
- EXISTING VEHICLE DETECTOR
- MODIFIED VEHICLE DETECTOR
- PROPOSED VEHICLE DETECTOR



RADAR DETECTION CONNECTION CHART

DETECTOR ID	DETECTION ZONE	DELAY TIME (SEC)	DETECTION ZONE DIMENSION	DETECTOR TYPE
R2	DZ-2	-	EXISTING	ADVANCE
R4	DZ-6	-	EXISTING	ADVANCE
R5	DZ-5	-	EXISTING	PRESENCE
	DZ-2R	10	6' X 40'	PRESENCE
R6	DZ-4	-	6' X 40'	PRESENCE
	DZ-7	-	6' X 40'	PRESENCE
R7	DZ-3	-	6' X 40'	PRESENCE
	DZ-8	-	6' X 40'	PRESENCE
R8	DZ-1	-	6' X 40'	PRESENCE
	DZ-6R	10	EXISTING	PRESENCE

SIZE AND PLACEMENT OF RADAR DETECTION ZONES ARE INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

INITIAL CONTROLLER TIMINGS

	PHASE	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
	TIMING FUNCTION								
	MOVEMENT NUMBER	1	2	3	4	5	6	7	8
TIMING FUNCTION	MINIMUM GREEN	5.0	10.0	5.0	7.0	5.0	10.0	5.0	7.0
	EXTENSION	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	MAXIMUM GREEN 1	30.0	70.0	30.0	60.0	30.0	70.0	30.0	60.0
	MAXIMUM GREEN 2	--	--	--	--	--	--	--	--
	YELLOW CLEARANCE	5.5	5.5	4.0	4.0	5.5	5.5	4.0	4.0
	ALL RED	3.0	2.0	3.0	2.1	3.0	2.0	3.0	2.1
	PEDESTRIAN WALK	--	7.0	--	7.0	--	7.0	--	7.0
	PED. CLEARANCE	--	13.0	--	18.0	--	19.0	--	18.0
	RECALL	--	MIN	--	--	--	MIN	--	--
	FLASH	R	Y	R	R	R	Y	R	R

SIGNAL TIMINGS TO BE ADJUSTED BY VOLUSIA COUNTY BASED ON THE OBSERVED TRAFFIC FLOW WITHIN TWO WEEKS AFTER INSTALLATION.

SIGNALIZATION NOTES:
1. THE MAJOR STREET IS DR. MARTIN LUTHER KING JR. BELTWAY (SPEED LIMIT 55 MPH) AND THE MINOR STREET IS CASSADAGA ROAD (SPEED LIMIT 35 MPH).
2. THE MAJOR STREET MOVEMENTS ARE 1,2,5&6, AND THE MINOR STREET MOVEMENTS ARE 3,4,7&8.
3. DURING FLASH OPERATION, MOVEMENTS 2&6 SHALL FLASH YELLOW, AND MOVEMENT 1,3,4,5,7&8 SHALL FLASH RED.
4. CONTRACTOR TO ENSURE ALL PEDESTRIAN DETECTORS ARE IMMEDIATELY ADJACENT TO A MINIMUM 48" X 48" FLAT LANDING.
5. CONTRACTOR SHALL USE EXISITNG CONDUIT UNLESS OTHERWISE NOTED ON THE PLANS.

VEHICLE DETECTION NOTES:
1. REMOVE DETECTOR R1. EXISTING CABLE TO REMAIN.
2. RELOCATE DETECTOR R5 FROM POLE 3 TO POLE 4. UTILIZE CABLE FROM REMOVED DETECTOR R3.
3. RELOCATE DETECTOR R6 FROM POLE 3 TO POLE 1. UTILIZE CABLE FROM REMOVED DETECTOR R1.
4. DETECTOR R7 TO UTILIZE CABLE FROM RELOCATED DETECTOR R5.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BLVD, SUITE 265
ORLANDO, FL 32803
OFFICE: (407) 531-5332
FAX: (407) 531-5331
JEREMY M. CROWE, P.E. 77064
CERTIFICATE OF AUTHORIZATION NO.:30024

Volusia County FLORIDA

SIGNALIZATION PLAN SIGNAL NO. 471

SHEET NO. T-5

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

4/24/2024 3:07:31 PM kv
P:\21145.1 Cassadaga Rd & Dr Martin Luther King Jr Beltway SIG DES\300 - CADD\Signalization\PLANS601.dgn

Appendix K
Excerpts of TM BTR TIAs

Project No. 22012 TM BTR Deland, v1.1

Intersection Volumes

Period	Tgen	Enter	Exit	DR MLK	SF	AGR	Years	Legend
AM Peak		23	72	4.30%	0.00	2.00%	3	Backg'd + (Project) = Total

Intersection= Orange Camp Rd & Dr. MLK Jr Bltwy — 1

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	46	1.00	46	1.06		49	0				0	49	49
EB	T	463	1.00	463	1.06		491	0				0	491	491
	R	55	1.00	55	1.06		58	0	38	5%		1	97	58 + [38] + (1) = 97
	L	42	1.00	42	1.06		45	0	70	5%		1	116	45 + [70] + (1) = 116
WB	T	343	1.00	343	1.06		364	0				0	364	364
	R	136	1.00	136	1.06		144	0				0	144	144
	L	158	1.00	158	1.13		178	0	14		5%	4	196	178 + [14] + (4) = 196
NB	T	369	1.00	369	1.13		417	0	20		10%	7	444	417 + [20] + (7) = 444
	R	42	1.00	42	1.13		47	0	25		5%	4	76	47 + [25] + (4) = 76
	L	331	1.00	331	1.13		374	0				0	374	374
SB	T	248	1.00	248	1.13		280	0	51	10%		2	333	280 + [51] + (2) = 333
	R	41	1.00	41	1.13		46	0				0	46	46

Intersection= Cassadaga Rd & Dr. MLK Jr Bltwy — 2

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	0	1.00	0	1.06		0	0				0	0	
EB	T	0	1.00	0	1.06		0	0				0	0	
	R	0	1.00	0	1.06		0	0				0	0	
	L	227	1.00	227	1.06		241	0	12		70%	50	303	241 + [12] + (50) = 303
WB	T	0	1.00	0	1.06		0	0				0	0	
	R	54	1.00	54	1.06		57	0	39		5%	4	100	57 + [39] + (4) = 100
	L	0	1.00	0	1.13		0	0				0	0	
NB	T	343	1.00	343	1.13		387	0	38		20%	14	439	387 + [38] + (14) = 439
	R	240	1.00	240	1.13		271	0	14			0	285	271 + [14] = 285
	L	77	1.00	77	1.13		87	0	70	25%		6	163	87 + [70] + (6) = 163
SB	T	360	1.00	360	1.13		406	0	143			0	549	406 + [143] = 549
	R	0	1.00	0	1.13		0	0				0	0	

Intersection= SR 472 & Dr. MLK Jr Bltwy — 3

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	88	1.00	88	1.06		93	0	21	15%		3	117	93 + [21] + (3) = 117
EB	T	915	1.00	915	1.06		970	0	82			0	1052	970 + [82] + = 1052
	R	103	1.00	103	1.06		109	0				0	109	109
	L	106	1.00	106	1.06		112	0	19			0	131	112 + [19] = 131
WB	T	864	1.00	864	1.06		916	0	34			0	950	916 + [34] = 950
	R	289	1.00	289	1.06		306	0	23	35%		8	337	306 + [23] + (8) = 337
	L	138	1.00	138	1.13		156	0				0	156	156
NB	T	185	1.00	185	1.13		209	0	9	20%		5	223	209 + [9] + (5) = 223
	R	56	1.00	56	1.13		63	0	56			0	119	63 + [56] = 119
	L	212	1.00	212	1.13		239	0	116		35%	25	380	239 + [116] + (25) = 380
SB	T	320	1.00	320	1.13		361	0	3		20%	14	378	361 + [3] + (14) = 378
	R	57	1.00	57	1.13		64	0	5		15%	11	80	64 + [5] + (11) = 80

Intersection= Kentucky Ave & Graves Ave — 4

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	159	1.00	159	1.00		159	0	46	15%		3	208	159 + [46] + (3) = 208
EB	T	359	1.00	359	1.00		359	119				0	478	359 + {119} = 478
	R	4	1.00	4	1.00		4	0				0	4	4
	L	2	1.00	2	1.00		2	0				0	2	2
WB	T	598	1.00	598	1.00		598	146				0	744	598 + {146} = 744
	R	204	1.00	204	1.00		204	0	13	5%		2	219	204 + [13] + (2) = 219
	L	6	1.00	6	1.13		7	0				0	7	7
NB	T	10	1.00	10	1.13		11	0				0	11	11
	R	9	1.00	9	1.13		10	0				0	10	10
	L	163	1.00	163	1.13		184	0	5		5%	4	193	184 + [5] + (4) = 193
SB	T	7	1.00	7	1.13		8	0				0	8	8
	R	361	1.00	361	1.13		408	0	18		15%	11	437	408 + [18] + (11) = 437

Project No. 22012 TM BTR Deland, v1.1

Intersection Volumes

Period	Tgen	Enter	Exit	DR MLK	SF	AGR	Years	Legend
PM Peak		76	45	4.30%	0.00	2.00%	3	Backg'd

Intersection= Orange Camp Rd & Dr. MLK Jr Bltwy — 1

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	53	1.00	53	1.06		56	0				0	56	56
EB	T	341	1.00	341	1.06		361	0				0	361	361
	R	103	1.00	103	1.06		109	0	33	5%		4	146	109 + [33] + (4) = 146
	L	68	1.00	68	1.06		72	0	60	5%		4	136	72 + [60] + (4) = 136
WB	T	454	1.00	454	1.06		481	0				0	481	481
	R	172	1.00	172	1.06		182	0				0	182	182
	L	256	1.00	256	1.13		289	0	54		5%	2	345	289 + [54] + (2) = 345
NB	T	355	1.00	355	1.13		401	0	73		10%	5	479	401 + [73] + (5) = 479
	R	40	1.00	40	1.13		45	0	92		5%	2	139	45 + [92] + (2) = 139
	L	244	1.00	244	1.13		275	0				0	275	275
SB	T	354	1.00	354	1.13		400	0	44	10%		8	452	400 + [44] + (8) = 452
	R	55	1.00	55	1.13		62	0				0	62	62

Intersection= Cassadaga Rd & Dr. MLK Jr Bltwy — 2

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	0	1.00	0	1.06		0	0				0	0	
EB	T	0	1.00	0	1.06		0	0				0	0	
	R	0	1.00	0	1.06		0	0				0	0	
	L	116	1.00	116	1.06		123	0	46		70%	32	201	123 + [46] + (32) = 201
WB	T	0	1.00	0	1.06		0	0				0	0	
	R	28	1.00	28	1.06		30	0	145		5%	2	177	30 + [145] + (2) = 177
	L	0	1.00	0	1.13		0	0				0	0	
NB	T	482	1.00	482	1.13		544	0	142		20%	9	695	544 + [142] + (9) = 695
	R	167	1.00	167	1.13		189	0	51			0	240	189 + [51] = 240
	L	59	1.00	59	1.13		67	0	60	25%		19	146	67 + [60] + (19) = 146
SB	T	570	1.00	570	1.13		644	0	123			0	767	644 + [123] = 767
	R	0	1.00	0	1.13		0	0				0	0	

Intersection= SR 472 & Dr. MLK Jr Bltwy — 3

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	109	1.00	109	1.06		116	0	18	15%		11	145	116 + [18] + (11) = 145
EB	T	1113	1.00	1,113	1.06		1180	0	71			0	1251	1180 + [71] = 1251
	R	137	1.00	137	1.06		145	0				0	145	145
	L	156	1.00	156	1.06		165	0	70			0	235	165 + [70] = 235
WB	T	844	1.00	844	1.06		895	0	127			0	1022	895 + [127] = 1022
	R	278	1.00	278	1.06		295	0	106	35%		27	428	295 + [106] + (27) = 428
	L	123	1.00	123	1.13		139	0				0	139	139
NB	T	271	1.00	271	1.13		306	0	8	20%		15	329	306 + [8] + (15) = 329
	R	83	1.00	83	1.13		94	0	48			0	142	94 + [48] = 142
	L	210	1.00	210	1.13		237	0	100		35%	16	353	237 + [100] + (16) = 353
SB	T	291	1.00	291	1.13		329	0	13		20%	9	351	329 + [13] + (9) = 351
	R	69	1.00	69	1.13		78	0	20		15%	7	105	78 + [20] + (7) = 105

Intersection= Kentucky Ave & Graves Ave — 4

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	336	1.00	336	1.00		336	0	40	15%		11	387	336 + [40] + (11) = 387
EB	T	677	1.00	677	1.00		677	146				0	823	677 + {146} = 823
	R	10	1.00	10	1.00		10	0				0	10	10
	L	13	1.00	13	1.00		13	0				0	13	13
WB	T	514	1.00	514	1.00		514	119				0	633	514 + {119} = 633
	R	139	1.00	139	1.00		139	0	11	5%		4	154	139 + [11] + (4) = 154
	L	17	1.00	17	1.13		19	0				0	19	19
NB	T	10	1.00	10	1.13		11	0				0	11	11
	R	9	1.00	9	1.13		10	0				0	10	10
	L	223	1.00	223	1.13		252	0	17		5%	2	271	252 + [17] + (2) = 271
SB	T	8	1.00	8	1.13		9	0				0	9	9
	R	350	1.00	350	1.13		395	0	66		15%	7	468	395 + [66] + (7) = 468

Appendix L
Projected Intersection Volume Calculation

Project No. 21145 Ford 472
Intersection Volumes

Analysis Period	Factors SF	AGR	Years	Tgen Enter	Exit	Legend
AM Peak	1.04	1.00%	4	30	91	Backg'd + (Tech Park) + [TM BTR] + (Project) = Total

Intersection: Dr. MLK Bltwy & Orange Camp Rd — 1

App	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Volumes
	L	0	160	1.04	**166**	1.04	**173**	14	4	**191**	0%	4%	**4**	**195**	173 + {14} + [4] + (4) = 195
NB	T	2	433	1.04	**450**	1.04	**468**	20	7	**495**	0%	8%	**7**	**502**	468 + {20} + [7] + (7) = 502
	R	0	50	1.04	**52**	1.04	**54**	25	4	**83**	0%	8%	**7**	**90**	54 + {25} + [4] + (7) = 90
	L	0	249	1.04	**259**	1.04	**269**			**269**	0%	0%	**0**	**269**	269
SB	T	2	231	1.04	**240**	1.04	**250**	51	2	**303**	8%	0%	**2**	**305**	250 + {51} + [2] + (2) = 305
	R	0	36	1.04	**37**	1.04	**38**			**38**	0%	0%	**0**	**38**	38
	L	0	47	1.04	**49**	1.05	**51**			**51**	0%	0%	**0**	**51**	51
EB	T	2	390	1.04	**406**	1.05	**425**			**425**	0%	0%	**0**	**425**	425
	R	1	50	1.04	**52**	1.05	**54**	38	1	**93**	4%	0%	**2**	**95**	54 + {38} + [1] + (2) = 95
	L	0	40	1.04	**42**	1.05	**44**	70	1	**115**	8%	0%	**2**	**117**	44 + {70} + [1] + (2) = 117
WB	T	2	302	1.04	**314**	1.05	**328**			**328**	0%	0%	**0**	**328**	328
	R	0	117	1.04	**122**	1.05	**128**			**128**	0%	0%	**0**	**128**	128

Intersection: Dr. MLK Bltwy & Cassadaga Rd — 2

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**1***			**1**	10%	0%	**3**	**4**	1 + (3) = 4
NB	T	1	305	1.04	317	1.04	**330**	38	14	**382**	0%	0%	**0**	**382**	330 + {38} + [14] = 382
	R	1	211	1.04	219	1.04	**228**	14		**242**	0%	0%	**0**	**242**	228 + {14} = 242
	L	1	61	1.04	63	1.04	**66**	70	6	**142**	0%	0%	**0**	**142**	66 + {70} + [6] = 142
SB	T	1	358	1.04	372	1.04	**387**	143		**530**	0%	0%	**0**	**530**	387 + {143} = 530
	R	0	0	1.04	0	1.04	**1***			**1**	20%	0%	**6**	**7**	1 + (6) = 7
	L	1	0	1.04	0	1.10	**2***			**2**	0%	20%	**18**	**20**	2 + {18} = 20
EB	T	1	0	1.04	0	1.10	**2***			**2**	0%	2%	**2**	**4**	2 + (2) = 4
	R	0	0	1.04	0	1.10	**3***			**3**	0%	10%	**9**	**12**	3 + {9} = 12
	L	1	198	1.04	206	1.10	**227**	12	50	**289**	0%	0%	**0**	**289**	227 + {12} + [50] = 289
WB	T	1	0	1.04	0	1.10	**0**			**0**	2%	0%	**1**	**1**	(1)
	R	0	53	1.04	55	1.10	**61**	39	4	**104**	0%	0%	**0**	**104**	61 + {39} + [4] = 104

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Dr. MLK Bltwy / Kentucky Ave & SR 472 — 3

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	128	1.04	133	1.08	**144**			**144**	3%	0%	**1**	**145**	144 + (1) = 145
NB	T	1	227	1.04	236	1.08	**255**	9	5	**269**	10%	0%	**3**	**272**	255 + {9} + [5] + (3) = 272
	R	1	55	1.04	57	1.08	**62**	56		**118**	0%	0%	**0**	**118**	62 + {56} = 118
	L	1	188	1.04	196	1.08	**212**	116	25	**353**	0%	0%	**0**	**353**	212 + {116} + [25] = 353
SB	T	1	311	1.04	323	1.08	**349**	3	14	**366**	0%	10%	**9**	**375**	349 + {3} + [14] + (9) = 375
	R	1	57	1.04	59	1.08	**64**	5	11	**80**	0%	0%	**0**	**80**	64 + {5} + [11] = 80
	L	1	60	1.04	62	1.04	**64**	21	3	**88**	0%	0%	**0**	**88**	64 + {21} + [3] = 88
EB	T	2	892	1.04	928	1.04	**965**	82		**1047**	0%	39%	**35**	**1082**	965 + {82} + (35) = 1082
	R	1	98	1.04	102	1.04	**106**			**106**	0%	3%	**3**	**109**	106 + (3) = 109
	L	1	97	1.04	101	1.04	**105**	19		**124**	0%	0%	**0**	**124**	105 + {19} = 124
WB	T	2	833	1.04	866	1.04	**901**	34		**935**	39%	0%	**11**	**946**	901 + {34} + (11) = 946
	R	1	231	1.04	240	1.04	**250**	23	8	**281**	0%	0%	**0**	**281**	250 + {23} + [8] = 281

Intersection: SR 472 & Blue Lake Ave (Ext.) — 4

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**8***			**8**	0%	42%	**38**	**46**	8 + (38) = 46
SB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	1	0	1.04	0	1.04	**8***			**8**	0%	26%	**24**	**32**	8 + (24) = 32
	L	1	0	1.04	0	1.04	**3***			**3**	26%	0%	**8**	**11**	3 + (8) = 11
EB	T	2	1050	1.04	1,092	1.04	**1136**	103	3	**1242**	0%	0%	**0**	**1242**	1136 + {103} + [3] = 1242
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	2	1018	1.04	1,059	1.04	**1101**	39	11	**1151**	0%	0%	**0**	**1151**	1101 + {39} + [11] = 1151
	R	1	0	1.04	0	1.04	**2***			**2**	42%	0%	**12**	**14**	2 + (12) = 14

EBT obtained adding EBT, SBL and NBR at the intersection of Howland Blvd (SR 472) and Minnesota Ave.
WBT obtained adding WBT, SBR and NBL at the intersection of MLK and SR 472.
Vested Trips from Tech Park and TM BTR estimated using vested trips from MLK and SR 472.
*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: SR 472 & Minnesota Ave — 5

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
NB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	7	1.04	7	1.04	**7**			**7**	0%	0%	**0**	**7**	7
	L	0	5	1.04	5	1.04	**5**			**5**	0%	0%	**0**	**5**	5
SB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
	L	1	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
EB	T	2	1038	1.04	1,080	1.04	**1123**	103	3	**1229**	26%	0%	**8**	**1237**	1123 + {103} + [3] + (8) = 1237
	R	1	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
	L	0	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
WB	T	2	1010	1.04	1,050	1.04	**1092**	39	11	**1142**	0%	26%	**24**	**1166**	1092 + {39} + [11] + (24) = 1166
	R	0	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4

Intersection: Cassadaga Rd (Ext.) & Access I — 6

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	1	0	1.04	0	1.04	**0**			**0**	0%	32%	**29**	**29**	(29)
SB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	38%	**35**	**35**	(35)
	L	1	0	1.04	0	1.04	**0**			**0**	38%	0%	**11**	**11**	(11)
EB	T	1	0	1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	1	0	1.04	0	1.04	**2***			**2**	0%	0%	**0**	**2**	2
	R	1	0	1.04	0	1.04	**0**			**0**	32%	0%	**10**	**10**	(10)

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Access II — 7

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1	0	1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
	R	1	0	1.04	0	1.04	**0**			**0**	30%	0%	**9**	**9**	(9)
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
SB	T	1	0	1.04	0	1.04	**23***			**23**	0%	0%	**0**	**23**	23
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
EB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	30%	**27**	**27**	(27)
WB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.) — 8

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1		1.04	0	1.04	**5***			**5**	30%	0%	**9**	**14**	5 + (9) = 14
	R	0		1.04	0	1.04	**0**			**0**	38%	0%	**11**	**11**	(11)
	L	0		1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
SB	T	1		1.04	0	1.04	**16***			**16**	0%	30%	**27**	**43**	16 + (27) = 43
	R	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
EB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	L	1		1.04	0	1.21	**0**			**0**	0%	38%	**35**	**35**	(35)
WB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	0		1.04	0	1.21	**2**			**2**	0%	0%	**0**	**2**	2

*Background Volumes Estimated using ITE Trip Generation Manual 11th Edition.

Project No. 21145 Ford 472
Intersection Volumes

Analysis Period	Factors SF	AGR	Years	Tgen Enter	Exit	Legend
PM Peak	1.04	1.00%	4	94	60	Backg'd + {Tech Park} + [TM BTR] + (Project) = Total

Intersection: Dr. MLK Bltwy & Orange Camp Rd — 1

App	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Volumes
	L	0	187	1.04	**194**	1.04	**202**	54	2	**258**	0%	4%	**2**	**260**	202 + {54} + [2] + (2) = 260
NB	T	2	450	1.04	**468**	1.04	**487**	73	5	**565**	0%	8%	**5**	**570**	487 + {73} + [5] + (5) = 570
	R	0	48	1.04	**50**	1.04	**52**	92	2	**146**	0%	8%	**5**	**151**	52 + {92} + [2] + (5) = 151
	L	0	251	1.04	**261**	1.04	**271**			**271**	0%	0%	**0**	**271**	271
SB	T	2	350	1.04	**364**	1.04	**379**	44	8	**431**	8%	0%	**8**	**439**	379 + {44} + [8] + (8) = 439
	R	0	44	1.04	**46**	1.04	**48**			**48**	0%	0%	**0**	**48**	48
	L	0	50	1.04	**52**	1.05	**54**			**54**	0%	0%	**0**	**54**	54
EB	T	2	372	1.04	**387**	1.05	**405**			**405**	0%	0%	**0**	**405**	405
	R	1	101	1.04	**105**	1.05	**110**	33	4	**147**	4%	0%	**3**	**150**	110 + {33} + [4] + (3) = 150
	L	0	53	1.04	**55**	1.05	**58**	60	4	**122**	8%	0%	**8**	**130**	58 + {60} + [4] + (8) = 130
WB	T	2	473	1.04	**492**	1.05	**514**			**514**	0%	0%	**0**	**514**	514
	R	0	161	1.04	**167**	1.05	**175**			**175**	0%	0%	**0**	**175**	175

Intersection: Dr. MLK Bltwy & Cassadaga Rd — 2

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**3***			**3**	10%	0%	**9**	**12**	3 + (9) = 12
NB	T	1	448	1.04	466	1.04	**485**	142	9	**636**	0%	0%	**0**	**636**	485 + {142} + [9] = 636
	R	1	167	1.04	174	1.04	**181**	51		**232**	0%	0%	**0**	**232**	181 + {51} = 232
	L	1	59	1.04	61	1.04	**63**	60	19	**142**	0%	0%	**0**	**142**	63 + {60} + [19] = 142
SB	T	1	536	1.04	557	1.04	**579**	123		**702**	0%	0%	**0**	**702**	579 + {123} = 702
	R	0	0	1.04	0	1.04	**3***			**3**	20%	0%	**19**	**22**	3 + (19) = 22
	L	1	0	1.04	0	1.10	**2***			**2**	0%	20%	**12**	**14**	2 + (12) = 14
EB	T	1	0	1.04	0	1.10	**0**			**0**	0%	2%	**1**	**1**	(1)
	R	0	0	1.04	0	1.10	**2***			**2**	0%	10%	**6**	**8**	2 + (6) = 8
	L	1	117	1.04	122	1.10	**134**	46	32	**212**	0%	0%	**0**	**212**	134 + {46} + [32] = 212
WB	T	1	0	1.04	0	1.10	**1***			**1**	2%	0%	**2**	**3**	1 + (2) = 3
	R	0	37	1.04	38	1.10	**42**	145	2	**189**	0%	0%	**0**	**189**	42 + {145} + [2] = 189

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Dr. MLK Bltwy / Kentucky Ave & SR 472 — 3

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	103	1.04	107	1.08	**116**			**116**	3%	0%	**3**	**119**	116 + (3) = 119
NB	T	1	256	1.04	266	1.08	**287**	8	15	**310**	10%	0%	**9**	**319**	287 + {8} + [15] + (9) = 319
	R	1	66	1.04	69	1.08	**75**	48		**123**	0%	0%	**0**	**123**	75 + {48} = 123
	L	1	226	1.04	235	1.08	**254**	100	16	**370**	0%	0%	**0**	**370**	254 + {100} + [16] = 370
SB	T	1	355	1.04	369	1.08	**399**	13	9	**421**	0%	10%	**6**	**427**	399 + {13} + [9] + (6) = 427
	R	1	72	1.04	75	1.08	**81**	20	7	**108**	0%	0%	**0**	**108**	81 + {20} + [7] = 108
	L	1	81	1.04	84	1.04	**87**	18	11	**116**	0%	0%	**0**	**116**	87 + {18} + [11] = 116
EB	T	2	1018	1.04	1,059	1.04	**1101**	71		**1172**	0%	39%	**23**	**1195**	1101 + {71} + (23) = 1195
	R	1	128	1.04	133	1.04	**138**			**138**	0%	3%	**2**	**140**	138 + {2} = 140
	L	1	158	1.04	164	1.04	**171**	70		**241**	0%	0%	**0**	**241**	171 + {70} = 241
WB	T	2	821	1.04	854	1.04	**888**	127		**1015**	39%	0%	**37**	**1052**	888 + {127} + (37) = 1052
	R	1	278	1.04	289	1.04	**301**	106	27	**434**	0%	0%	**0**	**434**	301 + {106} + [27] = 434

Intersection: SR 472 & Blue Lake Ave (Ext.) — 4

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**6***			**6**	0%	42%	**25**	**31**	6 + (25) = 31
SB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	1	0	1.04	0	1.04	**4***			**4**	0%	26%	**16**	**20**	4 + (16) = 20
	L	1	0	1.04	0	1.04	**10***			**10**	26%	0%	**24**	**34**	10 + (24) = 34
EB	T	2	1261	1.04	1,311	1.04	**1363**	89	11	**1463**	0%	0%	**0**	**1463**	1363 + {89} + [11] = 1463
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	2	996	1.04	1,036	1.04	**1077**	147	7	**1231**	0%	0%	**0**	**1231**	1077 + {147} + [7] = 1231
	R	1	0	1.04	0	1.04	**7***			**7**	42%	0%	**40**	**47**	7 + (40) = 47

EBT obtained addnq EBT, SBL and NBR at the intersection of Howland Blvd (SR 472) and Minnesota Ave.
WBT obtained addnq WBT, SBR and NBL at the intersection of MLK and SR 472.
Vested Trips from Tech Park and TM BTR estimated using vested trips from MLK and SR 472.
*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: SR 472 & Minnesota Ave — 5

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
NB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	14	1.04	15	1.04	**16**			**16**	0%	0%	**0**	**16**	16
	L	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
SB	T	1	1	1.04	1	1.04	**1**			**1**	0%	0%	**0**	**1**	1
	R	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
	L	1	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
EB	T	2	1244	1.04	1,294	1.04	**1346**	89	11	**1446**	26%	0%	**24**	**1470**	1346 + {89} + [11] + (24) = 1470
	R	1	13	1.04	14	1.04	**15**			**15**	0%	0%	**0**	**15**	15
	L	0	14	1.04	15	1.04	**16**			**16**	0%	0%	**0**	**16**	16
WB	T	2	980	1.04	1,019	1.04	**1060**	147	7	**1214**	0%	26%	**16**	**1230**	1060 + {147} + [7] + (16) = 1230
	R	0	2	1.04	2	1.04	**2**			**2**	0%	0%	**0**	**2**	2

Intersection: Cassadaga Rd (Ext.) & Access I — 6

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	1	0	1.04	0	1.04	**0**			**0**	0%	32%	**19**	**19**	(19)
SB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	38%	**23**	**23**	(23)
	L	1	0	1.04	0	1.04	**0**			**0**	38%	0%	**36**	**36**	(36)
EB	T	1	0	1.04	0	1.04	**4***			**4**	0%	0%	**0**	**4**	4
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	1	0	1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
	R	1	0	1.04	0	1.04	**0**			**0**	32%	0%	**30**	**30**	(30)

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Access II — 7

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1	0	1.04	0	1.04	**24***			**24**	0%	0%	**0**	**24**	24
	R	1	0	1.04	0	1.04	**0**			**0**	30%	0%	**28**	**28**	(28)
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
SB	T	1	0	1.04	0	1.04	**14***			**14**	0%	0%	**0**	**14**	14
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
EB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	30%	**18**	**18**	(18)
WB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.) — 8

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Redirect	Vested	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1		1.04	0	1.04	**17***			**17**	30%	0%	**28**	**45**	17 + (28) = 45
	R	0		1.04	0	1.04	**0**			**0**	38%	0%	**36**	**36**	(36)
	L	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
SB	T	1		1.04	0	1.04	**17***			**17**	0%	30%	**18**	**35**	17 + (18) = 35
	R	0		1.04	0	1.04	**4***			**4**	0%	0%	**4**	**4**	4
	L	0		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
EB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	L	1		1.04	0	1.21	**0**			**0**	0%	38%	**23**	**23**	(23)
WB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	0		1.04	0	1.21	**7***			**7**	0%	0%	**0**	**7**	7

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Appendix M
HCM Analysis Worksheets

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	546	514	718	576
Demand Flow Rate, veh/h	568	530	734	591
Vehicles Circulating, veh/h	595	737	793	573
Vehicles Exiting, veh/h	569	790	370	694
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	9.9	14.0	8.6
Approach LOS	A	A	B	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	267	301	249	281	345	389	278	313
Cap Entry Lane, veh/h	781	856	685	759	651	724	797	873
Entry HV Adj Factor	0.962	0.962	0.971	0.970	0.979	0.979	0.974	0.975
Flow Entry, veh/h	257	290	242	273	338	381	271	305
Cap Entry, veh/h	751	824	665	736	637	708	776	851
V/C Ratio	0.342	0.351	0.363	0.370	0.530	0.538	0.349	0.359
Control Delay, s/veh	9.0	8.5	10.3	9.6	14.5	13.5	8.9	8.4
LOS	A	A	B	A	B	B	A	A
95th %tile Queue, veh	2	2	2	2	3	3	2	2

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	612	615	826	656
Demand Flow Rate, veh/h	639	634	844	674
Vehicles Circulating, veh/h	759	816	828	697
Vehicles Exiting, veh/h	612	856	570	753
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.8	12.7	17.7	11.2
Approach LOS	B	B	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.470	0.530	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	300	339	298	336	397	447	317	357
Cap Entry Lane, veh/h	672	745	637	710	630	702	711	785
Entry HV Adj Factor	0.959	0.957	0.970	0.970	0.978	0.980	0.973	0.975
Flow Entry, veh/h	288	324	289	326	388	438	309	348
Cap Entry, veh/h	644	713	618	688	617	688	692	765
V/C Ratio	0.447	0.455	0.468	0.473	0.630	0.636	0.446	0.455
Control Delay, s/veh	12.3	11.5	13.2	12.2	18.4	17.1	11.6	10.8
LOS	B	B	B	B	C	C	B	B
95th %tile Queue, veh	2	2	2	3	4	5	2	2

Intersection	
Intersection Delay, s/veh	14.0
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	614	617	847	658
Demand Flow Rate, veh/h	641	636	865	676
Vehicles Circulating, veh/h	763	829	828	704
Vehicles Exiting, veh/h	617	864	576	761
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.9	12.9	18.4	11.3
Approach LOS	B	B	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	301	340	299	337	407	458	318	358
Cap Entry Lane, veh/h	669	742	630	702	630	702	706	781
Entry HV Adj Factor	0.959	0.957	0.970	0.970	0.978	0.980	0.973	0.975
Flow Entry, veh/h	289	325	290	327	398	449	309	349
Cap Entry, veh/h	641	710	611	681	617	689	687	761
V/C Ratio	0.450	0.458	0.475	0.480	0.646	0.652	0.450	0.459
Control Delay, s/veh	12.4	11.6	13.5	12.5	19.1	17.7	11.7	11.0
LOS	B	B	B	B	C	C	B	B
95th %tile Queue, veh	2	2	3	3	5	5	2	2

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	550	722	720	678
Demand Flow Rate, veh/h	576	744	735	696
Vehicles Circulating, veh/h	705	743	732	765
Vehicles Exiting, veh/h	756	724	549	722
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.2	13.2	12.7	12.7
Approach LOS	B	B	B	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	271	305	350	394	345	390	327	369
Cap Entry Lane, veh/h	706	780	681	755	688	762	668	741
Entry HV Adj Factor	0.954	0.956	0.970	0.971	0.980	0.978	0.974	0.973
Flow Entry, veh/h	259	292	339	383	338	381	318	359
Cap Entry, veh/h	673	746	661	733	675	745	650	721
V/C Ratio	0.384	0.391	0.514	0.522	0.501	0.512	0.490	0.498
Control Delay, s/veh	10.6	9.9	13.6	12.7	13.1	12.3	13.2	12.3
LOS	B	A	B	B	B	B	B	B
95th %tile Queue, veh	2	2	3	3	3	3	3	3

Intersection	
Intersection Delay, s/veh	19.0
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	612	819	979	757
Demand Flow Rate, veh/h	642	844	999	777
Vehicles Circulating, veh/h	853	912	763	922
Vehicles Exiting, veh/h	846	850	732	834
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	13.7	21.3	20.3	19.0
Approach LOS	B	C	C	C

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	302	340	397	447	470	529	365	412
Cap Entry Lane, veh/h	616	688	583	654	669	742	578	649
Entry HV Adj Factor	0.952	0.954	0.969	0.971	0.979	0.980	0.975	0.974
Flow Entry, veh/h	288	324	385	434	460	519	356	401
Cap Entry, veh/h	586	656	565	635	655	728	564	632
V/C Ratio	0.490	0.494	0.681	0.683	0.702	0.713	0.631	0.635
Control Delay, s/veh	14.4	13.2	22.3	20.4	20.9	19.8	19.8	18.3
LOS	B	B	C	C	C	C	C	C
95th %tile Queue, veh	3	3	5	5	6	6	4	5

Intersection	
Intersection Delay, s/veh	19.6
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	617	827	992	765
Demand Flow Rate, veh/h	648	852	1014	785
Vehicles Circulating, veh/h	869	920	763	932
Vehicles Exiting, veh/h	848	857	754	840
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	14.2	22.0	20.9	19.7
Approach LOS	B	C	C	C

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.471	0.529	0.469	0.531	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	305	343	400	452	477	537	369	416
Cap Entry Lane, veh/h	607	678	579	650	669	742	573	643
Entry HV Adj Factor	0.951	0.953	0.971	0.969	0.978	0.980	0.975	0.975
Flow Entry, veh/h	290	327	389	438	466	526	360	406
Cap Entry, veh/h	577	647	562	630	654	727	558	627
V/C Ratio	0.503	0.506	0.691	0.696	0.713	0.723	0.644	0.647
Control Delay, s/veh	14.9	13.7	22.9	21.2	21.5	20.4	20.6	18.9
LOS	B	B	C	C	C	C	C	C
95th %tile Queue, veh	3	3	5	6	6	6	5	5

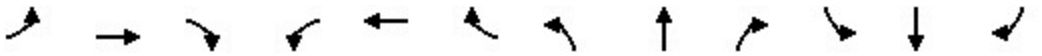


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	55	317	219	63	372
Future Volume (veh/h)	206	55	317	219	63	372
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1870
Adj Flow Rate, veh/h	226	48	348	188	69	409
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	2	2	4	2
Cap, veh/h	298	265	630	534	409	1023
Arrive On Green	0.17	0.17	0.34	0.34	0.06	0.55
Sat Flow, veh/h	1753	1560	1870	1585	1753	1870
Grp Volume(v), veh/h	226	48	348	188	69	409
Grp Sat Flow(s),veh/h/ln	1753	1560	1870	1585	1753	1870
Q Serve(g_s), s	6.2	1.3	7.7	4.5	1.2	6.4
Cycle Q Clear(g_c), s	6.2	1.3	7.7	4.5	1.2	6.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	298	265	630	534	409	1023
V/C Ratio(X)	0.76	0.18	0.55	0.35	0.17	0.40
Avail Cap(c_a), veh/h	632	562	908	769	666	1575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	17.9	13.6	12.6	9.3	6.6
Incr Delay (d2), s/veh	4.0	0.3	0.8	0.4	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	2.3	4.3	7.9	0.5	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.9	18.3	14.4	13.0	9.5	6.9
LnGrp LOS	C	B	B	B	A	A
Approach Vol, veh/h	274		536			478
Approach Delay, s/veh	22.9		13.9			7.3
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.1		15.4	10.6	24.5
Change Period (Y+Rc), s		7.5		6.8	7.5	7.5
Max Green Setting (Gmax), s		42.5		18.2	10.5	24.5
Max Q Clear Time (g_c+I1), s		8.4		8.2	3.2	9.7
Green Ext Time (p_c), s		2.2		0.6	0.1	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	13.4
HCM 7th LOS	B

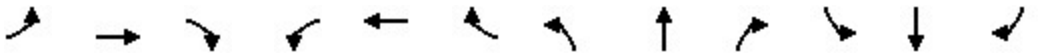
HCM 7th Signalized Intersection Summary
2: Dr MLK Bltwy & Cassadaga Rd Ext/Cassadaga Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	3	289	0	104	1	382	242	142	530	1
Future Volume (veh/h)	2	2	3	289	0	104	1	382	242	142	530	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	2	2	2	318	0	102	1	420	213	156	582	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	307	69	69	532	0	328	153	512	434	295	673	1
Arrive On Green	0.06	0.08	0.08	0.19	0.00	0.21	0.00	0.27	0.27	0.09	0.36	0.36
Sat Flow, veh/h	1781	858	858	1753	0	1585	1781	1870	1585	1753	1867	3
Grp Volume(v), veh/h	2	0	4	318	0	102	1	420	213	156	0	583
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1753	0	1585	1781	1870	1585	1753	0	1870
Q Serve(g_s), s	0.1	0.0	0.2	12.3	0.0	4.3	0.0	16.6	8.9	4.9	0.0	22.9
Cycle Q Clear(g_c), s	0.1	0.0	0.2	12.3	0.0	4.3	0.0	16.6	8.9	4.9	0.0	22.9
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	307	0	138	532	0	328	153	512	434	295	0	674
V/C Ratio(X)	0.01	0.00	0.03	0.60	0.00	0.31	0.01	0.82	0.49	0.53	0.00	0.86
Avail Cap(c_a), veh/h	713	0	1170	710	0	1081	635	1479	1253	618	0	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	33.5	24.0	0.0	26.6	22.4	26.9	24.1	19.7	0.0	23.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	0.5	0.0	3.3	0.9	1.5	0.0	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.1	8.6	0.0	2.9	0.0	11.2	6.0	3.3	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.0	0.0	33.6	25.1	0.0	27.1	22.4	30.2	24.9	21.2	0.0	27.0
LnGrp LOS	C		C	C		C	C	C	C	C		C
Approach Vol, veh/h		6			420			634			739	
Approach Delay, s/veh		32.1			25.6			28.4			25.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	36.0	12.0	22.4	15.5	29.1	22.0	12.4
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.0	24.9	2.1	6.3	6.9	18.6	14.3	2.2
Green Ext Time (p_c), s	0.0	3.5	0.0	0.6	0.3	3.0	0.6	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	4	12	289	1	104	4	382	242	142	530	7
Future Volume (veh/h)	20	4	12	289	1	104	4	382	242	142	530	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	22	4	13	318	1	102	4	420	213	156	582	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	309	32	105	523	3	330	156	516	437	296	671	568
Arrive On Green	0.06	0.08	0.08	0.19	0.21	0.21	0.01	0.28	0.28	0.09	0.36	0.36
Sat Flow, veh/h	1781	387	1257	1753	15	1572	1781	1870	1585	1753	1870	1585
Grp Volume(v), veh/h	22	0	17	318	0	103	4	420	213	156	582	8
Grp Sat Flow(s),veh/h/ln	1781	0	1644	1753	0	1587	1781	1870	1585	1753	1870	1585
Q Serve(g_s), s	0.9	0.0	0.8	12.5	0.0	4.4	0.1	16.8	9.0	5.0	23.2	0.3
Cycle Q Clear(g_c), s	0.9	0.0	0.8	12.5	0.0	4.4	0.1	16.8	9.0	5.0	23.2	0.3
Prop In Lane	1.00		0.76	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	0	138	523	0	333	156	516	437	296	671	568
V/C Ratio(X)	0.07	0.00	0.12	0.61	0.00	0.31	0.03	0.81	0.49	0.53	0.87	0.01
Avail Cap(c_a), veh/h	710	0	1108	696	0	1069	626	1461	1238	613	1461	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	33.9	24.2	0.0	26.7	22.4	27.0	24.2	19.9	23.9	16.5
Incr Delay (d2), s/veh	0.1	0.0	0.4	1.1	0.0	0.5	0.1	3.2	0.8	1.5	3.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	0.6	8.7	0.0	3.0	0.1	11.3	6.0	3.3	14.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.6	0.0	34.3	25.3	0.0	27.2	22.5	30.2	25.1	21.4	27.5	16.6
LnGrp LOS	C		C	C		C	C	C	C	C	C	B
Approach Vol, veh/h		39			421			637			746	
Approach Delay, s/veh		31.7			25.8			28.4			26.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	36.2	12.0	22.9	15.5	29.6	22.1	12.8
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.1	25.2	2.9	6.4	7.0	18.8	14.5	2.8
Green Ext Time (p_c), s	0.0	3.5	0.0	0.7	0.3	3.0	0.6	0.1

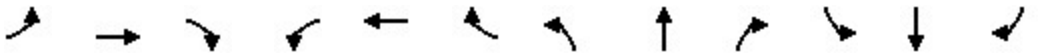
Intersection Summary	
HCM 7th Control Delay, s/veh	27.0
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	122	38	466	174	61	557
Future Volume (veh/h)	122	38	466	174	61	557
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1870
Adj Flow Rate, veh/h	131	29	501	135	66	599
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	2	2	4	2
Cap, veh/h	226	201	664	563	350	1071
Arrive On Green	0.13	0.13	0.35	0.35	0.06	0.57
Sat Flow, veh/h	1753	1560	1870	1585	1753	1870
Grp Volume(v), veh/h	131	29	501	135	66	599
Grp Sat Flow(s),veh/h/ln	1753	1560	1870	1585	1753	1870
Q Serve(g_s), s	3.4	0.8	11.3	2.9	1.0	9.6
Cycle Q Clear(g_c), s	3.4	0.8	11.3	2.9	1.0	9.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	226	201	664	563	350	1071
V/C Ratio(X)	0.58	0.14	0.75	0.24	0.19	0.56
Avail Cap(c_a), veh/h	666	593	957	811	627	1660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	18.5	13.6	10.9	9.3	6.4
Incr Delay (d2), s/veh	2.4	0.3	2.1	0.2	0.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	1.3	6.3	5.4	0.4	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	22.0	18.8	15.7	11.1	9.6	6.9
LnGrp LOS	C	B	B	B	A	A
Approach Vol, veh/h	160		636			665
Approach Delay, s/veh	21.4		14.7			7.2
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.9		13.0	10.4	24.5
Change Period (Y+Rc), s		7.5		6.8	7.5	7.5
Max Green Setting (Gmax), s		42.5		18.2	10.5	24.5
Max Q Clear Time (g_c+I1), s		11.6		5.4	3.0	13.3
Green Ext Time (p_c), s		3.6		0.3	0.1	2.4

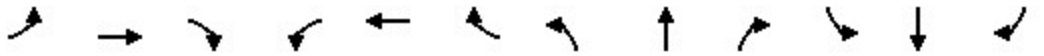
Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	2	212	0	189	3	636	232	142	702	3
Future Volume (veh/h)	2	0	2	212	0	189	3	636	232	142	702	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	2	0	2	228	0	191	3	684	197	153	755	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	222	0	115	420	0	255	170	770	652	246	893	4
Arrive On Green	0.05	0.00	0.07	0.14	0.00	0.16	0.00	0.41	0.41	0.07	0.48	0.48
Sat Flow, veh/h	1781	0	1585	1753	0	1585	1781	1870	1585	1753	1862	7
Grp Volume(v), veh/h	2	0	2	228	0	191	3	684	197	153	0	758
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1753	0	1585	1781	1870	1585	1753	0	1869
Q Serve(g_s), s	0.1	0.0	0.1	11.0	0.0	11.0	0.1	32.5	8.0	4.7	0.0	34.0
Cycle Q Clear(g_c), s	0.1	0.0	0.1	11.0	0.0	11.0	0.1	32.5	8.0	4.7	0.0	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	222	0	115	420	0	255	170	770	652	246	0	897
V/C Ratio(X)	0.01	0.00	0.02	0.54	0.00	0.75	0.02	0.89	0.30	0.62	0.00	0.85
Avail Cap(c_a), veh/h	557	0	891	595	0	891	563	1220	1034	513	0	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	41.3	32.4	0.0	38.4	20.4	26.2	18.9	21.1	0.0	21.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	4.4	0.0	5.3	0.3	2.5	0.0	4.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.1	8.2	0.0	8.0	0.1	19.8	5.3	3.2	0.0	19.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.8	0.0	41.3	33.5	0.0	42.8	20.4	31.4	19.2	23.6	0.0	26.0
LnGrp LOS	D		D	C		D	C	C	B	C		C
Approach Vol, veh/h		4			419			884			911	
Approach Delay, s/veh		39.1			37.7			28.7			25.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	53.5	12.0	21.5	15.4	47.0	20.4	13.1
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.1	36.0	2.1	13.0	6.7	34.5	13.0	2.1
Green Ext Time (p_c), s	0.0	4.9	0.0	1.3	0.3	4.9	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1	8	212	3	189	12	636	232	142	702	22
Future Volume (veh/h)	14	1	8	212	3	189	12	636	232	142	702	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	15	1	9	228	3	191	13	684	197	153	755	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	220	12	105	413	4	251	178	770	652	246	876	742
Arrive On Green	0.05	0.07	0.07	0.14	0.16	0.16	0.02	0.41	0.41	0.07	0.47	0.47
Sat Flow, veh/h	1781	161	1449	1753	25	1564	1781	1870	1585	1753	1870	1585
Grp Volume(v), veh/h	15	0	10	228	0	194	13	684	197	153	755	24
Grp Sat Flow(s),veh/h/ln	1781	0	1610	1753	0	1589	1781	1870	1585	1753	1870	1585
Q Serve(g_s), s	0.7	0.0	0.6	11.0	0.0	11.2	0.4	32.5	8.0	4.7	34.5	0.8
Cycle Q Clear(g_c), s	0.7	0.0	0.6	11.0	0.0	11.2	0.4	32.5	8.0	4.7	34.5	0.8
Prop In Lane	1.00		0.90	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	0	117	413	0	255	178	770	652	246	876	742
V/C Ratio(X)	0.07	0.00	0.09	0.55	0.00	0.76	0.07	0.89	0.30	0.62	0.86	0.03
Avail Cap(c_a), veh/h	555	0	905	588	0	893	550	1219	1033	513	1219	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	41.5	32.4	0.0	38.5	20.4	26.2	19.0	21.1	22.7	13.8
Incr Delay (d2), s/veh	0.1	0.0	0.3	1.2	0.0	4.6	0.2	5.3	0.3	2.5	4.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.4	8.2	0.0	8.1	0.3	19.8	5.3	3.2	20.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.2	0.0	41.8	33.6	0.0	43.1	20.5	31.4	19.2	23.7	27.5	13.8
LnGrp LOS	D		D	C		D	C	C	B	C	C	B
Approach Vol, veh/h		25			422			894			932	
Approach Delay, s/veh		39.0			37.9			28.6			26.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	52.4	12.0	21.5	15.4	47.0	20.4	13.1
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.4	36.5	2.7	13.2	6.7	34.5	13.0	2.6
Green Ext Time (p_c), s	0.0	4.9	0.0	1.3	0.3	4.9	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.6
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	928	102	101	866	240	133	236	57	196	323	59
Future Volume (veh/h)	62	928	102	101	866	240	133	236	57	196	323	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	65	977	74	106	912	161	140	248	0	206	340	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	83	1154	494	127	1233	545	123	217		325	334	
Arrive On Green	0.05	0.32	0.32	0.07	0.35	0.35	0.19	0.19	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	652	1156	1572	1781	1826	1585
Grp Volume(v), veh/h	65	977	74	106	912	161	388	0	0	206	340	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1808	0	1572	1781	1826	1585
Q Serve(g_s), s	5.4	38.4	5.2	8.8	34.0	11.2	28.2	0.0	0.0	16.0	27.4	0.0
Cycle Q Clear(g_c), s	5.4	38.4	5.2	8.8	34.0	11.2	28.2	0.0	0.0	16.0	27.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.36		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	1154	494	127	1233	545	340	0		325	334	
V/C Ratio(X)	0.79	0.85	0.15	0.84	0.74	0.30	1.14	0.00		0.63	1.02	
Avail Cap(c_a), veh/h	127	1154	494	127	1233	545	340	0		325	334	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	70.8	47.2	35.9	68.8	42.8	35.4	60.9	0.0	0.0	56.7	61.3	0.0
Incr Delay (d2), s/veh	16.2	7.7	0.6	35.9	4.0	1.4	92.9	0.0	0.0	3.5	51.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	24.4	3.5	8.9	21.2	7.8	31.1	0.0	0.0	11.6	23.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	87.0	54.9	36.6	104.7	46.8	36.7	153.8	0.0	0.0	60.1	112.3	0.0
LnGrp LOS	F	D	D	F	D	D	F			E	F	
Approach Vol, veh/h		1116			1179			388			546	
Approach Delay, s/veh		55.6			50.6			153.8			92.6	
Approach LOS		E			D			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.2	60.8		37.0	19.0	57.0		37.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	48.7		28.2	10.7	48.7		27.4				
Max Q Clear Time (g_c+I1), s	7.4	36.0		30.2	10.8	40.4		29.4				
Green Ext Time (p_c), s	0.0	4.9		0.0	0.0	3.8		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		71.8
HCM 7th LOS		E

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Future Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1102	79	131	984	204	152	283	0	372	385	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	113	1154	494	127	1172	518	119	221		325	334	
Arrive On Green	0.06	0.32	0.32	0.07	0.33	0.33	0.19	0.19	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	632	1177	1572	1781	1826	1585
Grp Volume(v), veh/h	93	1102	79	131	984	204	435	0	0	372	385	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1809	0	1572	1781	1826	1585
Q Serve(g_s), s	7.7	45.5	5.5	10.7	38.8	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Cycle Q Clear(g_c), s	7.7	45.5	5.5	10.7	38.8	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.35		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	1154	494	127	1172	518	340	0		325	334	
V/C Ratio(X)	0.82	0.96	0.16	1.03	0.84	0.39	1.28	0.00		1.14	1.15	
Avail Cap(c_a), veh/h	127	1154	494	127	1172	518	340	0		325	334	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	69.4	49.6	36.1	69.6	46.4	38.5	60.9	0.0	0.0	61.3	61.3	0.0
Incr Delay (d2), s/veh	30.5	17.7	0.7	88.3	7.3	2.2	146.4	0.0	0.0	88.1	91.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	29.8	3.8	12.6	24.3	9.9	39.4	0.0	0.0	28.3	29.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.8	67.3	36.8	158.0	53.7	40.7	207.3	0.0	0.0	149.4	153.0	0.0
LnGrp LOS	F	E	D	F	D	D	F			F	F	
Approach Vol, veh/h		1274			1319			435			757	
Approach Delay, s/veh		67.8			62.0			207.3			151.2	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.8	58.2		37.0	19.0	57.0		37.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	48.7		28.2	10.7	48.7		27.4				
Max Q Clear Time (g_c+I1), s	9.7	40.8		30.2	12.7	47.5		29.4				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	0.8		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	98.5
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1082	109	124	947	281	145	272	118	353	375	80
Future Volume (veh/h)	88	1082	109	124	947	281	145	272	118	353	375	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1139	82	131	997	204	153	286	0	372	395	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	113	1154	494	127	1172	518	119	222		325	334	
Arrive On Green	0.06	0.32	0.32	0.07	0.33	0.33	0.19	0.19	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	631	1179	1572	1781	1826	1585
Grp Volume(v), veh/h	93	1139	82	131	997	204	439	0	0	372	395	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1809	0	1572	1781	1826	1585
Q Serve(g_s), s	7.7	47.8	5.8	10.7	39.5	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Cycle Q Clear(g_c), s	7.7	47.8	5.8	10.7	39.5	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.35		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	1154	494	127	1172	518	340	0		325	334	
V/C Ratio(X)	0.82	0.99	0.17	1.03	0.85	0.39	1.29	0.00		1.14	1.18	
Avail Cap(c_a), veh/h	127	1154	494	127	1172	518	340	0		325	334	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	69.4	50.3	36.2	69.6	46.6	38.5	60.9	0.0	0.0	61.3	61.3	0.0
Incr Delay (d2), s/veh	30.5	23.6	0.7	88.3	7.9	2.2	151.1	0.0	0.0	88.1	103.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	32.0	3.9	12.6	24.8	9.9	40.1	0.0	0.0	28.3	31.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.8	73.9	36.9	158.0	54.5	40.7	212.0	0.0	0.0	149.4	164.6	0.0
LnGrp LOS	F	E	D	F	D	D	F			F	F	
Approach Vol, veh/h		1314			1332			439			767	
Approach Delay, s/veh		73.5			62.5			212.0			157.2	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.8	58.2		37.0	19.0	57.0		37.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	48.7		28.2	10.7	48.7		27.4				
Max Q Clear Time (g_c+I1), s	9.7	41.5		30.2	12.7	49.8		29.4				
Green Ext Time (p_c), s	0.0	3.8		0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	102.2
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	1059	133	164	854	289	107	266	69	235	369	75
Future Volume (veh/h)	84	1059	133	164	854	289	107	266	69	235	369	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	89	1127	108	174	909	214	114	283	0	250	393	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	109	1177	504	139	1227	543	98	243		302	309	
Arrive On Green	0.06	0.33	0.33	0.08	0.35	0.35	0.19	0.19	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	521	1294	1572	1781	1826	1585
Grp Volume(v), veh/h	89	1127	108	174	909	214	397	0	0	250	393	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1815	0	1572	1781	1826	1585
Q Serve(g_s), s	7.4	46.6	7.7	11.7	34.0	15.5	28.2	0.0	0.0	20.3	25.4	0.0
Cycle Q Clear(g_c), s	7.4	46.6	7.7	11.7	34.0	15.5	28.2	0.0	0.0	20.3	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.29		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	1177	504	139	1227	543	341	0		302	309	
V/C Ratio(X)	0.82	0.96	0.21	1.25	0.74	0.39	1.16	0.00		0.83	1.27	
Avail Cap(c_a), veh/h	127	1177	504	139	1227	543	341	0		302	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	69.6	49.1	36.1	69.2	43.0	36.9	60.9	0.0	0.0	60.2	62.3	0.0
Incr Delay (d2), s/veh	28.7	17.8	1.0	159.4	4.1	2.1	101.0	0.0	0.0	15.3	142.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	30.4	5.2	18.2	21.2	10.1	32.5	0.0	0.0	15.2	35.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.2	66.9	37.1	228.5	47.0	39.1	161.9	0.0	0.0	75.5	204.6	0.0
LnGrp LOS	F	E	D	F	D	D	F			E	F	
Approach Vol, veh/h		1324			1297			397			643	
Approach Delay, s/veh		66.6			70.0			161.9			154.4	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	60.5		37.0	20.0	58.0		35.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	50.7		28.2	11.7	49.7		25.4				
Max Q Clear Time (g_c+I1), s	9.4	36.0		30.2	13.7	48.6		27.4				
Green Ext Time (p_c), s	0.0	5.4		0.0	0.0	0.8		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	93.6
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Future Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1247	114	256	1080	369	123	330	0	394	448	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	127	1177	504	139	1192	527	93	249		302	309	
Arrive On Green	0.07	0.33	0.33	0.08	0.34	0.34	0.19	0.19	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	493	1323	1572	1781	1826	1585
Grp Volume(v), veh/h	123	1247	114	256	1080	369	453	0	0	394	448	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1816	0	1572	1781	1826	1585
Q Serve(g_s), s	10.3	49.7	8.1	11.7	43.9	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Cycle Q Clear(g_c), s	10.3	49.7	8.1	11.7	43.9	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.27		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	1177	504	139	1192	527	341	0		302	309	
V/C Ratio(X)	0.97	1.06	0.23	1.84	0.91	0.70	1.33	0.00		1.31	1.45	
Avail Cap(c_a), veh/h	127	1177	504	139	1192	527	341	0		302	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	69.5	50.1	36.2	69.2	47.4	43.1	60.9	0.0	0.0	62.3	62.3	0.0
Incr Delay (d2), s/veh	69.7	43.4	1.0	405.6	11.5	7.5	166.0	0.0	0.0	154.4	214.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	38.3	5.6	33.3	27.6	18.3	42.5	0.0	0.0	35.3	44.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	139.2	93.5	37.3	474.8	58.9	50.6	226.9	0.0	0.0	216.7	277.2	0.0
LnGrp LOS	F	F	D	F	E	D	F			F	F	
Approach Vol, veh/h		1484			1705			453			842	
Approach Delay, s/veh		93.0			119.5			226.9			248.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	59.0		37.0	20.0	58.0		35.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	50.7		28.2	11.7	49.7		25.4				
Max Q Clear Time (g_c+I1), s	12.3	45.9		30.2	13.7	51.7		27.4				
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	145.9	
HCM 7th LOS	F	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Future Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1271	116	256	1119	369	127	339	0	394	454	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	127	1177	504	139	1192	527	93	248		302	309	
Arrive On Green	0.07	0.33	0.33	0.08	0.34	0.34	0.19	0.19	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	495	1321	1572	1781	1826	1585
Grp Volume(v), veh/h	123	1271	116	256	1119	369	466	0	0	394	454	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1816	0	1572	1781	1826	1585
Q Serve(g_s), s	10.3	49.7	8.3	11.7	46.2	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Cycle Q Clear(g_c), s	10.3	49.7	8.3	11.7	46.2	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.27		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	1177	504	139	1192	527	341	0		302	309	
V/C Ratio(X)	0.97	1.08	0.23	1.84	0.94	0.70	1.36	0.00		1.31	1.47	
Avail Cap(c_a), veh/h	127	1177	504	139	1192	527	341	0		302	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	69.5	50.1	36.3	69.2	48.2	43.1	60.9	0.0	0.0	62.3	62.3	0.0
Incr Delay (d2), s/veh	69.7	50.5	1.1	405.6	15.0	7.5	182.0	0.0	0.0	154.0	223.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	40.1	5.7	33.3	29.4	18.3	45.0	0.0	0.0	35.1	45.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	139.2	100.6	37.4	474.8	63.2	50.6	242.9	0.0	0.0	216.3	285.3	0.0
LnGrp LOS	F	F	D	F	E	D	F			F	F	
Approach Vol, veh/h		1510			1744			466			848	
Approach Delay, s/veh		98.9			120.9			242.9			253.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	59.0		37.0	20.0	58.0		35.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	50.7		28.2	11.7	49.7		25.4				
Max Q Clear Time (g_c+I1), s	12.3	48.2		30.2	13.7	51.7		27.4				
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		150.7
HCM 7th LOS		F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1242	1151	14	46	32
Future Vol, veh/h	11	1242	1151	14	46	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	515	-	-	275	275	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1350	1251	15	50	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1266	0	-	0	1950	626
Stage 1	-	-	-	-	1251	-
Stage 2	-	-	-	-	699	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	545	-	-	-	56	427
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	454	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	545	-	-	-	55	427
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	454	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	27.82
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	545	-	-	-	160	427
HCM Lane V/C Ratio	0.022	-	-	-	0.312	0.081
HCM Control Delay (s/veh)	11.8	-	-	-	37.3	14.2
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	1463	1231	47	31	20
Future Vol, veh/h	34	1463	1231	47	31	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	515	-	-	275	275	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1590	1338	51	34	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1389	0	-	0	2207	669
Stage 1	-	-	-	-	1338	-
Stage 2	-	-	-	-	869	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	489	-	-	-	38	400
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	371	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	489	-	-	-	35	400
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	371	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.29	0	31.27
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	489	-	-	-	130	400
HCM Lane V/C Ratio	0.076	-	-	-	0.259	0.054
HCM Control Delay (s/veh)	13	-	-	-	42.1	14.5
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1080	4	4	1050	4	4	0	7	5	0	3
Future Vol, veh/h	3	1080	4	4	1050	4	4	0	7	5	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1161	4	4	1129	4	4	0	8	5	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1133	0	0	1166	0	0	1743	2312	583	1727	2312	567
Stage 1	-	-	-	-	-	-	1170	1170	-	1140	1140	-
Stage 2	-	-	-	-	-	-	573	1142	-	587	1172	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	612	-	-	595	-	-	55	38	456	57	38	467
Stage 1	-	-	-	-	-	-	205	265	-	214	274	-
Stage 2	-	-	-	-	-	-	472	273	-	463	264	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	612	-	-	595	-	-	54	37	456	55	37	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	149	138	-	153	138	-
Stage 1	-	-	-	-	-	-	204	264	-	212	272	-
Stage 2	-	-	-	-	-	-	465	271	-	453	263	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.04	19.44	23.38
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	261	612	-	-	595	-	-	204
HCM Lane V/C Ratio	0.045	0.005	-	-	0.007	-	-	0.042
HCM Control Delay (s/veh)	19.4	10.9	-	-	11.1	-	-	23.4
HCM Lane LOS	C	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1229	4	4	1142	4	4	0	7	5	0	3
Future Vol, veh/h	3	1229	4	4	1142	4	4	0	7	5	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1322	4	4	1228	4	4	0	8	5	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1232	0	0	1326	0	0	1953	2571	663	1906	2571	616
Stage 1	-	-	-	-	-	-	1330	1330	-	1239	1239	-
Stage 2	-	-	-	-	-	-	623	1241	-	667	1332	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	561	-	-	517	-	-	38	26	404	42	26	433
Stage 1	-	-	-	-	-	-	163	222	-	186	246	-
Stage 2	-	-	-	-	-	-	441	245	-	414	222	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	561	-	-	517	-	-	38	25	404	40	25	433
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	116	-	131	116	-
Stage 1	-	-	-	-	-	-	162	221	-	184	244	-
Stage 2	-	-	-	-	-	-	434	243	-	404	220	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.04	22.47	26.37
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	218	561	-	-	517	-	-	177
HCM Lane V/C Ratio	0.054	0.006	-	-	0.008	-	-	0.049
HCM Control Delay (s/veh)	22.5	11.5	-	-	12	-	-	26.4
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1237	4	4	1166	4	4	0	7	5	0	3
Future Vol, veh/h	3	1237	4	4	1166	4	4	0	7	5	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1330	4	4	1254	4	4	0	8	5	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1258	0	0	1334	0	0	1974	2605	667	1936	2605	629
Stage 1	-	-	-	-	-	-	1339	1339	-	1265	1265	-
Stage 2	-	-	-	-	-	-	635	1267	-	672	1341	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	549	-	-	513	-	-	37	24	401	40	24	425
Stage 1	-	-	-	-	-	-	161	220	-	179	239	-
Stage 2	-	-	-	-	-	-	433	238	-	412	219	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	549	-	-	513	-	-	36	24	401	38	24	425
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	114	-	127	113	-
Stage 1	-	-	-	-	-	-	160	219	-	178	237	-
Stage 2	-	-	-	-	-	-	426	236	-	402	218	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.04	22.71	27.05
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	549	-	-	513	-	-	172
HCM Lane V/C Ratio	0.055	0.006	-	-	0.008	-	-	0.05
HCM Control Delay (s/veh)	22.7	11.6	-	-	12.1	-	-	27.1
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1294	14	15	1019	2	3	0	15	3	1	3
Future Vol, veh/h	4	1294	14	15	1019	2	3	0	15	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1407	15	16	1108	2	3	0	16	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1110	0	0	1422	0	0	2010	2565	711	1853	2572	555
Stage 1	-	-	-	-	-	-	1423	1423	-	1141	1141	-
Stage 2	-	-	-	-	-	-	587	1142	-	712	1430	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	625	-	-	475	-	-	35	26	376	46	25	475
Stage 1	-	-	-	-	-	-	143	200	-	213	274	-
Stage 2	-	-	-	-	-	-	463	273	-	389	198	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	625	-	-	475	-	-	33	25	376	42	24	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	114	-	136	109	-
Stage 1	-	-	-	-	-	-	142	199	-	206	264	-
Stage 2	-	-	-	-	-	-	442	264	-	370	197	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.19	19.6	25.1
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	266	625	-	-	475	-	-	187
HCM Lane V/C Ratio	0.074	0.007	-	-	0.034	-	-	0.041
HCM Control Delay (s/veh)	19.6	10.8	-	-	12.9	-	-	25.1
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1446	15	16	1214	2	3	0	16	3	1	3
Future Vol, veh/h	4	1446	15	16	1214	2	3	0	16	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1572	16	17	1320	2	3	0	17	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1322	0	0	1588	0	0	2284	2945	794	2150	2952	661
Stage 1	-	-	-	-	-	-	1589	1589	-	1355	1355	-
Stage 2	-	-	-	-	-	-	695	1357	-	795	1597	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	519	-	-	409	-	-	21	15	331	27	14	405
Stage 1	-	-	-	-	-	-	112	166	-	157	216	-
Stage 2	-	-	-	-	-	-	399	216	-	347	164	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	519	-	-	409	-	-	20	14	331	24	14	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	89	-	102	84	-
Stage 1	-	-	-	-	-	-	111	165	-	151	207	-
Stage 2	-	-	-	-	-	-	377	206	-	326	163	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.18	22.47	31.44
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	519	-	-	409	-	-	144
HCM Lane V/C Ratio	0.091	0.008	-	-	0.042	-	-	0.053
HCM Control Delay (s/veh)	22.5	12	-	-	14.2	-	-	31.4
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1470	15	16	1230	2	3	0	16	3	1	3
Future Vol, veh/h	4	1470	15	16	1230	2	3	0	16	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1598	16	17	1337	2	3	0	17	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1339	0	0	1614	0	0	2318	2989	807	2180	2996	670
Stage 1	-	-	-	-	-	-	1615	1615	-	1373	1373	-
Stage 2	-	-	-	-	-	-	704	1374	-	808	1623	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	511	-	-	400	-	-	20	14	324	26	13	400
Stage 1	-	-	-	-	-	-	108	161	-	153	212	-
Stage 2	-	-	-	-	-	-	394	211	-	341	160	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	511	-	-	400	-	-	19	13	324	23	13	400
Mov Cap-2 Maneuver	-	-	-	-	-	-	82	86	-	99	81	-
Stage 1	-	-	-	-	-	-	107	160	-	147	203	-
Stage 2	-	-	-	-	-	-	372	202	-	320	158	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.18	22.99	32.18
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	221	511	-	-	400	-	-	140
HCM Lane V/C Ratio	0.094	0.009	-	-	0.043	-	-	0.054
HCM Control Delay (s/veh)	23	12.1	-	-	14.4	-	-	32.2
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	7	2	10	29	35
Future Vol, veh/h	11	7	2	10	29	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	8	2	11	32	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	13	0	-	0	34	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1605	-	-	-	980	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	991	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1605	-	-	-	972	1082
Mov Cap-2 Maneuver	-	-	-	-	972	-
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	991	-

Approach	EB	WB	SB
HCM Control Delay, s/v	4.44	0	8.75
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1605	-	-	-	1029
HCM Lane V/C Ratio	0.007	-	-	-	0.068
HCM Control Delay (s/veh)	7.3	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	4	7	30	19	23
Future Vol, veh/h	36	4	7	30	19	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	4	8	33	21	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	40	0	-	0	90	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1569	-	-	-	910	1075
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1569	-	-	-	888	1075
Mov Cap-2 Maneuver	-	-	-	-	888	-
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s/v	6.62	0	8.85
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1569	-	-	-	981
HCM Lane V/C Ratio	0.025	-	-	-	0.047
HCM Control Delay (s/veh)	7.4	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	0	7	9	0	23
Future Vol, veh/h	27	0	7	9	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	275	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	0	8	10	0	25

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	33	8	0	0	-	-
Stage 1	8	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	981	1075	-	-	0	-
Stage 1	1015	-	-	-	0	-
Stage 2	998	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	981	1075	-	-	-	-
Mov Cap-2 Maneuver	981	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	998	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.78	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	981	-
HCM Lane V/C Ratio	-	-	0.03	-
HCM Control Delay (s/veh)	-	-	8.8	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	0	0	28	0	0
Future Vol, veh/h	18	0	0	28	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	275	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	0	0	30	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	-	-
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	1022	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	1022	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v		0	0
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s/veh)	-	-	-	-
HCM Lane LOS	-	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	2	14	11	7	43
Future Vol, veh/h	35	2	14	11	7	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	2	15	12	8	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	83	21	0	0	27	0
Stage 1	21	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	919	1056	-	-	1587	-
Stage 1	1001	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	914	1056	-	-	1587	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.07	0	1.02
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	914	1056	252	-
HCM Lane V/C Ratio	-	-	0.042	0.002	0.005	-
HCM Control Delay (s/veh)	-	-	9.1	8.4	7.3	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	7	45	36	4	28
Future Vol, veh/h	23	7	45	36	4	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	8	49	39	4	30

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	108	68	0	0	88	0
Stage 1	68	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	890	995	-	-	1508	-
Stage 1	954	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	887	995	-	-	1508	-
Mov Cap-2 Maneuver	887	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	980	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.05	0	0.92
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	887	995	225	-
HCM Lane V/C Ratio	-	-	0.028	0.008	0.003	-
HCM Control Delay (s/veh)	-	-	9.2	8.6	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Appendix N
HCM Analysis Worksheets-Improved

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Future Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1102	79	131	984	204	152	283	0	372	385	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	97	1294	554	165	1260	558	202	396		489	491	
Arrive On Green	0.05	0.36	0.36	0.05	0.36	0.36	0.11	0.11	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	93	1102	79	131	984	204	152	283	0	372	385	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	5.5	30.0	3.7	3.9	26.1	10.2	8.7	8.2	0.0	10.9	11.3	0.0
Cycle Q Clear(g_c), s	5.5	30.0	3.7	3.9	26.1	10.2	8.7	8.2	0.0	10.9	11.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1294	554	165	1260	558	202	396		489	491	
V/C Ratio(X)	0.96	0.85	0.14	0.80	0.78	0.37	0.75	0.71		0.76	0.78	
Avail Cap(c_a), veh/h	97	1294	554	165	1260	558	305	600		592	595	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.5	30.8	22.4	49.5	30.1	24.9	45.1	44.9	0.0	43.3	43.5	0.0
Incr Delay (d2), s/veh	78.8	7.2	0.5	23.2	4.9	1.9	5.6	2.4	0.0	4.7	5.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	18.8	2.3	3.9	16.3	6.7	7.2	6.4	0.0	8.4	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	128.4	38.0	22.9	72.7	34.9	26.8	50.7	47.3	0.0	48.0	49.1	0.0
LnGrp LOS	F	D	C	E	C	C	D	D		D	D	
Approach Vol, veh/h		1274			1319			435			757	
Approach Delay, s/veh		43.6			37.4			48.5			48.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	45.8		20.7	13.3	46.5		24.5				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	5.7	28.3		18.0	5.0	29.0		18.0				
Max Q Clear Time (g_c+I1), s	7.5	28.1		10.7	5.9	32.0		13.3				
Green Ext Time (p_c), s	0.0	0.1		1.2	0.0	0.0		1.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	43.0
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1082	109	124	946	281	145	272	118	353	375	80
Future Volume (veh/h)	88	1082	109	124	946	281	145	272	118	353	375	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1139	82	131	996	204	153	286	0	372	395	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	97	1283	550	165	1250	553	203	398		498	499	
Arrive On Green	0.05	0.36	0.36	0.05	0.35	0.35	0.11	0.11	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	93	1139	82	131	996	204	153	286	0	372	395	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	5.5	31.6	3.8	3.9	26.7	10.2	8.7	8.3	0.0	10.8	11.5	0.0
Cycle Q Clear(g_c), s	5.5	31.6	3.8	3.9	26.7	10.2	8.7	8.3	0.0	10.8	11.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1283	550	165	1250	553	203	398		498	499	
V/C Ratio(X)	0.96	0.89	0.15	0.80	0.80	0.37	0.75	0.72		0.75	0.79	
Avail Cap(c_a), veh/h	97	1283	550	165	1250	553	305	600		592	595	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.5	31.5	22.6	49.5	30.5	25.2	45.1	44.9	0.0	43.1	43.4	0.0
Incr Delay (d2), s/veh	78.8	9.3	0.6	23.2	5.3	1.9	5.6	2.4	0.0	4.3	6.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	20.0	2.4	3.9	16.7	6.8	7.3	6.5	0.0	8.3	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	128.4	40.9	23.2	72.7	35.8	27.1	50.7	47.3	0.0	47.4	49.5	0.0
LnGrp LOS	F	D	C	E	D	C	D	D		D	D	
Approach Vol, veh/h		1314			1331			439			767	
Approach Delay, s/veh		46.0			38.1			48.5			48.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	45.5		20.8	13.3	46.2		24.7				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	5.7	28.3		18.0	5.0	29.0		18.0				
Max Q Clear Time (g_c+I1), s	7.5	28.7		10.7	5.9	33.6		13.5				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	0.0		1.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	44.0
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Future Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1247	114	256	1080	369	123	330	0	394	448	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	140	1354	580	276	1348	597	206	404		496	498	
Arrive On Green	0.08	0.38	0.38	0.08	0.38	0.38	0.12	0.12	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	123	1247	114	256	1080	369	123	330	0	394	448	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	8.5	41.8	6.3	9.2	34.1	23.9	8.2	11.5	0.0	13.8	15.9	0.0
Cycle Q Clear(g_c), s	8.5	41.8	6.3	9.2	34.1	23.9	8.2	11.5	0.0	13.8	15.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1354	580	276	1348	597	206	404		496	498	
V/C Ratio(X)	0.88	0.92	0.20	0.93	0.80	0.62	0.60	0.82		0.79	0.90	
Avail Cap(c_a), veh/h	140	1354	580	276	1348	597	257	504		498	500	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	36.9	25.9	57.1	34.4	31.2	52.5	54.0	0.0	51.8	52.6	0.0
Incr Delay (d2), s/veh	43.0	11.7	0.8	35.1	5.1	4.8	2.8	8.3	0.0	8.6	19.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.2	26.1	4.1	9.0	20.8	14.2	6.7	9.2	0.0	10.6	12.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	100.0	48.6	26.7	92.2	39.4	36.0	55.3	62.2	0.0	60.4	71.8	0.0
LnGrp LOS	F	D	C	F	D	D	E	E		E	E	
Approach Vol, veh/h		1484			1705			453			842	
Approach Delay, s/veh		51.2			46.6			60.3			66.5	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	56.1		23.3	18.3	55.9		27.5				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	9.8	44.2		18.0	10.0	44.0		18.0				
Max Q Clear Time (g_c+I1), s	10.5	36.1		13.5	11.2	43.8		17.9				
Green Ext Time (p_c), s	0.0	4.7		0.9	0.0	0.1		0.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	53.2
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Future Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1271	116	256	1119	369	127	339	0	394	454	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	140	1352	579	268	1338	592	210	413		498	500	
Arrive On Green	0.08	0.38	0.38	0.08	0.38	0.38	0.12	0.12	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	123	1271	116	256	1119	369	127	339	0	394	454	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	8.5	43.1	6.4	9.2	36.1	24.0	8.5	11.8	0.0	13.8	16.1	0.0
Cycle Q Clear(g_c), s	8.5	43.1	6.4	9.2	36.1	24.0	8.5	11.8	0.0	13.8	16.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1352	579	268	1338	592	210	413		498	500	
V/C Ratio(X)	0.88	0.94	0.20	0.95	0.84	0.62	0.60	0.82		0.79	0.91	
Avail Cap(c_a), veh/h	140	1352	579	268	1338	592	257	504		498	500	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	37.4	26.0	57.4	35.2	31.5	52.4	53.8	0.0	51.7	52.7	0.0
Incr Delay (d2), s/veh	43.0	13.8	0.8	42.5	6.3	4.9	2.8	8.8	0.0	8.5	20.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.2	27.2	4.2	9.3	22.0	14.3	7.0	9.5	0.0	10.5	13.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	100.0	51.2	26.7	100.0	41.6	36.4	55.1	62.7	0.0	60.2	73.2	0.0
LnGrp LOS	F	D	C	F	D	D	E	E		E	E	
Approach Vol, veh/h		1510			1744			466			848	
Approach Delay, s/veh		53.3			49.0			60.6			67.2	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	55.8		23.5	18.0	55.9		27.6				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	9.8	44.2		18.0	9.7	44.3		18.0				
Max Q Clear Time (g_c+I1), s	10.5	38.1		13.8	11.2	45.1		18.1				
Green Ext Time (p_c), s	0.0	3.9		0.9	0.0	0.0		0.0				

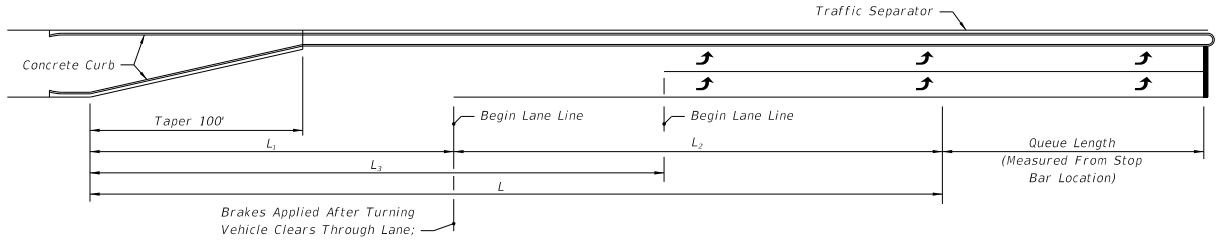
Intersection Summary	
HCM 7th Control Delay, s/veh	55.0
HCM 7th LOS	D

Notes

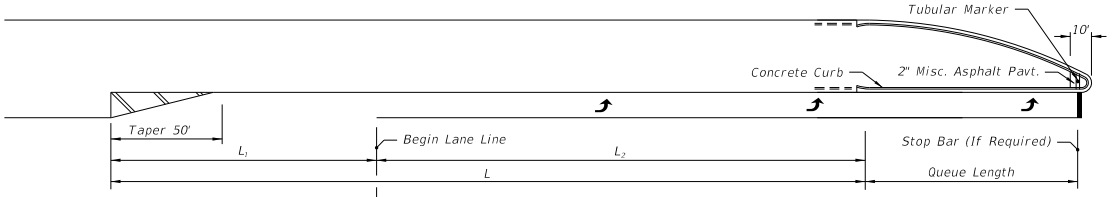
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Appendix O
FDM Exhibit 212-1

MEDIAN TURN LANES
MINIMUM DECELERATION LENGTHS



DOUBLE LEFT TURN



SINGLE LEFT TURN

MEDIAN TURN LANES					
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L_1 (ft.)	Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)
25	15	70	25	95	90
30	20	70	50	120	100
35	25	70	75	145	110
40	30	80	75	155	120
45	35	85	100	185	135
50	44	105	185	290	160
55	48	125	225	350	195
60	52	145	260	405	230
65	55	170	290	460	270
70	58	200	325	525	300

NOTE:

1) For C3 Context Classification roadways with Design Speeds of 50 mph, the following values may be used under constrained conditions:
   - Entry Speed of 40 mph
   - Brake to stop distance (L_2) of 135 ft.
   - Total deceleration distance (L) of 240 ft.

2) For RRR Projects with Design Speeds of 50 mph and Entry Speeds of 40 mph, existing brake to stop distances (L_2) of 135 ft. and total deceleration distances (L) of 240 ft. may be retained.

NOT TO SCALE

EXHIBIT 212-1
01/01/2024

Appendix P
Volusia County Land Development Code Turn Lane Guidelines

Major DW	355	365	370	385
Signalized, 4 lanes or more	370	380	385	1320*

DW = Driveway

Minor DW = Maximum ADT of 500 or a maximum peak hour volume of 50

Intermediate DW = Maximum ADT of 1,500 or maximum peak hour volume of 150

Major DW = Maximum ADT of 5,000 or maximum peak hour volume of 500

*Desirable spacing.

Driveway centerline spacing may be increased if the required turn lane storage or transition is increased by any governmental agency. Minimum driveway centerline spacing may be decreased if one-way driveways are utilized and accepted by the DRC.

(4) *Special driveway requirements.* In the case of a land use with special driveway needs, an applicant may submit a traffic engineering study requesting deviations from the requirements of this section. If deviations from driveway requirements are permitted, substitute requirements which deviate no more than necessary to serve the special land use needs may be applied to the development in order to minimize the impact on the adjacent street.

(5) *Turn lanes requirements.*

a. *Turn lane requirements immediately adjacent to the development.*

1. A left-turn lane of 12 feet in width, conforming to Table VI, shall be provided at each driveway when the average daily trip ends of the driveway is 1,000 vehicles or more and/or the average peak hour inbound left-turn volume is 25 vehicles or more. Increased queue lengths (waiting vehicle storage) may be required by the CTE to provide for additional storage, based upon a peak hour entering volume greater than 75 vehicles in the peak hour. No queue length is required if the peak hour entering volume is 75 vehicles in the peak hour or less.
2. A right-turn lane of 12 feet in width, conforming to Table VI shall be provided at each driveway when the speed limit equals or exceeds 35 miles per hour or if the development will generate 100 or more right-turn movements during the peak hour. Increased storage and transition queue lengths (waiting vehicle storage) may be

required by the CTE to provide for additional storage, based upon a peak hour entering volume greater than 150 vehicles in the peak hour. No queue length is required if the peak hour entering volume is 150 vehicles in the peak hour or less.

b. *Additional improvements immediately adjacent to the development.* At intersections, with a thoroughfare which abut the development, the following improvements shall be provided:

1. A right-turn lane of 12 feet in width, conforming to subsection (e)(5) and Table VI, shall be provided if the development will generate 100 or more right turns during the peak hour.
2. A left-turn lane of 12 feet in width conforming to subsection (e)(5) and Table VI, shall be provided if the street's speed limit is 35 miles per hour or greater and if the development will generate 25 or more left turns during the peak hour.

c. *Through lane pavement transition tapers.* A through lane pavement transition taper shall be provided on all streets and roadways where the through lane is offset to provide for right turn lanes, left turn lanes, lane width changes and an increase or reduction in the number of through lanes. The through lane pavement transition taper length shall be based upon FDOT Standard Index #526 and 17346, and calculated using the following formulas:

For design speeds less than or equal to 40 m.p.h. use:

$$L = \frac{WS^2}{60}$$

For design speeds greater than or equal to 45 m.p.h. use:

L	=	WS
L	=	the pavement transition taper length in feet.
W	=	the width of the through lane lateral transition in feet (offset).

TABLE VI. TURN LANE DIMENSIONAL REQUIREMENTS

EXPAND

Speed Limit (mph)	Urban Section Deceleration Length (feet)*	Rural Section Deceleration Length (feet)*
30	145	145
35	155	155
40	185	185
45	240	320
50	N/A**	385
55	N/A**	455

Appendix Q
VOTRAN Bus Route Information

We drive a great bargain

Votran



English/Español January 2024

For DeLand, Deltona, Orange City, and DeBary

WEST VOLUSIA COUNTY

Area Bus Service Guide



VO to GO

Text VO and your bus stop ID to 321123 to receive a real-time update of the next bus to arrive at your stop.

Download the free myStop app

my

myStop brings rider information to your mobile devices. Plan trips, track buses in real time or setup rider alerts to receive up-to-date notifications about possible delays, detours or schedule changes to each route.

How to contact us

Votran, 950 Big Tree Road, South Daytona, FL 32119

Telephone **386-756-7496** Fax **386-756-7487**

website **www.votran.org**

FOR INFORMATION:

Greater Daytona Beach Area **386-761-7700**
West Volusia **386-943-7033**

Buses displaying "Out of Service" do not stop for passengers.

Votran
We drive a great bargain
A service of Volusia County Government

Welcome



Thank you for choosing Votran, a service of Volusia County Government. Votran is a safe, affordable and convenient option. We hope you'll continue to ride Votran every day...to work, to school, to shop, and to play.

How to use the bus map and timetables

System map

Find your street or the street nearest to you on the map. Note the name, number and color of the route nearest you. Bus departure times can be found on the timetable for this route.

Find your destination on the map. Look for the nearest bus route to this location. If this route is different from the first route you have selected, look at the second timetable and map and check where a transfer may be made. Most transfers are made at **Market Place, Providence/Fort Smith Boulevards and Amelia SuperStop at Northgate Plaza.**

> "Votran's mission is to identify and safely meet the mobility needs of Volusia County. This mission will be accomplished through a courteous, dependable and environmentally-sound team committment to quality service."

Timetable

Check the timetable on the schedule under your route number and look for the time point (cross streets) closest to where you would like to board the bus. Follow the column down the timetable and find a departure time convenient for your trip. Read across the line to the time point closest to your destination transfer point to find your arrival time.

If your boarding or destination point is between two timepoints, the bus will arrive at your destination at a time between the time the bus passes the first timepoint and arrives at the second timepoint. If your trip appears difficult to plan or you have questions, please call **386-943-7033** for assistance. We will help you plan your trip.

Fares - exact fare only

(Subject to change without notice)

Votran does not issue transfers. We recommend that you purchase an all day pass.

ADULT	**$1.75**
SENIOR CITIZENS (65 OR OLDER)	**$0.85**
DISABLED	**$0.85**
YOUTHS (AGES 7-18)	**$0.85**
CHILDREN (under age 7)	**FREE**

Children must be accompanied by a fare-paying adult passenger. Limited to three children.

Passengers must show valid proof of status when paying a reduced fare or showing a reduced fare pass.

SENIOR CITIZENS (65 AND OLDER):
Government ID or license, U.S. Medicare card (red, white and blue), passport, etc.

DISABLED:
Valid agency ID: Conklin Center, ACT, WORC, Medicare card (red, white and blue), passport, (Not Medicaid Gold Card) or Votran ID card indicating "disabled."

YOUTH (AGES 7-18):
Government ID or license showing valid proof of age, school ID (not college ID)

SAVE MONEY WITH VALUE PASSES

Value passes offer convenience and cost-savings for frequent riders. There are multiple options to suit your travel need.

1-DAY PASS	**$3.75**
3-DAY PASS	**$7.50**
7-DAY PASS	**$13.00**
31-DAY PASS	**$46.00**

SENIOR CITIZENS/DISABLED/YOUTH

1-DAY PASS	**$1.85**
3-DAY PASS	**$3.75**
7-DAY PASS	**$6.50**
31-DAY PASS	**$23.00**

- Passes offer unlimited rides for the duration of the pass.
- Fares can be paid with cash, tokens or passes.
- One-day passes are available on-board all fixed route buses.
- Other value passes are available for purchase at the following locations:

VOTRAN OFFICE:	Weekdays, 8:00 a.m. – 5:00 p.m.
TRANSFER PLAZA:	Monday – Saturday, 7:30 a.m. – 5:00 p.m.
DELTONA REGIONAL PUBLIC LIBRARY:	2150 Eustace Ave, Deltona Call (386) 289-7207 Cash only.
HISTORIC COURTHOUSE	Treasury and Billing Office 125 W. New York Ave, Room 120 DeLand, FL 32720 Monday – Friday, 8:00 a.m. – 4:30 p.m.

Purchase Fare Passes online at votran.org.

Travel tips

1. **EXACT FARE**
When boarding always have exact change ready with proper ID card. Operators are not allowed to make change, handle or deposit fares.

2. **REDUCED FARE**
If you qualify for reduced fares, have your U.S. Medicare, proof of age or Votran ID card ready.

3. **SMOKING, EATING AND DRINKING**
Extinguish your cigarettes and finish your food and soft drink before boarding. All are prohibited. This includes electronic smoking devices.

4. **GETTING ON BUS**
When you have arrived at the street location where you need to catch the bus, stand near a designated stop or where there is no sign, stand at the far side of the intersection, not the near side. The bus will not stop in midblock. Watch for your bus to determine the correct route number before signaling the operator to stop. Signal the bus operator by raising your hand.

5. **GETTING OFF BUS**
When you get within a block of your destination, signal the operator to stop by pushing the yellow strip next to the window or by pulling the cord. Stay seated until the bus comes to a complete stop, then move to the rear of the bus to exit. Wait until the green light above the door signals you to push the vertical bars.

6. **PET CARRIERS ON BUS**
Small dogs or cats may ride Votran provided they are in a pet carrier. Pet carriers will need to fit between the riders feet or in the riders lap. Pet carriers may not block the aisle nor be placed in a seat. Small dogs that exhibit excessive barking or aggression will be asked to leave the bus.

7. **BAGGAGE AND STROLLERS**
You may carry on items that can be safely stowed on board once you are seated. Due to safety regulations Votran is unable to permit items such as bicycles, surf boards, or any article that will block the aisles. Bike racks are provided on the exterior of all buses. Strollers must be folded prior to boarding the bus.

8. **NO SHOES, NO SHIRT, NO SERVICE!**

9. **HOLIDAYS**
Votran routes operate on a limited schedule for New Years Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day. Log into our website at **www.votran.org** for more details.

10. **HAVE A COMMENT, MISUNDERSTANDING OR COMMENDATION?**
Should you wish to make a comment, outline a misunderstanding or commendation of an employee, please contact our office at **386-943-7033**. Please note the bus route, bus number, time of day and location involved in the matter. You also may describe it in writing and mail it to Votran, 950 Big Tree Rd., South Daytona, FL 32119, or report it through our website **www.votran.org**.

11. **UNFORSEEN EVENTS WILL DELAY BUSES.**

SCHEDULE IS SUBJECT TO CHANGE WITHOUT NOTICE

Points of interest served by Votran

Point of Interest	See Map	Grid Ref	Votran Routes
ATTRACTION/RECREATION			
Dupont Lakes	West Volusia	I6	21, 22
GOVERNMENT/SOCIAL SERVICE			
DeLand City Hall/Government Center	West Volusia	E3	20, VoRide
Deltona City Hall	West Volusia	I6	21, 22, 23
Deltona Library	West Volusia	I5	21, 22, 23
DeBary City Hall	West Volusia	K3	20, 23, 31, 33
Methodist Children's Home	West Volusia	K4	21, 22
Orange City City Hall	West Volusia	H3	20, 31
Thomas C. Kelly County Admin Center	West Volusia	E3	20, 31, VoRide
HOSPITALS/MEDICAL CENTERS			
AdventHealth - DeLand	West Volusia	D2	20, VoRide
AdventHealth - Orange City	West Volusia	I3	23, 33
Ambulatory Surgical Ctr of Central FL	West Volusia	E2	20, VoRide
Deltona Healthcare Rehab Cntr	West Volusia	I6	21, 22
V.A. Clinic Deltona	West Volusia	J4	21, 22
V.C. Health Department	West Volusia	I3	23, 33
SCHOOLS/COLLEGES/UNIVERSITIES			
BCU - Deltona Campus	West Volusia	J5	23, 33
DeLand Middle School	West Volusia	F3	20, 31, VoRide
DeLand High School	West Volusia	E3	VoRide
Daytona State College - DeLand	West Volusia	F5	VoRide
Daytona State College - Deltona	West Volusia	I6	21, 22, 23
Deltona Christian School	West Volusia	K5	21, 22
Deltona Middle School	West Volusia	K4	21, 22
Discovery Elementary School	West Volusia	J4	21, 22
Friendship Elementary School	West Volusia	I7	21, 22
Galaxy Middle School	West Volusia	I5	21, 22
Heritage Middle School	West Volusia	J7	21, 22
Orange City Elementary School	West Volusia	H3	20, 31
Pine Ridge High School	West Volusia	J7	21, 22
Southwestern Middle School	West Volusia	F2	20, 31, VoRide
Spirit Elementary School	West Volusia	J5	23, 33
Starke Elementary School	West Volusia	F3	20, 31, VoRide
Stetson University	West Volusia	E3	20, 31, VoRide
Sunrise Elementary School	West Volusia	K7	21, 22
Timbercrest Elementary School	West Volusia	I5	21, 22
SHOPPING CENTERS			
Breezewood Plaza	West Volusia	I3	20, 31
Country Club Corners - Publix	West Volusia	G3	20, 31, VoRide
Crowne Centre Plaza	West Volusia	J3	20, 21, 22, 23, 33
DeBary Commons Shopping Ctr	West Volusia	J3	20, 23, 31, 33
DeLand Plaza	West Volusia	E3	20, VoRide
Deltona Plaza	West Volusia	J4	21, 22
Dogwood Plaza	West Volusia	I3	20, 31
Dupont Lakes Shopping Center	West Volusia	I7	21, 22, 23
Four Townes Shopping Center	West Volusia	I3	20, 31
Marketplace Shopping Center	West Volusia	J3	20, 21, 22, 23, 33
Northgate Shopping Center	West Volusia	D3	20, 31, 60, VoRide
Oakbrook Professional Center	West Volusia	E2	20, VoRide
Orange City Plaza	West Volusia	I3	20, 31
Saxon Plaza Shopping Center	West Volusia	J4	23, 33
Three Seasons Plaza	West Volusia	I3	20, 31
Village Marketplace	West Volusia	I3	20
Walmart - DeLand	West Volusia	D3	20, VoRide
Walmart - Osteen	West Volusia	K7	21, 22
Walmart - South DeLand	West Volusia	F3	20, 31, VoRide
West Volusia Shopping Center	West Volusia	G3	20, 31
Whispering Pines Plaza	West Volusia	I3	20, 31
Woodland Plaza	West Volusia	F3	20, 31, VoRide
TRANSPORTATION			
Amelia SuperStop	West Volusia	D3	20, 31, 60, VoRide
DeLand Municipal Airport	West Volusia	D3	60
Market Place Transfer Center	West Volusia	J3	20, 21, 22, 23, 33
DeLand Intermodal Transfer Facility	West Volusia	E3	20, 31, VoRide
Saxon Park and Ride	West Volusia	J4	23, 33
SunRail - Debary	West Volusia	F5	31, 33
DeLand Amtrak	West Volusia	E1	VoRide

Other services

PERSONS WITH DISABILITIES
All regular fixed buses are equipped for wheelchair accessibility. Votran's Gold service provides door-to-door transportation to persons unable to use the regular fixed bus service. Transportation is provided daily between 6 a.m. – 6 p.m. with a charge of **$3.00** per trip. Applications for Gold service can be obtained from **votran.org** or by request by calling **386-322-5100**. All applicants must be certified by their doctors.

Greater Daytona Beach Area **386-761-7700**
West Volusia **386-943-7033**

COMMUTER ASSISTANCE SERVICES
If bus services are unable to meet your needs, please consider car or van pooling to reach your destination. Votran offers a variety of commuter assistance services to persons who travel to work within Volusia County or to neighboring areas. To learn more please visit our web site or reach us toll-free at **866-610-RIDE**.

BIKES STOW AND GO
All Votran fixed route buses are equipped with bicycle racks that accommodate up to two bicycles. Racks are available on a first-come, first-served basis, so be prepared to secure your bicycle if the positions are full.

LOST AND FOUND
If you've lost something on the bus, please call **386-756-7496** between 8 a.m. – 5 p.m., Monday – Friday.

Bienvenidos



Muchas gracias por elegir Votran, un servicio del Gobierno del Condado de Volusia. Votran es la opción de transporte segura, al alcance y más conveniente. Esperamos continúe usted viajando con Votran todos los días...al trabajo, la escuela, las tiendas, y a jugar.

Como usar el Horario y el Mapa de las rutas Votran

El Mapa Del Sistema Votran

Encuentre la calle donde usted está ubicado o la calle más cerca de usted en el mapa. Fíjese en el nombre, el número, y el color de la ruta más cerca. La hora de salida del autobús se puede ver en el horario de esta ruta.

Encuentre la localización del lugar adonde usted quiere ir en el mapa. Busque la ruta del autobús más cerca a esta localidad. Si esta ruta es diferente a la primera ruta que usted escogió, mire a la segunda ruta y su horario y busque en donde usted puede hacer un transbordo. El transbordo se puede hacer en **'Market Place', 'Providence/Fort Smith' bulevares y Amelia Super Stop en Northgate Plaza.**

> "La misión de Votran es identificar y satisfacer las necesidades de mobilidad en forma segura por el condado de Volusia. Esta misión se logrará a través de un cortés, confiable y un equipo ecológico compromiso a servicio de calidad."

Horario

Revíse la parte que indica el horario del autobús debajo del número de la ruta que usted ha determinado como la mejor para su viaje, y busque la calle o el punto de embarcar que está más cerca a donde usted quiere tomar el autobús. Siga la columna a través del horario hasta que usted encuentre una hora de salida conveniente para su viaje. Lea hacía abajo de esta linea hasta la hora y lugar más cerca de donde usted quiere ir para estimar su hora de llegada.

Si su calle o punto de embarcar o desembarcar el autobús está en el medio de dos paradas, usted puede calcular su llegada con la hora de llegada de la parada antes y de la parada después de la suya. Su autobús llegará a una hora entre estos dos horarios. Si su viaje le parece difícil de planear, o si usted tiene preguntas o necesita ayuda, por favor de llamar este número, **386-943-7033.**

Tarifa - Exacta Solamente

(Conforme a cambio sin aviso)

Votran no emite traslados. Le recomendamos que compre un pase de día entero.

ADULTOS	**$1.75**
CIUDADANOS MAYORES (DE 65 AÑOS)	**$0.85**
PERSONAS INCAPACITADAS	**$0.85**
JOVENES (ENTRE LAS EDADES DE 7 A 18 AÑOS)	**$0.85**
NIÑOS (menores de 7 años de edad)	**GRATIS**

Todo niño debe de ser acompañado por un pasajero adulto con tarifa pagada. Limitado a tres (3) niños.

Todo pasajero debe de mostrar la prueba válida de su estado personal al pagar el precio reducido del pase, o demostrar su pase reducido.

CIUDADANOS JUBILADOS (DESDE 65 AÑOS Y MÁS DE EDAD):
Identificación del gobierno o licencia, tarjeta de Medicare de los EEUU. (rojo, blanco y azul), pasaporte, etc.

INCAPACITADOS:
Identificación valida de la agencia emisora: Conklin Center, ACT, WORC, Tarjeta de Medicare (rojo, blanco y azul), pasaporte, (No se acepta la tarjeta de oro de Medicaid) o tarjeta de identificación de Votran indicando la palabra "disabled."

JÓVENES (DESDE LAS EDADES DE 7 A 18 AÑOS):
Identificación del gobierno o licencia que demuestra la prueba válida de la edad, identificación escolar (no se acepta tarjeta de identificación universitaria).

AHORE SU DINERO COMPRANDO LOS PASES DE TRANSPORTACIÓN

Los pasos del valor ofrecen la conveniencia y los coste-ahorros para los jinetes frecuentes. Hay opciones múltiples para satisfacer su necesidad del recorrido.

PASE DE UN DÍA	**$3.75**
PASE DE 3 DÍAS	**$7.50**
PASE DE 7 DÍAS	**$13.00**
PASE DE 31 DÍA	**$46.00**

PERSONAS JUBILADAS/INCAPACITADOS/JÓVENES

PASE DE UN DÍA	**$1.85**
PASE DE 3 DÍAS	**$3.75**
PASE DE 7 DÍAS	**$6.50**
PASE DE 31 DÍA	**$23.00**

- Los pases ofrecen paseos ilimitados para la duración del paseo.
- Las tarifas se pueden pagar con dinero en efectivo, fichas, o pases.
- Pases de un día están disponibles a bordo todos los autobuses con rutas fijas.
- Otros pases están disponibles para la venta en las siguientes localizaciones:

OFICINA DE VOTRAN:	días laborales, 8:00 a.m. – 5:00 p.m.
PLAZA DE TRANSFERENCIA:	lunes a sábado, 7:30 a.m. – 5:00 p.m.
DELTONA REGIONAL PUBLIC LIBRARY (BIBLIOTECA REGIONAL):	2150 Eustace Ave, Deltona Llame al (386) 289-7207 Únicamente efectivo.
HISTORIC COURTHOUSE	Treasury and Billing Office 125 W. New York Ave, Room 120 DeLand, FL 32720 lunes a viernes, 8:00 a.m. – 5:00 p.m.

Compra de una tarifa pasa en línea en votran.org.

Lo que necesita para el recorrido

1. **TARIFA EXACTA**
Al abordar siempre tenga listo el cambio exacto con la tarjeta apropiada de identificación. No se permite a los operadores a hacer cambio, manejar o depositar el dinero.

2. **PRECIOS REDUCIDOS**
Si usted califica a recibir precios reducidos, tenga listo su tarjeta de Medicare de los EEUU, prueba de su edad, o tarjeta de identificación de Votran.

3. **EL FUMAR, COMER, Y CONSUMIR BEBIDA**
Extinga sus cigarrillos y acabe de alimentarse con comida y refrescos antes de subir. Se prohíben todos. Esto incluye dispositivos electronicós fumadores.

4. **SUBIRSE EN EL AUTOBUS**
Cuando usted ha llegado a la localización en la calle donde usted necesita tomar el autobús, debe de pararse cerca de una parada designada o donde no hay una señal, debe de pararse a los mas lejano de la intersección, no al lado cercano. El autobús no se parará en medio bloque de la calle. Asómese a su autobús para determinar el número correcto de la ruta antes que le señale al operador que se pare. Señale al operador del autobús levantando su mano.

5. **BAJAR DEL AUTOBUS**
Cuando usted ya llegue dentro un bloque de su destinación, señale al operador para que se pare oprimiendo la tira amarilla al lado de la ventana o jalando la cuerda. Permanezca sentado hasta que el autobús se pare completamente. Después muévase a la parte trasera del autobús para salir. Espere hasta que la luz verde sobre la puerta le señale que empuje las barras verticales.

6. **PORTADORES DE MASCOTAS EN EL AUTOBUS**
Perros o gatos pequeños pueden montar Votran siempre que estén en unportador de mascotas. Los portadores deben caber entre sus pies orencima de sus piernas. Los portadores no pueden bloquear el pasillo oser colocados en un asiento. Los perros pequeños que exhiben excesivosladridos o agresión se les pedirá que bajen el autobús.

7. **MALETAS Y COCHES**
Usted puede cargar adentro artículos que se puedan guardar con seguridad a bordo una vez que esté sentado. Debido a las normas de seguridad, Votran no puede permitir artículos tales como bicicletas, tablas de surfear, o cualquier artículo que bloquee los pasillos. Los estantes de bicicletas se proveen en el exterior de todos los autobuses. Cochecitos debe doblarse antes de abordar el autobus.

8. **¡NO ZAPATOS, NO CAMISA, NO SERVICIO!**

9. **DIAS FERIADOS**
Las Rutas de Votran operan en un horario limitado para el Día de Año Nuevo, Memorial Day, el 4 de julio, Labor Day, Thanksgiving Day y el Dia de Navidad. Inicie sesión en nuestro sitio web en **www.votran.org** para más detalles.

10. **¿TIENE ALGUN COMENTARIO, UN MALENTENDIDO, O UNA RECOMENDACION?**
Si usted desea hacer un comentario, dar un resumen sobre un malentendido o elogiar un empleado, por favor comuníquese con nuestra oficina llamando al **386-943-7033**. Favor de anotar la ruta del autobús, número del autobús, la hora del día y la localización implicada en el caso. Usted también puede describir en detalle por escrito y enviarlo por correo postal a Votran, 950 Big Tree Rd., South Daytona, FL 32119, informe a través de nuestro sitio web **www.votran.org**.

11. **EVENTOS IMPREVISTOS RETRASARAN LOS AUTOBUSES**

ESTE HORARIO PUEDE CAMBIAR SIN AVISO

WEST VOLUSIA BUS SERVICE

- All times shown in **bold** are p.m. trips.
- All trips shown in ▭ do not operate on Saturdays.
- All trips shown in ▭ operate on Saturdays only.

Schedule is subject to change without notice

20 DeLand/Orange City

MON-SAT: ***Northbound from Market Place to Deland***

Charles Beall/ Angeles	Market Place *(Arrive)*	Market Place *(Depart)*	Volusia/ Rhode Island	Volusia/ French	Woodland/ Orange Camp	DeLand ITF Gate 2	Thomas C. Kelly County Adm.Ctr	AdventHealth DeLand	Int'l Speedway/ S.R. 15-A	Amelia SuperStop
-:-	-:-	-:-	5:45	5:49	5:55	6:03	-:-	-:-	-:-	6:13
-:-	-:-	6:16	6:24	6:29	6:37	6:47	6:52	6:59	7:04	7:10
-:-	-:-	-:-	6:38	6:43	6:50	-:-	-:-	-:-	-:-	7:10
-:-	-:-	7:25	7:31	7:36	7:42	7:53	8:00	8:08	8:13	8:19
-:-	-:-	8:25	8:31	8:36	8:42	8:53	9:00	9:08	9:13	9:19
9:03	9:13	9:25	9:31	9:36	9:42	9:53	10:00	10:08	10:13	10:19
9:55	10:05	10:25	10:31	10:36	10:42	10:53	11:00	11:08	11:13	11:19
10:55	11:05	11:25	11:31	11:36	11:42	11:53	**12:00**	**12:08**	**12:13**	**12:19**
11:55	**12:05**	**12:25**	**12:31**	**12:36**	**12:42**	**12:53**	**1:00**	**1:08**	**1:13**	**1:19**
12:55	**1:05**	**1:25**	**1:31**	**1:36**	**1:42**	**1:53**	**2:00**	**2:08**	**2:13**	**2:19**
1:55	**2:05**	**2:25**	**2:31**	**2:36**	**2:42**	**2:53**	**3:00**	**3:08**	**3:13**	**3:19**
2:55	**3:05**	**3:25**	**3:31**	**3:36**	**3:42**	**3:53**	**4:00**	**4:08**	**4:13**	**4:19**
3:55	**4:05**	**4:25**	**4:31**	**4:36**	**4:42**	**4:53**	**5:00**	**5:08**	**5:13**	**5:19**
4:55	**5:05**	**5:25**	**5:31**	**5:36**	**5:42**	**5:53**	**6:00**	**6:08**	**6:13**	**6:19**
5:55	**6:05**	**6:25**	**6:31**	**6:36**	**6:42**	**6:53**	**7:00**	**7:08**	**7:13**	**7:19**

MON-SAT ***Southbound from Deland to Market Place***

Amelia SuperStop	Walmart Deland	Amelia SuperStop	Int'l Speedway/ S.R. 15-A	AdventHealth DeLand	Thomas C. Kelly Co. Admin. Ctr	DeLand ITF Gate 1 *(Depart)*	Woodland/ McGregor	Volusia/ French	Volusia/ Rhode Island	Market Place	Charles Beall/ Angeles
6:14	6:23	6:28	6:35	6:39	6:45	6:50	7:00	7:07	7:11	7:20	-:-
7:14	7:19	7:26	7:33	7:37	7:43	7:50	8:00	8:07	8:11	8:20	-:-
8:14	-:-	-:-	-:-	-:-	-:-	8:24	8:34	8:40	8:44	8:53	9:03
8:29	8:34	8:41	8:49	8:54	9:01	9:15	9:24	9:30	9:34	9:45	9:55
9:29	9:34	9:41	9:49	9:54	10:01	10:15	10:24	10:30	10:34	10:45	10:55
10:29	10:34	10:41	10:49	10:54	11:01	11:15	11:24	11:30	11:34	11:45	11:55
11:29	11:34	11:41	11:49	11:54	**12:01**	**12:15**	**12:24**	**12:30**	**12:34**	**12:45**	**12:55**
12:29	**12:34**	**12:41**	**12:49**	**12:54**	**1:01**	**1:15**	**1:24**	**1:30**	**1:34**	**1:45**	**1:55**
1:29	**1:34**	**1:41**	**1:49**	**1:54**	**2:01**	**2:15**	**2:24**	**2:30**	**2:34**	**2:45**	**2:55**
2:29	**2:34**	**2:41**	**2:49**	**2:54**	**3:01**	**3:15**	**3:24**	**3:30**	**3:34**	**3:45**	**3:55**
3:29	**3:34**	**3:41**	**3:49**	**3:54**	**4:01**	**4:15**	**4:24**	**4:30**	**4:34**	**4:45**	**4:55**
4:29	**4:34**	**4:41**	**4:49**	**4:54**	**5:01**	**5:15**	**5:24**	**5:30**	**5:34**	**5:45**	**5:55**
5:29	**5:34**	**5:41**	**5:49**	**5:54**	**6:01**	**6:15**	**6:24**	**6:30**	**6:34**	**6:45**	-:-
6:20	**6:29**	-:-	-:-	-:-	-:-	**6:40**	**6:50**	**6:57**	-:-	-:-	-:-
6:24	**6:29**	**6:36**	**6:44**	**6:49**	**6:56**	**7:10**	**7:19**	**7:25**	**7:29**	**7:38**	-:-
7:20	**7:29**	-:-	-:-	-:-	-:-	**7:40**	**7:50**	**7:57**	**8:01**	-:-	-:-

21 Deltona

MON-SAT: ***Outbound from Market Place to Walmart/Osteen via Providence/Ft. Smith***

Market Place	Deltona Plaza	Providence/ Normandy	Methodist Children's Home	Providence/ Normandy	Providence/ Tivoli	Walmart/ Osteen
-:-	-:-	-:-	-:-	-:-	5:08	5:20
6:25	6:33	6:40	6:46	6:52	6:57	7:11
-:-	-:-	-:-	-:-	-:-	7:04	7:18
8:25	8:33	8:40	8:46	8:52	8:57	9:11
10:25	10:33	10:40	10:46	10:52	10:57	11:11
12:25	**12:33**	**12:40**	**12:46**	**12:52**	**12:57**	**1:11**
2:25	**2:33**	**2:40**	**2:46**	**2:52**	**2:57**	**3:11**
4:25	**4:33**	**4:40**	**4:46**	**4:52**	**4:57**	**5:11**
6:25	**6:33**	**6:40**	**6:46**	**6:52**	**6:57**	**7:11**

MON-SAT: ***Inbound Walmart/Osteen to Market Place via Elkcam/Providence***

Walmart/ Osteen	Pine Ridge High School	Howland/ Elkcam	Newmark/ Montecito	Providence/ Ft. Smith	Deltona City Hall	Deltona Library	Providence/ Tivoli	Providence/ Normandy	Deltona Plaza	Market Place
5:21	5:24	5:31	5:36	5:40	-:-	5:46	5:52	5:56	6:03	6:15
7:19	7:22	7:29	7:34	7:38		7:44	7:50	7:54	8:01	8:13
7:22	7:25	7:32	7:37	7:41	7:45	7:47	7:53	7:57	8:04	8:19
9:22	9:25	9:32	9:37	9:41	9:45	9:47	9:53	9:57	10:04	10:19
11:22	11:25	11:32	11:37	11:41	11:45	11:47	11:53	11:57	**12:04**	**12:19**
1:22	**1:25**	**1:32**	**1:37**	**1:41**	**1:45**	**1:47**	**1:53**	**1:57**	**2:04**	**2:19**
3:22	**3:25**	**3:32**	**3:37**	**3:41**	**3:45**	**3:47**	**3:53**	**3:57**	**4:04**	**4:19**
5:22	**5:25**	**5:32**	**5:37**	**5:41**	**5:45**	**5:47**	**5:53**	**5:57**	**6:04**	**6:19**
7:19	**7:22**	**7:29**	-:-	-:-	-:-	-:-	-:-	-:-	-:-	-:-

22 Deltona

MON-SAT: ***Outbound from Market Place to Walmart/Osteen via Elkcam/Providence***

Market Place	Deltona Plaza	Providence/ Normandy	Providence/ Tivoli	Deltona City Hall	Deltona Library	Elkcam/ Howland	Pine Ridge High School	Walmart/ Osteen
-:-	-:-	5:52	5:57	-:-	6:03	6:11	6:18	6:22
7:25	7:33	7:40	7:45	7:51	7:54	8:03	8:10	8:15
9:25	9:33	9:40	9:45	9:51	9:54	10:03	10:10	10:15
11:25	11:33	11:40	11:45	11:51	11:54	**12:03**	**12:10**	**12:15**
1:25	**1:33**	**1:40**	**1:45**	**1:51**	**1:54**	**2:03**	**2:10**	**2:15**
3:25	**3:33**	**3:40**	**3:45**	**3:51**	**3:54**	**4:03**	**4:10**	**4:15**
5:25	**5:33**	**5:40**	**5:45**	**5:51**	**5:54**	**6:03**	**6:10**	**6:15**

MON-SAT: ***Inbound from Walmart/Osteen to Market Place via Ft. Smith/Providence***

Walmart/ Osteen	Providence/ Tivoli	Providence/ Normandy	Methodist Children's Home	Providence/ Normandy	Deltona Plaza	Market Place
6:24	6:37	6:41	6:47	6:54	7:01	7:18
8:24	8:37	8:41	8:47	8:54	9:01	9:18
10:24	10:37	10:41	10:47	10:54	11:01	11:18
12:24	**12:37**	**12:41**	**12:47**	**12:54**	**1:01**	**1:18**
2:24	**2:37**	**2:41**	**2:47**	**2:54**	**3:01**	**3:18**
4:24	**4:37**	**4:41**	**4:47**	**4:54**	**5:01**	**5:18**
6:20	**6:33**	**6:37**	**6:43**	**6:50**	**6:57**	**7:14**

ROUTE 22 DOES NOT OPERATE ON HOLIDAYS
LA RUTA 22, NO TRABAJA EN LOS DIAS DE FIESTA

23 Orange City

MON-FRI: ***Eastbound from Market Place to Ft. Smith/Providence***

Market Place	Charles Beall/ Angeles	Saxon Blvd Market Place	AdventHealth Orange City	Saxon/Tivoli	Providence/ Ft. Smith
-:-	5:24	5:31	5:35	5:45	5:49
6:20	6:28	6:35	6:39	6:49	6:53
7:20	7:28	7:35	7:39	7:49	7:53
8:20	8:28	8:35	8:39	8:49	8:53
9:20	9:28	9:35	9:39	9:49	9:53
10:20	10:28	10:35	10:39	10:49	10:53
11:20	11:28	11:35	11:39	11:49	11:53
12:20	**12:28**	**12:35**	**12:39**	**12:49**	**12:53**
1:20	**1:28**	**1:35**	**1:39**	**1:49**	**1:53**
2:25	-:-	-:-	**2:31**	**2:41**	**2:45**
3:25	-:-	-:-	**3:31**	**3:41**	**3:45**
4:25	-:-	-:-	**4:31**	**4:41**	**4:45**
5:25	-:-	-:-	**5:31**	**5:41**	**5:45**

MON-FRI: ***Westbound from Providence/Ft. Smith to Market Place***

Providence/ Ft. Smith	Saxon Blvd Park & Ride	Market Place
5:49	6:01	6:16
6:53	7:05	7:20
7:53	8:05	8:20
8:53	9:05	9:20
9:53	10:05	10:20
10:53	11:05	11:20
11:53	**12:05**	**12:20**
12:53	**1:05**	**1:20**
1:53	**2:05**	**2:20**
2:45	**2:57**	**3:12**
3:45	**3:57**	**4:12**
4:45	**4:57**	**5:12**
5:45	**5:57**	**6:12**

SAT ONLY: ***Eastbound from Market Place to Ft. Smith/Providence***

Market Place	Charles Beall/ Angeles	Saxon Blvd Market Place	AdventHealth Orange City	Saxon/Tivoli	Providence/ Ft. Smith
-:-	-:-	-:-	6:39	6:49	6:53
7:20	7:28	7:35	7:39	7:49	7:53
8:20	8:28	8:35	8:39	8:49	8:53
9:20	9:28	9:35	9:39	9:49	9:53
10:20	10:28	10:35	10:39	10:49	10:53
11:20	11:28	11:35	11:39	11:49	11:53
12:20	**12:28**	**12:35**	**12:39**	**12:49**	**12:53**
1:20	**1:28**	**1:35**	**1:39**	**1:49**	**1:53**
2:20	**2:28**	**2:35**	**2:39**	**2:49**	**2:53**
3:20	**3:28**	**3:35**	**3:39**	**3:49**	**3:53**
4:20	**4:28**	**4:35**	**4:39**	**4:49**	**4:53**
5:20	**5:28**	**5:35**	**5:39**	**5:49**	**5:53**

SAT ONLY: ***Westbound from Providence/Ft. Smith to Market Place***

Providence/ Ft. Smith	Saxon Blvd Park & Ride	Market Place
6:53	7:05	7:20
7:53	8:05	8:20
8:53	9:05	9:20
9:53	10:05	10:20
10:53	11:05	11:20
11:53	**12:05**	**12:20**
12:53	**1:05**	**1:20**
1:53	**2:05**	**2:20**
2:53	**3:05**	**3:20**
3:53	**4:05**	**4:20**
4:53	**5:05**	**5:20**
5:53	**6:05**	**6:20**

31 SunRail - US 17-92

MON-FRI ONLY: ***Southbound to SunRail DeBary Station***

Amelia Super Stop	DeLand ITF *(Departs)*	Woodland/ McGreggor	Volusia/ Graves	Charles Beall/ Saxon	Charles Beall/ Highbanks	DeBary SunRail Station	SunRail Departs
4:43	4:53	5:00	5:05	5:12	5:16	5:20	5:30
5:13	5:23	5:30	5:35	5:42	5:46	5:50	6:00
5:43	5:53	6:00	6:05	6:12	6:16	6:20	6:30
6:13	6:23	6:30	6:35	6:42	6:46	6:50	7:00
6:43	6:53	7:00	7:05	7:12	7:16	7:20	7:30
7:08	7:18	7:25	7:30	7:37	7:41	7:45	8:00
7:43	7:53	8:00	8:05	8:12	8:16	8:20	9:00
3:15	**3:31**	**3:40**	**3:47**	**3:56**	**4:02**	**4:08**	**4:30**
3:45	**4:01**	**4:10**	**4:17**	**4:26**	**4:32**	**4:38**	**5:00**
4:15	**4:31**	**4:40**	**4:47**	**4:56**	**5:02**	**5:08**	**5:30**
4:45	**5:01**	**5:10**	**5:17**	**5:26**	**5:32**	**5:38**	-:-
5:15	**5:31**	**5:40**	**5:47**	**5:56**	**6:02**	**6:08**	-:-
5:45	**6:01**	**6:10**	**6:17**	**6:26**	**6:32**	**6:38**	**6:50**
6:18	**6:34**	**6:43**	**6:50**	**6:59**	**7:05**	**7:11**	-:-
6:48	**7:04**	**7:13**	**7:20**	**7:29**	**7:35**	**7:41**	**8:10**

MON-FRI ONLY: ***Northbound to Amelia Super Stop***

SunRail Arrives	DeBary SunRail Station	Charles Beall/ Highbanks	Saxon/ Charles Beall	Volusia/ Graves	Woodland/ McGreggor	DeLand ITF *(departs)*	Amelia Super Stop
-:-	5:25	5:30	5:33	5:39	5:44	5:57	6:06
-:-	5:55	6:00	6:03	6:09	6:14	6:27	6:36
-:-	6:25	6:30	6:33	6:39	6:44	6:52	7:01
-:-	6:55	7:00	7:03	7:09	7:14	7:27	7:36
7:18	7:25	7:30	7:33	7:39	7:44	7:57	8:06
7:48	7:55	8:00	8:03	8:09	8:14	8:27	8:36
2:43	**3:25**	**3:30**	**3:33**	**3:39**	**3:44**	**4:00**	**4:09**
3:48	**3:55**	**4:00**	**4:03**	**4:09**	**4:14**	**4:30**	**4:39**
-:-	**4:25**	**4:30**	**4:33**	**4:39**	**4:44**	**5:00**	**5:09**
4:48	**4:55**	**5:00**	**5:03**	**5:09**	**5:14**	**5:30**	**5:39**
5:18	**5:25**	**5:30**	**5:33**	**5:39**	**5:44**	**6:00**	**6:09**
5:48	**5:55**	**6:00**	**6:03**	**6:09**	**6:14**	**6:30**	**6:39**
6:18	**6:25**	**6:30**	**6:33**	**6:39**	**6:44**	**7:00**	**7:09**
6:53	**7:05**	**7:10**	**7:13**	**7:19**	**7:24**	**7:40**	**7:49**
7:23	**7:35**	**7:40**	**7:43**	**7:49**	**7:54**	**8:10**	**8:19**
7:53	**8:05**	**8:10**	**8:13**	**8:19**	**8:24**	**8:40**	**8:49**

33 SunRail - Dupont Lakes

MON-FRI ONLY: ***Westbound to SunRail DeBary Station***

Dupont Lakes Shopping Ctr	Deltona City Hall	Saxon Blvd Park & Ride*	Saxon Blvd Market Place*	AdventHealth Orange City	DeBary SunRail Station	SunRail Departs
4:25	4:35	4:50	4:58	5:15	5:30	
5:25	5:35	5:50	5:58	6:15	6:30	
6:25	6:35	6:50	6:58	7:15	7:30	
2:25	**2:35**	**2:50**	**2:58**	**3:15**	**3:30**	
4:25	**4:35**	**4:50**	**4:58**	**5:15**	**5:30**	
-:-	-:-	-:-	**6:25**	**6:42**	**6:50**	

MON-FRI ONLY: ***Eastbound to Dupont Lakes***

SunRail Arrives	DeBary SunRail Station	Saxon Blvd Market Place*	AdventHealth Orange City	Saxon Blvd Park & Ride*	Deltona City Hall	Dupont Lakes Shopping Ctr
7:18	7:28	7:40	7:44	7:48	8:06	8:20
8:18	8:28	8:40	8:44	8:48	9:06	9:20
2:43	**3:20**	**3:32**	**3:36**	**3:40**	**3:58**	**4:12**
5:18	**5:28**	**5:40**	**5:44**	**5:48**	**6:06**	**6:20**
6:53	**6:58**	**7:07**	**7:11**	**7:14**	**7:24**	**7:37**

* Buses do not enter Deltona City Hall, Park & Ride, or Market Place. Bus stops are located on the main road.
** Los autobuses no entran en el Ayuntamiento de Deltona, Park & Ride o Market Place. Las paradas de autobús se encuentran en la carretera principal.*

60 East/West Connector

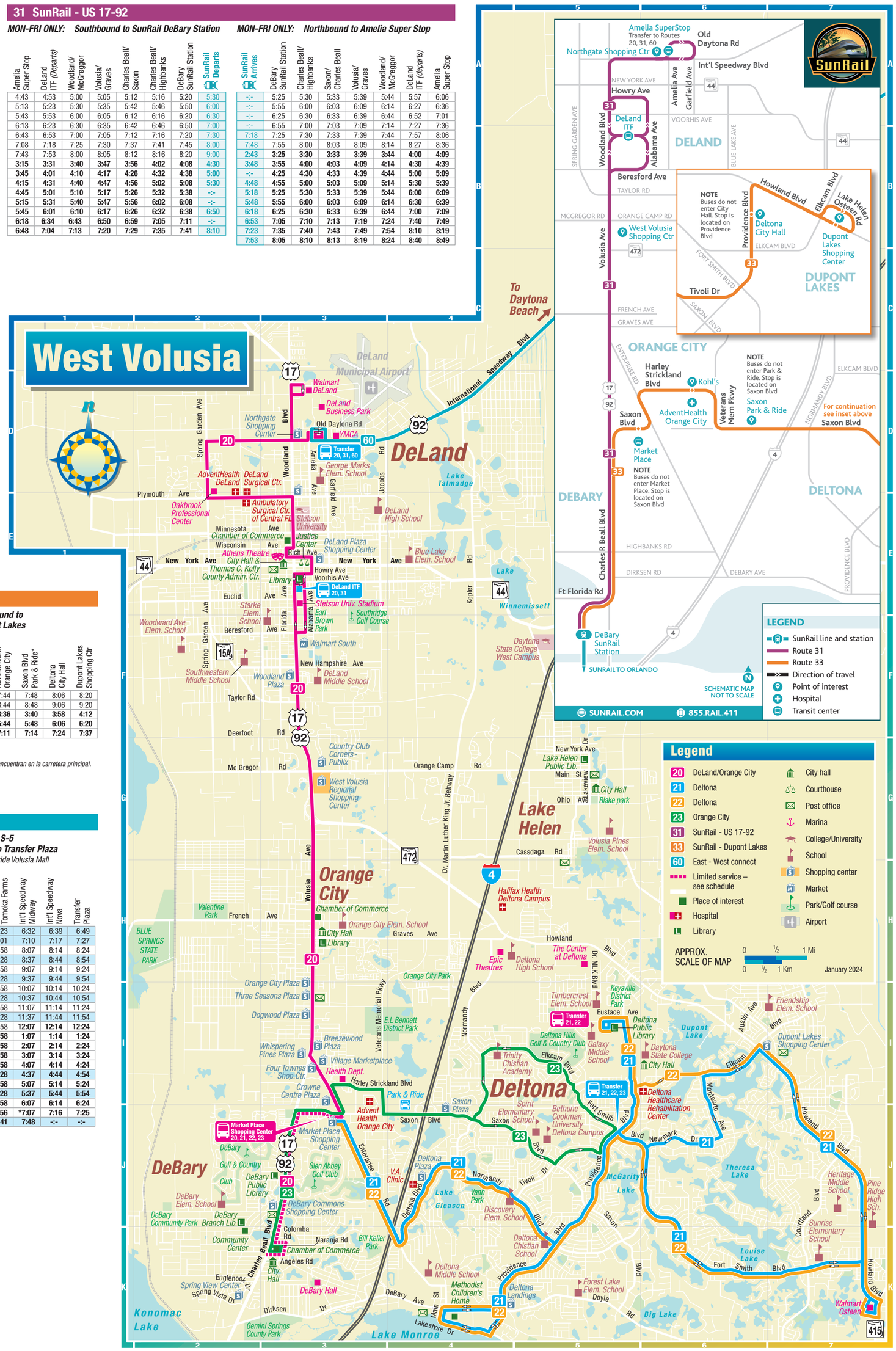
MON-SAT: ***Departs Gate S-5 Westbound to Amelia Superstop***
Does not go inside Volusia Mall

Transfer Plaza	Int'l Speedway Nova	Int'l Speedway Midway	Int'l Speedway Tomoka Farms	Branch Jail	Int'l Speedway Kepler Rd	Amelia Super Stop
-:-	-:-	5:15	5:20	-:-	5:36	5:40
-:-	-:-	*5:57	6:03	-:-	6:19	6:23
6:32	6:40	6:45	6:53	7:01	7:13	7:19
-:-	-:-	6:56	7:01	-:-	7:13	7:19
7:02	7:10	7:15	7:23	7:31	7:43	7:49
7:32	7:40	7:45	7:53	8:01	8:13	8:19
8:02	8:10	8:15	8:23	8:31	8:43	8:49
8:32	8:40	8:45	8:53	9:01	9:13	9:19
9:02	9:10	9:15	9:23	9:31	9:43	9:49
9:32	9:40	9:45	9:53	10:01	10:13	10:19
10:02	10:10	10:15	10:23	10:31	10:43	10:49
10:32	10:40	10:45	10:53	11:01	11:13	11:19
11:32	11:40	11:45	11:53	**12:01**	**12:13**	**12:19**
12:32	**12:40**	**12:45**	**12:53**	**1:01**	**1:13**	**1:19**
1:32	**1:40**	**1:45**	**1:53**	**2:01**	**2:13**	**2:19**
2:32	**2:40**	**2:45**	**2:53**	**3:01**	**3:13**	**3:19**
3:02	**3:10**	**3:15**	**3:23**	**3:31**	**3:43**	**3:49**
3:32	**3:40**	**3:45**	**3:53**	**4:01**	**4:13**	**4:19**
4:02	**4:10**	**4:15**	**4:23**	**4:31**	**4:43**	**4:49**
4:32	**4:40**	**4:45**	**4:53**	**5:01**	**5:13**	**5:19**
5:32	**5:40**	**5:45**	**5:53**	**6:01**	**6:13**	**6:19**
6:32	**6:40**	**6:45**	**6:53**	**7:01**	**7:13**	**7:19**

MON-SAT: ***Arrives Gate S-5 Eastbound to Transfer Plaza***
Does not go inside Volusia Mall

Amelia Super Stop	Int'l Speedway Kepler Rd	Branch Jail	Int'l Speedway Tomoka Farms	Int'l Speedway Midway	Int'l Speedway Nova	Transfer Plaza
5:51	5:56	6:12	6:23	6:32	6:39	6:49
6:29	6:34	6:50	7:01	7:10	7:17	7:27
7:26	7:31	7:47	7:58	8:07	8:14	8:24
7:56	8:01	8:17	8:28	8:37	8:44	8:54
8:26	8:31	8:47	8:58	9:07	9:14	9:24
8:56	9:01	9:17	9:28	9:37	9:44	9:54
9:26	9:31	9:47	9:58	10:07	10:14	10:24
9:56	10:01	10:17	10:28	10:37	10:44	10:54
10:26	10:31	10:47	10:58	11:07	11:14	11:24
10:56	11:01	11:17	11:28	11:37	11:44	11:54
11:26	11:31	11:47	11:58	**12:07**	**12:14**	**12:24**
12:26	**12:31**	**12:47**	**12:58**	**1:07**	**1:14**	**1:24**
1:26	**1:31**	**1:47**	**1:58**	**2:07**	**2:14**	**2:24**
2:26	**2:31**	**2:47**	**2:58**	**3:07**	**3:14**	**3:24**
3:26	**3:31**	**3:47**	**3:58**	**4:07**	**4:14**	**4:24**
3:56	**4:01**	**4:17**	**4:28**	**4:37**	**4:44**	**4:54**
4:26	**4:31**	**4:47**	**4:58**	**5:07**	**5:14**	**5:24**
4:56	**5:01**	**5:17**	**5:28**	**5:37**	**5:44**	**5:54**
5:26	**5:31**	**5:47**	**5:58**	**6:07**	**6:14**	**6:24**
6:24	**6:29**	**6:45**	**6:56**	***7:07**	**7:16**	**7:25**
***7:23**	**7:27**	-:-	**7:41**	**7:48**	-:-	-:-

* Serves the Daytona Airport at 5:55 a.m. Westbound and 7:05 p.m. Eastbound.
** Sirve al aeropuerto de Daytona a las 5:55 a.m. en dirección oeste y a las 7:05 p.m. hacia el este.*
***The last eastbound trip ends at Clyde Morris. Passengers may deboard at Midway and take Route 10. Night Service at :31 past the hour to go to the Intermodal Transit Facility at Earl St. and A1A.
****El último viaje en dirección este termina en Clyde Morris. Los pasajeros pueden desembarcar en Midway y tomar el servicio nocturno de la ruta 10 a las: 31 después de la hora para ir a la instalación de tránsito intermodal en Earl St. y A1A.*



Appendix R
Signal Four Analytics Crash Data

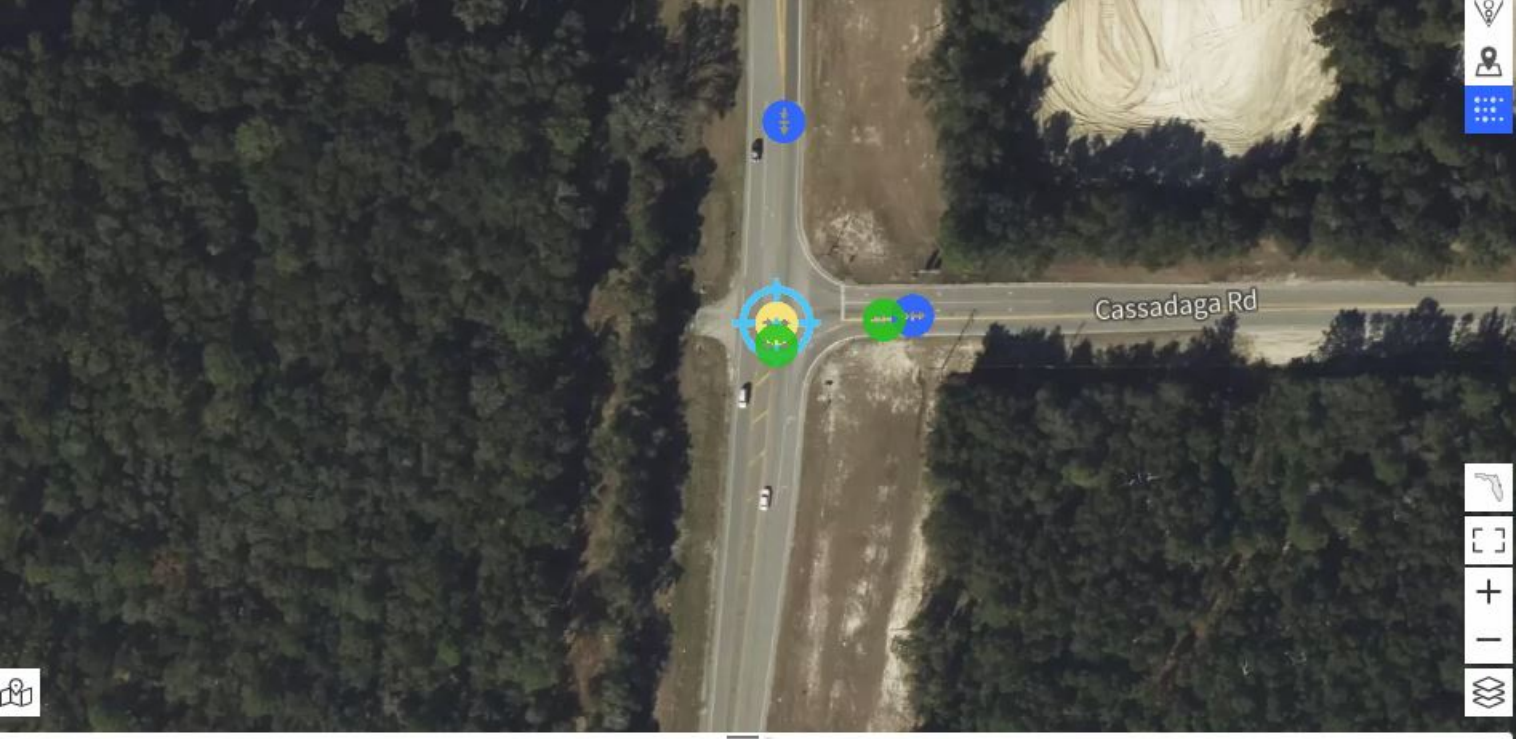
MLK Beltway and Cassadaga Road

REPORT_NUMBER	CRASH_YEAR	TOTAL_NUMBER_OF_VEHICLES	TOTAL_NUMBER_OF_PERSONS	COUNTY_CODE	CITY_CODE	COUNTY_NAME	CITY_NAME	RURAL_OR_URBAN	ON_STREET_ROAD_HIGHWAY	DIRECTION_FROM_INTERSECTION	FROM_INTERSECTION_OF	TYPE_OF_INTERSECTION	PHOTOS_TAKEN	LIGHT_CONDITION	WEATHER_CONDITION	ROAD_SURFACE_CONDITION	SCHOOL_BUS_RELATED_CODE	TYPE_OF_IMPACT	FIRST_HARMFUL_EVENT	LOCATION	INTERCHANGE_FLAG	JUNCTION_FLAG	ROAD_CIRCUMSTANCES_1	ROAD_CIRCUMSTANCES_2	ROAD_CIRCUMSTANCES_3	ENVIRONMENT_CIRCUMSTANCES_1	ENVIRONMENT_CIRCUMSTANCES_2
88074562	2019	2	1	8	36	Volusia	Deland	Urban	CASSADAGA ROAD	East	COUNTY ROAD 4101	T-Intersect	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Intersectio	None			None	
88074557	2019	2	2	8	36	Volusia	Deland	Urban	CASSADAGA ROAD	East	COUNTY ROAD 4101	T-Intersect	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Intersectio	None			None	
87240604	2019	3	3	8	48	Volusia	Orange Cit	Rural	COUNTY ROAD 4101 (	North	CASSADAGA RD	Not at Inte	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Non-Juncti	None			None	
24974479	2022	2	2	8	36	Volusia	Deland	Rural	COUNTY ROAD 4101 (DR. MLK BE	CASSADAGA ROAD	Not at Inte	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Non-Juncti	Work Zone			None	
25074130	2023	2	4	8	0	Volusia	Unincorpo	Rural	COUNTY ROAD 4101	South	CASSADAGA ROAD	Not at Inte	N	Dark - Ligh	Clear	Wet	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Non-Juncti	None			None	

ENVIRONMENT_CIRCUMSTANCES_3	WORK_ZONE_RELATED_FLAG	CRASH_IN_WORK_ZONE	TYPE_OF_WORK_ZONE	WORKERS_PRESENT	LAW_ENFORCEMENT_PRESENT	INVESTIGATOR_RANK	INVESTIGATING_AGENCY_NAME	INVESTIGATING_AGENCY_TYPE	LOAD_DATE	CODEABLE	S4_CRASH_TYPE	S4_CRASH_TYPE_SIMPLIFIED	S4_CRASH_SEVERITY_DETAIL	S4_DAY_OR_NIGHT	S4_IS_AGGRESSIVE_DRIVING	S4_IS_ALCOHOL_RELATED	S4_IS_CMV_INVOLVED	S4_IS_DISTRACTED	S4_IS_DRUG_RELATED	S4_IS_HIT_AND_RUN	S4_IS_INTERSECTION_RELATED	S4_IS_LANE_DEPARTURE_RELATED	S4_IS_SPEEDING_RELATED	S4_NONE_INJURY_COUNT	S4_INJURY_COUNT	S4_POSSIBLE_INJURY_COUNT	S4_NON_INCAPACITATING_INJURY_COUNT	S4_INCAPACITATING_INJURY_COUNT	S4_FATALITY_COUNT	S4_FATALITY_WITHIN_30_DAYS_COUNT
	N					TROOPER	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	No Injury	DAY	N	N	N	N	N	Y	Y	N	N	1	0	0	0	0	0	0
	N					TROOPER	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	Possible Injury	DAY	N	N	N	Y	N	N	Y	N	N	1	1	1	0	0	0	0
	N					SERGEANT	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	Possible Injury	DAY	N	N	N	N	N	N	N	N	N	1	2	2	0	0	0	0
	Y	Activity Are	Work on Sh	Y	N	TPR	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	Non-Incapacitating I	DAY	N	N	N	N	N	N	N	N	N	1	1	0	1	0	0	0
	N					TPR	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	No Injury	NIGHT	N	N	N	Y	N	N	N	N	N	4	0	0	0	0	0	0

S4_NON_TRAFFIC_FATALITY_COUNT	S4_TRAILER_COUNT	S4_MOTORCYCLE_COUNT	S4_MOPED_COUNT	S4_NON_MOTORIST_COUNT	S4_BICYCLIST_COUNT	S4_PEDESTRIAN_COUNT	S4_DRIVER_COUNT	S4_AGING_DRIVER_COUNT	S4_TEENAGER_DRIVER_COUNT	S4_PASSENGER_COUNT	S4_UNRESTRAINED_COUNT	S4_UNRESTRAINED_INJURY_COUNT	S4_UNRESTRAINED_INCAPACITATING_INJURY_COUNT	S4_UNRESTRAINED_FATALITY_COUNT	S4_MOTORCYCLIST_COUNT	S4_MOTORCYCLIST_INCAPACITATING_INJURY_COUNT	S4_MOTORCYCLIST_FATALITY_COUNT	S4_IS_PEDESTRIAN_INVOLVED	S4_PEDESTRIAN_INCAPACITATING_INJURY_COUNT	S4_PEDESTRIAN_FATALITY_COUNT	S4_IS_BICYCLIST_INVOLVED	S4_BICYCLIST_INCAPACITATING_INJURY_COUNT	S4_BICYCLIST_FATALITY_COUNT	S4_CITATION_COUNT	S4_CITATION_AMOUNT	S4_PROPERTY_DAMAGE_COUNT	S4_PROPERTY_DAMAGE_AMOUNT	S4_VEHICLE_DAMAGE_COUNT	S4_VEHICLE_DAMAGE_AMOUNT	S4_TOTAL_DAMAGE_AMOUNT	S4_TRANSPORT_BY_EMS_COUNT
0	0	0	0	0	0	0	1	0	0	0	0	0	0	0				N	0	0	N	0	0	0	0	0	0	1	1000	1000	0
0	0	0	0	0	0	0	2	1	0	0	0	0	0	0				N	0	0	N	0	0	1	0	0	0	2	8000	8000	0
0	0	0	0	0	0	0	3	0	0	0	0	0	0	0				N	0	0	N	0	0	1	0	0	0	3	21500	21500	0
0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	N	0	0	N	0	0	2	0	0	0	2	2000	2000	1
0	0	0	0	0	0	0	2	0	1	2	0	0	0	0	0	0	0	N	0	0	N	0	0	1	0	0	0	2	15000	15000	0

S4_TRANSPORT_BY_LAW_ENFORCEMENT_COUNT	S4_TRANSPORT_BY_OTHER_COUNT	S4_GEOLOCATION_STATUS	S4_PRELIMINARY_GEOLOCATION_STATUS	S4_X	S4_Y	S4_LATITUDE	S4_LONGITUDE
0	0	Preliminary	Editor Map	474153.9	3204263	28.96614	-81.2653
0	0	Preliminary	Editor Map	474160.4	3204264	28.96615	-81.2652
0	0	Preliminary	Editor Map	474131	3204309	28.96655	-81.2655
0	0	Preliminary	Computer	474129.2	3204263	28.96613	-81.2655
0	0	Preliminary	Editor Map	474129.2	3204258	28.96609	-81.2655



Injury Summary | Common Attributes | FDOT Attributes

	Total	Fatal Crashes	Serious Injury Cras...	Injury Crashes	Property Damage ...
Crashes	5	0	0	3	2
Fatalities (within 30 Days)	0	0	0	0	0
Incapacitating Injuries	0	0	0	0	0
Non-Incapacitating Injuries	1	0	0	1	0
Possible Injuries	3	0	0	3	0
No Injuries	8	0	0	3	5
Non-Traffic Fatalities	0	0	0	0	0

SR 472 & S Blue Lake Avenue

REPORT_NUMBER	CRASH_YEAR	LIGHT_CONDITION	WEATHER_CONDITION	ROAD_SURFACE_CONDITION	S4_CRASH_TYPE_SIMPLIFIED	S4_CRASH_SEVERITY_DETAIL	S4_DAY_OR_NIGHT	
88091687	2019	Daylight	Clear	Dry	Rear End	Incapacitating Injury	DAY	
24654910	2022	Dark - Not Lighted	Clear	Dry	Sideswipe	No Injury	NIGHT	



Appendix S
Volusia County Master Proportionate Share Table and Relevant Information

Master Prop Fair Share approved costs & formulas

12/10/2024

Updated 10/23. FDOT Cost Per Mile Reports were calculated 10-22 therefore the 9-23 CPI for Transportation Services of 9.1% is applied. If there is already a county project with estimates based on itemized estimated costs then those amounts are used. Bridge estimates are $300/sf.

Roadway/ Intersection	Segment	Length	Improvement	Cost per Lane Mile (FDOT 11/22)	Additional Cost	Improvement Cost	Design + CEI (25%)	ROW/Mitigation/ Other Costs	2022 Total Improvement Cost	CPI - Trans Svcs (9.2%)	2023-24 Total Improvement Cost	Existing Capacity	Improved Capacity	Capacity Increase	Project Trips	Project Percentage	Prop Share	Prop Share
Graves Ave	Leavitt Ave to VMP	1.18	Widen 2 to 4 lanes, urban	$4,717,890		$5,567,110	$1,391,778		$6,958,888	$640,218	$7,599,105.42	1,620	3,410	1,790		0.00%	$0.00	updated LREs in PFS spreadsheet
	VMP to Kentucky Ave	0.33	Widen 2 to 4 lanes, urban	$4,717,890	$300,000	$1,856,904	$464,226		$2,321,130	$213,544	$2,534,673.55	1,620	3,410	1,790	15	0.84%	$21,240.28	updated LREs in PFS spreadsheet
	Kentucky Ave to 4L at overpass	0.38	Widen 2 to 4 lanes, rural	$3,250,379	$12,050,000	$13,285,144	$3,321,286		$16,606,430	$1,527,792	$18,134,221.59	1,620	3,410	1,790	5	0.28%	$50,654.25	detailed est
Howland Blvd	Forest Edge to Wolf Pack Run	0.25	Widen 4 to 6 lanes, urban	$4,723,934	$300,000	$1,480,984	$370,246		$1,851,229	$170,313	$2,021,542.48	3,410	5,120	1,710		0.00%	$0.00	detailed est
	I-4/SR 472 to Wolf Pack Run	0.40	Widen 4 to 6 lanes, urban	$4,723,934	$480,000	$2,369,574	$592,393		$2,961,967	$272,501	$3,234,467.96	3,410	5,120	1,710	14	0.82%	$26,481.02	detailed est
	Wolf Pack Run to Catalina Blvd	1.20	Widen 4 to 6 lanes, urban	$4,723,934	$1,870,000	$7,538,721	$1,884,680		$9,423,401	$866,953	$10,290,353.89	3,410	5,120	1,710		0.00%	$0.00	detailed est
Kentucky Ave	Graves Ave to SR 472	0.80	Widen 2 to 4 lanes, rural	$3,250,379	$1,715,000	$4,315,303	$1,078,826		$5,394,129	$496,260	$5,890,388.87	1,540	3,410	1,870	20	1.07%	$62,998.81	detailed est
Orange Camp Road	US 17-92 to MLK	2.15	Widen 2 to 4 lanes, urban	Sales Surtax					$19,080,000	$1,755,360	$20,835,360.00							Sales Surtax
Broken out	US 17-92 to Princeton	0.55	Widen 2 to 4 lanes, urban	$8,874,418					$4,880,930	$449,046	$5,329,975.81	1,270	3,410	2,140	3	0.14%	$7,471.93	Sales Surtax
Broken out	Princeton to Blue Lake	1.05	Widen 2 to 4 lanes, urban	$8,874,418					$0	$0	$0.00	1,540	3,410	1,870		0.00%		Sales Surtax
Broken out	Blue Lake to MLK	0.55	Widen 2 to 4 lanes, urban	$8,874,418					$4,880,930	$449,046	$5,329,975.45	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Veterans Memorial Pkwy	SR 472 to Graves Ave	1.00	Widen 2 to 4 lanes, rural	Sales Surtax					$15,000,000	$1,380,000	$16,380,000.00	1,620	3,410	1,790		0.00%	$0.00	Sales Surtax
	Graves Ave to Harley Strickland	2.62	Widen 2 to 4 lanes, rural	Sales Surtax					$9,800,000	$901,600	$10,701,600.00							Sales Surtax
Broken out	Parc Hill Driveway to Rhode Island	0.42	Widen 2 to 4 lanes, rural	ARPA					$4,285,000	$394,220	$4,679,220.00	1,540	3,410	1,870		0.00%	$0.00	Aug 2021 ARPA Presentation to CC
Broken out	Harley Strickland Blvd to Rhode Island	1.22	Widen 2 to 4 lanes, rural	ARPA					$12,446,905	$1,145,115	$13,592,020.00	1,540	3,410	1,870	5	0.27%	$36,342.30	Aug 2021 ARPA Presentation to CC
	Rhode Island to Graves Avenue	1.40	Widen 2 to 4 lanes, rural	ARPA					$7,358,000	$676,936	$8,034,936.00	1,620	3,410	1,790		0.00%	$0.00	Aug 2021 ARPA Presentation to CC
West Volusia Beltway (Kepler Road/MLK)	SR 472 to US 92	7.93	Widen 2 to 4 lanes, rural	Sales Surtax					$44,550,000	$4,098,600	$48,648,600.00							Sales Surtax
Broken out	US 92 to Minnesota Ave	1.90	Widen 2 to 4 lanes, rural	$6,197,772		$11,775,767			$11,775,767	$1,083,371	$12,859,137.35	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Minnesota Ave to SR 44	0.76	Widen 2 to 4 lanes, rural	$6,197,772		$4,710,307			$4,710,307	$433,348	$5,143,654.94	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	SR 44 to E Euclid Ave	0.75	Widen 2 to 4 lanes, rural	$6,197,772		$1,375.53			$1,376	$127	$1,502.08	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	E Euclid Ave to Beresford Ave	0.75	Widen 2 to 4 lanes, rural	$6,197,772		$3,272.80			$3,273	$301	$3,573.90	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Beresford Ave to Taylor Rd	1.05	Widen 2 to 4 lanes, rural	$6,197,772		$6,507,661			$6,507,661	$598,705	$7,106,365.38	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Taylor Rd to Orange Camp Rd	1.04	Widen 2 to 4 lanes, rural	$6,197,772		$6,445,683			$6,445,683	$593,003	$7,038,685.70	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Orange Camp Rd to Cassadaga Rd	1.28	Widen 2 to 4 lanes, rural	$6,197,772		$7,933,148			$7,933,148	$729,850	$8,662,997.79	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Cassadaga Rd to SR 472	0.40	Widen 2 to 4 lanes, rural	$6,197,772		$2,479,109			$2,479,109	$228,078	$2,707,186.81	1,540	3,410	1,870	15	0.80%	$21,715.40	Sales Surtax

Segment

	Yellow highlighted segments were available in the Master PropShare and used directly for PropShare calculations.
	Orange highlighted segments were estimated based on data from similar road segments, adjusted for length differences, for PropShare calculations.
	Gray Highlights represent the segments whose data were used to estimate Orange Highlight segments.

Model	Cost Per Mile	Report
Rural		
New Construction Undivided 2 Lane Rural Road with 5' Paved Shoulders: R01	$4,054,799.93	Report
New Construction Undivided 3 Lane Rural Road with 5' Paved Shoulders, Center Turn Lane: R02	$4,864,537.52	Report
New Construction Undivided 4 Lane Rural Road with 5' Paved Shoulders: R03	$5,706,368.51	Report
New Construction Divided 4 Lane Rural Road with 2' Paved Shoulders Inside and 5' Paved Shoulders Outside: R04	$7,951,226.49	Report
New Construction Divided 4 Lane Rural Interstate with Paved Shoulders 10' Outside and 4' Inside: R05	$10,097,170.21	Report
New Construction Undivided 5 Lane Rural Road with 5' Paved Shoulders, Center Turn Lane: R06	$6,767,484.45	Report
New Construction Divided 6 Lane Rural Road with 5' Paved Shoulders Inside and Out: R07	$9,608,322.81	Report
New Construction Divided 6 Lane Rural Interstate with 10' Paved Shoulders Inside and Out: R08	$11,768,829.26	Report
New Construction Extra Cost for 1 Single Additional Lane on Rural Arterial: R09	$869,856.58	Report
New Construction Extra Cost for 1 Single Additional Lane on a Rural Interstate: R10	$1,017,259.79	Report
Mill and Resurface 2 Lane Rural Road with 5' Paved Shoulders: R11	$725,185.30	Report
Mill and Resurface 3 Lane Rural Road with 5' Paved Shoulders and Center Turn Lane: R12	$1,006,207.20	Report
Mill and Resurface 4 Lane Rural Road with 5' Paved Shoulders: R13	$1,564,875.63	Report
Mill and Resurface 4 Lane Divided Rural Arterial with 5' Outside Shoulders and 2' Inside: R14	$1,650,420.86	Report
Mill and Resurface 4 Lane Divided Rural Interstate with Paved Shoulders 10' Outside and 4' Inside: R15	$1,900,930.32	Report
Mill and Resurface 5 Lane Rural Road with 5' Paved Shoulders and Center Turn Lane: R16	$1,888,819.25	Report
Mill and Resurface 6 Lane Divided Rural Arterial with 5' Paved Shoulders Inside and Out: R17	$2,353,319.54	Report
Mill and Resurface 6 Lane Divided Rural Interstate with 10' Paved Shoulders Inside and Out: R18	$2,712,032.04	Report
Mill and Resurface 1 Additional Lane Rural Interstate: R19	$446,396.49	Report
Mill and Resurface 1 Additional Lane Rural Arterial: R20	$373,714.37	Report
Widen Existing 2 Lane Arterial to 4 Lanes Undivided; Add 1 Lane to Each Side; 5' Paved Shoulders: R21	$4,225,423.96	Report
Widen Existing 2 Lane Arterial to 4 Lane Divided; Resurface Existing 2 Lanes; 5' Paved Shoulders Inside and Out: R22	$5,088,776.22	Report
Widen Existing 4 Lane Divided Arterial to 6 Lane Divided; Resurface Existing 4 Lanes; 5' Paved Shoulders Inside and Out: R23	$4,836,960.89	Report
Widen 4 Lane Interstate to 6 Lanes (In Median); Mill and Resurface Existing; 10' Paved Shoulders Inside and Out: R24	$7,113,435.51	Report
Widen 4 Lane Interstate to 6 Lanes (Outside); Mill and Resurface Existing; 10' Shoulders Outside; Widen Existing 4' Inside Shoulders to 10': R25	$6,668,747.14	Report
Widen Existing 6 Lane Divided Arterial to 8 Lane Divided; Resurface Existing 6 Lanes; 5' Paved Shoulders Inside and Out: R26	$5,295,850.61	Report
Widen 6 Lane Interstate to 8 Lanes (in Median); Mill and Resurface Existing; 10' Paved Shoulders Inside and Out: R27	$7,831,556.14	Report
Widen Divided Rural 4-Lane to Allow for Left Turn Lane, 300': R28	$270,409.62	Report
Widen Divided Rural 4-Lane for Right Turn Lane, 300': R29	$266,903.26	Report

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: First Reading of Ordinance Changing the Zoning for ±39.24 Acres of Property, Located North of SR 472 and East of South Blue Lake Avenue, from Volusia County Southwest Activity Center Community (SWR) and Volusia County Southwest Activity Center Commerce (SWC) to Canopy Preserve PD (Planned Development).

DEPARTMENT: Planning

PREPARED BY: Christopher Carson, Senior Planner

ATTACHMENTS: Ordinance, Exhibit A, Exhibit B-Canopy Preserve PD Agreement, Exhibit A - Legal Description - Canopy Preserve, Exhibit B - Concept Plan, Exhibit C - Landscape Plan, Exhibit D - Signage, Exhibit E - Elevations, Exhibit F - Model Home, Exhibit G - Buffer, Plat Boundary 5-22-25 S&S, Z24-024 Staff Report - CanopyPreserve, Revised Project Narrative letter (2-26-2025), TIA 21145 Ford 472 v1.3 e-SS (rev 02-13-25), 25-02-25-001-R Signed Concurrency Letter (2), Z25-024 Aerial, Z25-024 Zoning

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The applicant has been working with the County since 2021 seeking approval to construct a subdivision with a combination of single-family homes and townhomes. The project was initially put on hold because of a conflict between the minimum density requirements of the County's Comprehensive Plan and the dimensional requirements for single-family residences in the Southwest Activity Center zoning designation. The Southwest Activity Center was originally visioned as a major employment and commerce center near the I-4 interchange with a variety of housing choices to support the employment base. To spur economic development, and to resolve the conflicts between the Comprehensive Plan and the Zoning, County staff proposed modifications to the SWR and SWC zoning designations, which were approved in 2023. The applicant then proceeded with plat and construction plan review for the subdivision.

The City and the County of Volusia have a long-standing utility service agreement (USA) which regulates the provision of utilities by the City outside the corporate limits of the City. In November of 2022, the City and the County concluded a years-long negotiation process to amend the USA to include additional areas outside City limits that would be served by City utilities. One of the areas added included the subject property.

If this project had been in the City's utility service area when it started the development review process, the developer would have been required to obtain utilities from the City and because of its contiguity to the city limits, would have been required to annex and then go through a land use and zoning change prior to undertaking development review. However, since the developer was already fairly far along in the development review and entitlement process, the developer was entitled to proceed with development in the County and under County regulations.

To avoid further project delays, the applicant continued with plat approval, while concurrently submitting applications for incorporation into the City. The application for rezoning is accompanied by a request for annexation (AN25-026) and a request for a small-scale future land use map amendment (SMLU25-025).

The City could simply annex the property and not change the future land use and zoning designations for the property, in which case the property would retain its county land use and zoning designations and would subject to the County's subdivision regulations pursuant to Section 171.062(2), Florida Statutes. City staff believes that it is much better to change the land use and zoning designations to City designations as it will be much more conducive to the City's ongoing regulation of the development.

During the review of those applications, the applicant received County approval to begin site and infrastructure work to service the development. That construction activity is currently ongoing. The property was partially wooded and undeveloped. It did not appear to contain any wetlands and does not lie within the 100-year flood zone.

If the requests are approved, the County will continue to monitor and inspect all improvements required by the development order. Prior to any vertical construction, the City will inspect access and utilities for life safety. A site plan will be required for the community amenity center. Building permits for the individual lots will be administered through the City.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Strategic Focus Area: Institute Smart Growth Principles.

SUSTAINABILITY:

N/A

FISCAL IMPACT:

There is no fiscal impact due to the PD rezoning.

RECOMMENDATION:

Staff recommends approval of First Reading to rezone from Volusia County Southwest Activity Center Community (SWR) and Volusia County Southwest Activity Center Commerce (SWC) to Canopy Preserve PD (Planned Development).

BACKGROUND/DISCUSSION:

The applicant is requesting a change of zoning for ±39.24 acres from Volusia County Southwest Activity Center Community (SWR) and Volusia County Southwest Activity Center Commerce (SWC) to Canopy Preserve PD (Planned Development). The application for rezoning is accompanied by a request for annexation (AN25-026) and a request for a small-scale future land use map amendment (SMLU25-025).

The proposed PD rezoning will allow for the applicant to develop the site into a 91-unit single-family and 112-unit townhome residential subdivision. Included in the PD are standards which are outlined in the staff report.

The analysis presented in the staff report suggests the proposed PD rezoning meets the criteria of Sec. 33-32 and 33-135 and is consistent with the Comprehensive Plan, future land use, zoning and character of the surrounding area, and will not have an impact upon public health, safety and welfare.

At the September 10, 2025, Planning Board meeting, the Board voted unanimously (5-0) to recommend approval of the request for a PD rezoning.

The request for the land use amendment will be transmitted to Volusia Growth Management Commission

(VGMC) for review. After VGMC review, the request is anticipated to go before City Commission on November 17, 2025 for second reading.

ORDINANCE NO. 2025 -

AN ORDINANCE OF THE CITY COMMISSION OF DELAND, FLORIDA, CHANGING THE ZONING FROM VOLUSIA COUNTY'S SOUTHWEST ACTIVITY CENTER COMMUNITY (SWR) AND SOUTHWEST ACTIVITY CENTER COMMERCE (SWC) TO CITY OF DELAND'S CANOPY PRESERVE PLANNED DEVELOPMENT (PD), ON PROPERTY LOCATED NORTH OF STATE ROAD 472 AND EAST OF SOUTH BLUE LAKE AVENUE; APPROVING A PLANNED DEVELOPMENT PLAN CONSISTING OF APPROXIMATELY 39.24 ACRES OF PROPERTY; MAKING FINDINGS OF CONSISTENCY WITH THE COMPREHENSIVE LAND USE PLAN FOR THE CITY OF DELAND; DIRECTING CHANGE IN THE COMPREHENSIVE ZONING MAP; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the Applicant, Mark Watts (hereinafter referred to as "Applicant"), on behalf of the owner Pulte Home Company, LLC owns approximately 39.24 +/- acres of land located north of State Road 472 and east of South Blue Lake Avenue, which is more particularly described in the legal description attached hereto as Exhibit "A" and by this reference made a part hereof; and

WHEREAS, the Applicant has applied for a change of zoning designation from Volusia County's Southwest Activity Center Community (SWR) and Southwest Activity Center Commerce (SWC) to City of DeLand's Canopy Preserve Planned Development (PD); and

WHEREAS, the Applicant wishes to amend the zoning to planned development to develop the property into single family homes and townhomes; and

WHEREAS, said rezoning is consistent with both the Comprehensive Plan and the purpose and intent of Section 33-32 of the Code of Ordinances of the City of DeLand (the "Code"); and

WHEREAS, the Applicant has submitted an application for the approval of a development plan in order to amend the property zoning designation so as to change certain development standards for the property described in Exhibit "A" (hereinafter the "Property" or the "Project"); and

WHEREAS, the proposed development plan meets or exceeds the minimum conditions and standards for the PD District with respect to minimum development size, perimeter setbacks, comprehensive plan consistency, internal compatibility, external compatibility, open spaces, sidewalks, environmental constraints, internal access and circulation, external transportation access, off-street parking, public facilities and unified control; and

WHEREAS, the proposed development plan is consistent with the Low Density Residential land use designation.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission has held a public hearing to approve the change of zoning from Volusia County's Southwest Activity Center Community (SWR) and Southwest Activity Center Commerce (SWC) to City of DeLand's Canopy Preserve Planned Development (PD) on the property located at north of State Road 472 and east of South Blue Lake Avenue, consisting of approximately 39.24 +/- acres.

Section 2. Pursuant to the determination made at public hearing, the City Commission hereby amends the Comprehensive Zoning Map of the City to include the land described in Exhibit "A" as Canopy Preserve PD, Planned Development District.

Section 3. The zoning of the Property as Planned Development District (PD), is made pursuant to Section 33-32 of the Code and the development of the Property shall take place in accordance with that Section and in substantial compliance with the Development Plan Agreement, Maps and other supporting documentation submitted by Applicant which shall be filed and retained for public inspection in the office of the City Planning Department and constitute a supplement to the official Zoning Map of the City.

Section 4. The approved Development Plan for Canopy Preserve PD, Planned Development District, including the Development Plan Agreement, Map and other supporting documentation (on file with the City Planning Department), are attached hereto as Exhibit "B" and by this reference made a part hereof.

Section 5. The failure of the approved Development Plan to address a particular permit, condition, term or restriction shall not relieve the Applicant of the necessity of complying with any law governing said permitting requirements, conditions, terms or restrictions, as same may be amended or enacted from time to time in the future. All current land development regulations of the City are applicable to the PD District except to the extent that they conflict with a specific provision of the approved Development Plan.

Section 6. At the time of development, the Applicant shall comply with all relevant building codes and development standards contained in the City's Code of Ordinances or in the Development Plan; provided, however, that the development standards contained in the adopted Development Plan shall supersede comparable standards contained in the Code of Ordinances.

Section 7. Pursuant to Article 5 of the City's Land Development Regulations, the Applicant shall comply with all applicable infrastructure regulations.

Section 8. The Planning Director is hereby directed to change the Comprehensive Zoning Map of the City of DeLand to conform with the change of zoning enacted in this Ordinance.

Section 9. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 10. This Ordinance shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this _____ day of _____.

_____
Christopher M. Cloudman
Mayor - Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk - Auditor

Passed on first reading:
Adopted on second reading:

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

EXHIBIT "A"
LEGAL DESCRIPTION

A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17 SOUTH, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55'33" EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04'26" EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN NORTH 60°28'40" WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 790.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 403.56 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 408.08 FEET TO THE POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 694.57 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, WITH A CHORD BEARING OF NORTH 46°04'55" WEST, AND A CHORD DISTANCE OF 34.73 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°59'04" FOR A DISTANCE OF 38.39 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SOUTH BLUE LAKE AVENUE ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF AFORESAID PUBLIC RECORDS. ALSO BEING A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE WESTERLY HAVING A RADIUS OF 995.00 FEET. WITH A CHORD BEARING OF NORTH 10°06'00" WEST, AND A CHORD DISTANCE OF 277.30 FEET; THENCE RUN THE FOLLOWING BEARING AND DISTANCES ALONG SAID EASTERLY RIGHT-OF-WAY LINE: NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 16°01'13" FOR A DISTANCE OF 278.21 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1488.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 442.10 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 443.74 FEET TO THE POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST A DISTANCE OF 56.09 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 24.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 39.24 ACRES MORE OR LESS.

PLANNED DEVELOPMENT AGREEMENT

THE CITY COMMISSION OF THE

CITY OF DELAND, FLORIDA

Case # Z25-024

Application of

PULTE HOME COMPANY, LLC

ORDINANCE # 2025-____

ORDER AND RESOLUTION

GRANTING A REQUEST FOR CHANGE OF ZONING

FROM VOLUSIA COUNTY SWR AND SWC TO CANOPY PRESERVE PD

The application of Pulte Home Company, LLC, hereinafter, "Applicant", for rezoning was heard by and before the City Commission, DeLand Florida, on _____, 2025, based upon the verified Application and other supporting documents, maps, charts, overlays, other evidence and instruments; the advice, report, and recommendations of the Community Development Department and other Departments and agencies of the City of DeLand, Florida; and the testimony adduced and evidence received at the Public Hearing on this Application by the Planning Board on _____, and otherwise being fully advised, the City Commission does hereby find and determine as follows:

GENERAL FINDINGS

A. That the application of Pulte Home Company, LLC was duly and properly filed herein on February 12, 2025 as required by law.

B. That all fees and costs which are by law, regulation, or Ordinance required to be borne and paid by the applicant have been paid.

C. That the Applicant is the owner of a 39.24 +/- acre parcel of land which is the subject of this Development Agreement and which land is situated in DeLand, Florida and more particularly described in the attached Exhibit "A" (hereinafter sometimes referred to as the "Property").

D. That the Applicant has complied with the Planned Development Plan provision as required by Land Development Regulations of the Code of Ordinances of the City of DeLand.

E. That the Applicant has complied with the "Due Public Notice" requirements of the City Commission, Land Development Regulations of the Code of Ordinances of the City of DeLand.

F. That the legal owner of the property, Pulte Home Company, LLC, agrees with the provisions of the Development Agreement, agrees to be bound by the terms hereof and is a party to this Development Agreement.

FINDINGS REGARDING REZONING

A. That the Applicant has applied for a change of zoning from the present zoning classification of the parcels described in Exhibit "A" from Volusia County Southwest Activity Center Community (SWR) AND Southwest Activity Center Commerce (SWC) to City of DeLand CANOPY PRESERVE Planned Development (PD). The Property has a future land use designation of Low Density Residential.

B. That the said rezoning to a PD is consistent with both the City of DeLand Comprehensive Plan and the intent and purpose of the City of DeLand Development Regulations contained in Chapter 33 of the Code of Ordinances of the City of DeLand (the "LDR") and does promote the public health, safety, morals, general welfare and orderly growth of the area affected by the rezoning request.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED BY THE CITY OF DELAND, FLORIDA, IN OPEN MEETING DULY ASSEMBLED IN THE CITY COMMISSION CHAMBERS, 120 SOUTH FLORIDA AVENUE, DELAND, FLORIDA, THIS _____ DAY OF _____, 2025, AS FOLLOWS:

A. That the Application of Pulte Home Company, LLC, a Florida limited liability company, for the rezoning of the subject parcel is hereby granted.

B. That the zoning classification of the subject parcels described in Exhibit "A" attached hereto is hereby amended to CANOPY PRESERVE PD as described in the Land Development Regulations.

C. That the Official Zoning Map of the City of DeLand, is hereby amended to show the rezoning of said parcels to CANOPY PRESERVE PD.

D. That the provisions of the "Development Agreement" as hereinafter set forth is consistent with the LDR and with respect to any conflict between the LDR and the Development Agreement, the provisions of the Development Agreement shall govern. The LDR shall govern with respect to any matter not covered by the Development Agreement. The City of DeLand will ensure overall compliance with the Development Agreement.

E. Unless otherwise provided for herein the Development Agreement, the Land Development Regulations shall apply to the PD.

F. Except as otherwise stated herein, nothing in the Development Agreement is intended to abridge the requirements of the Land Development Regulations and any other City Ordinances.

DEVELOPMENT AGREEMENT

A. Development Concept. The intent of this Development Agreement is to allow for the continued development of the Property as a residential subdivision according to that certain Ford 472 Preliminary Plat approved by the County of Volusia under application number 2024-S-PPL-0145 prior to the Property being annexed into the City of DeLand. At the time of this Agreement, development of the Property is in process pursuant to the Ford 472 Preliminary Plat approved by the County of Volusia, and the City acknowledges that permitting, inspections and review of the public infrastructure within the Ford 472 Preliminary Plat approved by the County of Volusia is being undertaken by the County of Volusia. The City of DeLand shall be responsible for permitting, inspection and review of vertical construction within the Property in compliance with this Agreement. In addition, the City of DeLand will be responsible for all permitting, inspection and review for any portion of the Property that requires site development and has not received a final development order from the County of Volusia prior to the date on which annexation of the Property into the City is effective.

B. Planned Development Plan. The Planned Development Plan shall consist of this Development Agreement and the Overall Plan prepared by Kelly, Collins & Gentry, Inc. dated August 28, 2025. The Overall Plan is hereby approved and incorporated in this Ordinance by reference as Exhibit "B". The Planned Development Plan shall be filed and retained for public inspection in the Planning Department and it shall constitute a supplement to the Official Zoning Map of the City of DeLand.

C. Amendments. All amendments of the Planned Development Plan shall require the review and recommendation of the Planning Board and action by the City

Commission in the same manner as a rezoning of the Property. No administrative amendments may be authorized.

D. Subdivision Approval. After the Planned Development Plan is recorded, and prior to any vertical construction, except as permitted by Fla. Stat. § 177.073, the Ford 472 Preliminary Plat approved by the County of Volusia plat shall be recorded in the manner required in the City of DeLand Land Development Regulations.

E. Site Plan Approval. Any improvements to a portion of the property other than construction of single-family residences or townhomes, such as amenity center, shall require the review and approval of a final site plan as required by the Land Development Regulations.

F. Unified Ownership. The owner of the Property or its successors or assigns shall maintain unified ownership of all portions of the Property that have not been subjected to a recorded final subdivision plat.

G. Phases of Development. The project will be developed in one phase in accordance with the Ford 472 Preliminary Plat approved by the County of Volusia. Mass-graded areas shall be stabilized with vegetative cover. No open burning shall be permitted. Construction materials and dumpsters shall not be stored on the paved portion of the roadway. No vertical construction materials or combustibles may be stored onsite until the utilities and roads have been inspected and approved by the County of Volusia and such inspections and approvals are reviewed and accepted by the City of DeLand utilities/engineering and fire prevention. No certificate of occupancy may be issued until after recording of the Final Plat and the necessary infrastructure serving the development is installed, approved by the County of Volusia and/or the City, as applicable, and otherwise placed into service.

H. Model Homes and Temporary Sales Offices. A model center consisting of one (1) single-family model home and one (1) townhome building and up to nine (9) single-family units and twenty-four (24) townhome units of the approved lots are authorized to receive building permits and commence construction prior to recording the final plat, and once the annexation, land use, and rezoning applications have been reviewed and approved by the City Commission. Model lot locations are shown on Exhibit "F". Building permits may be issued and construction can commence once the City of DeLand Utilities and Fire Prevention Departments have accepted all County inspections of the utilities infrastructure, roads and that water service sufficient to meet required fire flow is available to the site and site access is available to support emergency vehicles.

I. Land Uses Within the PD. The approximate location and size of land use areas are shown on the Overall Plan, attached hereto as Exhibit "B". The following land uses shall be allowed as permitted principal uses and structures along with their customary accessory uses and structures:

Permitted Uses:

Single-family dwellings

Multiple-family dwellings (townhomes)

Any customary accessory uses or structures associated with single family and multifamily (townhome) dwellings

Clubhouses, parks, walking trails and other neighborhood amenities

Prohibited Uses:

Any use or structure not otherwise permitted herein

J. Development Standards. All development for the property shall rely upon the standards set forth below – to the extent that a provision herein conflicts with the

Approved Subdivision Plat, and the provisions of the City Land Development Regulations zoning classification shall control. The gross maximum density for the Property shall not exceed 5.2 units/acre.

1. Single Family Residential:

a) Minimum Lot Area: 6,250 sq. ft.

b) Minimum Floor Area: 1,662 sq. ft. (under heat & air)

c) Minimum Lot Width: 50 ft.

d) Maximum Building Height: 35 ft.

e) Minimum Building Separation: 10 ft

f) Minimum Setbacks:

i. Side: 5 ft.

ii. Front: 25 ft.

iii. Rear: 20 ft.

iv. Garage: 25 ft.

g) Maximum Impervious Surface Area: 65%

h) Maximum number of single-family units: 91 units

2. Multiple Family (Townhouse) Residential:

a) Minimum Lot Area: 2,200 sq. ft.

b) Minimum Floor Area: 1,552 sq. ft (under heat & air)

c) Minimum Lot Width: 20 ft.

d) Maximum Building Height: 35 ft.

e) Maximum Townhouse Building Length: 160 ft.

f) Minimum Building Separation: 50 feet between fronts or rears of principal buildings and 25 feet between any other combinations of

principal building arrangements.

i. Front: 25 ft.

ii. Rear: 15 ft.

iii. Garage: 25 ft.

g) Maximum Impervious Surface Area: 70% Overall Townhome area
85% Per Townhome lot

h) Maximum number of townhome units: 112 units

3. Accessory Structures. Unless otherwise stated herein, all accessory structures shall meet the development standards of the City of DeLand Land Development Regulations

4. Parking Standards.

1. The Ford 472 Preliminary Plat approved by the County of Volusia shall provide parking at a rate of 2 spaces per SFR unit and 2 spaces per Townhome unit in accordance with the requirements of Sec. 72-286 of the Volusia County Land Development Code. Any future final site plan development order issued after the date on which annexation is effective shall meet the parking requirements of the Land Development Regulations. Default standards requiring ten feet of vehicle separation from any property line shall not apply to internal lot lines. Each parcel shall be designed to accommodate no less than two (2) parking spaces via use of on-lot driveway, which shall be a minimum of eighteen feet (18') wide and two (2) spaces in an internal garage.

2. Parking shown for the amenity center may be modified to provide additional amenity space for residents, so long as pedestrian access is provided, and bicycle parking/bike rack facilities are available for residents.

5. Buffer Standards. The purpose of the buffers is to provide enhanced screening to soften the views from adjacent right of ways and provide an element of privacy for residents. Except as otherwise specifically provided for in this Development Agreement, the perimeter buffers of the development shall at a minimum comply with the landscape buffer width and planting requirements provided for in the City of DeLand Land Development Regulations. As shown on Exhibit "G", the buffers shall be as follows:

LOCATION	TYPE
NORTH	25' Landscape Buffer with: 4 canopy trees per 100 linear feet 4 understory per 100 linear feet 27 shrubs per 100 linear feet
SOUTH	SFR – 30' min. Landscape Buffer MF – 15' min. Landscape Buffer with: 4 canopy trees per 100 linear feet 4 understory per 100 linear feet 27 shrubs per 100 linear feet
EAST	N/A
WEST	30' min. Landscape Buffer with: 4 canopy trees per 100 linear feet 4 understory per 100 linear feet 27 shrubs per 100 linear feet

A six-foot-high continuous visual screen shall also be provided. The screen shall be comprised of tree protection area and landscaping. The approved landscape plans for the Property are attached as Exhibit "C" ("Landscape Plan").

6. Internal Boundaries:

Landscape buffers shall not be required between residential lots and common areas or amenities within the Property.

7. Signage:

a) General Terms: Monument signs shall have a decorative cap, a complimentary masonry base and shall be internally or externally lit. The signage installed for the project will be consistent with the elevations attached as Exhibit "D". The location of the monument signs are generally depicted on the Landscape Plan. Signs may be permitted within the landscape buffers, but not within Tree Protection Areas. Building signs are permitted within amenity areas and shall comply the Land Development Regulations.

8. Open Space. Open space and/or common area shall meet the requirements of the City of DeLand Land Development Regulations except as otherwise expressly provided for in this Development Agreement or depicted on the PD Overall Plan.

9. Tree Protection Area. 15% of the property's total square footage has been designated for tree protection area, compliant with Volusia County's Land Development Regulations and approved by the County. Any future redevelopment shall meet the requirement of the City's LDR's. All planted

trees shall be owned and maintained by the homeowners' association established for the Property and shall be consistent with the approved Landscape Plan. Any damage to infrastructure (streets, sidewalks, driveways, etc.) due to trees shall be the responsibility of the HOA.

10. Compliance. In the event that future development cannot comply with the standards set forth herein, then said entitlements shall be processed through an amendment to this Development Agreement.

11. Architecture. Building architecture shall endeavor to achieve general compatibility with surrounding properties and shall meet the requirements of City of DeLand Land Development Regulations. Architectural elevations for the multifamily (townhome) dwellings include elements to provide for varying roof styles, varying materials and color finishes for the horizontal surfaces, articulation and fenestration. The architectural elevations are and a map showing the building location within the Property by style and color are attached hereto as Exhibit "E" and are hereby approved. The architectural style will include a mixed theme of farmhouse, traditional, Florida mediterranean and coastal styles.

12. Dark Sky Lighting Standards. All lighting shall be downward and of the full cut-off shield variety in which the light source is recessed and shielded in a manner which prohibits upward light overspill into the night sky, except as otherwise permitted by the Land Development Regulations.

K. Environmental Considerations. The development shall comply with the requirements for preservation of environmental resources as set forth in the Land Development Regulations. The development has been laid out in a manner to best

accommodate the existing topography and drainage conditions identified on the Property. All landscaping, including buffers, will comply with the Ford 472 Preliminary Plat approved by the County of Volusia.

L. Sewage Disposal, Potable Water and Reclaimed Water. Provision for sewage disposal, potable and reclaimed water needs of the PD will be provided in accordance with the Comprehensive Plan, the Land Development Regulations and State of Florida Administrative Code 64E-6.

M. Stormwater Drainage. Provision for stormwater retention shall be in accordance with the Ford 472 Preliminary Plat approved by the County of Volusia and to meet all other applicable City of DeLand regulations. Specifically, the stormwater retention was designed to accommodate a 100-year, 24-hour storm event, which shall be retained onsite.

N. Low Impact Development Standards. All mulching will be conducted in accordance with the most current version of the Florida Green Industries Best Management Practices (BMPs) handbook guidelines. Mowing in common areas shall be done in accordance with the most current version of the Florida Green Industries BMPs handbook and by certified landscaping contractors. Mowing adjacent to swales shall be performed such that no clippings are deposited into any swales or water bodies. All clippings that may have been deposited on impervious surfaces will be swept back into the vegetated area. All pesticide applications in common areas shall be done by a certified professional in accordance with the most current version of the Florida Green Industries BMPs handbook.

O. Access and Transportation System Improvements. All access and transportation system improvements were approved as part of the Ford 472 Preliminary

Plat approved by the County of Volusia. Site access improvements shall include the construction of an extension of Cassadaga Road from its existing intersection with Martin Luther King, Jr. Boulevard west to a new intersection with Blue Lake Avenue. The Applicant shall construct the Cassadaga Road extension and dedicate the roadway, once completed, to the County of Volusia.

P. Maintenance Association. The applicant shall provide for a centrally managed maintenance entity to serve the parcels and common areas/shared use facilities in the development, if any, including, but not limited to shared stormwater facilities, non-publicly maintained roadways, sidewalks, or common areas, and perform the ongoing duties set forth herein.

With respect to the enforcement of said agreements, covenants, easements or restrictions entered into between the Applicant and the owners or occupiers of property within the CANOPY PRESERVE PD, the City of DeLand shall only enforce the provisions of the "Development Agreement" and City of DeLand Land Development Regulations, whichever is applicable, and not the private agreements entered into between the aforementioned parties.

Q. Reverter Provision: The terms of this Development Agreement shall be vested upon recordation of the Approved Subdivision Plat, which shall occur within five (5) years from the effective date of this ordinance. If not vested within said time frame, this Development Agreement shall automatically terminate and be of no further force or effect, unless the City Commission, for good cause shown, shall extend the time period indicated in this paragraph. Thereafter, the City Commission may rezone the Property as may be necessary or appropriate to protect adjoining properties or the public health, safety and welfare.

R. Binding Effect of Plans; Recording; and Effective Date. The Planned Development Plan, including any and all amendments shall bind and inure to the benefit of the owner of the Property and its successors in title or interest. The CANOPY PRESERVE PD zoning, provisions of the "Development Agreement," and all approved plans shall run with the land and shall be administered in a manner consistent with the City of DeLand Land Development Regulations.

This Ordinance and all subsequent amendments shall be filed with the Clerk of the Court and recorded within forty-five (45) days following execution of the document by the City Commission, in the Official Records of Volusia County, Florida. One copy of the document, bearing the book and page number of the Official Record in which the document was recorded, shall be submitted to the City of DeLand Planning Division for placement in the public file. The date of recording of this document shall constitute the effective date of the CANOPY PRESERVE PD or its subsequent amendments. The applicant shall pay all filing costs for recording documents.

DONE and ORDERED by the City Commission, City of DeLand, Florida, this ____ day of _____, 2025.

ATTEST:

City Commission of DeLand Florida

_____
Michael P. Pleus
City Manager

_____
Christopher M. Cloudman
Mayor

STATE OF FLORIDA
CITY OF DELAND

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization this ____ day of _____, 202__, by Michael P. Pleus and Christopher M. Cloudman, as City Manager and Mayor of the City of DeLand, respectively, on behalf of the City of DeLand, and who are personally known to me.

NOTARY PUBLIC, STATE OF FLORIDA
Type or Print Name:
_____
Commission No.:_____
My Commission Expires:_____

WITNESSES:

APPLICANT/OWNER:
PULTE HOME COMPANY, LLC
a Florida limited liability company

_____

By:_____
_____, Manager

_____
Printed Name

_____

_____
Printed Name

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization this ____ day of _____, 202__, by _____ as _____ of PULTE HOME COMPANY, LLC, who is personally known to me or who has produced _____ as identification.

NOTARY PUBLIC, STATE OF FLORIDA

Type or Print Name:

_____

Commission No.:_____

My Commission Expires:_____

EXHIBIT "A"
LEGAL DESCRIPTION

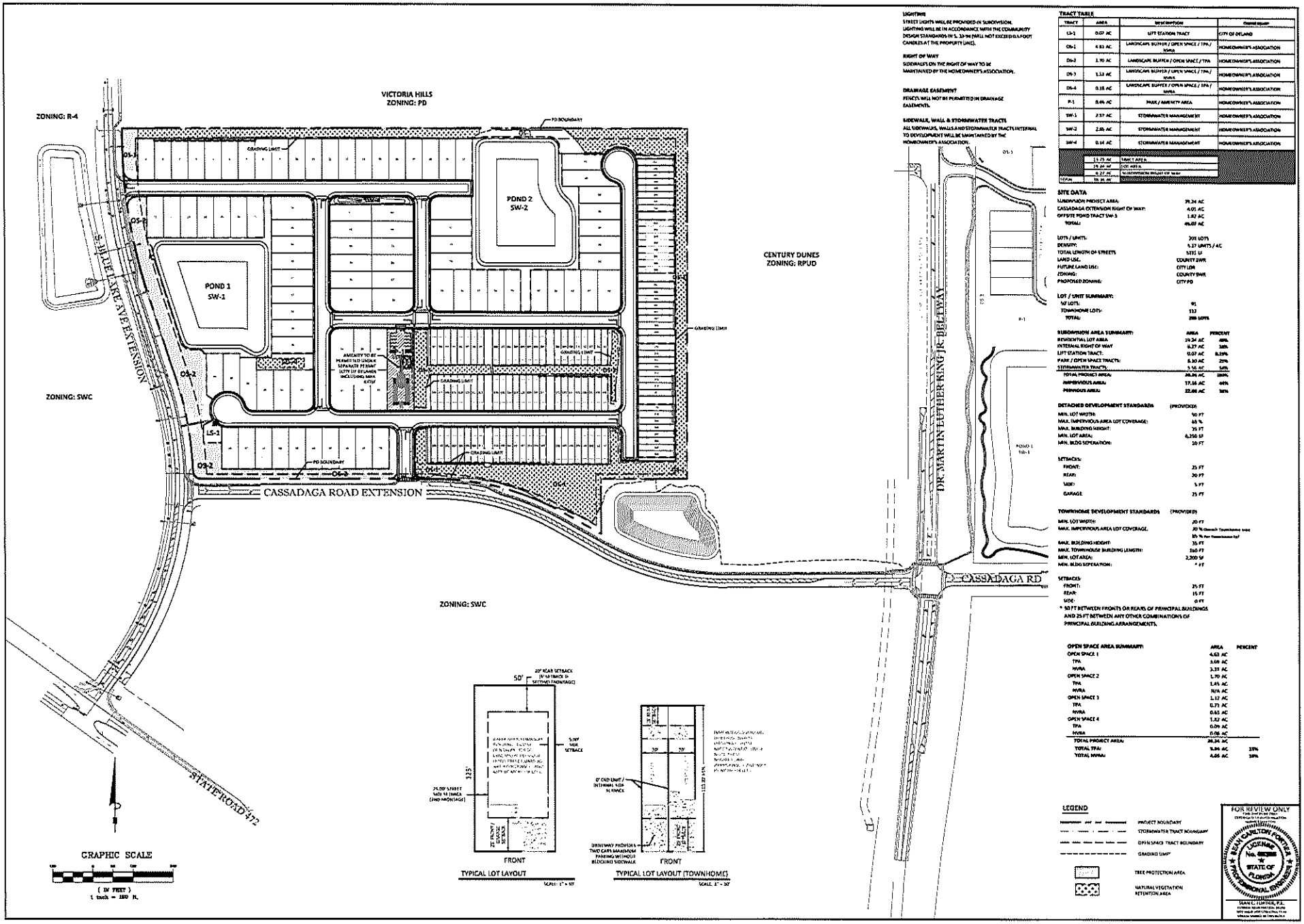
A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17 SOUTH, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55'33" EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04'26" EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN NORTH 60°28'40" WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 790.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 403.56 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 408.08 FEET TO THE POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 694.57 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, WITH A CHORD BEARING OF NORTH 46°04'55" WEST, AND A CHORD DISTANCE OF 34.73 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°59'04" FOR A DISTANCE OF 38.39 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SOUTH BLUE LAKE AVENUE ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF AFORESAID PUBLIC RECORDS. ALSO BEING A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE WESTERLY HAVING A RADIUS OF 995.00 FEET. WITH A CHORD BEARING OF NORTH 10°06'00" WEST, AND A CHORD DISTANCE OF 277.30 FEET; THENCE RUN THE FOLLOWING BEARING AND DISTANCES ALONG SAID EASTERLY RIGHT-OF-WAY LINE: NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 16°01'13" FOR A DISTANCE OF 278.21 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1488.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 442.10 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 443.74 FEET TO THE POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST A DISTANCE OF 56.09 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 24.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 39.24 ACRES MORE OR LESS.

EXHIBIT "B"
OVERALL PLAN



LIGHTING
STREET LIGHTS WILL BE PROVIDED IN SUBDIVISION. LIGHTING WILL BE IN ACCORDANCE WITH THE COMMUNITY DESIGN STANDARDS IN S. 33-94 (WILL NOT EXCEED 0.5 FOOT CANDLES AT THE PROPERTY LINE).

RIGHT OF WAY
SIDEWALKS ON THE RIGHT OF WAY TO BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.

DRAINAGE EASEMENT
FENCES WILL NOT BE PERMITTED IN DRAINAGE EASEMENTS.

SIDEWALK, WALL & STORMWATER TRACTS
ALL SIDEWALKS, WALLS AND STORMWATER TRACTS INTERNAL TO DEVELOPMENT WILL BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.

TRACT TABLE

TRACT	AREA	DESCRIPTION	OWNERSHIP
LS-1	0.07 AC	LIFT STATION TRACT	CITY OF DELAND
OS-1	4.63 AC	LANDSCAPE BUFFER / OPEN SPACE / TPA / NVRA	HOMEOWNER'S ASSOCIATION
OS-2	1.70 AC	LANDSCAPE BUFFER / OPEN SPACE / TPA	HOMEOWNER'S ASSOCIATION
OS-3	1.12 AC	LANDSCAPE BUFFER / OPEN SPACE / TPA / NVRA	HOMEOWNER'S ASSOCIATION
OS-4	0.18 AC	LANDSCAPE BUFFER / OPEN SPACE / TPA / NVRA	HOMEOWNER'S ASSOCIATION
P-1	0.65 AC	PARK / AMENITY AREA	HOMEOWNER'S ASSOCIATION
SW-1	7.57 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-2	2.85 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-4	0.14 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
	19.25 AC	TRACT AREA	
	39.24 AC	LOT AREA	
	6.27 AC	% IMPERVIOUS RIGHT OF WAY	
TOTAL	39.24 AC		

SITE DATA

SUBDIVISION PROJECT AREA:	39.24 AC
CASSADAGA EXTENSION RIGHT OF WAY:	4.01 AC
OFFSITE POND TRACT SW-3	1.82 AC
TOTAL:	45.07 AC
LOTS / UNITS:	205 LOTS
DENSITY:	5.27 UNITS / AC
TOTAL LENGTH OF STREETS	5191 LF
LAND USE:	COUNTY SWR
FUTURE LAND USE:	CITY LDR
ZONING:	COUNTY SWR
PROPOSED ZONING:	CITY PD

LOT / UNIT SUMMARY:

SF LOTS:	91
TOWNHOME LOTS:	112
TOTAL:	205 LOTS

SUBDIVISION AREA SUMMARY:	AREA	PERCENT
RESIDENTIAL LOT AREA	19.24 AC	49%
INTERNAL RIGHT OF WAY	6.27 AC	16%
LIFT STATION TRACT:	0.07 AC	0.19%
PARK / OPEN SPACE TRACTS:	8.30 AC	21%
STORMWATER TRACTS	5.36 AC	14%
TOTAL PROJECT AREA:	39.24 AC	100%
IMPERVIOUS AREA:	17.16 AC	44%
PERVIOUS AREA:	22.08 AC	56%

DETACHED DEVELOPMENT STANDARDS	(PROVIDED)
MIN. LOT WIDTH:	50 FT
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %
MAX. BUILDING HEIGHT:	35 FT
MIN. LOT AREA:	6,250 SF
MIN. BLDG SEPERATION:	10 FT

SETBACKS:

FRONT:	25 FT
REAR:	20 FT
SIDE:	5 FT
GARAGE	25 FT

TOWNHOME DEVELOPMENT STANDARDS	(PROVIDED)
MIN. LOT WIDTH:	20 FT
MAX. IMPERVIOUS AREA LOT COVERAGE.	80 % (Overall Townhome Area) 85 % Per Townhome lot
MAX. BUILDING HEIGHT:	35 FT
MAX. TOWNHOUSE BUILDING LENGTH:	160 FT
MIN. LOT AREA:	2,200 SF
MIN. BLDG SEPERATION:	* FT

SETBACKS:

FRONT:	25 FT
REAR:	15 FT
SIDE:	0 FT

* 50 FT BETWEEN FRONTS OR REARS OF PRINCIPAL BUILDINGS AND 25 FT BETWEEN ANY OTHER COMBINATIONS OF PRINCIPAL BUILDING ARRANGEMENTS.

OPEN SPACE AREA SUMMARY:	AREA	PERCENT
OPEN SPACE 1	4.63 AC	
TPA	3.68 AC	
NVRA	3.33 AC	
OPEN SPACE 2	1.70 AC	
TPA	1.45 AC	
NVRA	N/A AC	
OPEN SPACE 3	1.12 AC	
TPA	0.71 AC	
NVRA	0.63 AC	
OPEN SPACE 4	1.82 AC	
TPA	0.09 AC	
NVRA	0.08 AC	
TOTAL PROJECT AREA	39.24 AC	
TOTAL TPA:	5.86 AC	15%
TOTAL NVRA:	4.05 AC	10%

LEGEND
- PROJECT BOUNDARY
- STORMWATER TRACT BOUNDARY
- OPEN SPACE TRACT BOUNDARY
- GRADING LIMIT
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

FOR REVIEW ONLY
Not for construction or permitting purposes
Released on 2/26/2024
KEVIN CARLTON FOSTER
LICENSE No. 73888
STATE OF FLORIDA
PROFESSIONAL ENGINEER
KEVIN C. FOSTER, P.E.

KCG KELLY, COLLINS & GENTRY, INC.
179 NORTH WOODLAND BOULEVARD, DELAND, FLORIDA 32720 (407) 599-1988 FAX (407) 599-1480

NO.	REVISION	DATE

PREPARED FOR:
PULTE GROUP

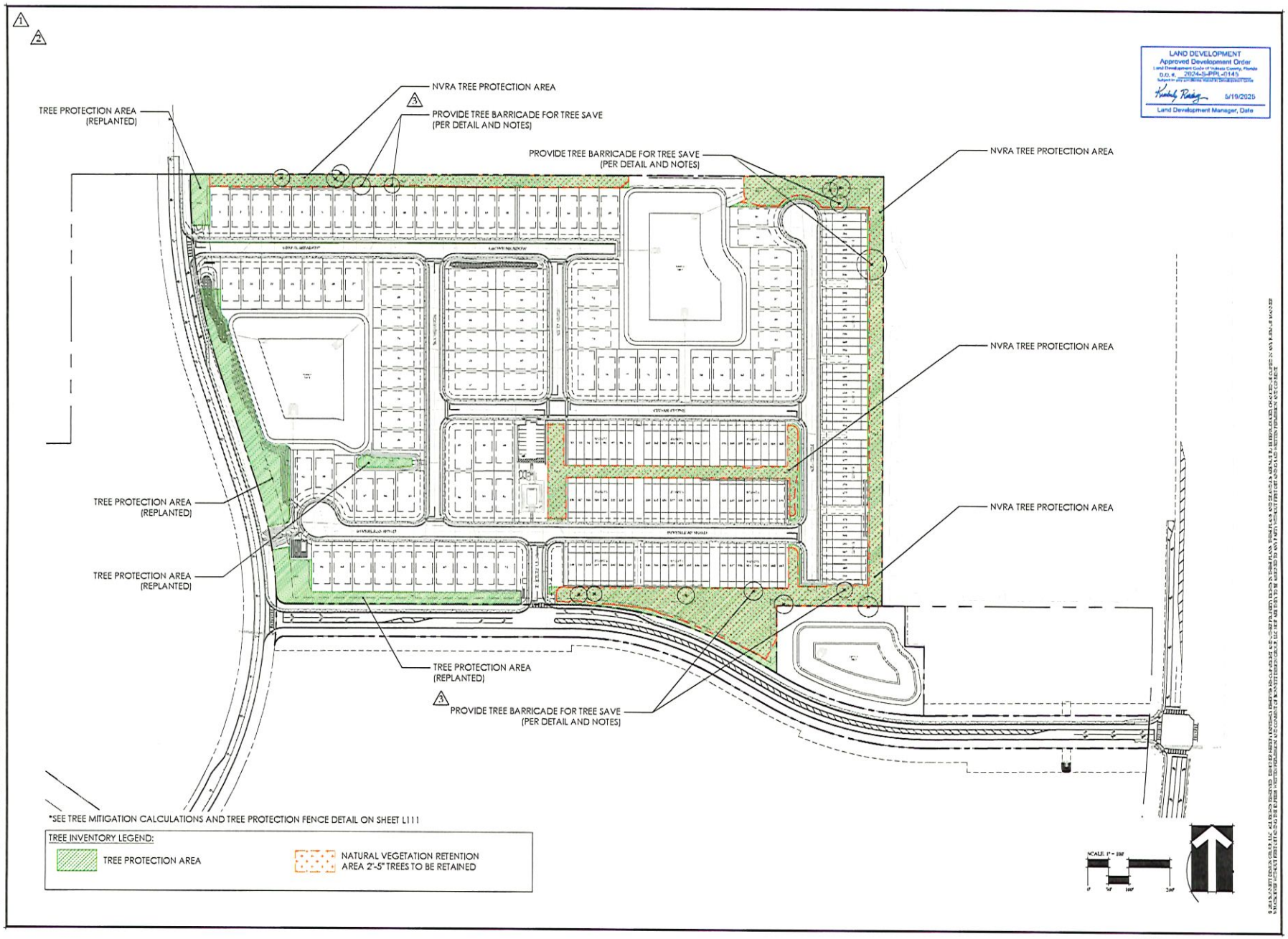
FORD 472 SUBDIVISION

PD OVERALL PLAN

DRAWN: HD
DESIGN: KFF
CHECKED: KFF
JOB NO.: 1744.000
DATE: 02/26/2024

SHEET
PD-1

EXHIBIT "C"
APPROVED LANDSCAPE PLAN



BONNETT design group, llc
landscape architecture
community planning
TL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

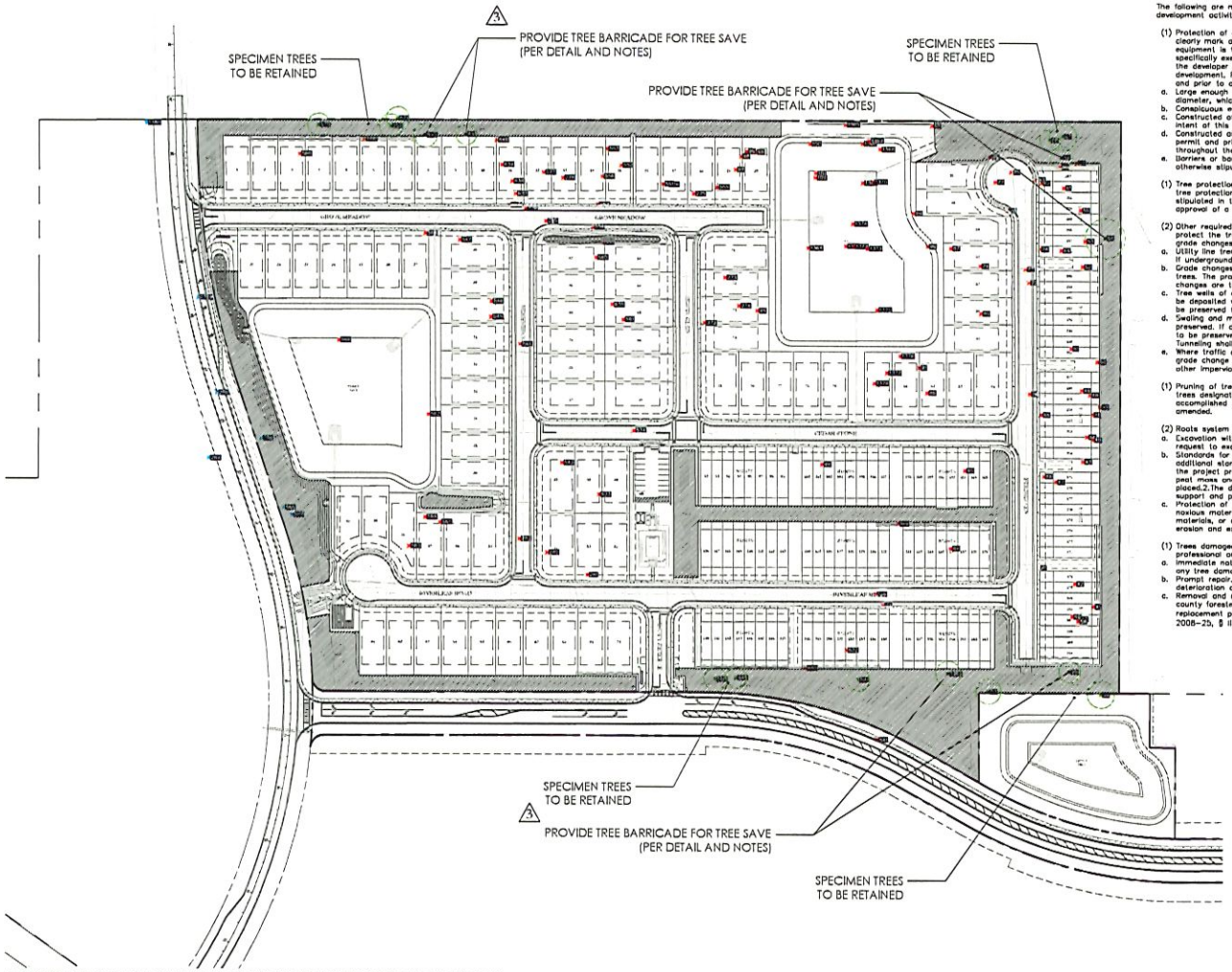
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
OVERALL TREE MITIGATION PLAN

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_La BASE_CODE

REVISIONS:
1. County Comments 05-31-2024
2. County Comments 08-26-2024
3. DRC Comments 11-08-2024
4. DRC Revisions 03-12-2025

L100

COUNTY SUBMITTTAL - 2024-01-26



*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L111

TREE INVENTORY LEGEND:

SPECIMEN TREES REMOVED | SPECIMEN TREES REMOVED BY COUNTY | SPECIMEN TREES SAVED

3 VOLUSIA COUNTY LDC REFERENCES:

SEC. 72-844 - STANDARDS FOR TREE PROTECTION DURING DEVELOPMENT ACTIVITIES

The following are minimum standards necessary to protect trees designated for preservation from damage during development activities after a permit has been approved:

(1) Protection of existing trees. Prior to the commencement of construction of a development, the applicant shall clearly mark any tree or tree groups to be maintained in the proximity of any area where land clearing equipment is to be operated. In addition, prior to any clearing of improved, vacant or unimproved land unless specifically exempted from this article, trees to be preserved, shall have barriers constructed around them by the developer to prevent physical damage from heavy equipment and other activities incidental to development. Required barriers shall be subject to inspection by the county as a condition of permit approval and prior to any clearing. The barriers shall be:
a. Large enough to include the entire area inside the drip line of the tree or one foot of radius per inch of the diameter, whichever is greater;
b. Conspicuous enough and high enough to be easily seen by operators of trucks and other equipment;
c. Constructed of sturdy material as approved by the county forester based on professional judgment that the intent of this provision shall be met; and
d. Constructed as a condition of the issuance of any tree permit, building permit, and any other development permit and prior to any construction or other development activities and require to remain in place throughout the construction.
e. Barriers or barricades shall be completely removed from the site at the end of the construction, unless otherwise stipulated on the approved tree preservation plan.

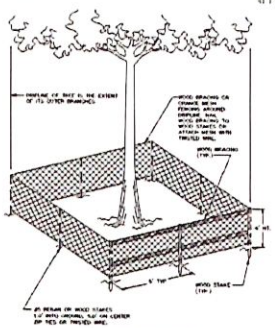
(1) Tree protection zones. The area within the drip line of trees designated for preservation is considered the tree protection zone. Only hand clearing is permittable within the tree protection zone, unless otherwise stipulated in the approved tree permit. Encroachments into the tree protection zone will require submittal and approval of a drip line encroachment plan outlining tree protection measures to be utilized.

(2) Other required protection of trees and understory. Developers shall, as required by the approved tree permit, protect the trees and understory plants designated for preservation from chemical poison, excavation, and grade changes to at least the following minimum standards:
a. Utility line trenches. Utility line trenches shall be routed away from trees to an area outside of the drip line. If underground utilities must be routed through a tree protection barrier zone, tunneling will be required.
b. Grade changes. The site shall be utilized as to require the smallest possible grade change around existing trees. The project shall be designed to utilize site topography to the greatest extent possible. No grade changes are to be allowed within the drip line of existing trees unless approved by the county forester.
c. Tree wells of an approved design shall be constructed around all trees to be preserved when fill material will be deposited within the drip line of protected trees. Utilize retaining walls and drywells to protect any tree to be preserved from severe grade changes.
d. Swaling and minor negative grade changes shall be designed outside the drip line of the area of trees to be preserved. If ditches, swales, or other significant grade changes are required near a tree that is designated to be preserved, piping shall be used. Trenching within the drip line of trees to remain shall be avoided. Tunneling shall be used in lieu of trenching within the drip line of trees to remain.
e. Where traffic areas are proposed within the drip line of trees to be preserved, and less than two inches of grade change is proposed, surfaces that allow air and water in the soil shall be used in lieu of asphalt or other impervious surfaces.

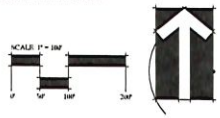
(1) Pruning of trees and vegetation. The developer is permitted to properly cut or prune branches and roots of trees designated for preservation under the supervision of the county forester. However, tree pruning shall be accomplished in accordance with the procedures set forth by the American National Standard Institute, as amended.

(2) Roots system protection. The root systems of trees shall be protected as follows:
a. Excavation within a drip line. County forester may approve a drip line encroachment plan upon the applicant's request to excavate within the drip line of a tree as part of a clearing permit.
b. Standards for root protection. The following standards shall apply and the county forester may establish additional standards for root protection consistent with this section if deemed warranted by site conditions or the project proposal:1.If roots are exposed, the developer shall provide temporary earth cover, mixed with peat moss and wrapped with burlap, to prevent exposure from drying out before permanent back fill is placed.2.The developer shall also fertilize, water and maintain in a moist condition, and otherwise temporarily support and protect the tree root from damage until the tree root is permanently covered with earth.
c. Protection of the tree root system. The developer shall protect tree root systems from damage due to noxious material in solution caused by runoff, or spillage during mixing and placement of construction materials, or drainage from storage materials. Developer shall also protect the root systems from flooding, erosion and excessive wetting resulting from dewatering or grading operations.

(1) Trees damaged during construction. The developer shall have trees damaged by construction repaired by a professional or arborist in a manner acceptable to the county forester as follows:
a. Immediate notification to the county. The county forester must be notified immediately after any damage to any tree damaged by construction operations.
b. Prompt repair. Repairs shall be made promptly, as necessary, after damage occurs to prevent progressive deterioration of damaged trees.
c. Removal and replacement of damaged trees. The developer shall remove trees which are determined by the county forester as being incapable of restoration of normal growth pattern. Such trees shall be subject to replacement pursuant to subsection 72-832(b) of this article.(Ord.No. 02-13, § II, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)



TREE PROTECTION BARRICADE



LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-D-PPL-0145
Pursuant to 40.2 Land Use Board & Commission Rules
Land Development Manager, Date 5/19/2025

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.2580

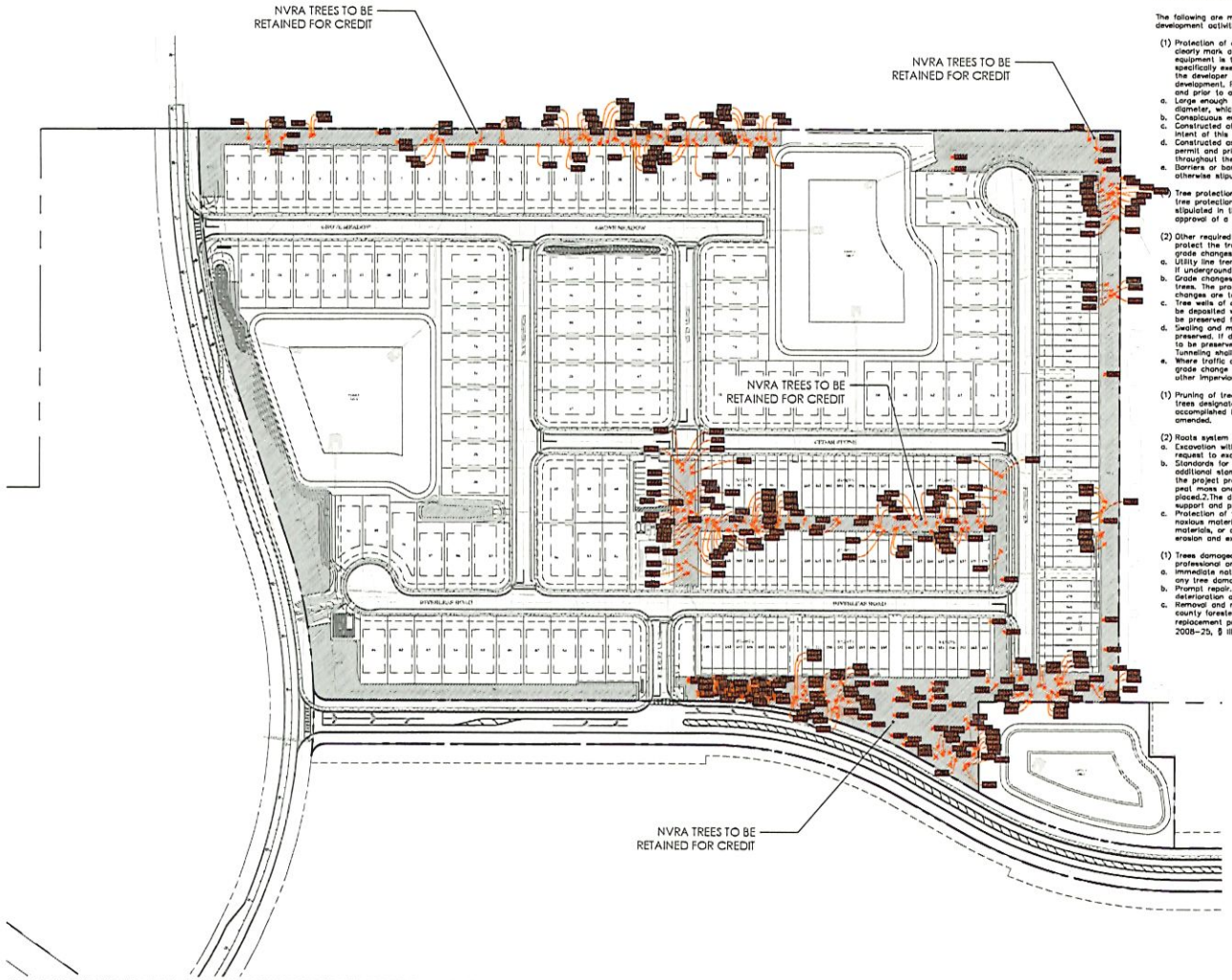
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
SPECIMEN TREE MITIGATION PLAN

DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2023.167
FILE NAME: 2023.167_FULE FORD 472_LA BASE_CODE

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 05-12-2025

2
L101

COUNTY SUBMITTTAL - 2024-01-26



*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L111

TREE INVENTORY LEGEND:

2'-5" TREES TO BE RETAINED

VOLUSIA COUNTY LDC REFERENCES:

SEC. 72-844 - STANDARDS FOR TREE PROTECTION DURING DEVELOPMENT ACTIVITIES

The following are minimum standards necessary to protect trees designated for preservation from damage during development activities after a permit has been approved:

(1) Protection of existing trees. Prior to the commencement of construction of a development, the applicant shall clearly mark any tree or tree groups to be maintained in the proximity of any area where land clearing equipment is to be operated. In addition, prior to any clearing of improved, vacant or unimproved land unless specifically exempted from this article, trees to be preserved, shall have barriers constructed around them by the developer to prevent physical damage from heavy equipment and other activities incidental to development. Required barriers shall be subject to inspection by the county as a condition of permit approval and prior to any clearing. The barriers shall be:

a. Large enough to include the entire area inside the drip line of the tree or one foot of radius per inch of the diameter, whichever is greater;
b. Conspicuous enough and high enough to be easily seen by operators of trucks and other equipment;
c. Constructed of sturdy material as approved by the county forester based on professional judgment that the intent of this provision shall be met; and
d. Constructed as a condition of the issuance of any tree permit, building permit, and any other development permit and prior to any construction or other development activities and require to remain in place throughout the construction.
e. Barriers or barricades shall be completely removed from the site at the end of the construction, unless otherwise stipulated on the approved tree preservation plan.

(2) Tree protection zones. The area within the drip line of trees designated for preservation is considered the tree protection zone. Only hand clearing is permittable within the tree protection zone, unless otherwise stipulated in the approved tree permit. Encroachments into the tree protection zone will require submittal and approval of a drip line encroachment plan outlining tree protection measures to be utilized.

(2) Other required protection of trees and understory. Developers shall, as required by the approved tree permit, protect the trees and understory plants designated for preservation from chemical poison, excavation, and grade changes to at least the following minimum standards:

a. Utility line trenches. Utility line trenches shall be routed away from trees to an area outside of the drip line. If underground utilities must be routed through a tree protection barrier zone, tunneling will be required.
b. Grade changes. The site shall be utilized as to require the smallest possible grade change around existing trees. The project shall be designed to utilize site topography to the greatest extent possible. No grade changes are to be allowed within the drip line of existing trees unless approved by the county forester.
c. Tree wells of an approved design shall be constructed around all trees to be preserved when fill material will be deposited within the drip line of protected trees. Utilize retaining walls and drywells to protect any tree to be preserved from severe grade changes.
d. Swales and minor negative grade changes shall be designed outside the drip line of the area of trees to be preserved. If ditches, swales, or other significant grade changes are required near a tree that is designated to be preserved, piping shall be used. Trenching within the drip line of trees to remain shall be avoided. Tunneling shall be used in lieu of trenching within the drip line of trees to remain.
e. Where traffic areas are proposed within the drip line of trees to be preserved, and less than two inches of grade change is proposed, surfaces that allow air and water in the soil shall be used in lieu of asphalt or other impervious surfaces.

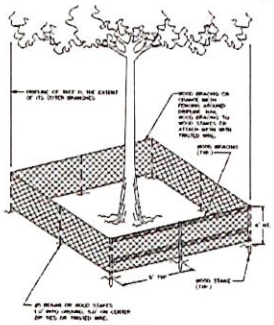
(1) Pruning of trees and vegetation. The developer is permitted to properly cut or prune branches and roots of trees designated for preservation under the supervision of the county forester. However, tree pruning shall be accomplished in accordance with the procedures set forth by the American National Standard Institute, as amended.

(2) Roots system protection. The root systems of trees shall be protected as follows:

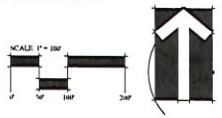
a. Excavation within a drip line. County forester may approve a drip line encroachment plan upon the applicant's request to excavate within the drip line of a tree as part of a clearing permit.
b. Standards for root protection. The following standards shall apply and the county forester may establish additional standards for root protection consistent with this section if deemed warranted by site conditions or the project proposal:1.If roots are exposed, the developer shall provide temporary earth cover, mixed with peat moss and wrapped with burlap, to prevent exposure from drying out before permanent back fill is placed.2.The developer shall also fertilize, water and maintain in a moist condition, and otherwise temporarily support and protect the tree root from damage until the tree root is permanently covered with earth.
c. Protection of the tree root system. The developer shall protect tree root systems from damage due to noxious material in solution caused by runoff, or spillage during mixing and placement of construction materials, or drainage from storage materials. Developer shall also protect the root systems from flooding, erosion and excessive wetting resulting from dewatering or grading operations.

(1) Trees damaged during construction. The developer shall have trees damaged by construction repaired by a professional or arborist in a manner acceptable to the county forester as follows:

a. Immediate notification to the county. The county forester must be notified immediately after any damage to any tree damaged by construction operations.
b. Prompt repair. Repairs shall be made promptly, as necessary, after damage occurs to prevent progressive deterioration of damaged trees.
c. Removal and replacement of damaged trees. The developer shall remove trees which are determined by the county forester as being incapable of restoration of normal growth pattern. Such trees shall be subject to replacement pursuant to subsection 72-832(b) of this article.(Ord.No. 02-13, § II, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)



TREE PROTECTION BARRICADE



LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O.S. #: 2024-S-PPL-0146
Pursuant to the Subdivision Section of the Development Code
Land Development Manager, Date 5/19/2025

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001728
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1508

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida

NATURAL VEGETATION RETENTION AREA PLAN

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_Landscape_CODE

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 03-12-2025

L102

COUNTY SUBMITTTAL - 2024-01-26

SPECIMEN TREE SURVEY:

Specimen Trees												
ID#	Type	Alive?	Latitude	Longitude	X_proj	Y_proj	Scientific or Common Name	DBH	Unit	Date	Time	
514	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	14:40:31	2022/06/07 10:40:31
515	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	22		2022/06/07	14:41:17	2022/06/07 10:41:17
516	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	22		2022/06/07	14:41:52	2022/06/07 10:41:52
517	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	19		2022/06/07	14:42:25	2022/06/07 10:42:25
518	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	14:43:11	2022/06/07 10:43:11
519	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	30		2022/06/07	14:56:16	2022/06/07 10:56:16
520	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	29		2022/06/07	14:58:02	2022/06/07 10:58:02
521	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:01:30	2022/06/07 11:01:30
522	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:05:17	2022/06/07 11:05:17
523	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:07:40	2022/06/07 11:07:40
524	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:08:38	2022/06/07 11:08:38
525	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:13:39	2022/06/07 11:13:39
526	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	23		2022/06/07	15:17:07	2022/06/07 11:17:07
527	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	23		2022/06/07	15:23:27	2022/06/07 11:23:27
528	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:25:50	2022/06/07 11:25:50
754	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:30:49	2022/06/07 11:30:49
755	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	15:49:46	2022/06/07 11:49:46
756	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	15:50:27	2022/06/07 11:50:27
757	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:44:27	2022/06/07 11:44:27
758	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:46:09	2022/06/07 11:46:09
759	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:19	2022/06/07 11:49:19
760	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	30		2022/06/07	15:49:52	2022/06/07 11:49:52
761	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:54:12	2022/06/07 11:54:12
762	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:57:09	2022/06/07 11:57:09
763	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:58:39	2022/06/07 11:58:39
764	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:07:15	2022/06/07 12:07:15
765	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	16:10:09	2022/06/07 12:10:09
766	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:12:48	2022/06/07 12:12:48
767	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:15:11	2022/06/07 12:15:11
768	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:49:44	2022/06/07 12:49:44
769	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:50:27	2022/06/07 12:50:27
770	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:46:27	2022/06/07 11:46:27
771	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:47:45	2022/06/07 11:47:45
772	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:19	2022/06/07 11:49:19
773	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:52	2022/06/07 11:49:52
774	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:54:12	2022/06/07 11:54:12
775	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:57:09	2022/06/07 11:57:09
776	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:58:39	2022/06/07 11:58:39
777	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	16:07:15	2022/06/07 12:07:15
778	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:10:09	2022/06/07 12:10:09
779	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:12:48	2022/06/07 12:12:48
780	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:15:11	2022/06/07 12:15:11
781	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:49:44	2022/06/07 12:49:44
782	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:50:27	2022/06/07 12:50:27
783	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:46:27	2022/06/07 11:46:27
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785	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:19	2022/06/07 11:49:19
786	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:52	2022/06/07 11:49:52
787	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:54:12	2022/06/07 11:54:12
788	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:57:09	2022/06/07 11:57:09
789	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:58:39	2022/06/07 11:58:39
790	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	16:07:15	2022/06/07 12:07:15
791	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:10:09	2022/06/07 12:10:09
792	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:12:48	2022/06/07 12:12:48
793	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:15:11	2022/06/07 12:15:11
794	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:49:44	2022/06/07 12:49:44
795	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:50:27	2022/06/07 12:50:27
796	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:46:27	2022/06/07 11:46:27
797	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:47:45	2022/06/07 11:47:45
798	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:19	2022/06/07 11:49:19
799	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:52	2022/06/07 11:49:52
800	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:54:12	2022/06/07 11:54:12
801	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:57:09	2022/06/07 11:57:09
802	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:58:39	2022/06/07 11:58:39
803	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	16:07:15	2022/06/07 12:07:15
804	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:10:09	2022/06/07 12:10:09
805	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:12:48	2022/06/07 12:12:48
806	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:15:11	2022/06/07 12:15:11
807	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:49:44	2022/06/07 12:49:44
808	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:50:27	2022/06/07 12:50:27
809	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:46:27	2022/06/07 11:46:27
810	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:47:45	2022/06/07 11:47:45
811	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:19	2022/06/07 11:49:19
812	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:49:52	2022/06/07 11:49:52
813	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:54:12	2022/06/07 11:54:12
814	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	15:57:09	2022/06/07 11:57:09
815	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	15:58:39	2022/06/07 11:58:39
816	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	20		2022/06/07	16:07:15	2022/06/07 12:07:15
817	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:10:09	2022/06/07 12:10:09
818	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:12:48	2022/06/07 12:12:48
819	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21		2022/06/07	16:15:11	2022/06/07 12:15:11
820	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:49:44	2022/06/07 12:49:44
821	Tree	YES/NO	28.9[illegible]	-81.[illegible]	[illegible]	[illegible]	[illegible] Oak Species	21	M	2022/06/07	16:50:27	2022/06/07 12:50:27

NONSPECIMEN STATISTIC TREE SURVEY:

Average Per Acre												
Hardwood						Pine						Sand Pine					
DBH	Average	Total	DBH	Average	Total	DBH	Average	Total	DBH	Average	Total	DBH	Average	Total	DBH	Average	Total
6-6.9	22.3	966.8	19-19.9	0.0	0.0	6-6.9	0.0	0.0	19-19.9	0.3	14.4	6-6.9	1.7	72.2	19-19.9	0.0	0.0
7-7.9	17.3	750.4	20-20.9	0.0	0.0	7-7.9	0.0	0.0	20-20.9	0.0	0.0	7-7.9	3.0	129.9	20-20.9	0.0	0.0
8-8.9	15.0	649.4	21-21.9	0.0	0.0	8-8.9	0.0	0.0	21-21.9	0.0	0.0	8-8.9	3.3	144.1	21-21.9	0.0	0.0
9-9.9	8.7	375.2	22-22.9	0.0	0.0	9-9.9	0.0	0.0	22-22.9	0.0	0.0	9-9.9	1.7	72.2	22-22.9	0.0	0.0
10-10.9	7.0	301.0	23-23.9	0.0	0.0	10-10.9	0.0	0.0	23-23.9	0.0	0.0	10-10.9	0.7	28.9	23-23.9	0.0	0.0
11-11.9	4.7	202.0	24-24.9	0.0	0.0	11-11.9	0.3	14.4	24-24.9	0.0	0.0	11-11.9	0.7	28.9	24-24.9	0.0	0.0
12-12.9	3.3	230.9	25-25.9	0.0	0.0	12-12.9	0.3	14.4	25-25.9	0.0	0.0	12-12.9	0.7	28.9	25-25.9	0.0	0.0
13-13.9	3.0	129.9	26-26.9	0.0	0.0	13-13.9	1.7	72.2	26-26.9	0.0	0.0	13-13.9	0.3	14.4	26-26.9	0.0	0.0
14-14.9	2.3	101.0	27-27.9	0.0	0.0	14-14.9	1.0	43.3	27-27.9	0.0	0.0	14-14.9	0.3	14.4	27-27.9	0.0	0.0
15-15.9	2.3	101.0	28-28.9	0.0	0.0	15-15.9	1.7	72.2	28-28.9	0.0	0.0	15-15.9	0.0	0.0	28-28.9	0.0	0.0
16-16.9	0.0	0.0	29-29.9	0.0	0.0	16-16.9	1.3	57.7	29-29.9	0.0	0.0	16-16.9	0.3	14.4	29-29.9	0.0	0.0
17-17.9	0.7	28.9	30-30.9	0.0	0.0	17-17.9	1.3	57.7	30-30.9	0.0	0.0	17-17.9	0.0	0.0	30-30.9	0.0	0.0
18-18.9	0.0	0.0	42-42.9	0.0	0.0	18-18.9	0.0	0.0	42-42.9	0.0	0.0	18-18.9	0.0	0.0	42-42.9	0.0	0.0

Plot 1

Hardwood		Pine		Sand Pine	
DBH	Count	DBH	Count	DBH	Count
6-6.9	12	6-6.9	0	6-6.9	1
7-7.9	22	7-7.9	0	7-7.9	2
8-8.9	17	8-8.9	0	8-8.9	1
9-9.9	10	9-9.9	0	9-9.9	0
10-10.9	5	10-10.9	0	10-10.9	0
11-11.9	3	11-11.9	1	11-11.9	0
12-12.9	4	12-12.9	0	12-12.9	0
13-13.9	4	13-13.9	1	13-13.9	1
14-14.9	2	14-14.9	2	14-14.9	0
15-15.9	4	15-15.9	2	15-15.9	0
16-16.9	0	16-16.9	1	16-16.9	0
17-17.9	0	17-17.9	0	17-17.9	0
18-18.9	0	18-18.9	0	18-18.9	0
19-19.9	0	19-19.9	0	19-19.9	0
20-20.9	0	20-20.9	0	20-20.9	0
21-21.9	0	21-21.9	0	21-21.9	0
22-22.9	0	22-22.9	0	22-22.9	0
23-23.9	0	23-23.9	0	23-23.9	0
24-24.9	0	24-24.9	0	24-24.9	0
25-25.9	0	25-25.9	0	25-25.9	0
26-26.9	0	26-26.9	0	26-26.9	0
27-27.9	0	27-27.9	0	27-27.9	0
28-28.9	0	28-28.9	0	28-28.9	0
29-29.9	0	29-29.9	0	29-29.9	0
42-42.9	0	42-42.9	0	42-42.9	0

Plot 2

Hardwood		Pine		Sand Pine	
DBH	Count	DBH	Count	DBH	Count
6-6.9	10	6-6.9	0	6-6.9	3
7-7.9	17	7-7.9	0	7-7.9	5
8-8.9	14	8-8.9	0	8-8.9	8
9-9.9	11	9-9.9	0	9-9.9	5
10-10.9	7	10-10.9	0	10-10.9	2
11-11.9	6	11-11.9	0	11-11.9	2
12-12.9	3	12-12.9	1	12-12.9	2
13-13.9	1	13-13.9	2	13-13.9	0
14-14.9	3	14-14.9	1	14-14.9	1
15-15.9	1	15-15.9	2	15-15.9	0
16-16.9	0	16-16.9	1	16-16.9	1
17-17.9	2	17-17.9	3	17-17.9	0
18-18.9	0	18-18.9	0	18-18.9	0
19-19.9	0	19-19.9	1	19-19.9	0
20-20.9	0	20-20.9	0	20-20.9	0
21-21.9	0	21-21.9	0	21-21.9	0
22-22.9	0	22-22.9	0	22-22.9	0
23-23.9	0	23-23.9	0	23-23.9	0
24-24.9	0	24-24.9	0	24-24.9	0
25-25.9	0	25-25.9	0	25-25.9	0
26-26.9	0	26-26.9	0	26-26.9	0
27-27.9	0	27-27.9	0	27-27.9	0
28-28.9	0	28-28.9	0	28-28.9	0
29-29.9	0	29-29.9	0	29-29.9	0
42-42.9	0	42-42.9	0	42-42.9	0

Plot 3

Hardwood		Pine		Sand Pine	
DBH	Count	DBH	Count	DBH	Count
6-6.9	25	6-6.9	0	6-6.9	1
7-7.9	13	7-7.9	0	7-7.9	2
8-8.9	14	8-8.9	0	8-8.9	1
9-9.9	5	9-9.9	0	9-9.9	0
10-10.9	8	10-10.9	0	10-10.9	0
11-11.9	5	11-11.9	0	11-11.9	0
12-12.9	9	12-12.9	0	12-12.9	0
13-13.9	4	13-13.9	2	13-13.9	0
14-14.9	2	14-14.9	0	14-14.9	0
15-15.9	2	15-15.9	1	15-15.9	0
16-16.9	0	16-16.9	2	16-16.9	0
17-17.9	0	17-17.9	1	17-17.9	0
18-18.9	0	18-18.9	0	18-18.9	0
19-19.9	0	19-19.9	0	19-19.9	0
20-20.9	0	20-20.9	0	20-20.9	0
21-21.9	0	21-21.9	0	21-21.9	0
22-22.9	0	22-22.9	0	22-22.9	0
23-23.9	0	23-23.9	0	23-23.9	0
24-24.9	0	24-24.9	0	24-24.9	0
25-25.9	0	25-25.9	0	25-25.9	0
26-26.9	0	26-26.9	0	26-26.9	0
27-27.9	0	27-27.9	0	27-27.9	0
28-28.9	0	28-28.9	0	28-28.9	0
29-29.9	0	29-29.9	0	29-29.9	0
42-42.9	0	42-42.9	0	42-42.9	0

STATISTICAL SURVEY:



Bio-Tech Consulting Inc.
Environmental and Permitting Services
1025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Ford 472 - Deland Property
Volusia County, Florida
Figure 12
Specimen and Historic Tree Map

300 Feet

Project #: 214-110
Produced By: JJC
Date: 6/28/2022



2.6 ACRES OF AGRICULTURE FIELD OMITTED FROM CLEARING CALCULATION IN STATISTICAL MITIGATION.

Bio-Tech Consulting Inc.
Environmental and Permitting Services
1025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Ford 472 - Deland Property
Volusia County, Florida
Figure 13
Tree Sampling Map

400 Feet

Project #: 214-110
Produced By: JJC
Date: 6/28/2022

SITE DATA	ACRES
GRADING LIMITS	35.74
RIGHT OF WAY	6.27
NO TREES/NO CLEARING	2.6
STATISTICAL CLEARING	26.87

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-154PBL-01145
Issued to 472 Landscape Owner in Compliance with the
Land Development Manager, Date
5/19/2025

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.4500

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
TREE SURVEY DATA

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE\FORD 472\Land Use\Land_Use.dwg

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DPC Comments 11-08-2024
4 DPC Persons 03-12-2025

L110

COUNTY SUBMITTTAL - 2024-01-26

OVERALL TREE CALCULATIONS:

Tree Protection Table (Per Civil Plans)		
Gross Land Area	45.07	AC
Single Family Lot Area	19.24	AC
Internal Right of Way	6.27	AC
Cassadaga Extension Right of Way	4.01	AC
Lift Station Tract	0.07	AC
Open Space	8.09	AC
Net Developable Area	39.24	AC
Stormwater Tracts	5.57	AC
Minimum Tree Preservation Area	5.89	AC
Tree Protection Area Provided	5.94	AC
Natural Vegetation Retention Area Provided	4.00	AC

*REFER TO CIVIL PLANS

Tree Coverage Table		
Net Developable Area	39.24	AC
Minimum Coverage Trees (1,709,295 / 2,500)	684	Trees
Total Trees Retained on site	656	Trees
Maximum DBH Coverage (684 x 6")	4,102	DBH
Specimen Inches Retained	407	DBH
Non Specimen Inches Retained	5,758	DBH
Total Inches Retained on site	6,165	DBH
Overage Inches	5,510	DBH

Common Area Tree Replacement Table				
Total Trees in Common Areas	336	Trees	672	Inches
Total Palms in Common Areas	50	12" dbh Trees	200	1/3 Inches Credit
Total Common Area Plantings	386	Trees	872	Inches

Lot Trees Replacement Table				
Total 50' (14" DBH / Lot)	91	Lots	1,274	Inches
Total Townhome (5.25" DBH / Unit)	112	Lots	588	Inches
Total Lot Tree Replacement	203	Lots	1,862	Inches

Tree Replacement Table		
Historic Trees to be Removed	1	Trees
Specimen Trees to be Removed	120	Trees
Other Trees to be Removed	2597	Trees
Total Number of Tree Replacement Required	36764	CSA
Total Trees to be Planted on Lots, Streets, & Common	10699	CSA
Total Trees Removed by County, voided mitigation	2068	CSA
Net Mitigation Required	23997	CSA

Replacement Summary		
Total Common Area Plantings	872	Inches
Total Lot Trees Planting	1862	Inches
Grand Total	2734	Inches

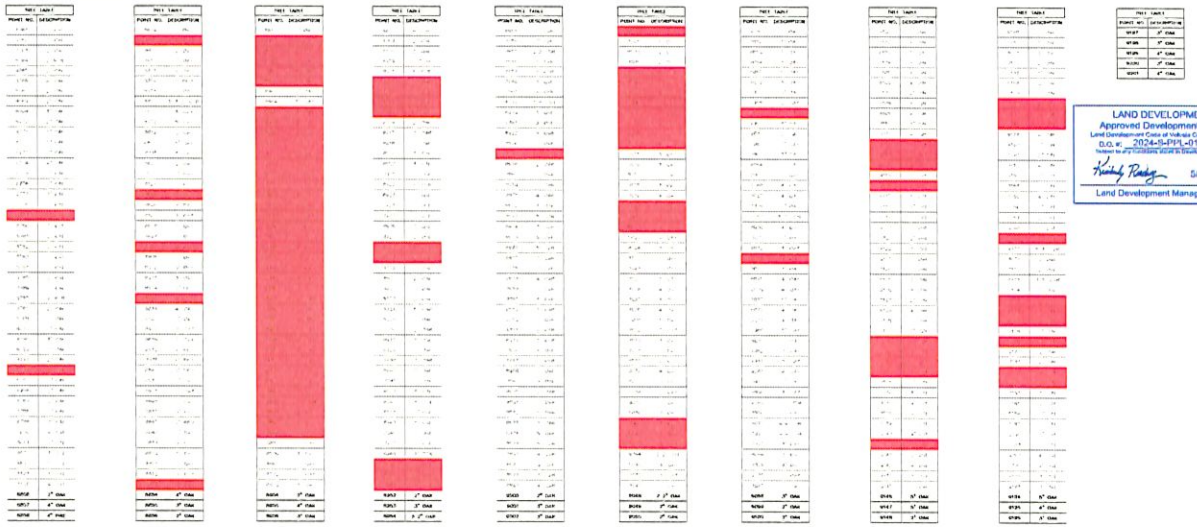
Palm Tree Summary		
Palm Tree credits for Common Areas	628	Inches
Palm Tree credits for Lots	3519	Inches
Total Credits for Palm Trees	4147	Inches
Maximum Palm Credits per Code (75%)	9191	Inches

Specimen Tree		
Total Specimen Trees on Site	146.0	Trees
Specimen Trees per Acre (Total Trees /39.24)	3.7	Trees
Per Code Specimen Trees to be retained	65.0	%
Minimum Number of Specimen Trees to be Retained (.65 times 146)	94.9	Trees
Total Specimen Trees to be Protected / Retained	18.0	Trees

* COUNTY REMOVED 7 SPECIMEN TREES ALONG BLUE LAKE AVE

Total contribution is Csi deficit multiplied by 58. (1 = 558)	$1,391,818.24

SMALL TREE (NVRA) SURVEY:



LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-S-PPL-01451
Subject to all conditions stated in Development Order

5/19/2025
Land Development Manager, Date

TREE MITIGATIONCALCULATIONS:

*REFER TO L420 FOR VOLUSIA COUNTY LAND DEVELOPMENT CODE REFERENCES.

PROPOSED TREES

72-842: TREES REPLACEMENT

TREE	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
LO TRIB	162	3	7	1086
LO PALM	162	4	13	2087
TOWNHOME LOT TREE	84	3	7	594
TOWNHOME LOT PALM	28	4	13	1730
BUFFER TREES	179	2	3	562
COMMON TREES	336	2	3	1036
COMMON PALMS	50	4	13	628
NVRA SAVED 2"	133	2	3	418
NVRA SAVED 3"	105	3	7	742
NVRA SAVED 4"	71	4	13	892
NVRA SAVED 5"	51	5	20	1001
		Subtotal		10699

REMOVED TREE CHARTS

72-840: TREES REPLACEMENT REQUIREMENTS (SPECIMEN)

OAK, PINE, CEDAR, PALM	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
	7	17	113	774
	6	18	254	1527
	12	19	284	3407
	15	20	314	4712
	18	21	346	6234
	12	22	380	4562
	11	23	415	4570
	10	24	452	4524
	11	25	491	5400
	6	26	531	3186
	4	27	573	2290
	3	28	616	1847
	2	29	661	1321
	3	30	707	2121
	2	31	755	1510
	1	32	804	804
	1	35	962	962
	119	Subtotal		49198
		15% of Total		7380

72-842: TREES REPLACEMENT REQUIREMENTS (PROTECTED)

OAK, PINE, CEDAR, PALM	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
	600	6	28	16965
	466	7	38	17921
	403	8	50	20259
	233	9	64	14820
	188	10	79	14773
	134	11	95	12768
	152	12	113	17251
	125	13	133	16656
	89	14	154	13774
	107	15	177	18993
	36	16	201	7185
	54	17	227	12198
	0	18	254	0
	9	19	284	2514
	2587	Subtotal		184056
		15% of Total		27908

72-842: TREES REPLACEMENT REQUIREMENTS (PROTECTED)

SAND PINE	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
	46	6	28	1292
	81	7	38	3102
	89	8	50	4457
	46	9	64	2906
	19	10	79	1477
	19	11	95	1787
	19	12	113	2127
	8	13	133	1391
	8	14	154	1741
	8	16	201	1621
	341	Subtotal		21888
		7% of Total		1474

SAVED TREE CHARTS

72-842: TREES SAVED (SPECIMEN)

OAK, PINE, CEDAR, PALM	QUANTITY	DBH	Total DBH
	3	19	57
	1	20	20
	3	21	103
	2	22	44
	2	23	46
	2	24	48
	2	25	50
	1	37	37
	18	Subtotal	407

72-842: TREES SAVED (PROTECTED)

OAK, PINE, CEDAR, PALM	QUANTITY	DBH	Total DBH
	141	6	844
	119	7	832
	101	8	808
	61	9	552
	46	10	456
	34	11	370
	38	12	451
	30	13	386
	22	14	305
	24	15	354
	10	16	159
	12	17	202
	0	18	0
	2	19	37
	638	Subtotal	5758

REMOVED BY COUNTY (VOIDED MITIGATION):

*BASED ON 0.9 ACRES REMOVED BY COUNTY

72-842: TREES REPLACEMENT REQUIREMENTS (REMOVED BY COUNTY)

OAK, PINE, CEDAR, PALM	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
	26	6	28	368
	16	7	38	600
	14	8	50	679
	8	9	64	498
	6	10	79	495
	5	11	95	428
	5	12	113	577
	4	13	133	558
	3	14	154	461
	4	15	177	636
	1	16	201	241
	2	17	227	409
	0	18	254	0
	0	19	284	84
	87	Subtotal		6232
		15% of Total		935

72-842: TREES REPLACEMENT REQUIREMENTS (REMOVED BY COUNTY)

SAND PINE	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
	2	6	28	63
	3	7	38	104
	3	8	50	149
	2	9	64	97
	1	10	79	69
	1	11	95	82
	1	12	113	7
	0	13	133	36
	0	14	154	42
	0	16	201	54
	13	Subtotal		706
		7% of Total		49

72-842: TREES REPLACEMENT (REMOVED BY COUNTY)

TREE	QUANTITY	DBH	Cross Sectional Area	Subtotal CSA
NVRA SAVED 2"	49	2	3	155
NVRA SAVED 3"	26	3	7	187
NVRA SAVED 4"	22	4	13	271
NVRA SAVED 5"	24	5	20	471
		Subtotal		1084

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
90 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
TREE MITIGATION CALCULATIONS

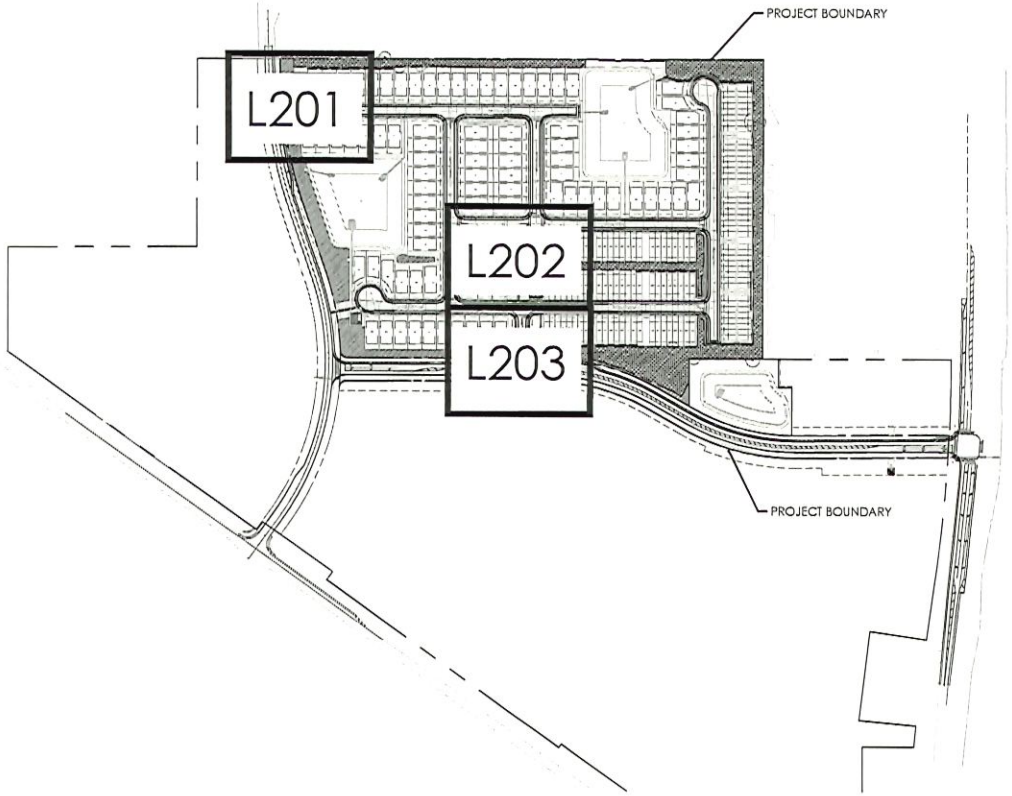
DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_Lo Res_CODE

REVISIONS:
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 01-12-2025

L111

COUNTY SUBMITTTAL - 2024-01-26

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-5-PPL-0145
Subject to any conditions attached to Development Order
5/19/2025
Land Development Manager, Date



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landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

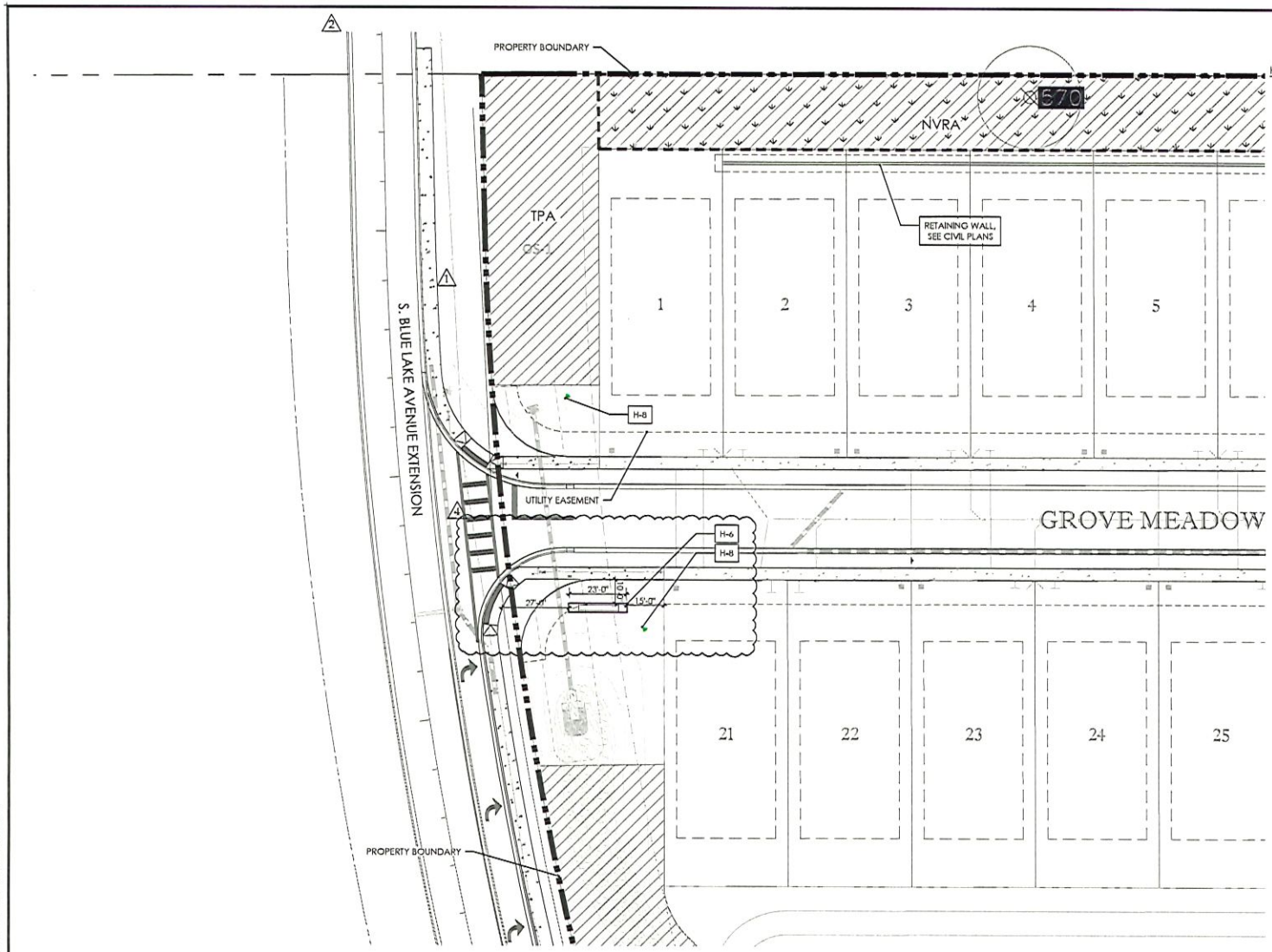
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
OVERALL LAYOUT PLAN

DATE	January 26, 2024
DRAWN BY	BRL/JAM
CHECKED BY	TWB
JOB NUMBER	2021.167
FILE NAME	2021.167_PULTE R/PD 472_Ls BASE_CODE

REVISIONS
1. County Comments 05-31-2024
2. County Comments 08-26-2024
3. DRC Comments 11-08-2024
4. DRC Revisions 03-12-2025

L200

COUNTY SUBMITTTAL - 2024-01-26



HARDSCAPE SCHEDULE

H-1	CLUBHOUSE, BY OTHERS
H-2	POOL
H-3	POOL DECK
H-4	CONCRETE WALK
H-5	MAILBOX CLUSTER
H-6	COMMUNITY ENTRY SIGN
H-7	SHADE STRUCTURE
H-8	LANDSCAPE UP LIGHT
L	LANDSCAPE AREA (SEE LANDSCAPE PLANS)
TPA	TREE PROTECTION AREA (SEE CIVIL PLANS)

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-S-PPL-0145
Subject to any Transfer or Assignment Order
5/19/2025
Land Development Manager, Date

SCALE: 1" = 20'

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

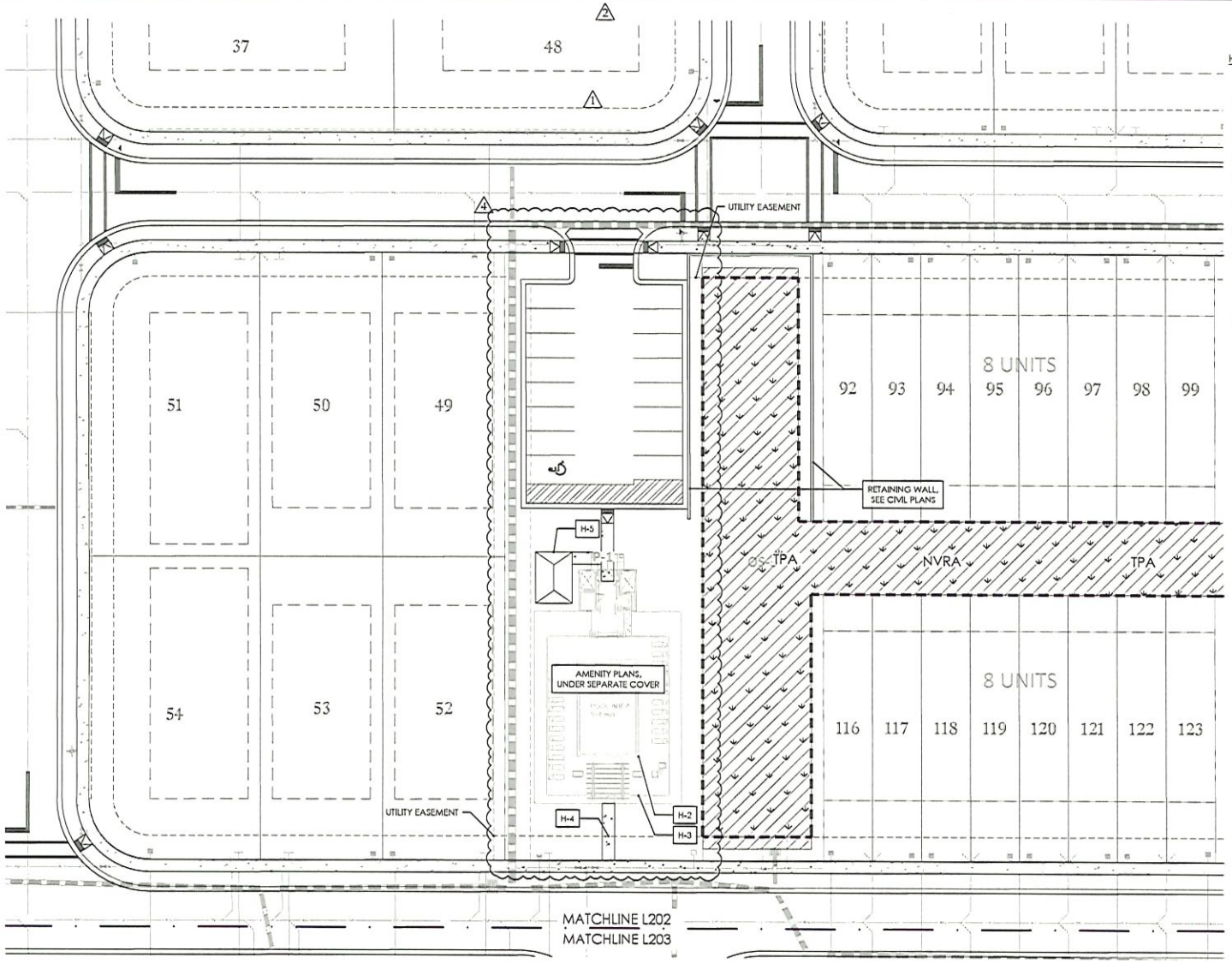
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LAYOUT PLAN

DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_Lo BASE_CODE

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 03-12-2025

L201

SIGN PERMIT - 2025-02-18



HARDSCAPE SCHEDULE

H-1	CLUBHOUSE, BY OTHERS
H-2	POOL
H-3	POOL DECK
H-4	CONCRETE WALK
H-5	MAILBOX CLUSTER
H-6	COMMUNITY ENTRY SIGN
H-7	SHADE STRUCTURE
H-8	LANDSCAPE UP LIGHT
L	LANDSCAPE AREA (SEE LANDSCAPE PLANS)
TPA	TREE PROTECTION AREA (SEE CIVIL PLANS)

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-5-PPL-0145
Subject to any conditions listed in Development Order
5/19/2025
Land Development Manager, Date

SCALE: 1" = 20'

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

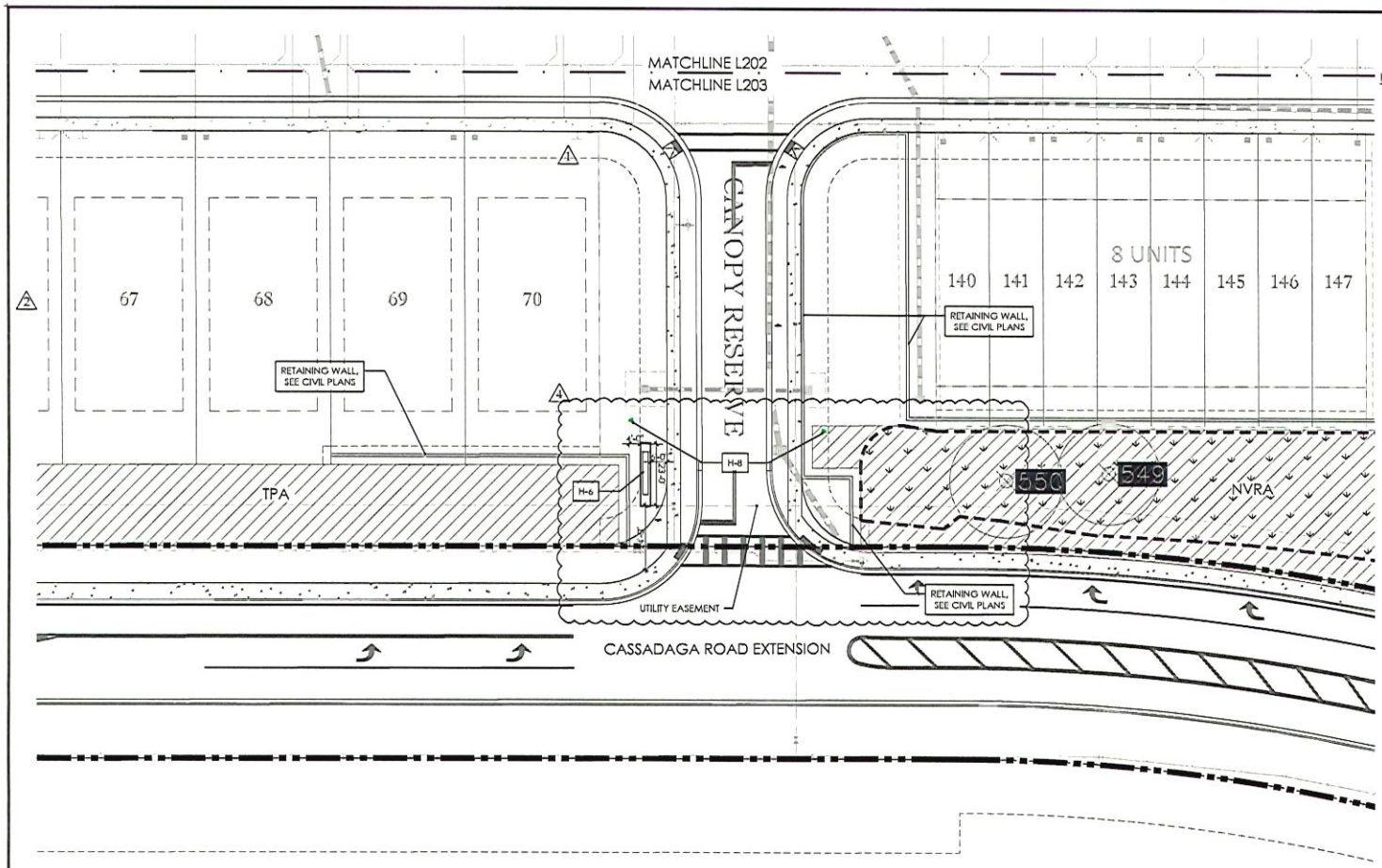
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LAYOUT PLAN

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_LA BASE_CODE

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 03-12-2025

L202

COUNTY SUBMITTTAL - 2024-01-26



HARDSCAPE SCHEDULE

H-1	CLUBHOUSE, BY OTHERS
H-2	POOL
H-3	POOL DECK
H-4	CONCRETE WALK
H-5	MAILBOX CLUSTER
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L	LANDSCAPE AREA (SEE LANDSCAPE PLANS)
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LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-S-PPL-0145
Subject to any conditions stated in the Approval Order
5/19/2025
Land Development Manager, Date

SCALE: 1" = 20'

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LAYOUT PLAN

DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_LaBASE_CODE

REVISIONS:
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 03-12-2025

L203

SIGN PERMIT - 2025-02-18

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-3-PPL-0145
Subject to any conditions stated in Development Order
5/19/2025
Land Development Manager, Date



SCALE: 1" = 200'
0' 100' 200' 400'

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407 622 1508

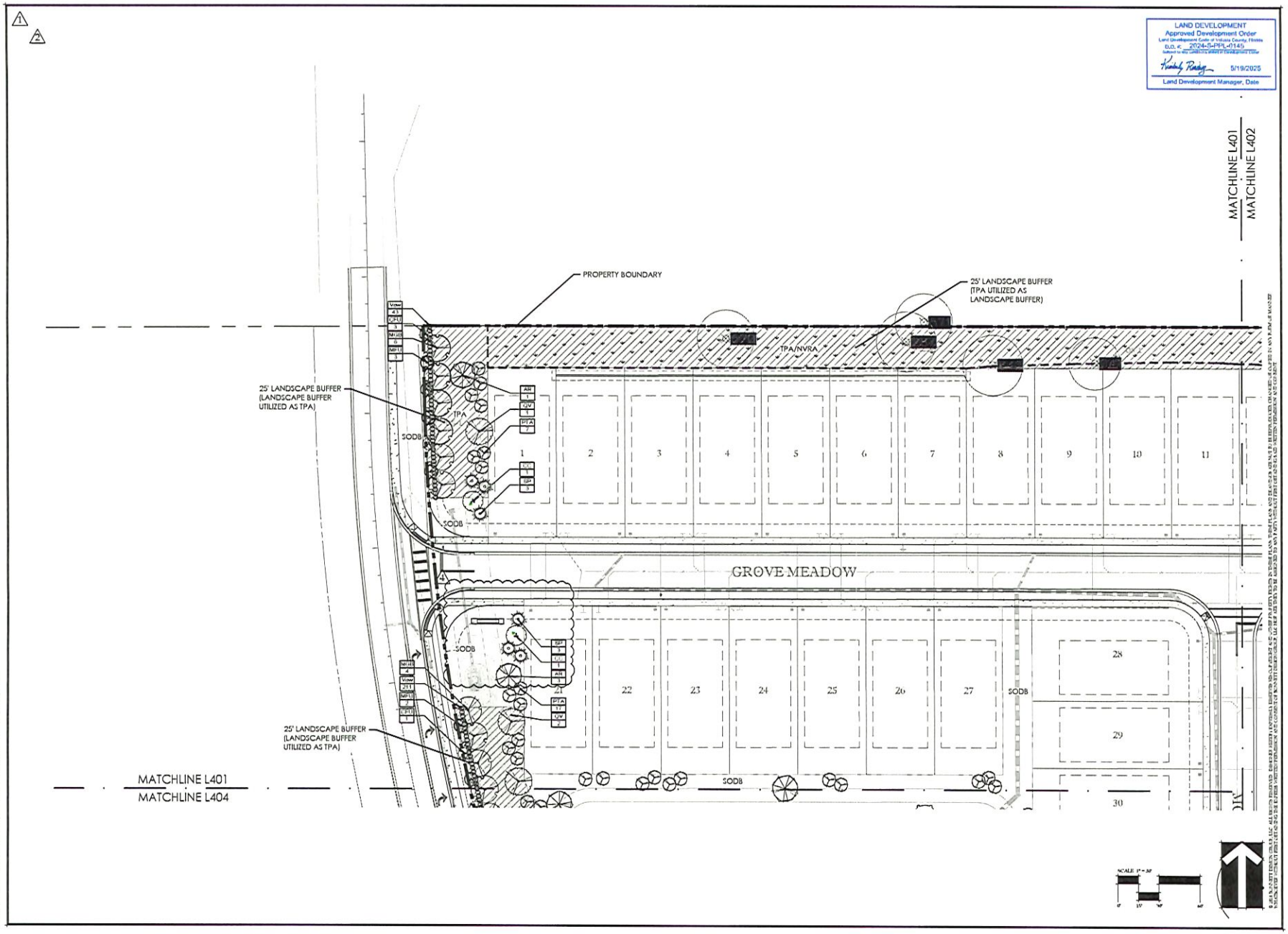
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
OVERALL LANDSCAPE PLAN

DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE/FPD 472_La BASE_CODE

REVISIONS
- County Comments 05-31-2024
- County Comments 08-26-2024
- DPC Comments 11-08-2024
- DPC Revisions 03-12-2025

L400

COUNTY SUBMITTTAL - 2024-01-26



BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

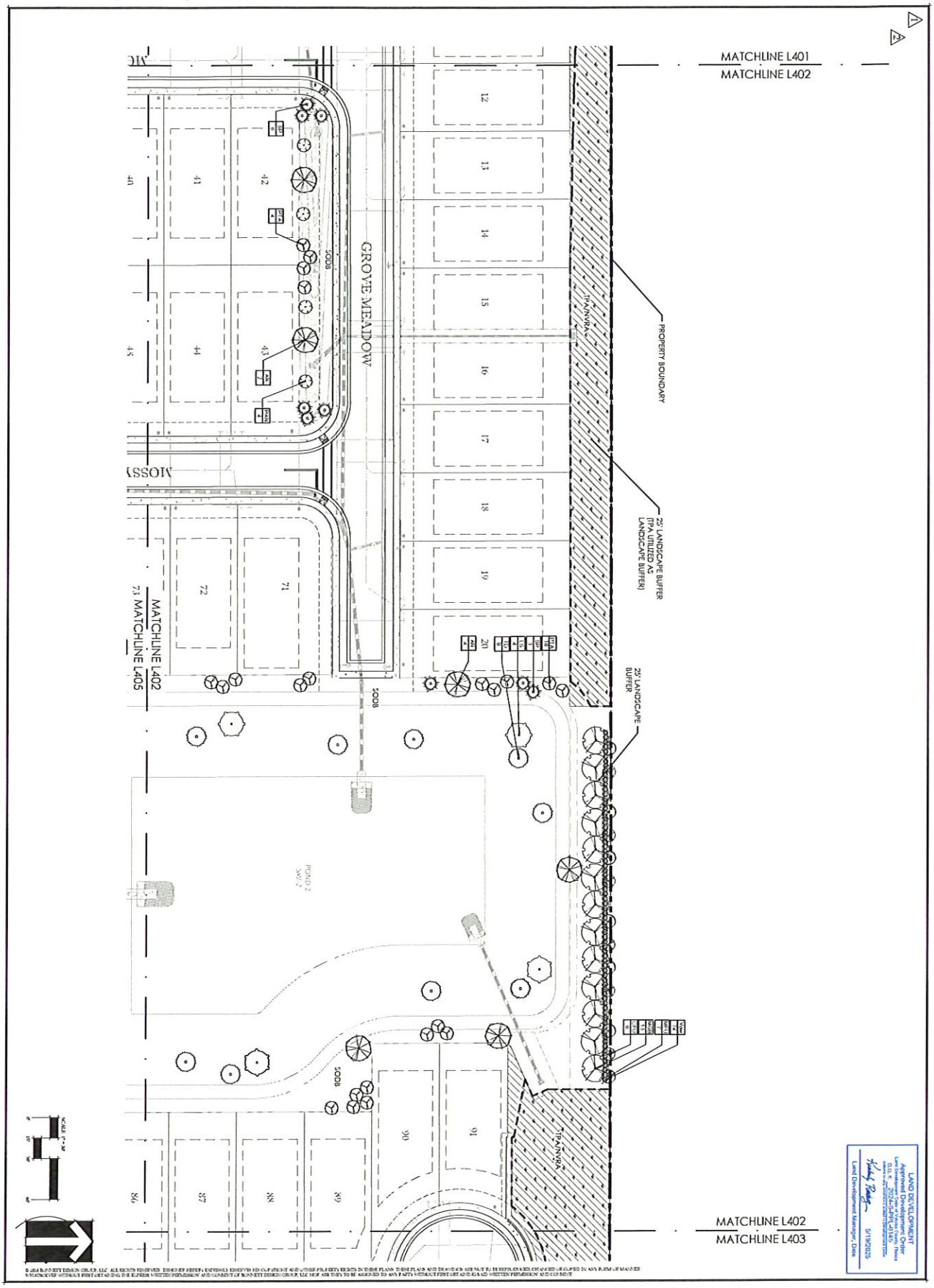
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_LA BASE_CODE

REVISIONS:
1. County Comments 05-31-2024
2. County Comments 08-26-2024
3. DRC Comments 11-08-2024
4. DRC Revisions 03-12-2025

L401

COUNTY SUBMITTTAL - 2024-01-26

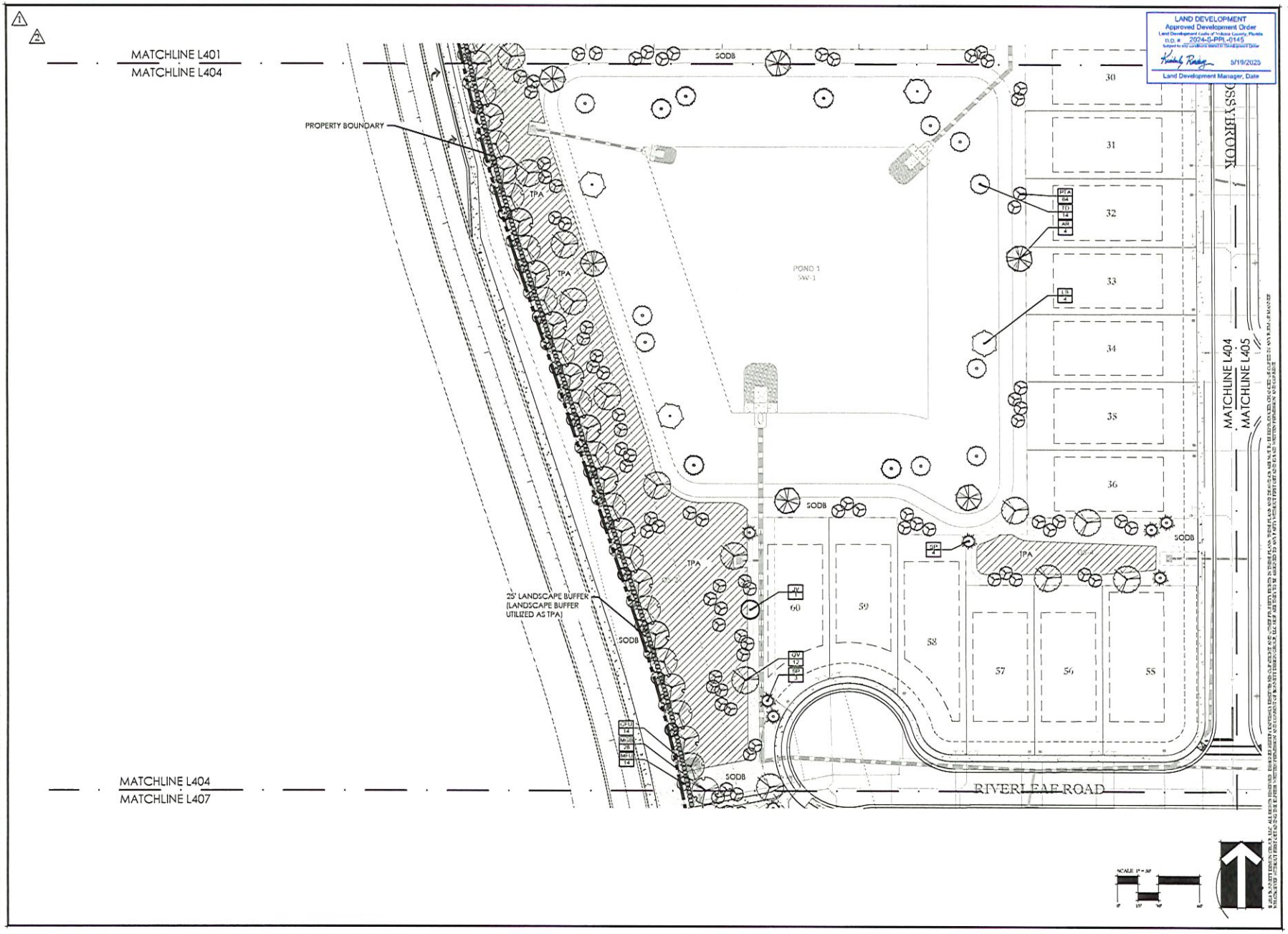


COUNTY SUBMITTTAL - 2024-01-26

L402

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

MATCHLINE L402
MATCHLINE L403
25' LANDSCAPE BUFFER (TPA UTILIZED AS LANDSCAPE BUFFER)
TPA/NWRA
PROPERTY BOUNDARY
MATCHLINE L403
MATCHLINE L406
LAND DEVELOPMENT
Approved Development Order
Land Development Manager, Date
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN
L403
COUNTY SUBMITTAL - 2024-01-26



BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

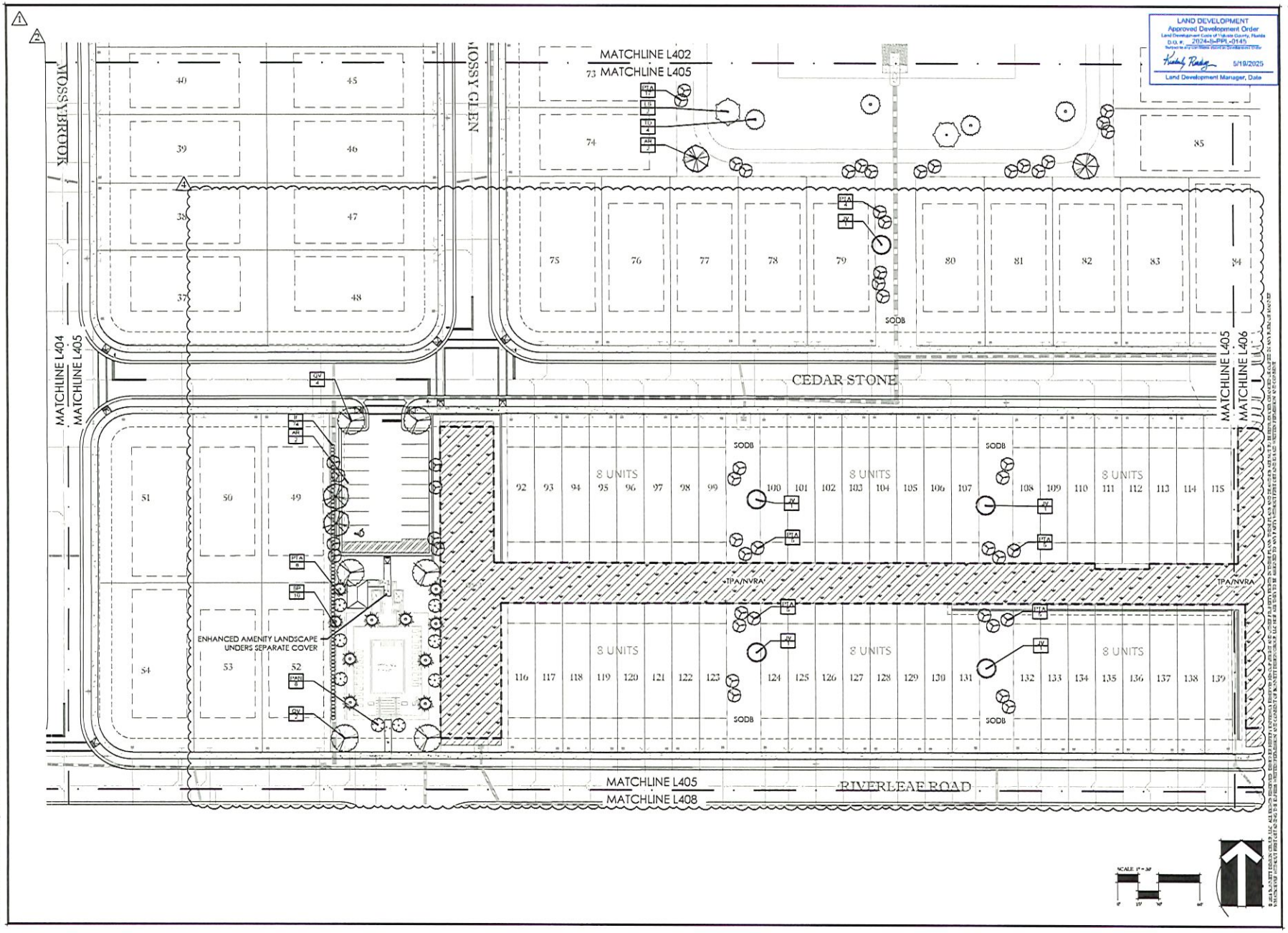
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_La BASE_CODE

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-05-2024
4 DRC Permission 05-12-2025

L404

COUNTY SUBMITTTAL - 2024-01-26



BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407 622 1508

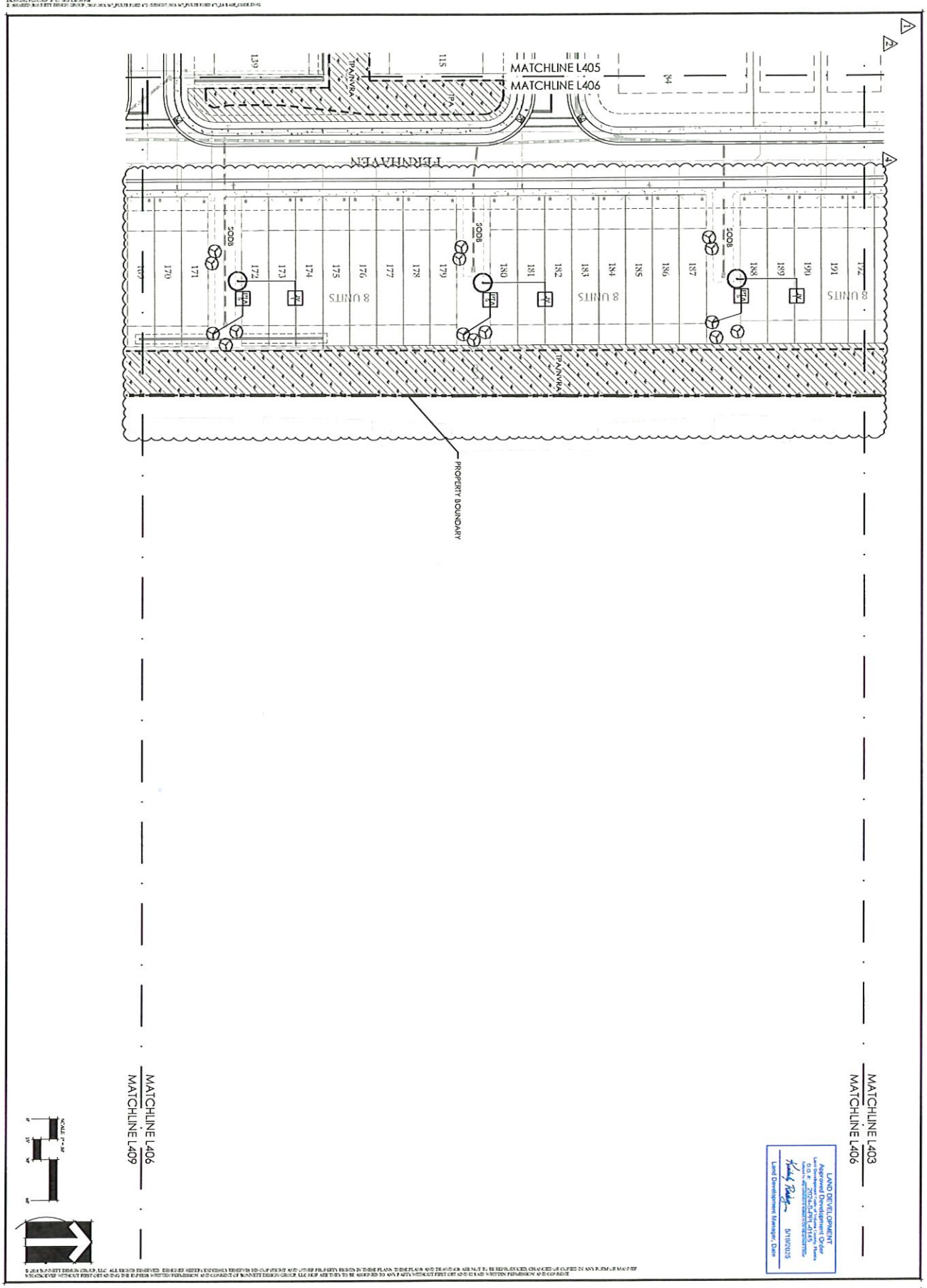
Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_FULTS FORD 472_La Base_CODE

REVISIONS:
County Comments 05-31-2024
County Comments 08-26-2024
DRC Comments 11-08-2024
DRC Persons 01-12-2025

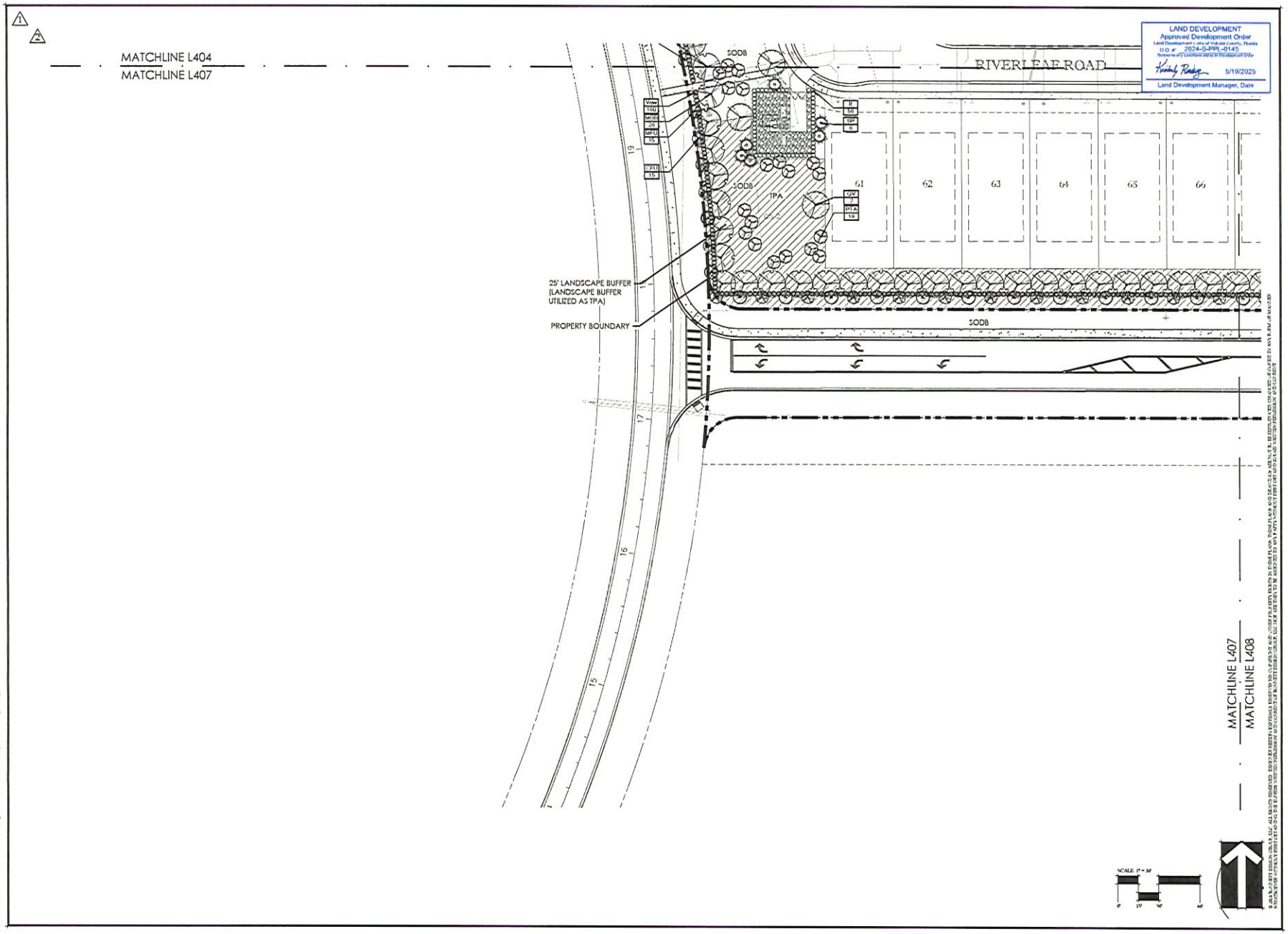
L405

COUNTY SUBMITTTAL - 2024-01-26



L406

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN



LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-S-PPL-0145
Subject to any conditions stated in the Development Order
5/19/2025
Land Development Manager, Date

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407 622 1588

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

DATE:	January 26, 2024
DRAWN BY:	BRL/JAM
CHECKED BY:	TWB
JOB NUMBER:	2021.167
FILE NAME:	2021.167_PULTE FORD 472_LaBASE_CODE

REVISIONS
1. County Comments 05-31-2024
2. County Comments 08-26-2024
3. DRC Comments 11-08-2024
4. DRC Revisions 03-12-2025

L407

COUNTY SUBMITTTAL - 2024-01-26

COUNTY SUBMITTAL - 2024-01-26

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

L408

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE PLAN

L409

COUNTY SUBMITTAL - 2024-01-26

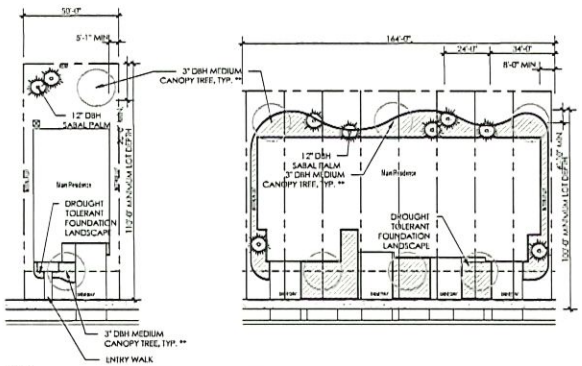
CODE PLANT SCHEDULE - CANOPY PRESERVE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	NATIVE	WATER USE ZONE	SPACING
TREES							
AR	22	Acer rubrum	Red Maple	2.5" Cal. Min. 10' ht.	YES	HIGH	As Shown
CC	4	Cercis canadensis	Eastern Redbud	2.5" cal., Min 8' ht.	YES	LOW	As Shown
JV	12	Juniperus virginiana `Silicola`	Southern Red Cedar	2.5" cal., Min 8' ht.	YES	LOW	As Shown
LS	14	Liquidambar styraciflua	American Sweet Gum	2.5" Cal. Min. 10' ht.	YES	LOW	As Shown
PTA	214	Pinus palustris	Long-leaf Pine	2.5" cal., 8' ht. Min.	YES	HIGH	As Shown
QV	23	Quercus virginiana	Live Oak	2.5" Cal. Min. 10' ht.	YES	LOW	As Shown
TD	36	Taxodium distichum	Bald Cypress	2.5" cal., Min 8' ht.	YES	LOW	As Shown
BUFFER YARD CANOPY TREES							
MGB	87	Magnolia grandiflora `Brackens Brown Beauty`	Bracken's Southern Magnolia	2.5" Cal. Min. 10' ht.	YES	MEDIUM	As Shown
BUFFER YARD UNDERSTORY TREES							
CFU	45	Chionanthus virginicus	Fringe Tree	2.5" cal., Min 8' ht.	YES	MEDIUM	As Shown
MFU	47	Myrcianthes fragrans	Simpson's Stopper	2.5" cal., Min 8' ht.	YES	LOW	As Shown
PALM TREES							
SP	50	Sabal palmetto	Sabal Palm	8'-14' CT, mixed	YES	HIGH	As Shown
UNDERSTORY							
PAN	18	Prunus angustifolia	Chickasaw Plum	2.5" cal., Min 8' ht.	YES	LOW	As Shown
BUFFERYARD SHRUBS							
If	130	Illicium floridanum	Florida Anise	3 gal., 30" ht. min.	YES	MEDIUM	30" o.c.
Vow	547	Viburnum obovatum	Walter's Viburnum	7 Gal. 30" Ht. Minimum.	YES	LOW	42" o.c.

VOLUSIA COUNTY LDC REFERENCES:

SEC. 72-838. - MINIMUM TREE COVERAGE REQUIREMENTS.

Each lot shall contain a minimum of one tree for each 2,100 square feet of lot area (rounded up to nearest whole number). If the lot contains an insufficient number of existing trees to meet this requirement, or if the lot has no existing trees, replacement trees shall be provided in accordance with section 72-842 of this division.



NOTES:
1. ALL SERVICE EQUIPMENT AND UTILITY BOXES MUST BE FULLY SCREENED.
2. ALL LOT TREES SHALL BE A MINIMUM 3" DBH.

TYPICAL LOT LANDSCAPE PLAN

SCALE: 1" = 20'

NOTE:
TYPICAL LOT LAYOUT IS FOR DESIGN INTENT ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION DOCUMENTATION.

*LARGE CANOPY TREES INCLUDE:

Acer barbatum	Florida Maple
Acer rubrum	Red Maple
Quercus shumardii	Shumard Oak
Quercus virginiana	Live Oak
Ulmus alata	Winged Elm

**MEDIUM CANOPY TREES INCLUDE:

Cercis canadensis	Redbud
Ilex x East Palatka	East Palatka Holly
Ilex cassine	Dahoon Holly
Ilex opaca	American Holly

* EXISTING TREES TO BE INCLUDED INTO PROVIDED LOT TREES

** LOT TREES TO BE INSTALLED BY HOME BUILDER AT TIME OF CONSTRUCTION. SEE TYPICAL LOT LAYOUT ON SHEET L430.

*** UNDERSTORY AND SHRUB PLANTING TO BE SUPPLEMENTED AS NEEDED TO COMPLIMENT PROPOSED LOT DESIGN

VOLUSIA COUNTY LDC REFERENCES:

SEC. 72-284. - MINIMUM LANDSCAPE REQUIREMENTS.

The purpose and intent of this section is to encourage the preservation of existing trees and vegetation, to identify landscape standards and plant classifications, to reduce radiant heat from surfaces and conserve energy, to provide shade, to reduce wind and air turbulence, to minimize potential nuisances such as the transmission of noise, dust, odor, litter and glare of automobile headlights, to provide visual buffering and for the separation of spaces, to enhance the beautification of the county, to reduce the amount of impervious surface and stormwater runoff, to safeguard and enhance property values and protect public and private investment, and to protect the public health, safety and general welfare.

The following regulations shall apply where landscaped buffer or off-street parking areas are required:

(1)All plant materials shall be Florida No. 1 or better grade, according to the current Grades and Standards for Nursery Plants, State of Florida, Florida Department of Agriculture and Consumer Services, and selected from the "Plant Material List" available from the growth and resource management department. All plant materials shall be chosen, spaced and planted according to the current Grades and Standards for Nursery Plants, Florida-friendly best management practices, the Volusia County Environmental Management Division's Habitat Planting Guidelines, and "right plant, right place" principles, to protect and preserve Volusia County's water resources, at least 50 percent of the required landscaping specified in subsections a. and b., shall be equivalent of a native drought tolerant species chosen from the plant material list. The Zoning Enforcement Official (ZEO) has the authority to allow existing native vegetation to provide the minimum visual screening. Existing upland native vegetation shall be incorporated, where appropriate, into off-street parking areas and landscape buffers of a proposed development.

a.Specific requirements.

1.Canopy trees (Group A). Canopy tree species shall be a minimum of 1½-inch caliper and six feet in overall height immediately after planting. Trees required along county thoroughfares shall be a minimum of two-inch caliper and eight feet in overall height immediately after planting, and planted a minimum of ten feet back from the rights-of-way line.

2.Mid-story trees (Group B). Mid-story tree species shall be a minimum of 1½-inch caliper and six feet in overall height immediately after planting. Trees required along county thoroughfares shall be a minimum of two-inch caliper and eight feet in overall height immediately after planting, and planted along a line ten feet back from the rights-of-way line.

3.Understory trees and shrubs (Group C). Understory trees shall be a minimum 1½-inch caliper and four feet in overall height and shrubs shall be a minimum of two feet in overall height, immediately after planting.

4.Groundcovers, large grasses and wildflowers (Group D). Large grasses shall be a minimum of 18 inches in overall height immediately after planting. Ground covers and wildflowers do not have a minimum height requirement, as maximum height is dependent upon the specific plant species. At least 2/3 percent of the paved area outside of any landscape buffers, off-street parking areas, and stormwater management areas, shall be planted and maintained with a drought tolerant ground cover(s). Ground covers must present a finished appearance and provide reasonably complete coverage at time of planting.

b.Additional requirements.

1.Palms. Palms shall constitute no more than 2/3 percent of the required canopy trees and shall have a minimum of six feet of clear wood at planting.

2.Lawn grass. Grassed areas shall be planted with any species of grass common to Central Florida. They may be sodded, plugged, sprigged or seeded, except that sod is required in swales or other areas subject to soil erosion. Unless sod or grass seed is used, nurse grass seed shall be sown for immediate effect and protection until coverage is otherwise achieved. Grass sod shall be clean and shall be reasonably free of weeds, noxious pests or diseases.

(2)Landscaped buffer area. Where a landscaped buffer area is required, the following regulations shall apply:

a.A landscaped buffer area complying with the requirements of the landscape buffer tables (Table I, Table II, Table III, and Table IV), shall be established along the entire length of, and contiguous to, any property line. The width of the area, plant and tree quantities, and types of plant materials shall be determined from the landscape buffer requirements, within Table I, Table II and Table III, and landscaped with the required mix of plant species, as determined in Table IV. A driveway or entranceway shall not be considered part of the landscape buffer for the purpose of calculating the required amount of plant material. Landscape buffer widths may be increased to include existing native trees and their associated drip lines, and to provide aesthetically pleasing façades to proposed establishments. Compliance with tables I through IV is achieved through the following steps:

1.Determine the zoning classification of the premises and the adjoining properties.

2.Utilize Table I to determine which landscape buffer zoning classification or special exception use group the zoning classification or use of the premises and the adjoining properties fall into.

3.Determine the buffer type and screening requirements required between the subject group (subject premises) and adjoining groups (adjoining properties) in Table II. Required screen types are listed immediately after Table II.

4.Determine the specific requirements (i.e. width and required plantings) for each buffer type in Table III by corresponding the required buffer types required by Table II.

5.Determine the required number of plant species by utilizing Table IV.

6.Example: The subject premises is within the B-4 General Commercial zoning classification, abuts a property within the R-4 single-family residential zoning classification along its 300 linear foot boundary. Pursuant to Table I, the subject premises is within the commercial group and the abutting property is within the one and two-family residential group. Table II states that a subject group of commercial adjoining the One- and Two-Family residential group require Buffer Type A and Screen Type 2. Screen Type 2 is listed immediately after Table II, with additional screening requirements referenced in subsection 72-284(a)(2)d. Table III states that Buffer Type A has a minimum 25-foot width and requires 3 Group A canopy trees, 3 Group B mid-story trees and 2% Group C understory trees within its 300 linear feet. A 300 linear foot buffer therefore would require a minimum of 6 Group A canopy trees, 10 Group B mid-story trees and 10 Group C understory trees/shrubs. Table IV would determine that 2 species are required for Group A plantings, 2 species are required for Group B plantings, and 1 species are required for Group C plantings.

b.The landscaped buffer area shall contain existing native vegetation, which is not dependent on irrigation because of the possibility of water use restrictions, which could adversely affect the survival of introduced or exotic plant species. Existing native trees that are situated within the required buffer can be used to satisfy the perimeter tree requirement. The area(s) within the dripline(s) of the existing native trees must be included within the landscaped buffer area.

c.New trees in required landscape buffers do not have to be equally spaced, but may be grouped to provide areas of visibility from the proposed site to an abutting road and shall be located out of the dripline of existing specimen and hedge trees. New shrubs in required landscape buffers shall also be located to minimize root zone encroachment, if applicable. Visual screening requirements of subsection 72-284(2)(d) are met.

d.Required screening specified by Table III shall comply with the following standards:

1.Brick or masonry walls and vinyl or wood fences utilized as visual screens must be opaque and finished to enhance site aesthetics.

2.Wood fences shall meet the following requirements: Minimum 5-inch thick pressure treated boards, minimum three 4-inch by 4-inch pressure treated horizontal stringers, and minimum 4-inch by 4-inch thick pressure treated support posts at eight-foot maximum spacing. Alternate fence materials may be used with the approval of the ZEO.

3.Hedges, utilized as visual screens, shall be planted at a minimum four feet in overall height and separated at a distance of 30 inches on-line. These hedges shall be planted and maintained to provide a six-foot high continuous, unbroken, solid, visual screen within a maximum of one year after date of planting.

4.A new landscaped earthen berm may only be used in landscaped buffers 50 feet wide or larger. These berms shall be planted in accordance with the requirements of landscape buffer tables I through IV. Landscaped earthen berms shall have a maximum slope of four feet horizontal to one-foot vertical (4:1) and shall include natural ground covers that provide at least 90 percent coverage of the entire berm area.

5.Where a wall, fence, or hedge is used for screening, existing native vegetation should be retained, or planted in accordance with the requirements of the landscape buffer tables (Table I, II, III and IV). At least 50 percent of the required plant materials shall be planted along the exterior side of the screen. The screen shall include an opaque maintenance gate every 100 linear feet or half the length of the screen, whichever is less. The remaining plant materials shall be planted on the interior side of the screen to enhance the site's interior.

e.A minimum of 50 percent of the required landscape buffer shall remain at natural grade or a 1 slope, while the remaining buffer area shall not exceed a 4 1 slope.

f.When a recorded subdivision consists of ten lots or more, the required landscape buffer area shall be platted as a separate tract of land and maintained by a homeowners or property owners association to ensure adequate maintenance of the buffer.

g.Where canopy trees are required in a coastal environment, but appropriate salt tolerant species are not available, the required canopy trees can be substituted with mid-story trees at a ratio of two mid-story trees for every canopy tree, with approval of the zoning enforcement official (ZEO).

h.Removal of vegetation categorized as an invasive exotic in the Florida Exotic Pest Plant Council's List of Invasive Species and desired is required within all landscaped buffers. Care shall be taken not to damage, destroy, or otherwise remove healthy, beneficial, native vegetation within these areas.

i.The ZEO or the county council may require a greater buffer area than those listed in Tables I and III for a permitted principal or special exception use, due to specific site conditions in conjunction with the existing character of the surrounding area. The ZEO or county council shall determine the appropriate buffer width, required plantings and screening requirements, if applicable, for special exception uses not listed in the aforementioned tables. In no case shall the required landscaped buffer be less than 25 feet between a nonresidential and residential use.

j.The ZEO may waive or modify the requirements of subsection 72-284(2), in order to facilitate the redevelopment of existing sites or where environmental constraints (i.e. preservation of existing wetlands, trees or topography) limit the available area to reasonably develop, or if literal interpretation of subsection 72-284(2) creates a hardship. The following items are prohibited within the required perimeter landscaped buffers:

1.A public or private right-of-way, easement, structure, or impervious surface other than a sign, an entrance or a driveway, or a site specific water or sanitary sewer service line which traverses the landscaped buffer.

2.Stormwater management areas, and any associated easements and appurtenances.3.Private or public utility easements, structures or above-ground and underground improvements, except as stated above.

1. NEWLY INSTALLED "SHADE" TREES SHALL HAVE THEIR CALIPER MEASURED 6" ABOVE THE TOP OF THE ROOT BALL. ALL NEWLY INSTALLED "UNDERSTORY" TREES SHALL HAVE THEIR CALIPER MEASURED 6" ABOVE THE TOP OF THE ROOT BALL.

2. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE STANDARDS OF FLORIDA NO. 1 AS GIVEN IN "GRADES AND STANDARDS FOR NURSERY PLANTS, 2015," STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, AND ANY AMENDMENTS THERETO.

3. THE LANDSCAPE ARCHITECT MAY REJECT ANY PLANT MATERIAL BROUGHT TO THE SITE WHICH HE DEEMS TO BE OF INFERIOR QUALITY OR APPEARANCE.

4. ALL PLANT BEDS SHALL BE TOP DRESSED WITH A MINIMUM OF 3" DEPTH PINE BARK MULCH MATERIAL A 4" CLEAR SPACE BETWEEN MULCH AND THE PLANT STEM.

5. ALL TREES SHALL HAVE ALL SYNTHETIC BURLAP REMOVED FROM THE ENTIRE ROOT BALL. JUTE BURLAP SHALL BE REMOVED FROM THE TOP OF ½ THIRD OF THE ROOT BALL. THE TOP THREE ROWS OF SQUARES OF ALL CAGES AROUND THE ROOT BALLS SHALL BE CLIPPED OFF AND REMOVED.

6. THE CONTRACTOR SHALL READ AND ADHERE TO ALL WRITTEN SPECIFICATIONS.

7. THE CONTRACTOR SHALL VISUALLY INSPECT THE SOILS CONDITION OF THE SITE. HE SHALL DIG A MINIMUM OF 17 TEST HOLES 1 FOOT DEEP RANDOMLY AROUND THE SITE. HE SHALL PERFORM PERCOLATION TESTS IN THESE HOLES FOR A PERIOD OF ONE HOUR. THE HOLES SHALL BE FILLED WITH WATER AND IF THE HOLES HOLD MORE THAN 6" OF WATER AFTER ONE HOUR, THE LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF THE PROBLEM. THE CONTRACTOR SHALL RECOMMEND SUBSTITUTIONS OF PLANT MATERIAL AND PLANTING INSTALLATION TO ACCOMMODATE POOR DRAINING SOILS. ANY SUBSTITUTIONS MUST BE SUBMITTED TO THE COUNTY FORESTER IN WRITING FOR APPROVAL.

8. THE CONTRACTOR SHALL PROVIDE A SOIL TEST IN FOUR LOCATIONS AND PROVIDE RECOMMENDATIONS FOR AMENDMENTS BASED ON THE RESULTS. IF NOT DONE, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ALL INCURRED DAMAGES AT NO ADDITIONAL COST TO THE OWNER.

9. THE CONTRACTOR SHALL REVIEW THE SOILS REPORT ON FILE WITH THE OWNER.

10. THE INSTALLATION OF PLANT MATERIAL SHALL BE VIEWED AS ACCEPTANCE BY THE CONTRACTOR OF EXISTING GRADES AS GIVEN TO HIM. THE CONTRACTOR SHALL PROVIDE TO THE LANDSCAPE ARCHITECT A WRITTEN LETTER OF ACCEPTANCE OF GRADES. FAILURE TO DO SO WILL BE VIEWED AS AN ACCEPTANCE OF EXISTING GRADES BY THE CONTRACTOR.

11. THE CONTRACTOR SHALL REMOVE ALL PAVING LOT ELEVATIONS 12" ABOVE TOP OF CURB ELEVATION WITHOUT EXCEEDING A 4:1 SLOPE (1.9%GA).

12. WHERE LIGHT POLES AND TREES BOTH OCCUR IN A PARKING LOT ISLAND, THE TREE SHALL BE SPACED AT ADEQUATE DISTANCE FROM THE POLE.

13. THE CONTRACTOR WILL BE REQUIRED TO SAND AREAS OF SOD THAT ARE NOT SMOOTHLY APPLIED TO ELIMINATE SMALL IRREGULARITIES IN GRADES. LARGE IRREGULARITIES IN GRADE WILL REQUIRE REGRADING & RESODDING.

14. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE SITE INCLUDING ALL MOWING, EDGING, TRIMMING, PRUNING, A SPRAYING OF PESTICIDES & HERBICIDES UNTIL THE TIME OF FINAL ACCEPTANCE BY THE OWNER.

15. ALL NEWLY PLANTED STREET TREES SHALL BE PLANTED ALONG AN ALIGNMENT THAT GENERALLY IS TO 2.5' FROM THE BACK OF CURB.

16. AT PLANTING TREES SHALL BE AT GRADE OR NOT LESS THAN THREE (3) INCHES IN HEIGHT ABOVE THE FINISH GRADE.

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O.# 2024-S-PPR-0145
Subject to the conditions attached hereto or on file in the Growth and Resource Management Department
5/19/2025
Land Development Manager, Date

Bdg
BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.2500

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE SCHEDULE & NOTES

DATE: January 29, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_L4 Hall_COUE

REVISIONS
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Pressons 03-12-2025

L420

COUNTY SUBMITTTAL - 2024-01-26

GENERAL REQUIREMENTS

The Landscape Contractor shall be responsible for all materials and all work as called for on the landscape plans. The list of plant quantities accompanying the plans shall be used as guide only. If a discrepancy occurs between the plans and the plant list, the plans shall control.

The Landscape Contractor shall warranty all trees for a period of one (1) year and shrubs and ground covers for a period of six (6) months from the time of final acceptance by Owner and Landscape Architect.

The Landscape Contractor shall be wholly responsible for the stability and plumb condition at all trees and shall be legally liable for any damage caused by the instability of any plant material. Staking of trees and palms, if required, shall be done utilizing a method agreed upon by the Landscape Architect.

The Landscape Contractor shall research plans and contact appropriate agencies to determine the location of any utilities and obstructions prior to commencing work. Any utilities or unanticipated obstructions shall be reported to Landscape Architect or Owner immediately.

All plant material and sodded areas shall have an automatic underground irrigation system providing 100% coverage.

Positive drainage shall be maintained away from all structures on the site.

PLANT SPECIFICATIONS

All nursery stock plant material shall be Florida #1 or better in accordance with Grades and Standards for Nursery Plants Parts I & II, latest edition as published by the Florida Department of Agriculture and Consumer Services- Division of Plant Industry.

All plant material shall be planted, fertilized and mulched as per the plant details and planting specifications noted on the plans.

All container grown material shall be healthy, vigorous, well rooted plants, and established in the container in which they are delivered to the site. The plants shall have tops which are good quality and in a healthy growing condition. Established container grown plant material shall be grown in that container sufficiently long enough for the new fibrous roots to have developed enabling the root mass to retain it's shape when removed the container. Plants which have become root bound in the container are unacceptable.

All plant material that is not container grown shall be freshly dug, sound, healthy, vigorous, well branched, and free of disease and insect eggs and larvae, and shall have adequate root systems. Where any requirements are omitted from the plant list, the plants furnished shall be normal for the variety. Plants may be pruned prior to delivery only upon the approval of the Landscape Architect.

FERTILIZER

Two fertilizers shall be used on all types of plantings, except palms. Granular fertilizer shall be uniform in composition, dry and free flowing. This fertilizer shall be delivered to the site in the original unopened bags bearing the manufacturer's statement of analysis. Granular fertilizer shall be a controlled release variety meeting the following requirements: sixteen percent (16%) nitrogen, four percent (4%) phosphorus, eight percent (8%) potassium, plus iron. Tablet fertilizer ("Agriform" or approved equal) in 21 gram size shall meet the following requirements: twenty percent (20%) nitrogen, ten percent (10%) phosphorus, five percent (5%) potassium.

Application Rates:

Plant size	16-4-8	"Agriform" tablet (21 grams)
1 gallon	1/4 lb.	1 tablet
3 gallon	1/3 lb.	2 tablets
7-15 gallon	1/2 lb.	4 tablets
1" - 6' caliper	2 lbs. per 1" caliper	2 tablets per 1" caliper
6" + caliper	3 lbs. per 1" caliper	2 tablets per 1" caliper

Sodded areas shall receive an application of the granular fertilizer (16-4-8) at a rate of 1/2 lb. of Nitrogen per 1,000 square feet of sod area.

"Palm Special" fertilizer shall be applied to all palms at installation at a rate of 1 1/2 lbs. per 100 square feet of canopy area. Palm fertilizer shall be a controlled release variety containing chelated micro nutrients and a ratio of N-P-K-Mg of 2:1:3:1.

SOIL

Planting soil for use in preparing the backfill material for planting pits shall be added a rate of fifty percent (50%) planting soil to fifty percent (50%) existing soil. This soil mix shall be used in all plant pits except Sabal Palms which shall be backfilled with clean sand. Planting soil shall be a fertile, friable natural topsoil of loamy character. It shall contain forty (40) to fifty (50) percent decomposed organic matter and be free of heavy clay, stones larger than 1" in diameter, noxious weeds and plants, sod, partially disintegrated debris, insects or any other undesirable material, plants or seeds that would be toxic or harmful to plant growth.

MULCH

All plant beds and tree watering basins shall be top dressed with three inches (3") of pine bark mini-nuggets mulch.

SOD

Refer to Landscape Plan for limits of sod.

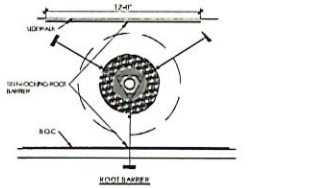
All areas disturbed by construction (including material staging, equipment storage, temporary facilities, site access, construction staff parking, etc.) beyond the minimum limits of sod as shown on the Landscape Plan shall be sodded as needed.

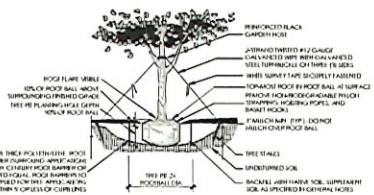
All lawn areas to receive sod shall be disked four (4) to six (6) inches and graded to establish a level finished grade ensuring positive drainage from all structures. All debris shall be removed from the site.

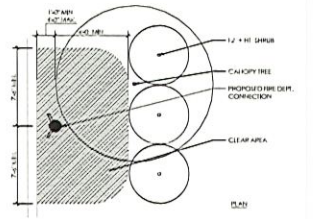
Sod shall be free of weeds and pests. It shall be laid evenly with tight fitting joints and rolled. The sod shall contain moist soil which does not fall apart or tear when lifted.

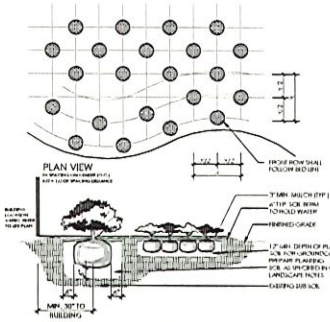
See plant list for specific sod species and locations.

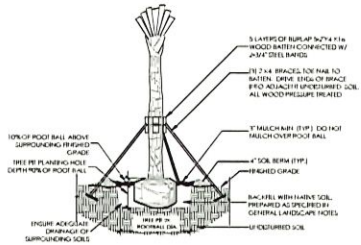
See 'Fertilizer' for requirements of all sodded areas.

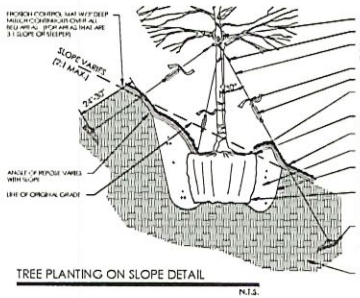












NOTE: TREE SUPPORT MATERIALS SHALL BE REMOVED FROM EACH TREE ONCE IT IS ESTABLISHED. THIS IS USUALLY DONE AFTER 6 MONTHS FOR SHADE TREES, AND 1 YEAR FOR PALM TREES.

LAND DEVELOPMENT
Approved Development Order
Land Development Code of Volusia County, Florida
D.O. #: 2024-5-PPL-41145
5/19/2025
Land Development Manager, Date

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718
400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.2508

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
LANDSCAPE SCHEDULE & NOTES

DATE: January 26, 2024
DRAWN BY: BRL/JAM
CHECKED BY: TWB
JOB NUMBER: 2021.167
FILE NAME: 2021.167_PULTE FORD 472_LA BASE_CODE

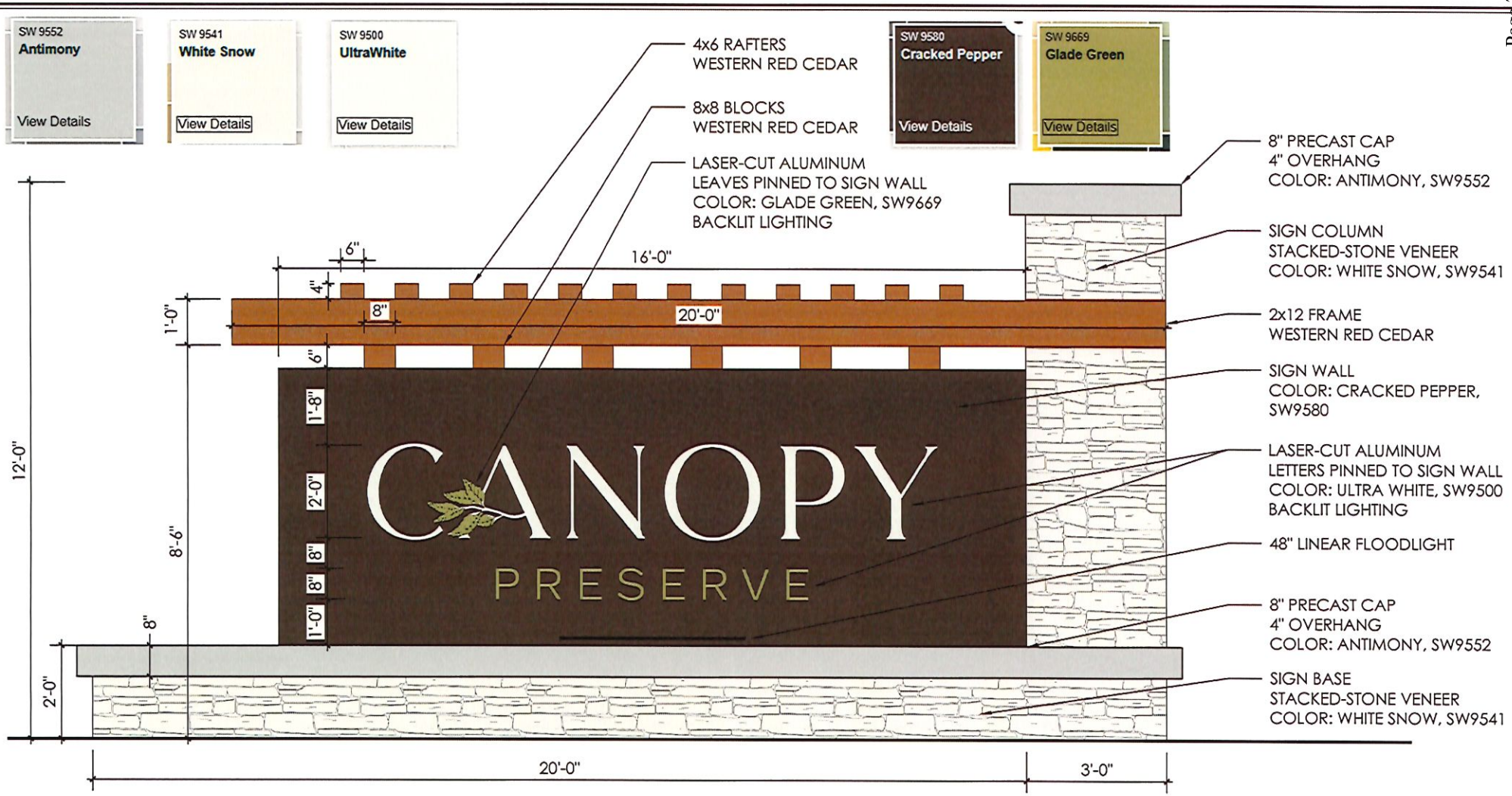
REVISIONS:
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 01-12-2025

L421

COUNTY SUBMITTTAL - 2024-01-26

EXHIBIT "D"

APPROVED SUBDIVISION SIGNAGE



CANOPY PRESERVE - ENTRY SIGN

VOLUSIA COUNTY, FLORIDA

PREPARED FOR:

PULTE GROUP, NORTH FLORIDA DIVISION

2021.167 February 05, 2025

BONNETT design group, llc
landscape architecture . community planning
FL #LA0001718
400 South Orlando Ave. Suite 201 . Maitland, FL 32751
407.622.1588 voice
www.BonnettDesignGroup.com

SCALE: 1/2" = 1'-0"

0' 1' 2'

EXHIBIT "E"

APPROVED TOWNHOME ELEVATIONS AND LAYOUT MAP



FORD PROPERTY

SITE PLAN

Deland, FL

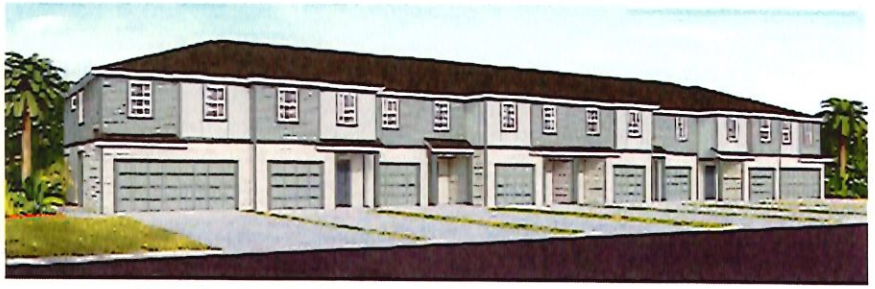
Pulte HOMES

Due to Pulte's ongoing commitment to customer satisfaction, these plans may be amended without prior notice. Artist's renderingonly. Prices, plans and features subject to change without notice. CGC1515415 ©2020 Pulte Homes, INC.

Canopy Preserve Townhomes
Color Schemes



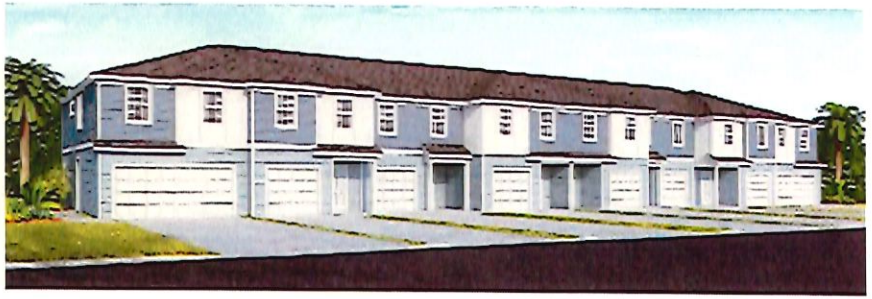
Configuration A - Farmhouse Lullaby



Configuration B - Traditional Modern White



Configuration A - Farmhouse Alabaster



Configuration B - FL Med Krypton

PULTE GROUP

EXHIBIT "F"

MODEL HOME LOCATION PLAN



CANOPY PRESERVE

SITE PLAN

Deland, FL

Pulte HOMES

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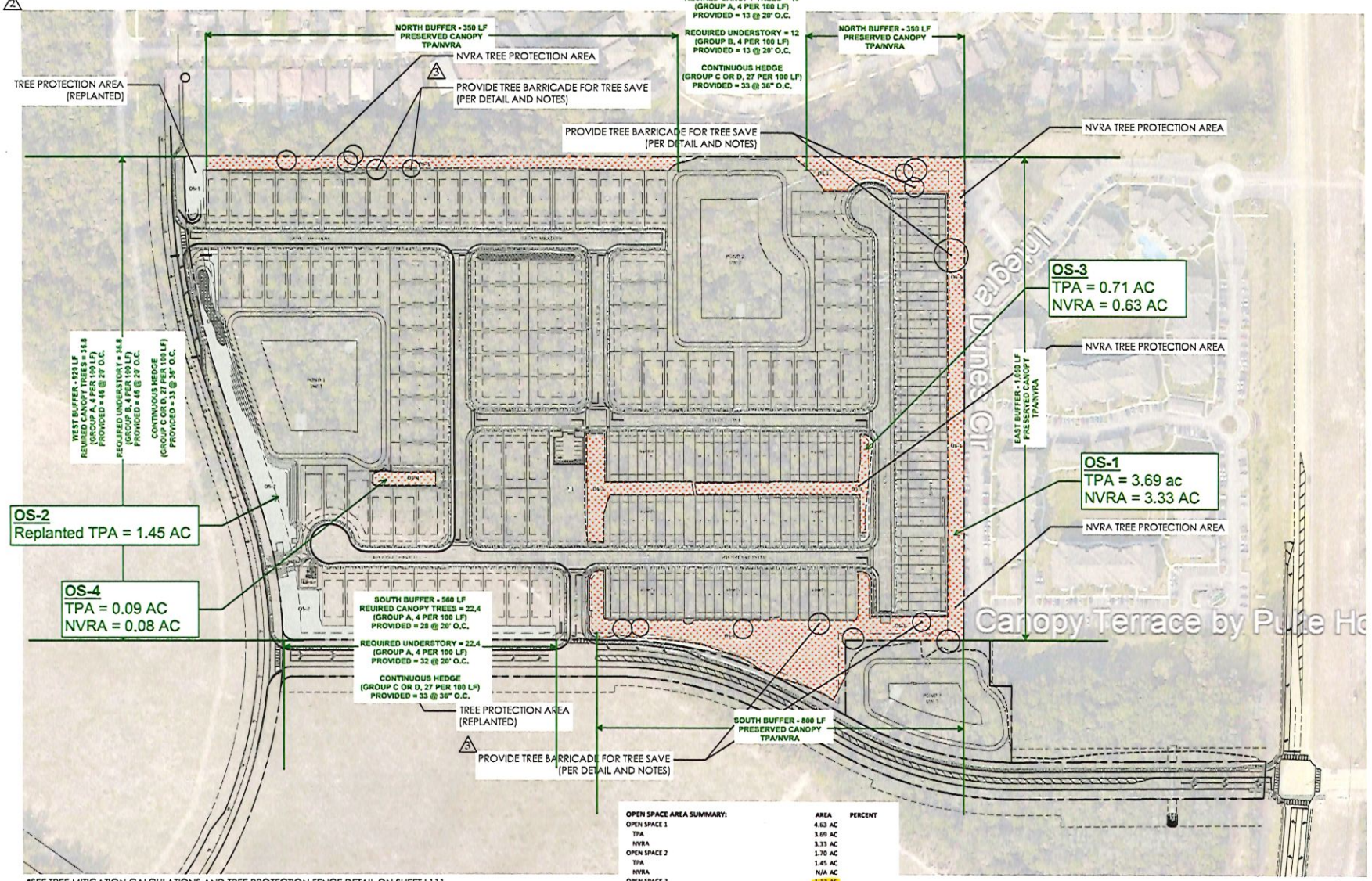
EXHIBIT "G"

LANDSCAPE BUFFER PLAN



*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L111

TREE INVENTORY LEGEND:

TREE PROTECTION AREA

NATURAL VEGETATION RETENTION
AREA 2"-5" TREES TO BE RETAINED

OPEN SPACE AREA SUMMARY:	AREA	PERCENT
OPEN SPACE 1	4.63 AC	
TPA	3.69 AC	
NVRA	3.33 AC	
OPEN SPACE 2	1.70 AC	
TPA	1.45 AC	
NVRA	N/A AC	
OPEN SPACE 3	1.12 AC	
TPA	0.71 AC	
NVRA	0.63 AC	
OPEN SPACE 4	1.82 AC	
TPA	0.09 AC	
NVRA	0.08 AC	
TOTAL PROJECT AREA:	39.24 AC	
TOTAL TPA:	5.94 AC	15%
TOTAL NVRA:	4.03 AC	10%

SCALE: 1" = 100'

0' 50' 100' 200'

COUNTY SUBMITTTAL - 2024-01-26

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave, Suite 201
Maitland, FL 32751
407.622.1588

Ford 472
Landscape Architecture
Pulte Group
Volusia County, Florida
OVERALL TREE MITIGATION PLAN

DATE: January 26, 2024
DRAWN BY: BKL/JAM
CHECKED BY: TWB
JOB NUMBER: 2023.167
FILE NAME: 2023.167_PULTE/FORD 472_LS BASE_CODE

REVISIONS:
1 County Comments 05-31-2024
2 County Comments 08-26-2024
3 DRC Comments 11-08-2024
4 DRC Revisions 03-12-2025

L100

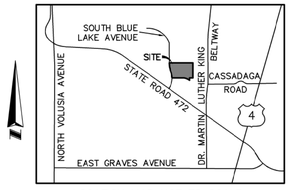
LEGAL DESCRIPTION

A PARCEL OF LAND COMPRISING A PORTION OF GOVERNMENT LOT 1, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SECTION 35, TOWNSHIP 17 SOUTH, RANGE 30 EAST BEING A POINT ON THE NORTH LINE OF AFORESAID GOVERNMENT LOT 1, ALSO BEING A POINT ON THE SOUTH LINE OF VICTORIA PARK INCREMENT THREE SOUTHWEST AS RECORDED IN MAP BOOK 51, PAGES 193 THROUGH 205 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE RUN NORTH 89°55'33" EAST ALONG THE SOUTH LINE OF SAID SECTION 35, SAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST FOR A DISTANCE OF 1666.26 FEET; THENCE DEPARTING SAID NORTH LINE AND SAID SOUTH LINES RUN SOUTH 00°13'58" WEST FOR A DISTANCE OF 1055.76 FEET; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 256.47 FEET; THENCE RUN SOUTH 00°04'26" EAST FOR A DISTANCE OF 165.32 FEET; THENCE RUN NORTH 60°28'40" WEST FOR A DISTANCE OF 126.03 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 790.00 FEET, WITH A CHORD BEARING OF NORTH 75°16'34" WEST, AND A CHORD DISTANCE OF 403.56 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 29°35'47" FOR A DISTANCE OF 408.08 FEET TO THE POINT OF TANGENCY; THENCE RUN SOUTH 89°55'33" WEST FOR A DISTANCE OF 694.57 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, WITH A CHORD BEARING OF NORTH 46°04'55" WEST, AND A CHORD DISTANCE OF 34.73 FEET; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°59'04" FOR A DISTANCE OF 38.39 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SOUTH BLUE LAKE AVENUE ACCORDING TO OFFICIAL RECORDS BOOK 8336, PAGE 276 OF AFORESAID PUBLIC RECORDS, ALSO BEING A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE WESTERLY HAVING A RADIUS OF 995.00 FEET, WITH A CHORD BEARING OF NORTH 10°06'00" WEST, AND A CHORD DISTANCE OF 277.30 FEET; THENCE RUN THE FOLLOWING BEARING AND DISTANCES ALONG SAID EASTERLY RIGHT-OF-WAY LINE: NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 16°01'13" FOR A DISTANCE OF 278.21 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 18°06'36" WEST FOR A DISTANCE OF 280.11 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE EASTERLY HAVING A RADIUS OF 1488.00 FEET, WITH A CHORD BEARING OF NORTH 09°34'01" WEST, AND A CHORD DISTANCE OF 442.10 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 17°05'11" FOR A DISTANCE OF 443.74 FEET TO THE POINT OF TANGENCY; THENCE RUN NORTH 01°01'25" WEST A DISTANCE OF 56.09 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 30 EAST, ALSO BEING AFORESAID NORTH LINE OF GOVERNMENT LOT 1 AND SAID SOUTH LINE OF SAID VICTORIA PARK INCREMENT THREE SOUTHWEST; THENCE RUN NORTH 89°43'05" EAST ALONG SAID SOUTH LINES AND SAID NORTH LINE FOR A DISTANCE OF 24.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 39.24 ACRES MORE OR LESS.



LOCATION MAP NOT TO SCALE

SURVEYOR'S NOTES:

1. BEARINGS SHOWN HEREON ARE ASSUMED AND RELATIVE TO THE NORTH LINE OF GOVERNMENT LOT 1, SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, BEING NORTH 89°55'33" EAST.
2. THERE MAY BE ENVIRONMENTAL ISSUES AND/OR OTHER MATTERS REGULATED BY VARIOUS DEPARTMENTS OF FEDERAL, STATE OR LOCAL GOVERNMENTS AFFECTING THE SUBJECT PROPERTY NOT SHOWN ON THIS SURVEY.
3. THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.
4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT TO INSURE TITLE.
5. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
6. UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR VISIBLE, UNOBSTRUCTED, ABOVE GROUND IMPROVEMENTS WERE LOCATED. UNDERGROUND UTILITIES, FOUNDATIONS AND IMPROVEMENTS WERE NOT LOCATED, UNLESS SHOWN HEREON.
7. UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND PROFESSIONAL PURVIEW AND SUBJECT TO LEGAL INTERPRETATION.
8. THE LANDS SHOWN HEREON LIE IN ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 1251550610J, MAP NO. 12127C610J, MAP REVISED FEBRUARY 19, 2014. THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.
9. THERE WAS VISUAL EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WITHIN THE SURVEYED LANDS.
10. WHILE CONDUCTING THE SURVEY, THERE WAS NO OBSERVED EVIDENCE OF WETLANDS WITHIN THE SURVEYED LANDS.
11. ADJOINING PARCEL OWNER AND RECORDING INFORMATION DELINEATED HEREON WAS OBTAINED FROM THE VOLUSIA COUNTY PROPERTY APPRAISER'S PUBLIC ACCESS SYSTEM.
12. THE SUBJECT PROPERTY IS UNIMPROVED, NO BUILDINGS AND IS PARTIALLY WOODED
13. THERE WAS NO VISUAL EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WITHIN THE SURVEYED LANDS. THE SURVEYOR IS UNAWARE OF ANY PROPOSED CHANGES IN THE RIGHT-OF-WAY.
14. THE SUBJECT PROPERTY HAS ACCESS TO PUBLIC UTILITIES FROM THE PUBLIC STREETS ADJACENT TO THE SUBJECT PROPERTY.
15. THE SUBJECT PROPERTY ABUTS, WITHOUT GAPS GORES OR STRIPS, AND HAS VEHICULAR AND PEDESTRIAN INGRESS TO AND EGRESS FROM SOUTH BLUE LAKE AVENUE, WHICH IS COMPLETED, DEDICATED AND ACCEPTED PUBLIC RIGHT OF WAY.
16. EXCEPT AS SHOWN ON THE SURVEY, THE SUBJECT PROPERTY DOES NOT APPEAR TO SERVE ANY ADJOINING PROPERTY FOR UTILITIES, DRAINAGE, STRUCTURAL SUPPORT OR INGRESS OR EGRESS.
17. THE LEGAL DESCRIPTION SHOWN HEREON WAS PREPARED BY THE SURVEYOR AT THE CLIENT'S REQUEST.
18. THERE IS NO OBSERVED EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
19. THIS SURVEY IS CERTIFIED TO: LANDIS GRAHAM FRENCH, P.A.; OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; PULTE HOME COMPANY, LLC; FRANK A. FORD, INDIVIDUALLY AND AS TRUSTEE; RAY F. VEECH, AS TRUSTEE OF THE ALEX B. VEECH TRUST AND INDIVIDUALLY; KIRTLEY PENROD AS PERSONAL REPRESENTATIVE OF THE ESTATE OF JEAN FORD PENROD AND AS TRUSTEE OF THE JOHN PENROD TESTAMENTARY TRUST; SARAH R. FORD; FRANK A. FORD, JR.; ELIZABETH F. WILLIAMS; COURTNEY F. HAMIL; ATTORNEY'S TITLE FUND SERVICES

ALLEN & COMPANY
Founded in 1988
SURVEYING • MAPPING
GEOSPATIAL SERVICES
www.allen-company.com
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
(407) 654-5355 LB#8627

BOUNDARY SURVEY OF FORD 472

SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST
CITY OF DELAND, VOLUSIA COUNTY, FLORIDA

FOR: PULTE HOMES

JAMES LOUIS RICKMAN LICENSED SURVEYOR
LS5633
STATE OF FLORIDA
This item has been electronically signed and Sealed by James L. Rickman, P.S.M. using A Digital Signature.
Printed Copies of this document are not considered signed and sealed and the signature Must be verified on any electronic copies.

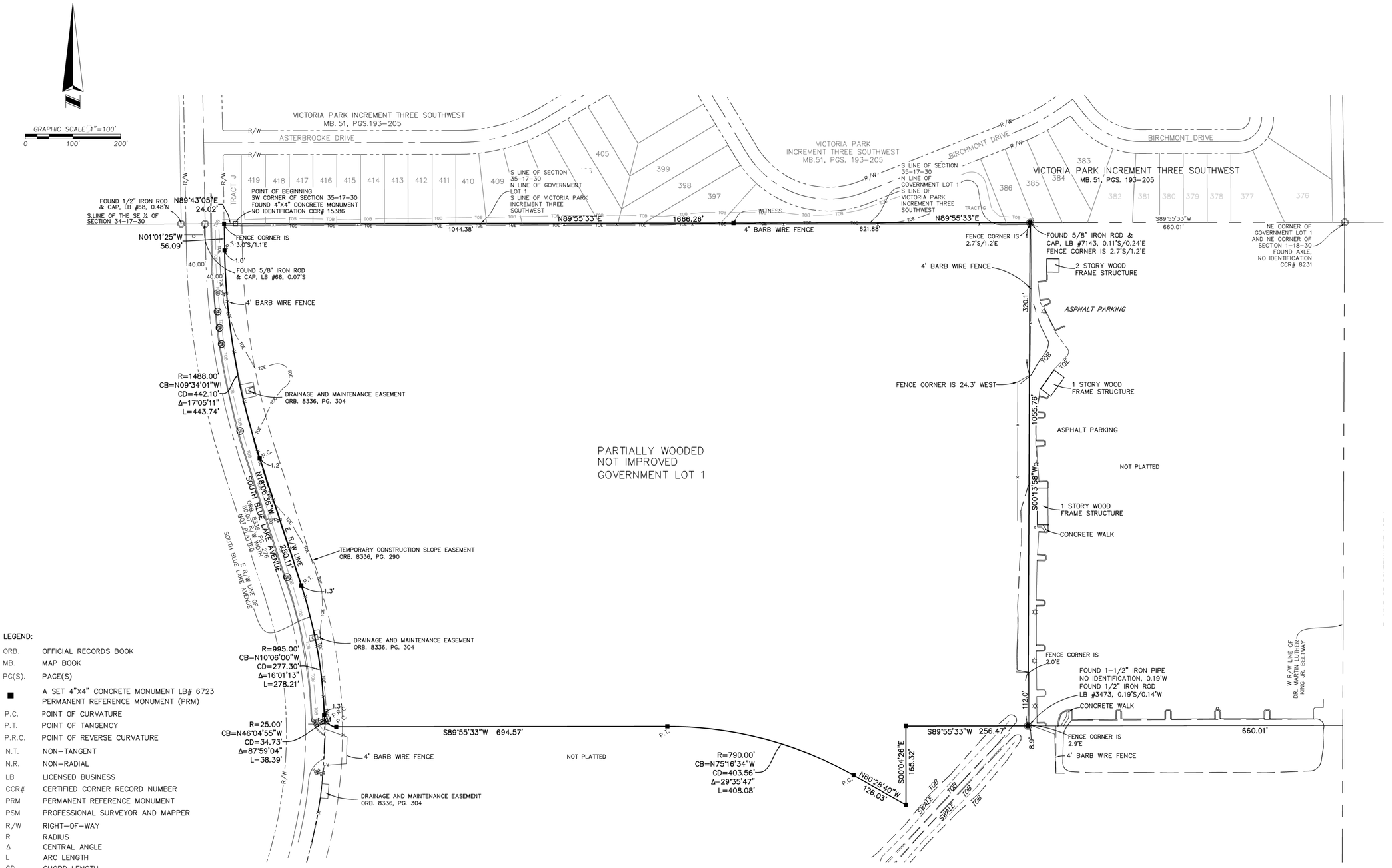
FOR THE LICENSED BUSINESS #8627 BY:
JAMES L. RICKMAN, PSM #5633
Digitally signed by: James L Rickman
Date: 2025.05.22 16:09:12 -04'00'

DATE	REVISIONS
1-17-25	REVISE ACREAGE ADD CERTIFICATIONS

JOB #: 20200713
DATE: 12-16-24
SCALE: 1"=100'
CALC BY: SEJ
FIELD BY: JDS
DRAWN BY: SEJ
CHECKED BY: MR

SHEET 1 OF 2

Drawing name: L:\Data\20200713\Plat\plat boundary 24x36-Brdy Sheet-1



LEGEND:

ORB.	OFFICIAL RECORDS BOOK
MB.	MAP BOOK
PG(S).	PAGE(S)
■	A SET 4"X4" CONCRETE MONUMENT LB# 6723 PERMANENT REFERENCE MONUMENT (PRM)
P.C.	POINT OF CURVATURE
P.T.	POINT OF TANGENCY
P.R.C.	POINT OF REVERSE CURVATURE
N.T.	NON–TANGENT
N.R.	NON–RADIAL
LB	LICENSED BUSINESS
CCR#	CERTIFIED CORNER RECORD NUMBER
PRM	PERMANENT REFERENCE MONUMENT
PSM	PROFESSIONAL SURVEYOR AND MAPPER
R/W	RIGHT–OF–WAY
R	RADIUS
Δ	CENTRAL ANGLE
L	ARC LENGTH
CD	CHORD LENGTH
CB	CHORD BEARING
TOB	TOP OF BANK
TOE	TOE OF SLOPE
	LIGHT POLE
	STORM DRAINAGE MANHOLE
	FIRE HYDRANT
	MITERED END SECTION
	WATER VALVE
	SINGLE STAND SIGN
WM	WATER METER
	WATERLINE MARKER

Drawing name: L:\Data\20200713\Plat\plat boundary 24x36-Body Sheet-2

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16 EAST PLANT STREET
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BOUNDARY SURVEY OF FORD 472

SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST
CITY OF DELAND, VOLUSIA COUNTY, FLORIDA

FOR: PULTE HOMES

JAMES LOUIS RICKMAN LICENSE NUMBER LS5633 STATE OF FLORIDA PROFESSIONAL SURVEYOR AND MAPPER

This item has been electronically signed and Sealed by James L. Rickman, P.S.M. using A Digital Signature.

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Digitally signed by: James L Rickman
Date: 2025.05.22 16:09:54 -04'00'

DATE	REVISIONS

JOB #: 20200713
DATE: 12–16–24
SCALE: 1"=100'
CALC BY: SEJ
FIELD BY: FORD 472
DRAWN BY: SEJ
CHECKED BY: MR

SHEET 2 OF 2

PLANNING DIVISION STAFF REPORT
TO
THE CITY OF DELAND PLANNING BOARD

September 10, 2025

A. **APPLICATION NO.:** Z25-024 (Canopy Preserve Rezoning)
APPLICANT: Mr. Mark Watts, Cobb & Cole, P.A.
OWNER: Pulte Home Company, LLC
STAFF PLANNER: Chris Carson, AICP, Senior Planner
REQUEST: Change of zoning for ±39.24 acres from Volusia County Southwest Activity Center Community (SWR) and Volusia County Southwest Activity Center Commerce (SWC) to Canopy Preserve PD (Planned Development)

B. **APPLICABLE REGULATIONS:**

Article IV **OVERLAY AND FLOATING ZONES**
Sec. 33-32 – Planned Development District.

Article XII **ADMINISTRATION AND ENFORCEMENT**
Sec. 33-135 – Procedure for text amendments & rezoning.

C. **SITE FACTORS:**

PARCEL NUMBER: 800100000026
LOCATION: North of SR 472 and east of S. Blue Lake Ave.
SIZE OF PROPERTY: ±39.24 acres

D. **LAND USE DESIGNATION & ZONING OF SUBJECT PROPERTY:**

Future Land Use: Volusia County: Southwest Activity Center Community (SWAC Community), Southwest Activity Center Commerce (SWAC Commerce)
Existing Zoning: Volusia County: Southwest Activity Center Community (SWR), Southwest Activity Center Commerce (SWC)
Existing Use: Vacant/ Undeveloped

E. **SURROUNDING LAND USE & ZONING:**

	LAND USE	ZONING
North:	New Community Development (NCD), VC: Urban Medium Intensity (UMI)	Victoria Park PD, VC: R-4
South:	VC: SWAC Commerce	VC: RFPUD
East:	VC: SWAC Community, VC: SWAC Commerce	VC: Integra Dunes RPUD
West:	VC: SWAC Community, VC: SWAC Commerce, VC: Industrial	VC: I-1 Light Industrial, VC: SWR, VC: SWC

F. **BACKGROUND:** The ± 39.24 acre subject property is located in unincorporated Volusia County with Volusia County zoning designations of Southwest Activity Center Community (SWR) and Southwest Activity Center Commerce (SWC).

The property's Volusia County future land uses are Southwest Activity Center Community (SWAC Community) and Southwest Activity Center Commerce (SWAC Commerce).

The applicant has been working with the County to construct a subdivision with a combination of single-family homes and townhomes since 2021. The project was initially put on hold because of a conflict between the minimum density requirements of the County's Comprehensive Plan and the dimensional requirements for single-family residences in the Southwest Activity Center zoning designation. The Southwest Activity Center was originally visioned as a major employment and commerce center near the I-4 interchange with a variety of housing choices to support the employment base. To spur economic development, and to resolve the conflicts between the Comprehensive Plan and the Zoning, County staff modified the SWR and SWC zoning designations. The Ordinance was approved in 2023.

After modifications to the zoning were approved, the applicant proceeded with plat and construction plan review for the subdivision. During the review period, the City and County modified the City's Utility Service Area (USA) boundary which placed the subject property within the limits of the City's USA.

The applicant contacted City staff with a desire to incorporate into the City limits for future consistency. To avoid further project delays, the applicant continued with plat approval, while concurrently submitting applications for incorporation into the City. The application for rezoning is accompanied by a request for annexation (AN25-026) and a request for a small-scale future land use map amendment (SMLU25-025).

During the review of those applications, the applicant received County approval to begin site and infrastructure work to service the development. That construction activity is currently ongoing. The property was partially wooded and undeveloped. It did not appear to contain any wetlands and does not lie within the 100-year flood zone.

If the requests are approved, the County will continue to monitor and inspect all improvements required by the development order. Prior to any vertical construction, the City will inspect access and utilities for life safety. A site plan will be required for the community amenity center. Building permits for the individual lots will be administered through the City.

G. **ANALYSIS:** Per Sec. 33-32 of the Land Development Regulations (LDR), the Planned Development (PD) District is intended to provide unique zoning districts which are not provided for or allowed in conventional zoning districts. In return for flexibility in site design and development, PDs are expected to include exceptional design that preserves critical environmental resources; provides above-average open space and recreational amenities, and ensures compatibility with surrounding land uses.

The proposed PD includes a mixture of housing types with a maximum of 91 single family units and 112 townhome (multi-family) units. The low density residential future land use allows a maximum density of 5.8 dwelling units per acre. The PD meets the density allowed by the future land use by proposing 5.17 dwelling units per acre. The project includes 21 % common open space and park amenities by grouping housing types. Development for the property shall rely upon the standards set forth below as identified on the Planned Development Plan.

SITE DATA	R-1B	SINGLE-FAMILY	TOWNHOMES
Unit count (max)		91	112
Overall size		±39.24 ACRES	
Density	5.81	5.17 DU/ACRE	
Maximum Height	35 ft.	35 ft.	35 ft.
Maximum impervious	45 %	65 %	70 % Overall, 85 % per lot
Maximum building length			160 ft.
Minimum lot width	75 ft.	50 ft.	20 ft.
Minimum floor area	900 sq. ft.	1,662 sq. ft.	1,552 sq. ft.
Minimum lot area	7,500 sq. ft.	6,250 sq. ft.	2,200 sq. ft.
Setbacks	Front: 30 ft. Rear: 25 ft. Side yard: 10 ft.	Front: 25 ft. Garage: 25 ft. Rear: 20 ft. Side yard: 5 ft.	Front: 25 ft. Garage: 25 ft. Street: 10 ft. Rear: 15 ft. Side yard: 0 ft.
Minimum building separation		10 ft.	50 ft. between any combination of fronts or rears of adjacent buildings. 25 ft. between any other combinations.

The development includes landscape designs that will serve environmentally friendly functions including, but not limited to, cooling, privacy screening, shade, aesthetics, wildlife habitat, runoff pollution prevention, and directing traffic flow onto and within the community, such as low impact development standards.

As required by Section 33-57.07(b) of the LDRs, a minimum of 15% or 5.94 acres of the subject property will be dedicated as Tree Protection Area (TPA). Additionally, ten percent of the property, or four acres is being reserved as natural vegetation retention areas, where all existing vegetation will remain on that area of the site.

The perimeter landscape buffers are outlined in the table below which compares the required buffers as required by Section 33-92 of the LDR, to what the applicant is providing in the PD. As seen in the chart, the buffer widths provided are consistent with the minimum width requirements. The PD proposes that each buffer will provide 4 canopy trees, 4 understory trees, and 27 shrubs per 100 linear feet, regardless of width.

LANDSCAPE BUFFERS		
	REQUIRED	**PROVIDED**
NORTH*	25’ TYPE B	25’ MODIFIED TYPE B
EAST	N/A	N/A
SOUTH (SINGLE FAMILY)	30’ TYPE D	30’ MODIFIED TYPE D
SOUTH (TOWNHOMES)	15’ TYPE B	15’ MODIFIED TYPE B
WEST	30’ TYPE D	30’ MODIFIED TYPE D
	*25’ BETWEEN SUBDIVISIONS	

According to the approved plat, the project is exceeding the proposed PD requirements by providing a 30' landscape buffer to the north, a 35' landscape buffer to the east, a landscape buffer that varies between 30' to over 100' to the south, and a 40' landscape buffer to the west. The buffers meet the code intent of serving as a buffer between the existing neighborhood to the north, industrial uses to the west, and multi-family to the east.

The proposal complies with the city's Land Development Regulations as well as International Dark Sky standards, designed to reduce light pollution by restricting upward-directed light and avoiding glare.

Each parcel is designed to accommodate no less than two (2) parking spaces via use of two (2) on-parcel driveway and two (2) spaces in an internal garage. The proposal includes an interconnected internal sidewalk system, that connect with sidewalks along S. Blue Lake Ave. and the Cassadaga Road extension.

School Concurrency: A school concurrency letter dated May 20, 2025, was provided, stating that the Volusia County School District has no objections to the proposed development plan.

Traffic Analysis: A Traffic Impact Analysis from Traffic & Mobility Consultants (TMC) dated February 13, 2024, states that the proposed development is projected to generate 1,728 new daily trips of which 121 trips occur during the AM peak hour and 154 trips occur during the PM peak hour. A number of improvements were identified based on the project's impacts within the study area, including the extension of Cassadaga Road and a number of turn lane improvements. The impacts are being mitigated through the applicant's dedication of the right of way required to extend Cassadaga Road from MLK Boulevard to S. Blue Lake Avenue and the construction of the Cassadaga Roadway and intersection improvements.

Stormwater: Per the proposed PD Agreement, the stormwater system was designed to meet the 100-year, 24-hour storm event which will be retained on site. Additionally, the project includes bioswales for stormwater conveyance and native plantings.

H. LAND DEVELOPMENT REGULATIONS:

Sec. 33-32 – Planned Development District of the Land Development Regulations is intended to provide a method for consideration and approval of unique zoning districts for individual Planned Developments (PD) which are not provided for or allowed in the zoning districts otherwise established by this chapter.

The criteria and standards to be met for approval have been reviewed and staff finds the outlined consistencies as outlined below.
The proposed Planned Development rezoning will allow for a mixture of single-family residential and multi-family (townhomes) to be developed, which will promote home ownership opportunities for all residents. Reduced lot sizes promote the utilization of existing natural features and existing landscaping.

Sec. 33-135 – Procedure for text amendments & rezoning of the Land Development Regulations provides the following factors to consider during the review of each application for rezoning or for changes in permitted uses, among the factors to be considered are the following:

1. **Is the proposed rezoning consistent with the Comprehensive Land Use Plan, the land use, zoning pattern and character of the surrounding area?**
   Per the Comprehensive Plan, the PD zoning district is compatible with the LDR future land use designation.

   To the north of the property is the Victoria Park PD, with a maximum density of 2.5 dwelling units per acre. To the east is the Integra Dunes RPUD, with a maximum density of 18 dwelling units per acre. South of the property is currently undeveloped land, which is zoned for a minimum density of 8 dwelling units per acre and a maximum density of 22 dwelling units per acre. West of the property is a combination of industrial and undeveloped land. The undeveloped land has a maximum density of 8 dwelling units per acre to the north and 22 dwelling units per acre to the south.

   The proposed density of 5.17 dwelling units per acre will provide a transition from the lower density residential to the higher density residential and nonresidential uses.

   According to the City's 2050 Vision Plan, the proposal is located in the Urban Core (Category 2), which is where the majority of new growth will take place. It is also located within the City's Utility Service Area boundary. The proposed rezoning is appropriate for the location as it is located along a collector road with existing infrastructure, and serving as a transition between lower density residential and higher density residential, and near employment areas and future commercial development.

   For all of these reasons, the request is consistent and compatible with the Comprehensive Plan, zoning pattern, and character of the surrounding area.

2. **Will the proposed rezoning have an impact upon the environment or natural resources?**
   The project is currently under construction in Volusia County, regardless of the rezoning, therefore the rezoning will not have an impact upon the environment or natural resources. The applicant did minimize environmental or natural resource impacts by providing Low Impact Development (LID) such as all Florida native plantings, runoff pollution prevention, bioswales, and enhanced buffering and natural vegetation retention areas. Additionally, the project went through all proper Florida Fish and Wildlife Conservation Commission (FFWCC) permitting and practices prior to construction.
3. **Will the proposed rezoning have an impact upon the economy of the affected area?**
   The site is currently undeveloped; therefore, the development should have a positive economic impact on the city and the surrounding area. This development could potentially raise overall home values, and support further development of the surrounding area creating additional jobs, shopping, and convenience.
4. **Will the proposed rezoning have an impact upon governmental services?**
   Governmental services such as potable water, reclaimed water, sewer, code enforcement, police, and fire will be provided by the City. The City's Utilities Department provided a Utility Service Agreement (USA) during the preliminary plat review to serve water and sewer. Additionally, the Technical Advisory Committee (TRC) has indicated that there is adequate infrastructure and facilities to service the development, therefore there will be no impact to the level of governmental services.

5. **Are there changes in the circumstances or conditions affecting the area since the original assignment of zoning that will support the proposed zoning?**
   The Southwest Activity Center at the SR 472 interchange was conceived by Volusia County in 1995 as a mixed-use development. The County and the City of Deltona initiated the Areawide Development of Regional Impact (DRI) as an attempt to implement the vision. The City of DeLand later joined this effort after a large area was annexed into the City. After the adoption of the DRI, the City adopted the Southwest Activity Center Local Plan into the Comprehensive Plan. The DRI was abandoned in 2018, however, the City of DeLand adopted goals, objectives, and policies into the Comprehensive Plan to direct future development to meet the intent and vision of the original DRI.

6. **Was there a mistake in the original classification?**
   There were no mistakes in the original classification.

7. **Will the proposed rezoning have any effect upon the use or value of the affected area?**
   The proposed rezoning could have a positive impact upon the surrounding area, as the property would no longer be undeveloped and vacant, and the infusion of new homes could provide additional housing options.

8. **Will the proposed rezoning have an impact upon public health, safety and welfare?**
   There is no indication at this time that the new proposal will create additional impacts upon public health, safety or welfare, as all provided public services have the capacity needed to accommodate the proposed development. This rezoning would be consistent and compatible with the uses of the surrounding area.

Based on all the findings outlined above, staff finds that proposal meets all criteria and standards for approval of a PD rezoning.

I. **Next Steps:** The request for a rezoning will go before the City Commission on October 6, 2025 for first reading, followed by Volusia Growth Management Commission Review (VGMC). After VGMC review, the request is anticipated to go before City Commission on November 17, 2025 for second reading.

J. **STAFF RECOMMENDATION**: Staff recommends that the Planning Board forward the application to the City Commission with a recommendation of approval for the request to rezone from Volusia County Southwest Activity Center Community (SWR) and Volusia County Southwest Activity Center Commerce (SWC) to Canopy Preserve PD (Planned Development) with one condition of approval as follows:

- The applicant correct the open space area summary of Exhibit B and Exhibit G prior to first reading of the item at City Commission.

Scott W. Cichon
Robert A. Merrell III
John P. Ferguson
Mark A. Watts
Heather Bond Vargas
Michael J. Woods
Raymond L. Schumann
Kathleen L. Crotty
Michael O. Sznapstajler
Andrew C. Grant
Matthew S. Welch
Edward H. Thompson
Robert E. Doan
William A. Rice
Douglas J. Collins
Sara E. Glover
Holly W. Zitzka
Jessica L. Gow

COBB COLE
Attorneys at Law
Since 1925

Daytona Beach • DeLand
231 North Woodland Boulevard
DeLand, Florida 32720
(386) 736-7700 | CobbCole.Com

Sydney V. Cichon
Anthony E. Aguanno
Baylee D. Bunyard
Anne M. Kehrli
Alanna V. Smith

OF COUNSEL
Larry D. Marsh
Ira Halfond

William M. Cobb (1881-1939)
Thomas T. Cobb (1916-2004)
W. Warren Cole, Jr. (1926-2008)

February 26, 2025

Carol Kuhn, AICP
Planning Director
City of DeLand
120 South Florida Avenue
DeLand, FL 32720

Re: Revised Project Narrative – 472 PD, Annexation & Small-Scale CPA
Parcel ID No. 8001-00-00-0020 (northern portion of)

Dear Carol,

Cobb Cole represents Pulte Home Company, LLC, owners of the above-referenced parcel. The property is currently undergoing subdivision review and approval by the County of Volusia for the development of single family and townhome style residential units. The property is subject to an annexation, land use, and rezoning request to locate the property within the municipal boundaries of the City of DeLand.

We are requesting to amend the future land use and zoning designations for the property identified in the application ("Property") from Volusia County SWR (land use and zoning) and SWC (land use and zoning) to the City's Low Density Residential ("LDR") land use classification and PUD zoning. The purpose of the applications is to transition the Property while it is under development from the County to City's jurisdiction as a result of the recent shift in utility service area boundaries in the vicinity of the Martin Luther King, Jr. Beltway and S. R. 472. The Property is currently under development based on an approved preliminary subdivision plat for single family residential and townhome residential units and associated amenities. As the Property is developed, the developer is also obligated to extend Cassadaga Road from its current intersection with the MLK Beltway to the recent southern extension of Blue Lake Road.

As background information, the County's SWR and SWC future land use and zoning were created following the abandonment of the former S.R. 472 Areawide Development of Regional Impact ("472 DRI"). Similar to the City of DeLand, the County incorporated much of the development entitlements from the 472 DRI into the SWR and SWC classifications to continue implementing the overall goals, policies and objectives defined by the 472 DRI. The majority of the Property is included within the SWR classifications, which were designed to

provide residential development areas supporting the overall land use mix outlined in the 472 DRI. The SWC classification is primarily designed to support commercial development, however the only portions of the Property that are currently classified under SWC are the areas that will be improved with the Cassadaga Road extension and associated stormwater infrastructure.

Pulte Homes began working with County staff on subdivision approvals for the Property in 2021. When Pulte submitted initial applications, we determined that the Property could not be developed with the minimum required density of 4 units per acre required by the SWR land use classification based on the minimum dimensional requirements adopted in the SWR zoning classification for single family lots. As a result, we coordinated with County staff and the County Council approved revisions to the minimum single family lot dimensional requirements in order to permit development that would meet the minimum required density. During the time the County was processing administrative amendments to the SWR and SWC zoning classifications, consideration of the pending preliminary plat was put on hold. The subdivision review proceeded following the County's correction of the SWR zoning classification's dimensional criteria.

While the preliminary plat was under review and the SWR zoning classification revisions were being reviewed and approved, the City and County revised the boundaries of the utility service areas for the Property. The result of those revisions added the Property to the City's utility service boundary. Since the preliminary plat review was substantially underway at that point in time, we coordinated with City and County staff to proceed with annexation of the Property into the City once the preliminary plat review was completed.

Based on the approved preliminary plat, the Property is currently under development. Based on our coordination with City and County staff, the proposed applications submitted to the City with this letter will annex the Property, assign a land use classification consistent with the approved residential density and incorporate the development standards outlined in the County's SWR classification into a PUD for the Property. The County will continue to provide permit review and inspections for the subdivision improvements required by the approved preliminary plat development order. The City will inspect and improve all utility improvements included in the preliminary plat development order since it is the utility provider. Our intent is to finalize the PUD rezoning in time to allow vertical permitting for all single family and townhome residential structures through the City. In addition, since the City considers townhomes as a multi-family use and subject to the City's community design standards, review and approval of the proposed architectural design for the townhomes is also proposed as part of the PUD approval.
At completion, the development of the Property will include 112 townhome units and 91 single family units. The resulting density is 5.2 units/acre and complies with the minimum required density of the County's SWR land use classification. It is also consistent with the City's LDR land use classification. As noted above, the development includes construction of

extension of Cassadaga Road, and the provision of supporting open space and stormwater amenities. Site development and permitting of horizontal site improvements will be permitted through the County of Volusia, with vertical building permit review and issuance proposed under the City of DeLand and in accordance with the proposed PUD regulations.

Sincerely,

Mark A. Watts, Esq.
Mark.Watts@cobbcole.com

Ford 472
Project № 21145, v1.3
February 2025

Traffic Impact Analysis
City of Deland
Florida

Prepared for:

Pulte Group
4901 Vineland Road, Suite 460
Orando, Florida 32811

Prepared by:

3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

EXECUTIVE SUMMARY

Project Information

Name:	Ford 472
Location:	West of Dr. Martin Luther King Jr. Beltway (MLK) and north of State Road 472 (SR 472)
Jurisdiction	City of Deland, Florida
Description:	91 single family dwelling units and 112 townhomes

Findings

Trip Generation: 1,728 Net New External ADT / 121 AM Peak / 154 PM Peak

Adverse Impacts: The proposed development impacts the following adverse roadways:

- Graves Avenue from Veterans Memorial Parkway to Normandy Boulevard
- Howland Boulevard from I-4/SR 472 to Wolf Pack Run
- Orange Camp Road from US 17/92 to Princeton Road
- West Volusia Beltway from Harley Strickland Boulevard to Rhode Island Avenue

SR 472 and MLK Beltway is currently experiencing delays and is projected to continue to do so at project buildout. However, with background improvements submitted by other projects, the intersection is expected to operate at an overall adequate LOS. The development adds approximately 1% to the total projected traffic.

Recommendations

Access Road Improvements:

<u>MLK Beltway and Cassadaga Road</u>
Install a 455-foot-long northbound left turn lane on MLK Beltway.
Install a 455-foot-long southbound right turn lane on MLK Beltway.
Install a 145-foot-long eastbound left turn lane and a shared right turn/thru lane on Cassadaga Road.

<u>Cassadaga Road Extension and Access I</u>
Install a 145-foot-long westbound left turn lane on Cassadaga Road.
Provide a 145-foot-long southbound egress lane for the left turn movement.

Off-Site Mitigation: The project's proportionate share mitigation is $234,281.24, which shall be paid in accordance with a mitigation agreement with Volusia County.

PROFESSIONAL ENGINEERING CERTIFICATION

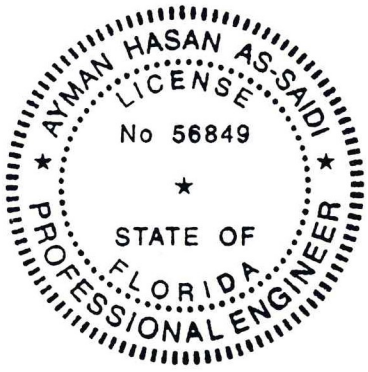
I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Ford 472

LOCATION: City of Deland, Florida

CLIENT: Pulte Group

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

AYMAN H AS-SAIDI

Digitally signed by AYMAN H AS-SAIDI
Date: 2025.02.13 15:18:53 -05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BOULEVARD, SUITE 265
ORLANDO, FLORIDA 32803

CERTIFICATE OF AUTHORIZATION CA-30024

AYMAN H. AS-SAIDI, P.E. № 56849

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1.0 INTRODUCTION

This analysis was prepared in support of a development application for the Ford 472 project. The project is a residential development that includes the land uses and quantities presented in **Table 1**. The project's anticipated buildout date is 2028. This analysis has been updated to address the comments received from Volusia County. The response to the comments letter is provided in **Appendix A**, along with the comment letter from Volusia County.

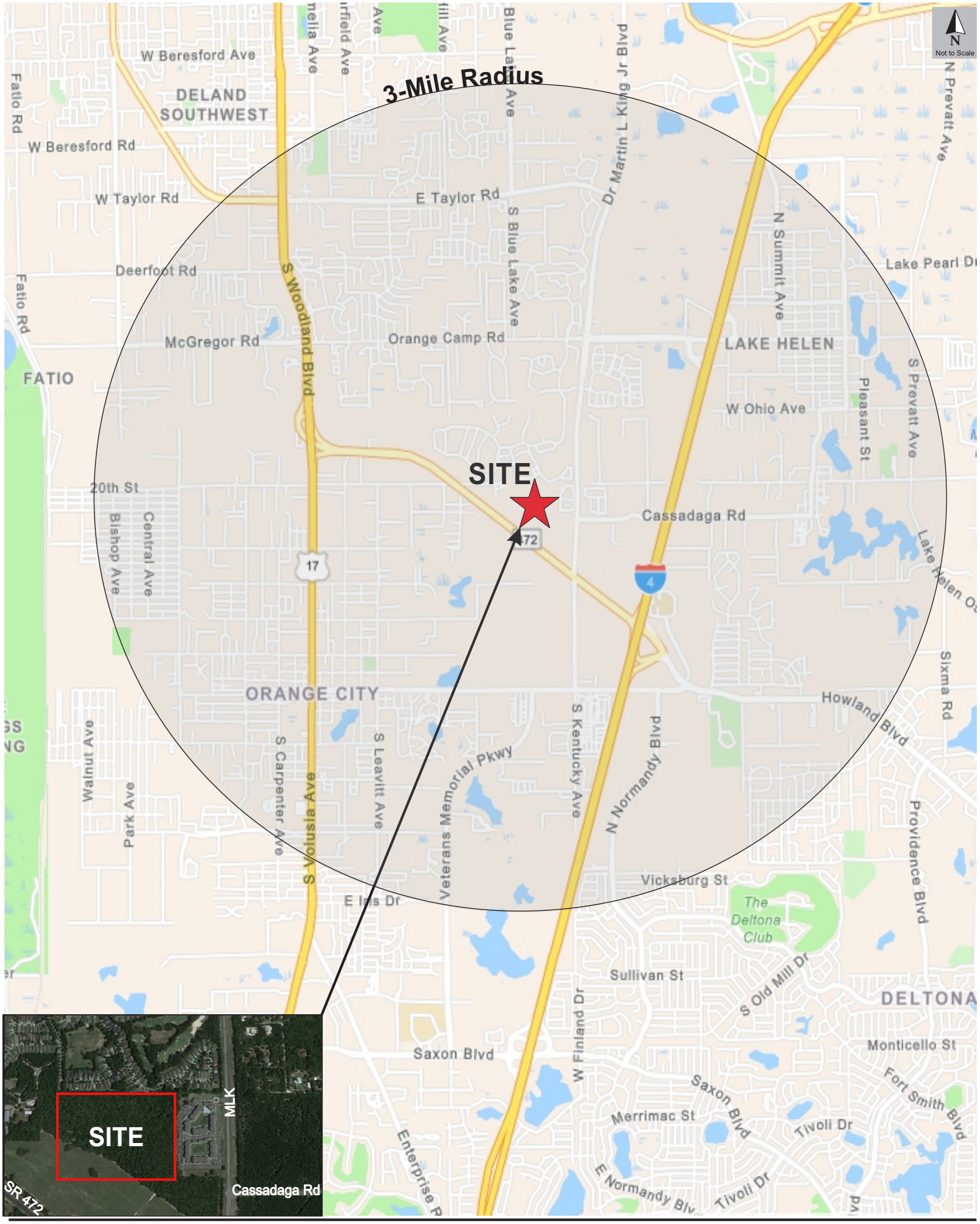
Table 1
Development Plan

Land Use	Size	ITE Code
Single Family Residential	91 DU	210
Townhomes	112 DU	215

The site is located west of Dr. Martin Luther King Jr. Beltway (MLK) and north of State Road 472 (SR 472) in the City of Deland, Florida. **Figure 1** depicts the site location and the surrounding transportation network. Cassadaga Road and Blue Lake Avenue are planned to be extended to facilitate access to the project site. Access will be provided via two driveways: one (1) full access driveway on the Cassadaga Road extension and one (1) full access driveway on the Blue Lake Avenue extension. The proposed access plan is illustrated in **Figure 2**. A conceptual site plan depicting the site layout, land uses, and access points is provided in **Appendix B**. The conceptual layout of the intersections along the Cassadaga Road extension and Blue Lake Avenue Extension along with the approved development plan are also provided in **Appendix B**.

The analysis was conducted in accordance with the methodology approved by Volusia County, which is provided along with the approval letter in **Appendix C**.

Information used in this analysis includes data collected by Traffic & Mobility Consultants, information provided by the project team, and/or other data and information obtained from Volusia County, the Institute of Transportation Engineers (ITE), and the Florida Department of Transportation (FDOT).


3-Mile Radius
SITE
N
Not to Scale
W Beresford Ave
DELAND SOUTHWEST
W Beresford Rd
W Taylor Rd
E Taylor Rd
Deerfoot Rd
McGregor Rd
Orange Camp Rd
FATIO
LAKE HELEN
W Ohio Ave
20th St
Cassadaga Rd
472
17
4
ORANGE CITY
Howland Blvd
Vicksburg St
E Iris Dr
Sullivan St
DELTONA
Saxon Blvd
Merrimac St
Monticello St
Tivoli Dr
E Normandy Blv
S Woodland Blvd
S Volusia Ave
S Blue Lake Ave
Dr Martin L King Jr Blvd
N Summit Ave
N Prevatt Ave
S Prevatt Ave
Pleasant St
Lake Pearl Dr
Lake Helen Os
Sixma Rd
Providence Blvd
Fort Smith Blvd
Fatio Rd
Bishop Ave
Central Ave
Walnut Ave
Park Ave
S Carpenter Ave
S Leavitt Ave
Veterans Memorial Pkwy
S Kentucky Ave
N Normandy Blvd
S Old Mill Dr
N Finland Dr
Enterprise R
The Deltona Club
SITE
MLK
SR 472
Cassadaga Rd


N
Not to Scale
MLK
Proposed
Full Access
Proposed S.Blue Lake Ave Extension
Proposed Cassadaga Rd Extension
Proposed
Full Access
Existing Signal
Existing Median
Opening
SR 472
MLK

2.0 PROJECT TRAFFIC

2.1 Trip Generation

The trips generated by the proposed development were projected using data published in the ITE *Trip Generation Manual, 11th Edition*. Trip generation rates and/or equations published for the land uses were applied to the proposed development program to determine the total trips generated by the project.

The trip generation calculations are summarized in **Table 2** and detailed information is included in **Appendix D.**

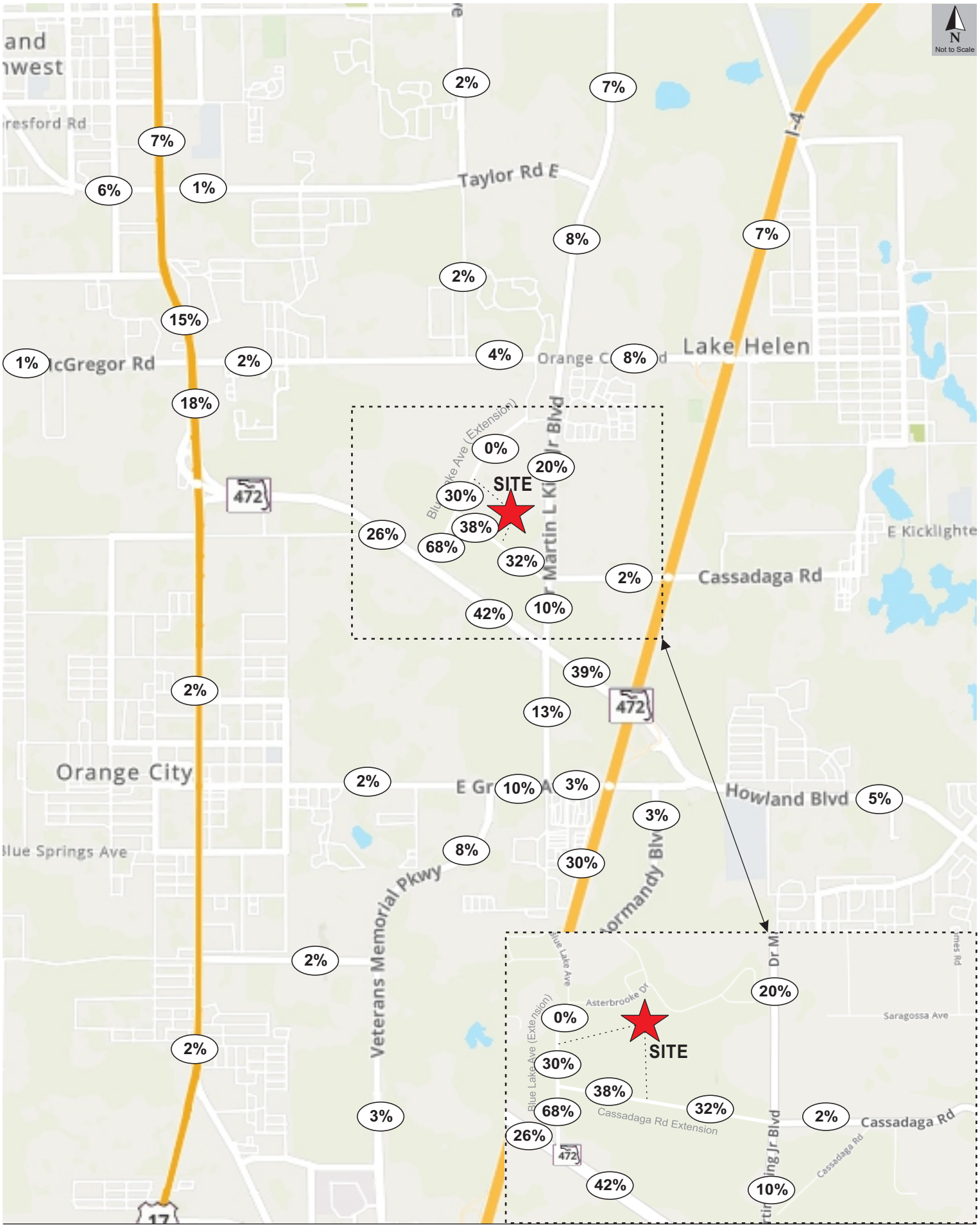
Table 2
Trip Generation Summary

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single Family Residential	91 DU	10.17	925	0.75	68	17	51	1.00	91	57	34
215	Single Family Attached (Townhomes)	112 DU	7.17	803	0.47	53	13	40	0.56	63	37	26
Total Trip Generation				**1,728**		**121**	**30**	**91**		**154**	**94**	**60**

Trip generation analysis based on ITE Trip Generation Manual, 11th Edition

2.2 Trip Distribution

A preliminary trip distribution pattern was developed using the *Central Florida Regional Planning Model (CFRPMv7)*. The adopted model was modified to include project specific Traffic Analysis Zones with the corresponding socio-economic data to reflect the proposed development. A Select Zone Analysis was executed to obtain a model-generated trip distribution pattern on the surrounding transportation network. Minor manual adjustments were applied to the model generated distribution pattern to better reflect the local transportation network and prevailing travel patterns. The final trip distribution pattern is illustrated in **Figure 3** and the model output plots are included **Appendix E**. The trip assignment at the project driveways was determined based on the relative trip generation of the different components of the site and their proximity to the driveways. The driveway trip assignment is illustrated in **Figure 4**.


N
Not to Scale
Taylor Rd E
I-4
Lake Helen
Cassadaga Rd
E Kicklighte
Orange City
Howland Blvd
Blue Springs Ave
Veterans Memorial Pkwy
Martin L King Jr Blvd
Blue Lake Ave (Extension)
Asterbrooke Dr
Saragossa Ave
Cassadaga Rd Extension
SITE
SITE
472
17
2%
7%
7%
6%
1%
8%
7%
2%
15%
1%
2%
4%
8%
18%
0%
20%
30%
38%
26%
68%
32%
2%
42%
10%
39%
13%
2%
10%
3%
5%
3%
8%
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3%
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30%
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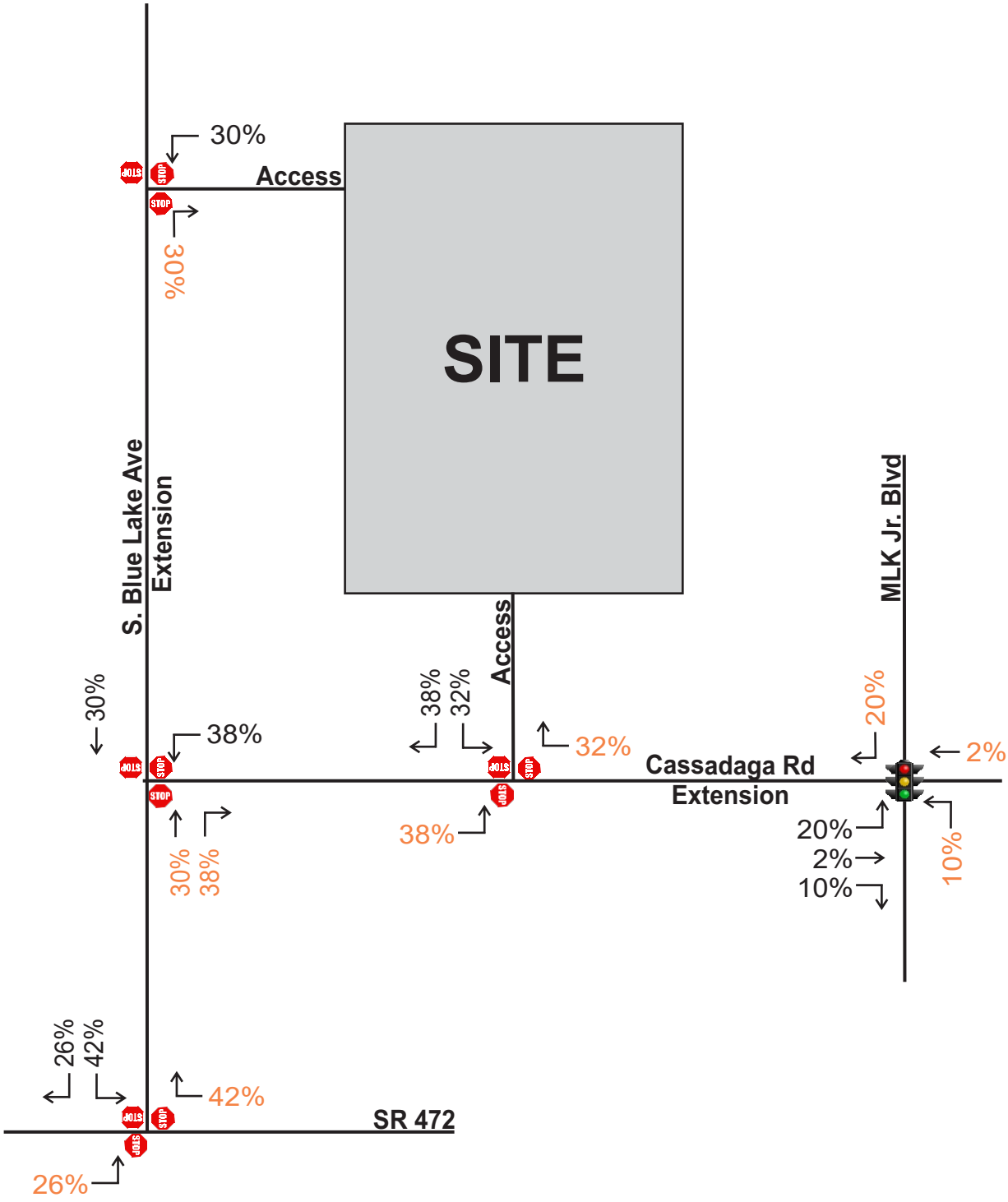
68%
32%
2%
26%
42%
10%


N
Not to Scale
SITE
Access
30%
30%
S. Blue Lake Ave
Extension
Access
38%
32%
32%
MLK Jr. Blvd
20%
2%
Cassadaga Rd
Extension
30%
38%
38%
30%
38%
20%
2%
10%
10%
26%
42%
42%
SR 472
26%
LEGEND
Entering
Exiting

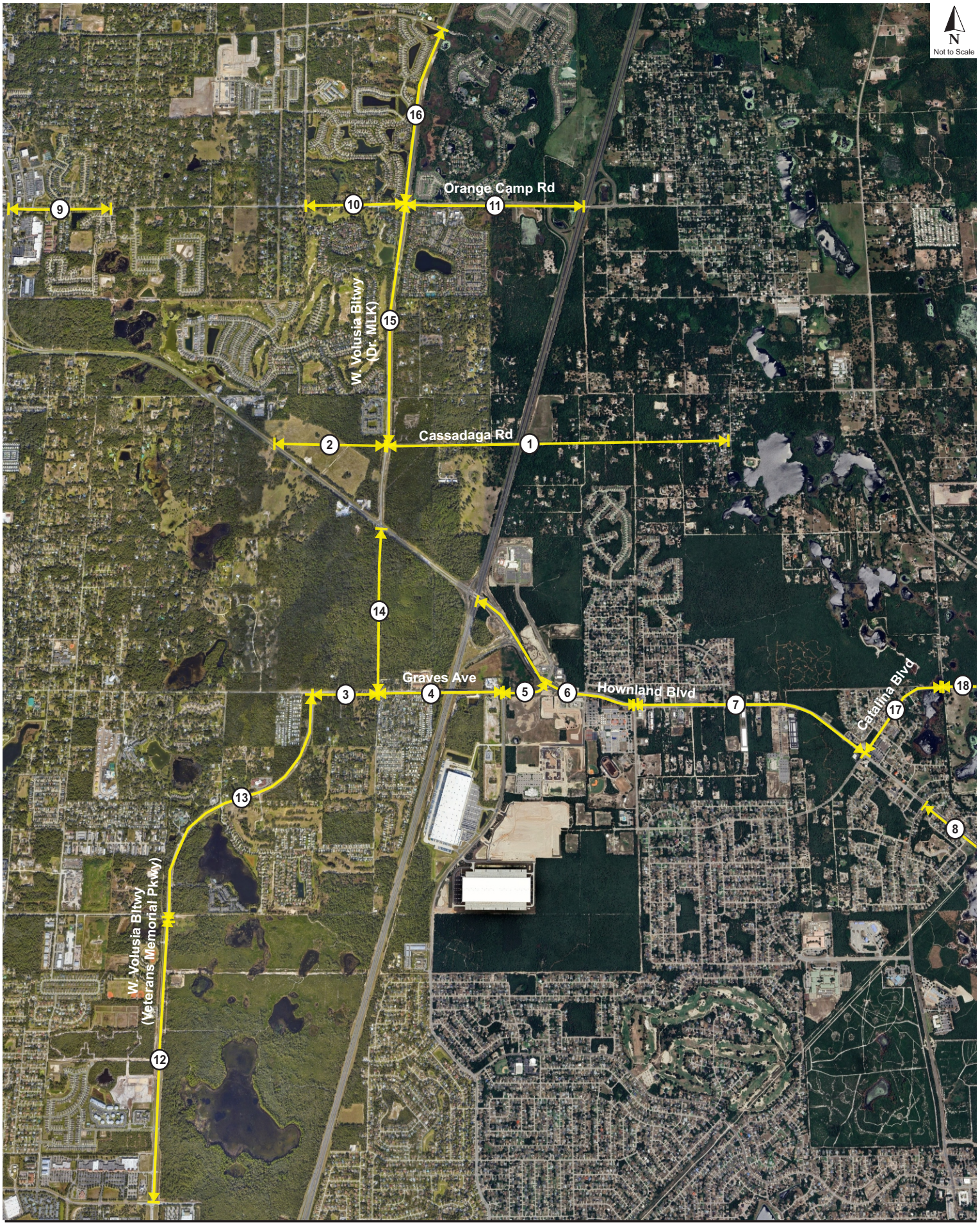
3.0 STUDY AREA

3.1 Study Roadways

The study area was established in accordance with the requirements of Volusia County and the TIA methodology. The impact area includes roadway segments where project trips are equivalent to 3% or more of the roadway segment's capacity and roadway segments within 3 miles that are designated as Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) facilities. The project's study roadway segments are listed in **Table 3** and displayed in **Figure 4.** The roadway segment information and characteristics were obtained from the 2021 Volusia County *Annual Average Daily Traffic (AADT) and Historical Counts*, which is included in **Appendix F.**

Table 3
Study Roadway Segments

Seg #	Segment Information		
	Roadway	From	To
1	Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave
2	Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	SR 472
3	Graves Ave	Veterans Memorial Pkwy	Kentucky Ave
4	Graves Ave	Kentucky Ave	Normandy Blvd
5	Graves Ave	Normandy Blvd	Howland Blvd
6	Howland Blvd	I-4/SR 472	Wolf Pack Run
7	Howland Blvd	Wolf Pack Run	Catalina Blvd
8	Howland Blvd	Providence Blvd	Elkcam Blvd
9	Orange Camp Rd	US 17/92	Princeton Rd
10	Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)
11	Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4
12	W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave
13	W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave
14	W. Volusia Bltwy (Veterans Memorial Pkwy)	Graves Ave	SR 472
15	W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd
16	W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd
17	Catalina Blvd	Howland Blvd	Sixma Rd
18	Catalina Blvd	Sixma Rd	Lake Helen Osteen


N
Not to Scale
Orange Camp Rd
Cassadaga Rd
Graves Ave
Hownland Blvd
Catalina Blvd
W Volusia Bltwy (Dr. MLK)
W Volusia Bltwy (Veterans Memorial Pkwy)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

3.2 Study Intersections

The study area encompasses major intersections that were identified in the methodology, which also include the two access points planned on the extensions of Blue Lake Avenue and Cassadaga Road. These two access points include one (1) full access driveway on Cassadaga Road Extension and one (1) full access driveway on Blue Lake Avenue Extension. The study intersections and access points are presented in **Table 4** and illustrated in **Figure 5**.

Table 4
Study Intersections

Int #	Intersection		Traffic Control
	Major Road	Minor Road	
1	Dr. MLK Bltwy	Orange Camp Rd	Roundabout
2	Dr. MLK Bltwy	Cassadaga Rd	Signal
3	Dr. MLK Bltwy / Kentucky Ave	SR 472	Signal
4	SR 472	Blue Lake Ave (Ext.)	Two-Way Stop
5	SR 472	Minnesota Ave	Two-Way Stop
6	Cassadaga Rd (Ext.)	Access I	Two-Way Stop
7	Blue Lake Ave (Ext.)	Access II	Two-Way Stop
8	Blue Lake Ave (Ext.)	Cassadaga Rd (Ext.)	Two-Way Stop


N
Not to Scale
Orange Camp Rd
1
Dr. MLK Bltwy
Minnesota Ave
5
7
Blue Lake Ave Extension
SR 472
8
6
Cassadaga Road Extension
2
Cassadaga Rd
4
3
Kentucky Ave

4.0 TRANSPORTATION IMPROVEMENTS

Transportation improvement programs published by Volusia County and the FDOT work program were reviewed to assess any planned or ongoing projects within the next few years that could impact the study area of the project. Improvements that are funded for construction within three (3) years were considered programmed and were incorporated in the analysis. The planned and programmed improvements are listed in **Table 5**.

Table 5
Planned and Programmed Improvements

Roadway	From	To	Improvement	Status
Howland Blvd	Providence Blvd	Elkcam Blvd	Widen From 2 to 4 Lanes	Under Construction
Orange Camp Rd	Dr. MLK Bltwy	I-4	Widen From 2 to 4 Lanes	Under Construction
Cassadaga Rd	Dr. MLK Bltwy	Blue Lake Ave (Ext)	Extension	Planned by Developer
Blue Lake Ave	SR 472	Asterbrooke Dr	Extension	Planned by Developer

Source: 2021-22 Volusia County Road Program & Development Plan

Two (2) improvements currently under construction were identified, each set to positively influence the area. Howland Boulevard is currently undergoing expansion from two (2) lanes to four (4) lanes between Providence Boulevard and Elkcam Boulevard. Additionally, Orange Camp Road is being widened from two (2) to four (4) lanes, stretching from Dr. MLK Beltway to I-4. Details from the *Volusia County Road Program 2021-22*, which illustrate these developments, are included in **Appendix G** for reference.

Furthermore, the developer has outlined plans to extend Cassadaga Road and Blue Lake Avenue to enhance access to the Project Site. These proposed extensions are depicted in the concept plan for the site, provided in **Appendix B**.

5.0 IMPROVEMENTS AT THE INTERSECTION OF SR 472 AND MLK BELTWAY

Following the county's directive to obtain City confirmation on whether additional projects should be included in the vested trip calculation, the City of DeLand was consulted, and they identified two approved projects near the Ford 472 site - Deland Tech Park and TM BTR (Yardley). These approved developments are located across from the Ford 472 site but are not listed in the Volusia County Database. These developments are anticipated to significantly impact traffic patterns near the Ford 472 project. To account for these influences, the traffic volumes from both Deland Tech Park and TM BTR have been included in the background traffic analysis as vested trips.

Previous studies have indicated that the intersection of SR 472 and MLK Beltway is currently experiencing and is projected to continue experiencing delays. Given that Deland Tech Park is a major development expected to substantially increase traffic at this intersection, several improvements were recommended in the traffic impact study. These recommendations include:

- Constructing a westbound left turn lane
- Constructing a northbound left turn lane and an additional through lane
- Constructing a southbound left turn lane and an additional through lane
- Optimizing signal timing to improve traffic flow

These recommended improvements from the Deland Tech Park study were also integrated into the TM BTR analysis. The queue evaluation and proportionate share calculations have been carried out based on the findings and recommendations in the Traffic Impact Analyses (TIAs). For further details, excerpts from the TIAs for these projects are provided in **Appendix H**. The proportionate share of this development reflecting those improvements have been calculated in accordance with the requirements of Volusia County using the *Master Proportionate Fair Share Table,* which is detailed in Section 11 of the report.

6.0 TRAFFIC PROJECTIONS

6.1 Projected Roadway Volumes

Existing roadway information was obtained from the 2022 Volusia County *AADT and Historical Counts.* The information includes roadway segment data, existing traffic volumes, and capacities.

Projected background traffic in the buildout year 2028 was derived by comparing historical growth rate trends and vested trips and applying the appropriate resulting background volume in accordance with the Volusia County *Segment Growth Rates and Vested Trips Instruction Policy*. Historical traffic count data was obtained from the 2022 Volusia County *AADT and Historical Counts* and the vested trips were obtained from the Volusia County *Vested Trip Database*. As noted in previous section, the two nearby developments, Deland Tech Park and TM BTR, were not included in the County database. Thus, trips from these projects were added to the vested trip calculation, along with those already listed in the database.

The historical growth trend analysis worksheets, vested trip information, and the *Segment Growth Rates and Vested Trips Instruction Policy* are included in **Appendix I**. The applicable growth rate calculations are summarized in **Table 6**. The total projected volumes on the roadway segments include background traffic and project trips, which were calculated based on the project's trip generation and distribution pattern.

Table 6
Growth Projection Methods

Segment Information			5 Years		10 Years		Applied	Exist	2028	Vested		Growth Calculation		Background +
Roadway	From	To	R^2	GR	R^2	GR	GR	Vol	Growth	Trips	VCTE Growth Rate Policy	Method	Growth	Vested Traffic
Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave	33.33%	3.21%	61.71%	2.56%	2.56%	210	32	120	GR + Vested Trips	GR + Vested Trips	152	362
Cassadaga Rd*	W. Volusia Bltwy (Dr. MLK Bltwy)	Blue Lake Ave (Extension)	--	--	--	--	--	--	--	--	--	--	--	0
Graves Ave	Veterans Memorial Pkwy	Kentucky Ave	3.40%	-0.59%	54.65%	1.69%	3.52%	1,635	345	573	Highest of GR or Vested Trips	Vested Trips	573	2208
Graves Ave	Kentucky Ave	Normandy Blvd	64.59%	5.20%	79.70%	3.52%	3.52%	1,675	354	931	Highest of GR or Vested Trips	Vested Trips	931	2,606
Graves Ave	Normandy Blvd	Howland Blvd	25.13%	2.13%	76.75%	3.02%	3.02%	1,340	243	997	Highest of GR or Vested Trips	Vested Trips	997	2,337
Howland Blvd	I-4/SR 472	Wolf Pack Run	77.13%	-5.22%	0.21%	0.15%	1.00%	2,410	145	1,054	GR + Vested Trips	GR + Vested Trips	1,199	3,609
Howland Blvd	Wolf Pack Run	Catalina Blvd	57.09%	-4.07%	0.10%	-0.12%	1.00%	1,460	88	925	GR + Vested Trips	GR + Vested Trips	1,013	2,473
Howland Blvd	Providence Blvd	Elkcam Blvd	76.18%	-10.47%	16.72%	-1.78%	1.00%	1,020	61	289	GR + Vested Trips	GR + Vested Trips	350	1,370
Orange Camp Rd	US 17/92	Princeton Rd	5.36%	-0.37%	77.38%	3.56%	3.56%	1,160	248	172	Highest of GR or Vested Trips	GR	248	1,408
Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)	27.91%	-2.02%	80.82%	1.14%	1.14%	1,075	74	262	GR + Vested Trips	GR + Vested Trips	336	1,411
Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4	55.67%	-2.76%	59.37%	2.51%	1.14%	1,170	80	361	GR + Vested Trips	GR + Vested Trips	441	1,611
W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave	24.78%	-1.58%	17.34%	0.67%	1.00%	1,480	89	403	GR + Vested Trips	GR + Vested Trips	492	1,972
W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave	0.02%	-0.11%	24.60%	-1.76%	1.00%	1,100	66	400	Highest of GR or Vested Trips	Vested Trips	400	1,500
W. Volusia Bltwy (Kentucky Ave)	Graves Ave	SR 472	2.86%	0.62%	36.04%	1.22%	2.00%	910	109	381	GR + Vested Trips	GR + Vested Trips	490	1,400
W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd	74.00%	-7.48%	1.76%	-0.45%	1.00%	755	45	642	GR + Vested Trips	GR + Vested Trips	687	1,442
W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd	70.70%	-2.00%	3.62%	-0.67%	1.00%	910	55	437	GR + Vested Trips	GR + Vested Trips	492	1,402
Catalina Blvd**	Howland Blvd	Sixma Rd	69.89%	-35.96%	43.83%	-12.19%	1.00%	155	8	126	GR + Vested Trips	GR + Vested Trips	134	289
Catalina Blvd**	Sixma Rd	Lake Helen Osteen	69.89%	-35.96%	43.83%	-12.19%	1.00%	155	8	110	GR + Vested Trips	GR + Vested Trips	118	273

Vested trips obtained from *Volusia County Vested Trip Database* and also include trips from Deland Tech Park and TM BTR (Yardley)

*This segments is an extension and do not currently exist.

**No data in *Volusia County 2022 AADT*. Historical AADT obtained from *Florida Traffic Online (FTO) 2023*. Existing PM Peak Hour Volume estimated using AADT, K factor and D Factor

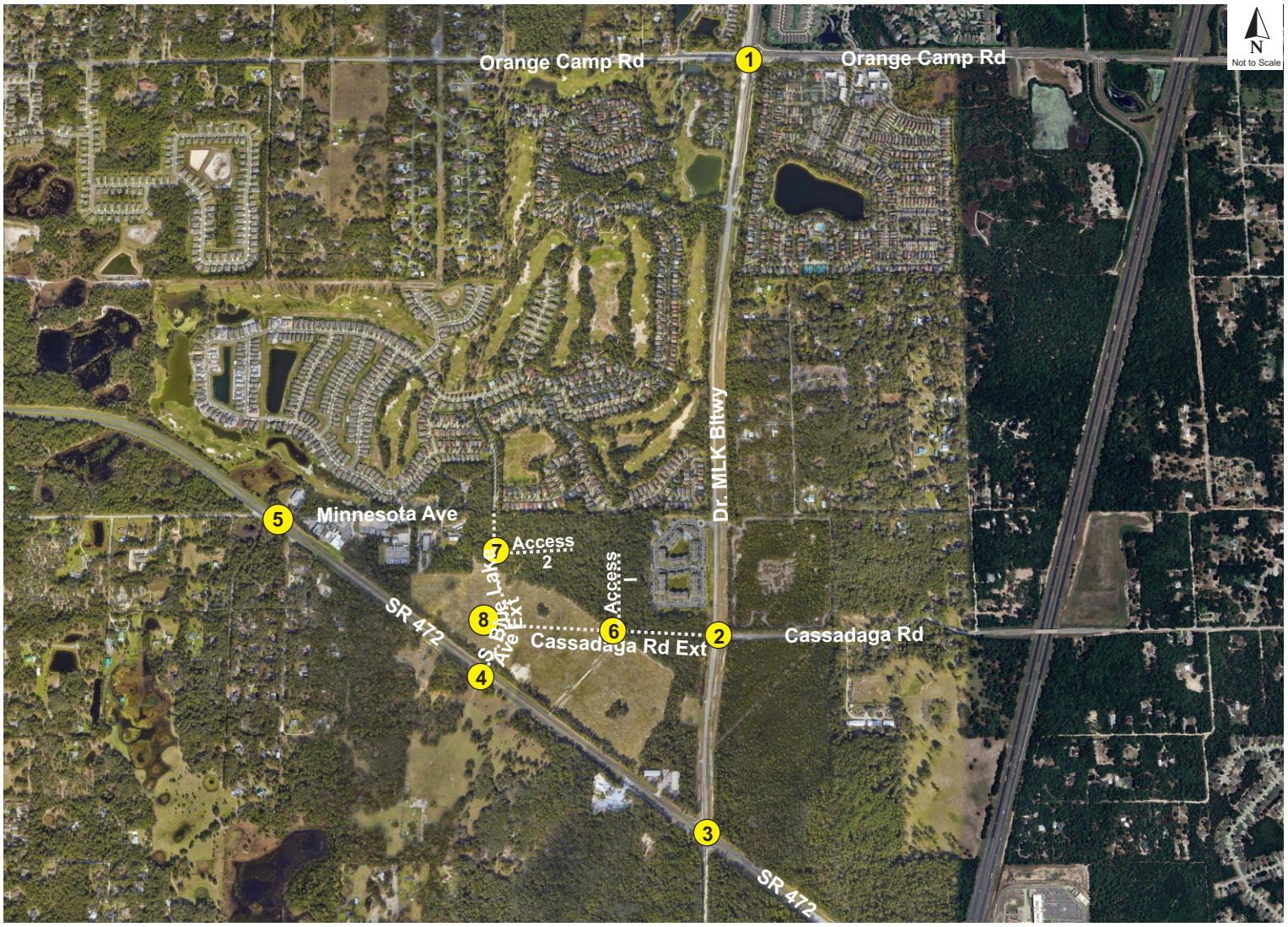
6.2 Projected Intersection Volumes

Existing AM and PM peak hour turning movement volumes were obtained at the study intersections on June 12, 2024. The counts were seasonally adjusted using the applicable seasonal factor obtained from the FDOT *Traffic Online Peak Season Factor Category Report*. The raw turning movement volumes and supporting information are provided in **Appendix J**.

The two developments, Deland Tech Park and TM BTR, located across from the Ford 472 project, are expected to significantly impact traffic patterns in the area. Therefore, trips from these developments have been included in the background traffic analysis as vested trips. Excerpts from the TIA detailing the vested trips added to the intersection volume for our project are provided in **Appendix K**. Projected background intersection volumes for the buildout year 2030 were estimated using the annual growth rates determined for the respective segment provided in **Table 6**, then adding the vested trips from Deland Tech Park and TM BTR.

There is no existing traffic volume data for the Blue Lake Avenue Extension and Cassadaga Road Extension as these segments do not currently exist. There are approximately 50 single family units close to the planned extension of Blue Lake Avenue Extension. It is assumed that 25 of these homes will use the Blue Lake Ave Extension to access SR 472 and 10 of these homes will use Cassadaga Road Extension to access MLK Beltway. To estimate the background traffic volume at the intersection of Blue Lake Avenue Extension and Access II, peak hour volumes were derived using the *ITE Trip Generation Manual, 11th edition* (using trips of both 25 units and 10 residential units). Additionally, the background traffic volume at the intersection of SR 472 and Blue Lake Avenue was divided into eastbound and westbound directions according to the existing split ratio at that intersection. It was done in a similar manner at Cassadaga Road Extension.

The total projected intersection volumes include background traffic and project trips, which were calculated based on the project's trip generation and assignment at each intersection. Detailed intersection volume calculations are provided in **Appendix L** and the resulting existing, background (including vested trips), and buildout volumes are illustrated in **Figure 7** and **Figure 8** for the AM peak hour and **Figure 9** and **Figure 10** for the PM peak hour.



1. Dr. MLK Bltwy & Orange Camp Rd

NB	L	173 + {14} + [4] + (4) = 195
	T	468 + {20} + [7] + (7) = 502
	R	54 + {25} + [4] + (7) = 90
SB	L	269
	T	250 + {51} + [2] + (2) = 305
	R	38
EB	L	51
	T	425
	R	54 + {38} + [1] + (2) = 95
WB	L	44 + {70} + [1] + (2) = 117
	T	328
	R	128

			38	305	269	BO		
			38	303	269	BK		
			37	240	259	EX		
			0	2	0			
BO	BK	EX						
51	51	49	0			0	122	128	128
425	425	406	2			2	314	328	328
95	93	52	1			0	42	115	117
							EX	BK	BO
			0	2	0			
		EX	166	450	52			
		BK	191	495	83			
		BO	195	502	90			

2. Dr. MLK Bltwy & Cassadaga Rd

NB	L	1 + (3) = 4
	T	330 + {38} + [14] = 382
	R	228 + {14} + [2] = 242
SB	L	66 + {70} + [6] = 142
	T	387 + {143} = 530
	R	1 + (6) = 7
EB	L	2 + (18) = 20
	T	2 + (2) = 4
	R	3 + (9) = 12
WB	L	227 + {12} + [50] = 289
	T	(1)
	R	61 + {39} + [4] = 104

			7	530	142	BO		
			1	530	142	BK		
			0	372	63	EX		
			0	1	1	LN		
BO	BK	EX	LN					
20	2	0	1			0	55	104	104
4	2	0	1			1	0	0	1
12	3	0	0			1	206	289	289
						LN	EX	BK	BO
			LN	0	1	1		
			EX	0	317	219		
			BK	1	382	242		
			BO	4	382	242		

3. Dr. MLK Bltwy / Kentucky Ave & SR 472

NB	L	144 + (1) = 145
	T	255 + {9} + [5] + (3) = 272
	R	62 + {56} = 118
SB	L	212 + {116} + [25] = 353
	T	349 + {3} + [14] + (9) = 375
	R	64 + {5} + [11] = 80
EB	L	64 + {21} + [3] = 88
	T	965 + {82} + (35) = 1082
	R	106 + (3) = 109
WB	L	105 + {19} = 124
	T	901 + {34} + (11) = 946
	R	250 + {23} + [8] = 281

			80	375	353	BO		
			80	366	353	BK		
			59	323	196	EX		
			1	1	1			
BO	BK	EX						
88	88	62	1			1	240	281	281
1,082	1,047	928	2			2	866	935	946
109	106	102	1			1	101	124	124
							EX	BK	BO
			0	1	1			
		EX	133	236	57			
		BK	144	269	118			
		BO	145	272	118			

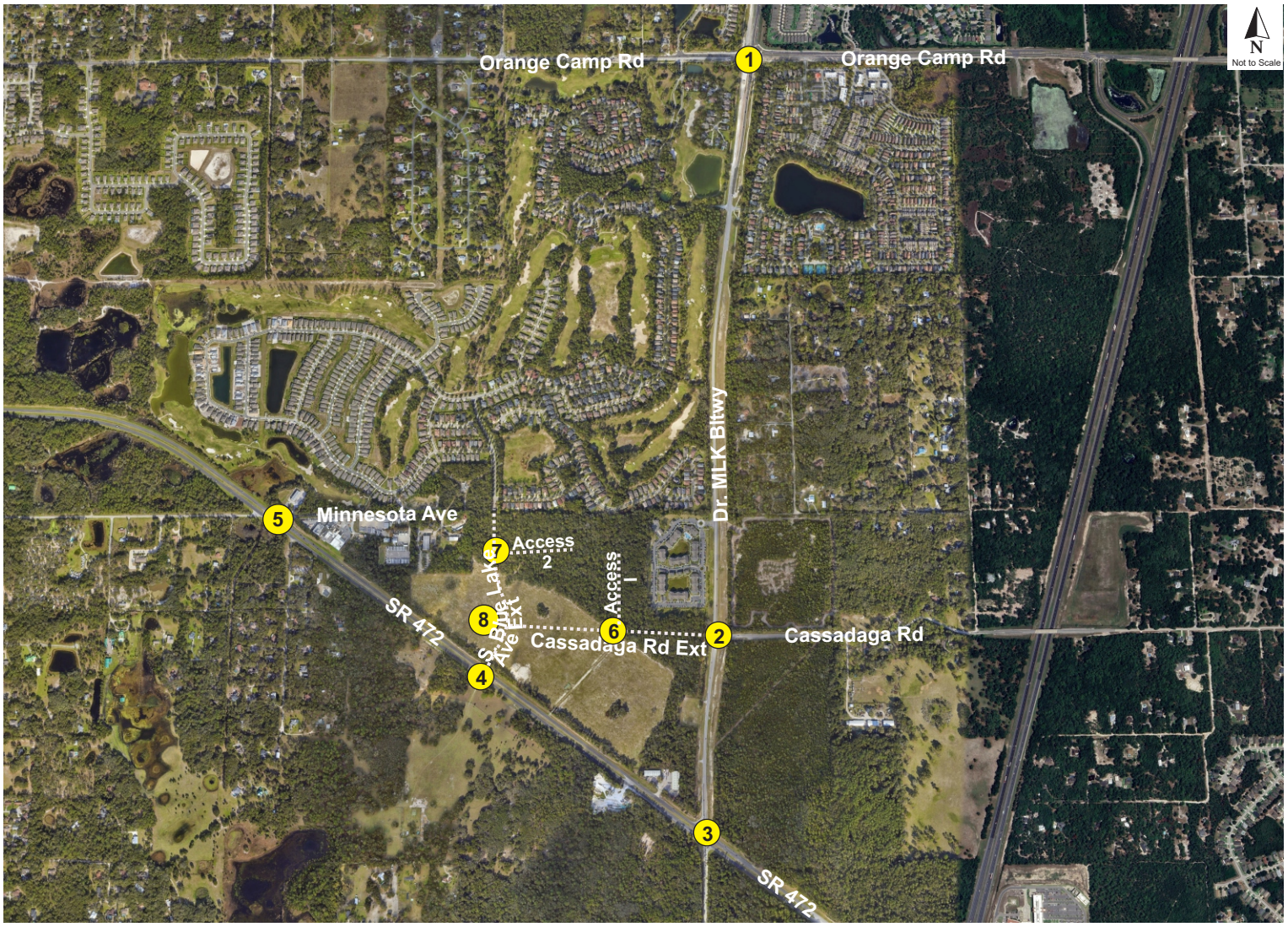
4. SR 472 & Blue Lake Ave (Ext.)

NB	L	
	T	
	R	
SB	L	8 + (38) = 46
	T	
	R	8 + (24) = 32
EB	L	3 + (8) = 11
	T	1136 + {103} + [3] = 1242
	R	
WB	L	
	T	1101 + {39} + [11] = 1151
	R	2 + (12) = 14

			32	0	46	BO		
			8	0	8	BK		
			0	0	0	EX		
			2015	1	1	0	LN	
BO	BK	EX	LN					
11	3	0	1			1	0	2	14
1,242	1,242	1,092	2			2	1,059	1,151	1,151
0	0	0	0			0	0	0	0
						LN	EX	BK	BO
			LN	0	0	0		
			EX	0	0	0		
			BK	0	0	0		
			BO	0	0	0		

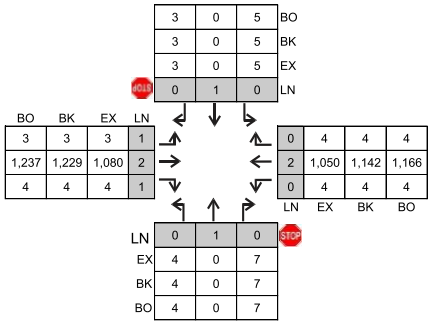
Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
[1] Lanes by movement



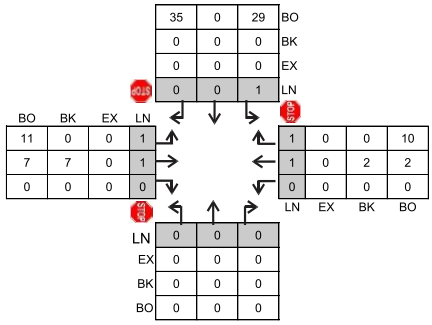
5. SR 472 & Minnesota Ave

NB	L	4
	T	
	R	7
SB	L	5
	T	
	R	3
EB	L	3
	T	1123 + {103} + [3] + (8) = 1237
	R	4
WB	L	4
	T	1092 + {39} + [11] + (24) = 1166
	R	4



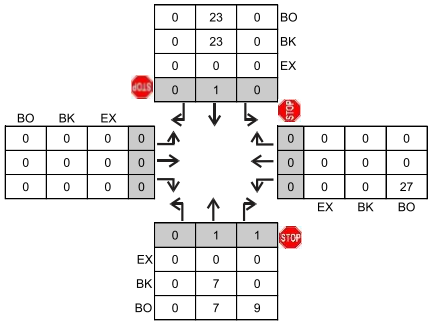
6. Cassadaga Rd (Ext.) & Access I

NB	L	
	T	
	R	
SB	L	(29)
	T	
	R	(35)
EB	L	(11)
	T	7
	R	
WB	L	
	T	2
	R	(10)



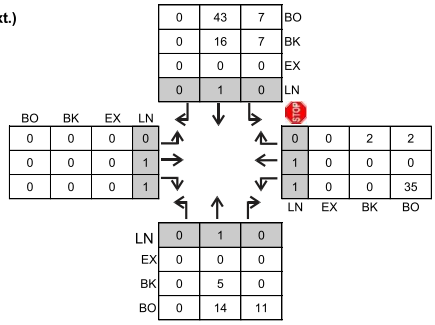
7. Blue Lake Ave (Ext.) & Access II

NB	L	
	T	7
	R	(9)
SB	L	
	T	23
	R	
EB	L	
	T	
	R	
WB	L	(27)
	T	
	R	



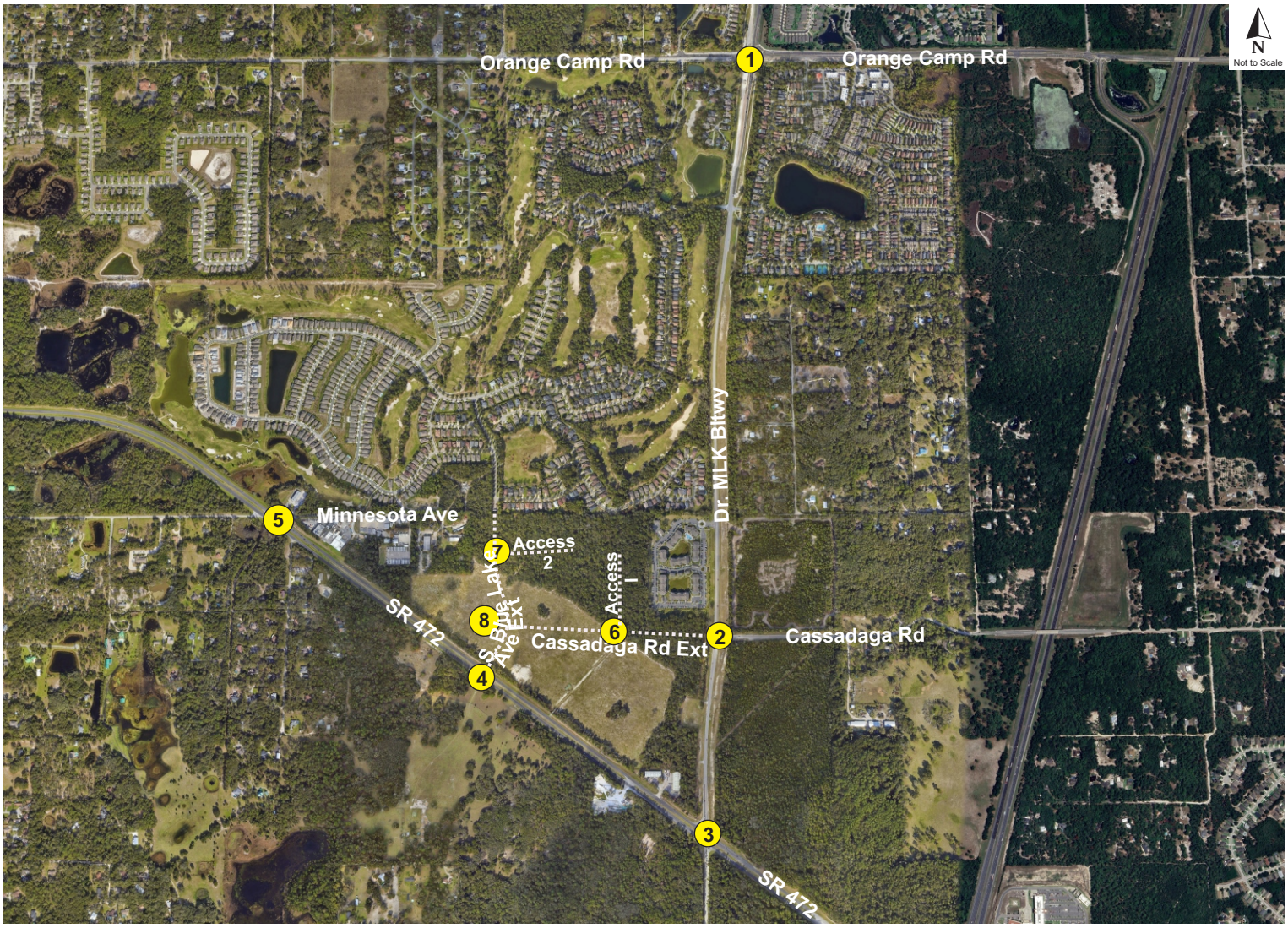
8. Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.)

NB	L	
	T	5 + (9) = 14
	R	(11)
SB	L	7
	T	16 + (27) = 43
	R	
EB	L	
	T	
	R	
WB	L	(35)
	T	
	R	2



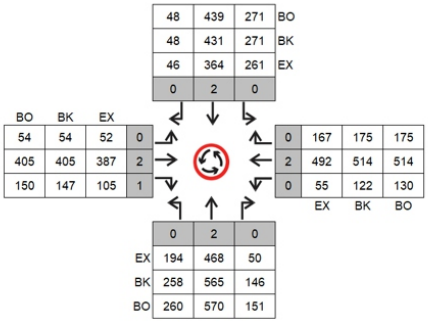
Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
1 Lanes by movement



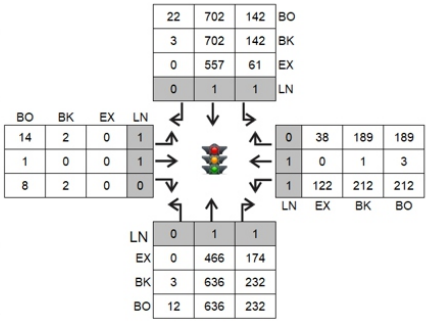
1. Dr. MLK Bltwy & Orange Camp Rd

	L	202 + {54} + [2] + (2) = 260
NB	T	487 + {73} + [5] + (5) = 570
	R	52 + {92} + [2] + (5) = 151
	L	271
SB	T	379 + {44} + [8] + (8) = 439
	R	48
	L	54
EB	T	405
	R	110 + {33} + [4] + (3) = 150
	L	58 + {60} + [4] + (8) = 130
WB	T	514
	R	175



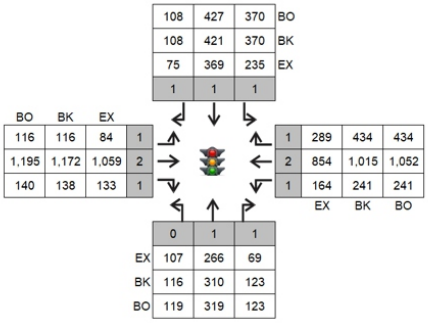
2. Dr. MLK Bltwy & Cassadaga Rd

	L	3 + (9) = 12
NB	T	485 + {142} + [9] = 636
	R	181 + {51} = 232
	L	63 + {60} + [19] = 142
SB	T	579 + {123} = 702
	R	3 + (19) = 22
	L	2 + (12) = 14
EB	T	(1)
	R	2 + (6) = 8
	L	134 + {46} + [32] = 212
WB	T	1 + (2) = 3
	R	42 + {145} + [2] = 189



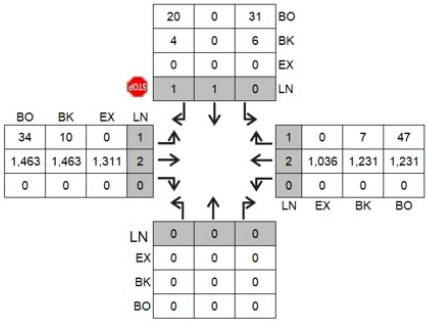
3. Dr. MLK Bltwy / Kentucky Ave & SR 472

	L	116 + (3) = 119
NB	T	287 + {8} + [15] + (9) = 319
	R	75 + {48} = 123
	L	254 + {100} + [16] = 370
SB	T	399 + {13} + [9] + (6) = 427
	R	81 + {20} + [7] = 108
	L	87 + {18} + [11] = 116
EB	T	1101 + {71} + (23) = 1195
	R	138 + (2) = 140
	L	171 + {70} = 241
WB	T	888 + {127} + (37) = 1052
	R	301 + {106} + [27] = 434



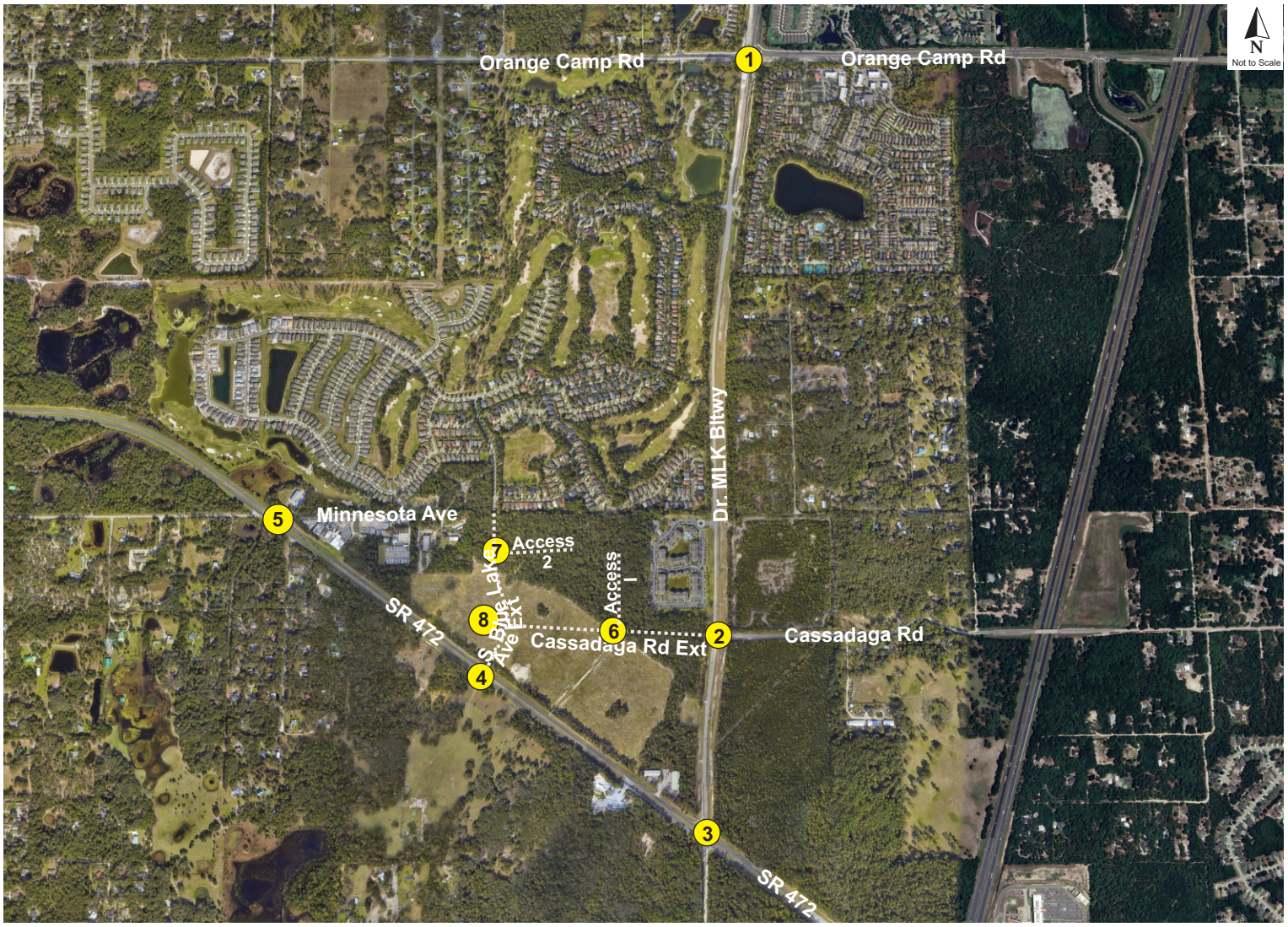
4. SR 472 & Blue Lake Ave (Ext.)

	L	
NB	T	
	R	
	L	6 + (25) = 31
SB	T	
	R	4 + (16) = 20
	L	10 + (24) = 34
EB	T	1363 + {89} + [11] = 1463
	R	
	L	
WB	T	1077 + {147} + [7] = 1231
	R	7 + (40) = 47



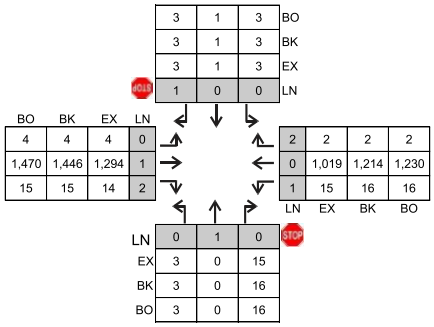
Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
[1] Lanes by movement



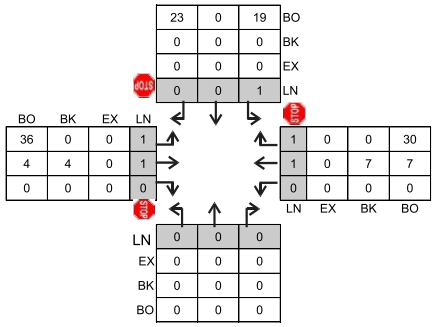
5. SR 472 & Minnesota Ave

NB	L	3
	T	
	R	16
SB	L	3
	T	1
	R	3
EB	L	4
	T	1346 + {89} + [11] + (24) = 1470
	R	15
WB	L	16
	T	1060 + {147} + [7] + (16) = 1230
	R	2



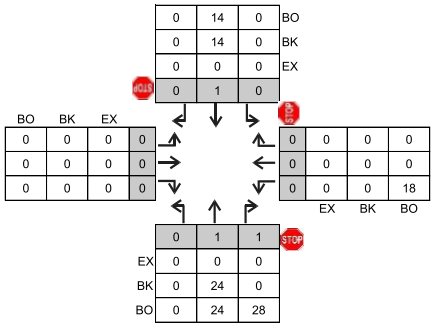
6. Cassadaga Rd (Ext.) & Access I

NB	L	
	T	
	R	
SB	L	(19)
	T	
	R	(23)
EB	L	(36)
	T	4
	R	
WB	L	
	T	7
	R	(30)



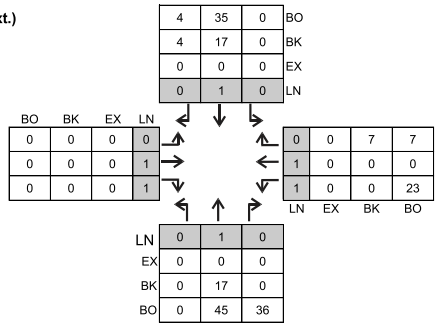
7. Blue Lake Ave (Ext.) & Access II

NB	L	
	T	24
	R	(28)
SB	L	
	T	14
	R	
EB	L	
	T	
	R	
WB	L	(18)
	T	
	R	



8. Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.)

NB	L	
	T	17 + (28) = 45
	R	(36)
SB	L	
	T	17 + (18) = 35
	R	4
EB	L	
	T	
	R	
WB	L	(23)
	T	
	R	7



Legend: Background + {Tech Park} + [TM BTR] + (Project) = Total

BO = Buildout; BK = Background + Vested; EX = Existing
1 Lanes by movement

7.0 CAPACITY ANALYSIS

7.1 Roadway Segments

Roadway segment capacity was analyzed based on the adopted capacities and the corresponding traffic volumes, as summarized in **Table 7**. The results of the capacity analysis reveal the following:

- The following roadway segments are projected to exceed their adopted capacity due to existing or background traffic. Project trips do not have a significant impact on these segments.
    - Graves Avenue from Veterans Memorial Parkway to Kentucky Avenue
    - Graves Avenue from Kentucky Avenue to Normandy Boulevard
    - Howland Boulevard from I-4/SR 472 to Wolf Pack Run
    - Orange Camp Road from US 17/92 to Princeton Road
    - West Volusia Beltway (Veterans Memorial Parkway) from Harley Strickland Boulevard to Rhode Island Avenue

- All remaining segments are projected to operate within their adopted capacity at the project buildout.

Table 7
Segment Analysis

Seg #	Segment Information			Exist Lns	Imp Lns	Exist 2W PM Cap	Imp 2W PM Cap	2022 Existing Conditions PM Peak			Background Conditions PM Peak			Project		Buildout Conditions PM Peak			Trips % of Cap
	Roadway	From	To					Vol	V/C	Adeq?	Vol	V/C	Adeq?	Dist %	Trips	Vol	V/C	Adeq?	
1	Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave	2	2	1,020	1,020	210	0.21	YES	362	0.35	YES	2%	3	365	0.36	YES	0.3%
2	Cassadaga Rd*	W. Volusia Bltwy (Dr. MLK Bltwy)	Blue Lake Ave (Extension)	2	2	1,020	1,020	--	--	--	0	--	YES	38%	59	59	0.06	YES	5.8%
3	Graves Ave	Veterans Memorial Pkwy	Kentucky Ave	2	2	1,620	1,620	1,635	1.01	**NO**	2,208	1.36	**NO**	10%	15	2,223	1.37	**NO**	0.9%
4	Graves Ave	Kentucky Ave	Normandy Blvd	2	2	1,620	1,620	1,675	1.03	**NO**	2,606	1.61	**NO**	3%	5	2,611	1.61	**NO**	0.3%
5	Graves Ave	Normandy Blvd	Howland Blvd	4	4	2,740	2,740	1,340	0.49	YES	2,337	0.85	YES	3%	5	2,342	0.85	YES	0.2%
6	Howland Blvd	I-4/SR 472	Wolf Pack Run	4	4	3,410	3,410	2,410	0.71	YES	3,609	1.06	**NO**	39%	60	3,669	1.08	**NO**	1.8%
7	Howland Blvd	Wolf Pack Run	Catalina Blvd	4	4	3,410	3,410	1,460	0.43	YES	2,473	0.73	YES	5%	8	2,481	0.73	YES	0.2%
8	Howland Blvd	Providence Blvd	Elkcam Blvd	2	4	1,230	3,410	1,020	0.83	YES	1,370	0.40	YES	2%	3	1,373	0.40	YES	0.1%
9	Orange Camp Rd	US 17/92	Princeton Rd	2	2	1,270	1,270	1,160	0.91	YES	1,408	1.11	**NO**	2%	3	1,411	1.11	**NO**	0.2%
10	Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)	2	2	1,540	1,540	1,075	0.70	YES	1,411	0.92	YES	4%	6	1,417	0.92	YES	0.4%
11	Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4	2	4	1,540	3,410	1,170	0.76	YES	1,611	0.47	YES	8%	12	1,623	0.48	YES	0.4%
12	W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave	2	2	1,540	1,540	1,480	0.96	YES	1,972	1.28	**NO**	3%	5	1,977	1.28	**NO**	0.3%
13	W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave	2	2	1,620	1,620	1,100	0.68	YES	1,500	0.93	YES	8%	12	1,512	0.93	YES	0.7%
14	W. Volusia Bltwy (Kentucky Ave)	Graves Ave	SR 472	2	2	1,540	1,540	910	0.59	YES	1,400	0.91	YES	13%	20	1,420	0.92	YES	1.3%
15	W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd	2	2	1,540	1,540	755	0.49	YES	1,442	0.94	YES	20%	31	1,473	0.96	YES	2.0%
16	W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd	2	2	1,540	1,540	910	0.59	YES	1,402	0.91	YES	8%	12	1,414	0.92	YES	0.8%
17	Catalina Blvd**	Howland Blvd	Sixma Rd	2	2	960	960	155	0.16	YES	289	0.30	YES	0%	0	289	0.30	YES	0.0%
18	Catalina Blvd**	Sixma Rd	Lake Helen Osteen	2	2	960	960	155	0.16	YES	273	0.28	YES	0%	0	273	0.28	YES	0.0%

Source: *Volusia County 2022 AADT*

*This segments is an extension and do not currently exist. Peak Capacity assumed same as the adjacent segment of same road.

**No data in *Volusia County 2022 AADT*. Existing PM Peak Volume is of 2023 obtained from Florida Traffic Online. Existing Peak Capacity assumed same as in 2019 and obtained from Volusia County 2019 AADT

7.2 Intersections

The study intersections were analyzed in accordance with the methods of the *Highway Capacity Manual (HCM)* as applied in the *Synchro* analytical tool. The detailed *HCM* analysis sheets are provided in **Appendix M**. The analysis results for existing, background, and buildout conditions are summarized in **Table 8**, which reveals the following:

- The intersection of SR 472 and Dr. Martin Luther King Jr Beltway is projected to operate at an inadequate LOS, due to the existing and background traffic.
- All remaining intersections are projected to operate at adequate LOS at the project buildout.

7.3 Intersection Improvements

The following improvements were recommended for the intersection of SR 472 and MLK Beltway by other developments as reflected in their TIAs:

- Construct a westbound left turn lane
- Construct a northbound left turn lane and a through lane
- Construct a southbound left turn lane and a through lane
- Optimize the signal timing

With the recommended improvements, the intersection is projected to operate at an overall adequate LOS. The results of the analysis are summarized in **Table 9** for the background and buildout scenarios. The adjusted analysis worksheets are included in **Appendix N.**

Table 8
Intersection Analysis

Int	Intersection		Control	Time	Scenario	EB		WB		NB		SB		Overall	
#	Major Road	Minor Road		Period		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dr. MLK Bltwy	Orange Camp Rd	RAB	AM	Existing	8.7	A	9.9	A	14.0	B	8.6	A	10.6	B
					Backg'd+Vested	11.8	B	12.7	B	17.7	C	11.2	B	13.7	B
					Buildout	11.9	B	12.9	B	18.4	C	11.3	B	14.0	B
				PM	Existing	10.2	B	13.2	B	12.7	B	12.7	B	12.3	B
					Backg'd+Vested	13.7	B	21.3	C	20.3	C	19.0	C	19.0	C
					Buildout	14.2	B	22.0	C	20.9	C	19.7	C	19.6	C
2	Dr. MLK Bltwy	Cassadaga Rd	Signal	AM	Existing	--	--	22.9	C	13.9	B	7.3	A	13.4	B
					Backg'd+Vested	32.1	C	25.6	C	28.4	C	25.7	C	26.7	C
					Buildout	31.7	C	25.8	C	28.4	C	26.1	C	27.0	C
				PM	Existing	--	--	21.4	C	14.7	B	7.2	A	12.0	B
					Backg'd+Vested	39.1	D	37.7	D	28.7	C	25.6	C	29.2	C
					Buildout	39.0	D	37.9	D	28.6	C	26.5	C	29.6	C
3	Dr. MLK Bltwy / Kentucky Ave	SR 472	Signal	AM	Existing	55.6	E	50.6	D	153.8	F	92.6	F	71.8	E
					Backg'd+Vested	67.8	E	62.0	E	207.3	F	151.2	F	98.5	F
					Buildout	73.5	E	62.5	E	212.0	F	157.2	F	102.2	F
				PM	Existing	66.6	E	70.0	E	161.9	F	154.4	F	93.6	F
					Backg'd+Vested	93.0	F	119.5	F	226.9	F	248.9	F	145.9	F
					Buildout	98.9	F	120.9	F	242.9	F	253.2	F	150.7	F
4	SR 472	Blue Lake Ave (Ext.)	TWSC	AM	Buildout	11.8	B	27.8	D	--	--	--	--	--	--
				PM	Buildout	13.0	B	31.3	D	--	--	--	--	--	--
5	SR 472	Minnesota Ave	TWSC	AM	Existing	10.9	B	11.1	B	19.4	C	23.4	C	--	--
					Backg'd+Vested	11.5	B	12.0	B	22.5	C	26.4	D	--	--
					Buildout	11.6	B	12.1	B	22.7	C	27.1	D	--	--
				PM	Existing	10.8	B	12.9	B	19.6	C	25.1	D	--	--
					Backg'd+Vested	12.0	B	14.2	B	22.5	C	31.4	D	--	--
					Buildout	12.1	B	14.4	B	23.0	C	32.2	D	--	--
					Buildout		A		A		A		A	--	--
6	Cassadaga Rd (Ext)	Access I	TWSC	AM	Buildout	7.3	A	0.0	A	--	--	8.8	A	--	--
				PM	Buildout	7.4	A	0.0	A	--	--	8.9	A	--	--
7	Blue Lake Ave (Ext.)	Access II	TWSC	AM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
				PM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
8	Blue Lake Ave (Ext.)	Cassadaga Rd (Ext.)	TWSC	AM	Buildout	--	--	9.1	A	0.0	A	7.3	A	--	--
				PM	Buildout	--	--	9.1	A	0.0	A	7.4	A	--	--

Average delay expressed in seconds/vehicle

**These intersections will only exist at buildout so they do not have existing and background conditions.*

Table 9
Intersection Analysis with Improvements

Int #	Intersection		Control	Time Period	Scenario	EB		WB		NB		SB		Overall	
	Major Road	Minor Road				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dr. MLK Bltwy	Orange Camp Rd	RAB	AM	Backg'd+Vested	11.8	B	12.7	B	17.7	C	11.2	B	13.7	B
					Buildout	11.9	B	12.9	B	18.4	C	11.3	B	14.0	B
				PM	Backg'd+Vested	13.7	B	21.3	C	20.3	C	19.0	C	19.0	C
					Buildout	14.2	B	22.0	C	20.9	C	19.7	C	19.6	C
2	Dr. MLK Bltwy	Cassadaga Rd	Signal	AM	Backg'd+Vested	32.1	C	25.6	C	28.4	C	25.7	C	26.7	C
					Buildout	31.7	C	25.8	C	28.4	C	26.1	C	27.0	C
				PM	Backg'd+Vested	39.1	D	37.7	D	28.7	C	25.6	C	29.2	C
					Buildout	39.0	D	37.9	D	28.6	C	26.5	C	29.6	C
3	Dr. MLK Bltwy / Kentucky Ave	SR 472	Signal	AM	Backg'd+Vested	43.6	D	37.4	D	48.5	D	48.6	D	43.0	D
					Buildout	46.0	D	38.1	D	48.5	D	48.5	D	44.0	D
				PM	Backg'd+Vested	51.2	D	46.6	D	60.3	E	66.5	E	53.2	D
					Buildout	53.3	D	49.0	D	60.6	E	67.2	E	55.0	D
4	SR 472	Blue Lake Ave (Ext.)	TWSC	AM	Buildout	11.8	B	27.8	D	--	--	--	--	--	--
				PM	Buildout	13.0	B	31.3	D	--	--	--	--	--	--
5	SR 472	Minnesota Ave	TWSC	AM	Backg'd+Vested	11.5	B	12.0	B	22.5	C	26.4	D	--	--
					Buildout	11.6	B	12.1	B	22.7	C	27.1	D	--	--
				PM	Backg'd+Vested	12.0	B	14.2	B	22.5	C	31.4	D	--	--
					Buildout	12.1	B	14.4	B	23.0	C	32.2	D	--	--
6*	Cassadaga Rd (Ext)	Access I	TWSC	AM	Buildout	7.3	A	0.0	A	--	--	8.8	A	--	--
				PM	Buildout	7.4	A	0.0	A	--	--	8.9	A	--	--
7*	Blue Lake Ave (Ext.)	Access II	TWSC	AM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
				PM	Buildout	--	--	8.8	A	0.0	A	0.0	A	--	--
8*	Blue Lake Ave (Ext.)	Cassadaga Rd (Ext.)	TWSC	AM	Buildout	--	--	9.1	A	0.0	A	7.3	A	--	--
				PM	Buildout	--	--	9.1	A	0.0	A	7.4	A	--	--

Average delay expressed in seconds/vehicle

**These intersections will only exist at buildout so they do not have background conditions.*

7.4 Queue Evaluation

An evaluation was conducted to determine whether the existing turn lane lengths at the signalized study intersections are adequate to accommodate projected traffic at project buildout. The two signalized study intersections are MLK Beltway and Cassadaga Road, and SR 472 and MLK Beltway. The turn lanes that are projected to receive project trips at the MLK Beltway and Cassadaga Road intersection are not currently in place. These turn lanes are necessary for accessing the project site and are evaluated in the Access Review section.

This section focuses on the SR 472 and MLK Beltway intersection. As previously noted, this intersection is significantly impacted by new developments, particularly Deland Tech Park Queue lengths were obtained from the HCM analysis worksheets, which are included in **Appendix M** and **Appendix N**. Specifically:

- Existing condition queue lengths were derived from the HCM worksheets in **Appendix M**.
- Background and projected condition queue lengths were obtained from the HCM worksheets in **Appendix N**, which accounts for improvements recommended by Deland Tech Park.

The required deceleration lengths are based on the FDOT *Design Manual (FDM) Exhibit 212-1,* provided in **Appendix O**.

Total turn lane length was calculated as the sum of the deceleration length and projected queue length. The results of the evaluation, summarized in **Table 10**, show that the northbound left turn lane and the eastbound right turn lane planned for the SR 472 and MLK Beltway intersection should be approx. 550 feet and 530 feet long respectively in the background condition to accommodate traffic from the background condition and the traffic from the approved projects. The length of northbound left-turn lane required is determined by the AM peak hour, while the length of eastbound right-turn lane is determined by the PM peak hour, as the 95th percentile queue lengths are higher during these respective periods. The analysis indicated that the turn lanes required to accommodate background and vested trips will be sufficient to handle the additional project trips.

Table 10
Queue Evaluation

Intersection	Turn Lane	Posted Speed Limit	Existing Lane Length	Required Deceleration	Existing					Background + Vested w Improvements					Buildout w Improvements						Adequate?
					# of LNS	95th Percentile Queue		Length Needed	Length Deficiency	# of LNS	95th Percentile Queue		Length Needed	Length Deficiency	# of LNS	95th Percentile Queue		Length Needed	Length Deficiency	Project Trips	
						Vehicle	Length				Vehicle	Length				Vehicle	Length				
AM PEAK																					
SR 472 & MLK Beltway	NBL*	55	0'	350'	0	32	800'	1,150'	1,150'	1	8	200'	550'	550'	1	8	200'	550'	0'	1	YES
	EBR	60	540'	405'	1	4	100'	505'	0	1	3	75'	480'	0	1	3	75'	480'	0	3	YES
PM PEAK																					
SR 472 & MLK Beltway	NBL*	55	0'	350'	0	33	825'	1,175'	1,175'	1	7	175'	525'	525'	1	7	175'	525'	0'	3	YES
	EBR	60	540'	405'	1	6	150'	555'	15'	1	5	125'	530'	0	1	5	125'	530'	0	2	YES

95th percentile queue vehicle was rounded to whole number
*95th percentile queue length = vehicle * 25 ft*
**Length deficiency at buildout calculated compared to background condition considering improvements at the intersection of SR 472 and MLK Boulevard, as recommended by previous TIAs, are implemented.*
**Adequate or Not Based on Background Condition with Improvements*

8.0 ACCESS REVIEW

The development proposes to connect to the transportation network by extending Cassadaga Road and Blue Lake Avenue to intersect SR 472 at an existing full median opening and connect with MLK at Cassadaga Road. Access to the site will be provided via two full-access driveways: one (1) on the Cassadaga Road extension and one (1) on the Blue Lake Avenue extension.

SR 472 is a 4-lane divided roadway with a posted speed limit of 60 miles per hour (mph) near the access driveway at Blue Lake Avenue Extension. MLK Beltway is a 2-lane undivided roadway with a posted speed limit of 55 mph. The Blue Lake Avenue Extension is proposed to connect SR 472 to residential developments north of SR 472, while the Cassadaga Road Extension will connect to Blue Lake Avenue Extension to provide access to the site. Since both roadway extensions will lead to residential areas, it is expected that the speed limit for these roads will be 25 mph.

8.1 Access Road Improvements

Road improvements were evaluated to determine the need for deceleration lanes and egress lanes at the project driveways and the deceleration lanes at the nearby intersections. The need for deceleration lanes and the turn lane dimensions were evaluated based on the guidelines of the Volusia County *Land Development Code (LDC)*, provided in **Appendix P**. While these guidelines provided a framework, engineering judgment and planning considerations were also applied to ensure the most effective treatment. Consequently, the following turn lanes are recommended based on a combination of regulatory guidelines and professional assessment.

- Intersection #2 – MLK Beltway and Cassadaga Road
    - Northbound left turn lane
    - Southbound right turn lane

- Intersection # 4 – SR 472 and Blue Lake Avenue Extension
    - Westbound right turn lane

- Intersection #6 – Cassadaga Rd Extension and Access I
    - Eastbound left turn lane

Intersection #2 – MLK Beltway and Cassadaga Road

Deceleration Lanes

The intersection at MLK Beltway and Cassadaga Road is currently a signalized, 3-legged intersection. With the planned extension of Cassadaga Road, it will be reconfigured into a 4-legged intersection. To accommodate this change, it is recommended to add a northbound left turn deceleration lane and a southbound right turn deceleration lane. The eastbound approach is expected to function adequately with a two-lane configuration: one lane dedicated to left turns and the other shared between right turns and through movements.

- Northbound Left Turn Deceleration Lane
  Design Speed = 55 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (per Volusia County *LDC*)

- Southbound Right Turn Deceleration Lane
  Design Speed = 55 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (per Volusia County *LDC*)

- Eastbound Left Turn Deceleration Lane
  Assumed Design Speed = 25 mph
  A deceleration lane length of 145 feet is projected to sufficiently accommodate the left turn movement.

Intersection #4 – SR 472 and Blue Lake Avenue Extension

Deceleration Lanes

The intersection at SR 472 and Blue Lake Avenue Extension currently have approximately:

- 510-foot-long Westbound Right Turn Deceleration Lane
- 500-foot-long Eastbound Left Turn Deceleration Lane
- 440-foot-long Southbound Left Turn Deceleration Lane

The recommendations for turn lanes are as follows:

- Westbound Right Turn Deceleration Lane
  Design Speed = 60 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (There is no turn lane length recommended in *LDC* for speed > 55 mph, thus a turn lane length of 455 feet is recommended)

- Eastbound Left Turn Deceleration Lane
  Design Speed = 60 mph
  Recommended Lane Length = 455 feet (Incl. 50-foot taper) (There is no turn lane length recommended in *LDC* for speed > 55 mph, thus a turn lane length of 455 feet is recommended)

- Southbound Left Turn Deceleration Lane
  Assumed Design Speed = 25 mph
  A deceleration lane length of 145 feet is projected to sufficiently accommodate the left turn movement.

The existing deceleration lanes at the intersection of SR 472 and Blue Lake Avenue Extension are longer than the recommended values. Thus, the intersection is not recommended for any improvements.

Intersection #6 – Cassadaga Road Extension and Access I

Deceleration Lanes

The full access driveway at Cassadaga Road is recommended to be improved with an eastbound left turn lane. This lane will primarily provide separation for left turn movements from through traffic while also offering some deceleration.

With an assumed speed limit of 25 mph for this segment, a conservative length of 145 feet (Incl. 50-foot taper) is recommended for the eastbound left turn lane.

Egress Lanes

The driveway is projected to operate adequately with the following egress lane configuration:

- One (1) southbound lane for the right turn movement
- One (1) southbound lane for the left turn movement - A deceleration lane length of 145 feet is projected to sufficiently accommodate the left turn movement.

Intersection #7 – Blue Lake Avenue Extension and Access II

Deceleration Lanes

Based on *Volusia County LDC* and engineering judgement, a deceleration lane is not necessary at this entrance.

Egress Lanes

The driveway is projected to operate adequately with the following egress lane configuration:

- One (1) westbound lane for the right turn and left turn movements

9.0 ALTERNATIVE TRANSPORTATION MODES

A review of pedestrian, bicycle, and transit facilities was conducted. This review consists of a visual inventory of available facilities to determine the context of alternative transportation modes in the vicinity of the proposed development.

9.1 Pedestrian and Bicycle Facilities

Google Earth maps and field observations indicate that the surrounding area in vicinity of the project site is generally undeveloped. TM BTR at Deland Crossings will construct sidewalks on the perimeter of the development.

There are no sidewalks on MLK Beltway or on SR 472 adjacent to the site. MLK Beltway and SR 472 are both equipped with bike lanes on both sides of the street, adjacent to the site.

9.2 Transit Facilities

The West Volusia transit route map was reviewed from *Volusia County's Public Transit System* website to determine the available transit route near the proposed development. Currently, there is not a transit route on MLK Beltway or Cassadaga Road, or SR 472 near the proposed development. The closest route (Route 20) is located on US 17/92, approximately 2.2-miles from the proposed development. The West Volusia bus service map is included in **Appendix Q**.

9.3 Proximity to Nearby Schools

A review of existing schools within a 2-mile radius of the project site was conducted to identify student walking routes from/to school. No school was identified within a 2-mile radius. The closest public school (Deltona High School) is located approximately 2.5-miles from the project site. As mentioned in the previous section, the area is not improved with pedestrian and bicyclist facilities. Therefore, it is likely that students will use buses to/from schools.

10.0 SAFETY ASSESSMENT

A safety assessment was performed for the intersections at MLK Beltway and Cassadaga Road and at SR 472 and Blue Lake Avenue. For the purpose of this assessment, five (5) years of historical crash data was obtained from *Signal 4 Analytics*. The study period for the assessment spans from 2019 to 2023 and the crash data is provided in **Appendix R**.

MLK Beltway and Cassadaga Road

Based on the crash data, five (5) crashes were reported in the vicinity of the access point at MLK Beltway and Cassadaga Road within the last five (5) years. All of these crashes were rear-end collisions. Of these, three (3) occurred in 2019, which may have been influenced by the intersection's previous stop-controlled configuration. The intersection has since been signalized, which may have contributed to the reduction in crashes. There has been only one (1) crash in 2022 and one (1) crash in 2023. None of the crashes resulted in fatalities. Out of the five (5) crashes, two (2) had no injuries, while three (3) involved possible or non-incapacitating injuries. A map of the crashes at this location is provided in **Figure 11**.

SR 472 and Blue Lake Avenue Extension

Based on the crash data, there have been no crashes reported directly at the SR 472 and proposed Blue Lake Avenue Extension intersection. However, two (2) crashes occurred in close proximity. One (1) of these was a rear-end collision, and the other (1) was a sideswipe collision. The rear-end crash, which resulted in a serious injury, occurred in 2019 and happened during daylight conditions. The sideswipe crash, which resulted in no injury, occurred in 2022 under clear day conditions. A map of the crashes at this location is provided in **Figure 12**.

Overall, the number of crashes at both intersections is relatively low, indicating that there is not a safety issue. The data suggests that the current conditions at these intersections are generally safe, with no significant patterns of frequent or severe crashes.


N
Not to Scale
Proposed Cassadaga Road Extension
LEGEND
Angle
Animal
Left Turn
Right Turn
Sidewsipe
Rear End
Other/Unkown



TMC Traffic & Mobility CONSULTANTS

21145 Ford 472, v1.3

SR 472 and Blue Lake Avenue Crash Map **Figure 12**

11.0 PROPORTIONATE SHARE CALCULATION

The project's impacts on the adverse transportation facilities within the study area are proposed to be mitigated through a payment of the project's proportionate share of the cost to make the planned or identified mitigating improvements.

The proportionate share calculations for adopted roadway widening projects were prepared in accordance with the requirements of Volusia County using the *Master Proportionate Fair Share (PFS) Table*, provided in **Appendix S**.

For segments not available in the *Master PFS Table*, the cost of improving the same roadway and the length difference were used to calculate the proportionate share (PropShare). For example, the segment of Howland Boulevard from Forest Edge to Wolf Pack Run was available in the table. This segment was 0.25 miles long, with a total improvement cost of $2,021,542.48. The segment from I-4/SR 472 to Wolf Pack Run was 0.4 miles long. Therefore, the total cost of improving Howland Boulevard from I-4/SR 472 to Wolf Pack Run was calculated as:

$$\$2,021,542.48 \times (0.4/0.25) = \$3,234,467.96$$

This total cost was then multiplied by the project percentage to determine the PropShare Cost. A similar method was applied to calculate the PropShare Cost for Orange Camp Road (from US-17-92 to Princeton) and Veterans Memorial Parkway (from Harley Strickland Boulevard to Rhode Island Avenue).

The project's roadway segment proportionate share mitigation was calculated to be $142,189.78, as summarized in **Table 11**.

Table 11
Roadway Segments Proportionate Share Calculation

Roadway Segment	Roadway Improvement	Capacity			Project Trips	Prop Share %	Improvement Cost	Prop Share
		Base	Improved	Increase				
Graves Ave								
Veterans Memorial Pkwy to Kentucky Ave	Widen 2 to 4 Lanes	1,620	3,410	1,790	15	0.84%	$2,534,673.55	$21,240.28
Kentucky Ave to Normandy Blvd	Widen 2 to 4 Lanes	1,620	3,410	1,790	5	0.28%	$18,134,221.59	$50,654.25
Howland Blvd								
I-4/SR 472 to Wolf Pack Run	Widen 4 to 6 Lanes	3,410	5,120	1,710	14	0.82%	$3,234,467.96*	$26,481.02
Orange Camp Rd								
US 17-92 to Princeton	Widen 2 to 4 Lanes	1,270	3,410	2,140	3	0.14%	$5,329,975.45	$7,471.93
W. Volusia Bltwy (Veterans Memorial Pkwy)								
Harley Strickland Blvd to Rhode Island Ave	Widen 2 to 4 Lanes	1,540	3,410	1,870	5	0.27%	$13,592,020.00*	$36,342.30
							Total Roadway Segment Proportionate Share	**$142,189.78**

Volusia County Master Prop Fair Share Table
**Not listed in Master Table, improvement cost estimated using the portion of this segment listed in Master table taking into consideration the length difference*

The proportionate share calculations for improvements at the intersection of SR 472 and MLK Beltway were also carried out in accordance with the requirements of Volusia County using the Master Proportionate Fair Share Table. The Fair Share Table and other relevant information are provided in **Appendix S**. The project's total proportionate share mitigation was calculated to be $92,019.46, as summarized in calculations shown in **Table 12**.

Table 12
Proportionate Share Calculation of Improvements at SR 472 and MLK Beltway

Roadway Segment	Roadway Improvement	Capacity			Project Trips	Prop Share %	Improvement Cost	Prop Share
		Base	Improved	Increase				
West Volusia Beltway (MLK)								
Cassadaga Rd to SR 472	Widen 2 to 4 Lanes	1,540	3,410	1,870	15	0.80%	$2,707,186.81	$21,715.40
Kentucky Ave								
Graves Ave to SR 472	Widen 2 to 4 Lanes	1,540	3,410	1,870	20	1.07%	$5,890,388.87	$62,998.81
							Roadway Segment Proportionate Share	**$84,714.21**

Volusia County Master Prop Fair Share Table

Improvement	Capacity			Project Trips	Prop Share %	Improvement Cost	Prop Share
	Base	Improved	Increase				
Adding a WBL Turn Lane							
No project Trips in this approach so not responsible for PropShare							$0
Adding a NBL Turn Lane							
Add a 550' turn lane	119	203	84	1	1.19%	$619,688.72	$7,377.25
Adding a SBL Turn Lane							
No project Trips in this approach so not responsible for PropShare							$0
						Turn Lane Proportionate Share	**$7,377.25**

Improvement Cost Based on FDOT Generic Cost + 25% for Design/Consultant
Base and Improved Capacity for NBL Turn Lane Obtained from Synchro Analysis of Projected AM Peak Before and After Improvements

Thus, the project's total proportionate share cost was calculated to be $234,281.24. The applicant intends to enter into a proportionate share mitigation agreement with Volusia County to establish the payment of the mitigation funds, the allocation of impact fee credits, and any other applicable terms.

12.0 STUDY CONCLUSIONS

This traffic analysis was conducted to evaluate the impacts of Ford 472, a residential development. The site is located west of MLK Beltway and north of State Road 472 (SR 472) in the City of Deland, Florida.

The analysis included a determination of trip generation, a review of transportation capacity and operations, a review of the proposed site access plan, a review of alternative modes of transportation, and a safety assessment. The results of the traffic analysis are summarized as follows:

Summary of Findings

- The proposed development is projected to generate 1,728 net new external daily trips, of which 121 trips occur during the AM peak hour and 154 trips occur during the PM peak hour.

- A review of roadway capacity conditions indicates that the following adverse roadway segments are projected to be impacted by the proposed development:
    - Graves Avenue
        - Veterans Memorial Parkway to Kentucky Avenue
        - Kentucky Avenue to Normandy Boulevard
    - Howland Boulevard
        - I-4/SR 472 to Wolf Pack Run
    - Orange Camp Road
        - US 17/92 to Princeton
    - West Volusia Beltway
        - Harley Strickland Boulevard to Rhode Island Avenue

- A review of intersection operations indicates that the intersection of SR 472 and MLK Beltway is projected to operate below the adopted LOS due to existing and background traffic. However, with the improvements recommended by the previously approved projects, the intersection is projected to operate adequately.

Summary of Recommendations

- The recommended access improvements are:
    - MLK Beltway and Cassadaga Road
      Install a 455-foot-long northbound left turn deceleration lane on MLK Beltway
      Install a 455-foot-long southbound right turn deceleration lane on MLK Beltway
      Provide an eastbound shared lane for right turn and through movements
      Provide a 145-foot-long eastbound lane for the left turn movement

    - Cassadaga Road Extension and Access I
      Install a 145-foot-long eastbound left turn deceleration lane on Cassadaga Road
      Provide one (1) southbound egress lane for the right turn movement
      Provide a 145-foot-long southbound egress lane for the left turn movement

    - Blue Lake Avenue Extension and Access II
      Deceleration lane is not necessary
      Provide one (1) westbound shared lane for right turn and left turn movements

- The project's proportionate share mitigation is $234,281.24 which shall be paid in accordance with a mitigation agreement with Volusia County.

APPENDICES

Appendix A
Comment Letter and Response to Comment Letter

February 13, 2025

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Comments
TMC Project № 21145, v1.2
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by Volusia County Traffic Engineering dated January 8, 2025, regarding the above referenced Traffic Impact Analysis dated December 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised TIA is provided under separate cover reflecting the changes resulting from these comments.

1. **Synchro files are missing throughout document. Example missing existing, background, or projected (varies at a.m. & p.m. as well). Please provide all relevant output reports.**

   *TMC Response: Printouts of all HCM output are provided in **Appendices M** and **N** of the revised report (as included in version 1.2). The Synchro files will be provided to the County via electronic file.*

2. **Peak hour factors vary throughout TIA, please provide reasoning.**

   *TMC Response: Peak hour factors for the intersections are based on the Turning Movement Counts observed at each intersection. Some discrepancies in the Synchro sheets have been identified and corrected accordingly. The revised **Appendices M** and **N** now reflect the updated values.*

3. **There appears to be a significant amount of traffic that exits the network between intersection 4 and intersection 3 EB during peak hours, please review & explain.**

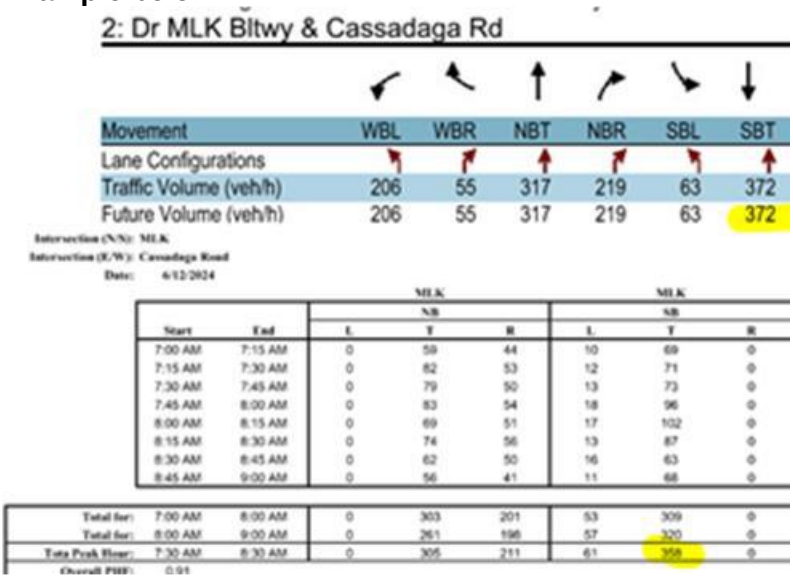
   TMC Response: The traffic exiting from intersection 4 towards intersection 3 eastbound follows the network and exits through intersection 3, rather than between the two intersections. As an example, during the AM peak hour:
   - *Project trips exiting from intersection 4 towards intersection 3 eastbound: 42% (38 trips) via southbound left movement*
   - *Project trips exiting from intersection 3 eastbound:*
     - *Eastbound through movement: 39% (35 trips)*
     - *Eastbound right movement: 3% (3 trips)*

- *Total: 42% (38 trips), which aligns with the trips exiting from intersection 4.*

Similarly, for vested trips during the AM peak hour, 103 trips exit intersection 4 eastbound through and continue through intersection 3 as:

- *82 trips via eastbound through movement*
- *21 trips via eastbound left movement*
- *Total: 103 trips, confirming that traffic follows the expected path through the network.*

4. There are differences in the existing data in synchro and the TMC, please clarify. Example below:



2: Dr MLK Bltwy & Cassadaga Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	55	317	219	63	372
Future Volume (veh/h)	206	55	317	219	63	372

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK NB			MLK NB		
Start	End	L	T	R	L	T	R
7:00 AM	7:15 AM	0	59	44	10	69	0
7:15 AM	7:30 AM	0	82	53	12	71	0
7:30 AM	7:45 AM	0	79	50	13	73	0
7:45 AM	8:00 AM	0	83	54	18	96	0
8:00 AM	8:15 AM	0	69	51	17	102	0
8:15 AM	8:30 AM	0	74	56	13	87	0
8:30 AM	8:45 AM	0	62	50	16	63	0
8:45 AM	9:00 AM	0	56	41	11	68	0
Total for:	7:00 AM	8:00 AM	0	303	201	53	309	0
Total for:	8:00 AM	9:00 AM	0	261	196	57	320	0
Tota Peak Hour:	7:30 AM	8:30 AM	0	305	211	61	358	0
Overall PHF:	0.91							

TMC Response: As explained in Section 6.2, the raw counts were adjusted by a seasonal factor of 1.04. The existing count data (358) was multiplied by 1.04 to total 372, the adjusted southbound through volume, as shown in the Volume Projections worksheet provided in ***Appendix L,*** *an excerpt of which follows:*

Intersection:		Dr. MLK Bltwy & Cassadaga Rd				
Appr	Mvmt	Lns	Raw	SF	Adjusted	GF
NB	L	0	0	1.04	0	1.0
	T	1	305	1.04	317	1.0
	R	1	211	1.04	219	1.0
SB	L	1	61	1.04	63	1.0
	T	1	358	1.04	372	1.0
	R	0	0	1.04	0	1.0
EB	L	1	0	1.04	0	1.1
	T	1	0	1.04	0	1.1
	R	0	0	1.04	0	1.1
WB	L	1	198	1.04	206	1.1
	T	1	0	1.04	0	1.1
	R	0	53	1.04	55	1.1

*Background Volumes Estimated using *ITE Trip Generation Manu*

5. The county has 2023 count data midblock on MLK between Cassadaga Rd and SR-472. The TIA 2024 existing count is significantly higher, please review & verify.

TMC Response:

W. Volusia Bltwy (Dr MLK Jr)	SR 472 to Cassadaga Rd.	1940	County	Yes	0.20	55	UA_NSSRC1_2W_2L_U WL	Minor Arterial - Urban	E	17,050	0.72	C	710	990	1,540	2

The AADT count data publicly available from Volusia County is from 2022. According to this data, the total count recorded was 710 during AM peak hours and 990 during PM peak hours as shown in the figure above. However, the Turning Movement Count (TMC) conducted in 2024 as part of this TIA recorded the following counts:

- *AM Peak Hour:*
  - *Southbound (SB): 358 + 198 = 556*
  - *Northbound (NB): 305 + 211 = 516*
  - *Total AM Peak: 1,072*
- *PM Peak Hour:*
  - *Southbound (SB): 536 + 117 = 653*
  - *Northbound (NB): 448 + 167 = 615*
  - *Total PM Peak: 1,268*

While it is true that the 2024 existing count is significantly higher than the 2022 count, the traffic count survey was conducted in accordance with standard procedures. The increase in traffic volumes could be attributed to ongoing developments in the area, which may have led to a growth in vehicular flow between 2022 and 2024.

6. Please show how annual growth rates were accounted for in the roadway segments and intersection analyses

*TMC Response: The methodology used for incorporating annual growth rates in roadway segments is detailed in Section 6.1 and further outlined in Table 6 of the revised report (as included in version 1.2). The approach for intersection analyses is explained in Section 6.2, with detailed calculations provided in **Appendix L** of the revised report (as included in version 1.2).*

7. Please show how seasonal factors were accounted for in the roadway segments and intersection analyses

*TMC Response: Seasonal factors were applied only to turning movement counts and are not applicable to roadway segments. The methodology for incorporating seasonal factors into intersection analyses is explained in Section 6.2, with detailed calculations provided in **Appendix L** of the revised report (as included in version 1.2).*

8. For Synchro analyses, please include the output reports that show the Q-length to verify against table 10 values.

*TMC Response: The queue lengths for turn lanes summarized in Table 10 are based on the Synchro worksheets were provided in **Appendix N** (as included in version 1.2). However,*

*the queue lengths for the existing condition are derived from the Synchro worksheets in **Appendix M** (as included in version 1.2). To avoid confusion, Section 7.4 has been updated to clarify this distinction. Please see TIA v1.3 attached.*

9. Please improve the intersection LOS E result at MLK Blvd & SR-472 analysis / PM Peak Hour (Buildout W Improvements) condition which is not in line with adopted LOS requirement.

TMC Response: As explained in Section 7.3, several improvements were previously recommended for the MLK Blvd and SR 472 intersection by other developments. With these improvements in place, the intersection operates in an adequate condition and is capable of accommodating project trips. Additionally, as per Volusia County's comment on September 16, 2024, a proportionate share cost for these improvements was requested to be calculated, as these improvements exceeded concurrency requirements. Consequently, this calculation was incorporated into the revised report (as included in version 1.2).

The allowable Level of Service (LOS) at MLK Blvd and SR 472 is LOS E, which aligns with the adopted LOS requirement. Therefore, the intersection's LOS at PM Peak Hour (Buildout with Improvements) condition remains in compliance with this standard. However, please note that with the revision of Synchro analysis, the overall LOS at MLK Blvd and SR 472 is improved to D.

10. Background traffic volumes (including vested trips) were adjusted manually in some cases. Appendix I and L should clearly justify these adjustments and match the volumes shown in Figures 7–10 (intersection volumes).

*TMC Response: Background traffic volumes (including vested trips) were not adjusted manually. Background traffic volumes were estimated by applying appropriate seasonal factors and growth factors to existing traffic counts and then adding vested trips from Deland Tech Park and TM BTR, as explained in Section 6.2 of the report. The vested trip data was obtained from the TIA of TM BTR and is highlighted in **Appendix K** of the revised report (as included in version 1.2)*.

11. Traffic counts from June 2024 might not fully reflect peak seasonal conditions despite adjustments using FDOT seasonal factors. Ensure accuracy of adjustment factors in Appendix J.

TMC Response: Per County guidelines, traffic counts must be no more than two years old and should be adjusted using FDOT seasonal factors. The traffic counts used in this analysis were collected less than a year ago, and the appropriate seasonal adjustment factor was applied to reflect peak seasonal conditions. This methodology is consistent with Volusia County's standard practice, aligns with procedures followed in other jurisdictions, and is considered an industry-standard practice. If an alternative method is preferred, we are open to incorporating it for this and future analysis.

12. For the intersection of SR 472 and MLK Beltway, Intersection delays and LOS under "Buildout with Improvements" conditions were marginally better than "Background with

Vested" conditions (Tables 8 and 9), Please clarify the improvement effectiveness from Appendix N.

TMC Response: The LOS and delay under the Buildout with Improvements condition are not significantly better because these improvements were already accounted for in the Background with Vested condition. The improvements included in this analysis were recommended in previous projects and were therefore factored into the background conditions of this project.

13. Queue lengths for turn lanes are summarized in Table 10, but discrepancies exist with Appendix M worksheets regarding 95th percentile values (e.g., SR 472 eastbound right-turn queue).

*TMC Response: The queue lengths for turn lanes summarized in Table 10 are based on the Synchro worksheets provided in **Appendix N**. However, the queue lengths for the existing condition are derived from the Synchro worksheets in **Appendix M**. To avoid confusion, Section 7.4 has been updated to clarify this distinction. Please see TIA v1.3 attached.*

14. For deceleration lanes at MLK and Cassadaga Road, ensure that lane lengths are consistent with Land Development Code values. Appendix O calculations occasionally deviate by ~5%.

TMC Response: Deceleration lanes at MLK and Cassadaga Road were previously recommended based on FDM Exhibit 212-2. In response to this comment, the deceleration lanes at MLK and Cassadaga Road have now been recommended in accordance with the Volusia County Land Development Code (LDC).

15. Westbound right-turn lane at SR 472 and Blue Lake Ave Extension recommended at 455 feet, but queue analysis (Table 10) suggests this length might be underestimated.

TMC Response: T The westbound right-turn lane at SR 472 and Blue Lake Ave Extension was originally recommended at 455 feet based on FDM Exhibit 212-1. However, there is currently an approximately 510-foot-long westbound right-turn lane at this location. The existing turn lane was initially overlooked, as it was recently installed as part of the Blue Lake Ave Extension. Analysis indicates that a 510-foot-long turn lane can adequately accommodate project trips, and thus, no improvements are required at SR 472 and Blue Lake Ave Extension. The TIA has been updated accordingly to include this information. Please see TIA v1.3 attached.

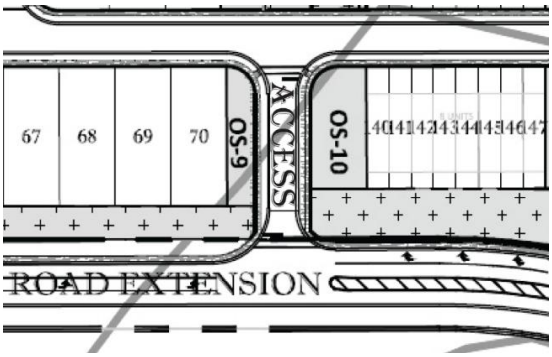
Also, it is important to note that the queue analysis in Table 10 reflects storage needs at SR 472 and MLK Beltway, a higher-volume intersection. In contrast, SR 472 and Blue Lake Ave Extension serves lower traffic volumes and does not require extensive queue storage. Thus, Table 10's analysis does not directly apply as the operational characteristics of these intersections differ.

16. Within Table 12, the total proportionate share ($233,945.91) includes estimated improvement costs. Check alignment of project share percentages with Appendix S, particularly for improvements not listed in the Master PFS Table.

*TMC Response: Table 12 only accounts for the total proportionate share cost of the improvements at the intersection of SR 472 and MLK Beltway. These improvements were recommended by previous developments and based on the comments from the County on September 16, 2024, the proportionate share was calculated and included in this project's proportionate share cost. The total cost of $233,945.91 included this amount as well as the proportionate share cost of improving roadway segments impacted by this project. Please note that because of Synchro revision the new cost is updated to $234,281.24. The project share percentages have been verified against **Appendix S**, and adjustments have been made where necessary to ensure consistency (as included in version 1.2). Additionally, for improvements not listed in the Master Proportionate Fair Share (PFS) Table, the cost allocation methodology was applied in accordance with County guidelines and has been explained in section 11.0 and also reflected in **Appendix S** (as included in version 1.2).*

17. Within Appendix B Intersections layouts should match operational assumptions in LOS analysis (e.g., shared lanes at Cassadaga Road). Potential conflicts observed for eastbound left turn at Access I.

TMC Response: The intersection layouts in Appendix B have been reviewed and confirmed to match the operational assumptions used in the LOS analysis. An example of Cassadaga Road and Access I have been provided with in the figure below for reference.



HCM 7th TWSC
6: Cassadaga Rd Ext & Access I

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	7	2	10	29	35
Future Vol, veh/h	11	7	2	10	29	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %		0	0		0	

HCM 7th TWSC
6: Cassadaga Rd Ext & Access I

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	4	7	30	19	23
Future Vol, veh/h	36	4	7	30	19	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %		0	0		0	

18. Please submit soft copy of the Synchro files used.

TMC Response: A soft copy of the Synchro file has been submitted along with the revised TIA, as requested.

19. Please submit a soft copy of the excel spreadsheet used for your PFS calculation.

TMC Response: A soft copy of the PFS spreadsheet has been submitted along with the revised TIA, as requested.

20. Present traffic count results to account for all modes of movements and provide soft copy of all count survey data using the following file types:

- **Intersection data - .txt export from PetraPro; .txt export from Traffic Data Online.**
- **Midblock data: .prn export from TraxPro/StarNEXT; .csv export from VIAS; .prn export from TrafficViewerPro**

TMC Response: The raw counts collected by the field technician have been submitted along with the revised TIA, as requested.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman H. As-Saidi, PE
VP of Engineering

Volusia County
Traffic Engineering

Project Name: **Ford 472**
Subject: **TIA Comments**
Date: **1/8/2025**

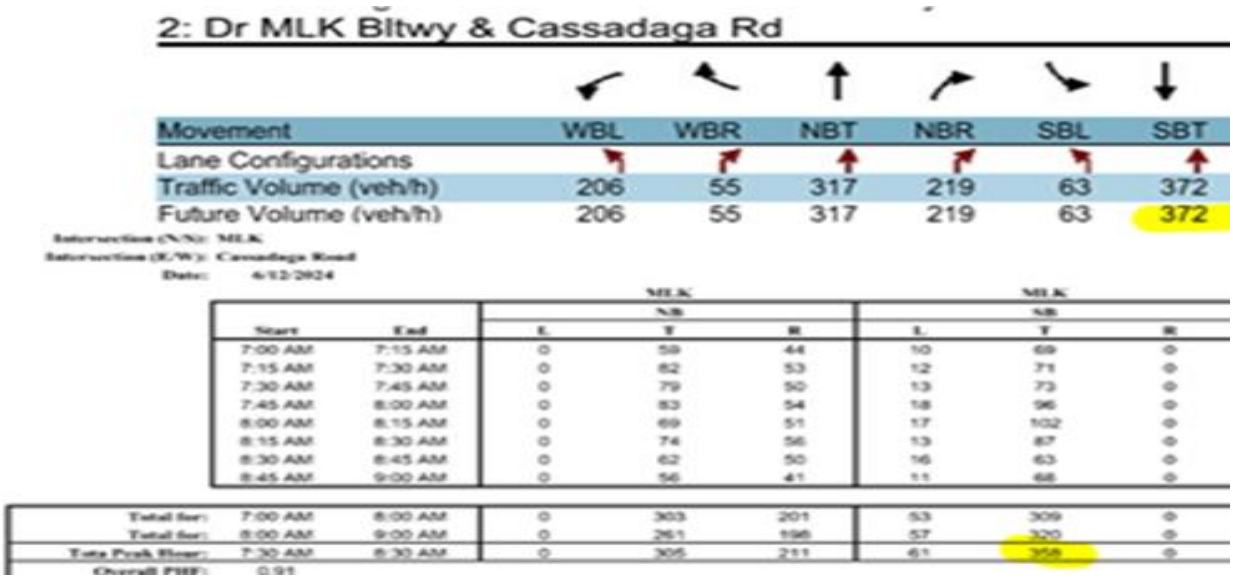
TIA Comments

1. Synchro files are missing throughout document. Example missing existing, background, or projected (varies at a.m. & p.m. as well). Please provide all relevant output reports.

2. Peak hour factors vary throughout TIA, please provide reasoning.

3. There appears to be a significant amount of traffic that exits the network between intersection 4 and intersection 3 EB during peak hours, please review & explain.

4. There are differences in the existing data in synchro and the TMC, please clarify. Example below:



2: Dr MLK Bltwy & Cassadaga Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	55	317	219	63	372
Future Volume (veh/h)	206	55	317	219	63	372

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 4/12/2024

		MLK NB			MLK NB		
Start	End	L	T	R	L	T	R
7:00 AM	7:15 AM	0	59	44	10	69	0
7:15 AM	7:30 AM	0	62	53	12	71	0
7:30 AM	7:45 AM	0	79	50	13	73	0
7:45 AM	8:00 AM	0	83	54	18	96	0
8:00 AM	8:15 AM	0	69	51	17	102	0
8:15 AM	8:30 AM	0	74	56	13	87	0
8:30 AM	8:45 AM	0	62	50	16	63	0
8:45 AM	9:00 AM	0	56	41	11	68	0
Total for:	7:00 AM	8:00 AM	0	303	201	53	309	0
Total for:	8:00 AM	9:00 AM	0	261	196	57	320	0
Tote Peak Hour:	7:30 AM	8:30 AM	0	305	211	61	358	0
Overall PHF:	0.91							

5. The county has 2023 count data midblock on MLK between Cassadaga Rd and SR-472. The TIA 2024 existing count is significantly higher, please review & verify.

6. Please show how annual growth rate were accounted for in the roadway segments and intersection analyses

7. Please show how seasonal factors were accounted for in the roadway segments and intersection analyses

8. For Synchro analyses, please include the output reports that show the Q-length to verify against table 10 values.

9. Please improve the intersection LOS E result at MLK Blvd & SR-472 analysis / PM Peak Hour (Buildout W Improvements) condition which is not in line with adopted LOS requirement.

10. Background traffic volumes (including vested trips) were adjusted manually in some cases. Appendix I and L should clearly justify these adjustments and match the volumes shown in Figures 7–10 (intersection volumes).

11. Traffic counts from June 2024 might not fully reflect peak seasonal conditions despite adjustments using FDOT seasonal factors. Ensure accuracy of adjustment factors in Appendix J.

12. For the intersection of SR 472 and MLK Beltway, Intersection delays and LOS under "Buildout with Improvements" conditions were marginally better than "Background with Vested" conditions(Tables 8 and 9), Please clarify the improvement effectiveness from Appendix N.

13. Queue lengths for turn lanes are summarized in Table 10, but discrepancies exist with Appendix M worksheets regarding 95th percentile values (e.g., SR 472 eastbound right-turn queue).

14. For deceleration lanes at MLK and Cassadaga Road, ensure that lane lengths are consistent with Land Development Code values. Appendix O calculations occasionally deviate by ~5%.

15. Westbound right-turn lane at SR 472 and Blue Lake Ave Extension recommended at 455 feet, but queue analysis (Table 10) suggests this length might be underestimated.\

16. Within Table 12, the total proportionate share ($233,945.91) includes estimated improvement costs. Check alignment of project share percentages with Appendix S, particularly for improvements not listed in the Master PFS Table.

17. Within Appendix B Intersections layouts should match operational assumptions in LOS analysis (e.g., shared lanes at Cassadaga Road). Potential conflicts observed for eastbound left turn at Access I.

18. Please submit soft copy of the Synchro files used.

19. Please submit a soft copy of the excel spreadsheet used for your PFS calculation.

20. Present traffic count results to account for all modes of movements and provide soft copy of all count survey data using the following file types:

    - Intersection data - .txt export from PetraPro; .txt export from Traffic Data Online.
    - Midblock data: .prn export from TraxPro/StarNEXT; .csv export from VIAS; .prn export from TrafficViewerPro

December 10, 2024

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Comments
TMC Project № 21145, v1.1
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by the Volusia County Traffic Engineering dated December 9, 2024, regarding the above referenced Traffic Impact Analysis dated October 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. The **bold** typeface in **red** are the edits made by Volusia County to the comments provided on December 3, 2024. Additionally, a revised TIA is provided under cover reflecting the changes resulting from these comments.

1. **Please revise table 10 to include all study intersections to confirm the development buildout 2028- year and corresponding Development Buildout LOS using the following format, noting the referenced vested project in appendix H&N reflects a buildout Yr 2027. Provide in a tabulated format the results of all studied signalized intersections to include current / Projected plus vested / Projected plus vested plus development to include the following parameters:**
    1. **Intersection delay (sec/veh)** **Shown on tables 8 & 9**
    2. **Movement delay (sec/veh)** **Shown on tables 8 & 9**
    3. **Intersection LOS** **Shown on tables 8 & 9**
    4. **Movement LOS** **Shown on tables 8 & 9**
    5. **Back of queue Ft/ln (95th percentile)** **Update Table 10 to include all study intersections with project trips, separated by AM and PM as shown in the attached Queue Length Analysis.**

    Confirmation of sufficient storage length left/right turn movement(s) if turning lanes are available.

Intersection	Turn Lane	Posted Speed Limit (mph)	Existing Lane Length (ft)	Required Deceleration (ft)	Current Yr. Traffic				Future Yr. Traffic + Vested				Development Build-Out					
					# of Lanes	95th Percentile Queue Length (veh x 25 ft)	Total Required Turn Lane Length (ft)	Lane Length Deficiency (ft)	# of Lanes	95th Percentile Queue Length (veh x 25 ft)	Total Required Turn Lane Length (ft)	Lane Length Deficiency (ft)	# of Lanes	95th Percentile Queue Length (veh x 25 ft)	Total Required Turn Lane Length (ft)	Lane Length Deficiency (ft)	Lane Length Deficiency Difference from Future & Vested to Build-Out (ft)	Project Trips
AM PEAK																		
Name	NBL																	
	NBR																	
	SBL																	
PM PEAK																		
Name	NBL																	
	NBR																	
	SBL																	

TMC Response: Table 10 has been revised to include the study intersection with project trips for both AM and PM periods, consistent with the provided Queue Length Analysis. Please refer to Table 10 in the revised TIA v1.2 attached.

2. Please use the updated PFS spreadsheet dated July 2024 and forward a soft copy of your PFS spreadsheet.

TMC Response: The TIA has been updated in accordance with the PFS spreadsheet dated July 2024, provided by the County. Please see Section 11 in the revised TIA v1.2 attached. Additionally, a soft copy of the updated PFS spreadsheet has been submitted along with the revised TIA, as requested.

.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman H. As-Saidi, PE
VP of Engineering

Nikesh Poudel

From: William White <WDWhite@volusia.org>
Sent: Monday, December 9, 2024 2:23 PM
To: Nikesh Poudel
Cc: Jay I Williams; Omar Atallah; Ayman As-Saidi; 21145 FORD 472
Subject: Fw: Follow-Up on Revised TIA for Ford 472 Project – October 2024
Attachments: TIA Comment Letter Dec 2024.pdf; Queue Length Analysis Table.docx; Master PFS table 2024-01 TWK - July 2024.xlsx

Nikesh,

1. Please revise table 10 to include all study intersections to confirm the development buildout 2028-year and corresponding Development Buildout LOS using the following format, noting the referenced vested project in appendix H&N reflects a buildout Yr 2027
   Provide in a tabulated format the results of all studied signalized intersections to include current / Projected plus vested / Projected plus vested plus development to include the following parameters:
   1. ~~Intersection delay (sec/veh)~~ **Shown on tables 8 & 9**
   2. ~~Movement delay (sec/veh)~~ **Shown on tables 8 & 9**
   3. ~~Intersection LOS~~ **Shown on tables 8 & 9**
   4. ~~Movement LOS~~ **Shown on tables 8 & 9**
   5. Back of queue Ft/ln (95TH percentile) **Update Table 10 to include all study intersections with project trips, separated by AM and PM as shown in the attached Queue Length Analysis.**

   Confirmation of sufficient storage length left/right turn movement(s) if turning lanes are available.

6. Please use the updated PFS spreadsheet dated July 2024 and forward a soft copy of your PFS spreadsheet.

October 23, 2024

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Comments
TMC Project № 21145
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by the Volusia County Traffic Engineering dated September 16, 2024, regarding the above referenced Traffic Impact Analysis dated September 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised TIA is provided under cover reflecting the changes resulting from these comments.

1. **Refer to the attached traffic growth policy for compliance.**

   TMC Response: The attached traffic growth policy has been adhered to in the Traffic Impact Analysis v1.0.

2. **Referencing TIA report page 12 section 5 Improvement at intersection of SR 472 & MLK, recommendation of improvements by other vested project shall be considered but also confirmed in line with the concurrency laws requirement that developments maintain the adopted LOS standards to ensure that growth does not outpace infrastructure capacity. The TIA's proposed improvements to deficient intersections not only meet these standards but exceed them, potentially resulting in a higher LOS than required. Given that these improvements offer benefits that surpass the basic concurrency requirements, it is equitable that the costs associated with these enhancements be allocated proportionately to the developments that generate the additional traffic demand. The Proportionate Fair Share (PFS) mechanism is designed to ensure that developments contribute fairly to the costs of necessary infrastructure improvements. When improvements elevate an intersection's LOS beyond the adopted standard, the additional capacity created is primarily intended to accommodate the increased traffic generated by the development. Therefore, it is appropriate for the development to bear the cost of this additional capacity in proportion to its usage of the intersection. This approach ensures that existing residents and businesses are not subsidizing infrastructure improvements that disproportionately benefit new developments. By tying the PFS costs directly to the proportion of trips generated by the development, we ensure a fair and transparent distribution of costs. The improvements beyond the adopted LOS represent an added**

benefit to the transportation network, and it is logical that the entities creating the need for these improvements should fund them accordingly.

TMC Response: Acknowledged. The Proportionate Fair Share for all improvements listed in the TIAs of previous developments have been evaluated. The report has been updated to reflect the Proportionate Fair Share costs that Ford 472 is responsible for at the intersection of SR 472 and MLK. Please refer to Table 12 in the revised TIA v1.1 attached.

3. **Please provide for all studied intersections in tabulated format the LOS of: Existing AM/PM Peak Hour, Projected background + vested AM/PM Peak Hour, Projected background + vested with improvement AM/PM Peak Hour, & Buildout AM/PM Peak Hour.**

TMC Response: The report has been updated to include the requested LOS information in a tabulated format for all studied intersections under all conditions: Existing AM/PM Peak Hour, Projected background + vested AM/PM Peak Hour, Projected background + vested with improvement AM/PM Peak Hour, & Buildout AM/PM Peak Hour. Please refer to Table 8 and Table 9 in the revised TIA v1.1 attached.

4. **To verify proper connectivity, provide intersections concept layouts that correspond to LOS analysis for the new roadway intersections along S Blue Lake Ave. & Cassadaga Rd.**

TMC Response: The TIA report has been updated to include the LOS analysis and concept layouts for the new roadway intersections along S Blue Lake Ave. & Cassadaga Rd. Please refer to Appendix B for the concept layout and Table 8 and Table 9 for the updated LOS analysis in the revised TIA v1.1 attached.

5. **CTE confirmation with your listed proposed improvement(s) would be in line with County improvement strategy ahead of being assumed as acceptable improvement(s) as stated in the TIA guideline.**

Access Rd Improvement(s)	Valid Assumption	Invalid Assumption	Alternative Improvement to be considered	Comment
Intersection #2 – MLK Beltway and Cassadaga Road				
Northbound left turn lane	X			
Southbound right turn lane	X			
Intersection # 4 – SR 472 and Blue Lake Avenue Extension				
Westbound right turn lane	X			
Intersection #6 – Cassadaga Rd Extension and Access I				
Eastbound left turn lane	X			

TMC Response: The confirmation of the assumptions by the County has been acknowledged.

6. **Please include the following statement if applicable**
   Given the staged nature of the development and recognizing the potential evolution of traffic patterns over time, the developer is required to conduct a comprehensive reevaluation of the access control type in conjunction with each stage of development. This process is essential to ensure that access control measures align with the changing transportation needs and conditions associated with the different phases of the project. The developer must collaborate closely with the CTE to assess and adjust the access control type based on the specific requirements and challenges presented by each stage. This reevaluation should consider factors such as the increasing population density, changing land use patterns, and corresponding shifts in traffic volumes. For each stage, the developer is expected to submit a revised access control proposal that reflects the current and anticipated traffic conditions. This proposal should outline any necessary modifications to the initially proposed access control type, taking into account factors such as peak traffic periods, pedestrian movements, and the integration of alternative transportation modes. The CTE will review each stage's access control proposal, ensuring that it complies with established standards and guidelines. The goal is to adapt the access control type to the evolving demands of the development, promoting an efficient and safe transportation network throughout the different phases. This staged approach to access control evaluation aims to create a flexible and responsive framework that accommodates the dynamic nature of the development. It is imperative that the developer remains proactive in reassessing and refining access control measures to uphold the highest standards of transportation planning and engineering throughout the entire staged development process.

   TMC Response: Please note that this project will be developed in one (1) phase/stage; therefore, the proposed access driveway points have been analyzed for the full buildout of the project and access management has been evaluated accordingly, and the above statement is not applicable.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman H. As-Saidi, PE
VP of Engineering

Volusia County
Traffic Engineering

Project Name: **Ford 472**
Subject: **TIA Comments**
Date: **9-16-24**

TIA Comments

1. Refer to the attached traffic growth policy for compliance.

2. Referencing TIA report page 12 section 5 Improvement at intersection of SR 472 & MLK, recommendation of improvements by other vested project shall be considered but also confirmed in line with the concurrency laws requirement that developments maintain the adopted LOS standards to ensure that growth does not outpace infrastructure capacity. The TIA's proposed improvements to deficient intersections not only meet these standards but exceed them, potentially resulting in a higher LOS than required. Given that these improvements offer benefits that surpass the basic concurrency requirements, it is equitable that the costs associated with these enhancements be allocated proportionately to the developments that generate the additional traffic demand. The Proportionate Fair Share (PFS) mechanism is designed to ensure that developments contribute fairly to the costs of necessary infrastructure improvements. When improvements elevate an intersection's LOS beyond the adopted standard, the additional capacity created is primarily intended to accommodate the increased traffic generated by the development. Therefore, it is appropriate for the development to bear the cost of this additional capacity in proportion to its usage of the intersection. This approach ensures that existing residents and businesses are not subsidizing infrastructure improvements that disproportionately benefit new developments. By tying the PFS costs directly to the proportion of trips generated by the development, we ensure a fair and transparent distribution of costs. The improvements beyond the adopted LOS represent an added benefit to the transportation network, and it is logical that the entities creating the need for these improvements should fund them accordingly.

Background Conditions									
Intersection	Adopted LOS	AM Peak Hour				PM Peak Hour			
		Delay (sec.)	LOS	Overall Highest V/C	Movement(s) with V/C > 1	Delay (sec.)	LOS	Overall Highest V/C	Movement(s) with V/C > 1

3. Please provide for all studied intersections in tabulated format the LOS of: Existing AM/PM Peak Hour, Projected background + vested AM/PM Peak Hour, Projected

background + vested with improvement AM/PM Peak Hour, & Buildout AM/PM Peak Hour,

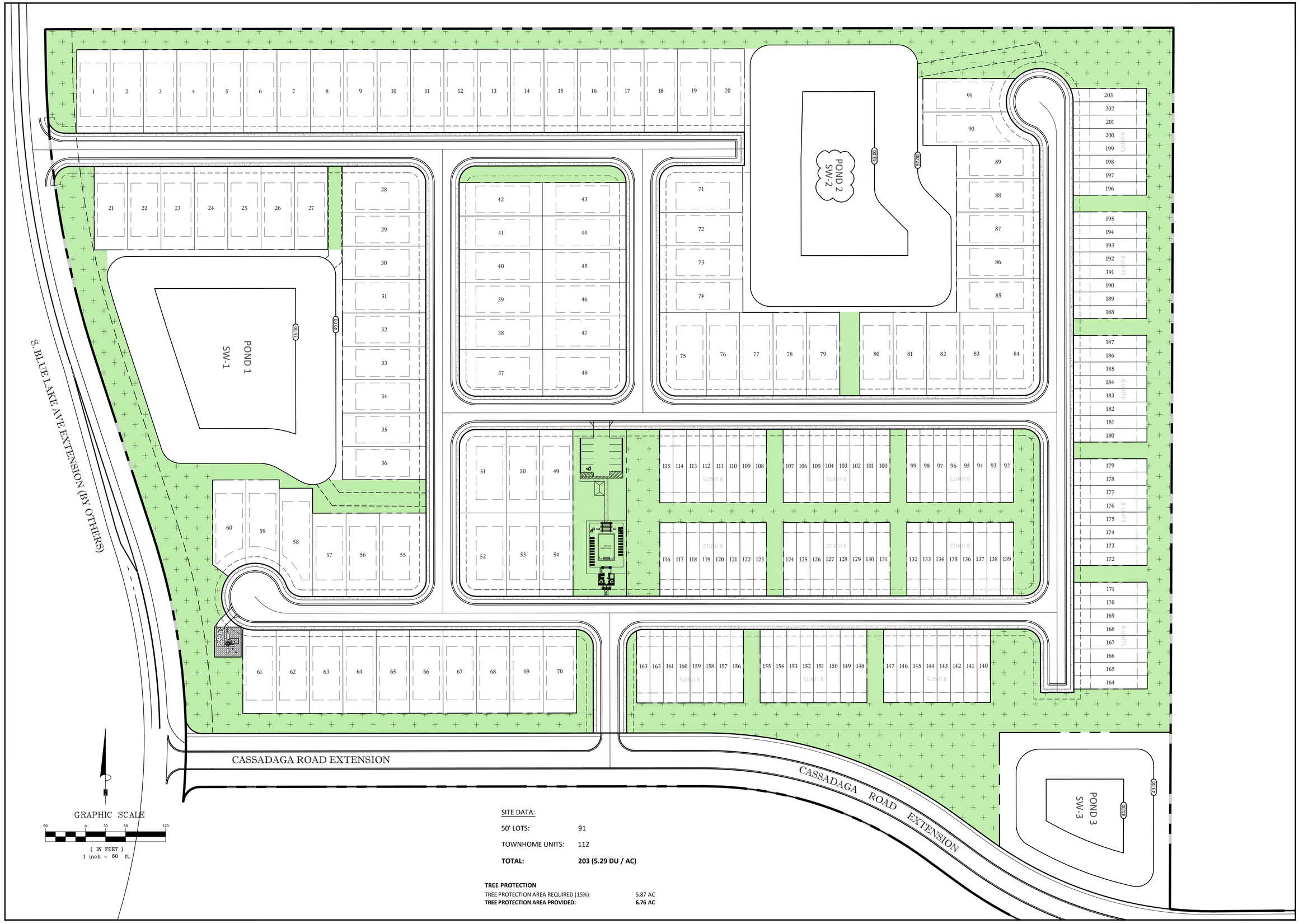
4. To verify proper connectivity, provide intersections concept layouts that correspond to LOS analysis for the new roadway intersections along S Blue Lake Ave. & Cassadaga Rd.

5. CTE confirmation with your listed proposed improvement(s) would be in line with County improvement strategy ahead of being assumed as acceptable improvement(s) as stated in the TIA guideline

Access Rd Improvement(s)	Valid Assumption	Invalid Assumption	Alternative Improvement to be considered	Comment
Intersection #2 – MLK Beltway and Cassadaga Road				
Northbound left turn lane	X			
Southbound right turn lane	X			
Intersection # 4 – SR 472 and Blue Lake Avenue Extension				
Westbound right turn lane	X			
Intersection #6 – Cassadaga Rd Extension and Access I				
Eastbound left turn lane	X			

6. Please include the following statement (if applicable)
Given the staged nature of the development and recognizing the potential evolution of traffic patterns over time, the developer is required to conduct a comprehensive reevaluation of the access control type in conjunction with each stage of development. This process is essential to ensure that access control measures align with the changing transportation needs and conditions associated with the different phases of the project. The developer must collaborate closely with the CTE to assess and adjust the access control type based on the specific requirements and challenges presented by each stage. This reevaluation should consider factors such as the increasing population density, changing land use patterns, and corresponding shifts in traffic volumes. For each stage, the developer is expected to submit a revised access control proposal that reflects the current and anticipated traffic conditions. This proposal should outline any necessary modifications to the initially proposed access control type, taking into account factors such as peak traffic periods, pedestrian movements, and the integration of alternative transportation modes. The CTE will review each stage's access control proposal, ensuring that it complies with established standards and guidelines. The goal is to adapt the access control type to the evolving demands of the development, promoting an efficient and safe transportation network throughout the different phases. This staged approach to access control evaluation aims to create a flexible and responsive framework that accommodates the dynamic nature of the development. It is imperative that the developer remains proactive in reassessing and refining access control measures to uphold the highest standards of transportation planning and engineering throughout the entire staged development process.

Appendix B
Site Information



SITE DATA:

50' LOTS:	91
TOWNHOME UNITS:	112
TOTAL:	**203 (5.29 DU / AC)**

TREE PROTECTION

TREE PROTECTION AREA REQUIRED (15%):	5.87 AC
TREE PROTECTION AREA PROVIDED:	**6.76 AC**

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

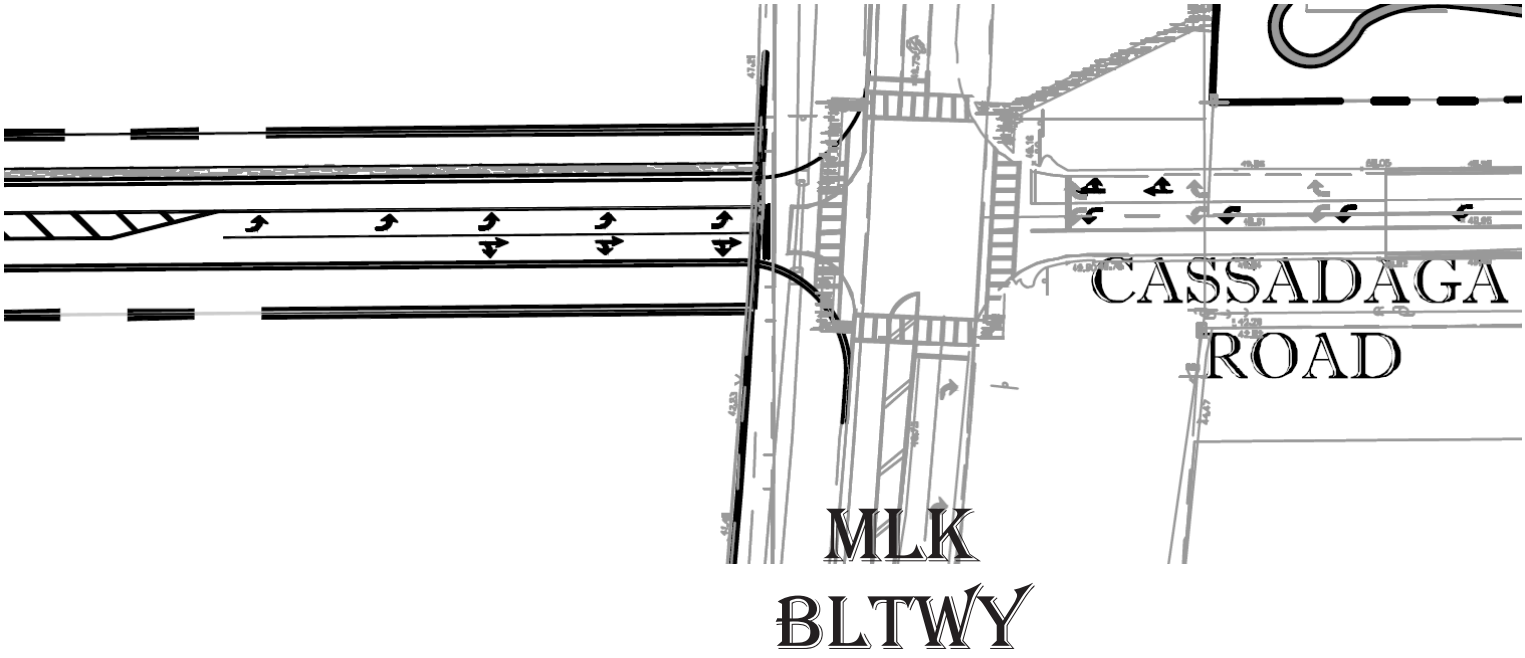
FORD 472
SUBDIVISION

CONCEPT PLAN

DRAWN: GPR
DESIGN: GPR
CHECKED: SCF
JOB NO.: 1496.000
DATE: 07/25/2023

SHEET
1 OF 1

N
Not to Scale



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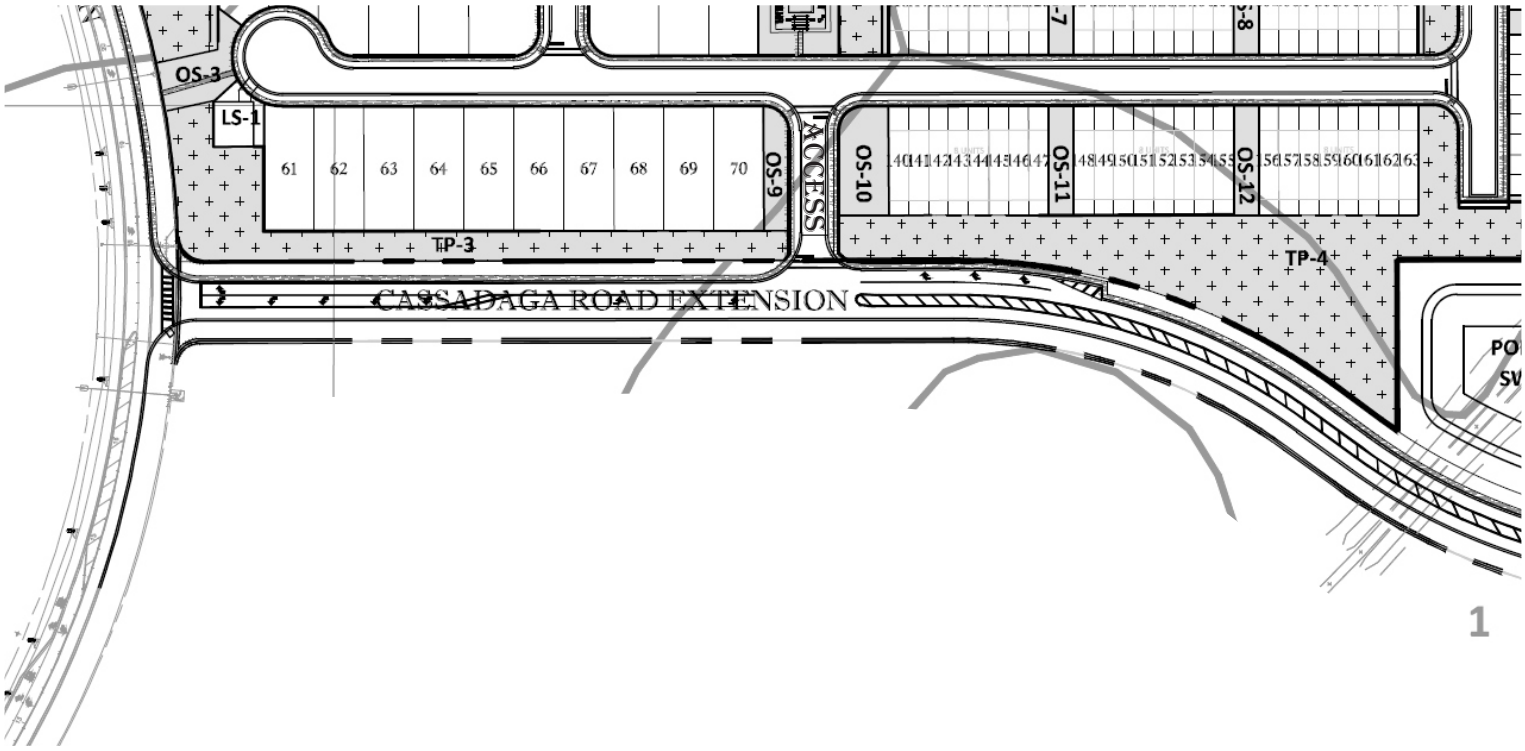

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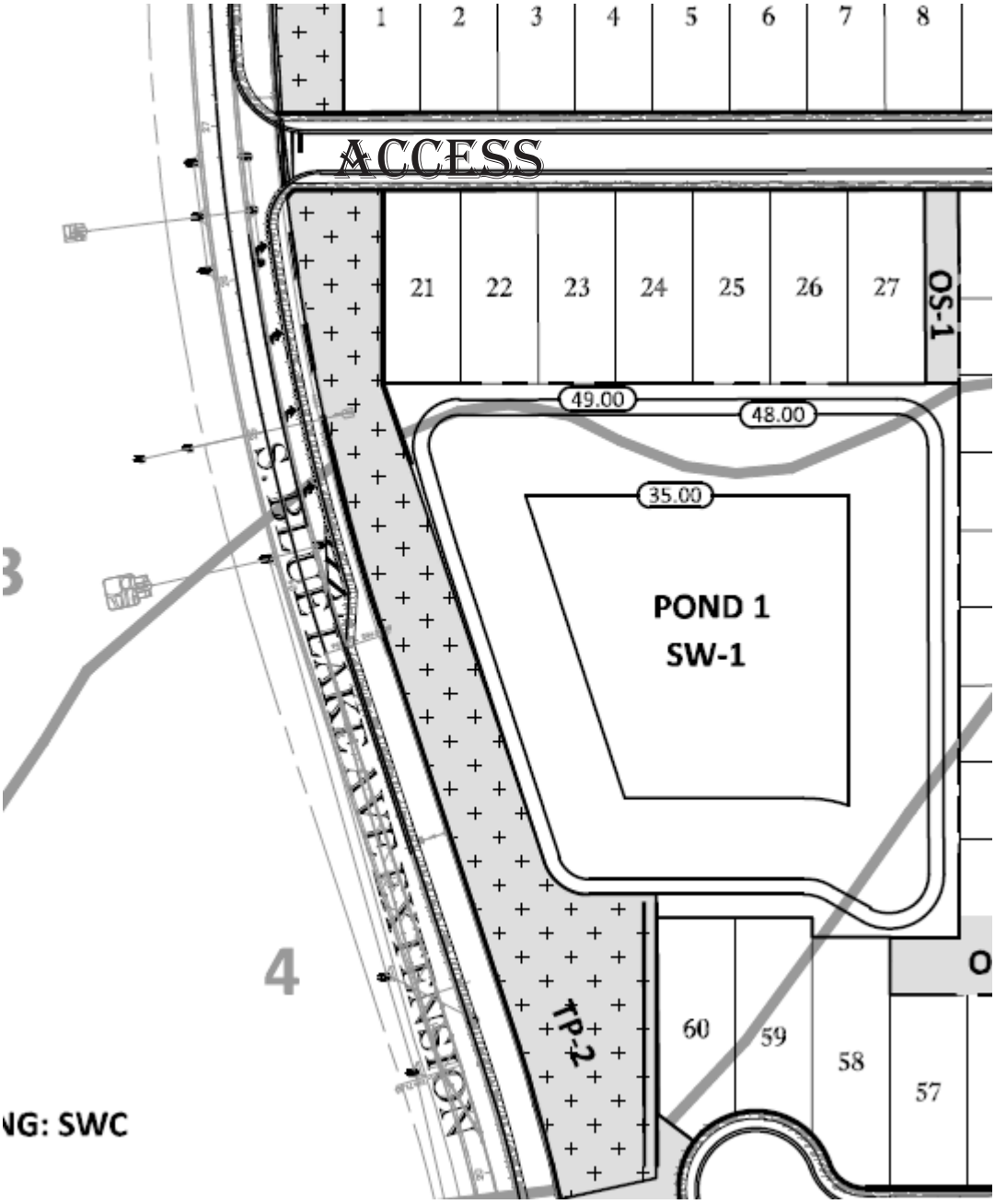

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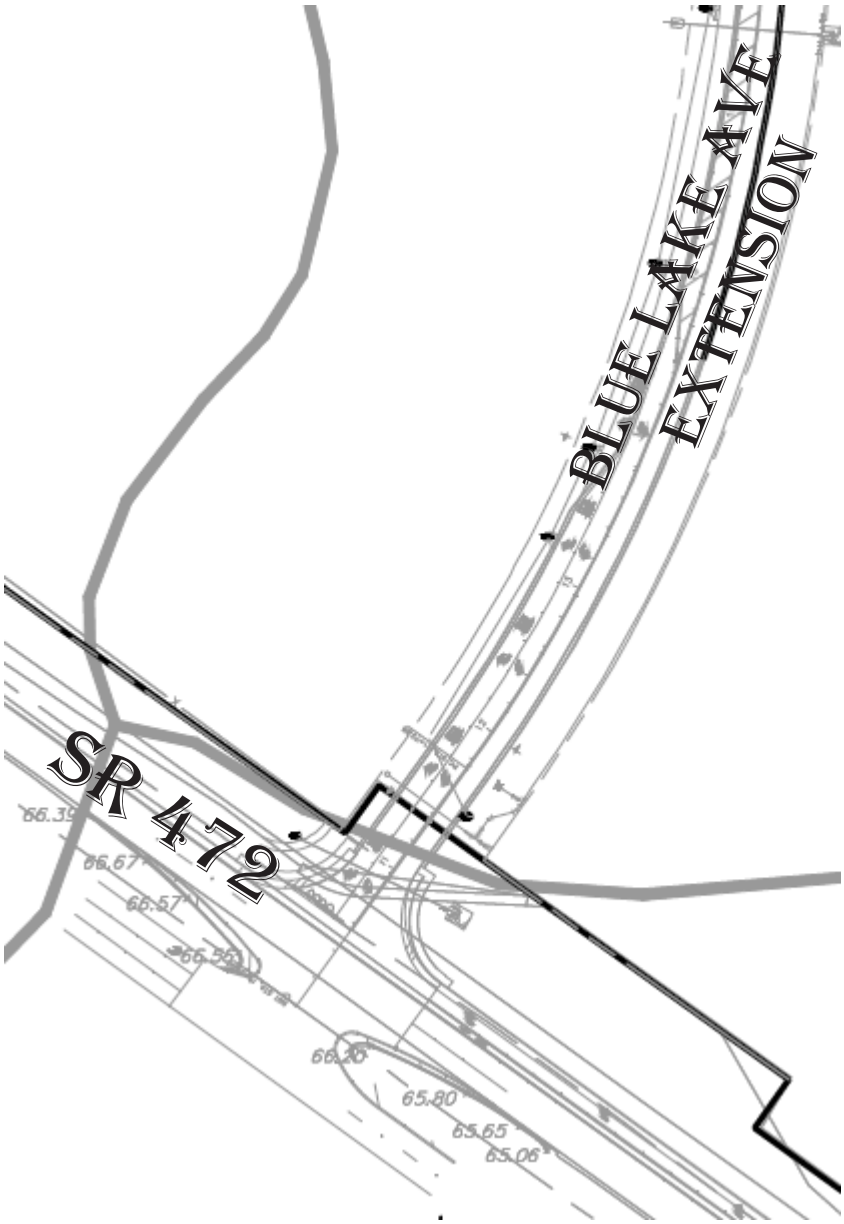


Volusia County
FLORIDA

Growth & Resource Management
Land Development

November 27, 2023

Christopher Wrenn
PulteGroup, Inc.
4901 Vineland Rd
Orlando, FL 32811

Re: Subdivision Overall Development Plan Preliminary Development Order
2022-S-ODP-0353 / 1072480
Ford 472 Subdivision

Dear Mr. Wrenn:

This letter is the Subdivision Overall Preliminary Development Order for the above-referenced development. Pursuant to the following findings, the DRC has approved the application:

1. The application was accepted on May 15, 2023, and discussed at the June 14, 2023, Technical Staff Review Meeting.

2. The DRC considered the application at their regularly scheduled meeting of October 10, 2023, and approved the Overall Development Plan application 2022-S-ODP-0353, subject to the submittal of revised plans to the satisfactory resolution of staff comments.

3. Revised plans were accepted on October 26, 2023.

A copy of the approved version of the plan, last revision dated October 18, 2023, by Sean Fortier, is enclosed.

Based on this letter you may submit an application for a Preliminary Plat Development Order. A blank application form and a checklist of exhibits and procedures are attached. A fee, as outlined in the attached fee schedule, must be paid at the time of application submittal. The Preliminary Plat application must be consistent with the approved Overall Development Plan and any remaining conditions imposed by the DRC.

Section 72-536(b) of the LDC states, “It is a violation of this division for anyone who is the owner or agent of the owner of any land to transfer, sell, agree to sell, or negotiate to sell such land by reference to, exhibition of, or other use of a plat of a subdivision of such land without having the plat approved as required by this division.”

Pursuant to Section 125.022(5), F.S., issuance of this development order by the county does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the county for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law. All other applicable state or federal permits shall be obtained before commencement of this development.

Pursuant to Section 72-502(g) of Article III Land Development, Chapter 72 Code of Ordinances (LDC), any person claiming to be aggrieved by a decision of the Enforcement Official or the DRC may file a written appeal within thirty (30) days after said decision with the Land Development Manager to have the decision reviewed by the Volusia County Council. The appeal shall state fully the specific grounds for the appeal and all of the facts relied upon by the petitioner. The County Council shall consider only those items specified in this petition.

Please feel free to contact the Land Development office if you have any questions. The project name and number must be referenced on all inquiries.

Sincerely,



Carol McFarlane, AICP
Planning and Land Development Director
cmcfarlane@volusia.org

CRM/rc
Enclosures

c: James L Rickman, Allen & Company, 16 E Plant St, Winter Garden, FL 34787
Ford Frank A, Group 7 87 5 / Group 4 12 5, Po Box 457, Deland Fl 32721
Sean Fortier, Kelly, Collins & Gentry, Inc, 1700 N Orange Av, Orlando, FL 32804
Todd Bonnett, Bonnett Design Group, LLC, 400 S Orlando Av Suite 201, Maitland, FL 32751
David Romero (via e-mail)

PARCEL DESCRIPTION

PARCEL 1
GOVERNMENT LOT 2, EXCEPT THE W 1/4 THEREOF LYING NORTH OF S.R. 15A, AND LYING SOUTH OF A LINE PARALLEL TO AND 900 FEET SOUTH OF THE NORTH LINE OF SAID GOV'T LOT 2, AND EXCEPT THE EAST 660 FEET OF THE NORTH 1056 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

AND
THE NORTH 900 FEET OF THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF S.R. 15A, EXCEPT THE NORTH 660 FEET THEREOF, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

PARCEL2
THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET THEREOF, AND THE WEST 1/4 OF GOVERNMENT LOT 1, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

NOTE:

PARCEL DESCRIPTION PROVIDED BY ALLEN & COMPANY, DATED 06/08/2021.

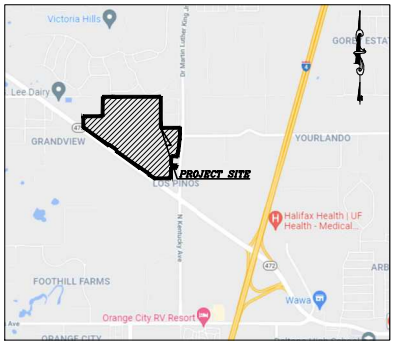
OVERALL DEVELOPMENT PLAN

FOR:

FORD 472 SUBDIVISION

NORTH OF SR 472 & WEST OF DR MARTIN LUTHER KING JR BELTWAY VOLUSIA COUNTY, FLORIDA

VICINITY MAP



SCALE: 1"=2000'

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

PARCEL ID #:
800100000020

PREPARED FOR:

PULTE GROUP

4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

DEVELOPMENT TEAM:

DEVELOPER
PULTE GROUP
4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

ENGINEER
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE,
SUITE 400
ORLANDO, FLORIDA 32804
PHONE: (407) 898-7858
FAX: (407) 898-1488

SURVEYOR
ALLEN & COMPANY
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
PHONE: (407) 654-5355

LANDSCAPE ARCHITECT
BONNET DESIGN GROUP, LLC
PHONE: (407) 463-0136

UTILITIES:

WATER & SEWER
CITY OF DELAND
1101 SOUTH AMELIA AVENUE,
DELAND, FLORIDA 32724
PHONE: (386) 626-7250

RECLAIM WATER
VOLUSIA COUNTY UTILITIES
123 W INDIANA AVE, DELAND, FLORIDA 32720
PHONE: (386) 736-2700

PREPARED BY:

KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE
SUITE 400
ORLANDO, FLORIDA 32804
PHONE (407) 898-7858
FAX (407) 898-1488

SECTION 01 TOWNSHIP 18, RANGE 30, VOLUSIA COUNTY, FLORIDA

SHEET INDEX

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Sean Fortier
2023.10.18
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THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SEAN C. FORTIER, P.E. ON THE DATE AND TIME STAMP SHOWN USING A DIGITAL SIGNATURE.

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SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

REVISIONS:

DATE	DESCRIPTION

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-1.0

FORD 472 SUBDIVISION VOLUSIA COUNTY, FL

EROSION CONTROL:

1. GENERAL: CONTRACTOR SHALL INSTALL ANY ADDITIONAL EROSION CONTROL WHEN NECESSARY IN ORDER TO MEET STATE AND LOCAL STANDARDS.
2. EXISTING SYSTEMS: CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. CONFLICTS: CONTRACTOR SHALL COORDINATE ALL UTILITY CROSSINGS AND ADDRESS CONFLICTS PRIOR TO BEGINNING WORK IN A GIVEN AREA(S).
4. STABILIZATION:
   A. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER, AND REGULATORY AGENCIES.
   B. AREAS DISTURBED THAT WILL NOT BE IMPROVED FOR A PERIOD OF 30 DAYS OR MORE SHALL RECEIVE TEMPORARY STABILIZATION AS DEEMED NECESSARY BY THE MUNICIPAL INSPECTOR.
5. BMPs:
   A. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES BMP TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
   B. WITH UTILIZING CONSTRUCTION PHASES, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ON-SITE BMPs AS DEEMED NECESSARY AND SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
   C. ALL BMPs SHALL BE CLEANED OF SEDIMENT WHEN 50% OR LESS OF BMP IS REACHED.
   D. ALL BMPs SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE MUNICIPAL INSPECTOR ALLOWS REMOVAL.
   E. APPROPRIATE BMPs MUST BE IMPLEMENTED TO ENSURE THAT DISCHARGES DO NOT EXCEED SURFACE WATER QUALITY STANDARDS PER THE FDEP CONSTRUCTION GENERIC PERMIT (CGP). IF DEWATERING DEPOSITS OR INTO A COUNTY MS4, TURBIDITY MUST BE MONITORED TO ENSURE THAT DISCHARGES DO NOT EXCEED 29 NTU OVER BACKGROUND PER 62-302.530 FAC. REFER TO THE DEWATERING REQUIREMENTS IN 62-621.300(4)(a) CONSTRUCTION GENERIC PERMIT OR 62-621.300(2)(a) DEWATERING GENERIC PERMIT AS APPLICABLE.
   F. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAIN EVENT OF 1/2" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REVEGETATING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED SHALL BE REQUIRED.
   G. CONTRACTOR SHALL INSPECT BMPs AT END OF EACH WORKING DAY.
   H. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.
   I. BMPs USED ON SITE MUST MEET THE MINIMUM SPECIFICATIONS IN THE 2013 STATE OF FLORIDA E&SC DESIGNER AND REVIEWER MANUAL.
6. MULCH:
   A. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER.
   B. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
7. ENTRANCE/EXIT:
   A. CONSTRUCTION ENTRANCE SHALL BE GRADED SO THAT NO SEDIMENTS LEAVE THE SITE.
   B. ALL EMPLOYEES, SUBCONTRACTORS, AND SUPPLIERS SHALL UTILIZE CONSTRUCTION ACCESS.
   C. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT ONE LOCATION.
   D. ALL EXIT LOCATIONS INTENDED SHALL BE USED CONTINUOUSLY AND FOR A PERIOD OF TIME SHALL HAVE STABILIZED CONSTRUCTION ENTRANCE/EXIT BMPs (TC-1 "STABILIZED CONSTRUCTION ENTRANCE/EXIT" OR TC-2 "ENTRANCE/OUTLET TIRE WASH").
8. INSPECT ROUTINELY FOR DAMAGE AND ASSESS EFFECTIVENESS OF THE BMP. REMOVE AGGREGATE, SEPARATE AND DISPOSE OF SEDIMENT IF CONSTRUCTION ENTRANCE/EXIT IS CLOGGED NO MORE THAN 50% WITH SEDIMENT.
   F. IF APPLICABLE, ROUTE RUNOFF FROM STABILIZED ENTRANCES THROUGH A SEDIMENT TRAPPING DEVICE BEFORE DISCHARGE.
8. INLETS:
   G. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND, AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED BY CONTRACTOR.
   H. PROVIDE GEOHAY HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AND PROVIDE FILTER FABRIC UNDER THE GRATE OF ALL DITCH BOTTOM INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
9. DAILY:
   A. CONSTRUCTION SITE SHALL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". A RAIN GAUGE SHALL BE ON SITE TO MEASURE THE FALL AMOUNTS.
   B. THE ADJACENT STREETS SHALL BE SWEPT AT THE END OF EACH DAY OF DIRT FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL IMPLEMENT STREET SWEEPING AND VACUUMING AS NEEDED. CLEAN DIRT FROM ROADWAYS DAILY.
   C. CONSTRUCTION SITE SHALL BE CLEANED OF LITTER AND TRASH EACH DAY AND DISPOSED OF OFF-SITE.
   D. INSPECT ALL SEDIMENT CONTROL DEVICES FOR DAMAGE DAILY AND REPAIRS AS NEEDED.
   E. CONTRACTOR SHALL EMPLOY SAFETY AND ROADWAY ENTRY AND EXIT PLANS ON A DAILY/WEEKLY BASIS.
   F. HUMAN WASTEWATER SHALL BE COLLECTED ON-SITE BY THE USE OF TEMPORARY SANITARY SERVICE.
10. SILT FENCE:
   A. SILT FENCE SHALL BE IN PLACE AS SHOWN PRIOR TO CONSTRUCTION.
   B. PRIOR TO CONSTRUCTION, SILT FENCE SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL.
   C. SILT FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. SOD: ALL DISTURBED AREAS SHALL BE SODDED EXCEPT AS SHOWN ON PLAN. ALL SOD IN RIGHT OF WAY SHALL BE ARGENTINE BAHIA. ALL SLOPES 4:1 OR GREATER SHALL BE SODDED.
12. STOCKPILES: SHALL BE ENCOMPASSED WITH SILT FENCE, SHALL NOT EXCEED 35' IN HEIGHT, AND SHALL NOT BE LOCATED NEAR SITE PERIMETER. LOCATION AND SLOPE SHALL BE APPROVED BY MUNICIPAL INSPECTOR AND OTHER JURISDICTIONAL AUTHORITIES AS REQUIRED.
13. TOXIC SUBSTANCES: ALL TOXIC SUBSTANCES (IF ANY) BROUGHT ON-SITE SHALL BE HANDLED AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STANDARDS. ALL SUBSTANCES THAT MAY BE CONSIDERED TOXIC SHALL ALSO BE HANDLED AND STORED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS AND STANDARDS.
14. DRAINAGE/GRADE: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER; FINAL CONTROL OF SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE; AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. GRAVEL LAYER: GRAVEL LAYER SHALL BE 12" MIN THICK AND PLACED OVER GEOTEXTILE MAT.
16. SPEED: TRUCK SPEED TO BE REDUCED TO CONTROL DUST.
17. DITCHES: KEEP ALL TEMPORARY ROADWAY DITCHES CLEAR.
18. WATER DOWN: CONTRACTOR TO WATER DOWN AREAS WHEN AND WHERE DISTURBED SOIL IS RAISING AND BECOMING AIRBORNE IN ORDER TO SETTLE IT. PERMIT AS NEEDED.
19. SEDIMENT BASIN: LARGE SITES MAY REQUIRE A TEMPORARY SEDIMENT BASIN. CONTRACTOR SHALL DETERMINE LOCATION. TEMPORARY SEDIMENT BASIN SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
20. STORMWATER DISCHARGE: CONTRACTOR TO ABIDE BY ALL PROVISIONS OF THE FDEP GENERAL PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.
21. DUST ABATEMENT: CONTRACTOR TO PROVIDE A DUST ABATEMENT PLAN INCLUDING A 6-FOOT HIGH SCREEN FENCE ALONG ALL PROPERTY LINES.

DEMOLITION NOTES:

1. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
2. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
3. THIS PLAN IS TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS. DO NOT REMOVE ANY ITEMS WITHOUT VERIFYING AND COORDINATING WITH ALL GENERAL TRADES AS TO HOW THEY RELATE TO THE OVERALL PROJECT.
4. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTIONS OF ACCIDENTS.
5. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORTS, INSULATIONS, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.

CONTRACTOR CERTIFICATION:

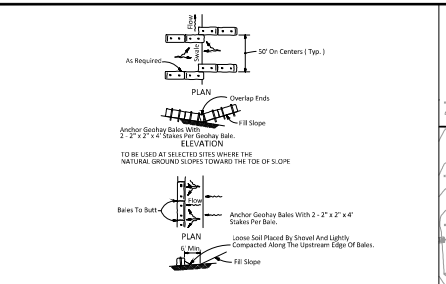
"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PLAN THEREUNDER."

NAME: TITLE:

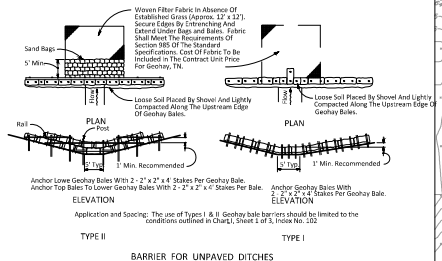
CONTRACTING FIRM: ADDRESS:

TELEPHONE #: DATE:

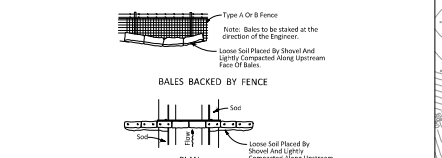
THIS SOIL EROSION/SEDIMENT CONTROL & DUST ABATEMENT PLAN IS FOR THE PURPOSE OF SHOWING INTENTION OF METHOD TO CONTROL STORM WATER RUNOFF & DUST DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL ADJUST AND/OR ADD BMP'S BASED ON SPECIFIC SITE CONDITIONS & CONSTRUCTION ACTIVITY SATISFYING NPDES REQUIREMENTS. CONTRACTOR TO OBTAIN GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)



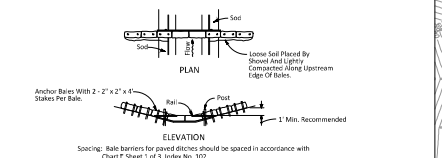
BARRIERS FOR FILL SLOPES



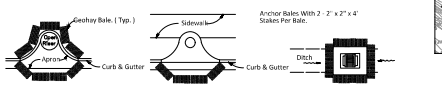
BARRIER FOR UNPAVED DITCHES



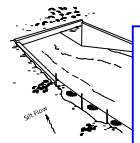
BALES BACKED BY FENCE



BARRIER FOR PAVED DITCH

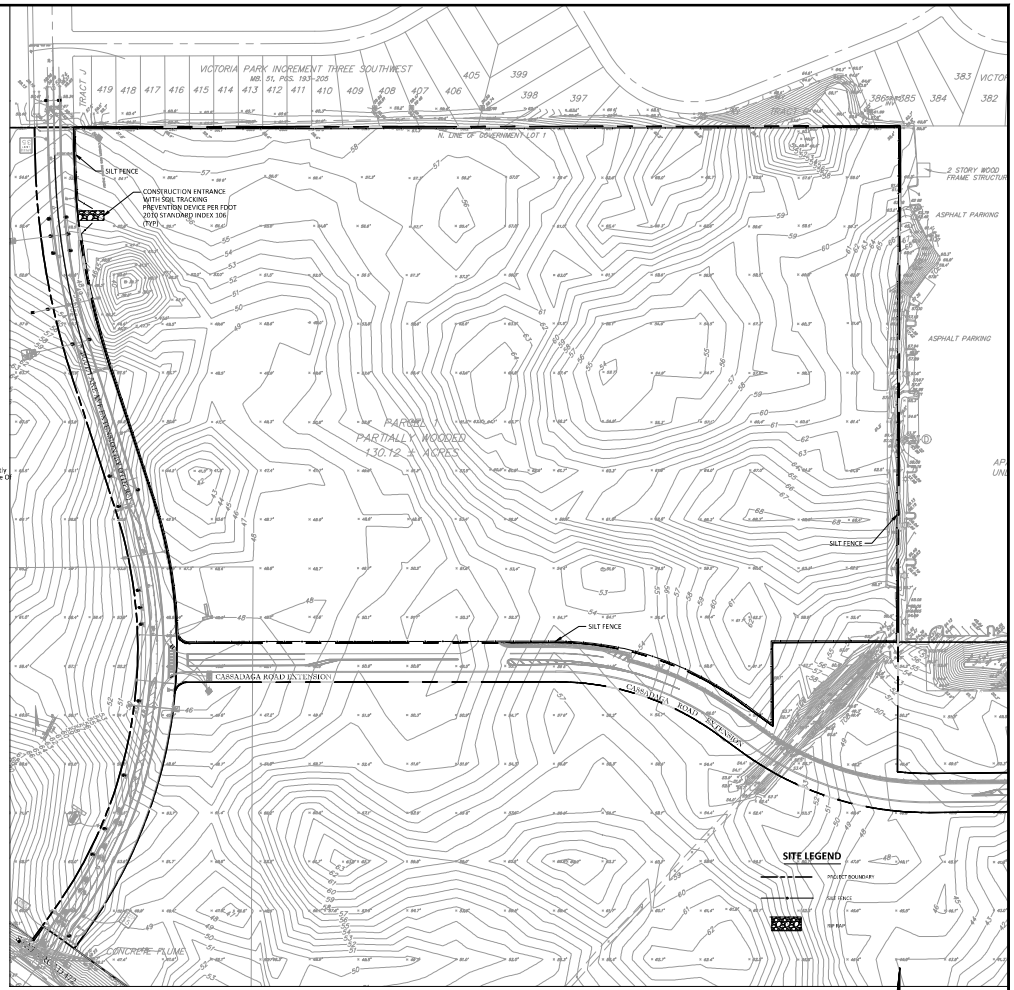


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

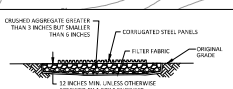


LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

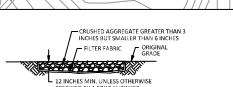
11/27/2023
Planning & Land Development Director



NOTE:
SILT FENCE SHOWN FOR SCHEMATIC PURPOSES ONLY. SILT FENCE SHOULD BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET.



SECTION A-A
NTS

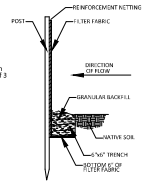


SECTION B-B
NTS

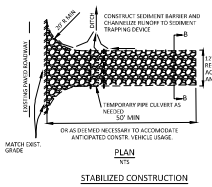
GRAPHIC SCALE



(IN FEET)
1 inch = 150 ft.

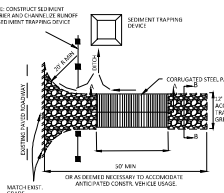


SILT BARRIER DETAIL
N.T.S.



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1)



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 2)

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 29990
LICENSED No. 56018
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #56018
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1776 NORTH GRANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-1900 FAX (407) 896-1488

REVISION | DATE

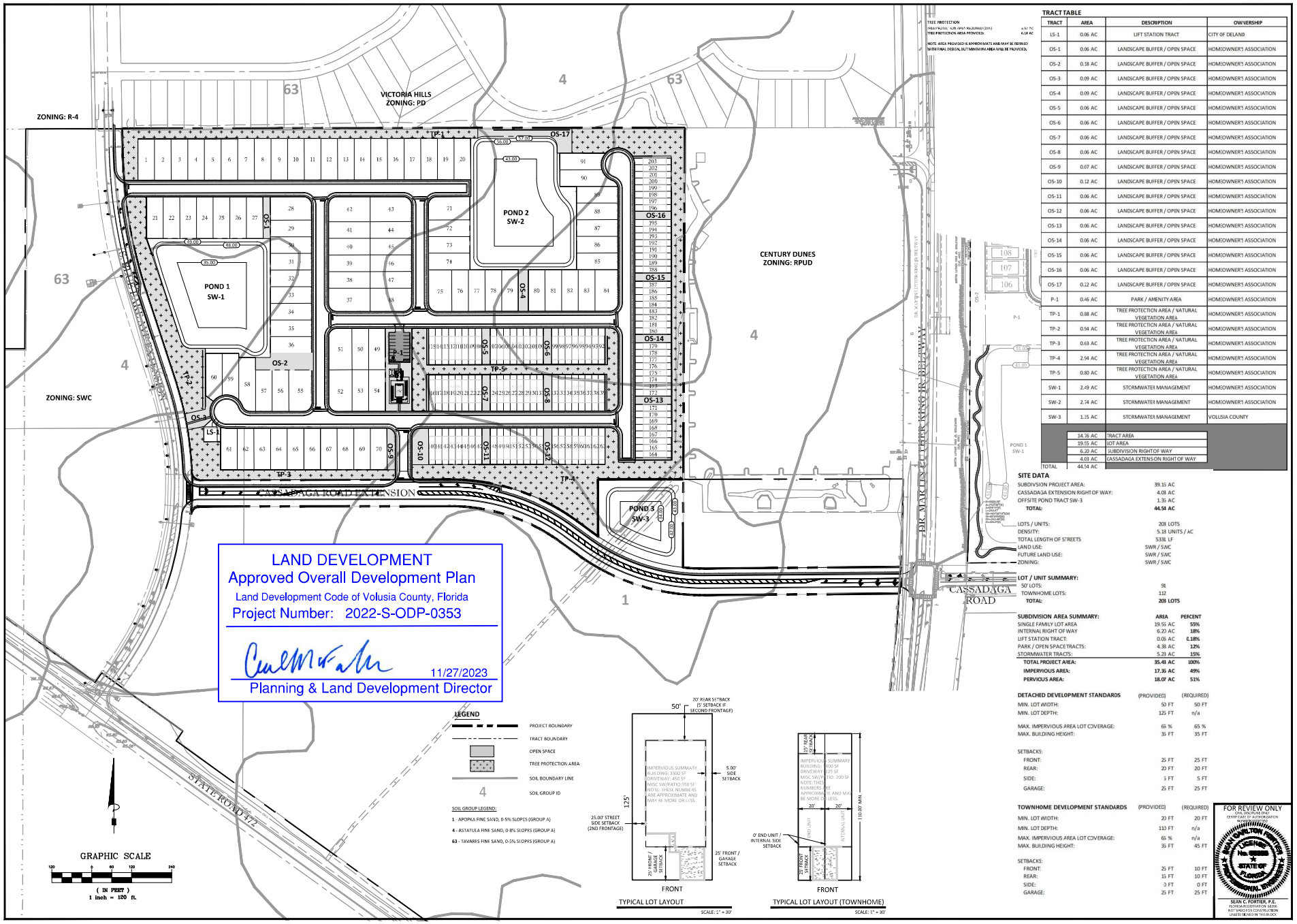
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

EROSION CONTROL & TREE REMOVAL-PROTECTION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
EC-1.0



TREE PROTECTION
TREE PROTECTION REQUIRED (15%) 6.97 AC
TREE PROTECTION AREA PROVIDED: 6.18 AC

NOTE: AREA PROVIDED IS APPROXIMATE AND MAY BE REVISED WITH FINAL DESIGN, BUT MINIMUM AREA WILL BE PROVIDED.

TRACT TABLE

TRACT	AREA	DESCRIPTION	OWNERSHIP
LS-1	0.06 AC	LIFT STATION TRACT	CITY OF DELAND
OS-1	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-2	0.18 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-3	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-4	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-5	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-6	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-7	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-8	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-9	0.07 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-10	0.12 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-11	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-12	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-13	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-14	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-15	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-16	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-17	0.22 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
P-1	0.46 AC	PARK / AMENITY AREA	HOMEOWNER'S ASSOCIATION
TP-1	0.88 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-2	0.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-3	0.63 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-4	2.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-5	0.80 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
SW-1	2.49 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-2	2.74 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-3	1.35 AC	STORMWATER MANAGEMENT	VOLUSIA COUNTY
	14.76 AC	TRACT AREA	
	19.55 AC	LOT AREA	
	6.20 AC	SUBDIVISION RIGHT OF WAY	
	4.03 AC	CASSADAGA EXTENSION RIGHT OF WAY	
TOTAL	44.54 AC		

SITE DATA

SUBDIVISION PROJECT AREA:	39.15 AC
CASSADAGA EXTENSION RIGHT OF WAY:	4.03 AC
OFFSITE POND TRACT SW-3	1.35 AC
TOTAL:	**44.54 AC**
LOTS / UNITS:	208 LOTS
DENSITY:	5.18 UNITS / AC
TOTAL LENGTH OF STREETS	5331 LF
LAND USE:	SWR / SWC
FUTURE LAND USE:	SWR / SWC
ZONING:	SWR / SWC

LOT / UNIT SUMMARY:

50' LOTS:	96
TOWNHOME LOTS:	112
TOTAL:	**208 LOTS**

SUBDIVISION AREA SUMMARY:	AREA	PERCENT
SINGLE FAMILY LOT AREA	19.55 AC	55%
INTERNAL RIGHT OF WAY	6.20 AC	18%
LIFT STATION TRACT:	0.06 AC	0.18%
PARK / OPEN SPACE TRACTS:	4.38 AC	12%
STORMWATER TRACTS:	5.23 AC	15%
TOTAL PROJECT AREA:	**35.43 AC**	**100%**
IMPERVIOUS AREA:	**17.35 AC**	**49%**
PERVIOUS AREA:	**18.07 AC**	**51%**

DETACHED DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	50 FT	50 FT
MIN. LOT DEPTH:	125 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	65 %
MAX. BUILDING HEIGHT:	35 FT	35 FT
SETBACKS:		
FRONT:	25 FT	25 FT
REAR:	20 FT	20 FT
SIDE:	5 FT	5 FT
GARAGE:	25 FT	25 FT

TOWNHOME DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	20 FT	20 FT
MIN. LOT DEPTH:	110 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	n/a
MAX. BUILDING HEIGHT:	35 FT	45 FT
SETBACKS:		
FRONT:	25 FT	10 FT
REAR:	15 FT	10 FT
SIDE:	0 FT	0 FT
GARAGE:	25 FT	25 FT

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER 27194
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #65196
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

REVISION
DATE

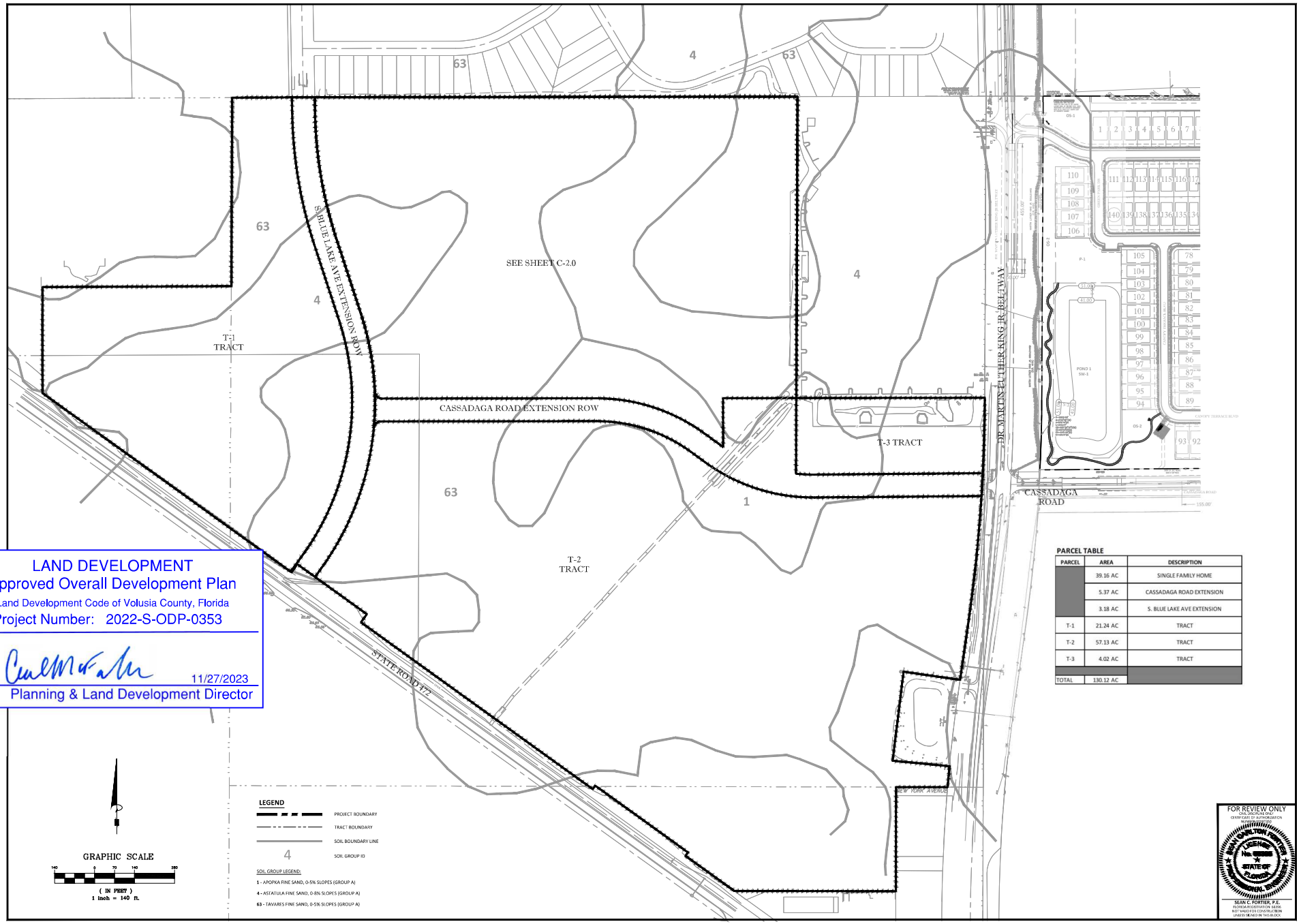
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

OVERALL PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-2.0



LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

PARCEL TABLE

PARCEL	AREA	DESCRIPTION
	39.16 AC	SINGLE FAMILY HOME
	5.37 AC	CASSADAGA ROAD EXTENSION
	3.18 AC	S. BLUE LAKE AVE EXTENSION
T-1	21.24 AC	TRACT
T-2	57.13 AC	TRACT
T-3	4.02 AC	TRACT
TOTAL	130.12 AC	

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CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER 35869
SEAN C. FORTIER
No. 58869
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #58869
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UNLESS SIGNED IN THIS BLOCK

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ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

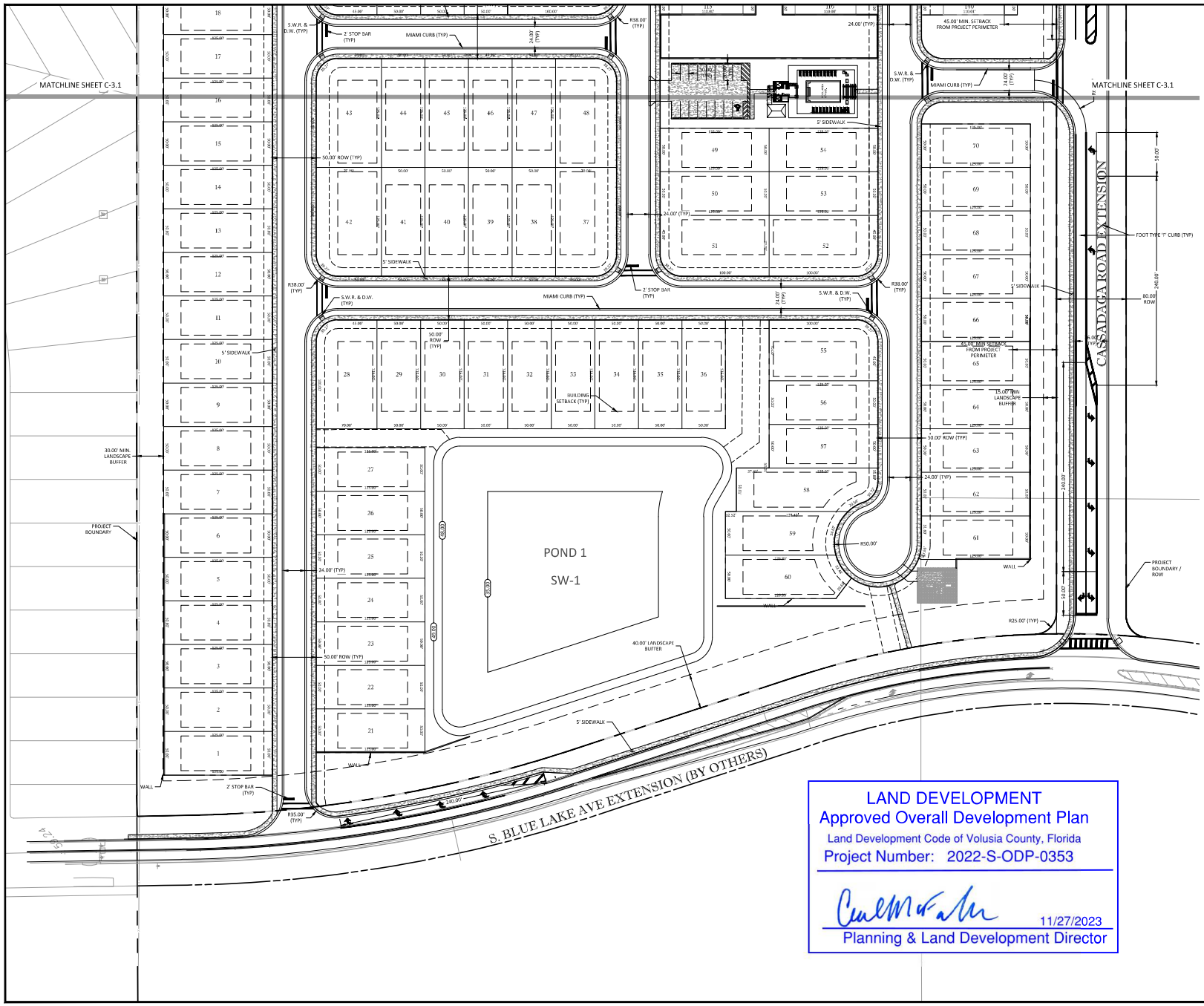
REVISION
DATE

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

OVERALL PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023
SHEET
C-2.1



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ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

REVISION
DATE

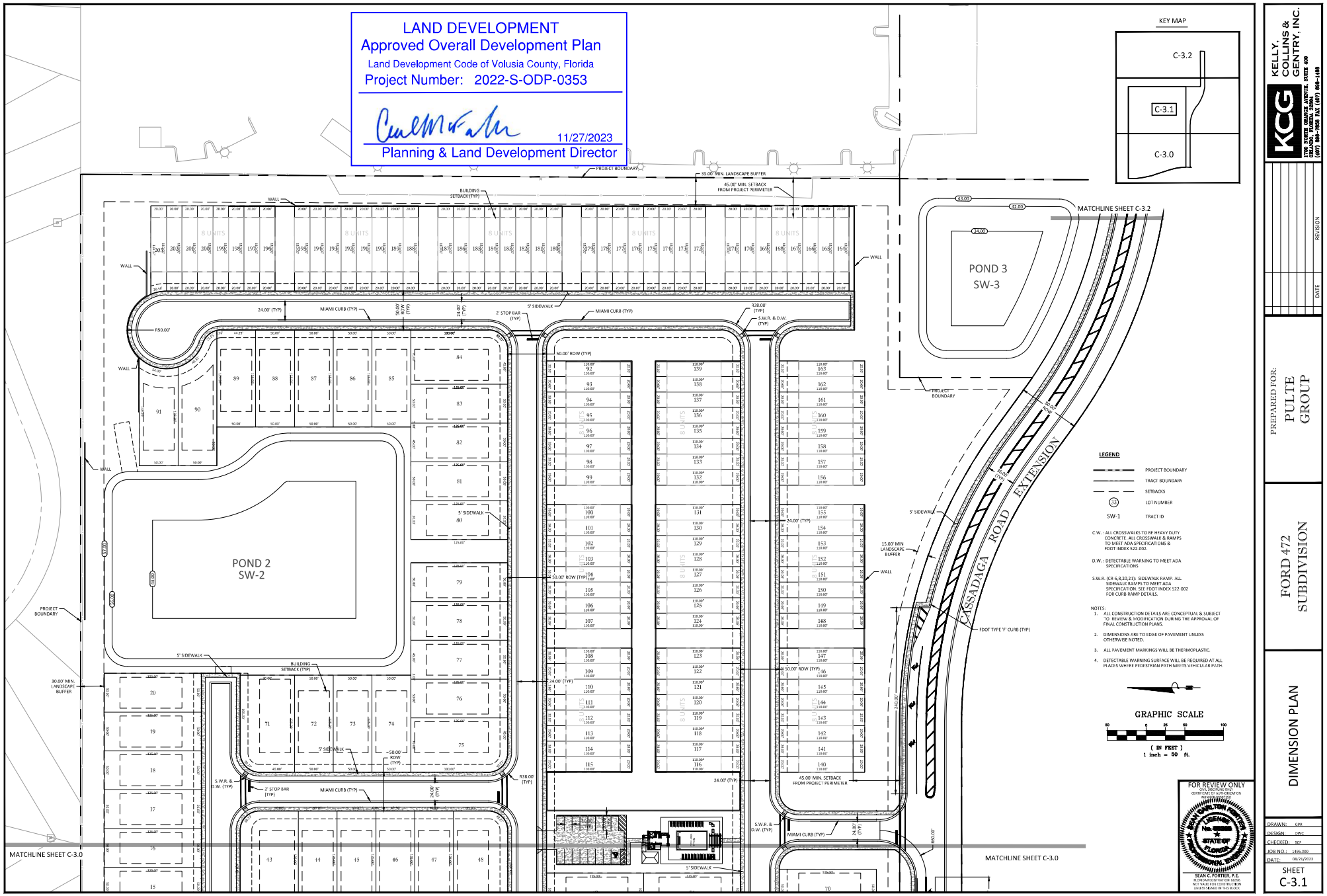
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-3.0


LAND DEVELOPMENT
Approved Overall Development Plan
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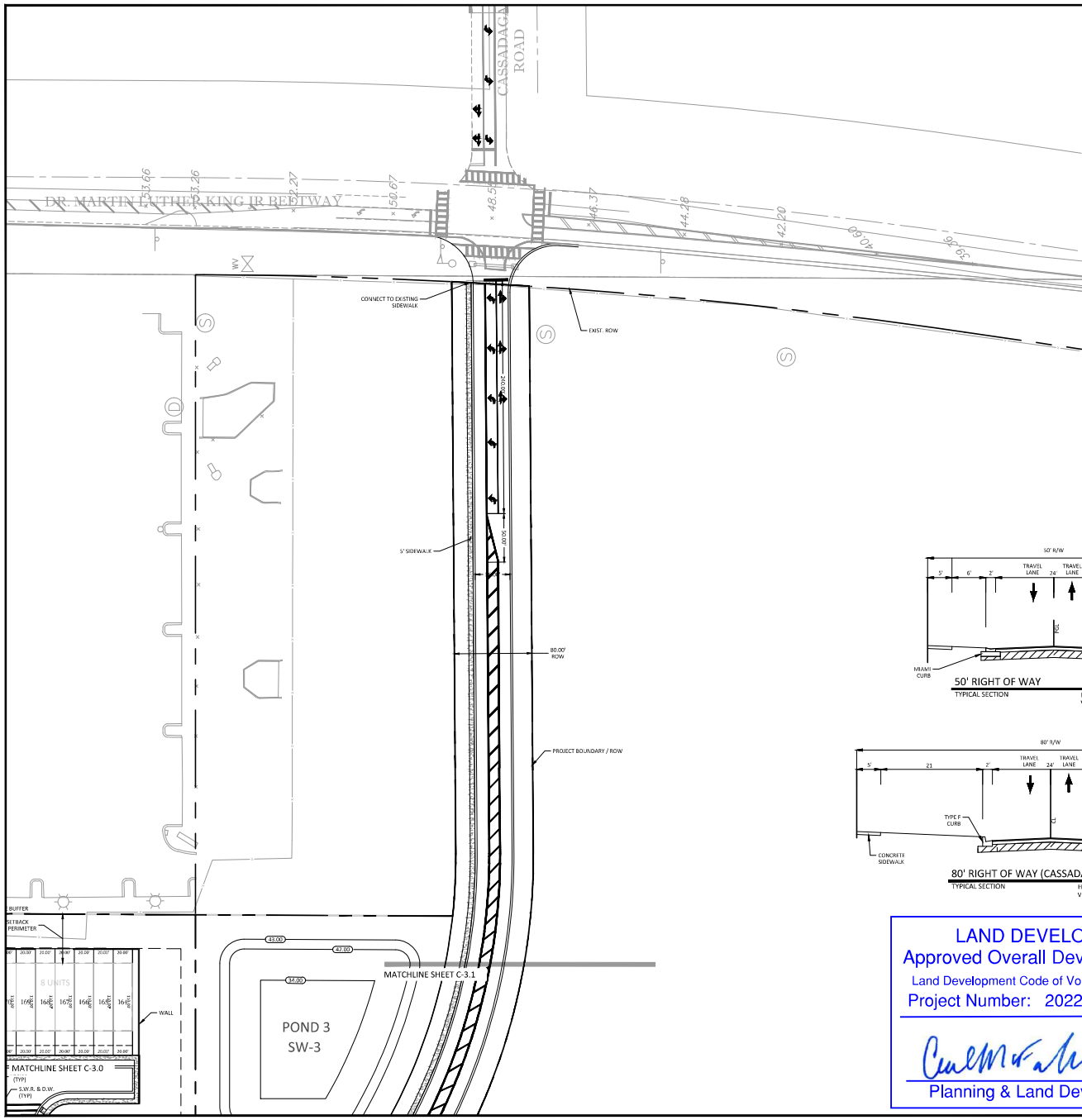
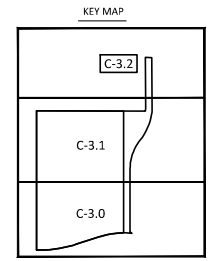
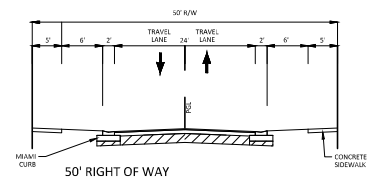
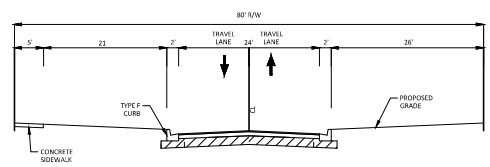
Project Number: 2022-S-ODP-0353
11/27/2023
Planning & Land Development Director
KEY MAP
C-3.2
C-3.1
C-3.0
POND 2
SW-2
POND 3
SW-3
CASSADAGA ROAD EXTENSION
MATCHLINE SHEET C-3.2
MATCHLINE SHEET C-3.0
LEGEND
PROJECT BOUNDARY
TRACT BOUNDARY
SETBACKS
LOT NUMBER
SW-1 TRACT ID
C.W. : ALL CROSSWALKS TO BE HEAVY DUTY CONCRETE. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522.002.
D.W. : DETECTABLE WARNING TO MEET ADA SPECIFICATIONS
S.W.R. (CR-6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522.002 FOR CURB RAMP DETAILS.
NOTES:
1. ALL CONSTRUCTION DETAILS ARE CONCEPTUAL & SUBJECT TO REVIEW & MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.
2. DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. ALL PAVEMENT MARKINGS WILL BE THERMOPLASTIC.
4. DETECTABLE WARNING SURFACE WILL BE REQUIRED AT ALL PLACES WHERE PEDESTRIAN PATH MEETS VEHICULAR PATH.
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
FOR REVIEW ONLY
SEAN C. FORTIER, P.E.
KELLY, COLLINS & GENTRY, INC.
PREPARED FOR:
PULTE GROUP
FORD 472 SUBDIVISION
DIMENSION PLAN
DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023
SHEET
C-3.1







50' RIGHT OF WAY
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



80' RIGHT OF WAY (CASSADAGA EXTENSION)
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

LEGEND

- PROJECT BOUNDARY
- TRACT BOUNDARY
- SETBACKS
- 33 LOT NUMBER
- SW-1 TRACT ID

C.W. : ALL CROSSWALKS TO BE HEAVY DUTY CONCRETE. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

D.W. : DETECTABLE WARNING TO MEET ADA SPECIFICATIONS

S.W.R. (CR 6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522-002 FOR CURB RAMP DETAILS.

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4. DETECTABLE WARNING SURFACE WILL BE REQUIRED AT ALL PLACES WHERE PEDESTRIAN PATH MEETS VEHICULAR PATH.

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

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CERTIFICATE OF AUTHORIZATION
NO. 00000000

SEAN CARLTON FORTIER
LICENSE No. 65355
STATE OF FLORIDA
PROFESSIONAL ENGINEER

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 65355
NOT VALID FOR CONSTRUCTION
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KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

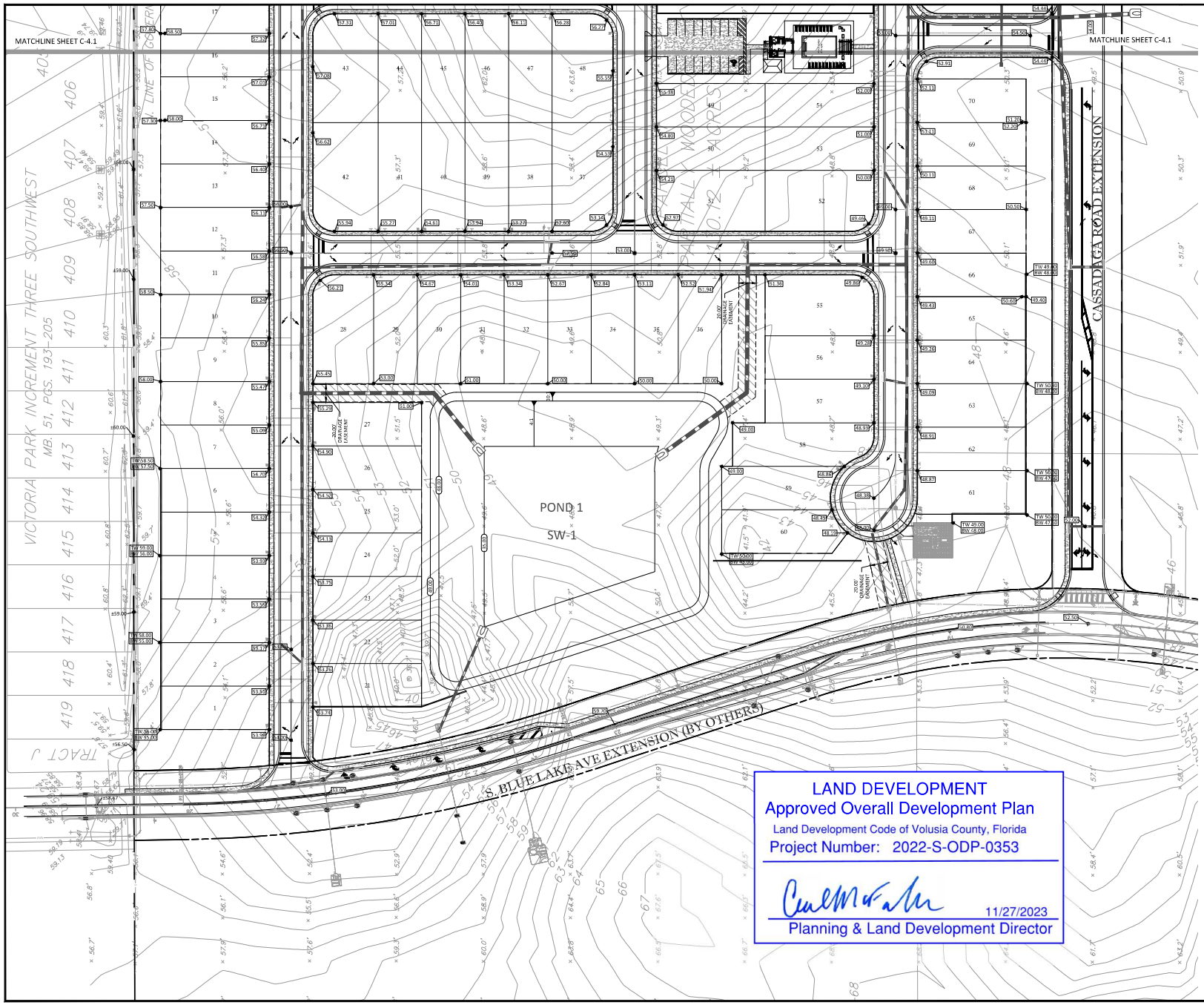
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

DIMENSION PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

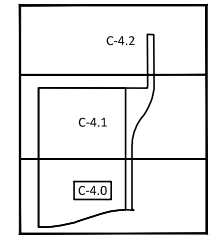
SHEET
C-3.2



LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- 71 PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
ALL CONSTRUCTION DETAILS ARE CONCEPTUAL & SUBJECT TO REVIEW & MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

FOR REVIEW ONLY
ONLY DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NO. 00000000

SEAN CARLTON FORTIER
LICENSE No. 65355
STATE OF FLORIDA
PROFESSIONAL ENGINEER

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 65355
NOT VALID FOR CONSTRUCTION
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KCG
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(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

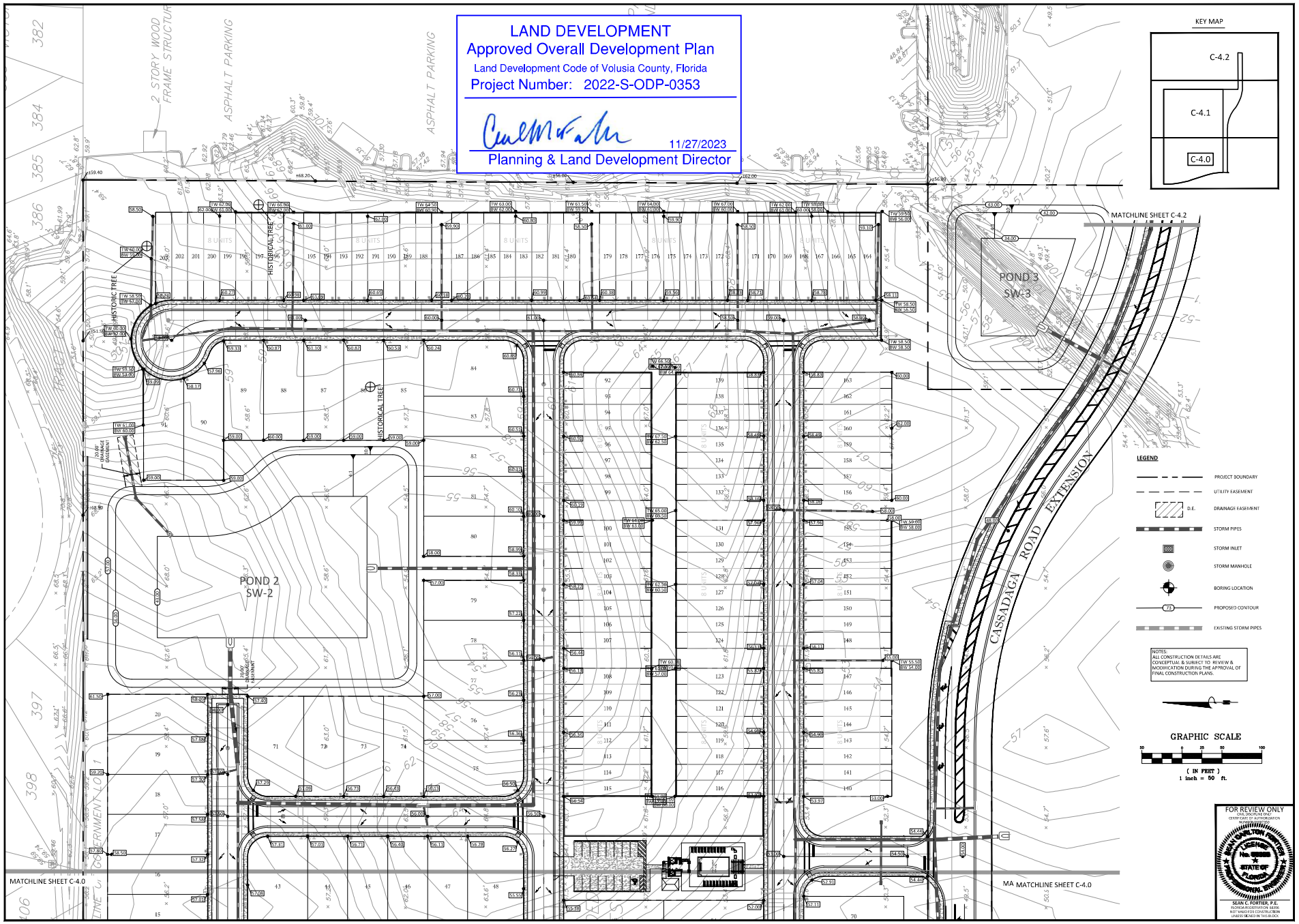
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

PAVING, GRADING, & DRAINAGE PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-4.0



KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1486

REVISION | DATE

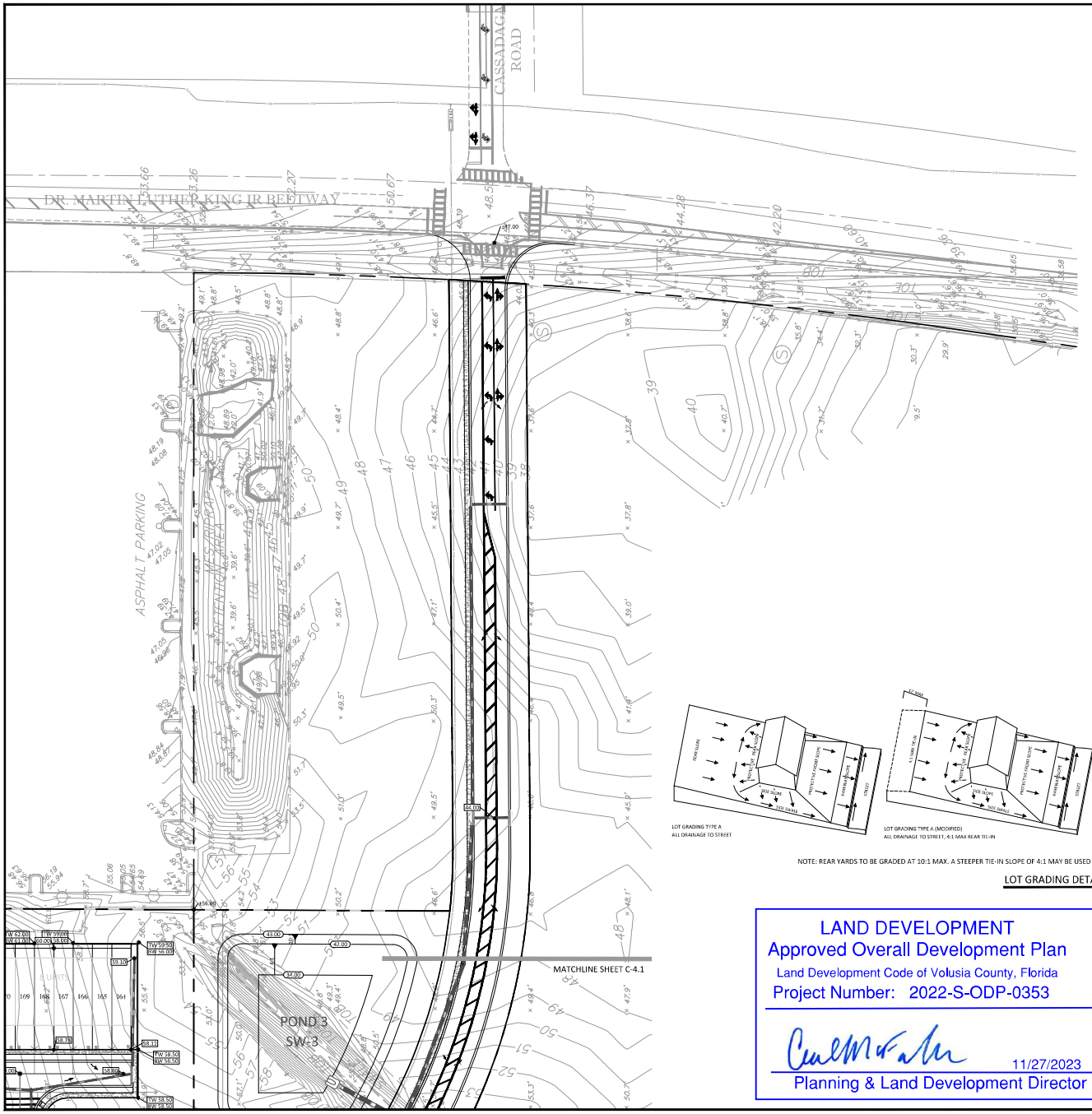
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

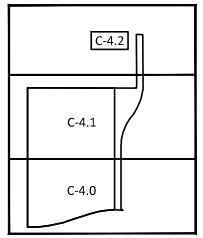
PAVING, GRADING, & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1486.000
DATE: 08/21/2023

SHEET
C-4.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
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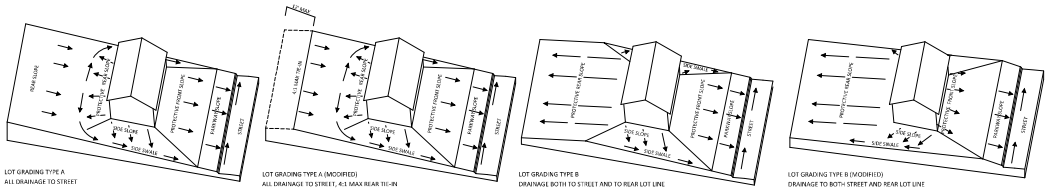

NOTE: REAR YARDS TO BE GRADED AT 10:1 MAX. A STEEPER TIE-IN SLOPE OF 4:1 MAY BE USED WITHIN 12' OF REAR PROPERTY LINE ONLY.

LOT GRADING DETAILS

NTS

LAND DEVELOPMENT
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Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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CERTIFICATE OF AUTHORIZATION
NUMBER 29000
LICENSED
No. 57888
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #57888
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-1700 FAX (407) 896-1468

REVISION
DATE

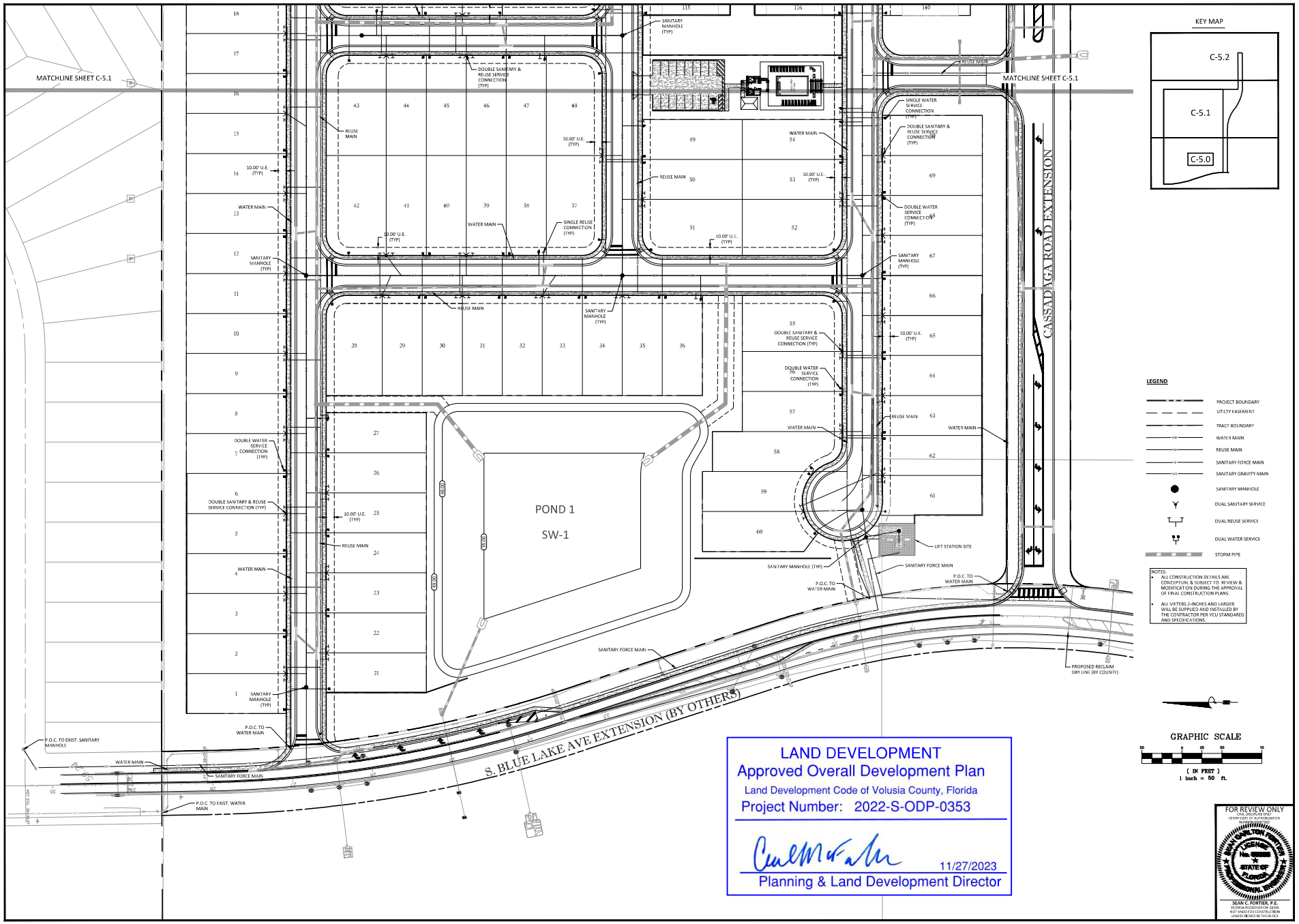
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

PAVING, GRADING & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1490.000
DATE: 08/21/2023

SHEET
C-4.2



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(407) 586-7800 FAX (407) 896-1486

REVISION
DATE

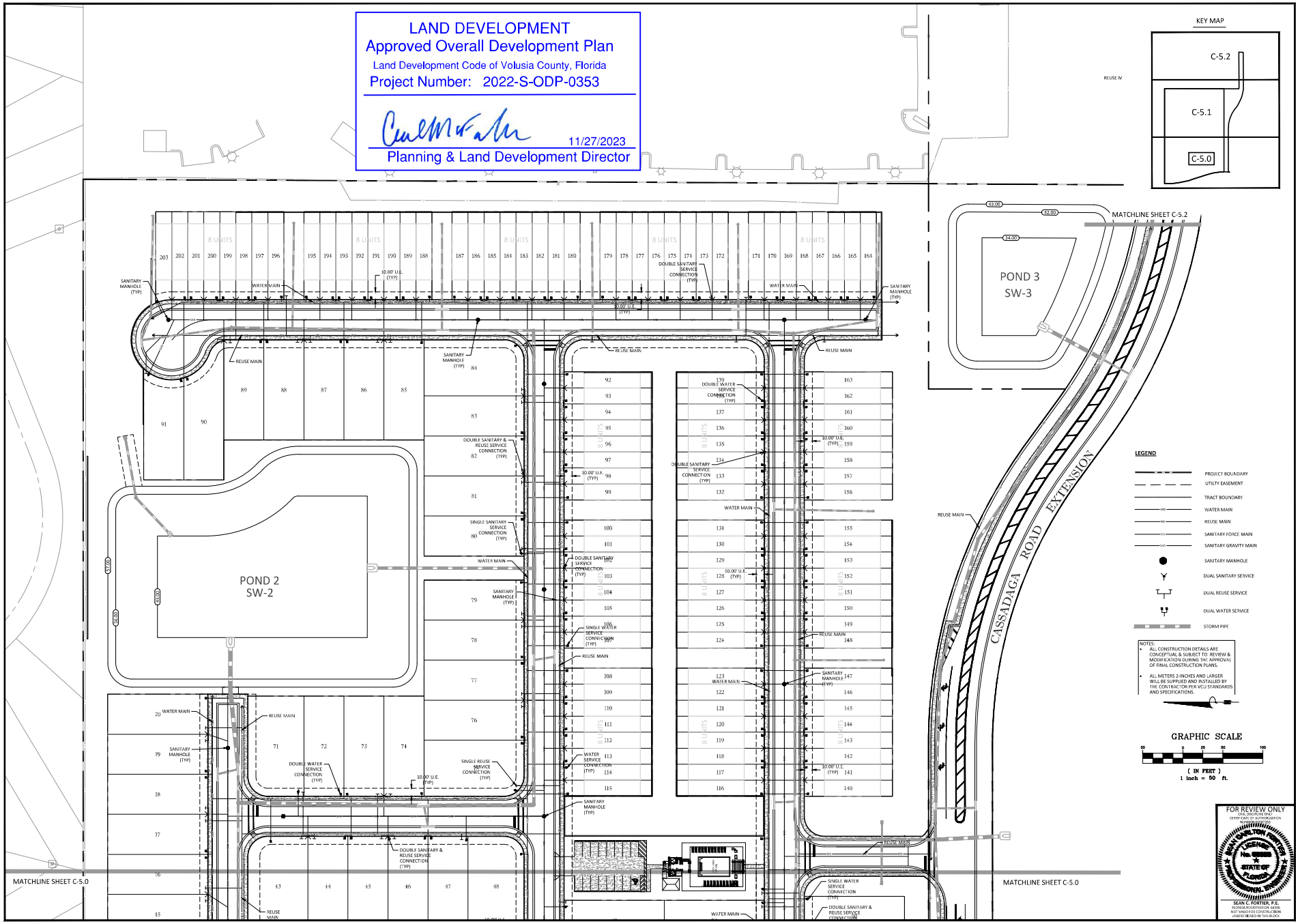
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

UTILITY PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-5.0


LAND DEVELOPMENT
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11/27/2023
Planning & Land Development Director
KEY MAP
C-5.2
C-5.1
C-5.0
POND 3
SW-3
POND 2
SW-2
CASSADAGA ROAD EXTENSION
MATCHLINE SHEET C-5.2
MATCHLINE SHEET C-5.0
LEGEND
PROJECT BOUNDARY
UTILTY EASEMENT
TRACT BOUNDARY
WATER MAIN
REUSE MAIN
SANITARY FORCE MAIN
SANITARY GRAVITY MAIN
SANITARY MANHOLE
DUAL SANITARY SERVICE
DUAL REUSE SERVICE
DUAL WATER SERVICE
STORM PIPE
NOTES:
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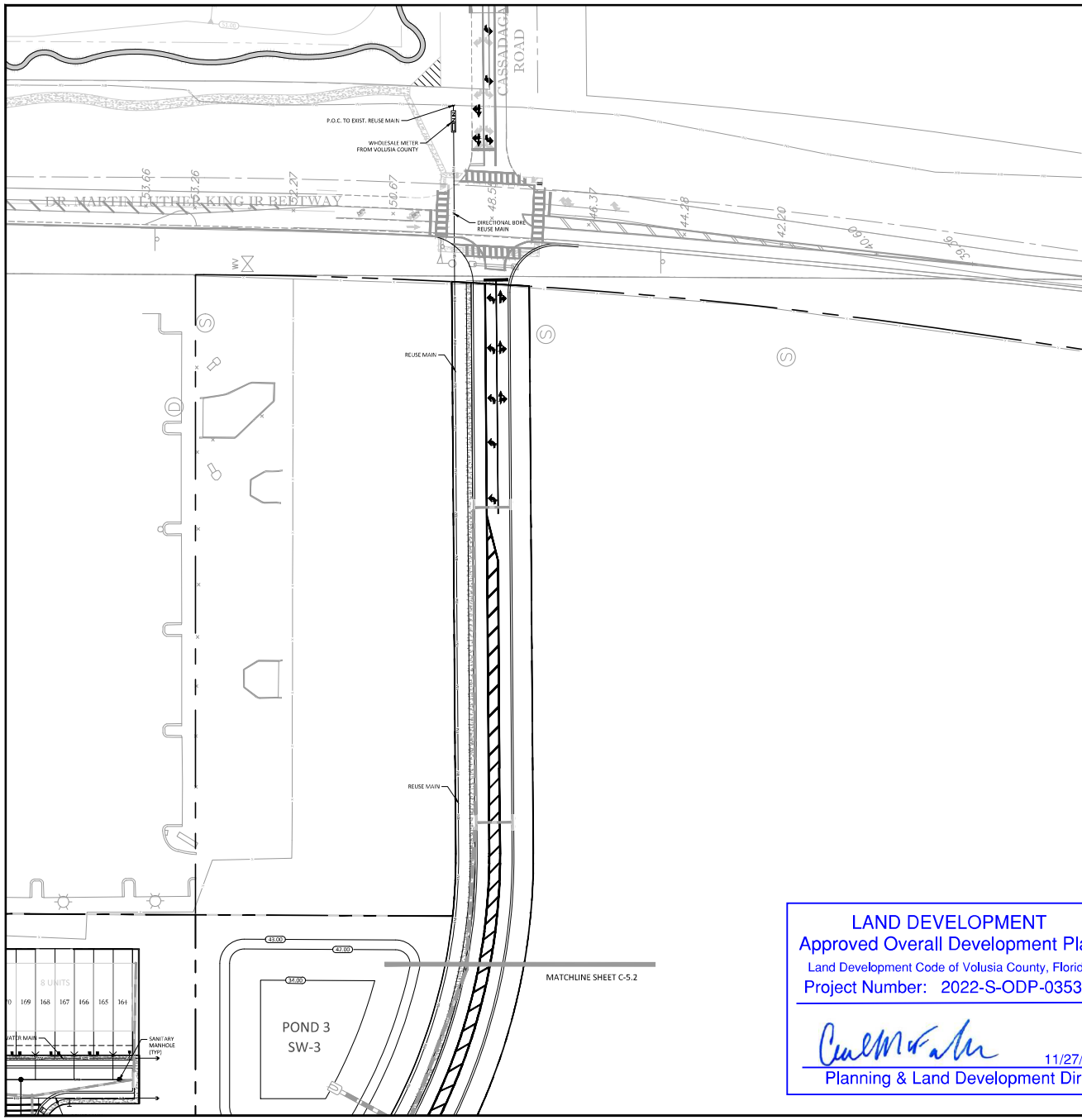
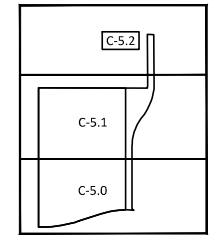
ALL METERS 2-INCHES AND LARGER WILL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR PER VCU STANDARDS AND SPECIFICATIONS.
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
FOR REVIEW ONLY
SEAN C. FORTIER, P.E.
KELLY, COLLINS & GENTRY, INC.
PREPARED FOR:
PULTE GROUP
FORD 472 SUBDIVISION
UTILITY PLAN
DRAWN:
DESIGN:
CHECKED:
JOB NO.:
DATE:
SHEET
C-5.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILTY EASEMENT
- TRACT BOUNDARY
- WATER MAIN
- REUSE MAIN
- SANITARY FORCE MAIN
- SANITARY GRAVITY MAIN
- SANITARY MANHOLE
- DUAL SANITARY SERVICE
- DUAL REUSE SERVICE
- DUAL WATER SERVICE
- STORM PIPE

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GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
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11/27/2023
Planning & Land Development Director

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CERTIFICATE OF AUTHORIZATION
NOT FOR CONSTRUCTION

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68395
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UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

UTILITY PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-5.2

Appendix C
Study Methodology and Approval

Volusia County
Traffic Engineering

The following proposed development project has an *APPROVED TIA METHODOLOGY:*

Project: **Ford 472**

Date of Approval: **July 18, 2024**

Date of Expiration*: **January 18, 2025**

TIA Approval Required By*: **July 18, 2025**

Conditions:

The respective TIA can now be accepted for review by the county. TIAs must be completed per the River-to-Sea TPO TIA Guidelines, which can be found on the R2CTPO.org website.

Approval Signature: _____

TIA SUBMISSION TO COUNTY:

Two steps are required:

1) Submit the following items through email to Omar Atallah (Oatallah@volusia.org) and William White (Wdwhite@volusia.org)
- *PDF copy of the complete TIA (TIA needs to include completed TIA checklist)*
- *Response to Comments (if resubmitted)*

2) Due size limitations and computer input file incompatibility issues, send the following directly to VCTE by Mail or Delivery:
- *CD or USB drive containing all computer input files*

***REMINDERS:**

- TIA approval needs to be obtained within a year of the approved methodology based on the interpretation of the TPO TIA Guidelines, which state that an approved methodology is valid for up to 6 months and a TIA is valid for up to a year..
- The TIA submitted to support a development plan or use permit cannot be older than one year.
- Advisory: If the applicant waits to submit the TIA or TIA revisions, requested updates to vested trip data, growth rates, traffic count data, etc. are likely to occur. (Example: Applicant submits TIA, receives comments, but doesn't update the TIA and respond to comments until 10 months later.)

Questions about TIAs and TIA methodologies should be addressed to Omar Atallah at Oatallah@volusia.org

MEMORANDUM

June 5, 2024

Re: Ford 472 Subdivision
Traffic Impact Analysis Methodology
City of DeLand, Florida
Project № 21145, v2.1

The following is an outline of the Traffic Impact Analysis (TIA) methodology for the above referenced project. In general, the TIA will conform to the methodology requirements and guidelines documented by the River to Sea Transportation Planning Organization (R2CTPO). The memorandum also addresses Volusia County comments, as detailed in the response to comment letters provided in the **Attachments.**

Project

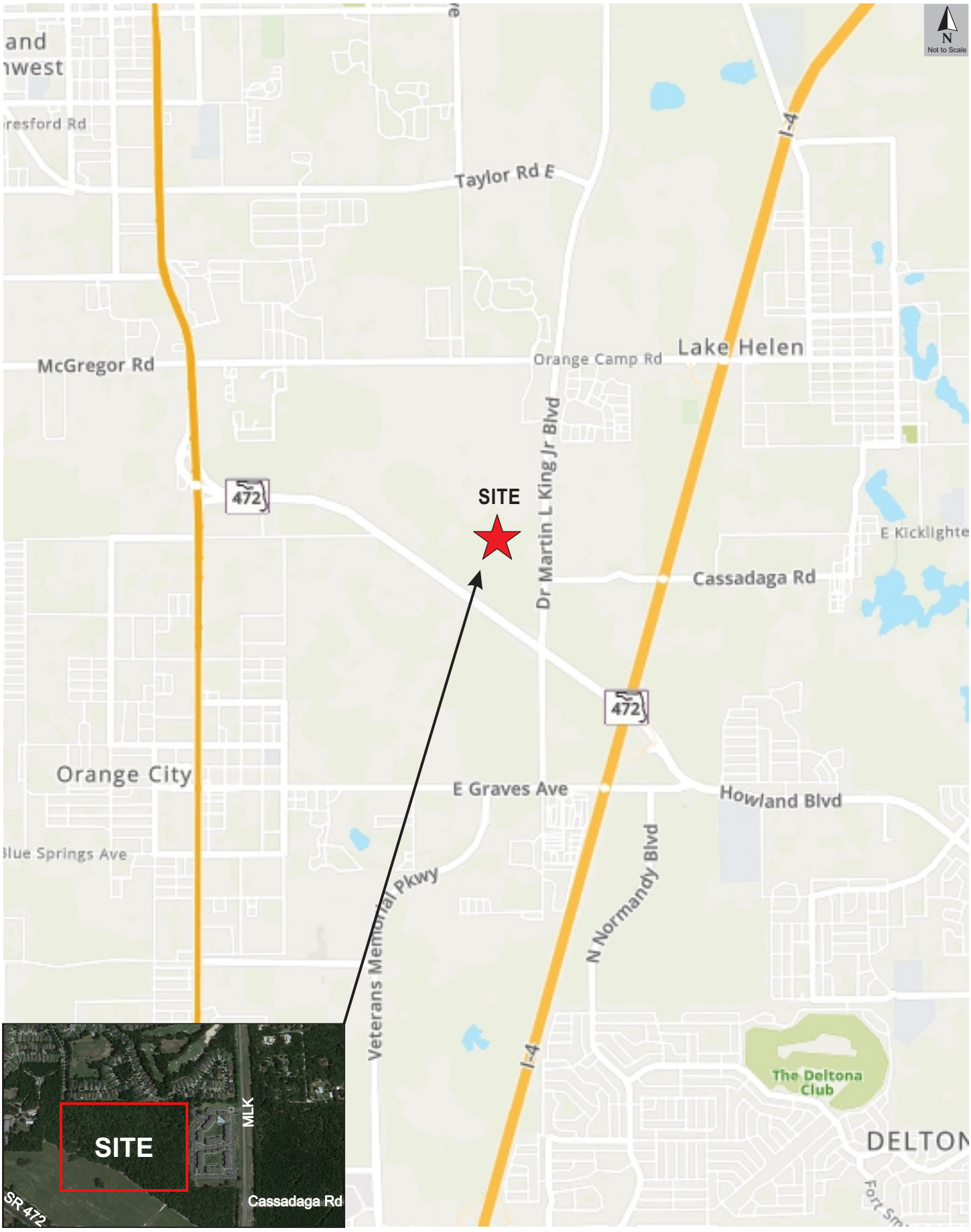
The proposed development consists of 91 single family dwelling units and 112 townhomes with an anticipated buildout year of 2028. The proposed conceptual site plan along with the approved development plan is provided in the **Attachments**. An excerpt of the contract depicting the right to create an easement for Cassadaga Road extension is also provided in the **Attachments**.

Project Location

The site is located west of Dr. Martin Luther King Jr. Beltway (MLK) and north of State Road 472 (SR 472) in the City of DeLand, Florida, as shown in **Figure 1**.

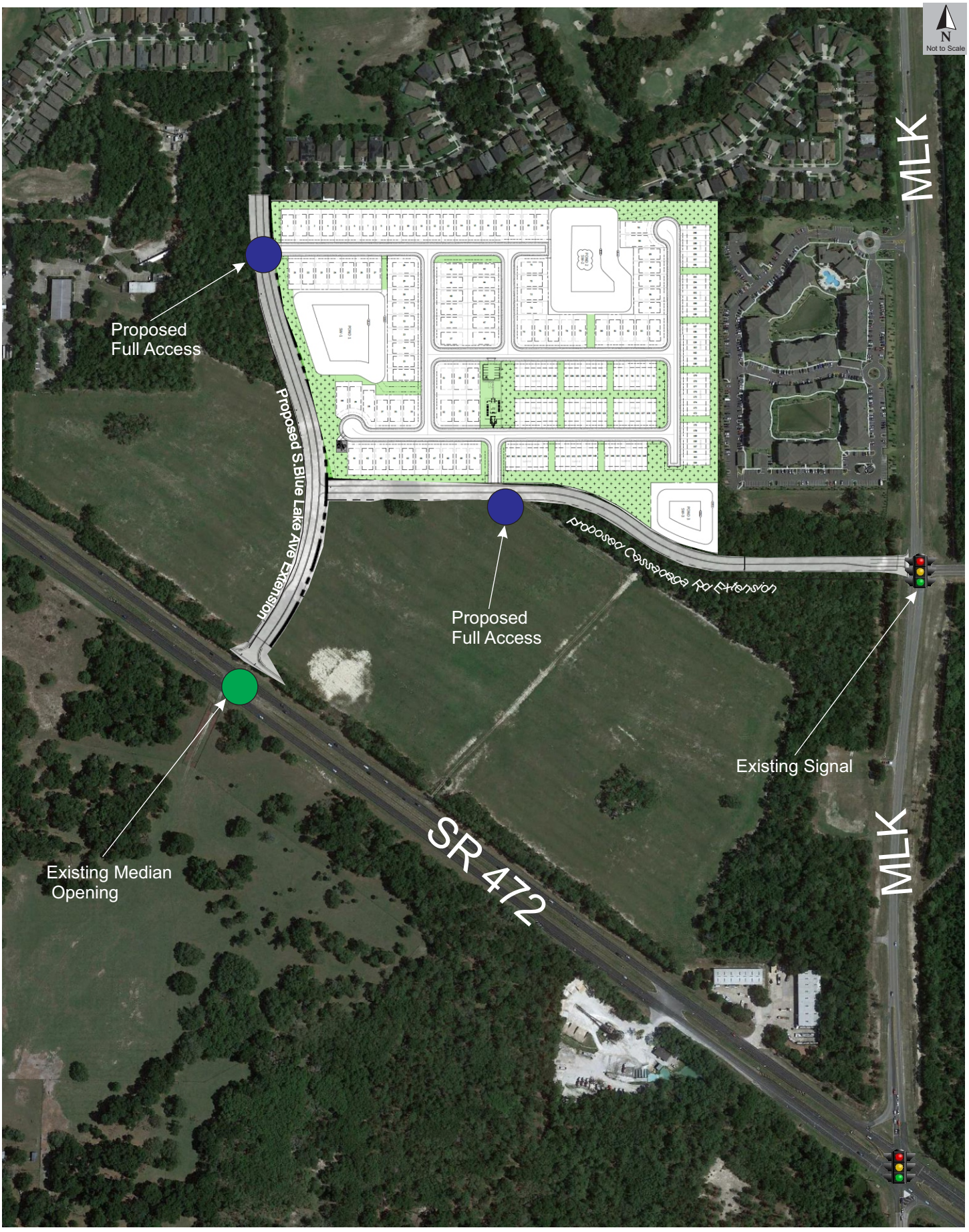
Project Access

The development is proposing to connect to the transportation network by extending Cassadaga Road and South Blue Lake Avenue to connect at SR 472 at an existing full median opening and to MLK at Cassadaga Road. Access to the site is proposed via two (2) full access driveways, one (1) each on Cassadaga Road extension and one (1) on Blue Lake Avenue Extension. The proposed access plan is shown in **Figure 2.**



Site Location Map
Ford 472
21145, v2.1

Figure 1



Proposed Access Plan
Ford 472
21145, v2.1

Figure
2

Trip Generation

The trip generation analysis for the proposed development was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, *11th Edition*. The trip generation calculation for the project is summarized in **Table 1** and detailed trip generation sheets are provided in **Attachments**. **Table 1** summarizes the resulting trip generation analysis.

Table 1

Trip Generation Calculation

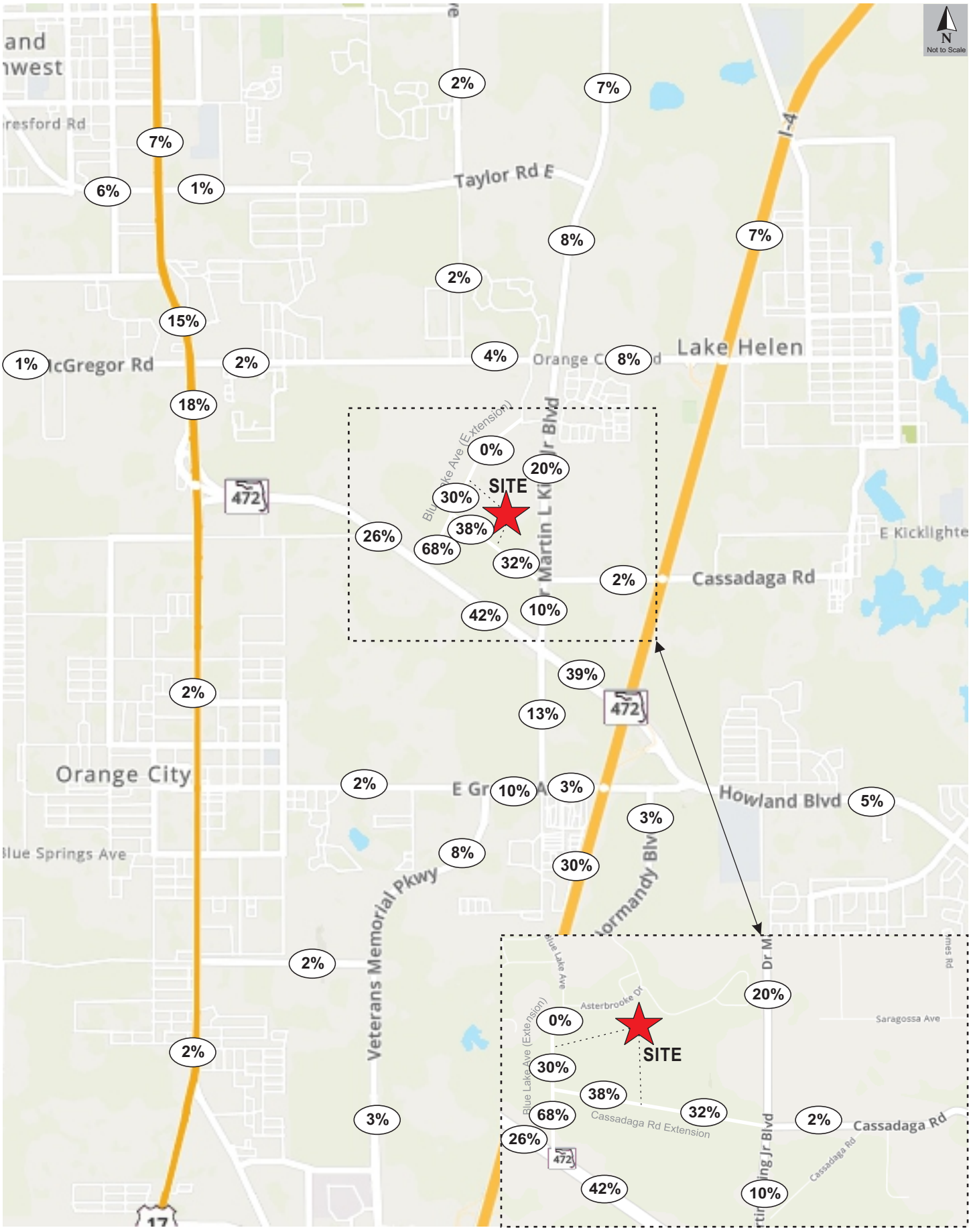
ITE			Daily		AM Peak Hour				PM Peak Hour			
Code	Land Use	Size	Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single Family Residential	91 DU	10.17	925	0.75	68	17	51	1.00	91	57	34
215	Single Family Attached (Townhomes)	112 DU	7.17	803	0.47	53	13	40	0.56	63	37	26
Net Trip Generation				1,728		121	30	91		154	94	60

ITE Trip Generation Manual, 11th Edition

The proposed development is projected to generate 1,728 new daily trips, of which 121 trips occur during the AM peak hour and 154 trips occur during the PM peak hour. Per the River to Sea Transportation Planning (R2CTPO) traffic study guidelines, the development requires a traffic impact analysis as it generates more than 1,000 daily new trips.

Trip Distribution

A trip distribution pattern was estimated using the *Central Florida Regional Planning Model (CFRPM v7.0).* The model highway network was modified to add the proposed Cassadaga Road extension and S. Blue Lake Avenue connection to SR 472. The distribution was slightly adjusted to reflect modification to the local network as well as prevailing traffic flow patterns in the general area. The raw model output is included in the **Attachments.** The adjusted trip distribution is shown in **Figure 3.**

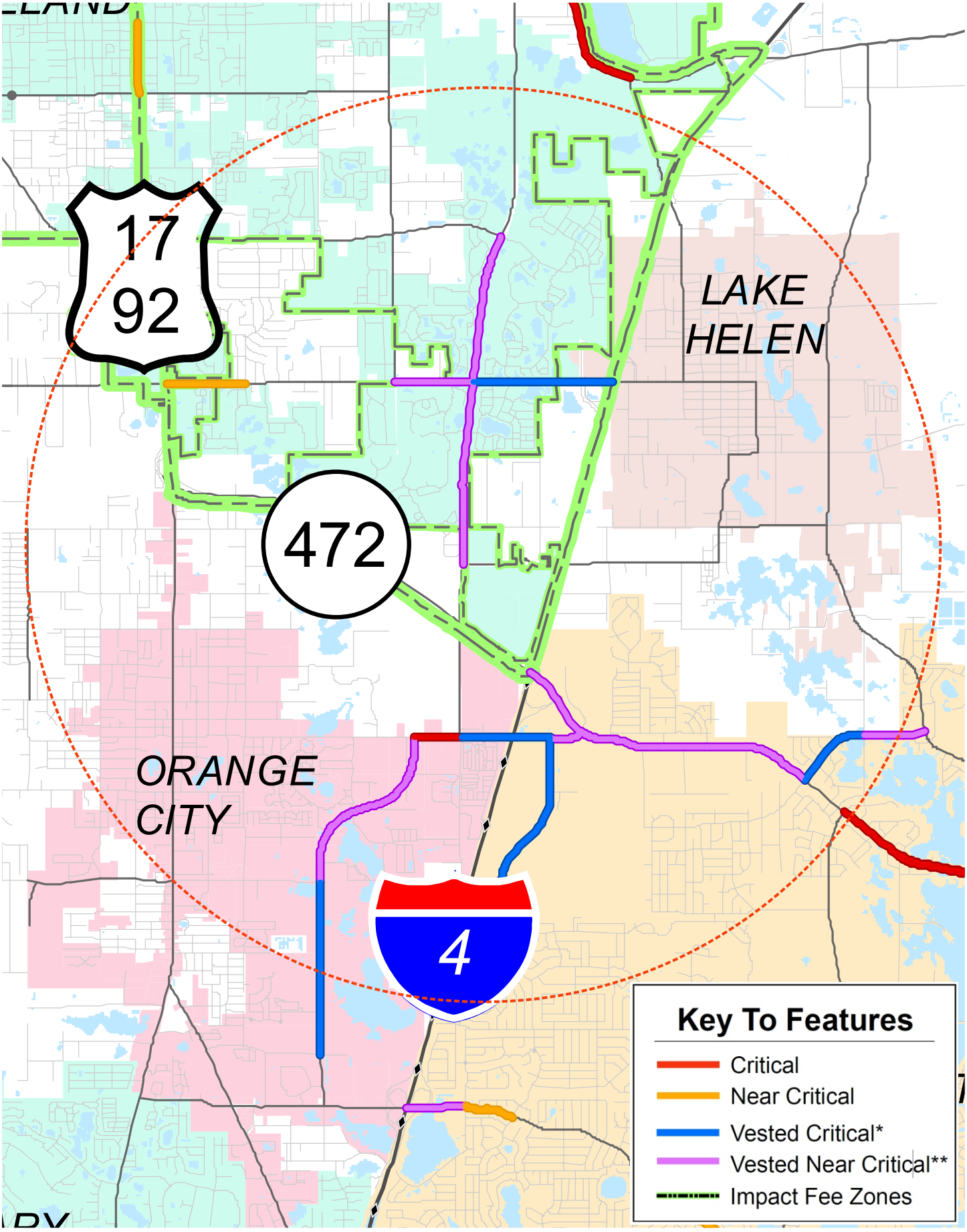


Project Trip Distribution
Ford 472
21145, v2.1

Figure 3

Study Area

Per the TIA requirements, if a project generates between 100 and 300 2-way peak hour external trips, the study area will encompass roadways with direct connection to the site or where the project's peak hour trips consume three percent (3%) or more of the 2-way peak hour generalized service volume based on the adopted level of service (LOS). In addition, the study will include Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) roadway segments within a 3-mile radius. A map of the C/NC/VC/NVC segments is shown in **Figure 4**. Roadway segments, daily volumes and 2-way peak hour capacities were obtained from the *Volusia County 2021 AADT & Historical Counts*, included in the **Attachments**. The significance test for roadway segments within the 3-mile radius is provided in **Table 2.**



TMC Traffic & Mobility CONSULTANTS

3-Mile Critical/Near Critical Roadway Map
Ford 472
21145, v2.1

Figure 4

Table 2
Significance Test

Road	Segment	Sta ID	Lns	LOS Std	PK 2W Cap	C/ NC?	Project Trips				
							Dist	Volume	Signif	y/n?	Study
US 17/92	Rhode Island Ave. to Graves Ave.	5165	4	D	3,580		2%	3	0.08%	NO	NO
US 17/92	Graves Ave. to New York Ave.	5166	4	D	3,580		2%	3	0.08%	NO	NO
US 17/92	New York Ave to SR 472	445	4	D	3,580		2%	3	0.08%	NO	NO
US 17/92	SR 472 to SR 15A/Taylor Rd.	1004	6	D	5,390		18%	28	0.52%	NO	NO
US 17/92	SR 15A/Taylor Rd. to Beresford Ave.	1006	4	E	3,790		7%	11	0.29%	NO	NO
I-4	Saxon Blvd. to SR 472	1003	6	D	10,510		30%	46	0.44%	NO	NO
I-4	SR 472 to Orange Camp Rd.	485	6	D	10,510		7%	11	0.10%	NO	NO
I-4	Orange Camp Rd. to SR 44	497	6	D	10,510		7%	11	0.10%	NO	NO
SR 472	US 17/92 to CR 4101/MLK Blvd	472	4	D	5,960		42%	65	1.09%	NO	NO
SR 472	CR 4101/MLK Blvd to I-4 (end of state road)	535	4	D	3,580		39%	60	1.68%	NO	NO
Blue Lake Ave.	Orange Camp Rd. to Taylor Rd.	231	2	E	1,540		2%	3	0.19%	NO	NO
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	2	E	1,020		2%	3	0.29%	NO	**YES**
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	775	2	E	1,620	C	10%	15	0.93%	NO	**YES**
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	2	E	1,620	VC	3%	5	0.31%	NO	**YES**
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	4	E	2,740	VNC	3%	5	0.18%	NO	**YES**
Hill Ave.	Taylor Rd. to Beresford Ave.	878	2	E	1,020		1%	2	0.20%	NO	NO
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	4	E	3,410	VNC	39%	60	1.76%	NO	**YES**
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	4	E	3,410	VNC	5%	8	0.23%	NO	**YES**
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905	4	E	3,410		3%	5	0.15%	NO	NO
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	2	E	1,230	C	2%	3	0.24%	NO	**YES**
Macy Ave.	Ohio St. to Cassadaga Rd.	1150	2	C	1,020		2%	3	0.29%	NO	NO
McGregor Rd.	Spring Garden Ave. to US17/92	1211	2	E	1,230		1%	2	0.16%	NO	NO
Orange Camp Rd.	US 17/92 to Princeton	1380	2	E	1,270	NC	2%	3	0.24%	NO	**YES**
Orange Camp Rd.	Princeton. to Blue Lake Ave.	1382	2	E	1,540		2%	3	0.19%	NO	NO
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (Dr MLK	1384	2	E	1,540	VNC	4%	6	0.39%	NO	**YES**
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385	2	E	1,540	VC	8%	12	0.78%	NO	**YES**
Summit Ave.	SR 44 to Main St.	1791	2	E	1,230		1%	2	0.16%	NO	NO
Taylor Rd. (DL)	Stratford Dr. to Blue Lake Ave.	1818	2	E	1,540		1%	2	0.13%	NO	NO
Taylor Rd. (DL)	Blue Lake Ave. to Martin Luther King Bltwy.	1819	2	E	1,230		1%	2	0.16%	NO	NO
W. Volusia Bltwy (Veterai	Harley Strickland Blvd. to Rhode Island Ave.	1901	2	E	1,540	VC	3%	5	0.32%	NO	**YES**
W. Volusia Bltwy (Veterai	Rhode Island Ave. to Graves Ave.	1902	2	E	1,620	VNC	8%	12	0.74%	NO	**YES**
W. Volusia Bltwy (Veterai	Graves Ave to SR 472	1030	2	E	1,540		13%	20	1.30%	NO	NO
W. Volusia Bltwy (Dr MLK	SR 472 to Cassadaga Rd.	1940	2	E	1,540		10%	15	0.97%	NO	NO
W. Volusia Bltwy (Dr MLK	Cassadaga Rd. to Orange Camp Rd.	1942	2	E	1,540	VNC	20%	31	2.01%	NO	**YES**
W. Volusia Bltwy (Dr MLK	Orange Camp Rd. to Taylor Rd.	1943	2	E	1,540	VNC	8%	12	0.78%	NO	**YES**
W. Volusia Bltwy (Dr MLK	Taylor Rd. to Beresford Ave. Ext.	1945	2	E	1,540		7%	11	0.71%	NO	NO
Normandy Blvd	Graves Ave to Rhode Island	DLT-105.000	2	D	1,150	VC	3%	5	0.43%	NO	**YES**
Catalina Blvd	Howland Blvd to Sixma Road	DLT-20.020	2	D	960	VC	0%	0	0.00%	NO	**YES**
Catalina Blvd	Sixma Road to Lake Helen Osteen	DLT-20.030	2	D	960	VNC	0%	0	0.00%	NO	**YES**

NOTE: The segment **W. Volusia Bltwy.** to **Macy Ave** in **Cassadaga Rd.** requires study because it has direct connection to the site.

Based on the significance test above, the study roadway segments are as follows:

- Cassadaga Road/Cassadaga Road Extension
  - West Volusia Beltway (MLK) to Macy Avenue
  - West Volusia Beltway (MLK) to SR 472 (Proposed)
- Graves Avenue/CR 4145
  - Veterans Memorial Parkway to Kentucky Avenue
  - Kentucky Avenue to Normandy Boulevard
  - Normandy Boulevard to Howland Boulevard
- Howland Boulevard
  - I-4/SR 472 to Wolf Pack Run
  - Wolf Pack Run to Catalina Boulevard
  - Providence Boulevard to Elkcam Boulevard
- Orange Camp Road
  - US 17/92 to Princeton Road
  - Blue Lake Avenue to W. Volusia Beltway (Dr. MLK Jr)
  - W. Volusia Beltway (Dr. MLK Jr) to I-4
- W. Volusia Beltway/MLK
  - Harley Strickland to Rhode Island Avenue
  - Rhode Island Avenue to Graves Avenue
  - Graves Avenue to SR 472 (Normandy Boulevard)
  - Cassadaga Road to Orange Camp Road
  - Orange Camp Road to Taylor Road
- Catalina Boulevard
  - Howland Boulevard to Sixma Road
  - Sixma Road to Lake Helen Osteen

The study intersections are as follows:

- MLK & Orange Camp Road (roundabout)
- MLK & Cassadaga Road (unsignalized/future signal)
- MLK/Kentucky Avenue & SR 472 (signalized)
- SR 472 & Blue Lake Avenue Extension (unsignalized)
- Howland Boulevard and Minnesota Avenue (unsignalized)
- Project Access driveway on Cassadaga Road Extension (unsignalized)
- Project Access driveway on Blue Lake Avenue Extension (unsignalized)

Roadway Segment and Intersection Analysis

The traffic analysis will include existing and 2028 buildout conditions for both roadway segment and intersection capacity analysis. Roadway segments will be analyzed for the PM peak 2-way volumes. The analysis will be based on existing and service volumes as obtained from the most recent *Volusia County Average Annual Daily Traffic & Historical Counts,* included in the **Attachments***.* The intersection analysis will be conducted for the PM peak hours based on field counts, projected movements, *Synchro* software and the methods of the *Highway Capacity Manual, 7th edition (HCM)*.

Background and Buildout Traffic

Background traffic will be projected to the buildout year 2028 based on *Volusia County's Segment Growth Rates and Vested Trips Instruction Policy,* included in the **Attachments**. Buildout conditions will be analyzed by comparing the total projected traffic volumes to their service volumes at the adopted level of service LOS standard for the roadway segments and intersections. Total projected traffic volumes at buildout year 2028 will be calculated as the sum of background traffic and project trips.

Intersections volumes at buildout will be computed by adjusting the raw field counts based on the appropriate seasonal factor obtained from *FDOT Traffic Online*, then adding it to the projected traffic growth and trips generated by the development. An intersection analysis will be conducted for the AM and PM peak hour conditions, based on field counts, buildout traffic, *Synchro* software and the methods of *HCM, 7th edition*.

Planned and Programmed Improvements

The Transportation Improvements Programs for the City, County, and FDOT were reviewed to determine if any roadway or intersection improvements were funded for construction within the next few years. **Table 3** summarizes the list of roadway segments programmed for improvement as obtained from the Volusia County Road Program 2021-22, excerpts of which are included in the **Attachments.** The first two rows listed in the table below will be considered in the buildout condition analysis for this project.

Table 3

Planned & Programmed Improvements

Roadway	From	To	Improvement	Status
Howland Boulevard	Providence Blvd	Elkcam Boulevard	Widen From 2 to 4 Lanes	Under Construction
Orange Camp Road	MLK Jr. Beltway	I-4	Widen From 2 to 4 Lanes	Under Construction
Graves Avenue	Veterans Memorial Parkway	Kentucky Avenue	Widen From 2 to 3 Lanes	Design Underway
Veterans Memorial Parkway	Current limit of 4 lanes	Rhode Island Avenue	Widen From 2 to 4 Lanes	Design Underway
Beresford Road	Blue Lake Avenue	Kepler Road/MLK Jr Beltway	Extension	Design and Row Acquisition Underway
Blue Lake Avenue	Victoria Park	SR 472	Extension	Conceptual Preparation Underway

Source: 2021-22 Volusia County Road Program

Proportionate Share

If the development results in offsite impacts, the development will mitigate its impact to the deficient facilities by contributing a proportionate share. The proportionate share calculation will be based on costs approved by Volusia County Engineering and Construction Division. All proposed mitigation improvements will be consistent with the appropriate City and County comprehensive plans' transportation elements. In particular, if a proposed mitigation improvement is to widen a county roadway beyond that which is indicated on the County's adopted *Future Number of Lanes Map* (or allowed by the County Transportation Engineering since a county map amendment is pending), an alternative mitigation improvement project must be proposed.

Alternative Mode Analysis

A review of transit, pedestrian and bicycle facilities will be conducted in accordance with the R2CTPO and Volusia County requirements.

Report

A report detailing the methods, findings, and recommendations of the traffic analysis will be prepared for submittal to the City and County.

ATTACHMENTS

June 5, 2024

Mr. William White
Engineering Assistant II
Volusia County Traffic Engineering
123 West India Avenue
Deland, Florida 32720
WDWhite@volusia.org

Re: Ford 472
Response to TIA Methodology Comments
TMC Project № 21145
Volusia County, Florida

Dear Mr. White,

Please find below our responses to the review comments prepared by the Volusia County Traffic Engineering dated April 15, 2024, regarding the above referenced Methodology dated November 23, 2023. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology is provided under cover reflecting the changes resulting from these comments.

1. **Traffic study will require concept plans for the development as part of the review and approval.**
   Refer to the municode code Sec. 72-577. - Conceptual or final site plan review. Conceptual site plan application.
   a) **Current zoning classification(s);**
   b) **Schematic representation of proposed use, including building size, shape and location on the site;**
   c) **Schematic representation of vehicular circulation within the site, including driveways, parking areas and loading areas;**
   d) **Schematic representation of points of connection to the public right-of-way.**

   TMC Response: Approved Overall Development Plan is provided in the Attachments.

2. **The proposed build-out as stated is year 2026. Please confirm that this is realistic build-out date.**

   TMC Response: Buildout Year is now anticipated for 2028. Relevant changes have been made in the revised Methodology.

3. **Land use used in table 2 project trip generation shall replicate the project Concept layout proposed uses and building sizes data.**

   TMC Response: The land use data in the Trip Generation table (Table 2) has been updated to reflect the concept layout proposed uses and building sizes data.

4. **Confirm if there are any planned phases for the development and full development buildout year.**

   TMC Response: The development is planned to be built in a single phase with the buildout year 2028.

5. **Refer to the attached traffic growth policy for compliance.**

   TMC Response: Noted. The traffic policy provided will be referred to for the Traffic Impact Analysis Report.

6. **Please state any planned or programmed improvements that will be assumed for future conditions.**

   TMC Response: Improvements that will be assumed for buildout condition are updated and stated in the revised Methodology.

7. **For vested Trip Database, please confirm with relevant agency/city for their updated list of vested developments.**

   TMC Response: Most recent vested trip database from Volusia County will be obtained and used in the final TIA report.

8. **Submit a recorded right-of-way / easement agreement for Cassadaga Rd extension.**

   TMC Response: We do not yet have an easement for the roadway extension, but the client is working on it. However, please see the Attachments regarding the rights to create an easement.

9. **Intersection analyses the use of latest version "HCM 7th Edition" for TIAs.**

   TMC Response: HCM 7th Edition will be used in the TIA and has been updated in the Methodology.

10. **Signal warrant analysis will be required for the signalized intersection at MLK & proposed Cassadaga Rd extension.**

    TMC Response: There is an existing traffic signal at the MLK & Cassadaga Road intersection.

11. **Please include the following statement if applicable**
    Given the staged nature of the development and recognizing the potential evolution of traffic patterns over time, the developer is required to conduct a comprehensive reevaluation of the access control type in conjunction with each stage of development. This process is essential to ensure that access control measures align with the changing transportation needs and conditions associated with the different phases of the project. The developer must collaborate closely with the CTE to assess and adjust

the access control type based on the specific requirements and challenges presented by each stage. This reevaluation should consider factors such as the increasing population density, changing land use patterns, and corresponding shifts in traffic volumes. For each stage, the developer is expected to submit a revised access control proposal that reflects the current and anticipated traffic conditions. This proposal should outline any necessary modifications to the initially proposed access control type, taking into account factors such as peak traffic periods, pedestrian movements, and the integration of alternative transportation modes. The CTE will review each stage's access control proposal, ensuring that it complies with established standards and guidelines. The goal is to adapt the access control type to the evolving demands of the development, promoting an efficient and safe transportation network throughout the different phases. This staged approach to access control evaluation aims to create a flexible and responsive framework that accommodates the dynamic nature of the development. It is imperative that the developer remains proactive in reassessing and refining access control measures to uphold the highest standards of transportation planning and engineering throughout the entire staged development process.

TMC Response: Please note that this project will be developed in one (1) phase/stage; therefore, the proposed access driveway points will be analyzed for the full buildout of the project and access management will be evaluated accordingly.

12. **Refer to TIA guideline section 7 (though an analysis of safety and access management issues may still need to be completed) and provide documentation that support this requirement. A crash diagram with georeferenced crash locations highlighting crash trends based on 5yrs period. The crash analysis is to include all listed study intersection(s) /segment(s) adjoining the development and intersection(s)/segment(s) with mitigated development measure(s).**

TMC Response: Acknowledged. The TIA will include a section for crash analysis to include study intersections and roadway segments adjoining the development and intersection(s)/segment(s) with mitigated development measures.

END OF COMMENTS

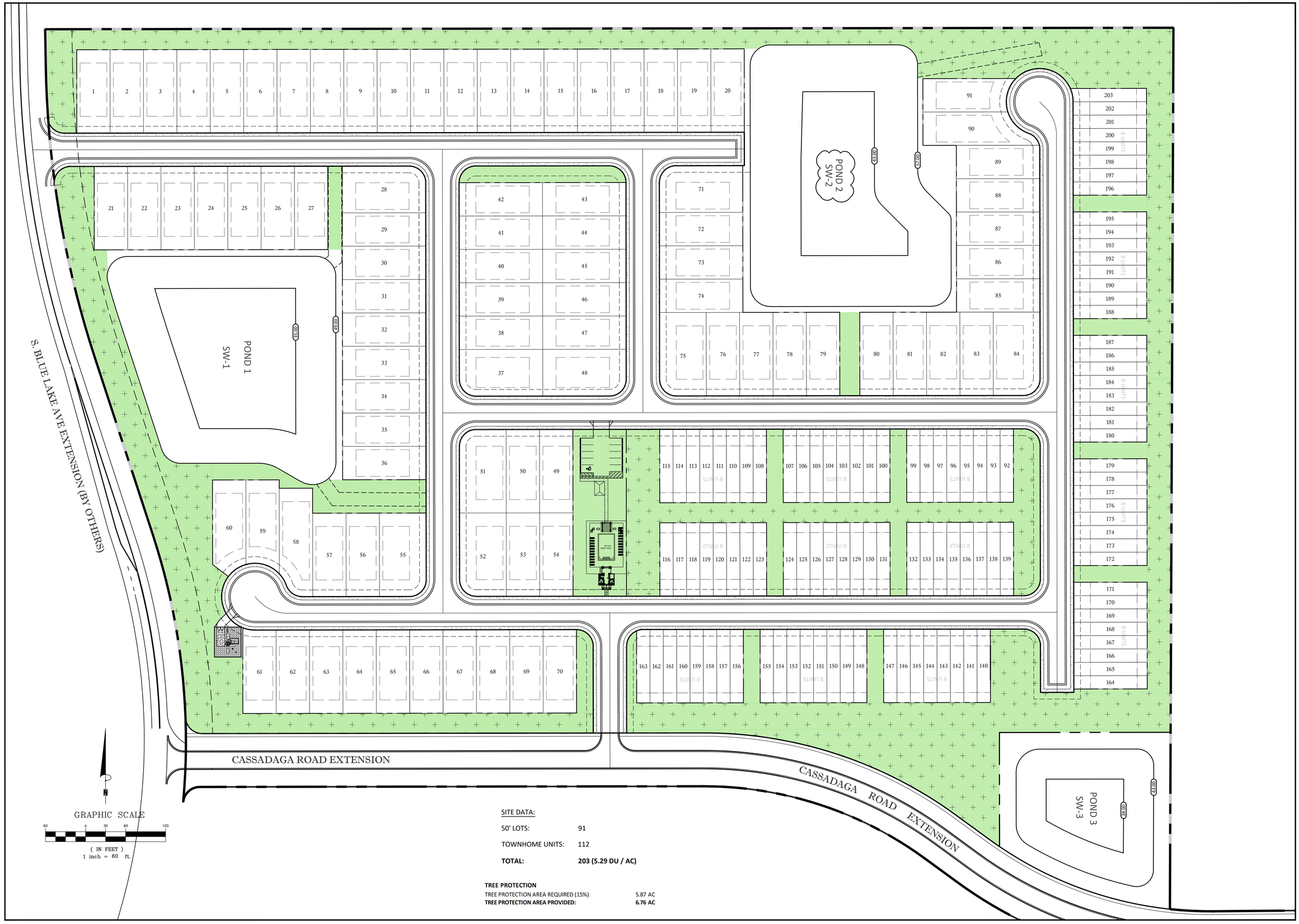
We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Ayman As-Saidi, PE
VP of Engineering



SITE DATA:

50' LOTS:	91
TOWNHOME UNITS:	112
TOTAL:	**203 (5.29 DU / AC)**

TREE PROTECTION

TREE PROTECTION AREA REQUIRED (15%):	5.87 AC
TREE PROTECTION AREA PROVIDED:	**6.76 AC**

KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

CONCEPT PLAN

DRAWN:	GPR
DESIGN:	GPR
CHECKED:	SCF
JOB NO.:	1496.000
DATE:	07/25/2023

SHEET
1 OF 1

Volusia County
FLORIDA

Growth & Resource Management
Land Development

November 27, 2023

Christopher Wrenn
PulteGroup, Inc.
4901 Vineland Rd
Orlando, FL 32811

Re: Subdivision Overall Development Plan Preliminary Development Order
2022-S-ODP-0353 / 1072480
Ford 472 Subdivision

Dear Mr. Wrenn:

This letter is the Subdivision Overall Preliminary Development Order for the above-referenced development. Pursuant to the following findings, the DRC has approved the application:

1. The application was accepted on May 15, 2023, and discussed at the June 14, 2023, Technical Staff Review Meeting.

2. The DRC considered the application at their regularly scheduled meeting of October 10, 2023, and approved the Overall Development Plan application 2022-S-ODP-0353, subject to the submittal of revised plans to the satisfactory resolution of staff comments.

3. Revised plans were accepted on October 26, 2023.

A copy of the approved version of the plan, last revision dated October 18, 2023, by Sean Fortier, is enclosed.

Based on this letter you may submit an application for a Preliminary Plat Development Order. A blank application form and a checklist of exhibits and procedures are attached. A fee, as outlined in the attached fee schedule, must be paid at the time of application submittal. The Preliminary Plat application must be consistent with the approved Overall Development Plan and any remaining conditions imposed by the DRC.

Section 72-536(b) of the LDC states, “It is a violation of this division for anyone who is the owner or agent of the owner of any land to transfer, sell, agree to sell, or negotiate to sell such land by reference to, exhibition of, or other use of a plat of a subdivision of such land without having the plat approved as required by this division.”

Pursuant to Section 125.022(5), F.S., issuance of this development order by the county does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the county for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law. All other applicable state or federal permits shall be obtained before commencement of this development.

Pursuant to Section 72-502(g) of Article III Land Development, Chapter 72 Code of Ordinances (LDC), any person claiming to be aggrieved by a decision of the Enforcement Official or the DRC may file a written appeal within thirty (30) days after said decision with the Land Development Manager to have the decision reviewed by the Volusia County Council. The appeal shall state fully the specific grounds for the appeal and all of the facts relied upon by the petitioner. The County Council shall consider only those items specified in this petition.

Please feel free to contact the Land Development office if you have any questions. The project name and number must be referenced on all inquiries.

Sincerely,



Carol McFarlane, AICP
Planning and Land Development Director
cmcfarlane@volusia.org

CRM/rc
Enclosures

c: James L Rickman, Allen & Company, 16 E Plant St, Winter Garden, FL 34787
Ford Frank A, Group 7 87 5 / Group 4 12 5, Po Box 457, Deland Fl 32721
Sean Fortier, Kelly, Collins & Gentry, Inc, 1700 N Orange Av, Orlando, FL 32804
Todd Bonnett, Bonnett Design Group, LLC, 400 S Orlando Av Suite 201, Maitland, FL 32751
David Romero (via e-mail)

PARCEL DESCRIPTION

PARCEL 1
GOVERNMENT LOT 2, EXCEPT THE W 1/4 THEREOF LYING NORTH OF S.R. 15A, AND LYING SOUTH OF A LINE PARALLEL TO AND 900 FEET SOUTH OF THE NORTH LINE OF SAID GOV'T LOT 2, AND EXCEPT THE EAST 660 FEET OF THE NORTH 1056 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

AND
THE NORTH 900 FEET OF THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF S.R. 15A, EXCEPT THE NORTH 660 FEET THEREOF, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

PARCEL2
THE EAST 1/4 OF GOVERNMENT LOT 2, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET THEREOF, AND THE WEST 1/4 OF GOVERNMENT LOT 1, LYING NORTH OF STATE ROAD 15-A, EXCEPT THE NORTH 900 FEET, LYING IN SECTION 1, TOWNSHIP 18 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA.

NOTE:

PARCEL DESCRIPTION PROVIDED BY ALLEN & COMPANY, DATED 06/08/2021.

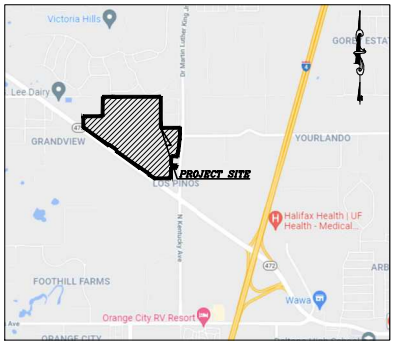
OVERALL DEVELOPMENT PLAN

FOR:

FORD 472 SUBDIVISION

NORTH OF SR 472 & WEST OF DR MARTIN LUTHER KING JR BELTWAY VOLUSIA COUNTY, FLORIDA

VICINITY MAP



SCALE: 1"=2000'

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

FORD 472 SUBDIVISION VOLUSIA COUNTY, FL

PARCEL ID #:
800100000020

PREPARED FOR:

PULTE GROUP

4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

DEVELOPMENT TEAM:

DEVELOPER
PULTE GROUP
4901 VINELAND ROAD SUITE 460
ORLANDO, FLORIDA 32811
PHONE: (407) 661 2152

ENGINEER
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE,
SUITE 400
ORLANDO, FLORIDA 32804
PHONE: (407) 898-7858
FAX: (407) 898-1488

SURVEYOR
ALLEN & COMPANY
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
PHONE: (407) 654-5355

LANDSCAPE ARCHITECT
BONNET DESIGN GROUP, LLC
PHONE: (407) 463-0136

UTILITIES:

WATER & SEWER
CITY OF DELAND
1101 SOUTH AMELIA AVENUE,
DELAND, FLORIDA 32724
PHONE: (386) 626-7250

RECLAIM WATER
VOLUSIA COUNTY UTILITIES
123 W INDIANA AVE, DELAND, FLORIDA 32720
PHONE: (386) 736-2700

PREPARED BY:

KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE
SUITE 400
ORLANDO, FLORIDA 32804
PHONE (407) 898-7858
FAX (407) 898-1488

SECTION 01 TOWNSHIP 18, RANGE 30, VOLUSIA COUNTY, FLORIDA

SHEET INDEX

SHEET TITLE	SHEET NO.
COVER SHEET	C-1.0
EROSION CONTROL & TREE PROTECTION	EC-1.0
OVERALL PLAN	C-2.0 TO C-2.1
DIMENSION PLAN	C-3.0 TO C-3.2
PAVING, GRADING, & DRAINAGE PLAN	C-4.0 TO C-4.2
UTILITY PLAN	C-5.0 TO C-5.2

Sean Fortier
2023.10.18
13:29:01-04'00'

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SEAN C. FORTIER, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

FOR REVIEW ONLY
NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NO.
NOT VALID FOR CONSTRUCTION UNLESS SIGNED BY THIS BLOCK

REVISIONS:

DATE	DESCRIPTION

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-1.0

EROSION CONTROL:

1. GENERAL: CONTRACTOR SHALL INSTALL ANY ADDITIONAL EROSION CONTROL WHEN NECESSARY IN ORDER TO MEET STATE AND LOCAL STANDARDS.
2. EXISTING SYSTEMS: CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. CONFLICTS: CONTRACTOR SHALL COORDINATE ALL UTILITY CROSSINGS AND ADDRESS CONFLICTS PRIOR TO BEGINNING WORK IN A GIVEN AREA(S).
4. STABILIZATION:
   A. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER, AND REGULATORY AGENCIES.
   B. AREAS DISTURBED THAT WILL NOT BE IMPROVED FOR A PERIOD OF 30 DAYS OR MORE SHALL RECEIVE TEMPORARY STABILIZATION AS DEEMED NECESSARY BY THE MUNICIPAL INSPECTOR.
5. BMPs:
   A. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES BMP TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
   B. WITH UTILIZING CONSTRUCTION PHASES, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ON-SITE BMPs AS DEEMED NECESSARY AND SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
   C. ALL BMPs SHALL BE CLEANED OF SEDIMENT WHEN 50% OR LESS OF BMP IS REACHED.
   D. ALL BMPs SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE MUNICIPAL INSPECTOR ALLOWS REMOVAL.
   E. APPROPRIATE BMPs MUST BE IMPLEMENTED TO ENSURE THAT DISCHARGES DO NOT EXCEED SURFACE WATER QUALITY STANDARDS PER THE FDEP CONSTRUCTION GENERIC PERMIT (CGP). IF DEWATERING OFFSITE OR INTO A COUNTY MS4, TURBIDITY MUST BE MONITORED TO ENSURE THAT DISCHARGES DO NOT EXCEED 29 NTU OVER BACKGROUND PER 62-302.530 FAC. REFER TO THE DEWATERING REQUIREMENTS IN 62-621.300(4)(a) CONSTRUCTION GENERIC PERMIT OR 62-621.300(2)(a) DEWATERING GENERIC PERMIT AS APPLICABLE.
   F. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAIN EVENT OF 1/2" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REVEGETATING, AND REMETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED SHALL BE REQUIRED.
   G. CONTRACTOR SHALL INSPECT BMPs AT END OF EACH WORKING DAY.
   H. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.
   I. BMPs USED ON SITE MUST MEET THE MINIMUM SPECIFICATIONS IN THE 2013 STATE OF FLORIDA E&SC DESIGNER AND REVIEWER MANUAL.
6. MULCH:
   A. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER.
   B. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
7. ENTRANCE/EXIT:
   A. CONSTRUCTION ENTRANCE SHALL BE GRADED SO THAT NO SEDIMENTS LEAVE THE SITE.
   B. ALL EMPLOYEES, SUBCONTRACTORS, AND SUPPLIERS SHALL UTILIZE CONSTRUCTION ACCESS.
   C. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT ONE LOCATION.
   D. ALL EXIT LOCATIONS INTENDED SHALL BE USED CONTINUOUSLY FOR A PERIOD OF TIME SHALL HAVE STABILIZED CONSTRUCTION ENTRANCE/EXIT BMPs (TC-1 "STABILIZED CONSTRUCTION ENTRANCE/EXIT" OR TC-2 "ENTRANCE/OUTLET TIRE WASH").
   E. INSPECT ROUTINELY FOR DAMAGE AND ASSESS EFFECTIVENESS OF THE BMP. REMOVE AGGREGATE, SEPARATE AND DISPOSE OF SEDIMENT IF CONSTRUCTION ENTRANCE/EXIT IS CLOGGED SO MORE THAN 50% WITH SEDIMENT.
   F. IF APPLICABLE, ROUTE RUNOFF FROM STABILIZED ENTRANCES THROUGH A SEDIMENT TRAPPING DEVICE BEFORE DISCHARGE.
8. INLETS:
   G. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND, AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED BY CONTRACTOR.
   H. PROVIDE GEOHAY HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AND PROVIDE FILTER FABRIC UNDER THE GRATE OF ALL DITCH BOTTOM INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
9. DAILY:
   A. CONSTRUCTION SITE SHALL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". A RAIN GAUGE SHALL BE ON SITE TO MEASURE THE FALL AMOUNTS.
   B. THE ADJACENT STREETS SHALL BE SWEPT AT THE END OF EACH DAY OF DIRT FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL IMPLEMENT STREET SWEEPING AND VACUUMING AS NEEDED. CLEAN DIRT FROM ROADWAYS DAILY.
   C. CONSTRUCTION SITE SHALL BE CLEANED OF LITTER AND TRASH EACH DAY AND DISPOSED OF OFF-SITE.
   D. INSPECT ALL SEDIMENT CONTROL DEVICES FOR DAMAGE DAILY AND REPAIRS AS NEEDED.
   E. CONTRACTOR SHALL EMPLOY SAFETY AND ROADWAY ENTRY AND EXIT PLANS ON A DAILY/WEEKLY BASIS.
   F. HUMAN WASTEWATER SHALL BE COLLECTED ON-SITE BY THE USE OF TEMPORARY SANITARY SERVICE.
10. SILT FENCE:
   A. SILT FENCE SHALL BE IN PLACE AS SHOWN PRIOR TO CONSTRUCTION.
   B. PRIOR TO CONSTRUCTION, SILT FENCE SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL.
   C. SILT FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. SOD: ALL DISTURBED AREAS SHALL BE SODDED EXCEPT AS SHOWN ON PLAN. ALL SOD IN RIGHT OF WAY SHALL BE ARGENTINE BAHIA. ALL SLOPES 4:1 OR GREATER SHALL BE SODDED.
12. STOCKPILES: SHALL BE ENCOMPASSED WITH SILT FENCE, SHALL NOT EXCEED 35' IN HEIGHT, AND SHALL NOT BE LOCATED NEAR SITE PERIMETER. LOCATION AND SIZE SHALL BE APPROVED BY MUNICIPAL INSPECTOR AND OTHER JURISDICTIONAL AUTHORITIES AS REQUIRED.
13. TOXIC SUBSTANCES: ALL TOXIC SUBSTANCES (IF ANY) BROUGHT ON-SITE SHALL BE HANDLED AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STANDARDS. ALL SUBSTANCES THAT MAY BE CONSIDERED TOXIC SHALL ALSO BE HANDLED AND STORED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS AND STANDARDS.
14. DRAINAGE/GRADE: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER. FINAL CONTROL OF SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE, AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. GRAVEL LAYER: GRAVEL LAYER SHALL BE 12" MIN THICK AND PLACED OVER GEOTEXTILE MAT.
16. SPEED: TRUCK SPEED TO BE REDUCED TO CONTROL DUST.
17. DITCHES: KEEP ALL TEMPORARY ROADWAY DITCHES CLEAR.
18. WATER DOWN: CONTRACTOR TO WATER DOWN AREAS WHEN AND WHERE DISTURBED SOIL IS RAISING AND BECOMING AIRBORNE IN ORDER TO SETTLE IT. PERMIT AS NEEDED.
19. SEDIMENT BASIN: LARGE SITES MAY REQUIRE A TEMPORARY SEDIMENT BASIN. CONTRACTOR SHALL DETERMINE LOCATION. TEMPORARY SEDIMENT BASIN SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
20. STORMWATER DISCHARGE: CONTRACTOR TO ABIDE BY ALL PROVISIONS OF THE FDEP GENERAL PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.
21. DUST ABATEMENT: CONTRACTOR TO PROVIDE A DUST ABATEMENT PLAN INCLUDING A 6-FOOT HIGH SCREEN FENCE ALONG ALL PROPERTY LINES.

DEMOLITION NOTES:

1. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
2. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
3. THIS PLAN IS TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS. DO NOT REMOVE ANY ITEMS WITHOUT VERIFYING AND COORDINATING WITH ALL GENERAL TRADES AS TO HOW THEY RELATE TO THE OVERALL PROJECT.
4. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTIONS OF ACCIDENTS.
5. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORTS, INSULATIONS, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.

CONTRACTOR CERTIFICATION:

" I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PLAN THEREUNDER."

NAME: _____ TITLE: _____

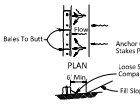
CONTRACTING FIRM: _____ ADDRESS: _____

TELEPHONE #: _____ DATE: _____

THIS SOIL EROSION/SEDIMENT CONTROL & DUST ABATEMENT PLAN IS FOR THE PURPOSE OF SHOWING INTENTION OF METHOD TO CONTROL STORM WATER RUNOFF & DUST DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL ADJUST AND/OR ADD BMP'S BASED ON SPECIFIC SITE CONDITIONS & CONSTRUCTION ACTIVITY SATISFYING NPDES REQUIREMENTS. CONTRACTOR TO OBTAIN GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)



TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE



ELEVATION

TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES AWAY FROM THE TOE OF SLOPE

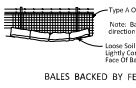
BARRIERS FOR FILL SLOPES



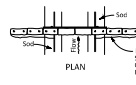
Application and Spacing: The use of Types I & II Geohay bale barriers should be limited to the conditions outlined in Chart1, Sheet 1 of 3, Index No. 102

TYPE II TYPE I

BARRIER FOR UNPAVED DITCHES

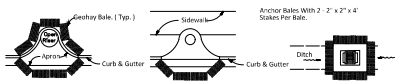


BALES BACKED BY FENCE

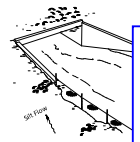


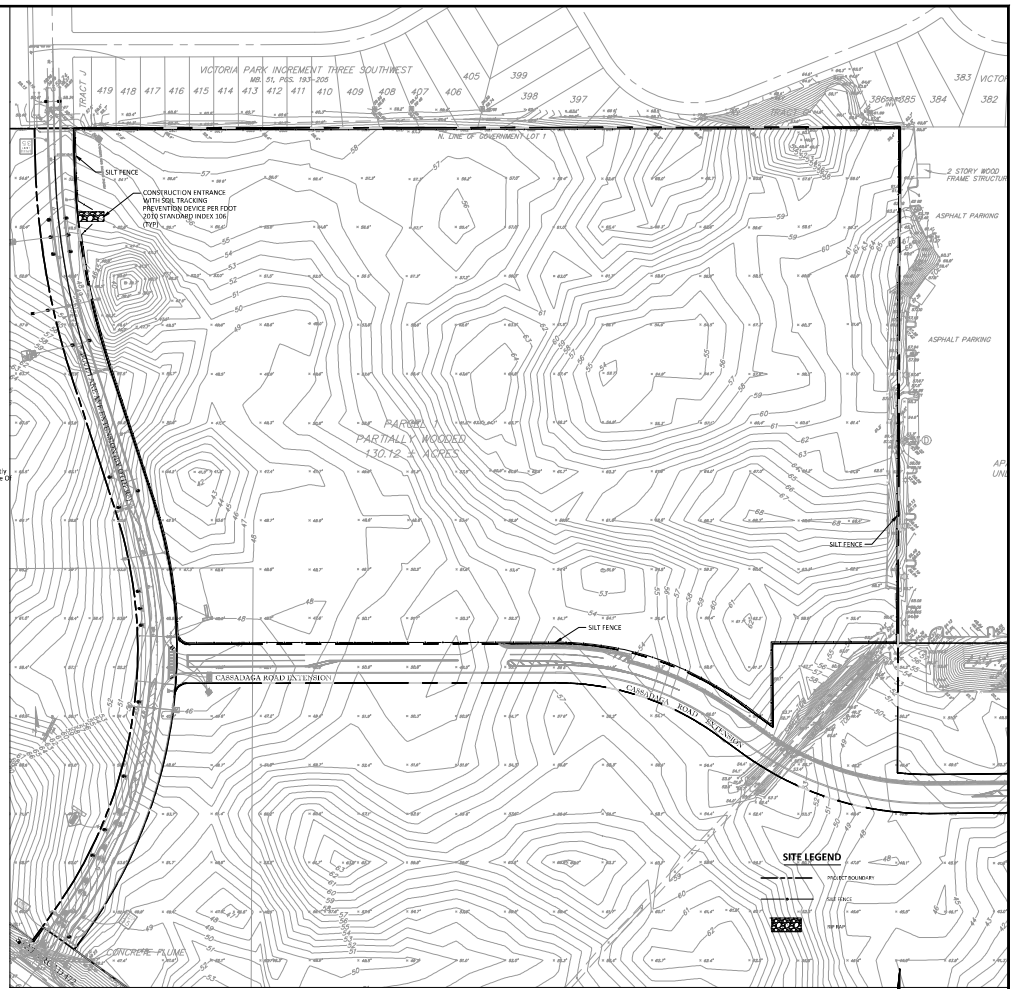
Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart1, Sheet 1 of 3, Index No. 102

BARRIER FOR PAVED DITCH

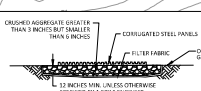


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

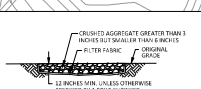




NOTE:
SILT FENCE SHOWN FOR SCHEMATIC PURPOSES ONLY. SILT FENCE SHOULD BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET.



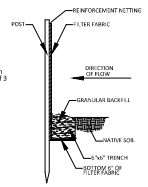
SECTION A-A
NTS



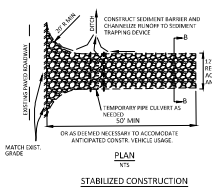
SECTION B-B
NTS

GRAPHIC SCALE

(IN FEET)
1 inch = 150 ft.

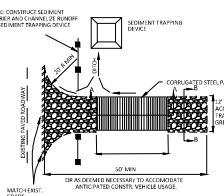


SILT BARRIER DETAIL
N.T.S.



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1)



PLAN
NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 2)

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

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CERTIFICATE OF AUTHORIZATION NUMBER 27868
LICENSED STATE OF FLORIDA
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #69936
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1488

REVISION | DATE

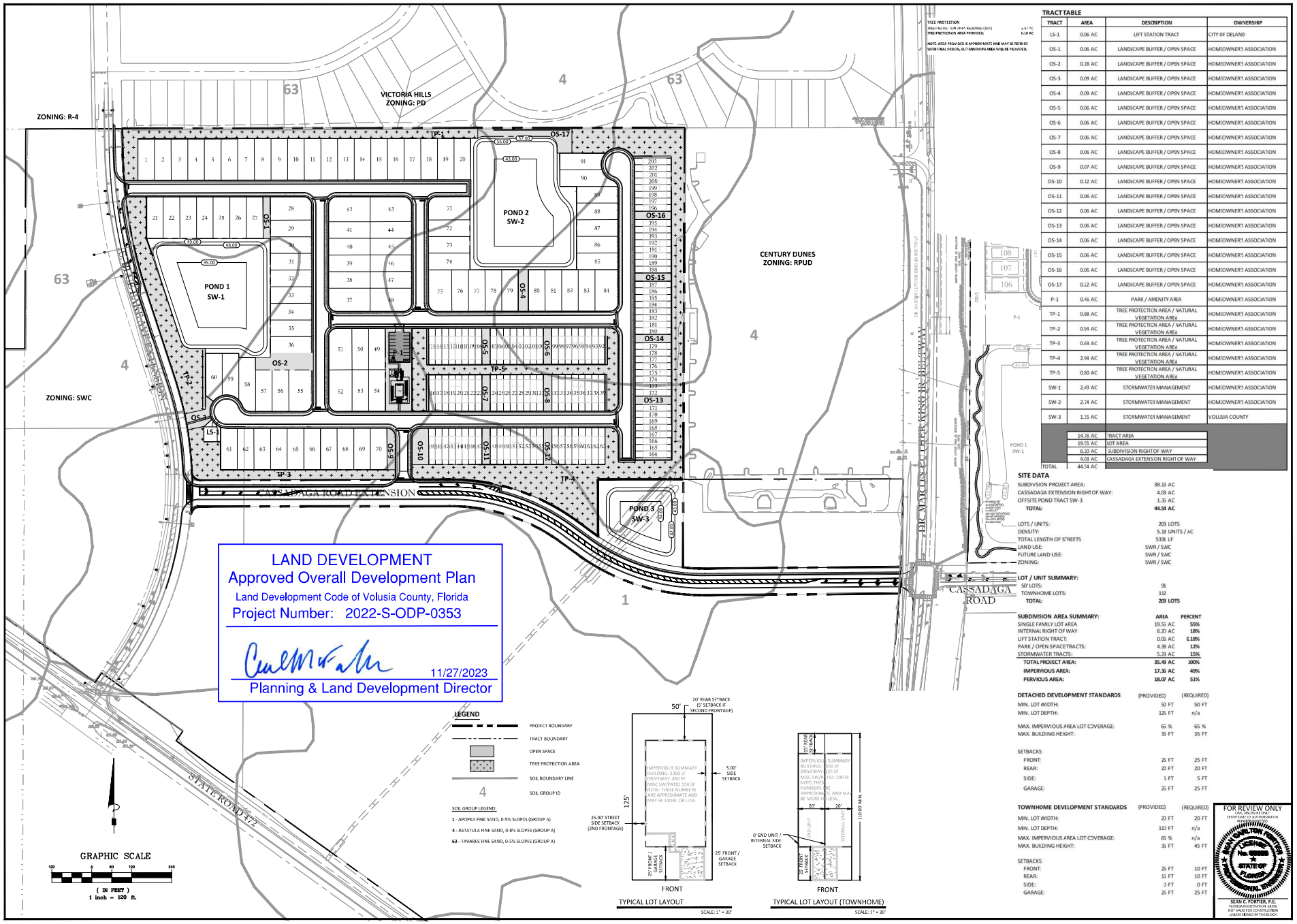
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

EROSION CONTROL & TREE REMOVAL-PROTECTION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
EC-1.0



TRACT TABLE

TRACT	AREA	DESCRIPTION	OWNERSHIP
LS-1	0.06 AC	LIFT STATION TRACT	CITY OF DELAND
OS-1	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-2	0.18 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-3	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-4	0.09 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-5	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-6	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-7	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-8	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-9	0.07 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-10	0.12 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-11	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-12	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-13	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-14	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-15	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-16	0.06 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
OS-17	0.22 AC	LANDSCAPE BUFFER / OPEN SPACE	HOMEOWNER'S ASSOCIATION
P-1	0.46 AC	PARK / AMENITY AREA	HOMEOWNER'S ASSOCIATION
TP-1	0.88 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-2	0.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-3	0.63 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-4	2.94 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
TP-5	0.80 AC	TREE PROTECTION AREA / NATURAL VEGETATION AREA	HOMEOWNER'S ASSOCIATION
SW-1	2.49 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-2	2.74 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-3	1.35 AC	STORMWATER MANAGEMENT	VOLUSIA COUNTY
	14.76 AC	TRACT AREA	
	19.55 AC	LOT AREA	
	6.20 AC	SUBDIVISION RIGHT OF WAY	
	4.03 AC	CASSADAGA EXTENSION RIGHT OF WAY	
TOTAL	44.54 AC		

SITE DATA

SUBDIVISION PROJECT AREA:	39.15 AC
CASSADAGA EXTENSION RIGHT OF WAY:	4.03 AC
OFFSITE POND TRACT SW-3	1.35 AC
TOTAL:	**44.54 AC**
LOTS / UNITS:	208 LOTS
DENSITY:	5.18 UNITS / AC
TOTAL LENGTH OF STREETS	5331 LF
LAND USE:	SWR / SWC
FUTURE LAND USE:	SWR / SWC
ZONING:	SWR / SWC

LOT / UNIT SUMMARY:

50' LOTS:	96
TOWNHOME LOTS:	112
TOTAL:	**208 LOTS**

SUBDIVISION AREA SUMMARY:	AREA	PERCENT
SINGLE FAMILY LOT AREA	19.55 AC	55%
INTERNAL RIGHT OF WAY	6.20 AC	18%
LIFT STATION TRACT:	0.06 AC	0.18%
PARK / OPEN SPACE TRACTS:	4.38 AC	12%
STORMWATER TRACTS:	5.23 AC	15%
TOTAL PROJECT AREA:	**35.43 AC**	**100%**
IMPERVIOUS AREA:	**17.35 AC**	**49%**
PERVIOUS AREA:	**18.07 AC**	**51%**

DETACHED DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	50 FT	50 FT
MIN. LOT DEPTH:	125 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	65 %
MAX. BUILDING HEIGHT:	35 FT	35 FT
SETBACKS:		
FRONT:	25 FT	25 FT
REAR:	20 FT	20 FT
SIDE:	5 FT	5 FT
GARAGE:	25 FT	25 FT

TOWNHOME DEVELOPMENT STANDARDS	(PROVIDED)	(REQUIRED)
MIN. LOT WIDTH:	20 FT	20 FT
MIN. LOT DEPTH:	110 FT	n/a
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %	n/a
MAX. BUILDING HEIGHT:	35 FT	45 FT
SETBACKS:		
FRONT:	25 FT	10 FT
REAR:	15 FT	10 FT
SIDE:	0 FT	0 FT
GARAGE:	25 FT	25 FT

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CERTIFICATE OF AUTHORIZATION
NUMBER 30013
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION #65936
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KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

REVISION
DATE

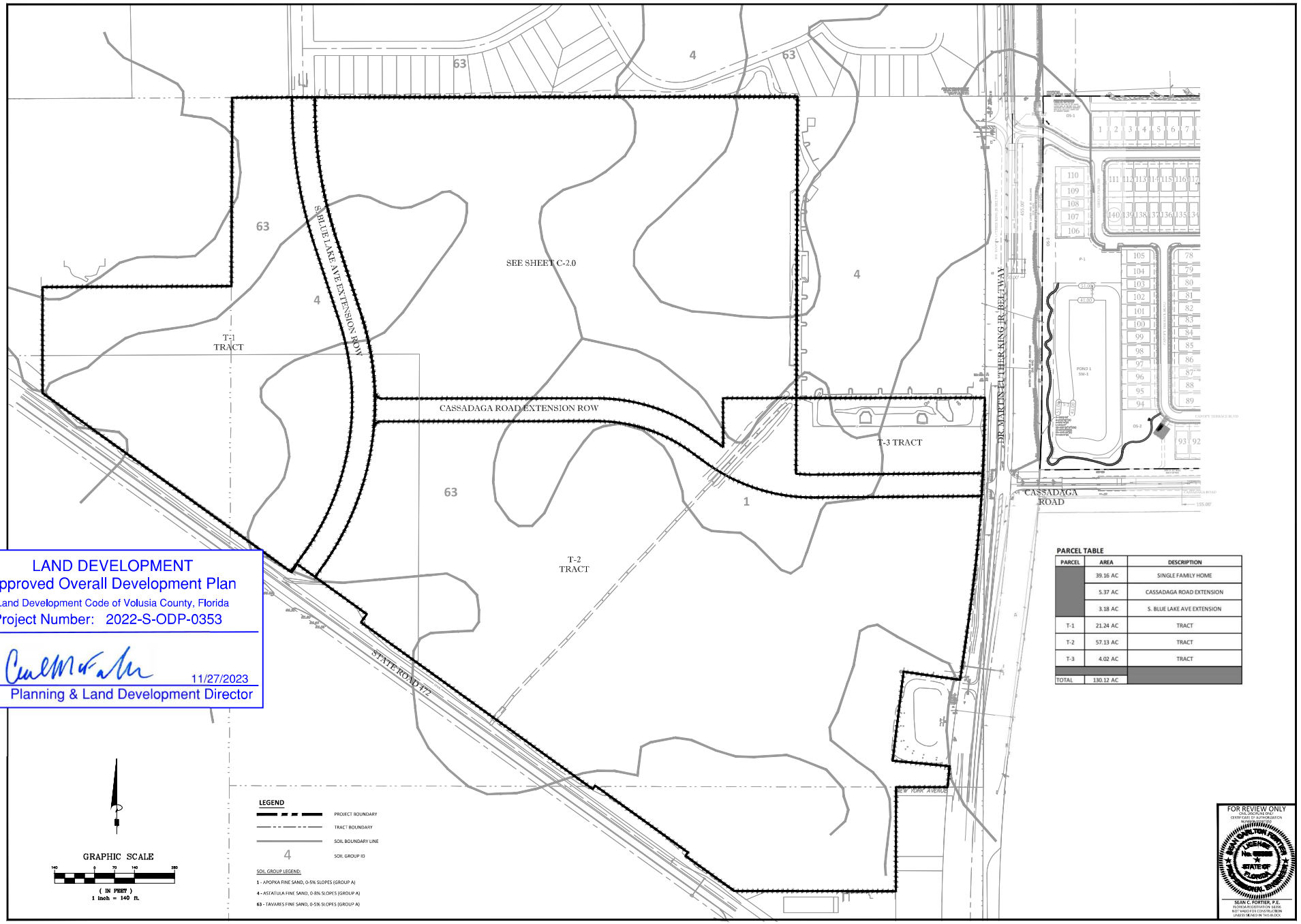
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

OVERALL PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-2.0



LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

PARCEL TABLE

PARCEL	AREA	DESCRIPTION
	39.16 AC	SINGLE FAMILY HOME
	5.37 AC	CASSADAGA ROAD EXTENSION
	3.18 AC	S. BLUE LAKE AVE EXTENSION
T-1	21.24 AC	TRACT
T-2	57.13 AC	TRACT
T-3	4.02 AC	TRACT
TOTAL	130.12 AC	

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CERTIFICATE OF AUTHORIZATION
NOT VALID WITHOUT SEAL

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68395
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KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

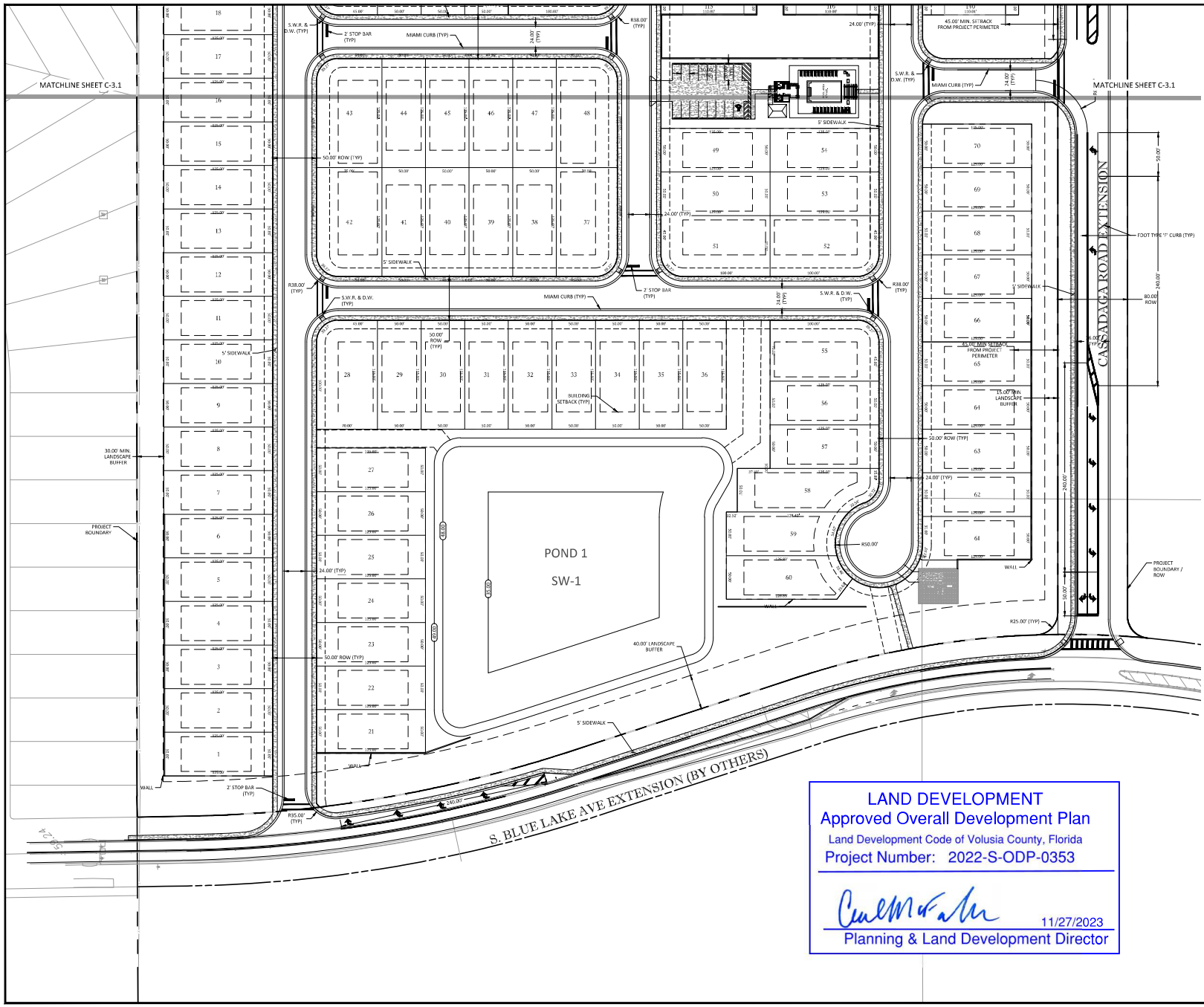
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

OVERALL PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1495.000
DATE: 08/21/2023

SHEET
C-2.1



KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-1700 FAX (407) 896-1486

REVISION
DATE

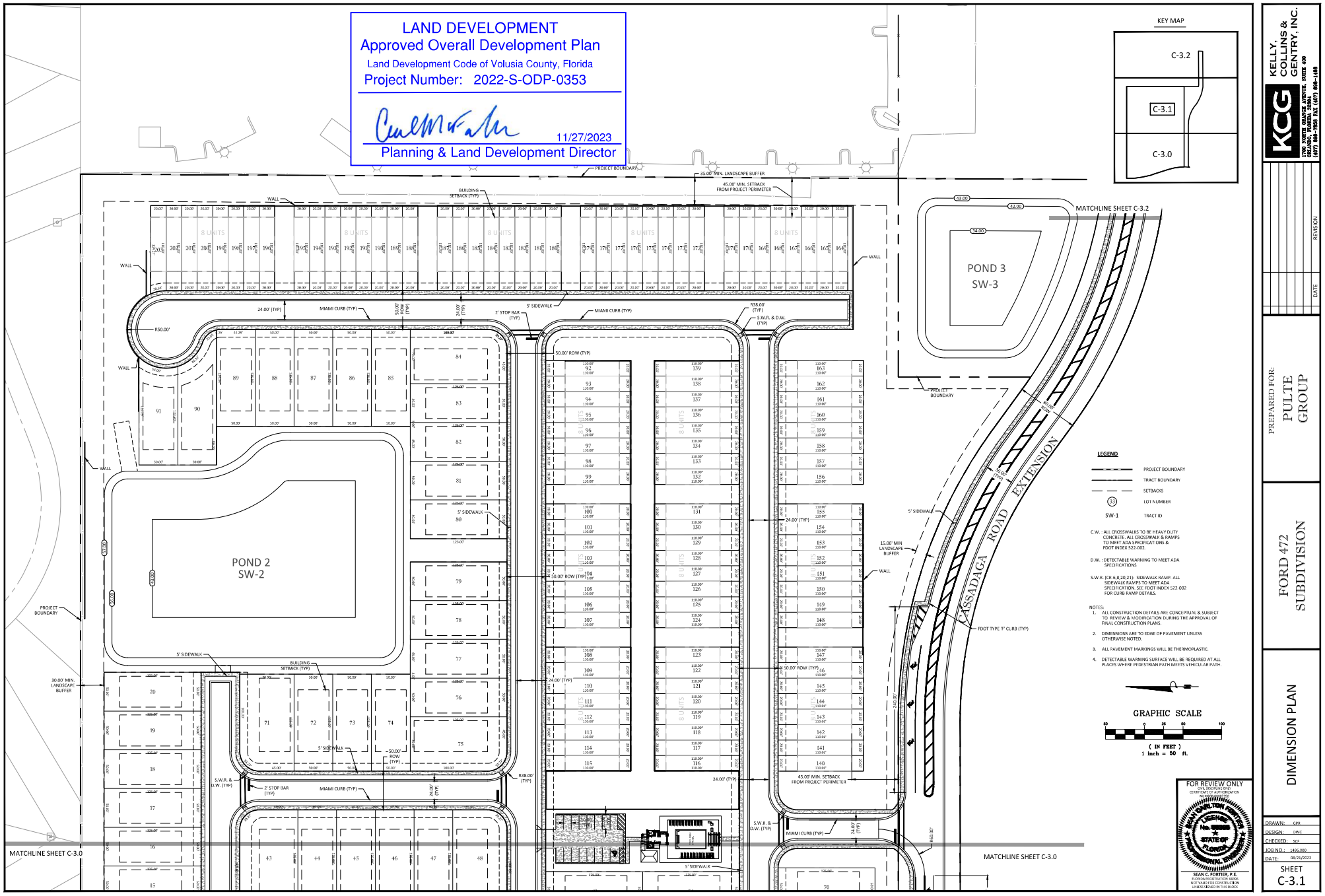
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-3.0



KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 586-7800 FAX (407) 896-1468

REVISION | DATE

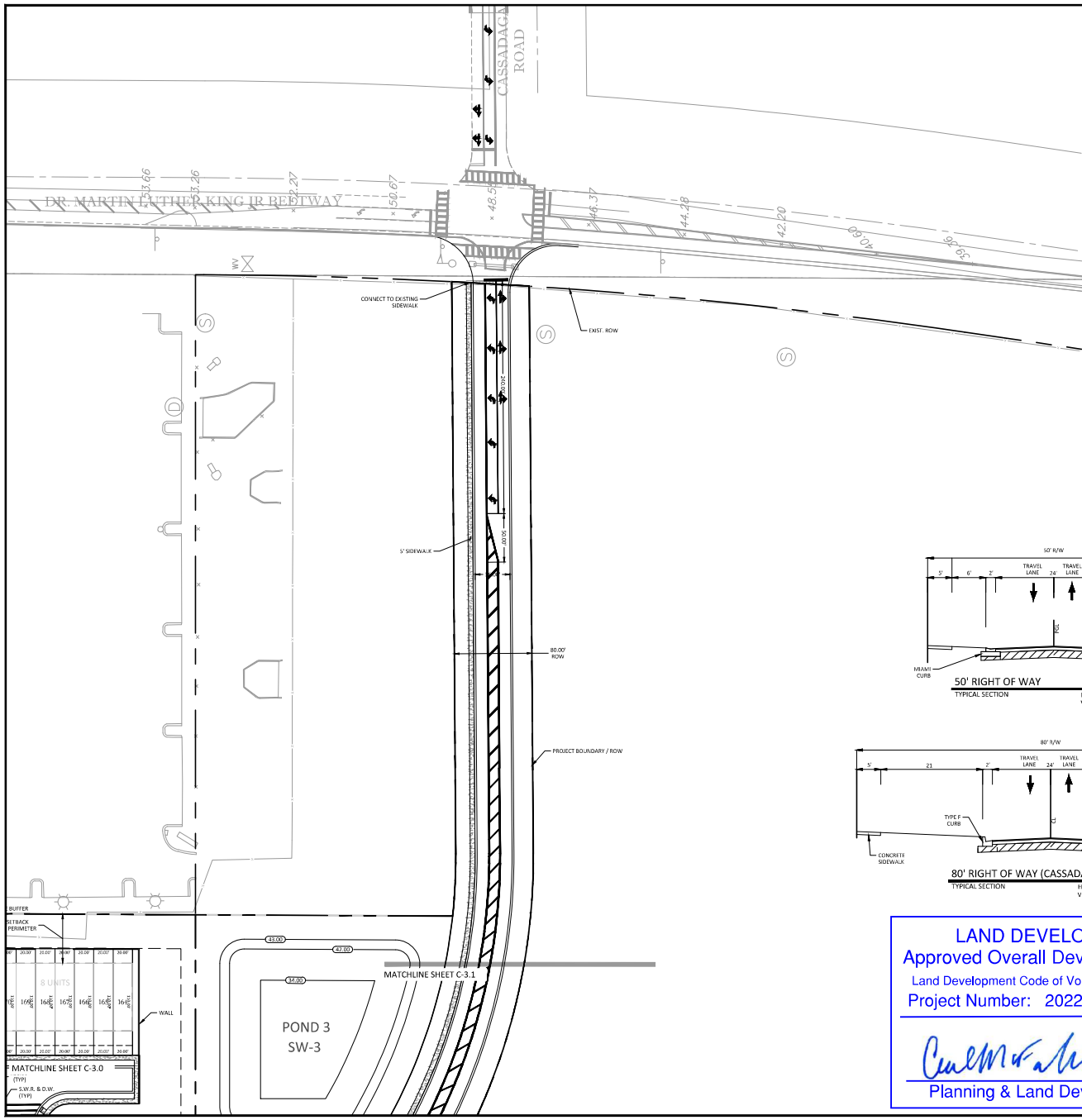
PREPARED FOR:
PULTE GROUP

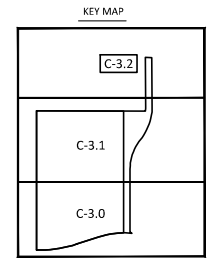
FORD 472
SUBDIVISION

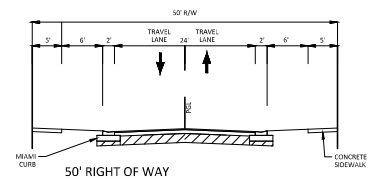
DIMENSION PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

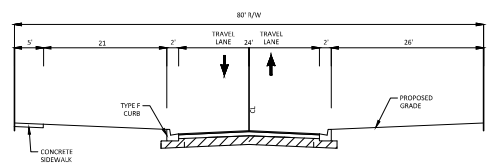
SHEET
C-3.1







50' RIGHT OF WAY
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



80' RIGHT OF WAY (CASSADAGA EXTENSION)
TYPICAL SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

LEGEND

- PROJECT BOUNDARY
- TRACT BOUNDARY
- SETBACKS
- 33 LOT NUMBER
- SW-1 TRACT ID

C.W. : ALL CROSSWALKS TO BE HEAVY DUTY CONCRETE. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

D.W. : DETECTABLE WARNING TO MEET ADA SPECIFICATIONS

S.W.R. (CR 6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522-002 FOR CURB RAMP DETAILS.

NOTES:

1. ALL CONSTRUCTION DETAILS ARE CONCEPTUAL & SUBJECT TO REVIEW & MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.
2. DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. ALL PAVEMENT MARKINGS WILL BE THERMOPLASTIC.
4. DETECTABLE WARNING SURFACE WILL BE REQUIRED AT ALL PLACES WHERE PEDESTRIAN PATH MEETS VEHICULAR PATH.

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

FOR REVIEW ONLY
ONE DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NO. 00000000

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68356
NOT VALID FOR CONSTRUCTION
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KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

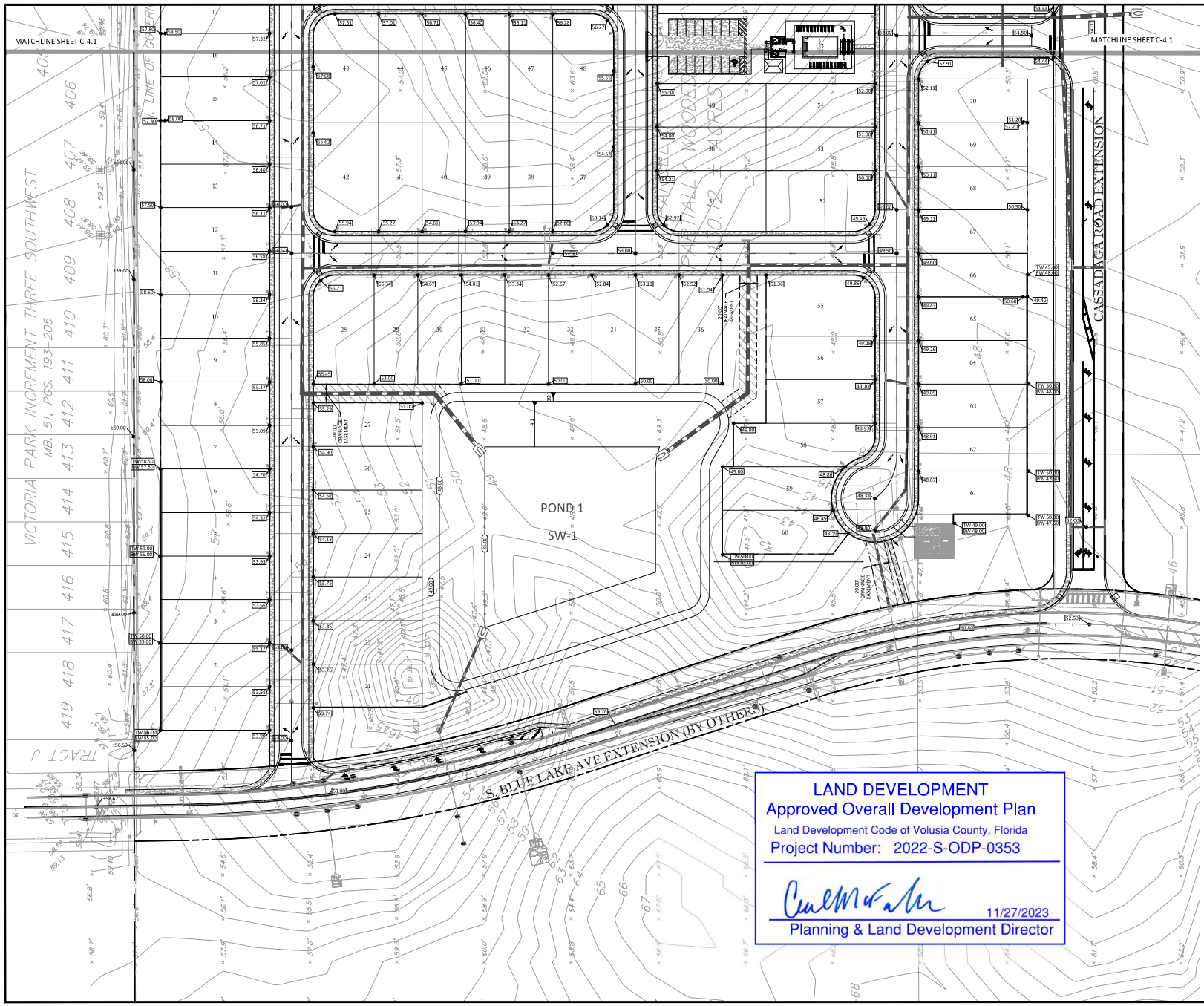
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

DIMENSION PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

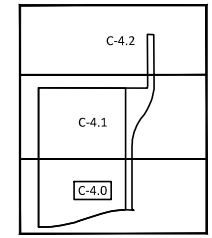
SHEET
C-3.2



LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- 71 PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
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GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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CERTIFICATE OF AUTHORIZATION
NO. 00000000

SEAN CARLTON FORTIER
LICENSE No. 55555
STATE OF FLORIDA
PROFESSIONAL ENGINEER

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 55555
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DATE	REVISION

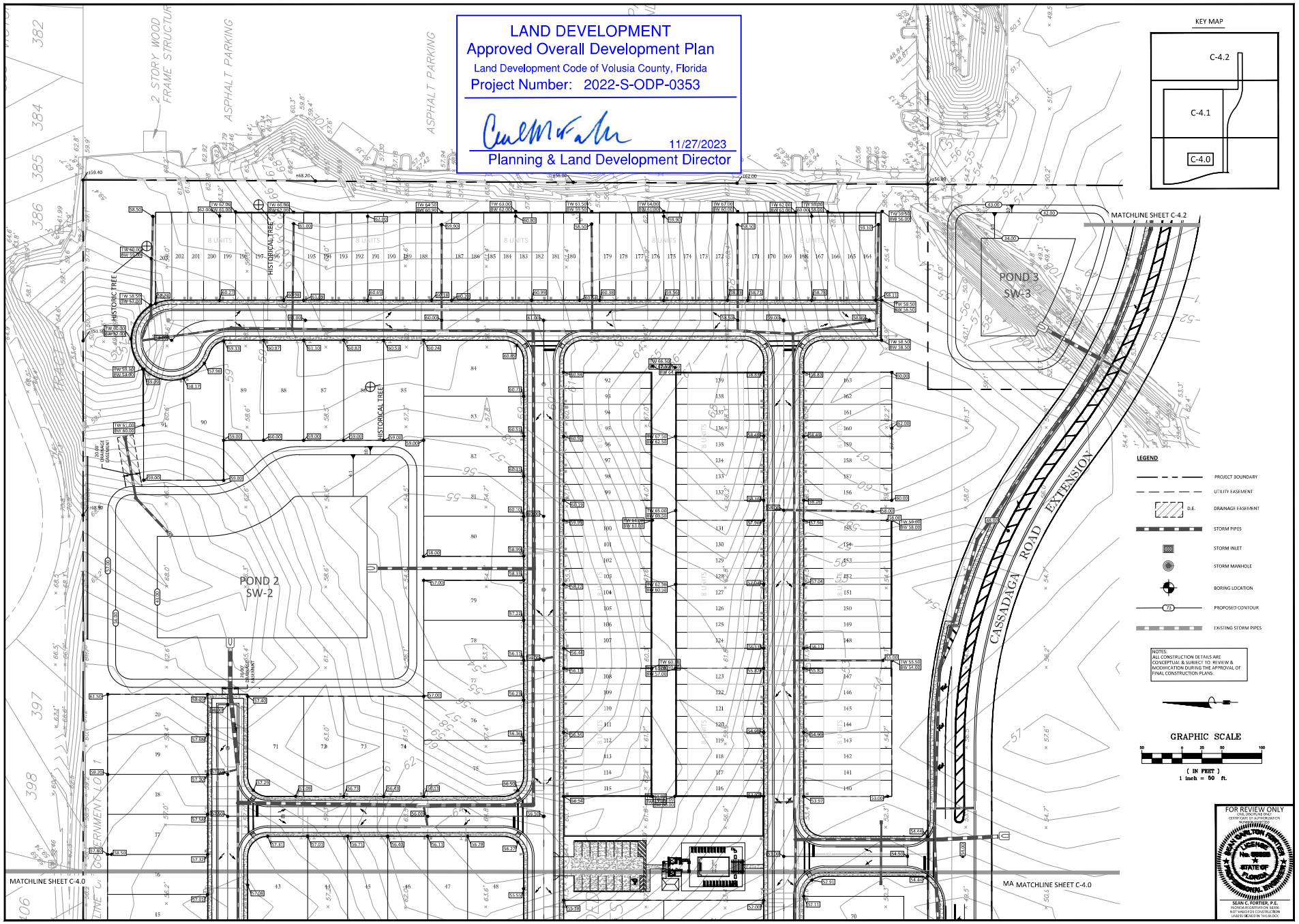
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

PAVING, GRADING, & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-4.0



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REVISION | DATE

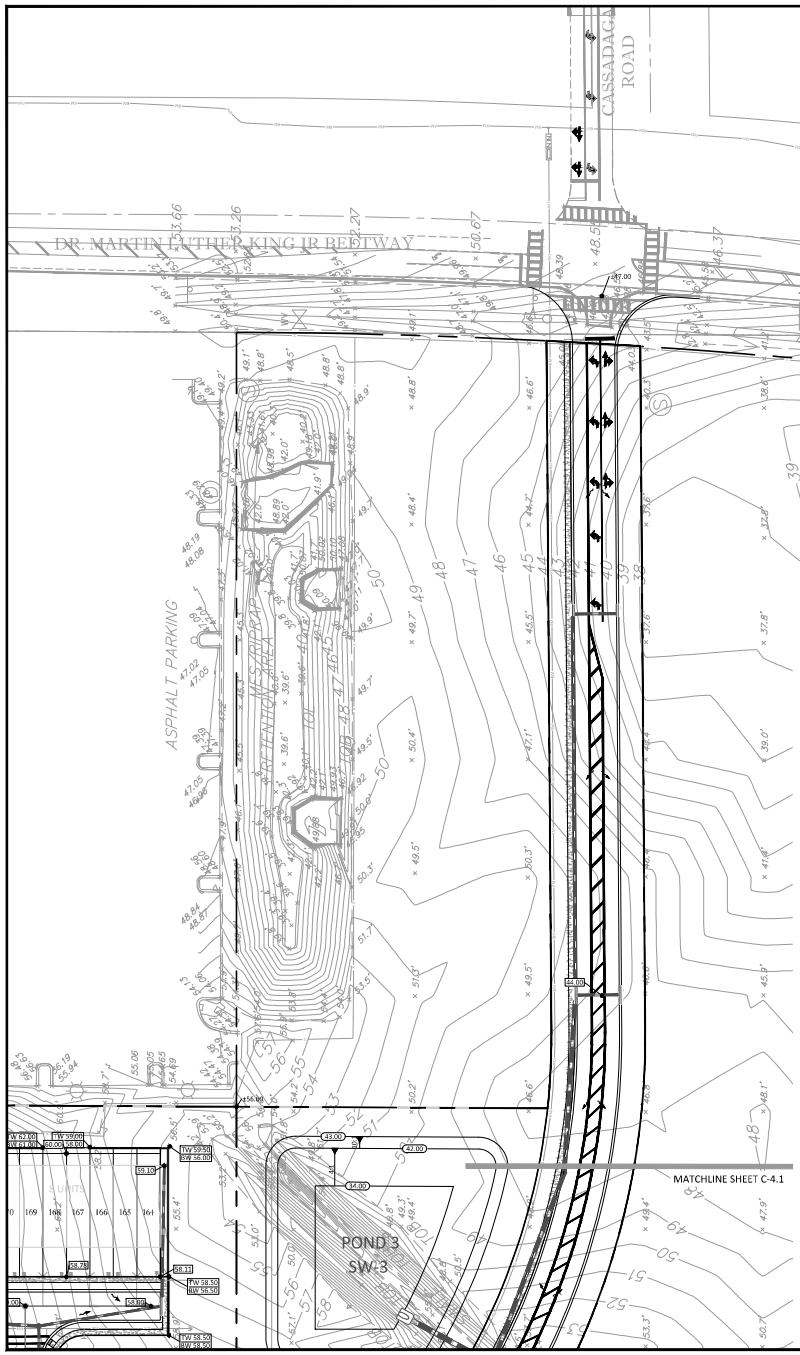
PREPARED FOR:
PULTE GROUP

FORD 472
SUBDIVISION

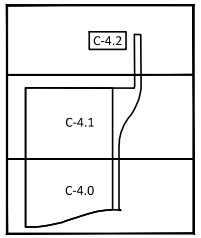
PAVING, GRADING, & DRAINAGE PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1486.000
DATE: 08/21/2023

SHEET
C-4.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- BORING LOCATION
- 73 PROPOSED CONTOUR
- EXISTING STORM PIPES

NOTES:
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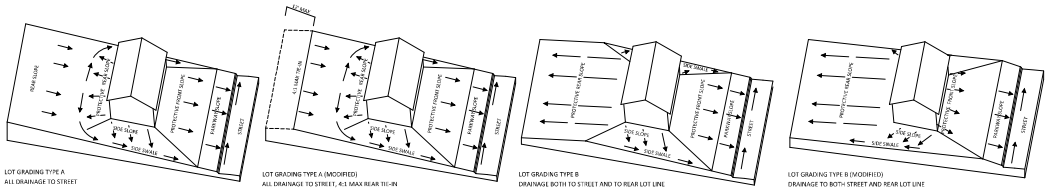

NOTE: REAR YARDS TO BE GRADED AT 10:1 MAX. A STEEPER TIE-IN SLOPE OF 4:1 MAY BE USED WITHIN 12' OF REAR PROPERTY LINE ONLY.

LOT GRADING DETAILS

NTS

LAND DEVELOPMENT
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11/27/2023
Planning & Land Development Director

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

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NO. 00000
SEAN CARLTON FORTIER
LICENSE No. 53555
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 53555
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KCG
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ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

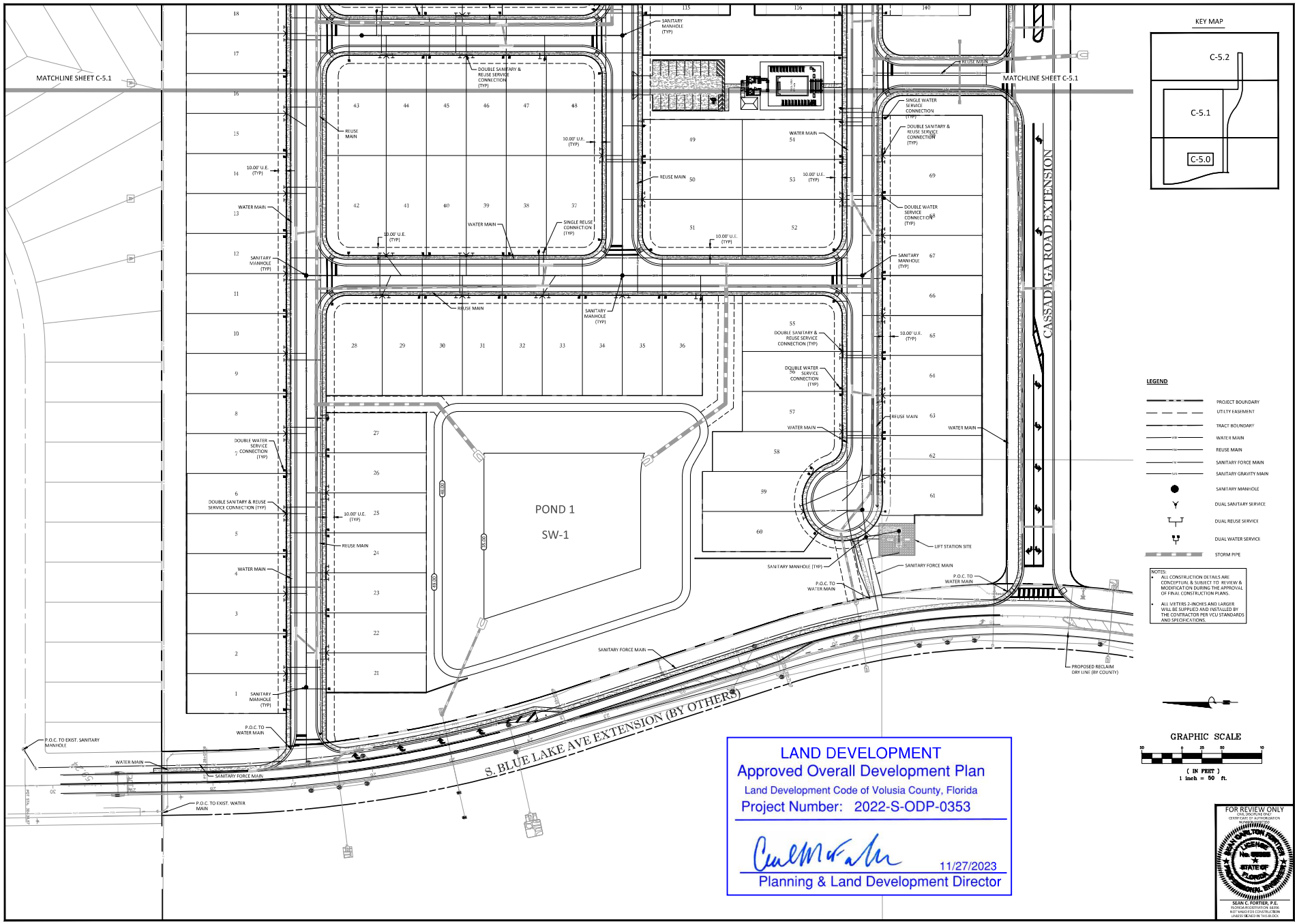
PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

PAVING, GRADING & DRAINAGE PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-4.2


MATCHLINE SHEET C-5.1
MATCHLINE SHEET C-5.1
CASSADAGA ROAD EXTENSION
POND 1
SW-1
S. BLUE LAKE AVE EXTENSION (BY OTHERS)
KEY MAP
C-5.2
C-5.1
C-5.0
LEGEND
PROJECT BOUNDARY
UTILITY EASEMENT
TRACT BOUNDARY
WATER MAIN
REUSE MAIN
SANITARY FORCE MAIN
SANITARY GRAVITY MAIN
SANITARY MANHOLE
DUAL SANITARY SERVICE
DUAL REUSE SERVICE
DUAL WATER SERVICE
STORM PIPE
NOTES:
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ALL MTERS 2-INCHES AND LARGER WILL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR PER VCU STANDARDS AND SPECIFICATIONS.
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353
11/27/2023
Planning & Land Development Director
FOR REVIEW ONLY
SEAN C. FORTIER, P.E.
PREPARED FOR:
PULTE GROUP
FORD 472 SUBDIVISION
UTILITY PLAN
DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1490.000
DATE: 08/21/2023
SHEET
C-5.0

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
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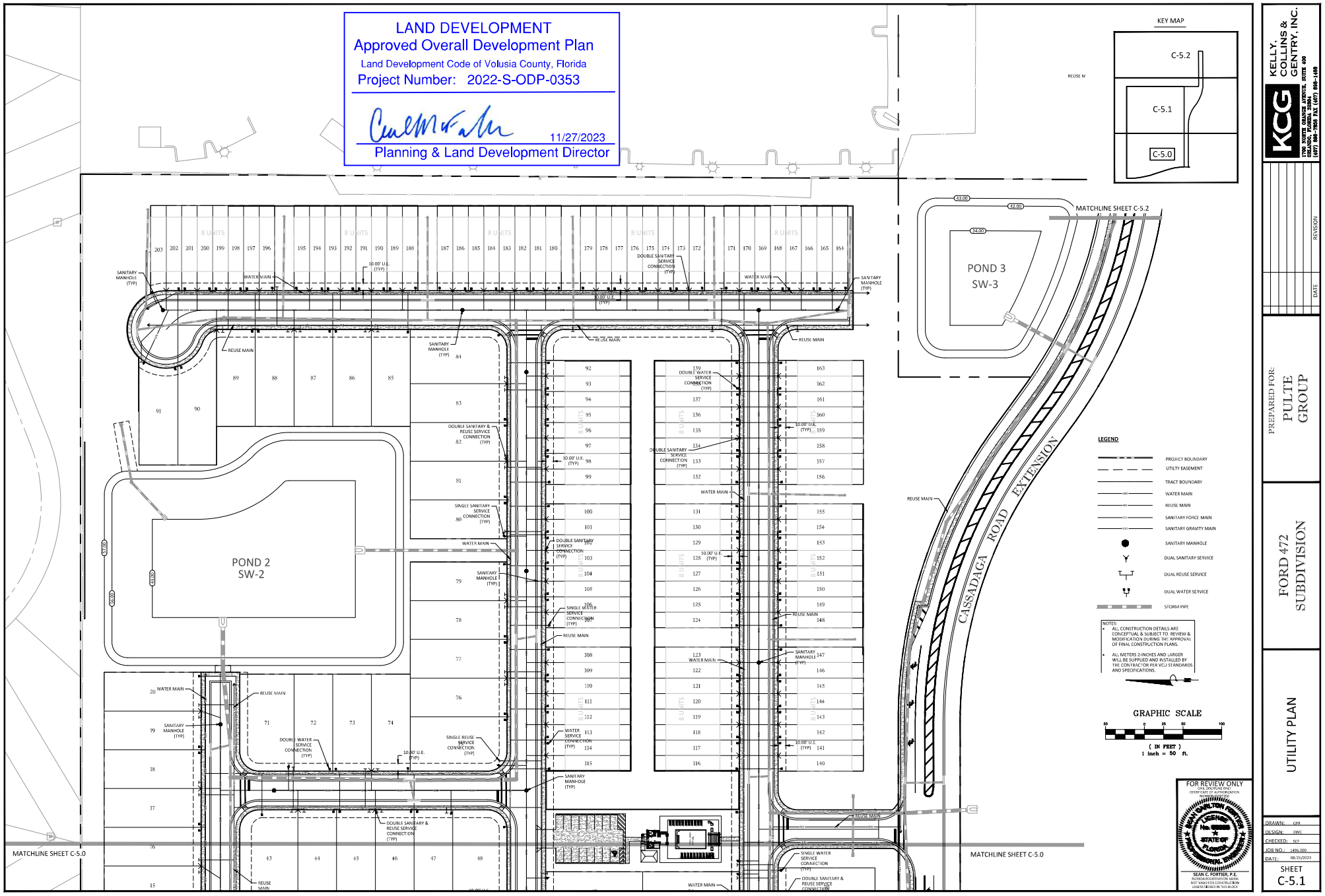
11/27/2023
Planning & Land Development Director



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(407) 586-7800 FAX (407) 896-1486

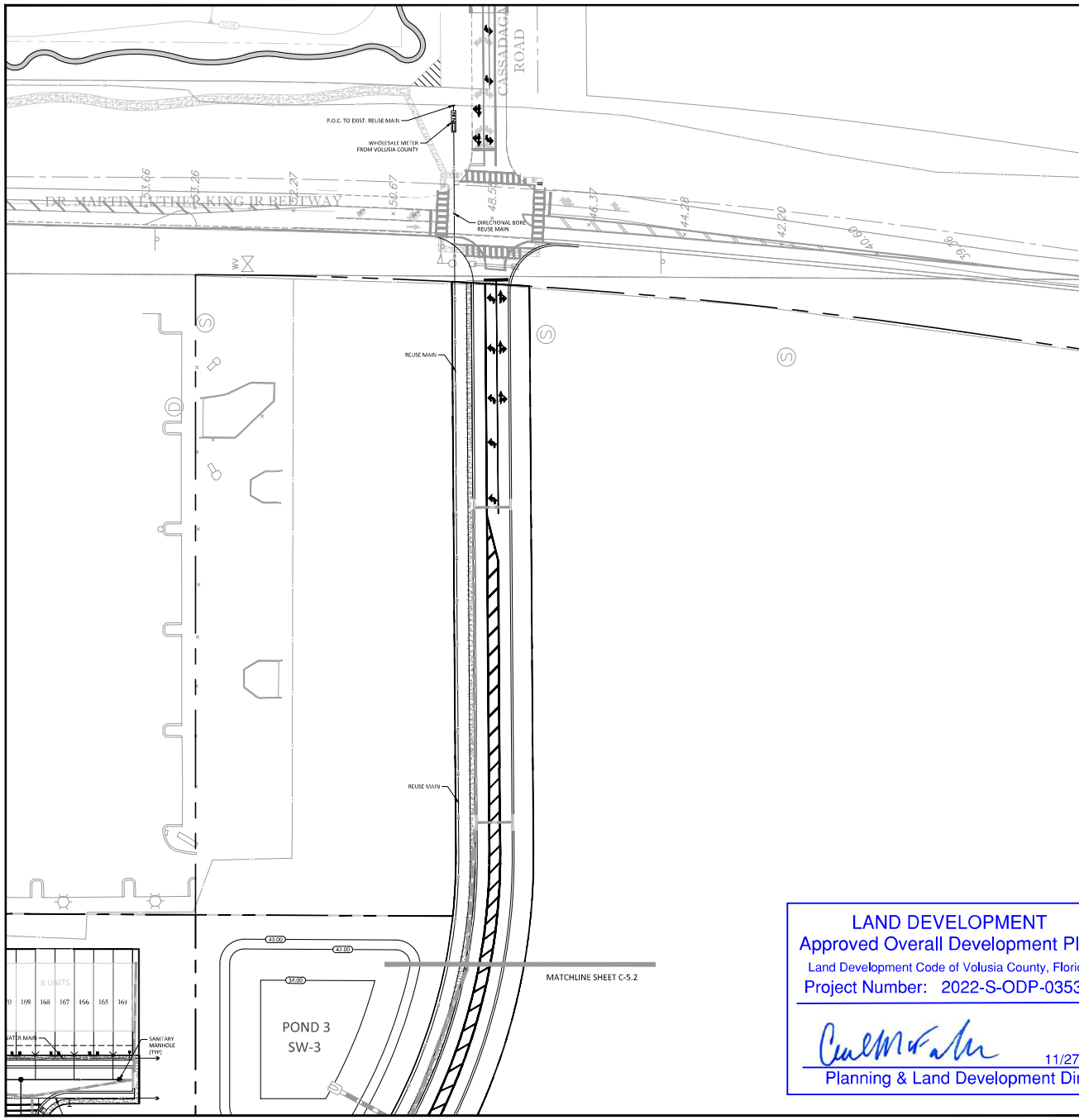
REVISION
DATE

PREPARED FOR:
PULTE GROUP

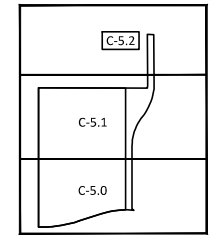
FORD 472
SUBDIVISION

UTILITY PLAN

DRAWN: CPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023
SHEET
C-5.1



KEY MAP



LEGEND

- PROJECT BOUNDARY
- UTILTY EASEMENT
- TRACT BOUNDARY
- WATER MAIN
- REUSE MAIN
- SANITARY FORCE MAIN
- SANITARY GRAVITY MAIN
- SANITARY MANHOLE
- DUAL SANITARY SERVICE
- DUAL REUSE SERVICE
- DUAL WATER SERVICE
- STORM PIPE

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GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

LAND DEVELOPMENT
Approved Overall Development Plan
Land Development Code of Volusia County, Florida
Project Number: 2022-S-ODP-0353

11/27/2023
Planning & Land Development Director

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CERTIFICATE OF AUTHORIZATION
#0000[illegible]

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68356
NOT VALID FOR CONSTRUCTION
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KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
PULTE GROUP

FORD 472 SUBDIVISION

UTILITY PLAN

DRAWN: GPR
DESIGN: DWC
CHECKED: SCF
JOB NO.: 1496.000
DATE: 08/21/2023

SHEET
C-5.2

6.3. Access Road. In the event a governmental authority requires, or Buyer desires, an access road (the "**Access Road**") connecting the Property to Dr. Martin Luther King, Jr. Boulevard, Seller agrees to dedicate or (at Seller's option) grant the easement or right of way necessary to satisfy such requirements across property Seller owns or controls, located to the east of the Property. Seller agrees to provide the easement or right of way at no additional cost to Buyer, and Buyer agrees to design, permit

and construct, at Buyer's expense, the necessary road, utilities and improvements related to the Access Road as provided in the Development Permits. Buyer and Seller will work together in good faith to determine the exact location, dimensions, terms and conditions of the Access Road to be documented by written agreement of the parties prior to the expiration of the Inspection Period, to the extent it is a requirement. Seller's obligation under this section are conditioned upon the parties agreeing to and entering into such written agreement and agreeing upon the design, plans and specifications of the Access Road.

Single-Family Detached Housing
(210)

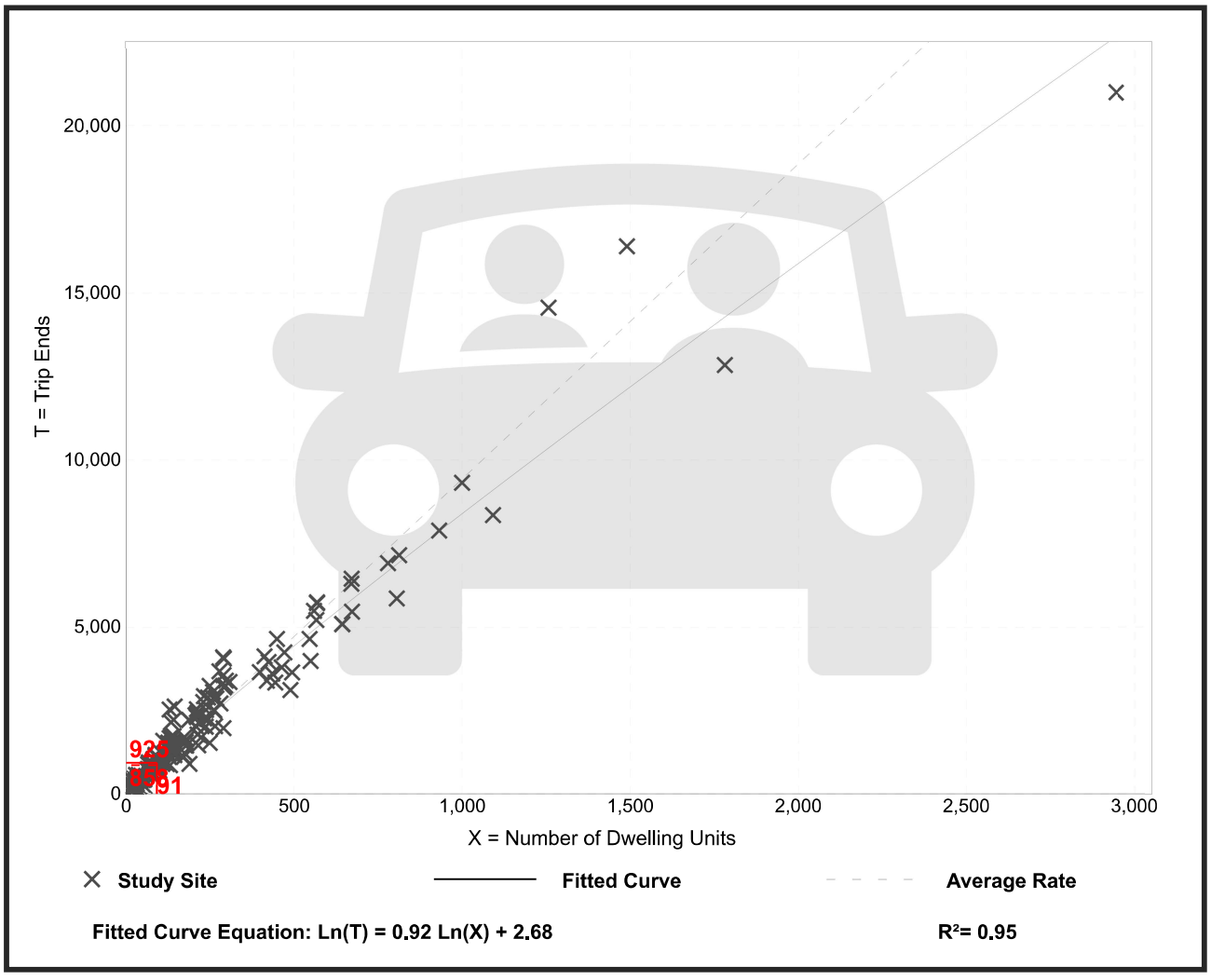
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

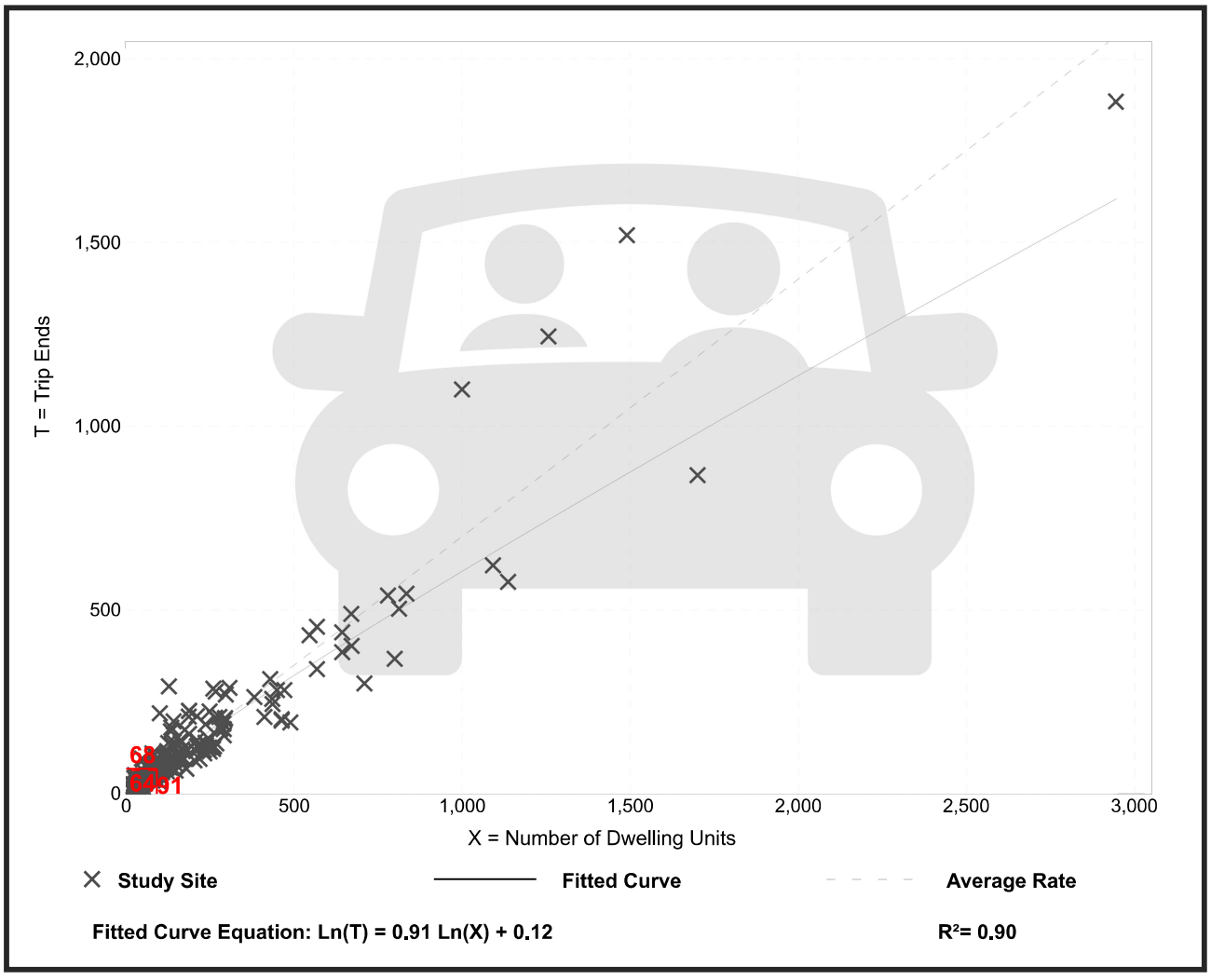
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	192
Avg. Num. of Dwelling Units:	226
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



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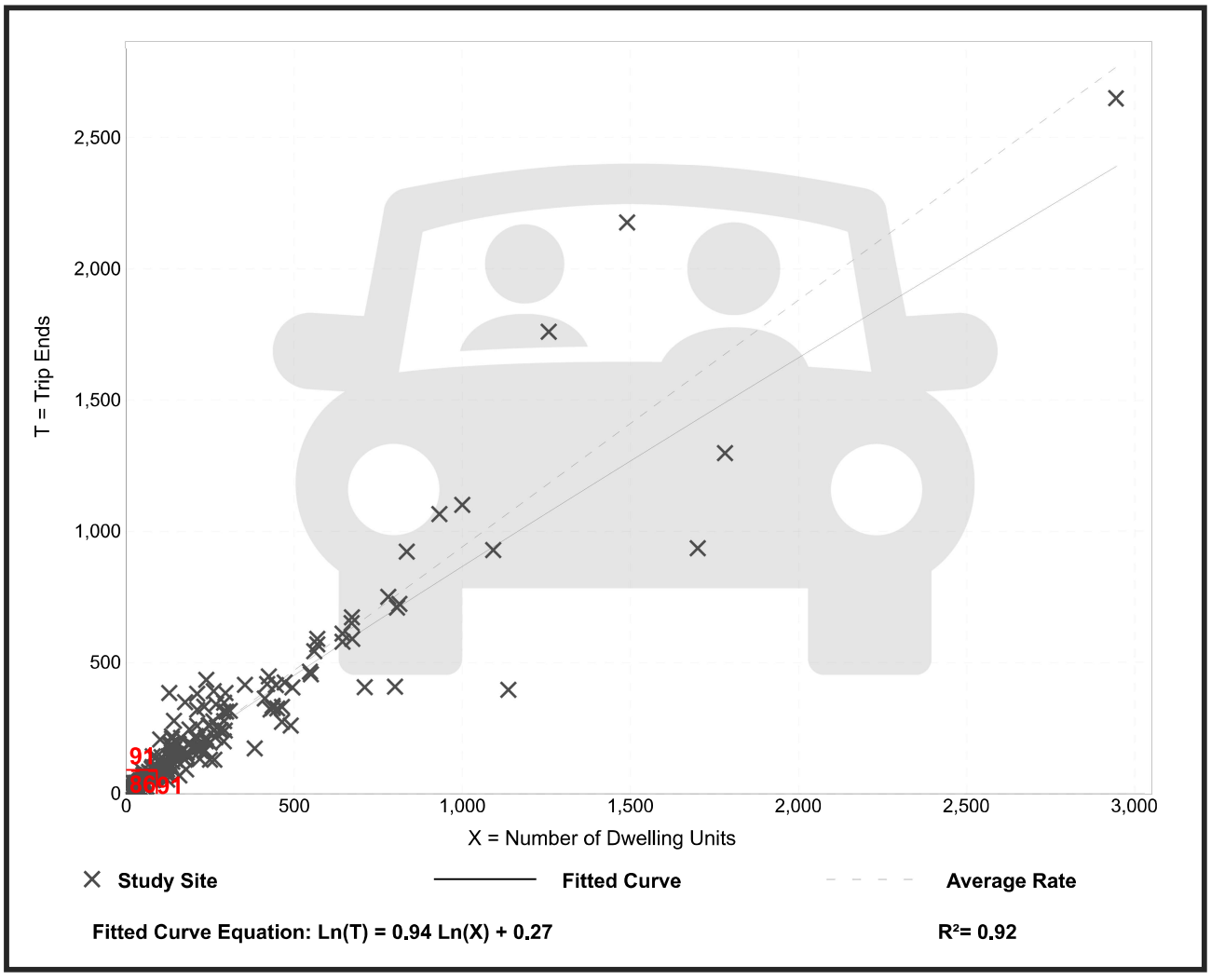
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	208
Avg. Num. of Dwelling Units:	248
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

Single-Family Attached Housing
(215)

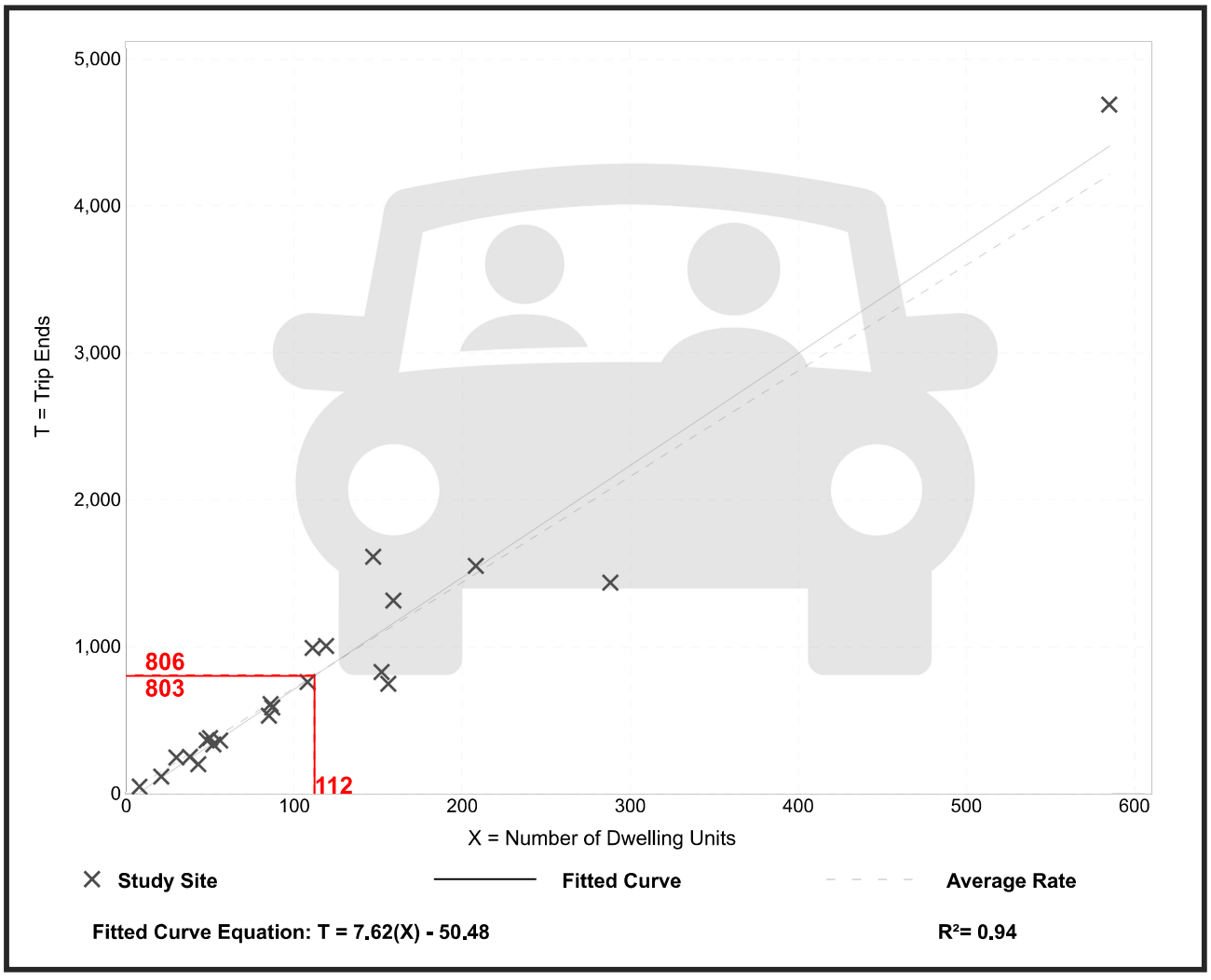
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



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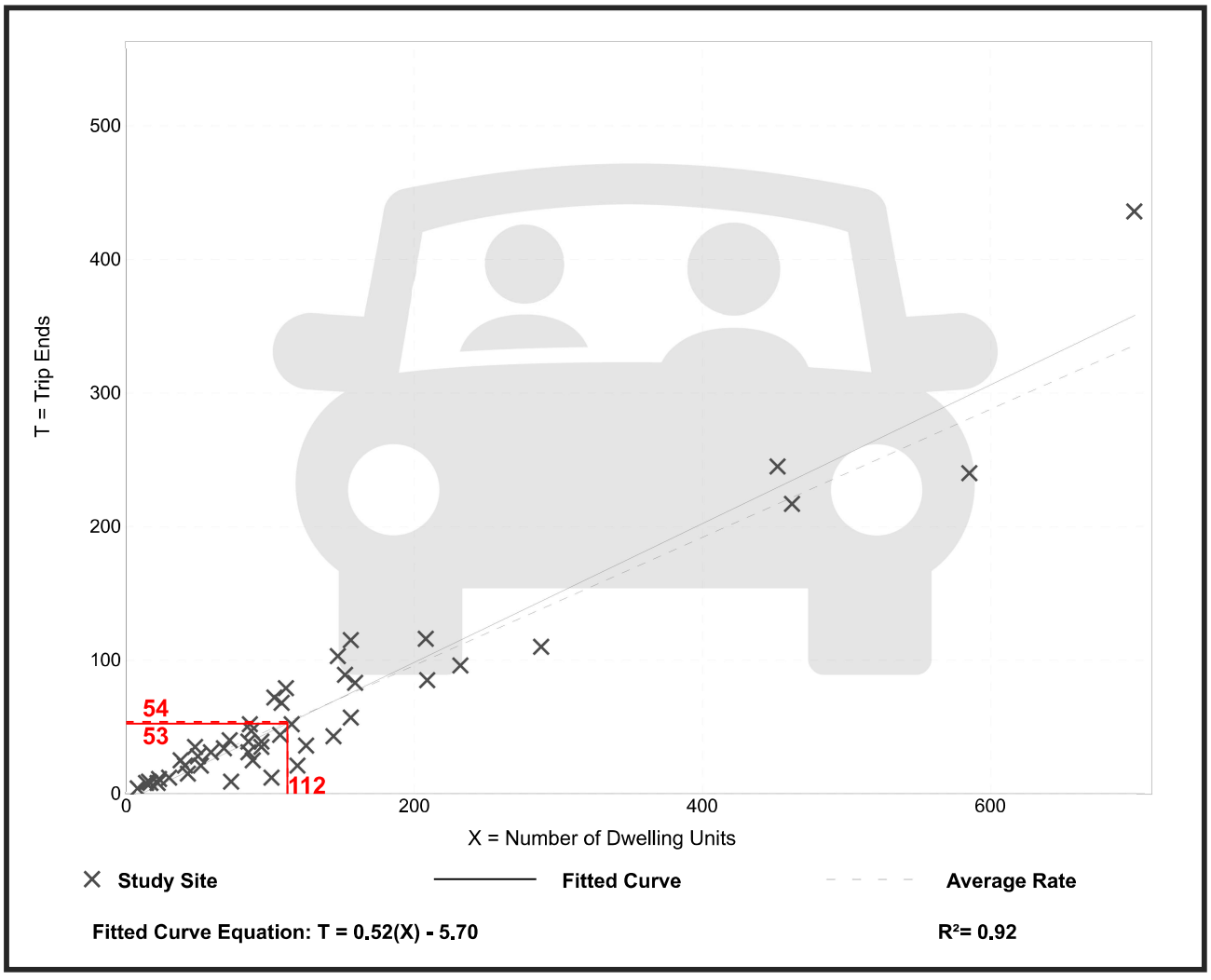
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	46
Avg. Num. of Dwelling Units:	135
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



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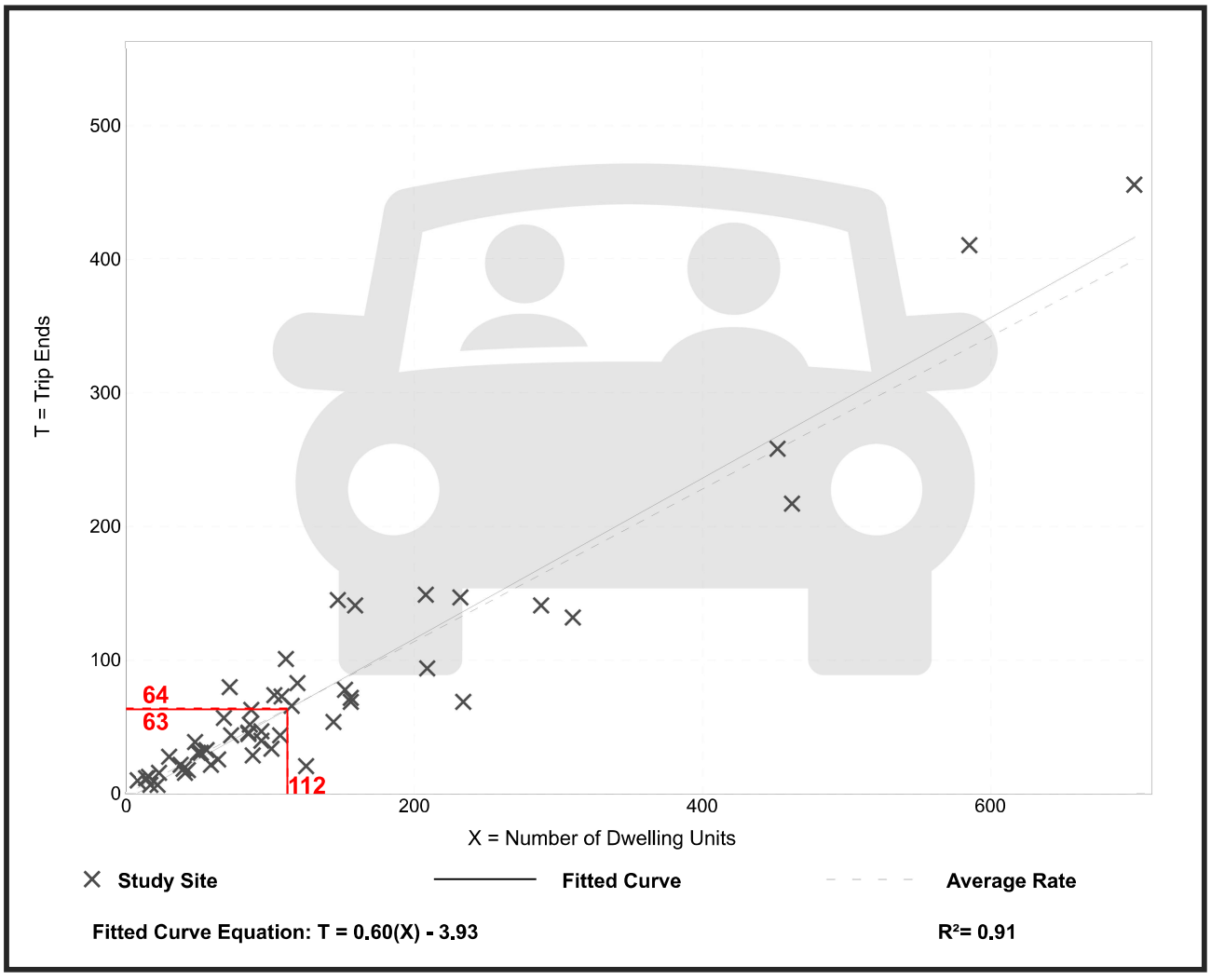
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



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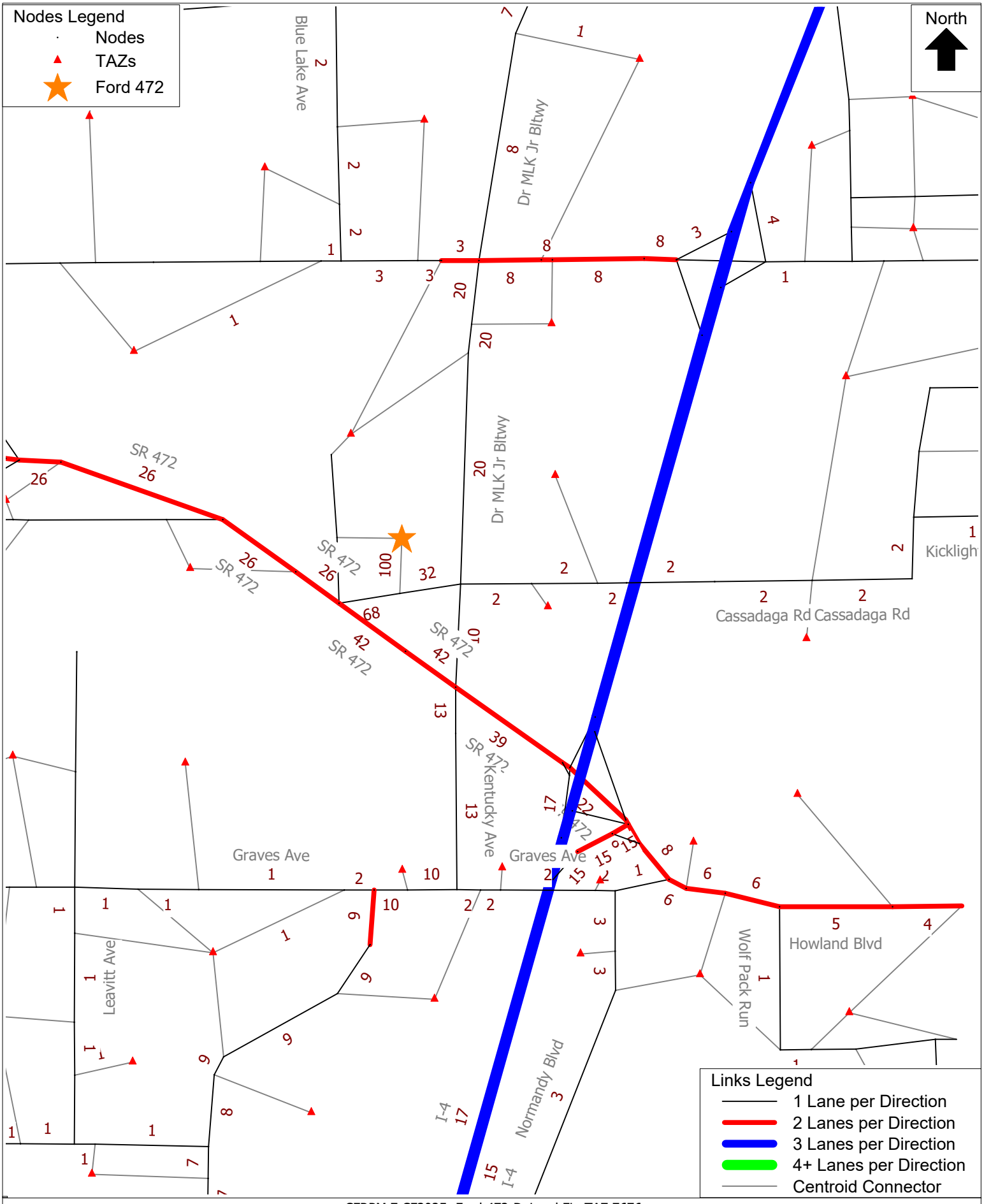

CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
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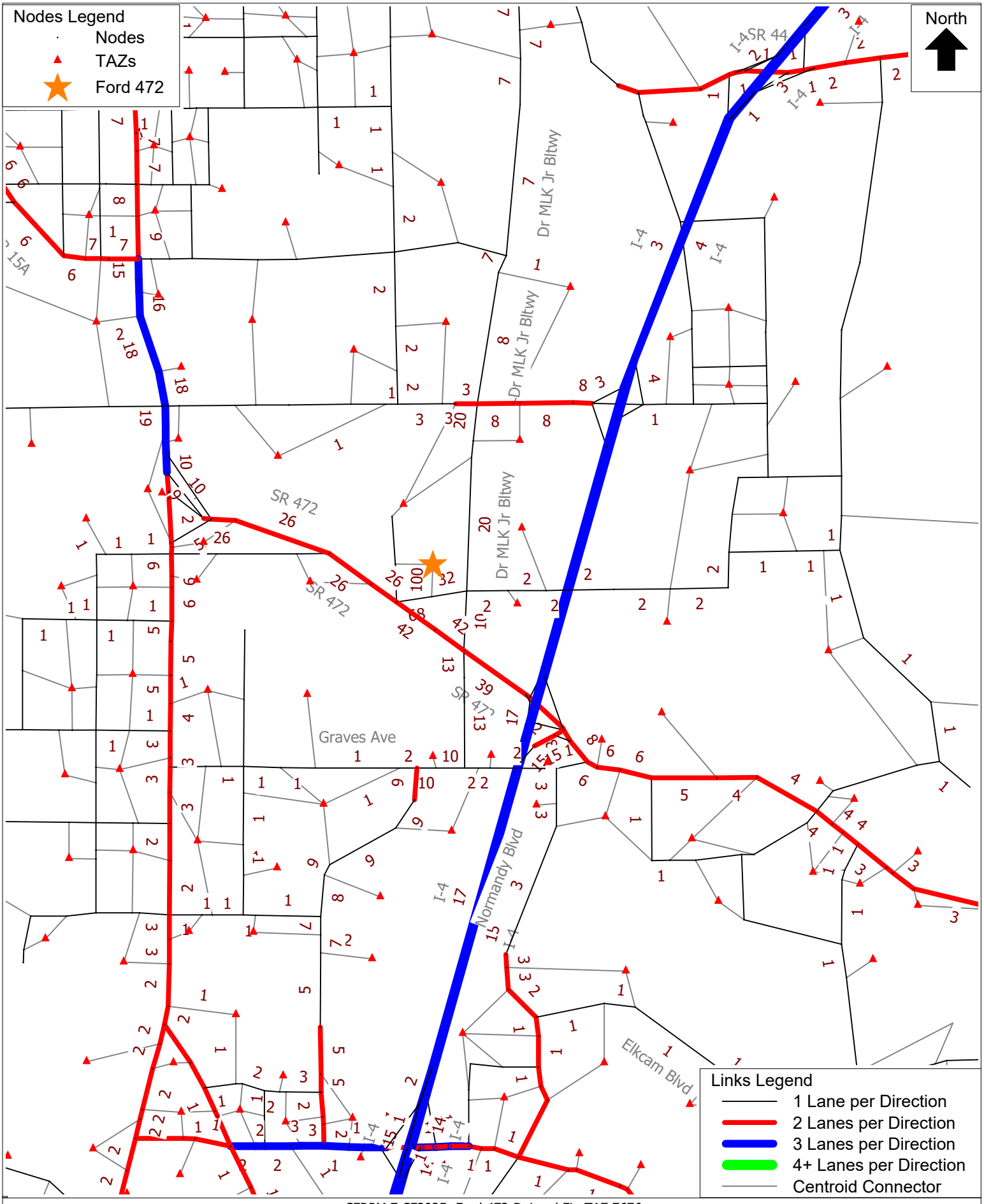

CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
C:\FSUTMS\D5\CFRPM7\Base\CF_2025\P21145\OUTPUT\HWYLOAD_SL_AllDay_A25.NET Fri 20 Aug 2021

cube

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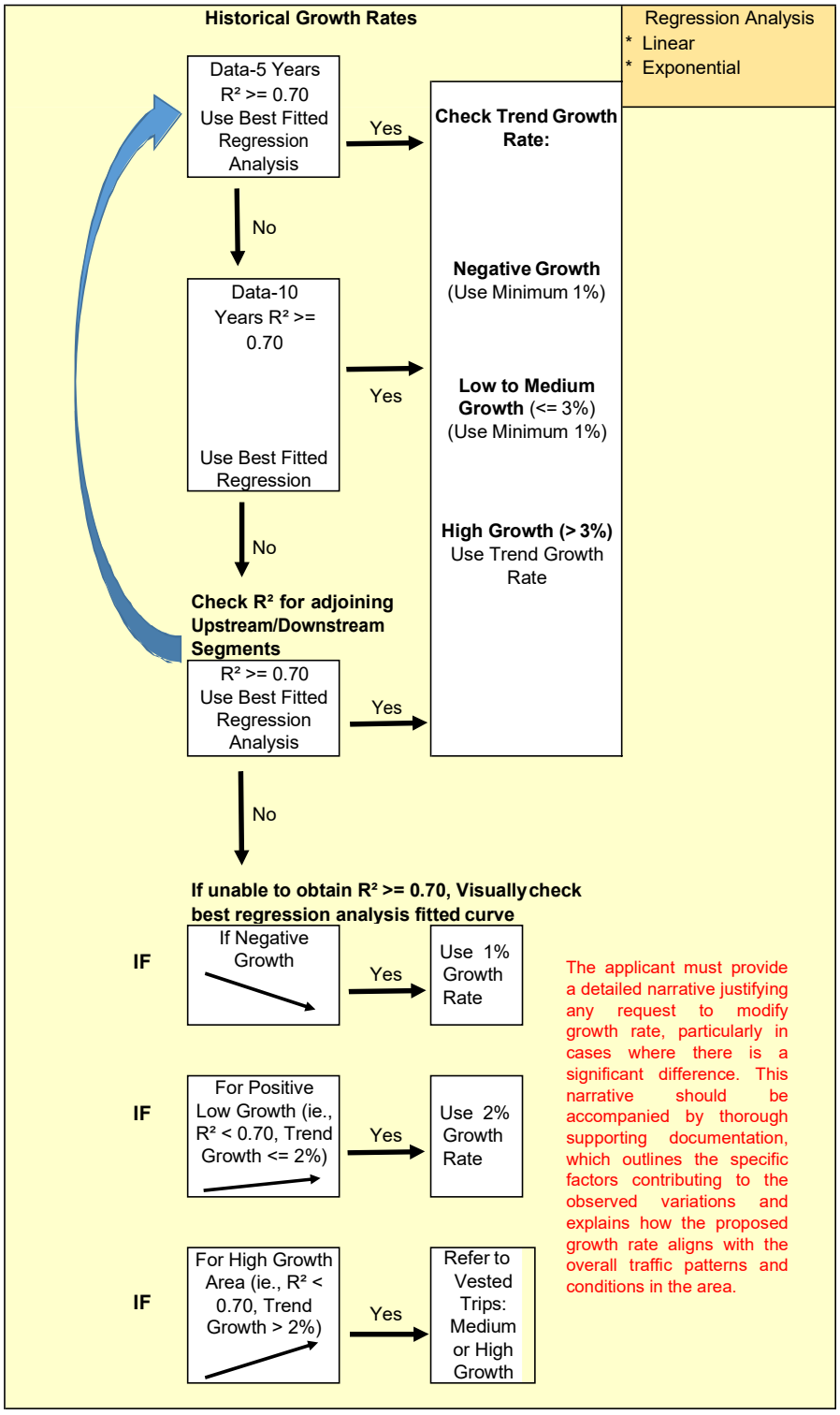
Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed	2020 QLOS Facility Type	2010 Federal Functional Classification	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	EST 2021 AADT	VC 2021 Allowable LOS	DAILY 2021 LOS Capacity	DAILY V/C Ratio	DAILY LOS	EST 2021 AM Peak	EST 2021 PM Peak	PEAK 2Way 2021 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	F_Type_20	Fun_Class_2010	AADT_11	AADT_12	AADT_13	AADT_14	AADT_15	AADT_16	AADT_17	AADT_18	AADT_19	AADT_20	AADT_21	VCA_LOS_21	Cap_21	VCRatio_20	LOS_20	AMPKHR_2	PMPKHR_2	2W_Cap_21	Lanes_20
I-4	Seminole Co. to Dirksen Dr.	484	FDOT	Yes	3.58	65	UA_FWIS_6L	Principal Arterial - Interstate - Urban	102,500	106,500	108,000	110,000	113,000	110,000	112,000	114,000	111,000	104,000		D	113,600	0.92	D			10,510	6
I-4	Dirksen Dr. to Saxon Blvd.	484	FDOT	Yes	2.79	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	93,600	93,900	96,400	99,800	106,510	108,000	-	112,700	111,000	104,000		D	113,600	0.92	D			10,510	6
I-4	Saxon Blvd. to SR 472	1003	FDOT	Yes	3.15	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	79,500	88,000	88,500	89,500	92,500	90,000	92,000	94,000	99,000	93,000		D	113,600	0.82	C			10,510	6
I-4	SR 472 to Orange Camp Rd.	485	FDOT	Yes	2.12	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	70,500	77,500	77,000	78,000	80,500	71,000	72,500	74,000	82,000	77,000		D	113,600	0.68	C			10,510	6
I-4	Orange Camp Rd. to SR 44	497	FDOT	Yes	2.56	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	62,000	55,500	60,500	65,500	71,500	74,500	77,000	79,000	80,000	78,000		D	113,600	0.69	C			10,510	6
I-4	SR 44 to US 92 Connector	486	FDOT	Yes	10.31	70	UA_FWIS_6L	Principal Arterial - Interstate - Rural	54,000	55,000	55,000	56,000	57,000	58,000	65,500	65,500	66,500	59,500		C	93,900	0.63	B			8,450	6
I-4	US 92 Connector to I-95	491	FDOT	Yes	3.52	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	43,000	40,000	40,000	41,000	41,500	42,000	46,000	47,000	48,000	51,000		D	113,600	0.45	B			10,510	6
I-95	Brevard Co. to SR 442/Indian River Blvd.	0436-B	FDOT	Yes	11.45	70	RUA_FW_6L	Principal Arterial - Interstate - Urban/Rural	30,500	30,000	26,500	27,500	36,000	29,000	29,000	30,500	33,000	32,000		C	69,000	0.46	B			7,250	6
I-95	SR 442/Indian River Blvd. to SR 44	503	FDOT	Yes	4.84	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	31,000	31,000	32,500	35,000	36,000	46,500	41,500	42,500	47,000	46,000		D	113,600	0.40	B			10,510	6
I-95	SR 44 to SR 421/Dunlawton Ave.	133	FDOT	Yes	6.99	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	36,600	36,900	36,600	37,700	37,000	40,700	-	-	24,000	43,000		D	113,600	0.38	B			10,510	6
I-95	SR 421/Dunlawton Ave. to I-4/SR 400/Beville	494	FDOT	Yes	4.57	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	44,500	42,500	45,000	46,500	47,500	49,500	51,500	-	68,000	74,500		D	113,600	0.66	C			10,510	6
I-95	I-4/SR 400/Beville Rd. to US 92/ISB	494	FDOT	Yes	1.26	65	UA_FWIS_6L + AUX	Principal Arterial - Interstate - Urban	74,500	71,500	71,500	75,500	77,000	66,500	62,500	66,500	68,000	74,500		D	113,600	0.66	C			10,510	6
I-95	US 92/ISB to LPGA Blvd.	494	FDOT	Yes	3.56	65	UA_FWIS_6L	Principal Arterial - Interstate - Urban	74,500	71,500	71,500	75,500	77,000	66,500	62,500	66,500	68,000	74,500		D	113,600	0.66	C			10,510	6
I-95	LPGA Blvd. to SR 40/Granada Blvd	534	FDOT	Yes	2.64	70	UA_FWIS_6L + AUX	Principal Arterial - Interstate - Urban	76,000	69,500	70,000	74,000	77,000	85,000	87,000	78,500	85,500	83,000		D	133,600	0.62	B			12,310	6
I-95	SR 40/Granada Blvd to US 1	495	FDOT	Yes	5.55	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	62,500	66,500	63,500	64,500	66,000	50,500	47,500	50,500	53,000	58,000		D	113,600	0.51	B			10,510	6
I-95	US 1 to Flagler Co. Line/Old Dixie	496	FDOT	Yes	5.00	70	UA_FWIS_6L	Principal Arterial - Interstate - Urban	60,500	64,500	69,500	70,500	72,500	66,000	62,000	65,500	67,000	73,500		D	113,600	0.65	C			10,510	6
US 1	Brevard Co. to Kennedy Pkwy.	531	FDOT	Yes	3.97	55	RUA_UFH_2W_4L	Principal Arterial - Other - Rural	3,400	3,100	3,100	3,200	3,400	3,600	3,400	3,400	4,200	4,000		C	31,200	0.13	B			4,270	4
US 1	Kennedy Pkwy. to Putnam Grove Rd.	531	FDOT	Yes	1.63	65	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	3,400	3,100	3,100	3,200	3,400	3,600	3,400	3,400	4,200	4,000		C	42,300	0.09	B			4,020	4
US 1	Putnam Grove Rd. to Halifax Ave.	531	FDOT	Yes	0.57	65	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	3,400	3,100	3,100	3,200	3,400	3,600	3,400	3,400	4,200	4,000		C	42,300	0.09	B			4,020	4
US 1	Halifax Ave. to H.H. Birch Rd.	9929	FDOT	Yes	2.05	45	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	11,000	11,100	11,100	11,400	12,400	13,300	13,600	14,100	14,300	13,400		C	42,300	0.32	B			4,020	4
US 1	H.H. Birch Rd. to Volco Rd.	9929	FDOT	Yes	3.70	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	11,000	11,100	11,100	11,400	12,400	13,300	13,600	14,100	14,300	13,400		D	39,800	0.34	C			3,580	4
US 1	Volco Rd. to SR 442/Indian River Blvd.	27	FDOT	Yes	2.26	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	18,900	19,000	18,800	18,200	20,400	21,500	21,500	22,500	23,500	22,500		D	39,800	0.57	C			3,580	4
US 1	SR 442/Indian River Blvd. to Park Ave.	5170	FDOT	Yes	1.49	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,500	25,500	25,000	24,500	25,500	27,500	28,500	29,500	25,500	24,500		D	39,800	0.62	C			3,580	4
US 1	Park Ave. to 10th Ave.	5168	FDOT	Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	25,500	25,000	25,000	26,000	26,000	26,000	27,000	26,000	25,000		D	39,800	0.63	C			3,580	4
US 1	10th Ave. to Canal St./Bus. SR 44	5154	FDOT	Yes	1.52	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	22,000	21,500	18,600	18,700	19,500	24,000	22,500	22,000	22,000	22,000		D	32,400	0.68	D			2,920	4
US 1	Canal St./Bus. SR 44 to Turnbull Bay Rd.	5155	FDOT	Yes	1.34	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	22,500	24,500	22,000	23,000	24,000	26,500	24,500	25,500	26,500	24,000		D	39,800	0.60	C			3,580	4
US 1	Turnbull Bay Rd. to Art Center Ave.	5159	FDOT	Yes	2.24	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	23,500	22,500	23,500	24,500	25,500	26,500	27,500	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
US 1	Art Center Ave. to SR 5A/Nova Rd.	13	FDOT	Yes	3.19	45	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	19,400	19,600	20,500	21,500	21,500	25,000	26,000	25,500	24,500	23,500		D	66,200	0.35	B			5,960	4
US 1	SR 5A/Nova Rd. to Commonwealth	152	FDOT	Yes	1.23	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	14,100	13,800	13,900	13,200	13,800	15,400	15,700	15,700	15,900	15,500		D	39,800	0.39	C			3,580	4
US 1	Commonweath to SR 421/Dunlawton Ave.	5057	FDOT	Yes	1.37	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,500	19,600	20,300	20,500	21,500	20,500	20,400	21,000	21,000	20,200		D	39,800	0.51	C			3,580	4
US 1	SR 421/Dunlawton Ave. to Reed Canal Rd.	213	FDOT	Yes	1.18	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	24,500	24,500	24,500	26,500	25,000	28,500	25,500	26,500	25,000	24,000		D	39,800	0.60	C			3,580	4
US 1	Reed Canal Rd. to Big Tree Rd.	5061	FDOT	Yes	1.17	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	25,000	26,500	27,500	28,500	27,000	28,000	27,500	27,500	23,000		D	39,800	0.58	C			3,580	4
US 1	Big Tree Rd. to Bellewood Ave.	5063	FDOT	Yes	0.45	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,500	24,500	27,000	29,000	30,000	-	-	-	24,500	23,500		D	39,800	0.59	C			3,580	4
US 1	Bellewood Ave. to SR 400/Beville Rd	5063	FDOT	Yes	0.27	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	28,000	27,500	26,000	29,000	30,000	26,500	26,000	27,000	24,500	23,500		D	39,800	0.59	C			3,580	4
US 1	SR 400/Beville Rd to Bellevue Ave.	452	FDOT	Yes	1.05	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	32,500	30,000	29,500	33,000	32,000	34,000	30,500	33,000	33,000	32,000		D	39,800	0.80	C			3,580	4
US 1	Bellevue Ave. to Orange Ave.	5066	FDOT	Yes	0.72	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	28,000	29,500	28,000	29,500	30,500	28,500	29,000	30,000	30,500	29,500		D	39,800	0.74	C			3,580	4
US 1	Orange Ave. to US 92/ISB	5070	FDOT	Yes	0.30	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	28,000	26,000	29,000	26,500	27,500	31,000	28,500	29,500	31,000	30,000		D	32,400	0.93	D			2,920	4
US 1	US 92/ISB to Fairview/Main St.	5074	FDOT	Yes	0.66	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	24,000	23,500	26,000	30,500	31,500	-	-	-	28,000	27,000		D	32,400	0.83	D			2,920	4
US 1	Fairview/Main St. to SR 430/Mason Ave.	5074	FDOT	Yes	0.54	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	27,000	27,000	27,500	27,000	28,000	27,000	27,000	26,000	28,000	27,000		D	32,400	0.83	D			2,920	4
US 1	SR 430/Mason Ave. to LPGA Blvd.	1018	FDOT	Yes	1.47	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	26,000	21,500	24,000	24,500	23,500	24,500	24,000	25,500	25,500	24,000		D	32,400	0.74	D			2,920	4
US 1	LPGA Blvd. to Hand Ave.	1018	FDOT	Yes	2.00	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,000	21,500	24,000	24,500	23,500	24,500	24,000	25,500	25,500	24,000		D	39,800	0.60	C			3,580	4
US 1	Hand Ave. to SR 40/Granada Blvd.	5142	FDOT	Yes	0.84	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,500	19,000	20,300	20,800	21,500	22,000	23,000	23,500	24,000	23,000		D	39,800	0.58	C			3,580	4
US 1	SR 40/Granada Blvd. to SR 5A/Nova Rd.	1019	FDOT	Yes	1.83	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,300	16,400	16,600	17,500	18,100	19,300	20,000	19,100	19,300	19,500		D	39,800	0.49	C			3,580	4
US 1	SR 5A/Nova Rd. to Airport Rd.	100	FDOT	Yes	1.13	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,000	22,500	25,500	26,500	26,000	28,500	29,500	30,500	32,000	31,000		D	39,800	0.78	C			3,580	4
US 1	Airport Rd. to I-95	351	FDOT	Yes	2.81	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,500	19,400	20,200	21,000	22,500	23,000	24,500	23,500	23,500	22,500		D	39,800	0.57	C			3,580	4
US 1	I-95. to Flagler Co Line	536	FDOT	Yes	1.53	60	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	15,100	13,400	14,300	14,200	14,800	16,000	16,800	17,200	18,200	17,600		D	66,200	0.27	B			5,960	4
US 17/92	Seminole Co. to Barwick Rd.	0040-S	FDOT	Yes	0.52	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,800	19,300	22,000	22,500	26,500	27,500	29,500	31,000	33,000	32,000		D	39,800	0.80	C			3,580	4
US 17/92	Barwick Rd to Ft. Florida Rd.	0040-S	FDOT	Yes	0.76	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,800	19,300	22,000	22,500	26,500	27,500	29,500	31,000	33,000	32,000		D	39,800	0.80	C			3,580	4
US 17/92	Ft. Florida Rd. to Dirksen Dr.	101	FDOT	Yes	0.72	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,800	19,300	23,000	24,000	23,000	28,500	28,000	30,000	30,000	29,000		D	39,800	0.73	C			3,580	4
US 17/92	Dirksen Dr. to Valencia Rd.	479.1	FDOT	Yes	1.05	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	21,500	21,500	21,000	22,500	22,000	24,000	25,000	24,500	23,500		D	39,800	0.59	C			3,580	4
US 17/92	Valencia Rd to Highbanks Rd.	7	FDOT	Yes	0.74	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	21,500	21,500	21,500	24,000	24,500	25,500	25,500	25,500	24,500		D	39,800	0.62	C			3,580	4
US 17/92	Highbanks Rd. to DeBary Plantation Blvd	8	FDOT	Yes	0.92	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	26,000	22,000	23,000	24,500	25,500	25,000	25,000	25,000	24,000		D	39,800	0.60	C			3,580	4
US 17/92	DeBary Plantation Blvd to Saxon Blvd.	509	FDOT	Yes	0.61	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	26,000	26,000	25,500	27,500	30,500	29,500	32,000	31,500	30,500		D	39,800	0.77	C			3,580	4
US 17/92	Saxon Blvd. to Enterprise Rd.	539	FDOT	Yes	0.80	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	26,000	17,600	18,600	19,400	21,000	22,000	23,000	24,000	23,000		D	39,800	0.58	C			3,580	4
US 17/92	Enterprise Rd. to Rhode Island Ave.	444	FDOT	Yes	0.75	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	32,500	29,500	30,500	29,000	32,000	31,500	31,000	33,000	32,000	31,000		D	39,800	0.78	C			3,580	4
US 17/92	Rhode Island Ave. to Graves Ave.	5165	FDOT	Yes	1.01	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	29,000	26,500	29,000	27,500	28,500	31,000	32,000	32,000	32,000	31,000		D	39,800	0.78	C			3,580	4
US 17/92	Graves Ave. to New York Ave.	5166	FDOT	Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	29,000	27,500	26,500	27,500	28,500	29,500	29,500	30,500	31,000	30,000		D	39,800	0.75	C			3,580	4
US 17/92	New York Ave to SR 472	445	FDOT	Yes	0.75	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,000	27,000	25,000	28,000	29,000	30,000	30,000	30,000	29,000		D	39,800	0.73	C			3,580	4
US 17/92	SR 472 to SR 15A/Taylor Rd.	1004	FDOT	Yes	1.75	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	44,000	41,000	45,000	42,000	47,000	47,000	47,500	55,500	54,500	52,500		D	59,900	0.88	C			5,390	6
US 17/92	SR 15A/Taylor Rd. to Beresford Ave.	1006	FDOT	Yes	1.02	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,500	27,000	27,000	27,500	23,500	33,500	30,000	31,000	32,000	31,000		E	42,190	0.73	C			3,790	4
US 17/92	Beresford Ave. to Euclid Ave.	5173	FDOT	Yes	0.49	35	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	18,000	16,800	16,600	16,400	17,000	16,300	18,500	19,300	19,400	18,700		E	16,380	1.14	F			1,480	2
US 17/92	Euclid Ave. to SR 44/New York Ave.	5004	FDOT	Yes	0.49	30	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	16,600	15,100	16,300	14,800	15,400	17,200	17,800	13,000	13,200	12,800		E	15,600	0.82	D			1,410	2
US 17/92	SR 44/New York Ave. to Plymouth Ave.	5008	FDOT	Yes	1.01	30	UA_SSAC2_2W_2L	Principal Arterial - Other - Urban	16,400	16,000	16,300	15,500	16,100	18,200	16,200	19,100	19,300	18,700		DeLand	19,150	0.98	DeLand			1,410	2
US 17/92	Plymouth Ave. to US 92/ISB	66	FDOT	Yes	0.83	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,500	22,500	20,500	21,000	22,000	23,000	21,500	22,500	23,000	22,000		E	42,190	0.52	C			3,790	4
US 17	US 92 to Mercers Fernery Rd.	1000	FDOT	Yes	0.68	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	30,000	27,500	29,000	29,000	30,000	33,500	29,000	37,500	33,000	32,000		E	42,190	0.76	C			3,790	4
US 17	Mercers Fernery Rd. to Glenwood Rd.	69	FDOT	Yes	0.51	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	20,500	20,500	19,500	21,000	24,500	25,500	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
US 17	Glenwood Rd. to SR 15A/CR 15A	236	FDOT	Yes	1.64	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	14,500	13,700	13,500	13,500	14,800	14,800	17,300	15,200	15,000	14,600		D	39,800	0.37	C			3,580	4
US 17	SR 15A/CR 15A to Reynolds Rd	476	FDOT	Yes	2.76	45	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	16,400	16,000	15,800	16,200	17,200	17,200	18,500	18,100	18,300	17,700		D	66,200	0.27	B			5,960	4
US 17	Reynolds Rd to Spring Garden Ranch Rd.	519	FDOT	Yes	1.09	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	10,100	10,200	10,100	10,000	10,400	11,400	11,600	12,000	11,600	11,200		D	24,200	0.46	B			2,180	2
US 17	Spring Garden Ranch Rd. to Lake Winona Rd	104	FDOT	Yes	0.56	45	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	7,500	7,400	7,300	7,400	8,100	8,400	8,600	9,000	9,600	9,400		D	24,200	0.39	B			2,180	2
US 17	Lake Winona Rd. to SR 40	104	FDOT	Yes	4.93	45	RUA_UFH_2W_2L_	Principal Arterial - Other - Rural	7,500	7,400	7,300	7,400	8,100	8,400	8,600	9,000	9,600	9,400		C	18,000	0.52	B			1,620	2
US 17	SR 40 to Washington Ave.	448	FDOT	Yes	5.02	45	RDA_UFH_2W_2L_	Principal Arterial - Other - Rural	6,300	5,700	6,200	5,500	6,100	6,200	6,600	7,400	7,600	7,400		C	15,700	0.47	B			1,490	2
US 17	Washington Ave. to CR 305/Lk George Rd	46	FDOT	Yes	5.28	55	RDA_UFH_2W_2L_	Principal Arterial - Other - Rural	4,600	4,300	4,500	4,400	4,900	5,000	5,400	5,300	6,100	5,900		C	15,700	0.38	B			1,490	2
US 17	CR 305/Lk George Rd to Putnam County	280	FDOT	Yes	3.41	60	RUA_UFH_2W_2L_	Principal Arterial - Other - Rural	4,400	4,400	4,400	4,200	4,800	5,200	5,400	5,900	5,900	5,700		C	18,000	0.32	B			1,620	2
US 92	US 17 to Jacobs Rd.	1001	FDOT	Yes	1.41	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	24,500	25,500	24,500	25,500	28,000	28,500	28,500	24,500	26,500		D	39,800	0.67	C			3,580	4
US 92	Jacobs Rd. to Kepler Rd.	5	FDOT	Yes	1.23	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	22,500	22,500	22,500	26,000	26,000	25,000	25,000	25,000	24,000		D	39,800	0.60	C			3,580	4
US 92	Kepler Rd. to Old Daytona Rd.	9925	FDOT	Yes	1.32	65	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	13,400	13,000	13,000	14,100	15,100	16,400	16,200	16,200	16,200	14,200		D	39,800	0.36	C			3,580	4
US 92	Old Daytona Rd. to Red John Dr.	9925	FDOT	Yes	7.20	55	RUA_UFH_2W_4L	Principal Arterial - Other - Urban/Rural	13,400	13,000	13,000	14,100	15,100	16,400	16,200	16,200	16,200	14,200		C	44,900	0.32	B			4,270	4
US 92	Red John Dr. to I-4 EB Ramp	478.2	FDOT	Yes	2.26	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,000	19,800	19,800	16,400	17,600	18,600	19,100	18,400	19,500	18,900		D	39,800	0.47	C			3,580	4
US 92	I-4 EB Ramp to LPGA Blvd.	478.1	FDOT	Yes	0.58	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	20,000	19,800	25,200	16,400	17,600	18,600	19,100	18,400	19,500	18,900		D	39,800	0.47	C			3,580	4
US 92	LPGA Blvd. to I-95	532	FDOT	Yes	2.03	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	24,500	25,000	26,500	27,000	32,000	30,000	29,500	31,000	30,000		D	39,800	0.75	C			3,580	4
US 92	I-95 to Williamson Blvd.	508	FDOT	Yes	0.71	50	UA_SSAC1_2W_8L	Principal Arterial - Other - Urban	40,500	40,500	37,500	43,000	45,000	39,000	39,000	46,500	47,500	46,500		C	78,800	0.59	C			7,090	8
US 92	Williamson Blvd. to Bill France Blvd.	5172	FDOT	Yes	1.13	50	UA_SSAC1_2W_8L	Principal Arterial - Other - Urban	43,000	41,500	42,000	43,500	41,000	50,500	40,500	41,500	46,000	45,000		C	78,800	0.57	C			7,090	8
US 92	Bill France Blvd. to SR 483/Clyde Morris Blvd.	5094	FDOT	Yes	0.86	50	UA_SSAC1_2W_8L	Principal Arterial - Other - Urban	39,500	35,500	36,000	35,500	36,500	37,500	38,500	38,000	39,000	38,000		D	78,800	0.48	C			7,210	8
US 92	SR 483/Clyde Morris Blvd. to SR 5A/Nova Rd.	5096	FDOT	Yes	0.93	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	43,000	39,000	36,000	36,500	37,500	44,500	41,500	40,000	41,000	40,000		D	59,900	0.67	C			5,390	6
US 92	SR 5A/Nova Rd. to Martin Luther King Blvd.	5099	FDOT	Yes	0.78	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,500	27,500	26,000	28,500	29,500	28,000	27,500	28,500	29,000	28,000		D	39,800	0.70	C			3,580	4
US 92	Martin Luther King Blvd. to US 1	5104	FDOT	Yes	0.38	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,500	26,000	22,000	24,500	25,500	26,000	27,000	-	23,500	22,500		D	39,800	0.57	C			3,580	4
US 92	US 1 to Beach St.	5105	FDOT	Yes	0.23	30	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	17,500	17,300	15,200	18,100	18,800	23,500	22,500	23,000	23,000	15,000		D	32,400	0.46	D			2,920	4
US 92	Beach St. to SR 441/Peninsula Dr.	337	FDOT	Yes	0.88	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	13,500	18,100	13,200	14,300	16,100	22,300	27,000	25,000	23,000	22,000		D	39,800	0.55	C			3,580	4
US 92	SR 441/Peninsula Dr. to SR A1A/Atlantic	5109	FDOT	Yes	0.30	30	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	8,900	9,900	8,200	7,900	8,200	11,700	12,400	14,300	14,500	14,100		D	32,400	0.44	C			2,920	4
SR A1A - Dunlawton Ave.	US 1 to SR A1A/Atlantic Ave.	427	FDOT	Yes	1.25	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	27,000	26,000	26,000	28,000	30,000	30,500	22,500	23,500	25,500	24,

SR A1A - Atlantic Ave. North	Harvard Dr. to SR 40/Granada Blvd.	5124	FDOT		Yes	1.70	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	16,600	17,600	16,400	15,600	16,200	17,200	17,800	19,400	19,500	18,900		D	32,400	0.58	D			2,920	4
SR A1A - Ocean Shore Blvd.	SR 40/Granada Blvd. to Neptune Ave	5125	FDOT		Yes	0.70	35	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	15,600	12,300	14,000	16,600	17,200	16,200	17,000	17,400	15,900	15,500		D	24,200	0.64	C			2,180	2
SR A1A - Ocean Shore Blvd.	Neptune Ave to Ormond Mall	174	FDOT		Yes	1.69	40	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	18,500	15,100	15,400	15,700	16,000	15,800	16,400	15,000	15,200	14,700		D	24,200	0.61	C			2,180	2
SR A1A - Ocean Shore Blvd.	Ormond Mall to High Bridge Rd	368	FDOT		Yes	6.42	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	15,500	15,300	15,800	15,500	16,100	15,500	16,200	16,600	16,700	16,300		D	24,200	0.67	C			2,180	2
SR A1A - Ocean Shore Blvd.	High Bridge Rd toFlagler Co Line	368	FDOT		Yes	1.26	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	15,500	15,300	15,800	15,500	16,100	15,500	16,200	16,600	16,700	16,300		D	24,200	0.67	C			2,180	2
SR 5A - Nova Rd.	US 1. to Spruce Creek Rd	458	FDOT		Yes	1.44	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,800	16,300	16,800	17,900	17,200	17,800	19,100	18,800	21,500	20,500		D	39,800	0.52	C			3,580	4
SR 5A - Nova Rd.	Spruce Creek Rd. to SR 421/Dunlawton Ave.	1016	FDOT		Yes	1.08	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	23,500	25,000	24,500	26,000	27,000	26,000	29,500	25,000	28,000	27,000		D	39,800	0.68	C			3,580	4
SR 5A - Nova Rd.	SR 421/Dunlawton Ave. to Madeline Ave	1017.2	FDOT		Yes	1.30	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	26,500	25,500	26,000	27,000	28,000	26,500	27,500	27,000	27,000	18,000		D	39,800	0.45	C			3,580	4
SR 5A - Nova Rd.	Madeline Ave. to Big Tree	363.2	FDOT		Yes	1.61	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	27,000	25,500	26,500	26,500	26,500	27,000	26,000	27,000	29,500	28,500		D	49,850	0.57	C			4,490	5
SR 5A - Nova Rd.	Big Tree to SR 400/Beville Rd.	363.1	FDOT		Yes	0.70	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	27,000	25,500	26,500	26,500	26,500	27,000	26,000	27,000	29,500	28,500		D	59,900	0.48	C			5,390	6
SR 5A - Nova Rd.	SR 400/Beville Rd. to Bellevue Ave.	348	FDOT		Yes	1.00	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	34,000	33,000	33,000	34,500	35,500	37,000	36,500	37,500	36,000	35,000		D	59,900	0.58	C			5,390	6
SR 5A - Nova Rd.	Bellevue Ave. to US 92/ISB	5090	FDOT		Yes	1.07	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	32,500	32,000	33,000	32,500	34,500	36,000	35,000	36,000	37,000	35,000		D	59,900	0.58	C			5,390	6
SR 5A - Nova Rd.	US 92/ISB to SR 430/Mason Ave.	5088	FDOT		Yes	1.22	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	30,000	30,000	31,000	31,500	31,000	32,000	36,000	31,500	35,500	34,500		D	59,900	0.58	C			5,390	6
SR 5A - Nova Rd.	SR 430/Mason Blvd to LPGA Blvd.	366	FDOT		Yes	1.47	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	27,500	27,000	25,500	26,500	28,500	29,000	34,500	35,500	32,500	31,500		D	59,900	0.53	C			5,390	6
SR 5A - Nova Rd.	LPGA Blvd. to Hand Ave.	528	FDOT		Yes	2.06	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	28,000	28,500	26,000	26,500	27,500	29,000	34,000	26,500	29,000	28,000		D	59,900	0.47	C			5,390	6
SR 5A - Nova Rd.	Hand Ave. to SR 40/Granada Ave	510	FDOT		Yes	1.15	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	24,000	28,500	27,500	25,500	26,500	27,500	28,000	29,000	28,500	27,500		D	59,900	0.46	C			5,390	6
SR 5A - Nova Rd.	SR 40/Granada Ave to Wilmette Ave.	518	FDOT		Yes	0.51	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	24,000	23,500	23,500	23,500	24,500	24,000	25,500	25,500	25,500	21,500		D	59,900	0.36	C			5,390	6
SR 5A - Nova Rd.	Wilmette Ave. to US 1	459	FDOT		Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	12,800	12,300	12,400	13,100	13,600	14,000	13,600	14,300	14,800	14,400		D	39,800	0.36	C			3,580	4
SR 11	US 17 to CR 15A	4	FDOT		Yes	2.45	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	6,100	6,000	6,300	6,200	6,400	7,700	6,900	7,100	6,700	6,500		D	24,200	0.27	B			2,180	2
SR 11	CR 15A to SR 40	527	FDOT		Yes	9.19	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	2,700	2,700	2,800	2,800	2,900	3,100	3,400	3,700	3,900	3,900		C	6,450	0.60	C			620	2
SR 11	SR 40 to Flagler Co. Line	0009-F	FDOT		Yes	2.42	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	2,000	2,200	2,100	2,400	2,400	2,800	2,800	2,700	2,700	3,500		C	6,450	0.54	C			620	2
SR 15A	US 17/92/Taylor to New Hampshire Ave.	1005	FDOT		Yes	1.17	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	19,700	19,000	20,500	21,000	21,900	22,500	25,000	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
SR 15A	New Hampshire Ave. to Beresford Ave.	6	FDOT		Yes	0.59	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	20,500	21,000	20,100	23,000	23,500	24,000	26,000	26,000	25,000		D	39,800	0.63	C			3,580	4
SR 15A	Beresford Ave. to SR 44/New York Ave.	474	FDOT		Yes	1.00	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,500	21,000	22,000	22,000	24,000	25,000	25,500	26,500	27,000	26,000		D	39,800	0.65	C			3,580	4
SR 15A	SR 44/New York Ave. to Plymouth Ave.	463	FDOT		Yes	1.01	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,900	23,000	23,000	25,000	25,000	26,000	27,000	28,000	28,000	27,000		D	39,800	0.68	C			3,580	4
SR 15A	Plymouth Ave. to CR 92	537	FDOT		Yes	0.83	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	22,500	18,900	21,500	20,800	21,500	21,800	25,500	24,000	25,000	24,000		D	39,800	0.60	C			3,580	4
SR 15A	CR 92 to Glenwood Rd.	465	FDOT		Yes	1.20	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	13,800	13,100	13,600	13,400	14,000	14,700	15,600	17,400	17,600	13,600		D	39,800	0.34	C			3,580	4
SR 15A	Glenwood Rd. to US 17	466	FDOT		Yes	1.11	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	10,300	10,200	10,600	10,500	10,900	10,900	12,200	12,600	12,600	12,200		D	39,800	0.31	C			3,580	4
SR 40	Lake County to Emporia Rd.	533	FDOT		Yes	0.86	55	RDA_UFH_2W_2L	Principal Arterial - Other - Rural	7,000	6,800	6,300	6,800	7,000	8,700	8,500	9,800	8,700	8,500		C	15,700	0.54	B			1,490	2
SR 40	Emporia Rd. to US 17	344	FDOT		Yes	5.58	55	RDA_UFH_2W_2L	Principal Arterial - Other - Rural	6,500	6,600	5,900	6,200	7,600	8,500	8,000	8,200	8,400	8,200		C	15,700	0.52	B			1,490	2
SR 40	US 17 to SR 11	530	FDOT		Yes	6.69	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	4,800	5,400	5,500	5,600	5,800	6,900	6,800	7,200	6,900	6,700		C	8,600	0.78	C			820	2
SR 40	SR 11 to Pinto Lane	530	FDOT		Yes	6.83	60	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	4,800	5,400	5,500	5,600	5,800	6,900	6,800	7,200	6,900	6,700		C	8,600	0.78	C			820	2
SR 40	Pinto Lane to Rima Ridge Rd (urban boundar	523	FDOT		Yes	1.25	60	RDA_UFH_2W_4L	Principal Arterial - Other - Urban/Rural	10,600	9,400	9,400	10,000	10,400	11,100	11,800	11,600	13,700	13,300		C	#REF!	#REF!	B			4,020	4
SR 40	Rima Ridge Rd to Tymber Creek Rd.	499	FDOT		Yes	4.36	60	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,500	27,000	27,000	28,000	30,500	35,000	31,500	31,500	26,500		D	39,800	0.67	C			3,580	4
SR 40	Tymber Creek Rd. to I-95	499	FDOT		Yes	0.79	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,500	27,000	27,000	28,000	30,500	35,000	31,500	31,500	26,500		D	39,800	0.67	C			3,580	4
SR 40	I-95 to Clyde Morris Blvd.	522	FDOT		Yes	1.58	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	36,000	33,000	33,500	34,500	35,500	35,500	38,000	34,500	35,500	36,000		D	39,800	0.90	C			3,580	4
SR 40	Clyde Morris Blvd. to SR 5A/Nova Rd.	489	FDOT		Yes	1.06	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	33,000	33,000	32,000	33,000	33,000	32,000	34,000	34,500	36,500	35,500		D	39,800	0.89	C			3,580	4
SR 40	SR5A/Nova Rd. to US 1	1020	FDOT		Yes	1.33	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	30,000	30,000	30,000	30,000	31,000	31,000	32,000	33,500	34,000	31,000		D	39,800	0.78	C			3,580	4
SR 40	US 1 to Halifax Ave.	171	FDOT		Yes	1.11	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	34,000	33,500	34,000	31,500	31,000	34,500	38,500	39,500	39,500	38,500		D	32,400	1.19	F			2,920	4
SR 40	Halifax Ave. to SR A1A	5128	FDOT		Yes	0.37	35	UA_SSAC2_2W_4L	Principal Arterial - Other - Urban	20,500	18,000	18,900	19,500	20,400	20,200	21,000	21,000	19,200	18,500		D	32,400	0.57	D			2,920	4
SR 44	Lake Co. to Shell Rd.	1007	FDOT		Yes	1.19	55	RDA_UFH_2W_2L	Principal Arterial - Other - Rural	9,000	9,400	9,200	9,600	10,000	12,900	11,000	12,200	12,300	11,900		C	15,700	0.76	C			1,490	2
SR 44	Shell Rd. to Grand Ave.	1007	FDOT		Yes	1.26	45	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	9,000	9,400	9,200	9,600	10,000	12,900	11,000	12,200	12,300	11,900		D	24,200	0.49	C			2,180	2
SR 44	Grand Ave. to Old New York/Hazen Rd.	290	FDOT		Yes	0.70	55	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	9,700	9,300	9,700	9,800	10,100	10,800	11,200	12,400	12,600	12,200		D	24,200	0.50	C			2,180	2
SR 44	Old New York/Hazen Rd. to SR 15A/Spring G	274	FDOT		Yes	0.71	40	UA_UFH_2W_2L_U	Principal Arterial - Other - Urban	11,800	11,500	11,700	11,600	11,900	12,800	13,200	13,900	14,100	13,700		D	24,200	0.57	C			2,180	2
SR 44	SR 15A/Spring Garden Ave. to Stone St.	447	FDOT		Yes	0.50	40	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	11,300	11,300	10,600	10,800	11,500	11,700	11,500	11,700	10,500	10,100		E	18,939	0.53	C			1,712	2
SR 44	Stone St. to Clara Ave.	5012	FDOT		Yes	0.51	35-40	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	11,100	10,900	10,600	10,300	10,700	10,800	11,200	11,000	11,200	10,800		E	18,939	0.57	C			1,712	2
SR 44	Clara Ave. to Amelia Ave.	5015	FDOT		Yes	0.50	25-35	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	9,200	8,600	8,700	8,600	9,000	9,300	9,700	9,900	7,700	7,500		D	14,800	0.51	D			1,410	2
SR 44	Amelia Ave. to Hill Ave.	80	FDOT		Yes	1.00	35/40/45	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	13,300	13,000	14,100	12,200	12,600	13,100	13,500 -		12,300	11,900		E	18,939	0.63	C			1,712	2
SR 44	Hill Ave. to Blue Lake Ave.	80	FDOT		Yes	0.51	45	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	13,300	13,000	12,600	11,900	14,000	12,600	12,500	12,900	12,300	11,900		DeLand	19,800	0.60				1,712	2
SR 44	Blue Lake Ave. to Kepler Rd.	19	FDOT		Yes	0.94	45	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	16,400	15,600	15,900	14,300	16,900	15,700	17,500	17,300	17,300	16,700		DeLand	20,800	0.80				1,712	2
SR 44	Kepler Rd. to Summit Ave.	259	FDOT		Yes	1.18	45-50	UA_SSAC1_2W_2L	Principal Arterial - Other - Urban	18,300	17,800	18,000	16,700	17,200	20,200	19,400	21,500	19,800	19,200		DeLand	19,800	0.97				1,712	2
SR 44	Summit Ave. to I-4	538	FDOT		Yes	0.98	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,800	17,500	17,000	15,200	15,800	18,100	21,500	20,500	22,000	21,000		D	39,800	0.53	C			3,580	4
SR 44	I-4 to Prevatt Ave.	480	FDOT		Yes	0.74	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,400	17,200	19,900	18,700	20,500	21,500	21,500	21,500	22,500	21,500		D	39,800	0.54	C			3,580	4
SR 44	Prevatt Ave. to Pioneer Tr.	41	FDOT		Yes	5.93	65	RUA_UFH_2W_4L	Principal Arterial - Other - Rural	13,600	14,900	16,700	16,400	17,600	19,500	13,900	14,300	15,800	15,400		C	44,900	0.34	B			4,270	4
SR 44	Pioneer Tr. to SR 415/CR 415	1011	FDOT		Yes	3.56	65	RUA_UFH_2W_4L	Principal Arterial - Other - Rural	10,500	9,900	12,200	12,500	12,900	14,500	15,600	15,700	15,200	14,800		C	44,900	0.33	B			4,270	4
SR 44	SR 415/CR 415 to Samsula Dr.	1012	FDOT		Yes	1.14	65	RDA_UFH_2W_4L	Principal Arterial - Other - Rural	15,800	13,500	15,700	17,000	17,600	20,500	22,000	21,500	22,000	21,000		C	42,300	0.50	B			4,020	4
SR 44	Samsula Dr. to Airport Rd	423	FDOT		Yes	1.70	65	RDA_UFH_2W_4L	Principal Arterial - Other - Urban/Rural	16,200	14,400	18,300	17,400	19,200	20,000	22,000	15,600	15,800	15,400		C	42,300	0.36	B			4,020	4
SR 44	Airport Rd. to I-95	423	FDOT		Yes	2.05	65	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	16,200	14,400	18,300	17,400	19,200	20,000	22,000	15,600	15,800	15,400		D	39,800	0.39	C			3,580	4
SR 44	I-95 to Mission Dr	515	FDOT		Yes	2.83	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	27,500	30,000	27,500	28,500	35,000	31,500	35,500	34,500	33,500		D	39,800	0.84	C			3,580	4
SR 44	Mission Dr. to Live Oak	514	FDOT		Yes	1.35	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	17,800	18,700	19,600	18,300	19,000	19,500	18,000	23,500	20,500	19,700		D	39,800	0.49	C			3,580	4
SR 44/SR A1A/S Causeway	Live Oak to Peninsula Ave.	207	FDOT		Yes	1.30	50	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	24,000	26,500	26,500	27,000	29,500	30,000	23,500	32,500	27,500	26,500		D	39,800	0.67	C			3,580	4
SR 44/SR A1A/S Causeway	Peninsula Ave. to Saxon Dr.	5180	FDOT		Yes	0.35	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	21,000	22,500	23,000	22,000	23,000	24,500	25,500	28,000	28,000	22,000		D	39,800	0.55	C			3,580	4
SR 44/SR A1A/3rd Ave/Atlantic	Saxon Dr. to 6th Ave	5043	FDOT		Yes	0.50	40	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	14,000	15,300	14,200	14,000	14,600	12,700	17,500	17,900	13,300	12,900		D	39,800	0.32	C			3,580	4
SR 44 (Business) - Canal St.	SR 44/Lytle St to Pioneer Trail	516	FDOT		Yes	0.17	40	UA_SSAC1_2W_2L	Minor Arterial - Urban	11,400	10,800	11,300	10,500	10,900	9,500	9,800	10,000	10,200	9,900		D	17,700	0.56	C			1,600	2
SR 44 (Business) - Canal St.	Pioneer Tr. to US 1	111	FDOT		Yes	0.76	40	UA_SSAC1_2W_2L	Minor Arterial - Urban	11,700	11,100	11,600	11,500	12,500	11,500	11,900	12,600	12,800	12,400		D	17,700	0.70	C			1,600	2
SR 46	Seminole Co. to Brevard Co.	0416-B			Yes	5.44	55	RUA_UFH_2W_2L	Principal Arterial - Other - Rural	5,600	6,000	5,600	5,300	7,100	5,900	7,400	7,600	8,100	7,900		C	18,000	0.44	B			1,620	2
SR 400 - Beville Rd.	I-95 to Williamson Blvd.	501	FDOT		Yes	0.28	55	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	24,000	24,000	26,500	28,000	29,000	26,000	28,500	29,000	31,500	30,500		D	59,900	0.51	C			5,390	6
SR 400 - Beville Rd.	Williamson Blvd. to SR 483/Clyde Morris Blvc	5189	FDOT		Yes	1.91	55	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	26,500	28,500	31,000	32,000	30,500	30,500	31,500	30,500	29,500		D	39,800	0.74	C			3,580	4
SR 400 - Beville Rd.	SR 483/Clyde Morris Blvd. to SR 5A/Nova Rd.	511	FDOT		Yes	0.68	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	32,000	33,000	33,000	33,000	34,000	32,000	33,000	33,500	35,500	34,500		D	39,800	0.87	C			3,580	4
SR 400 - Beville Rd.	SR 5A/Nova Rd. to US 1	502	FDOT		Yes	1.34	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	23,000	24,000	24,500	25,500	26,500	27,000	26,500	26,000	24,500	23,500		D	39,800	0.59	C			3,580	4
SR 415	Seminole Co. to Enterprise-Osteen Rd.	25	FDOT		Yes	4.39	55	UA_UFH_2W_4L_D	Minor Arterial - Urban/Rural	16,800	16,800	16,800	17,000	17,500	18,300	21,500	23,000	24,000	23,000		D	66,200	0.35	D			5,960	4
SR 415	Enterprise-Osteen Rd. to Howland Blvd.	437	FDOT		Yes	1.83	45	UA_SSAC1_2W_4L	Minor Arterial - Urban	15,100	15,200	15,200	15,400	15,500	17,300	17,700	19,800	19,900	19,300		D	39,800	0.48	C			3,580	4
SR 415	Howland Blvd. to Acorn Lake Rd	321	FDOT		Yes	0.88	45	UA_SSAC1_2W_4L	Minor Arterial - Urban	5,900	6,500	6,500	6,600	7,300	8,600	7,900	8,100	8,600	8,400		D	39,800	0.21	C			3,580	4
SR 415	Acorn Lake Rd to SR 44	1009	FDOT		Yes	10.49	55	RUA_UFH_2W_2L	Minor Arterial - Rural	8,300	7,700	9,000	9,000	9,400	11,700	12,700	13,200	12,200	11,400		C	18,000	0.63	C			1,620	2
SR 421 - Dunlawton Ave.	Williamson to Clyde Morris Blvd.	517	FDOT		Yes	1.07	45	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	39,500	38,500	45,500	48,000	46,000	47,500	49,000	52,500	53,500	52,000		D	59,900	0.87	C			5,390	6
SR 421 - Dunlawton Ave.	Clyde Morris Blvd. to SR 5A/Nova Rd.	1014	FDOT		Yes	1.31	50	UA_SSAC1_2W_6L	Principal Arterial - Other - Urban	28,500	26,500	28,500	29,000	38,500	41,500	42,500	41,000	40,000	39,000		D	59,900	0.65	C			5,390	6
SR 421 - Dunlawton Ave.	SR5A/Nova Rd. to Spruce Creek Rd.	1015	FDOT		Yes	0.91	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	27,000	28,000	27,500	29,500	30,500	31,500	33,000	32,000	33,000	32,000		D	39,800	0.80	C			3,580	4
SR 421 - Dunlawton Ave.	Spruce Creek Rd. to US 1	5181	FDOT		Yes	0.71	45	UA_SSAC1_2W_4L	Principal Arterial - Other - Urban	25,000	25,500	25,000	26,000	27,000	27,500	28,500	28,500	26,500	25,500		D	39,800	0.64	C			3,580	4
SR 430 - Mason Ave.	SR 483/Clyde Morris Blvd. to SR 5A/Nova Rd.	5197	FDOT		Yes	0.99	35	UA_SSAC2_2W_4L	Minor Arterial - Urban	18,200	17,800	18,200	18,500	19,000	20,600	22,000	21,500	21,500	20,700		D	24,300	0.85	D			2,190	4
SR 430 - Mason Ave.	SR 5A/Nova Rd. to US 1	5197	FDOT		Yes	1.08	35	UA_SSAC2_2W_4L	Minor Arterial - Urban	18,200	17,800	18,200	18,500	19,000	20,600	22,000	21,500	21,500	20,700		D	24,300	0.85	D			2,190	4
SR 430 - Mason Ave.	US 1 to Beach St.	5197	FDOT		Yes	0.30	35	UA_SSAC2_2W_4L	Minor Arterial - Urban	18,200	17,800	18,200	18,500	19,000	20,600	22,000	21,500	21,500	20,700		D	32,400	0.64	D			2,920	4
SR 430 - Oakridge Blvd. - EB	Beach St. to Peninsula Dr	5196E	FDOT		Yes	0.70	40	UA_SSAC1_1W_2L	Minor Arterial - Urban	5,500	5,300	5,600	5,900	6,400	7,200	6,500	7,500	11,000	9,200		D	23,880	0.39	C			2,150	2
SR 430 - Oakridge Blvd. - EB	Peninsula Dr to SR A1A/Atlantic	5195	FDOT		Yes	0.28	40	UA_SSAC1_1W_2L	Minor Arterial - Urban	4,700	3,600	4,100	4,200	4,400	4,600	5,400	6,000	4,900	4,800		D	23,880	0.20	C			2,150	2
SR 430 - Seabreeze Bridge - WB	Beach St. to Peninsula Dr	5196W	FDOT		Yes	1.01	40	UA_SSAC1_1W_2L	Minor Arterial - Urban	8,100	7,100	7,200	6,400	6,600 -	-	-		11,500	9,900		D	23,880	0.41	C			2,150	2
SR 430 - Seabreeze Bridge - WB	Peninsula Dr to SR A1A/Atlantic	5191	FDOT		Yes	0.29	30	UA_SSAC2_1W_2L	Minor Arterial - Urban	5,300	4,300	4,900	4,900	5,100	5,800	6,400	7,000	6,000	5,800		D	19,440	0.30	C			1,750	2
SR 441 - Peninsula Dr.	SR A1A/Dunlawton to Florida Shores	5188	FDOT		Yes	2.42	40	UA_SSAC1_2W_2L	Minor Arterial - Urban	5,600	5,300	5,400	5,600	5,400	5,600	5,900	5,700	6,000	5,800		D	17,700	0.33	C			1,600	2
SR 441 - Peninsula Dr.	Florida Shores to Silver Beach Ave.	5187	FDOT		Yes	2.34	35	UA_SSAC1_2W_2L	Minor Arterial - Urban	8,700	9,400	9,300	8,300	8,700	9,000	8,800	8,800	9,000	8,400		D	17,700	0.47	C			1,600	2
SR 441 - Peninsula Dr.	Silver Beach Ave. to US 92/ISB	5187	FDOT		Yes	0.65	35	UA_SSAC1_2W_2L	Minor Arterial - Urban	8,700	9,400	9,300	8,300	8,700	9,000	8,800	8,800	9,000	8,400		D	17,700	0.47	C			1,600	2
SR 442 - Indian River Blvd.	I-95 to Air Park Rd.	170	FDOT		Yes	2.09	55	UA_SSAC1_2W_4L	Minor Arterial - Urban	8,900	9,500	9,920	10,200	10,800	11,400	12,100	12,600	13,200	12,300		D	39,800	0.31	C			3,580	4
SR 442 - Indian River Blvd.	Air Park Rd. to US 1	5190	FDOT		Yes	1.69	45	UA_SSAC1_2W_4L	Minor Arterial - Urban	16,400	16,100	16,800	16,400	17,000	17,600	17,000	16,500	18,000	17,500		D	39,800	0.44	C			3,580	4
SR 472	US 17/92 to CR 4101/MLK Blvd	472	FDOT		Yes	2.31	60	UA_UFH_2W_4L_D	Principal Arterial - Other - Urban	19,700	20,100	21,000	21,400	23,000	24,000	24,000	29,000	29,000	24,000		D	66,200	0.36	B			5,960	4
SR 472	CR 4101/MLK Blvd to I-4 (end of state

Airport Rd. (PO)	Williamson Blvd to Pioneer Tr.	64	County		Yes	2.50	45	UA_UFH_2W_2L_U	Major Collector - Urban	6,000	6,160	6,040	6,120	7,690	8,430	7,590	7,170	6,600	6,260	7,380	E	32,600	0.23	B	520	630	2,930	2
Airport Rd. (NSB)	Pioneer Tr. to Luna Bella Ln	67	County		Yes	1.60	45	UA_UFH_2W_2L_D	Major Collector - Urban	3,110	3,300	3,320	3,550	3,930	4,570	7,590	4,180	4,320	4,540	5,020	E	34,230	0.15	B	320	420	3,080	2
Airport Rd. (NSB)	Luna Bella Ln to SR 44	68	County		Yes	1.80	45	UA_UFH_2W_2L_D	Major Collector - Urban	2,250	2,610	2,770	3,270	3,760	4,780	7,590	5,150	5,470	6,160	6,860	E	34,230	0.20	B	490	530	3,080	2
Amelia Ave.	SR 44 to Ohio Ave.	73	County		Yes	0.15	30	UA_NSSRC2_2W_4	Major Collector - Urban	10,380	10,580	10,650	10,430	9,410	10,990	11,250	11,780	14,830	8,480	8,530	E	22,820	0.37	C	510	760	2,060	4
Amelia Ave.	Ohio Ave. to Minnesota Ave.	74	County		Yes	0.15	30	UA_NSSRC2_2W_2	Major Collector - Urban	10,310	10,260	10,380	10,320	9,310	11,630	11,140	12,110	12,230	8,650	9,470	E	13,640	0.69	D	530	730	1,020	2
Amelia Ave.	Minnesota Ave. to Plymouth Ave.	75	County		Yes	0.50	30	UA_NSSRC2_2W_2	Major Collector - Urban	10,610	10,230	10,590	10,630	9,170	11,890	11,500	12,840	11,030	8,720	9,850	E	14,040	0.70	D	550	800	1,270	2
Amelia Ave.	Plymouth Ave. to US 92	77	County		Yes	0.85	35	UA_NSSRC2_2W_2	Major Collector - Urban	6,610	6,080	6,700	6,980	6,050	7,430	7,050	6,870	6,360	5,040	5,530	E	14,040	0.39	C	280	500	1,270	2
Ariel Rd.	Beacon Light Rd. to US 1	91	County			1.20	35	RUA_UFH_2W_2L_	Local	560	540	540	540	640	670	550	690	590	590	660	C	6,450	0.10	B	50	70	620	2
Arredondo Grant Rd.	Spring Garden Ranch Rd. to James St.	100	County		Yes	0.60	30	RUA_UFH_2W_2L_	Major Collector - Urban/Rural	1,100	1,140	1,020	1,000	-	1,030	1,150	1,230	1,240	1,120	1,260	C	6,450	0.20	B	110	130	620	2
Arredondo Grant Rd.	James St. to SR 11	101	County		Yes	2.00	35	RUA_UFH_2W_2L_	Major Collector - Rural	510	580	600	610	-	700	780	810	860	850	880	C	6,450	0.14	B	70	100	620	2
Atlantic Ave. (PI)	Beach St. to Major St	110	County		Yes	2.80	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,760	2,930	2,910	2,630	8,840	3,310	3,420	3,000	2,740	2,390	4,030	E	13,640	0.30	C	210	370	1,020	2
Atlantic Ave. (DBS)	Major St to Marcelle Ave.	111	County		Yes	1.30	35	UA_NSSRC2_2W_2	Minor Collector - Urban	6,780	9,420	9,420	9,260	9,600	9,670	9,720	7,680	11,050	9,940	11,030	E	13,640	0.81	D	660	890	1,020	2
Atlantic Ave. (DBS)	Marcelle Ave. to Phillis Ave.	113	County		Yes	0.75	35	UA_NSSRC2_2W_2	Minor Collector - Urban	8,250	11,990	11,760	11,450	11,850	12,920	12,330	9,970	12,090	11,040	12,890	E	14,740	0.87	D	710	1,040	1,330	2
Atlantic Ave. (DBS)	Phillis Ave. to SR A1A/Dunlawton Ave	115	County		Yes	0.40	35	UA_NSSRC2_2W_2	Minor Collector - Urban	9,170	13,680	13,050	12,920	14,770	15,190	13,540	12,970	15,730	11,290	11,850	E	14,740	0.80	D	740	960	1,330	4
Atlantic Ave/Turtle Mound Rd.	Canaveral Nat'l Park to Turtle Mound Rd.	1872	County		Yes	7.65	45	UA_NSSRC2_2W_2	Principal Arterial - Other - Urban	2,230	2,610	2,450	2,180	2,960	3,050	1,770	2,170	3,140	3,440	3,260	E	13,640	0.24	C	180	300	1,020	2
Atlantic Ave/Turtle Mound Rd.	Turtle Mound Rd. to Saxon Dr.	116	County		Yes	1.60	45	UA_NSSRC1_2W_2	Principal Arterial - Other - Urban	5,580	6,560	6,390	5,520	4,190	6,690	4,850	5,000	7,370	7,030	6,780	E	17,050	0.40	C	430	570	1,540	2
Atlantic Ave/Turtle Mound Rd.	Saxon Dr to Hiles Blvd.	118	County		Yes	0.45	45	UA_NSSRC1_2W_2	Principal Arterial - Other - Urban	5,650	6,530	6,370	5,450	7,470	7,300	5,380	5,000	7,310	7,560	7,100	E	17,050	0.42	C	450	560	1,540	2
Atlantic Ave/Turtle Mound Rd.	Hiles Blvd. to 27th Ave.	120	County		Yes	1.55	45	UA_NSSRC1_2W_2	Principal Arterial - Other - Urban	9,900	11,900	11,400	9,650	8,370	11,630	9,600	9,600	13,370	12,250	13,440	E	17,050	0.79	C	740	1,030	1,540	2
Atlantic Ave/Turtle Mound Rd.	27th Ave. to 6th Ave.	122	County		Yes	1.45	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	13,430	16,510	14,560	12,960	14,450	12,070	15,900	12,720	11,630	18,120	15,010	E	37,970	0.40	C	1,120	1,140	3,410	4
Beach/Riverside/Beach (OB)	Division Ave. to SR 40	131	County		Yes	0.60	35	UA_NSSRC2_2W_2	Major Collector - Urban	6,860	6,800	6,620	7,280	6,700	8,530	6,940	8,090	7,480	6,610	7,490	E	13,640	0.55	D	520	650	1,020	2
Beach/Riverside/Beach (OB)	SR 40 to Wilmette Ave.	132	County		Yes	0.70	35	UA_NSSRC2_2W_2	Major Collector - Urban	8,780	8,780	8,070	8,950	8,610	9,310	7,800	9,700	8,870	9,580	9,180	E	16,000	0.57	D	700	790	1,440	2
Beach/Riverside/Beach (OB)	Wilmette Ave. to Inglesa Ave.	135	County		Yes	2.55	35	UA_NSSRC2_2W_2	Major Collector - Urban	5,660	5,740	5,300	5,410	7,390	6,250	5,410	6,930	6,330	7,250	6,490	E	16,000	0.41	D	470	630	1,440	2
Beach/Riverside/Beach (OB)	Inglesa Ave to Pine Tree Dr.	137	County		Yes	1.10	35	UA_NSSRC2_2W_2	Major Collector - Urban	2,000	1,950	1,830	1,840	2,010	2,160	2,140	2,650	2,500	3,570	2,860	E	16,000	0.18	C	180	290	1,440	2
Beacon Light Rd.	Halifax Ave. to Ariel Rd.	140	County		Yes	2.75	35	RUA_UFH_2W_2L_	Minor Collector - Rural	190	210	170	180	190	240	250	240	280	290	300	C	6,450	0.05	B	20	30	620	2
Beacon Light Rd.	Ariel Rd. to Volco Rd.	141	County		Yes	1.25	35	RUA_UFH_2W_2L_	Minor Collector - Rural	430	370	380	410	390	500	520	460	400	470	600	C	6,450	0.09	B	40	60	620	2
Bellevue Ave. Extension	CR 415/Tomoka Farms Rd to Williamson Blv	151	County		Yes	0.50	35	UA_NSSRC2_2W_2	Minor Collector - Urban	4,970	5,010	5,290	5,290	6,210	5,520	6,100	7,310	6,940	5,880	6,260	E	13,640	0.46	D	440	550	1,020	2
Bellevue Ave. Extension	Williamson Blvd to SR 483/Clyde Morris Blvd	153	County		Yes	2.50	45	UA_NSSRC1_2W_2	Minor Collector - Urban	2,760	2,410	2,570	2,880	2,540	3,250	3,160	4,350	4,060	3,430	3,130	E	13,640	0.23	C	230	310	1,230	2
Beresford Ave.	Beresford Rd. to Fatio Rd	161	County		Yes	0.70	35	UA_NSSRC1_2W_2	Major Collector - Urban	1,280	1,340	1,340	820	1,320	1,560	2,110	1,810	2,100	2,180	2,310	E	13,640	0.17	C	190	220	1,020	2
Beresford Ave.	Fatio Rd. to SR 15A	162	County		Yes	1.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	3,590	3,720	3,540	3,750	3,240	3,440	4,160	4,320	4,650	4,100	4,490	E	13,640	0.33	C	370	400	1,020	2
Beresford Ave.	SR 15A to US 17/92	164	County		Yes	1.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	4,810	4,760	4,740	4,130	-	4,780	5,210	5,070	5,010	5,050	5,170	E	13,640	0.38	C	260	440	1,020	2
Beresford Ave.	US 17/92 to Amelia Ave	165	County		Yes	0.25	35	UA_NSSRC2_2W_2	Major Collector - Urban	9,700	9,520	9,750	9,520	9,490	10,410	10,480	12,250	11,380	10,310	10,530	E	14,740	0.71	D	600	900	1,330	2
Beresford Ave.	Amelia Ave. to Hill Ave.	167	County		Yes	1.00	40	UA_NSSRC1_2W_2	Major Collector - Urban	5,600	5,970	6,070	5,710	5,280	5,710	7,090	7,930	6,570	6,610	7,320	E	17,900	0.41	C	550	690	1,620	2
Beresford Ave.	Hill Ave. to Blue Lake Ave.	169	County		Yes	1.35	40	UA_NSSRC1_2W_2	Future - Major Collector - Urban	2,980	3,300	3,460	3,240	-	3,780	4,440	5,170	4,380	4,300	3,950	E	13,640	0.29	C	300	370	1,230	2
Beresford Ave.	Blue Lake Ave. to MLK (Kepler Rd.)	Future Rd	County		Yes	0.80	40	UA_NSSRC1_2W_2	Future - Major Collector - Urban	-	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	-	-	1,230	0
Beresford Ave.	MLK (Kepler Rd.) to SR 44	Future Rd	County		Yes	0.75	40	UA_NSSRC1_2W_2	Future - Major Collector - Urban	-	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	-	-	1,230	0
Beresford Rd.	SR 15A to Spring Garden Ave.	180	County			0.40	30	UA_NSSRC2_2W_2	Major Collector - Urban	470	940	890	860	-	3,520	1,000	5,270	620	480	530	E	13,640	0.04	C	40	50	1,020	2
Beresford Rd.	Spring Garden Ave. to Fatio Rd.	181	County			0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	670	710	630	670	-	850	780	690	850	550	840	E	13,640	0.06	C	60	80	1,020	2
Beresford Rd.	Fatio Rd. to Beresford Ave	182	County			1.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,050	1,060	950	1,120	1,150	1,370	1,370	1,630	1,700	1,740	1,930	E	13,640	0.14	C	160	200	1,020	2
Beresford Rd.	Beresford Ave. to Old New York Ave.	183	County		Yes	0.30	35	UA_NSSRC2_2W_2	Major Collector - Urban	1,990	2,050	1,980	2,100	2,130	2,640	2,620	2,980	2,970	3,420	3,640	E	13,640	0.27	C	280	360	1,020	2
Big Tree Rd.	Clyde Morris Blvd. to Nova Rd.	192	County		Yes	1.10	35	UA_NSSRC2_2W_2	Minor Collector - Urban	7,700	8,080	7,200	7,670	5,680	8,750	5,850	6,520	6,920	6,040	6,550	E	13,640	0.48	D	420	570	1,020	2
Big Tree Rd.	Nova Rd. to Magnolia Ave.	193	County		Yes	0.40	35	UA_NSSRC2_2W_2	Minor Collector - Urban	12,230	11,460	11,040	11,350	11,820	13,740	13,190	13,990	12,950	11,220	12,370	E	14,740	0.84	D	830	1,030	1,330	2
Big Tree Rd.	Magnolia Ave. to Kenilworth Ave.	195	County		Yes	0.45	35	UA_NSSRC2_2W_2	Minor Collector - Urban	10,850	10,160	9,290	10,010	9,970	12,190	11,380	11,860	10,810	9,690	10,670	E	14,740	0.72	D	750	720	1,330	3
Big Tree Rd.	Kenilworth Ave. to US 1	196	County		Yes	0.55	35	UA_NSSRC2_2W_2	Minor Collector - Urban	7,270	6,790	6,570	6,970	8,930	8,880	8,110	8,640	8,180	7,200	7,770	E	14,740	0.53	D	470	620	1,330	3
Blackburn Rd.	CR 3 to Emporia Rd	211	County			1.25	35	RUA_UFH_2W_2L_	Minor Collector - Rural	550	550	550	560	640	650	580	590	610	640	730	C	6,450	0.11	B	60	70	620	2
Blackwelder Rd.	Lake Winona Rd. to SR 11	221	County			3.25	35	RUA_UFH_2W_2L_	Local	180	180	170	170	220	210	150	210	200	210	210	C	6,450	0.03	B	20	20	620	2
Blue Lake Ave.	SR 472 to Orange Camp Rd	Future Rd	County		Yes	1.05	45	UA_NSSRC1_2W_2	Major Collector - Urban	-	-	-	-	-	-	-	-	-	-	-	E	17,050	-	-	-	-	1,540	2
Blue Lake Ave.	Orange Camp Rd. to Taylor Rd.	231	County		Yes	1.05	45	UA_NSSRC1_2W_2	Major Collector - Urban	4,110	4,250	3,980	4,180	-	4,660	5,140	4,750	6,480	5,470	5,480	E	17,050	0.32	C	620	530	1,540	2
Blue Lake Ave.	Taylor Rd. to Beresford Ave.	232	County		Yes	1.05	45	UA_NSSRC1_2W_2	Major Collector - Urban	5,200	5,730	5,440	5,820	5,080	5,770	6,910	8,240	8,800	7,460	7,580	E	13,640	0.56	C	600	730	1,230	2
Blue Lake Ave.	Beresford Ave. to Voorhis Ave.	234	County		Yes	0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	4,180	4,310	4,010	3,750	4,480	4,420	4,610	5,290	4,950	4,970	5,270	E	13,640	0.39	C	410	530	1,020	2
Blue Lake Ave.	Voorhis Ave. to SR 44	235	County		Yes	0.25	30	UA_NSSRC2_2W_2	Major Collector - Urban	3,480	3,520	3,370	3,520	3,550	3,570	3,900	4,560	3,640	3,890	4,140	E	13,640	0.30	C	330	400	1,020	2
Blue Lake Ave.	SR 44 to Minnesota Ave.	236	County		Yes	0.55	30	UA_NSSRC2_2W_2	Major Collector - Urban	4,330	4,190	4,060	4,500	3,880	4,200	5,380	4,920	6,290	5,390	5,720	E	13,640	0.42	D	430	520	1,020	2
Blue Lake Ave.	Minnesota Ave. to Plymouth Ave.	237	County		Yes	1.00	40	UA_NSSRC1_2W_2	Major Collector - Urban	5,780	5,380	5,200	5,670	5,680	5,790	6,750	7,750	7,950	7,040	7,250	E	13,640	0.53	C	560	670	1,230	2
Blue Springs Av (West)	Sparkman Dr to Lawton Dr	239	County			0.60	35	UA_NSSRC2_2W_2	Minor Collector - Urban	5,830	5,410	5,080	5,460	4,020	4,200	5,920	5,600	5,920	5,140	5,090	E	13,640	0.37	C	470	450	1,020	2
Brownlee Rd.	Raulerson Rd. #1 to Raulerson Rd.	240	County			1.70	35	RUA_UFH_2W_2L_	Local	140	180	180	190	160	180	170	190	160	140	200	C	6,450	0.03	B	10	20	620	2
Cardinal Blvd.	SR 421/Dunlawton Ave. to Demotte Ave	245	County			0.15	30	UA_NSSRC2_2W_2	Minor Collector - Urban					1,280	1,690	1,110	1,110	1,080	1,450	1,440	E	13,640	0.11	C	70	130	1,020	2
Cardinal Blvd.	Demotte Ave. to Marcelle Ave	260	County			0.90	30	UA_NSSRC2_2W_2	Minor Collector - Urban	5,090	5,160	4,740	4,740	5,230	7,190	5,030	5,190	5,780	5,380	5,650	E	13,640	0.41	D	350	470	1,020	2
Cardinal Blvd.	Marcelle Ave to Major St.	261	County			1.00	30	UA_NSSRC2_2W_2	Local	790	870	730	820	880	1,330	810	690	780	810	910	E	13,640	0.07	C	50	80	1,020	2
Carter Rd.	SR 11 to Marsh Rd.	270	County			1.75	40	UA_NSSRC1_2W_2	Local	1,400	1,460	1,420	1,520	-	1,700	1,700	1,800	1,860	1,750	1,830	E	13,640	0.13	C	120	160	1,230	2
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	County		Yes	1.80	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,970	2,190	2,010	1,900	2,260	2,200	2,500	2,400	2,220	2,380	2,720	E	13,640	0.20	C	350	250	1,020	2
Clara Ave.	SR 15A to New Hampshire Ave.	301	County			0.50	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,640	1,640	1,850	1,870	-	1,820	2,100	2,050	2,080	1,780	1,820	E	13,640	0.13	C	120	160	1,020	2
Clara Ave.	New Hampshire Ave. to Beresford Ave.	303	County			0.50	30	UA_NSSRC2_2W_2	Major Collector - Urban	2,070	2,040	2,270	2,200	-	2,350	3,050	2,860	2,710	2,660	2,770	E	13,640	0.20	C	170	270	1,020	2
Clifton Rd.	Lake Winona Rd. to SR 11	311	County			1.70	30	RUA_UFH_2W_2L_	Local	190	160	170	160	170	230	170	210	180	210	190	C	6,450	0.03	B	20	20	620	2
Clyde Morris Blvd.	Taylor Rd. to SR 421/Dunlawton Ave	330	County		Yes	0.95	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	10,060	9,900	9,190	9,390	8,810	11,220	10,440	10,520	9,910	8,210	9,520	E	17,050	0.56	C	1,010	930	1,540	2
Clyde Morris Blvd.	SR 421/Dunlawton Ave. to Willow Run Blvd.	332	County		Yes	0.65	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	21,310	19,060	18,420	19,280	21,080	21,990	20,230	21,070	18,660	16,850	19,850	E	37,970	0.52	C	1,210	1,560	3,410	4
Clyde Morris Blvd.	Willow Run Blvd. to Madeline Ave.	333	County		Yes	1.30	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	22,750	21,460	20,000	21,710	20,770	22,480	23,240	24,390	21,430	18,820	23,970	E	37,970	0.63	C	1,440	1,950	3,410	4
Clyde Morris Blvd.	Madeline Ave. to Big Tree Rd.	335	County		Yes	1.00	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	24,200	22,260	20,800	22,910	25,110	20,770	24,230	21,490	20,350	21,160	22,050	E	37,970	0.58	C	1,280	1,860	3,410	4
Clyde Morris Blvd.	Big Tree Rd. to SR 400/Beville Rd.	337	County		Yes	0.90	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	24,600	22,880	21,790	23,460	21,760	23,500	24,140	24,280	23,720	19,700	20,620	E	36,070	0.57	C	1,240	1,700	3,240	4
Clyde Morris Blvd.	SR 430/Mason Ave. to Bill France Blvd.	338	County		Yes	0.60	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	13,140	12,310	11,990	12,960	13,930	14,960	14,750	17,520	15,440	13,530	14,860	E	37,970	0.39	C	970	1,170	3,410	4
Clyde Morris Blvd.	Bill France Blvd. to LPGA Blvd.	341	County		Yes	1.25	50	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	13,450	12,880	12,290	13,370	14,540	13,480	15,910	16,280	15,950	13,940	15,900	E	37,970	0.42	C	1,090	1,330	3,410	4
Clyde Morris Blvd.	LPGA Blvd. to Hand Ave.	343	County		Yes	1.50	50	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	14,070	13,560	12,280	13,520	13,440	15,250	15,620	15,440	14,640	13,350	17,350	E	37,970	0.46	C	1,240	1,470	3,410	4
Clyde Morris Blvd.	Hand Ave to SR 40/Granada Blvd.	348	County		Yes	0.80	35	UA_NSSRC2_2W_4	Principal Arterial - Other - Urban	12,340	11,940	11,230	11,670	12,230	12,130	12,460	14,400	12,900	11,980	12,700	E	30,420	0.42	C	880	1,030	2,740	4
Commonwealth Blvd.	Spruce Creek Rd. to Orange Ave.	360	County			0.55	30	UA_NSSRC2_2W_2	Minor Collector - Urban	5,250	5,450	5,220	5,180	5,460	5,450	5,530	5,430	5,540	5,260	5,570	E	13,640	0.41	C	350	470	1,020	2
Commonwealth Blvd.	Orange Ave. to US 1	361	County			0.35	30	UA_NSSRC2_2W_2	Minor Collector - Urban	3,670	3,540	3,530	3,620	3,890	3,920	3,840	3,680	3,870	3,850	3,870	E	13,640	0.28	C	230	330	1,020	2
CR 3	Ponce DeLeon Blvd. to Lake Winona Rd.	380	County		Yes	0.45	45	UA_NSSRC1_2W_2	Local	670	610	690	680	-	870	850	910	940	960	1,180	E	13,640	0.09	C	70	110	1,230	2
CR 3	Lake Winona Rd. to SR 40	380	County		Yes	5.04	35	RDA_UFH_2W_2L_	Local	670	610	680	680	-	870	850	910	940	960	1,180	C	11,775	0.10	B	70	110	1,230	2
CR 3	SR 40 to Emporia Rd	382	County		Yes	3.40	45	RDA_UFH_2W_2L_	Minor Collector - Rural	700	680	720	690	-	890	1,030	1,060	910	1,310	1,490	C	11,775	0.13	B	100	120	1,230	2
CR 3	Emporia Rd to Washington Ave.	384	County		Yes	1.20	30	RDA_UFH_2W_2L_	Minor Collector - Rural	1,650	1,680	1,660	1,580	1,750	2,190	2,300	2,130	2,130	1,780	1,890	C	11,775	0.16	B	130	200	1,230	2
CR 3	Washington Ave. to 'US 17	386	County		Yes	2.20	35	RDA_UFH_2W_2L_	Minor Collector - Rural	1,040	1,100	1,060	1,250	1,160	1,330	1,100	1,140	1,140	1,240	1,230	C	11,775	0.10	B	70	100	1,230	2
CR 15A	US 17 to Airport Rd.	440	County		Yes	0.90	50	UA_UFH_2W_2L_U	Minor Arterial - Urban	4,220	4,160	3,980	4,120		4,770	4,810	4,720	4,390	5,420	5,230	E	24,450	0.21	B	330	480	2,200	2
CR 15A	Airport Rd. to SR 11	441	County		Yes	1.25	40	UA_UFH_2W_2L_U	Minor Arterial - Urban	2,190	2,060	2,070	2,130	-	2,680	2,610	2,480	2,780	3,070	2,940	E	24,450	0.12	B	200	280	2,200	2
CR 92 (Intn'l Spdwy Blvd.)	SR 15A to Stone St.	450	County		Yes	0.25	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	11,970	11,770	12,070	11,940	13,310	14,620	14,060	13,620	15,300	14,360	13,780	E	37,970	0.36	C	780	1,100	3,410	4
CR 92 (Intn'l Spdwy Blvd.)	Stone St. to US 17/92	452	County		Yes	0.75	45	UA_NSSRC1_2W_4	Principal Arterial - Other - Urban	14,370	14,000	14,510	13,800	15,230	16,440	15,250	13,230	14,530	13,960	14,720	E	37,970	0.39	C	790	1,220	3,410	4
CR 305 (Bunnell Rd.)	US 17 to Cowart Rd.	460	County		Yes	1.50	50	RUA_UFH_2W_2L_	Major Collector - Rural	1,490	1,420	1,360	1,460	1,560	1,790	1,750	1,850	1,900	1,780	2,110	C	6,450	0.33	B	200	210	620	2
CR 305 (Bunnell Rd.)	Cowart Rd. to Flagler Co.	461	County		Yes	3.00	50	RUA_UFH_2W_2L_	Major Collector - Rural	990	890	910	990	-	1,370	1,270	1,360	1,390	1,330	1,600	C	6,450	0.25	B	160	170	620	2
Cow Creek Rd.	SR 442 to Volco Rd.	420	County		Yes	3.50	50	RUA_UFH_2W_2L_	Local	750	740	760	850	840	860	800	900	1,050	750	990	C	6,450	0.15	B	70	90	620	2
Cowart Rd.	Bunnell Rd to Little Brown Church Rd.	430	County			2.05	40	RUA_UFH_2W_2L_	Local	260	230	220	250	230	250	290	320	230	240	280	C	6,450	0.04	B	20	20	620	2
Daugharty Rd. (S. End)	Marsh Rd. to SR 11	470	County		Yes	0.80	35	RUA_UFH_2W_2L_	Local	510	510	490	520	-	560	500	520	530	520	520	C	6,450	0.08	B	30	50	620	2
Daugharty Rd.	SR 11 to Marsh Rd.	472	County			0.95	35	RUA_UFH_2W_2L_	Minor Collector - Rural	550	550	510	580	-	760	720	700	800	830	860	C	6,450	0.13	B	70	80	620	2
Demotte Ave.	Peninsula Dr. to Cardinal Blvd	500	County			0.20	35	UA_NSSRC2_2W_2	Minor Collector - Urban	3,940	4,480	4,050	4,120	4,690	6,270	4,610	4,740	5,190	5,060	5,090	E	13,640	0.47	C	340	490	1,020	2
Derbyshire Rd.	SR 430/Mason Ave. to LPGA Blvd.	511	County			1.45	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,950	5,980	5,870	6,130	6,330	6,590	6,410	8,230	7,940	7,310	8,000	E	13,640	0.59	D	480	650	1,020	2
Derbyshire Rd.	LPGA Blvd. to Flomich St.	512	County		Yes	0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	7,930	7,470	7,320	7,280	6,040	8,020	7,300	8,790	8,890	8,010	7,900	E	13,640	0.58	D	460	650	1,020	2
Dirksen/DeBary/Doyle	US 17/92 to Sunrise Blvd.	520	County		Yes	1.75	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	6,910	6,230	6,190	6,680	7,780	10,270	8,050	8,290	8,360	7,400	8,470	E	13,640	0.62	C	590	930	1,230	2
Dirksen/DeBary/Doyle	Sunrise Blvd to WB I-4

Dunn/George Engram/Fairview/Main	Bill France Blvd. to Clyde Morris Blvd.	718	County		Yes	0.85	35	UA_NSSRC2_2W_2	Minor Arterial - Urban	10,550	10,400	10,150	10,730	#REF!	12,880	10,510	14,510	14,390	11,550	11,600	E	14,740	0.79	D	730	960	1,330	2
Dunn/George Engram/Fairview/Main	Clyde Morris Blvd. to SR 5A/Nova Rd.	719	County		Yes	1.00	40	UA_NSSRC1_2W_4	Minor Arterial - Urban	10,430	10,310	10,230	10,830	10,640	10,870	10,800	11,500	11,760	8,360	9,330	E	37,970	0.25	C	600	770	3,410	4
Dunn/George Engram/Fairview/Main	SR 5A/Nova Rd. to US 1	720	County		Yes	1.20	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	5,570	5,060	5,380	4,990	9,640	10,550	10,750	11,790	11,040	8,950	9,260	E	30,420	0.30	C	550	770	2,740	4
Dunn/George Engram/Fairview/Main	US 1 to Beach St	631	County		Yes	0.40	30	UA_NSSRC2_2W_2	Minor Arterial - Urban	6,980	6,330	6,560	6,190	5,880	5,350	5,620	6,080	6,290	4,870	5,710	E	14,040	0.41	C	300	490	1,270	2
Dunn/George Engram/Fairview/Main	Beach St. to Peninsula Dr.	1170	County		Yes	0.60	30	UA_NSSRC2_2W_2	Minor Arterial - Urban	6,010	5,700	5,540	5,210	8,020	7,190	7,440	8,410	8,470	5,280	6,330	E	14,040	0.45	C	330	540	1,270	2
Emporia Rd.	SR 40 to Peterson/Blackburn	560	County		Yes	3.00	40	RUA_UFH_2W_2L	Minor Collector - Rural	690	720	690	660 -		910	860	850	920	920	1,090	C	6,450	0.17	B	70	100	620	2
Emporia Rd.	Peterson/Blackburn to US 17	564	County		Yes	1.45	40	RUA_UFH_2W_2L	Minor Collector - Rural	1,280	1,230	1,320	1,060 -		1,250	1,220	1,110	1,100	1,290	1,700	C	6,450	0.26	B	150	130	620	2
Enterprise Ave. (NSB)	Pioneer Tr. to Halleck St.	570	County			0.10	35	UA_NSSRC2_2W_2	Major Collector - Urban	7,460	7,000	7,740	7,900	8,210	8,550	9,760	9,230	9,530	9,080	9,800	E	13,640	0.72	D	630	830	1,020	2
Enterprise Rd.	DeBary Ave. to Deltona Blvd.	581	County		Yes	1.10	35	UA_NSSRC2_2W_2	Minor Arterial - Urban	7,800	7,150	7,270	7,390	7,050	8,300	8,660	9,320	7,630	7,680	8,520	E	14,040	0.61	D	640	720	1,270	2
Enterprise Rd.	Deltona Blvd. to Highbanks Rd.	582	County		Yes	0.50	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	15,330	14,620	14,110	15,010	15,820	14,130	16,650	16,720	17,920	15,730	16,690	E	30,420	0.55	D	1,010	1,370	2,740	4
Enterprise Rd.	Highbanks Rd. to Saxon Blvd.	584	County		Yes	1.55	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	23,460	23,750	21,590	23,790	20,550	20,510	25,710	19,820	25,290	19,830	20,900	E	37,970	0.55	C	1,270	1,740	3,410	4
Enterprise Rd.	Saxon Blvd. to Harley Strickland Blvd.	585	County		Yes	0.50	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	23,670	22,790	20,710	22,110	23,120	23,900	23,240	19,220	23,680	22,540	23,370	E	37,970	0.62	C	1,370	1,940	3,410	4
Enterprise Rd.	Harley Strickland Blvd. to US 17/92	586	County		Yes	0.50	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	22,090	20,900	19,330	20,650	20,860	21,370	21,970	23,760	20,970	24,510	25,680	E	30,420	0.84	D	1,500	2,070	2,740	4
Enterprise-Osteen Rd.	Providence to Garfield Rd	600	County		Yes	1.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,690	2,470	2,470	2,490	2,630	3,110	3,360	3,350	3,920	3,490	3,500	E	13,640	0.26	C	240	370	1,020	2
Enterprise-Osteen Rd.	Garfield Rd to Reed Ellis Rd.	601	County		Yes	1.70	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,850	1,690	1,690	1,760	1,960	2,400	2,930	2,860	3,100	2,900	2,970	E	13,640	0.22	C	220	330	1,020	2
Enterprise-Osteen Rd.	Reed Ellis Rd. to SR 415	602	County		Yes	2.50	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,160	1,080	1,160	1,140	1,250	1,480	1,360	1,250	1,250	1,310	1,280	E	13,640	0.09	C	70	120	1,020	2
Euclid Ave.	Grand to Fatio Rd.	610	County			0.25	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,190	1,080	1,150	1,030	1,130	1,190	1,310	1,300	1,420	1,220	1,390	E	13,640	0.10	C	90	120	1,020	2
Euclid Ave.	Fatio Rd. to Woodward Ave.	611	County			0.25	30	UA_NSSRC2_2W_2	Minor Collector - Urban	1,360	1,270	1,330	1,220	1,360	1,390	1,460	1,570	1,590	1,490	1,620	E	13,640	0.12	C	110	140	1,020	2
Euclid Ave.	Woodward Ave. to SR 15A	612	County			0.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,310	2,300	2,290	2,140	2,280	2,320	2,440	2,640	2,570	2,530	2,650	E	13,640	0.19	C	200	240	1,020	2
Euclid Ave.	SR 15A to Adelle Ave.	613	County			0.75	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,440	2,510	2,430	2,380	2,450	2,830	2,790	3,130	2,970	2,880	2,960	E	13,640	0.22	C	200	270	1,020	2
Euclid Ave.	Adelle Ave. to US 17/92	614	County			0.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,150	2,200	2,150	2,210 -		2,260	2,190	2,330	2,060	2,100	2,260	E	13,640	0.17	C	130	200	1,020	2
Flomich St.	Derbyshire Rd. to SR 5A/Nova Rd.	650	County		Yes	0.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,450	5,570	5,430	5,140	4,900	5,300	5,470	5,540	5,510	4,820	5,100	E	13,640	0.37	C	280	440	1,020	2
French Ave.	Beginning of road to Blue Springs Park	690	County			1.00	30	UA_NSSRC2_2W_2	Minor Collector - Urban	140	180	130	270 -		200 -		160	150	150	230	E	13,640	0.02	C	10	30	1,020	2
French Ave.	Blue Springs Park to Lawton Ave./Hamilton	691	County			1.25	35	UA_NSSRC2_2W_2	Minor Collector - Urban	520	670	480	1,260 -		710 -		1,000	1,040	1,100	1,090	E	13,640	0.08	C	40	130	1,020	2
Garfield Ave.	SR 44 to Plymouth Ave.	700	County			1.00	30	UA_NSSRC2_2W_2	Local	2,350	2,280	1,980	1,910 -		2,430	2,270	2,400	2,070	1,920	2,130	E	13,640	0.16	C	140	180	1,020	2
Garfield Ave.	Plymouth Ave. to US 92	702	County			0.85	30	UA_NSSRC2_2W_2	Local	2,310	2,220	2,100	2,280 -		2,390	2,760	3,100	2,830	2,370	2,510	E	13,640	0.18	C	160	210	1,020	2
Garfield Rd.	Doyle Rd. to Enterprise-Osteen Rd	711	County			0.90	40	UA_NSSRC1_2W_2	Minor Collector - Urban	1,860	1,680	1,530	1,550	1,670	1,900	2,130	1,850	2,220	1,920	2,020	E	13,640	0.15	C	140	200	1,230	2
Glencoe Rd.	Taylor Rd. to Paige Ave.	730	County			1.50	40	UA_NSSRC1_2W_2	Minor Collector - Urban	1,310	1,300	1,410	1,510	1,660	1,740	1,810	2,040	2,110	2,260	2,540	E	13,640	0.19	C	190	250	1,230	2
Glencoe Rd.	Paige Ave. to SR 44	731	County			1.10	35	UA_NSSRC2_2W_2	Minor Collector - Urban	3,710	3,780	3,820	3,720	4,030	4,280 -				4,500	5,360	E	13,640	0.39	C	380	460	1,020	2
Glencoe Rd.	SR 44 to Pioneer Tr.	732	County			0.85	35	UA_NSSRC2_2W_2	Minor Collector - Urban	1,670	1,820	1,930	1,870	1,570	1,500	1,590	1,770	1,800	1,850	2,080	E	13,640	0.15	C	140	190	1,020	2
Glenwood Rd.	Grand Ave. to SR 15A	741	County			1.60	35	UA_NSSRC2_2W_2	Minor Collector - Urban	4,210	4,170	4,030	4,040 -		4,360	4,120	4,380	4,500	4,360	4,210	E	13,640	0.31	C	250	370	1,020	2
Glenwood Rd.	SR 15A to US 17	743	County			1.25	35	UA_NSSRC2_2W_2	Major Collector - Urban	2,140	2,140	2,050	2,000 -		2,400	2,260	2,340	2,390	2,110	1,750	E	13,640	0.13	C	120	200	1,020	2
Grand Av/CR 4053	Old New York Ave. to SR 44	748	County		Yes	0.60	30	UA_NSSRC2_2W_2	Major Collector - Urban	810	860	830	940	970 -			1,230	1,550	1,870	1,980	2,290	E	13,640	0.17	C	170	250	1,020	2
Grand Av/CR 4053	SR 44 to Minnesota Ave.	750	County		Yes	0.90	35	UA_NSSRC2_2W_2	Major Collector - Urban	2,250	1,820	2,190	2,280	2,570	3,090	3,010	3,630	4,090	3,860	4,440	E	13,640	0.33	C	310	470	1,020	2
Grand Av/CR 4053	Minnesota Ave. to Plymouth Ave.	751	County		Yes	0.50	40	UA_NSSRC1_2W_2	Major Collector - Urban	1,240	1,270	1,260	1,240	1,410	1,760	1,530	1,680	1,900	1,780	1,880	E	13,640	0.14	C	130	180	1,230	2
Grand Av/CR 4053	Plymouth Ave. to Glenwood Rd.	752	County		Yes	2.10	40	UA_NSSRC1_2W_2	Major Collector - Urban	1,910	2,010	2,080	1,990	2,330	2,680	2,310	2,570	2,650	2,570	2,800	E	13,640	0.21	C	200	250	1,230	2
Grand Av/CR 4053	Glenwood Rd. to Lemon St.	754	County		Yes	1.30	35	UA_NSSRC2_2W_2	Major Collector - Urban	3,700	3,630	3,550	3,550	3,860	4,010	4,020	4,200	4,270	3,950	4,070	E	14,740	0.28	C	270	370	1,330	2
Grand Av/CR 4053	Lemon St. to Retta St.	756	County		Yes	1.80	40	UA_NSSRC1_2W_2	Major Collector - Urban	1,740	1,720	1,700	1,740	1,990	2,100	1,860	2,190	2,200	2,280	2,300	E	13,640	0.17	C	160	210	1,230	2
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	775	County		Yes	0.30	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	17,570	17,140	16,750	17,160	18,780	19,180	19,190	19,590	21,760	19,090	19,750	E	17,900	1.10	F	1,180	1,640	1,620	2
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	County		Yes	0.60	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	15,580	16,370	E	17,900	0.91	C	1,000	1,420	1,620	2
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	County		Yes	0.25	35	UA_NSSRC2_2W_4	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	16,310	19,290	E	30,420	0.63	D	1,290	1,650	2,740	4
Greens Dairy Rd.	SR 15A to Stone St.	780	County			0.50	30	UA_NSSRC2_2W_2	Local	120	90	100	120 -		150	200	210	230	200	160	E	13,640	0.01	C	10	20	1,020	2
Halleck St. (NSB)	Wayne Ave. to Enterprise Ave.	810	County		Yes	0.20	30	UA_NSSRC2_2W_2	Major Collector - Urban	6,170	5,780	5,890	6,450	6,530	6,410	6,940	7,200	6,940	6,830	7,390	E	13,640	0.54	D	110	180	1,020	2
Hand Ave.	Williamson Blvd. to Clyde Morris Blvd.	830	County		Yes	1.25	50	UA_NSSRC1_2W_2	Major Collector - Urban	7,660	7,900	6,750	8,330	9,520	8,720	6,880	9,860	9,590		9,480	E	17,050	0.56	A	640	770	1,540	2
Hand Ave.	Clyde Morris Blvd. to Shangri La Dr.	832	County		Yes	0.75	50	UA_NSSRC1_2W_2	Major Collector - Urban	13,220	13,090	10,230	13,950	14,870	15,370	16,690	17,010	16,350	14,340	15,180	E	17,050	0.89	C	1,050	1,230	1,540	2
Hand Ave.	Shangri La Dr. to SR 5A/Nova Rd.	833	County		Yes	0.25	45	UA_NSSRC1_2W_4	Major Collector - Urban	14,880	14,320	13,350	14,950	16,320	15,820	17,270	18,250	17,000	13,370	16,410	E	37,970	0.43	C	1,090	1,360	3,410	4
Hazen Rd.	SR 44 to Plymouth Ave.	850	County		Yes	1.00	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	1,050	1,240	1,250	1,400	1,480	1,680	1,680	1,980	1,650	1,440	1,790	E	13,640	0.13	C	140	180	1,230	2
Hazen Rd.	Plymouth Ave. to Mercers Fernery Rd.	852	County			1.50	35	UA_NSSRC2_2W_2	Minor Collector - Urban	720	700	800	820	680	850	910	1,020	1,380	840	910	E	13,640	0.07	C	130	80	1,020	2
Highbridge Rd.	Walter Boardman Ln. to John Anderson Dr.	871	County		Yes	1.60	30	RDA_UFH_2W_2L	Major Collector - Rural	1,830	2,100	1,750	2,020	2,480	2,770	2,210	2,570	3,160		3,390	C	11,775	0.29	A	200	290	1,120	2
Highbridge Rd.	John Anderson Dr. to SR A1A	872	County		Yes	0.20	30	UA_NSSRC2_2W_2	Major Collector - Urban	1,520	1,780	1,490	1,660	2,170	2,380	2,120	2,110	2,680	2,490	2,940	E	13,640	0.22	C	170	240	1,020	2
Hill Ave.	Taylor Rd. to Beresford Ave.	878	County			1.00	30	UA_NSSRC2_2W_2	Local	430	480	550	820 -		1,070	1,030	1,260	1,140	1,060	1,080	E	13,640	0.08	C	80	110	1,020	2
Hill Ave.	Beresford Ave. to Voorhis Ave.	881	County			0.75	30	UA_NSSRC2_2W_2	Major Collector - Urban	2,310	2,370	2,200	2,510 -		2,680	2,780	2,840	2,980	2,430	2,450	E	13,640	0.18	C	230	240	1,020	2
Hill Ave.	Voorhis Ave. to SR 44	882	County			0.25	30	UA_NSSRC2_2W_2	Major Collector - Urban	2,530	2,780	2,540	2,760 -		3,220	3,150	3,710	3,590	3,060	3,130	E	13,640	0.23	C	270	280	1,020	2
Hill Ave./Jacobs Rd.	Plymouth Ave. to US 92	950	County		Yes	0.85	40	UA_NSSRC1_2W_2	Major Collector - Urban	5,870	5,190	5,820	5,900	6,170	7,590	7,510	8,420	8,270	7,230	7,390	E	13,640	0.54	C	600	560	1,230	2
Hontoon Rd.	end of road to Botts Landing Rd.	890	County			2.00	35	UA_NSSRC2_2W_2	Minor Collector - Urban	870	790	840	880	1,000	1,090	1,040	930	970	970	1,120	C	5,260	0.21	C	80	100	1,020	2
Hontoon Rd.	Botts Landing Rd. to Old New York Ave.	891	County			1.15	40	UA_NSSRC1_2W_2	Minor Collector - Urban	3,050	2,840	2,820	2,990	3,180	3,450	3,240	3,020	3,190	2,950	3,540	C	12,100	0.29	C	240	290	1,230	2
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	FDOT		Yes	0.40	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	30,490	29,890	27,480	30,590	36,570	32,320	38,300	36,990	34,320	30,660	31,360	E	37,970	0.83	C	2,080	2,530	3,410	4
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	County		Yes	1.15	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	28,010	27,440	25,280	27,770	31,520	30,270	30,040	31,480	30,520	26,130	28,510	E	37,970	0.75	C	1,860	2,310	3,410	4
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905	County		Yes	0.35	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	22,110	21,930	20,070	22,700	23,710	23,950	25,520	23,110	23,670	19,360	20,570	E	37,970	0.54	C	1,360	1,670	3,410	4
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	County		Yes	2.10	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	16,890	14,140	15,150	16,430	16,780	17,220	18,800	18,930	17,430	13,580	14,120	E	13,640	1.04	E	970	1,110	1,230	2
Howland Blvd.	Elkcam Blvd. to Lake Helen-Osteen Rd.	908	County		Yes	0.30	45/40	UA_NSSRC1_2W_4	Minor Arterial - Urban	15,300	15,620	14,220	15,090	16,530	15,940	18,760	18,190	17,500	13,670	16,110	E	37,970	0.42	C	950	1,260	3,410	4
Howland Blvd.	Lake Helen-Osteen Rd. to Newmark Dr.	909	County		Yes	0.70	40	UA_NSSRC1_2W_4	Minor Arterial - Urban	20,350	20,990	19,330	19,900	19,690	21,360	25,290	23,160	21,860	19,970	22,640	E	37,970	0.60	C	1,470	1,890	3,410	4
Howland Blvd.	Newmark Dr. to Courtland Blvd.	911	County		Yes	1.15	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	16,640	16,990	15,600	15,490	16,060	17,440	20,200	18,130	20,630	16,480	19,260	E	37,970	0.51	C	1,310	1,640	3,410	4
Howland Blvd.	Courtland Blvd. to Ft Smith Blvd.	913	County		Yes	1.80	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	13,280	12,920	11,770	11,240	10,990	12,000	16,230	14,620	14,080	12,970	15,700	E	37,970	0.41	C	1,280	1,360	3,410	4
Howland Blvd.	Ft Smith Blvd. to SR 415	915	County		Yes	0.65	45	UA_NSSRC1_2W_4	Minor Arterial - Urban	12,650	12,180	12,530	12,960	14,030	13,600	18,230	16,400	17,200	15,690	17,850	E	37,970	0.47	C	1,230	1,590	3,410	4
I-4 Frontage Rd.	Summit Ave. to Orange Camp Rd.	Future Ro	County		Yes	2.00	45	UA_NSSRC1_2W_2	n/c	-	-	-	-	-	-	-	-	-	-	-		12,100	-	-	-	-	1,230	0
I-4 Frontage Rd.	Orange Campe Rd. to Cassadaga Rd.	Future Ro	County		Yes	1.35	45	UA_NSSRC1_2W_4	n/c	-	-	-	-	-	-	-	-	-	-	-	E	37,970	-	-	-	-	3,410	0
I-4 Frontage Rd.	Cassadaga Rd. to SR 472	Future Ro	County		Yes	0.70	45	UA_NSSRC1_2W_4	n/c	-	-	-	-	-	-	-	-	-	-	-	E	37,970	-	-	-	-	3,410	0
Indian Lake Rd.	Tiger Bay Rd. to US 92	935	County			0.80	40	UA_NSSRC1_2W_2	Local	6,090	5,550	5,180	5,150	5,870	6,660	6,590	6,370	6,470	4,710	5,250	E	13,640	0.38	C	490	490	1,230	2
John Anderson Dr.	Halifax Dr to Lynnhurst	972	County		Yes	0.85	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,390	5,520	6,730	4,370	5,180	5,790	5,520	5,200	5,570	5,060	3,590	E	13,640	0.26	C	280	290	1,020	2
John Anderson Dr.	Lynnhurst to Highbridge Rd.	974	County		Yes	7.40	35	UA_NSSRC2_2W_2	Major Collector - Urban	3,590	3,960	4,570	3,240	3,700	4,190	4,080	3,870	3,940	3,670	3,890	E	13,640	0.29	C	290	340	1,020	2
John Anderson Hwy.	Walter Boardman Lane to Flagler Co.	990	County		Yes	1.00	5 NB / 30 S	RDA_UFH_2W_2L	Minor Collector - Rural	1,000	1,140	900	950	1,150	1,190	1,170	1,200	1,180	1,230	1,420	C	11,775	0.12	B	90	130	1,120	2
Josephine St./10th St.	Old Mission Rd. to Tatum Blvd.	1000	County		Yes	0.30	30	UA_NSSRC2_2W_2	Major Collector - Urban	5,810	5,860	5,910	5,820	4,830	6,650	6,230	5,590	7,020	5,840	6,010	E	13,640	0.44	D	610	530	1,020	2
Josephine St./10th St. (NSB)	Tatum Blvd. to US 1	1002	County		Yes	1.80	35	UA_NSSRC2_2W_2	Major Collector - Urban	7,350	7,140 -			4,940	6,990 -						E	14,040		A	30	40	1,270	2
Kathy Dr. (N. Penin.)	John Anderson Dr. to SR A1A	1011	County			0.44	30	UA_NSSRC2_2W_2	Local	420	460	470	460	410	500	410	440	430	430	470	E	13,640	0.03	C	690	910	1,020	2
Kennedy Pkwy (Old SR 3)	US 1 to Park Entrance	1020	Federal			4.00	55	RUA_UFH_2W_2L	Major Collector - Rural	700	660 -						850	850	850		C	6,450		B	120	140	620	2
Kicklighter Rd.	Macy Ave. to Lake Helen-Osteen/Prevatt	1051	County		Yes	0.75	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,080	1,810	1,690	1,680	1,820	2,020	2,100	2,190	2,110	1,880	1,950	E	13,640	0.14	C	410	200	1,020	2
Lake George Rd.	Bream Dr. to US 17	1062	County			3.90	30	RUA_UFH_2W_2L	Local	860	820	740	780	810	810	850	880	790	710	730	C	6,450	0.11	B	50	60	620	2
Lake Helen-Osteen Rd.	Howland Blvd. to Elkcam Blvd.	1070	County		Yes	0.40	35	UA_NSSRC2_2W_2	Minor Arterial - Urban	6,140	6,050	6,060	5,920	6,140	6,360	7,430	7,800	6,910	6,710	7,970	E	13,640	0.58	D	570	730	1,020	2
Lake Helen-Osteen Rd.	Elkcam Blvd. to Haulover Blvd.	1071	County		Yes	1.75	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	7,690	7,540	7,220	6,920	5,440	5,680	5,490	9,500	8,270	8,160	9,470	E	13,640	0.69	C	690	820	1,230	2
Lake Helen-Osteen Rd.	Haulover Blvd. to Catalina Blvd.	1072	County		Yes	0.50	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	10,320	9,740	9,570	9,850	10,510	11,000	11,260	12,610	11,300	11,210	12,740	E	13,640	0.93	C	1,040	1,090	1,230	2
Lake Helen-Osteen Rd.	Catalina Blvd. to Captain Dr	1073	County		Yes	0.40	45	UA_NSSRC1_2W_2	Minor Arterial - Urban	7,410	7,090	6,840	7,110	7,420	7,700	7,830	8,560	7,580	7,650	8,480	E	13,640	0.62	C	700	750	1,230	2
Lake Helen-Osteen Rd.	Captain Dr. to Kicklighter Rd.	1076	County		Yes	1.40	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	7,030	6,570	6,750	6,760	6,990	7,280	7,910	7,590	8,260	7,750	8,940	E	13,640	0.66	C	1,050	840	1,230	2
Prevatt Ave.	Kicklighter Rd to Lake Pearl Dr.	1520	County		Yes	1.50	40	UA_NSSRC1_2W_2	Minor Arterial - Urban	4,800	4,390	4,570	3,910 -		4,640	5,070	5,220	4,600	4,540	6,080	C	15,120	0.40	C	590	530	1,540	2
Prevatt Ave.	Lake Pearl Dr. to SR 44	1523	County		Yes	1.80	55	UA_NSSRC1_2W_2	Minor Arterial - Urban	4,630	4,230	4,470	4,200	4,570	5,680	5,510	4,800	4,700	5,710	7,210	E	17,050	0.42	C	650	560	1,540	2
Lake Winona Rd.	CR 3 to US 17	1080	County		Yes	0.15	35	RUA_UFH_2W_2L	Local	160	170	170	220 -		350	290	260	200	220	280	C	6,450	0.04	B	20	30	620	2
Lake Winona Rd.	US 17 to Blackwelder Rd.	1081	County		Yes	2.25	35	RUA_UFH_2W_2L	Minor Collector - Rural	880	800	800	980 -		1,030	980	1,110	1,130	1,070	1,050	C	6,450	0.16	B	80	90	620	2
Lake Winona Rd.	Blackwelder Rd. to SR 40	1082	County		Yes	3.70	35	RUA_UFH_2W_2L	Minor Collector - Rural	150	120	140	160 -		200	170	190	200	130	190	C	6,450	0.03	B	20	20	620	2
Children's Way/Lakeshore Dr.	Main St. to Providence Blvd.	1090	County		Yes	0.70	30	UA_NSSRC2_2W_2	Local	1,000	960	900	870	940	1,000	1,000	840	830	1,500	940	E	13,640	0.07	C	60	110	1,020	2
Lakeshore Dr.	Providence Blvd. to Garfield Rd	1092	County		Yes	0.45	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,590	2,610	2,520	2,570	2,820	3,170	3,180	2,970	3,120	1,770	3,130	E	13,640	0.23	C	180	300	1,020	2
Lakeview Dr. (LH)	Ohio Ave. to Main St.	1100	County		Yes	0.50	30	UA_NSSRC2_2W_2	Minor Collector - Urban	2,600	2,790	2,740	3,280	3,690	3,280	4,330	4,390	3,890	3,420	3,830	C	5,260	0.73	C	440	390	1,020	2
Lakeview Dr. (LH)	Main St. to New York Ave.	1101	County			0.25	30	UA_NSSRC2_2W_2	Minor Collector - Urban	1,130	1,190	1,110	1,140	1,250	1,150	1,420	1,170	1,120	1,230	1,330	C	5,260

Volusia County's Segment Growth Rates and Vested Trips Instructions Policy



The applicant must provide a detailed narrative justifying any request to modify growth rate, particularly in cases where there is a significant difference. This narrative should be accompanied by thorough supporting documentation, which outlines the specific factors contributing to the observed variations and explains how the proposed growth rate aligns with the overall traffic patterns and conditions in the area.

AND

IF there are - Vested Trips

Negative Growth (Use Minimum 1%):

\+ Vested Trips

Low to Medium Growth (<= 3%)(Use Minimum 1%):

\+ Vested Trips

High Growth (> 3%):

Use the Highest # of the two (growth rate or vested trips). Need to submit supporting documentation & justification.

HIGH GROWTH & HIGH VESTED TRIPS

If there are Vested Trips from multiple approved projects on segment.
And, Vested Trips comprise of multiple uses that would normally have significant interaction (residential, retail, office, restaurant, etc…).

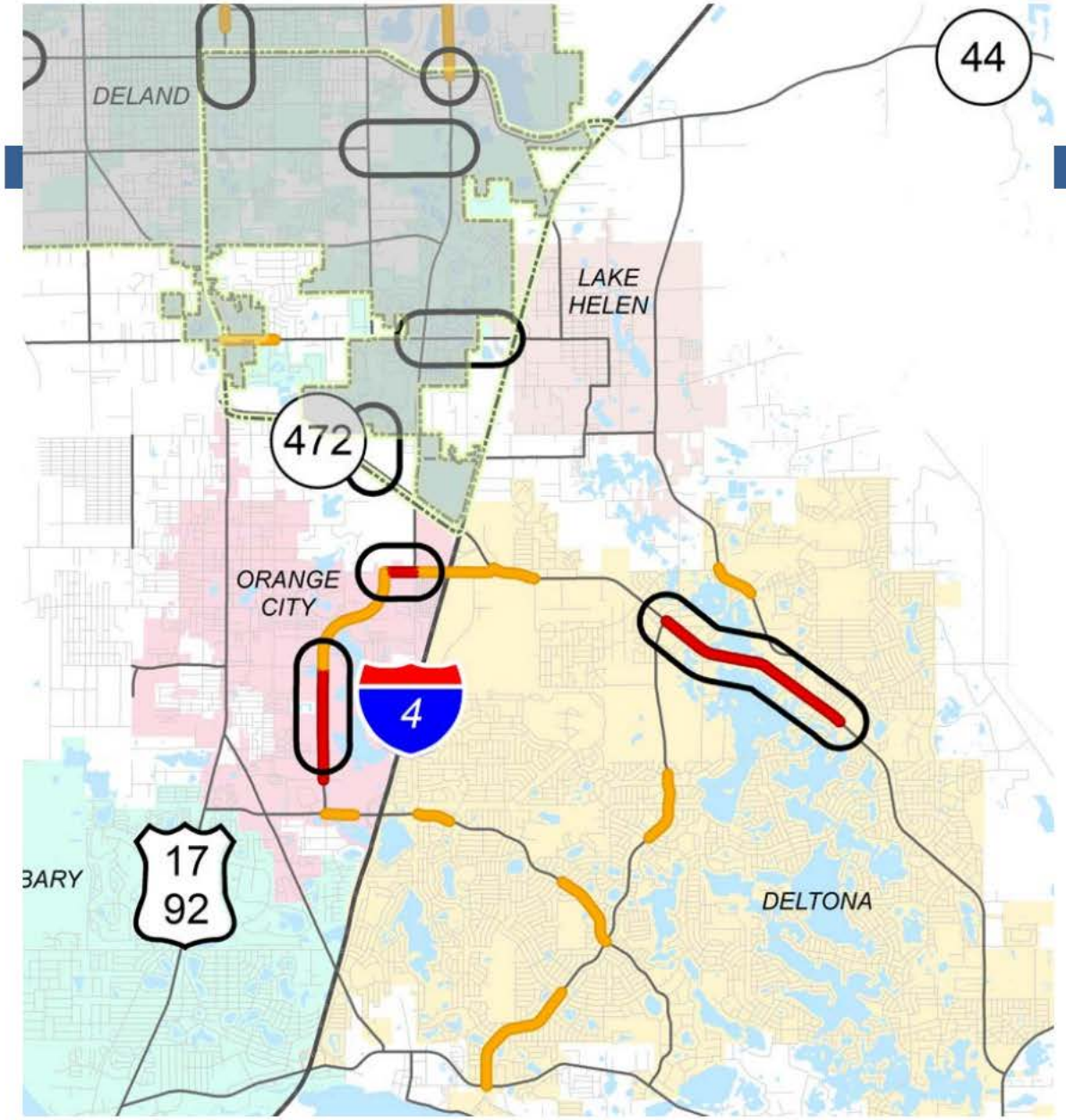
And, Vested Trips make up more than 30% of the total future background traffic.

Then, Vested Trips can be reduced by 30% upon request by the Applicant

Signed:_____ Date:_____

Jay Williams, PE, PTOE

ZONE 3



Deltona

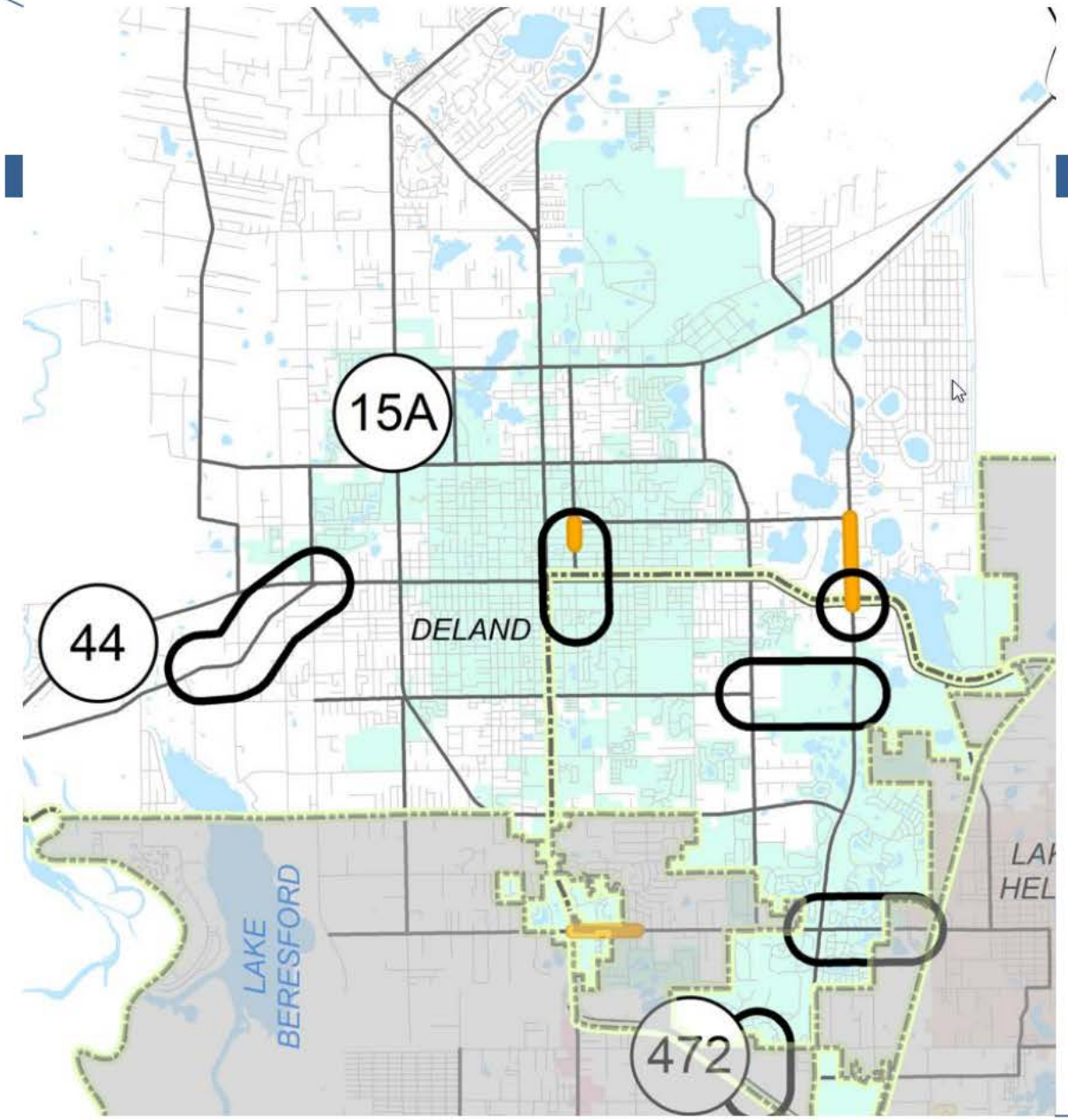
- Howland Blvd widening from Providence Blvd to Elkcam Blvd
  (Construction Underway)

Orange City

- Graves Ave widening from 2 Lanes to 3 Lanes Veterans Memorial Pkwy to Kentucky Av
  (Design Underway)

- Veterans Memorial Pkwy widening from current limits of 4 Lanes to Rhode Island Av
  (Design Underway)

ZONE 4



DeLand

- **Orange Camp Rd widening from Martin Luther King Jr. Btwy to I-4**
  (Construction Underway)
- **Old New York Av Add Paved Shoulders SR 44 to Shell Rd**
  (Design Underway)
- **Beresford Rd Extension from Blue Lake Av to Kepler Rd/Martin Luther King Jr. Btwy**
  (Design & ROW Acquisition Underway)

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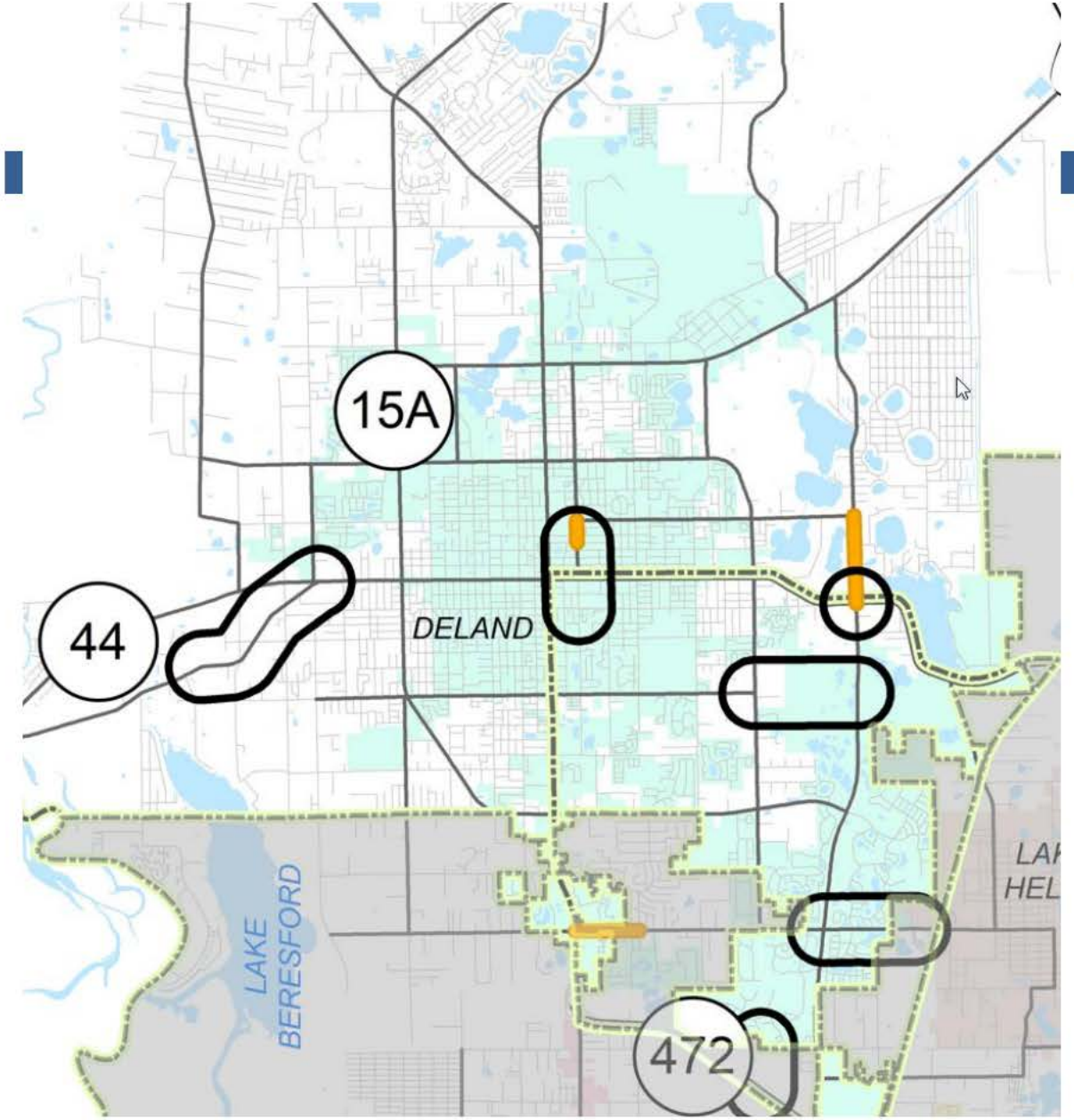


- **Amelia Av Lane Reduction from Voorhis Ave to Ohio Ave**
  (Design & ROW Acquisition Underway)
- **Blue Lake Av Extension from Blue Lake Av in Victoria Park to SR 472**
  (Design & ROW Acquisition Underway)

Appendix D
ITE Trip Generation Sheets

Single-Family Detached Housing
(210)

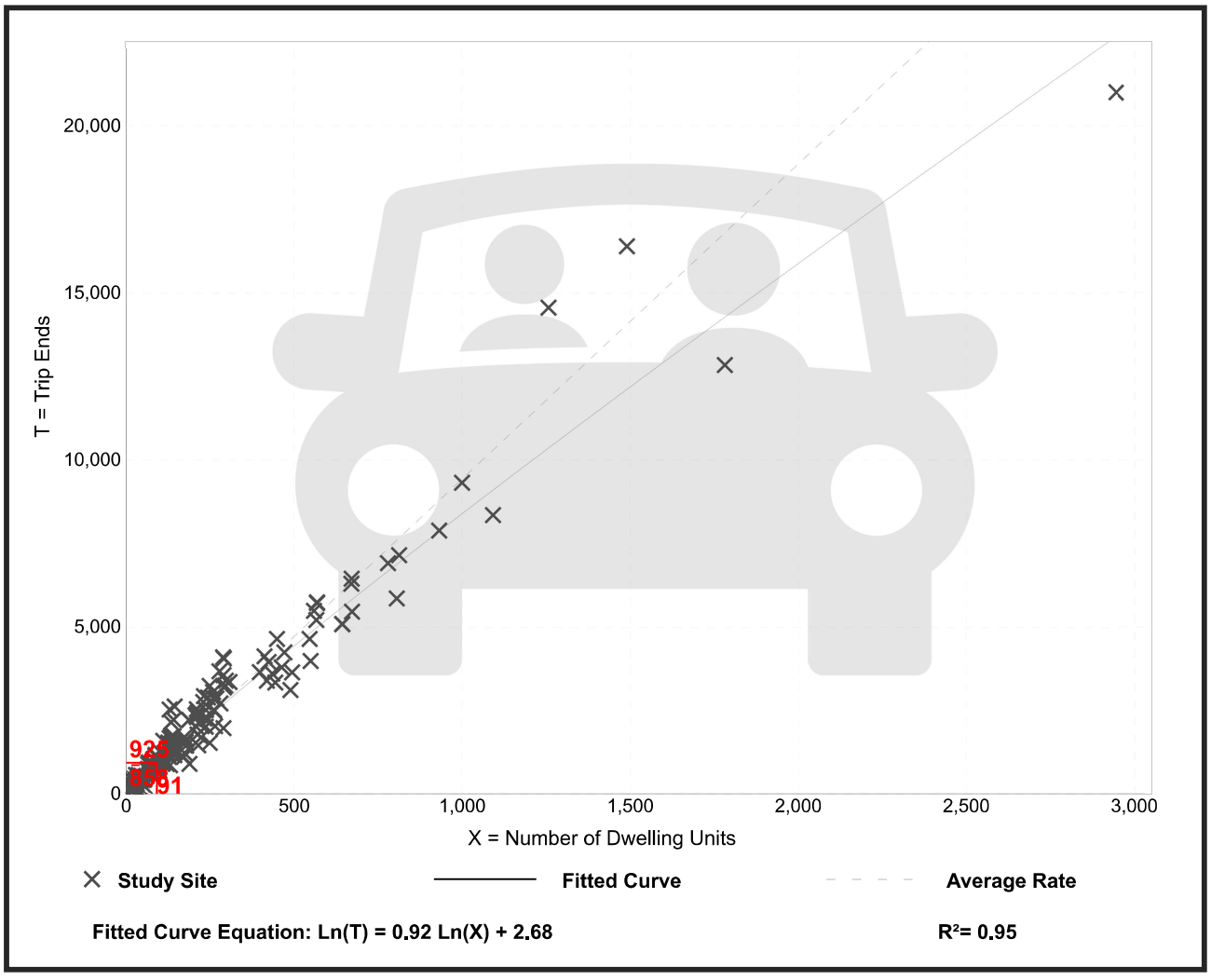
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



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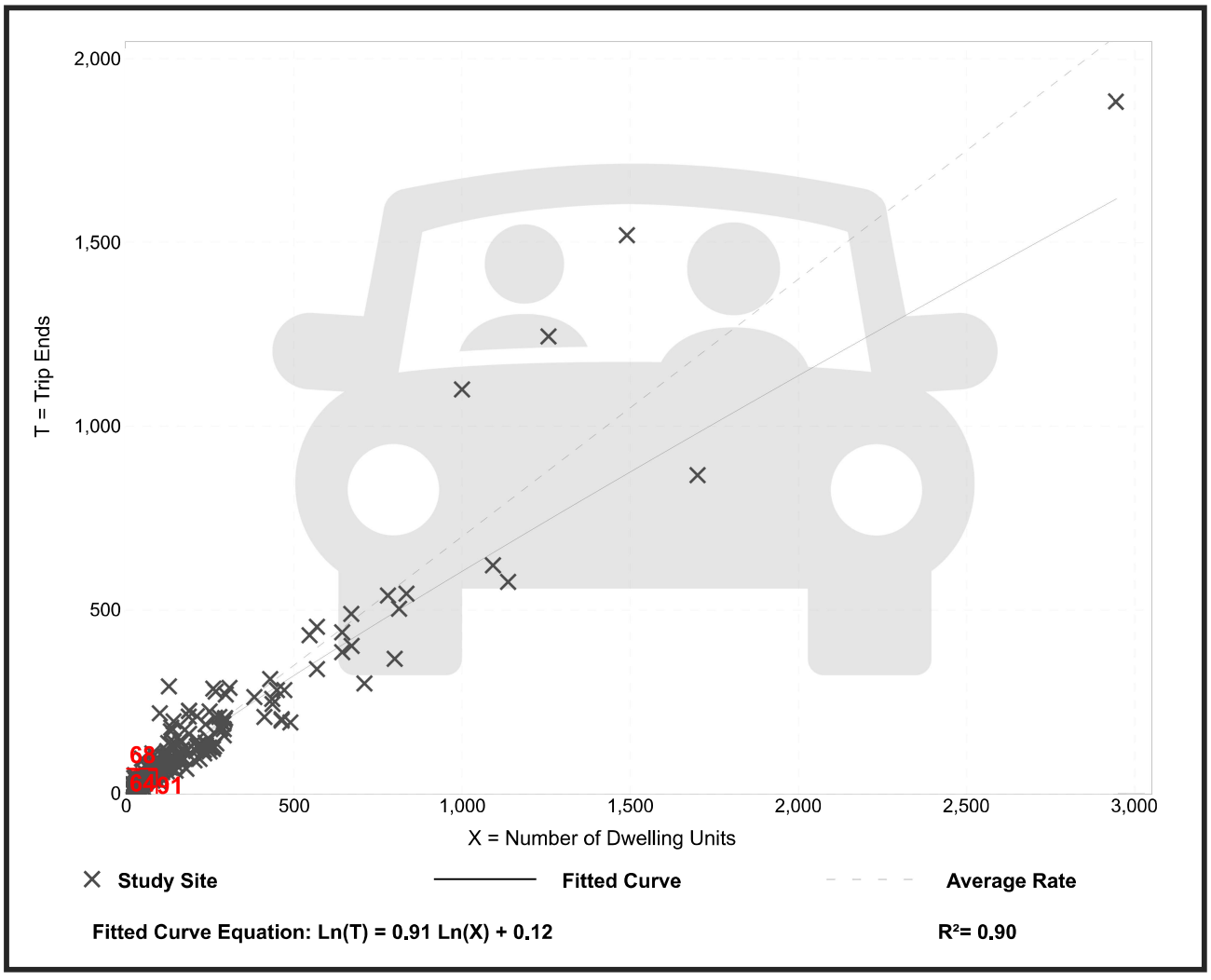
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	192
Avg. Num. of Dwelling Units:	226
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



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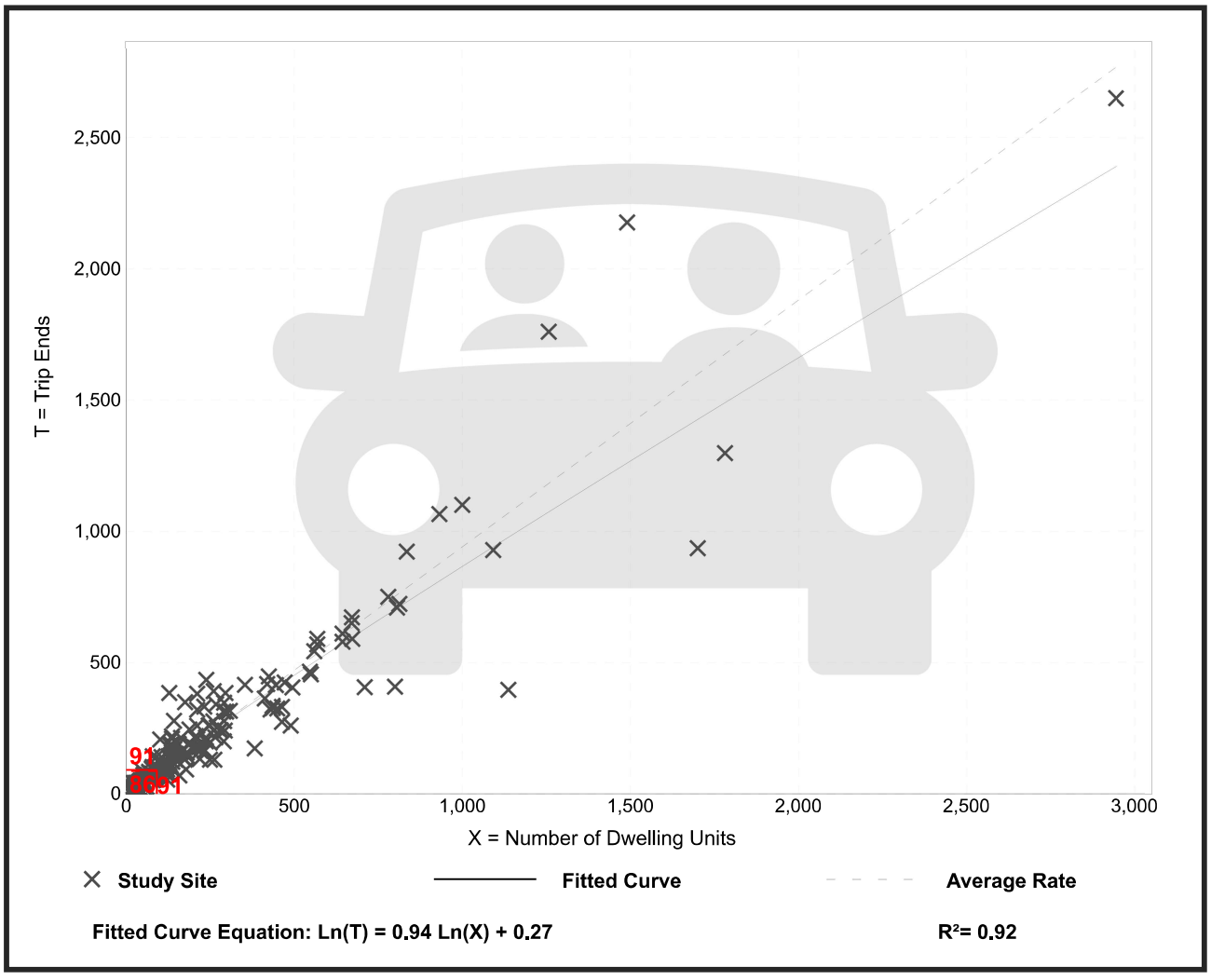
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	208
Avg. Num. of Dwelling Units:	248
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



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Single-Family Attached Housing
(215)

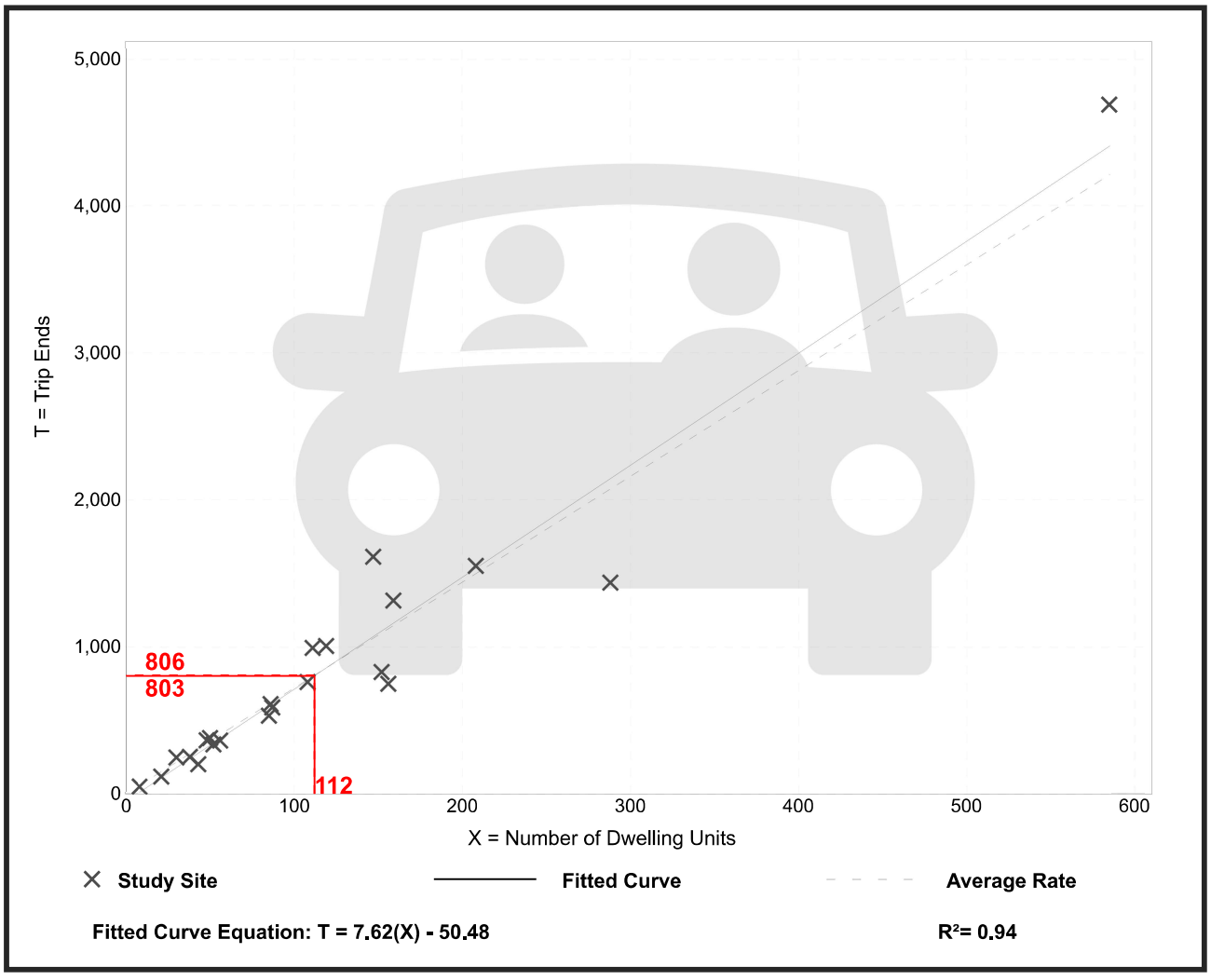
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



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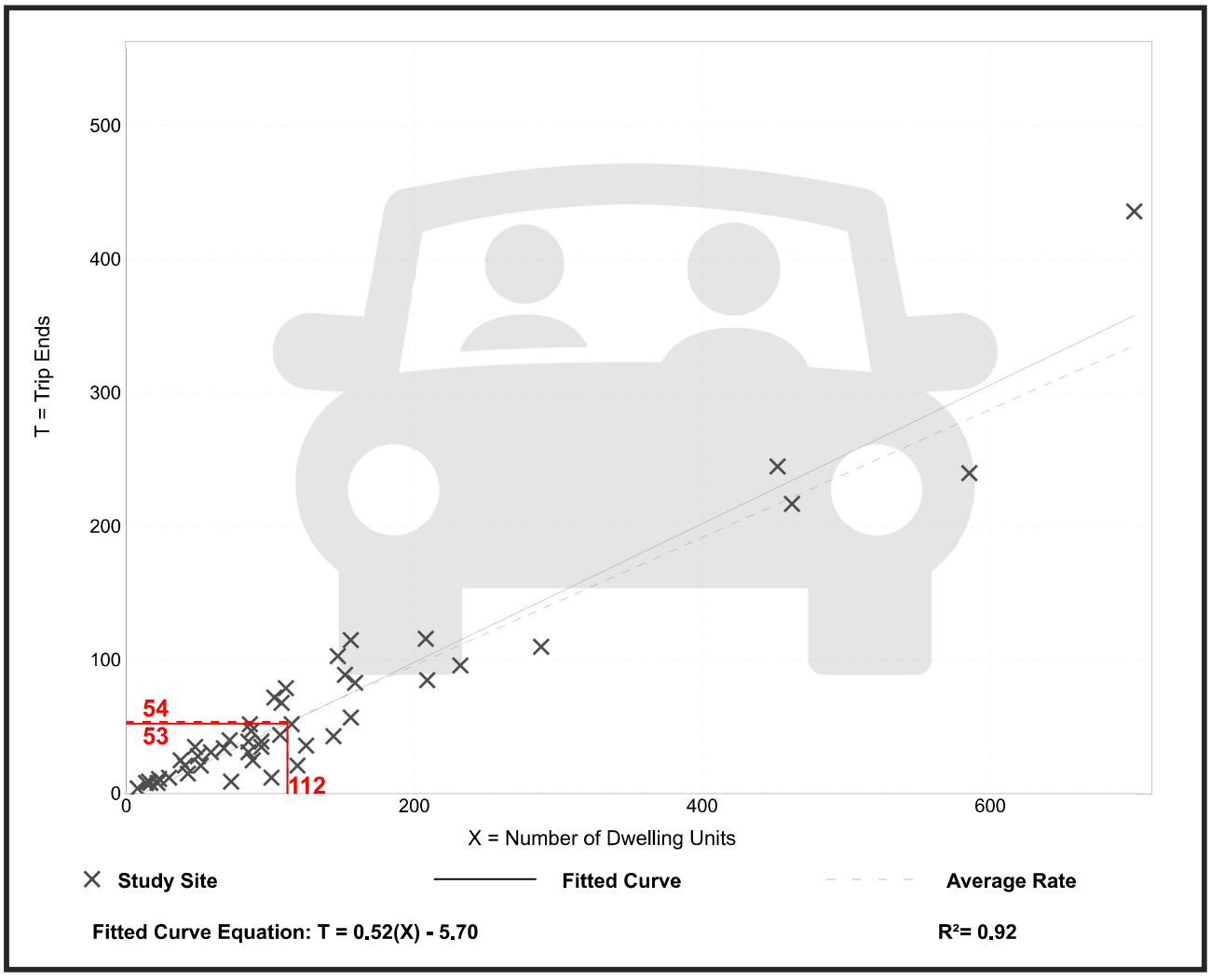
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	46
Avg. Num. of Dwelling Units:	135
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



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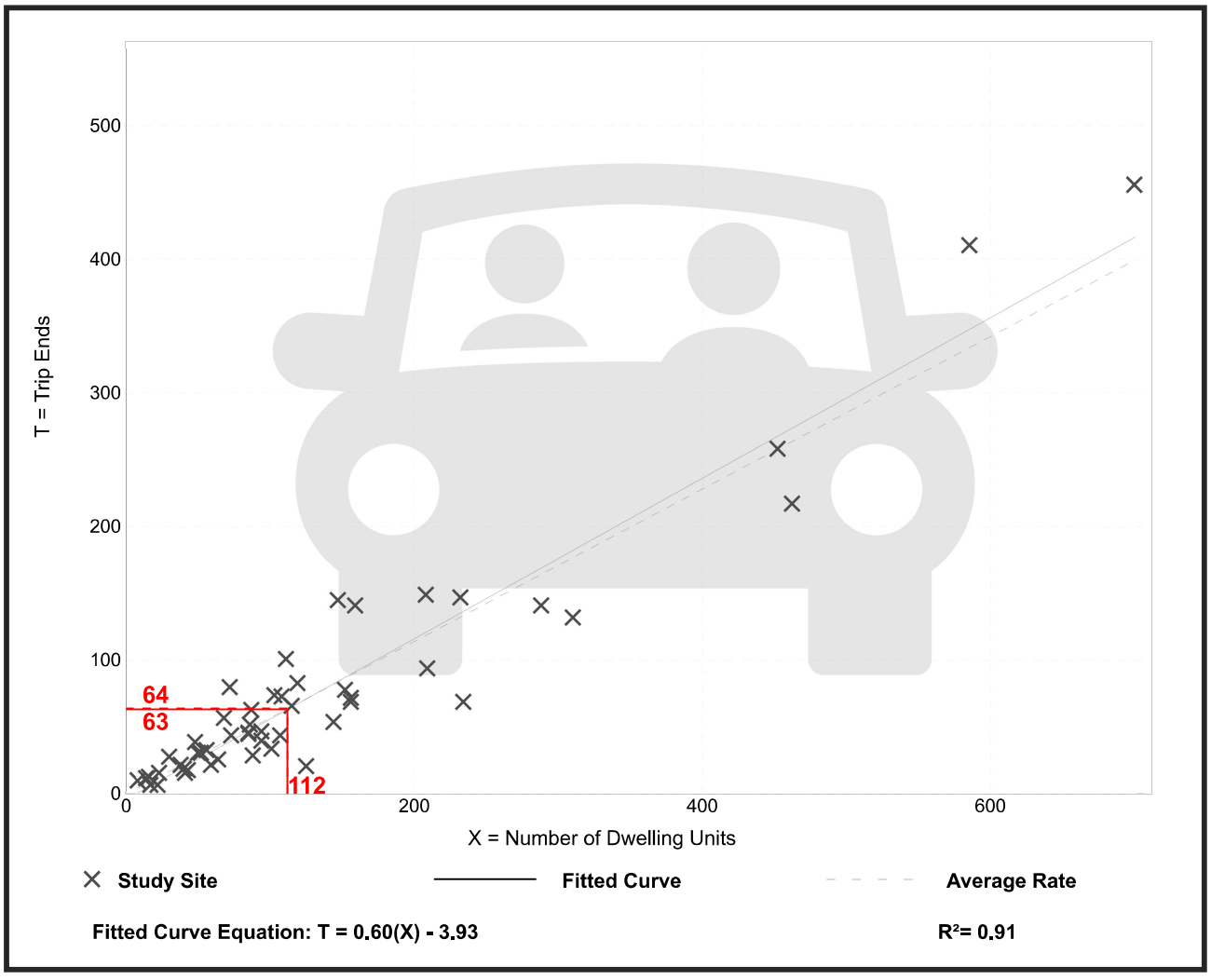
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



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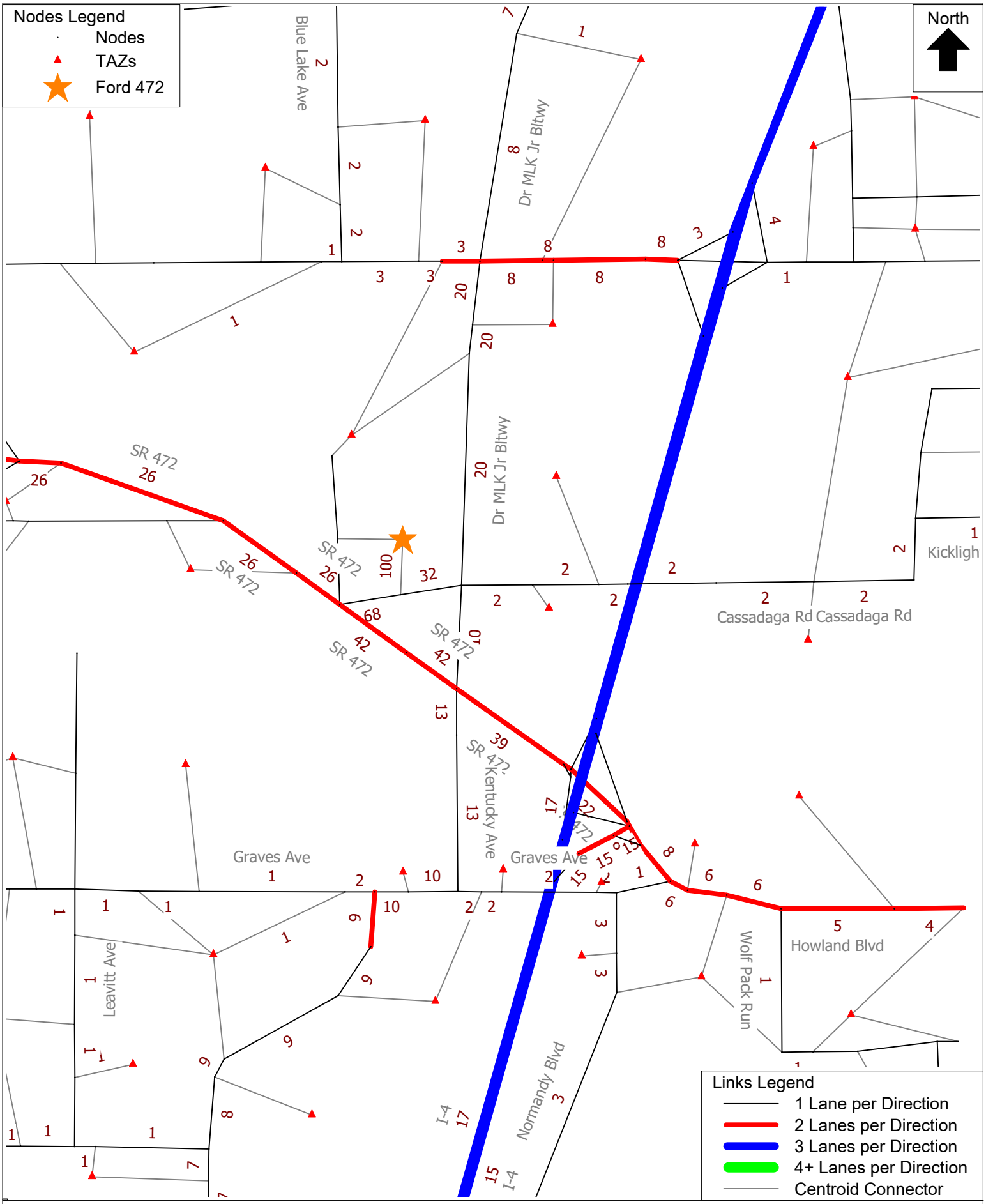
Appendix E
Model Distribution Plots



CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
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cube

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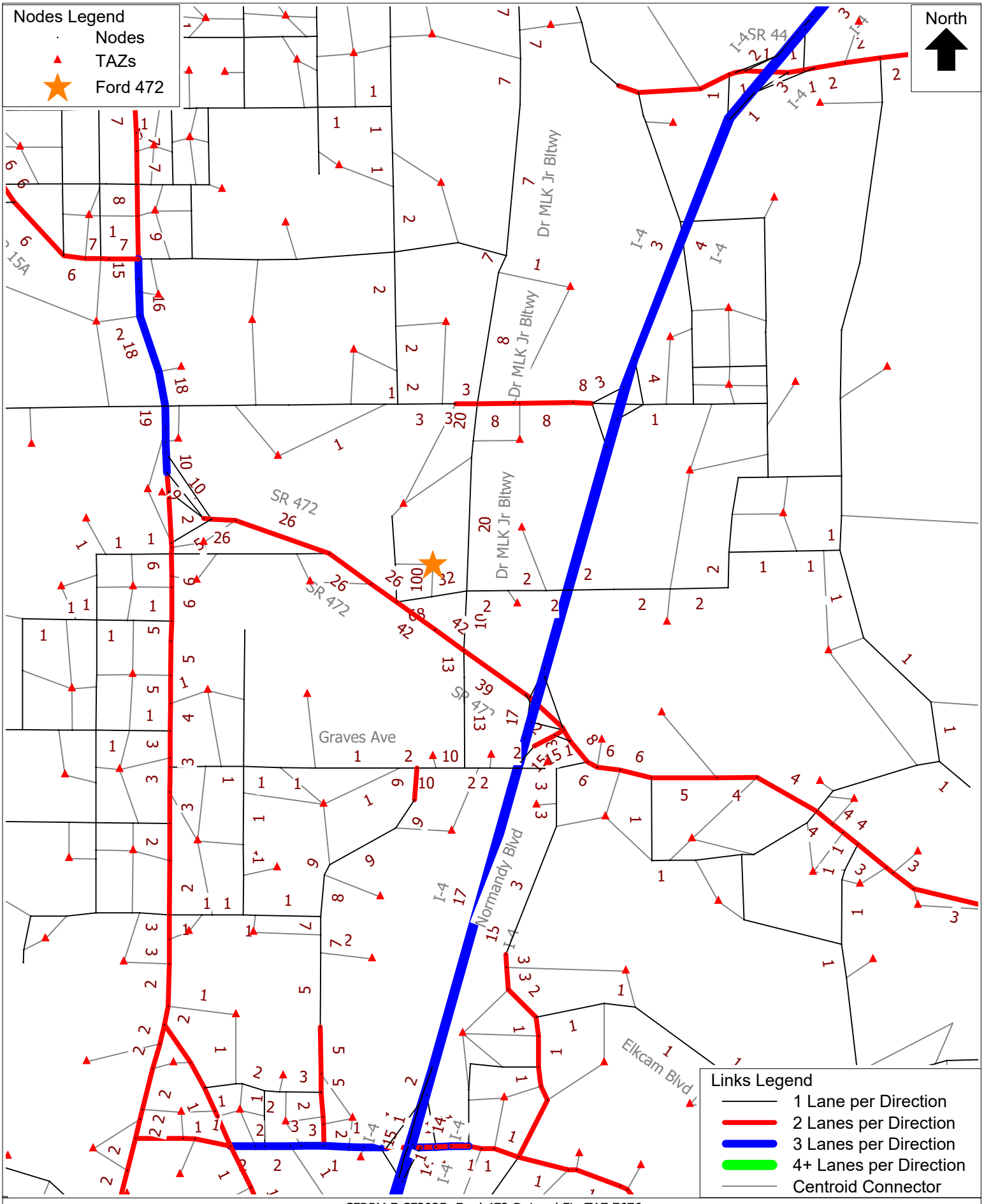

CFRPM 7 CF2025 -Ford 472-DeLand FL. TAZ 7676
Project Distribution
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Appendix F
2022 Volusia County AADT and Historical Counts

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed	2021 QLOS Facility Type	2010 Federal Functional Classification	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	VC 2022 Allowable LOS	DAILY 2022 LOS Capacity	DAILY 2021 V/C Ratio	DAILY 2022 LOS	2022 AM Peak	2022 PM Peak	PEAK 2Way 2022 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	F_Type_21	Fun_Class_2010	AADT_11	AADT_12	AADT_13	AADT_14	AADT_15	AADT_16	AADT_17	AADT_18	AADT_19	AADT_20	AADT_21	AADT_22	VCA_LOS_22	Cap_22	VCRatio_22	LOS_22	AMPKHR_22	PMPKHR_22	2W_Cap_22	Lanes_20
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280	County	Yes	1.80	30	UA_NSSRC2_2W_2L_U_0L	Major Collector - Urban	1,970	2,190	2,010	1,900	2,260	2,200	2,500	2,400	2,220	2,380	2,750	2,500	E	13,640	0.18	C	140	210	1,020	2
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentuck	775	County	Yes	0.30	45	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	**17,570**	17,140	16,750	17,160	18,780	19,180	19,190	19,590	**21,760**	19,090	19,750	20,000	E	17,900	1.12	F	1,230	1,635	1,620	2
Graves Av/CR 4145	Kentucky Ave. to Normandy Blvd.	900a	County	Yes	0.60	45	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	15,580	16,370	19,700	E	17,900	1.10	C	1,420	1,675	1,620	2
Graves Av/CR 4145	Normandy Blvd. to Howland Blvd.	900b	County	Yes	0.25	35	UA_NSSRC2_2W_4L_D_WL	Minor Arterial - Urban	13,790	11,840	12,970	13,640	14,510	15,310	14,060	15,520	16,040	16,310	18,540	16,100	E	30,420	0.53	D	1,140	1,340	2,740	4
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901	FDOT	Yes	0.40	45	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	30,490	29,890	27,480	30,590	36,570	32,320	38,300	36,990	34,320	30,660	31,040	30,900	E	37,970	0.81	C	2,185	2,410	3,410	4
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903	County	Yes	1.15	45	UA_NSSRC1_2W_4L_D_WL	Minor Arterial - Urban	28,010	27,440	25,280	27,770	31,520	30,270	30,040	31,480	30,520	26,130	28,510	27,100	E	37,970	0.71	C	1,975	2,125	3,410	4
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906	County	Yes	2.10	45	UA_NSSRC1_2W_2L_U_0L	Minor Arterial - Urban	16,890	14,140	15,150	16,430	16,780	17,220	18,800	18,930	**17,430**	13,580	13,980	13,900	E	13,640	1.02	E	945	1,020	1,230	2
Orange Camp Rd.	US 17/92 to Princeton	1380	County	Yes	0.75	35	UA_NSSRC2_2W_2L_U_WL	Minor Arterial - Urban	9,020	9,640	9,080	9,320	11,480	11,800	12,370	13,170	14,220	13,570	13,600	13,200	E	14,040	0.94	E	840	1,160	1,270	2
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (I	1384	County	Yes	0.55	50	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	8,880	9,600	9,330	9,980	11,700	12,110	12,650	13,910	14,220	13,660	14,510	12,400	E	17,050	0.73	C	845	1,075	1,540	2
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385	County	Yes	1.00	50	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	10,910	11,300	10,870	10,700	12,020	12,050	13,080	15,040	14,430	13,230	14,200	13,300	E	17,050	0.78	C	1,310	1,170	1,540	2
W. Volusia Bltwy (Veteran	Harley Strickland Blvd. to Rhode Islan	1901	County	Yes	1.22	55	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	13,810	15,170	18,000	17,750	**18,830**	**20,170**	**19,290**	**19,420**	**21,190**	**19,030**	**19,440**	**18,800**	E	**17,050**	**1.10**	F	**1,030**	**1,480**	**1,540**	2
W. Volusia Bltwy (Veteran	Rhode Island Ave. to Graves Ave.	1902	County	Yes	1.50	45	UA_NSSRC1_2W_2L_D_WL	Minor Arterial - Urban	14,100	14,830	15,510	15,510	18,510	16,430	14,420	13,400	16,420	13,800	14,870	14,100	E	17,900	0.79	C	850	1,100	1,620	2
W. Volusia Bltwy (Veteran	Graves Ave to SR 472	1030	County	Yes	0.80	45	UA_NSSRC1_2W_2L_U_WL	Major Collector - Urban	7,970	9,010	9,050	9,320	10,380	10,670	10,350	10,570	10,900	9,420	10,830	11,000	E	17,050	0.65	C	690	910	1,540	2
W. Volusia Bltwy (Dr MLK	Cassadaga Rd. to Orange Camp Rd.	1942	County	Yes	1.40	55	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	9,940	10,280	10,320	10,840	11,860	12,050	11,130	12,540	12,370	10,760	11,570	9,150	E	17,050	0.54	C	620	755	1,540	2
W. Volusia Bltwy (Dr MLK	Orange Camp Rd. to Taylor Rd.	1943	County	Yes	1.00	55	UA_NSSRC1_2W_2L_U_WL	Minor Arterial - Urban	11,240	11,850	11,440	12,050	14,330	13,800	12,670	14,480	12,240	12,210	12,840	11,000	E	17,050	0.65	C	845	910	1,540	2

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2023 HISTORICAL AADT REPORT

COUNTY: 79 - VOLUSIA

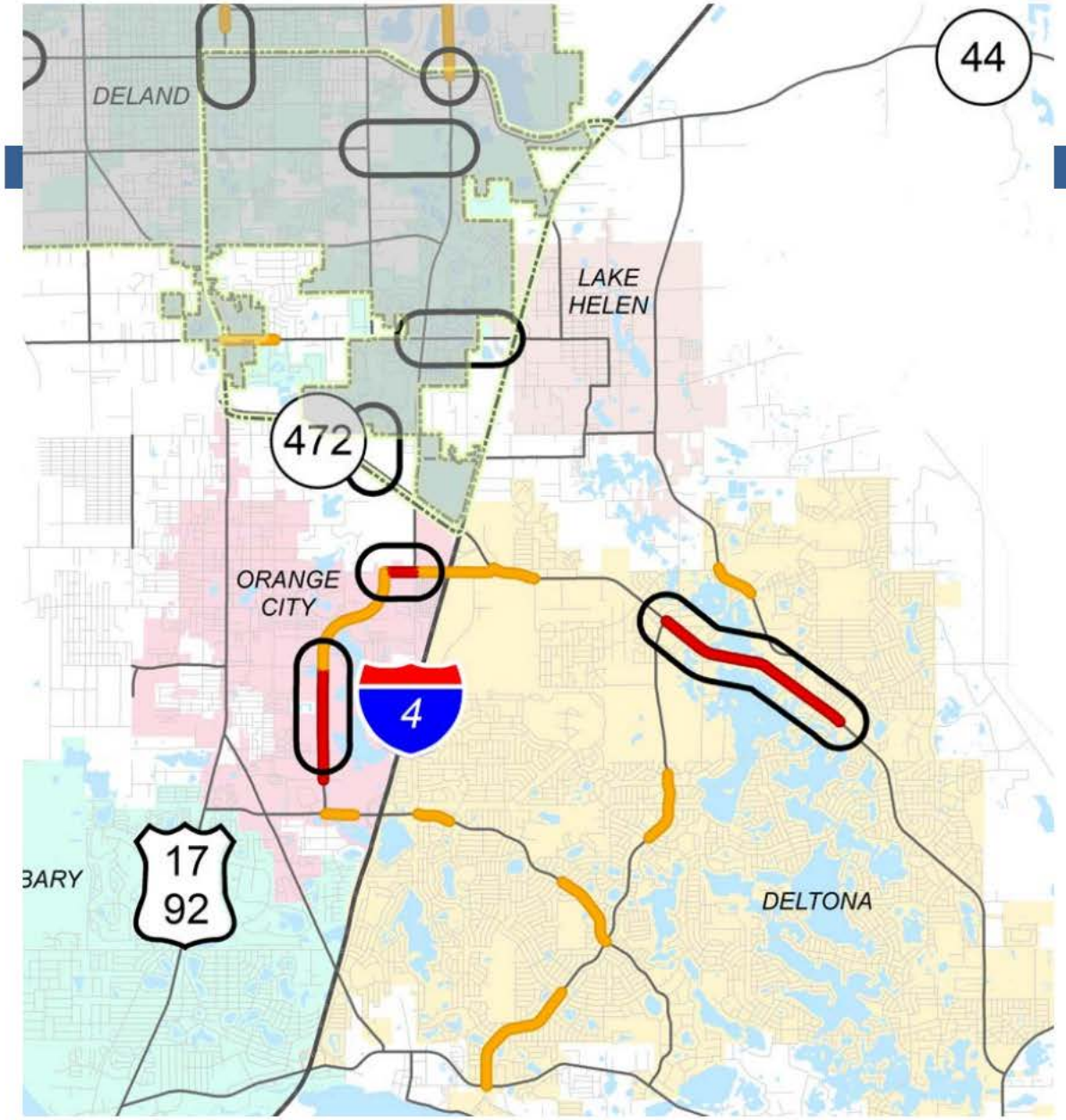
SITE: 8193 - CATALINA BLVD, 800' N OF HOWLAND BLVD - OFF SYSTEM HPMS 21

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2023	2900 F	N 1400	S 1500	9.00	59.10	9.80
2022	2700 C	N 1300	S 1400	9.00	58.80	3.50
2021	12500 C	N 6100	S 6400	9.00	58.20	10.90
2020	10900 S	N 5200	S 5700	9.00	58.70	4.00
2019	11300 F	N 5400	S 5900	9.00	59.00	6.70
2018	11100 C	N 5300	S 5800	9.00	60.00	5.10
2017	12000 T	N 6000	S 6000	9.00	60.90	3.10
2016	11600 S	N 5800	S 5800	9.00	61.40	2.40
2015	11000 F	N 5500	S 5500	9.00	60.20	2.90
2014	10600 C	N 5300	S 5300	9.00	59.20	3.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix G
Planned and Programmed Improvements

ZONE 3



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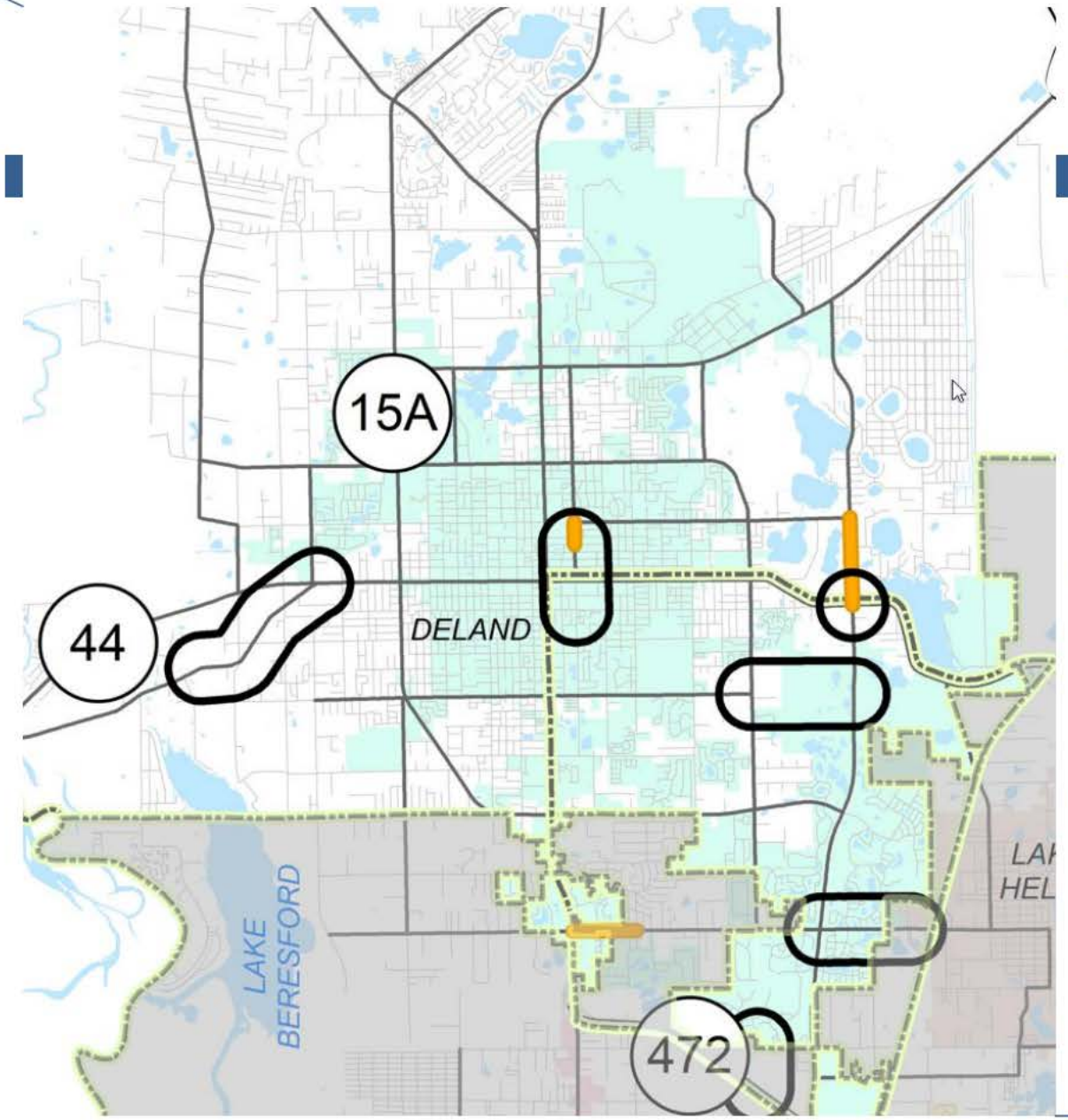
ZONE 4



DeLand

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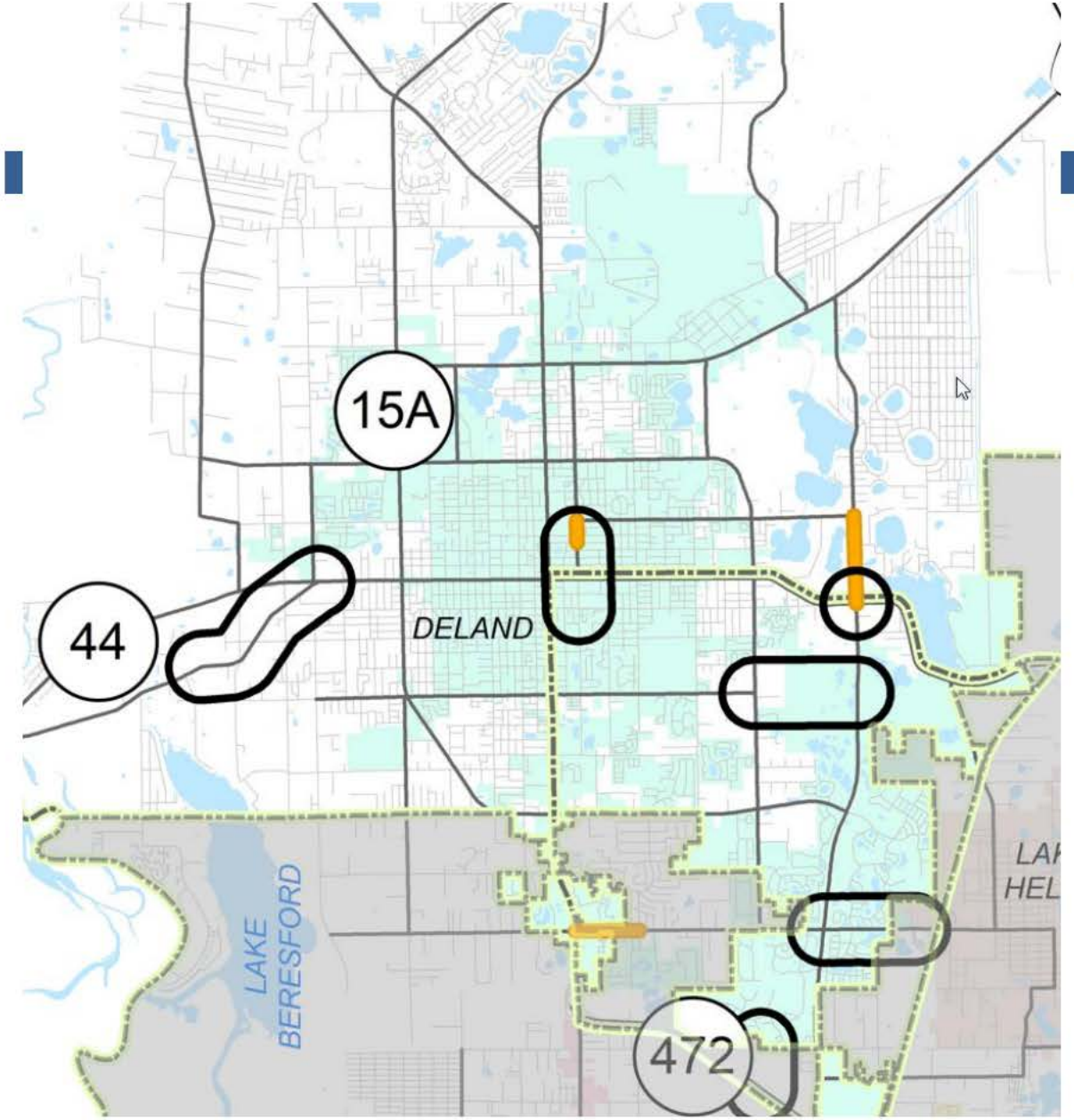
ZONE 4



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  (Design & ROW Acquisition Underway)

Appendix H
Recommended Improvements in Previous TIAs

TM BTR AT DELAND CROSSINGS
Project № 22012, v1.1
December 2022

TRAFFIC IMPACT ANALYSIS
CITY OF DELAND
FLORIDA

Prepared by:

Traffic & Mobility Consultants
3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

Prepared for:

Taylor Morrison of Florida Inc
2600 Lake Lucien Drive, Suite 350
Maitland, Florida 32751

3.6 Intersection Improvements

The following improvements are recommended at the intersection of SR 472 and Dr. Martin Luther King Jr Beltway and should be incorporated at project buildout:

- SR 472 and Dr. Martin Luther King Jr Beltway –
  - Construct a westbound left turn lane
  - Construct a northbound left turn lane and a through lane
  - Construct a southbound left turn lane and a through lane
  - Optimize the signal timing

With the recommended improvements, the intersection is projected to operate at an overall adequate LOS. The results of the analysis are summarized in **Table 8** for the background and buildout scenarios**.**

Table 8
Improved Intersection Capacity Analysis Summary

Intersection	Traffic Control	Time Period	Scenario	EB			WB			NB			SB			Overall	
				Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
SR 472 & Dr. MLK Jr Bltwy	Signal	AM	Background	42.3	D	0.97	37.2	D	0.76	72.7	E	0.87	68.6	E	0.86	48.9	D
			Buildout	43.4	D	0.99	37.5	D	0.76	71.8	E	0.87	70.7	E	0.87	49.7	D
		PM	Background	52.9	D	1.14	49.0	D	1.03	71.9	E	0.86	65.6	E	0.86	55.7	E
			Buildout	58.7	E	1.23	49.6	D	1.03	65.9	E	0.86	66.7	E	0.86	57.4	E

Average delay is expressed in seconds/vehicle

The analysis indicates that the intersection of SR 472 and Dr. Martin Luther King Jr Beltway is projected to operate at adequate LOS due to the improvements. The adjusted analysis worksheets are included in **Appendix L**.

KITTELSON & ASSOCIATES

DELAND TECH PARK TRAFFIC IMPACT ANALYSIS

DELAND, FLORIDA

July 2023



YEAR 2027 FUTURE BACKGROUND INTERSECTION CAPACITY ANALYSIS (WITH BACKGROUND RELATED IMPROVMENTS)

The background intersection lane configurations are shown in **Figure 12**. To help improve operations at the intersections showing an overall LOS F or overcapacity movements under the year 2027 PM peak hour future background conditions, the following background related improvements are recommended:

- SR 472 at Kentucky Avenue/Dr Martin Luther King Jr Beltway
  - Add one additional eastbound through lane (v/c ratio is 0.97 on east leg of intersection)
  - Add one additional westbound through lane (v/c ratio is 0.97 on east leg of intersection)
  - Add exclusive northbound left turn lane
  - Use protected/permitted phasing for northbound/southbound left turn movements
  - Optimize signal timings/splits (eliminate the split phase operation)
- Kentucky Avenue at Graves Avenue
  - Add one additional eastbound through lane (v/c ratio is 1.36 on west leg of intersection in background condition)
  - Add one additional southbound left turn lane
  - Add overlap phasing on the southbound right turn movement
  - Optimize signal timings/splits)
- Veteran's Memorial Parkway at Rhode Island Avenue
  - Add southbound shared through-right lane and remove exclusive southbound right turn lane. There is an acceleration lane on the south leg of this intersection that can be converted to a second receiving lane.
- Howland Boulevard at Graves Avenue/Halifax Crossing Boulevard
  - Add one additional eastbound through lane (v/c ratio is 1.05 on both legs of intersection)
  - Add one additional westbound through lane (v/c ratio is 1.05 on both legs of intersection)

With the above recommended improvements, these intersections are expected to operate at an overall LOS E or better and no overcapacity movements. The results of the improved background conditions are presented in **Table 9** and the Synchro intersection report printouts are provided in **Appendix M**.

Table 9: Year 2027 Future Background Intersection Capacity Analysis (With Background Improvements)

Intersection	Intersection Control Type	PM Peak Hour		
		v/c	Delay	LOS
SR 472 at Kentucky Ave./Dr Martin Luther King Jr Bltwy.	Signalized	0.98	58.2	E
Kentucky Ave. at Graves Ave.	Signalized	0.93	42.0	D
Veteran's Memorial Pkwy. at Rhode Island Ave.	Signalized	0.92	38.2	D
Howland Blvd. at Graves Ave./Halifax Crossing Blvd.	Signalized	0.94	39.6	D

Note: The operational results presented for each intersection represent the worst movement v/c ratio and overall intersection delay and LOS.

Appendix I

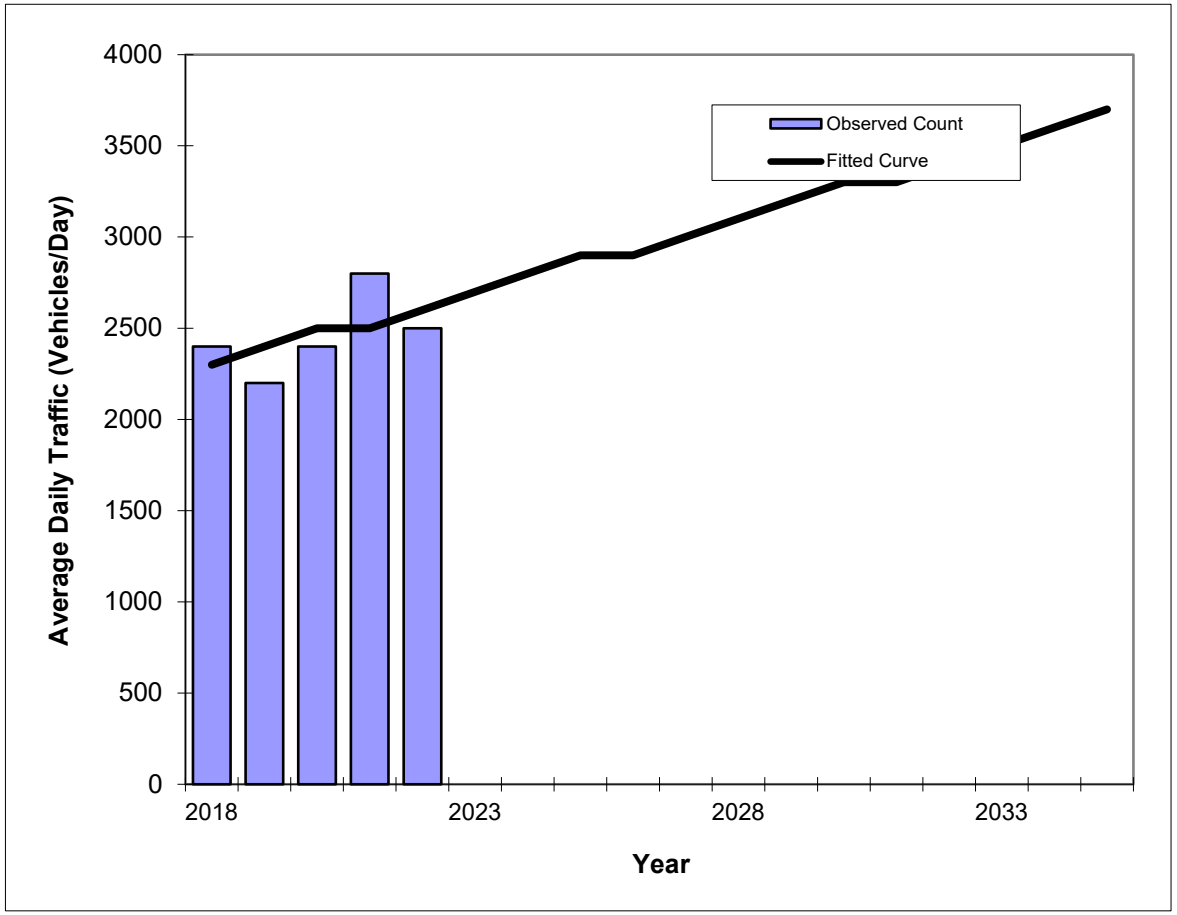
Historical Growth trend Analysis Worksheets, Vested Trip Information and Segment Growh Rates and Vested Trips Instruction Policy

Traffic Trends - V03.a

CASSADAGA RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	280
Highway:	CASSADAGA RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	2400	2300
2019	2200	2400
2020	2400	2500
2021	2800	2500
2022	2500	2600
2026 Opening Year Trend		
2026	N/A	2900
2027 Mid-Year Trend		
2027	N/A	3000
2028 Design Year Trend		
2028	N/A	3100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	80
Trend R-squared:	33.33%
Trend Annual Historic Growth Rate:	3.26%
Trend Growth Rate (2022 to Design Year):	3.21%
Printed:	6-Aug-24

Straight Line Growth Option

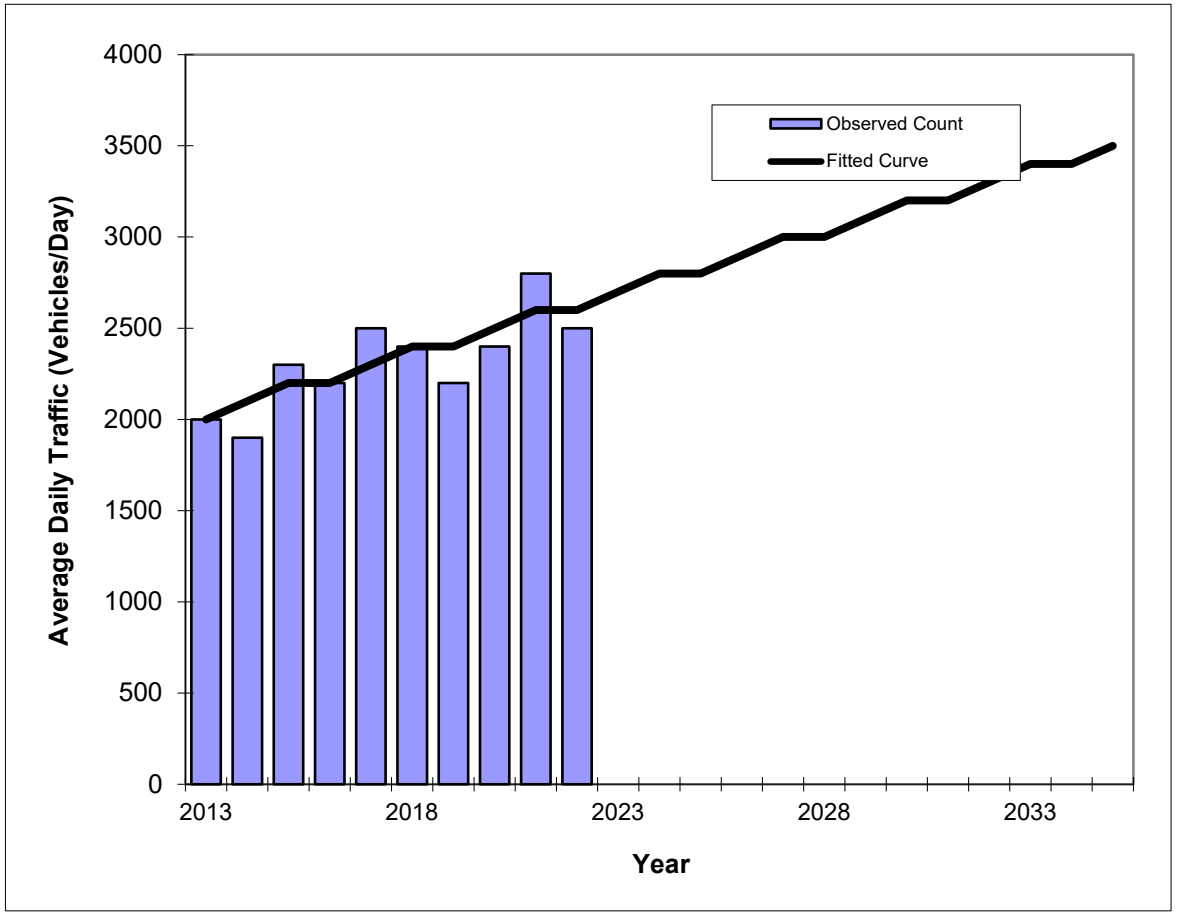
***Axle-Adjusted**

Traffic Trends - V03.a

CASSADAGA RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	280
Highway:	CASSADAGA RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	2000	2000
2014	1900	2100
2015	2300	2200
2016	2200	2200
2017	2500	2300
2018	2400	2400
2019	2200	2400
2020	2400	2500
2021	2800	2600
2022	2500	2600
2026 Opening Year Trend		
2026	N/A	2900
2027 Mid-Year Trend		
2027	N/A	3000
2028 Design Year Trend		
2028	N/A	3000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	68
Trend R-squared:	61.71%
Trend Annual Historic Growth Rate:	3.33%
Trend Growth Rate (2022 to Design Year):	2.56%
Printed:	6-Aug-24

Straight Line Growth Option

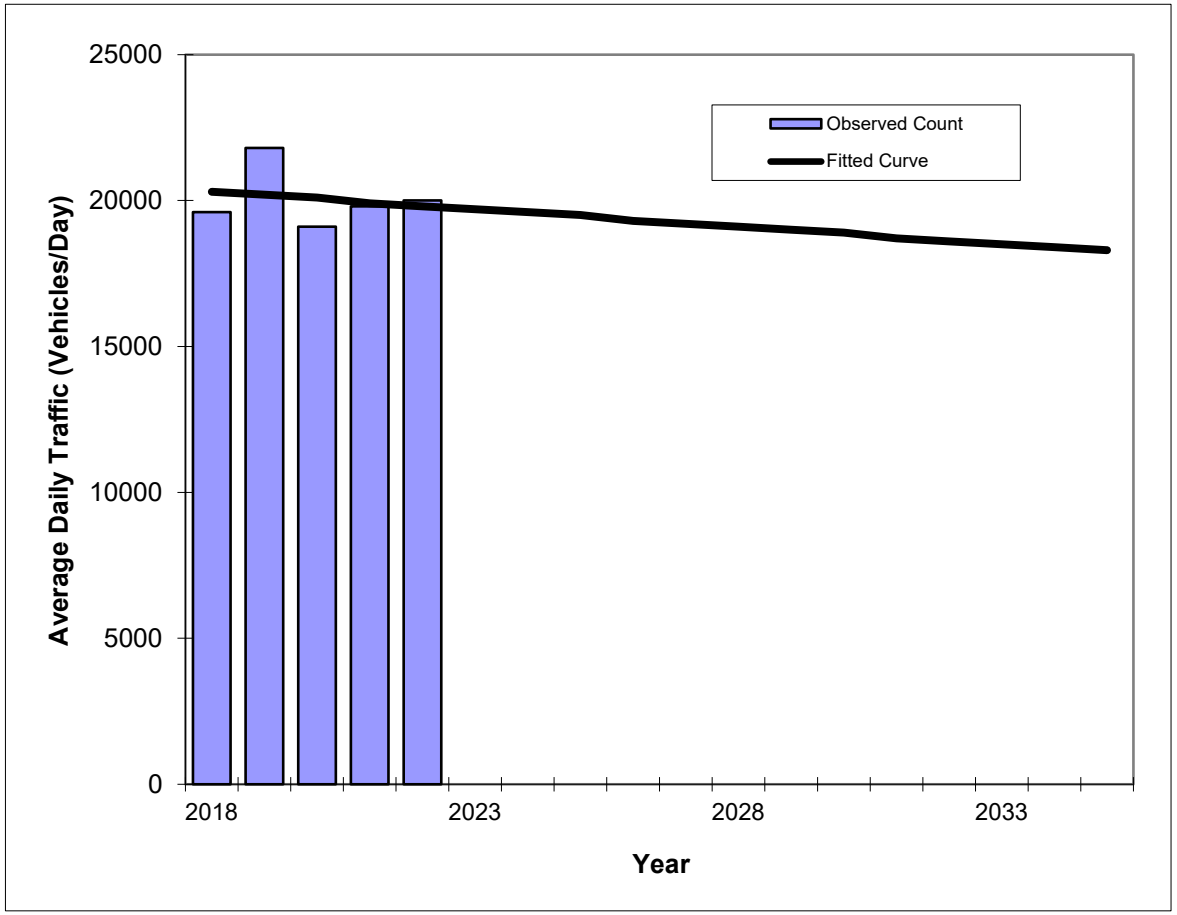
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	775
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2018	19600	20300
2019	21800	20200
2020	19100	20100
2021	19800	19900
2022	20000	19800
2026 Opening Year Trend		
2026	N/A	19300
2027 Mid-Year Trend		
2027	N/A	19200
2028 Design Year Trend		
2028	N/A	19100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-120
Trend R-squared:	3.40%
Trend Annual Historic Growth Rate:	-0.62%
Trend Growth Rate (2022 to Design Year):	-0.59%
Printed:	6-Aug-24

Straight Line Growth Option

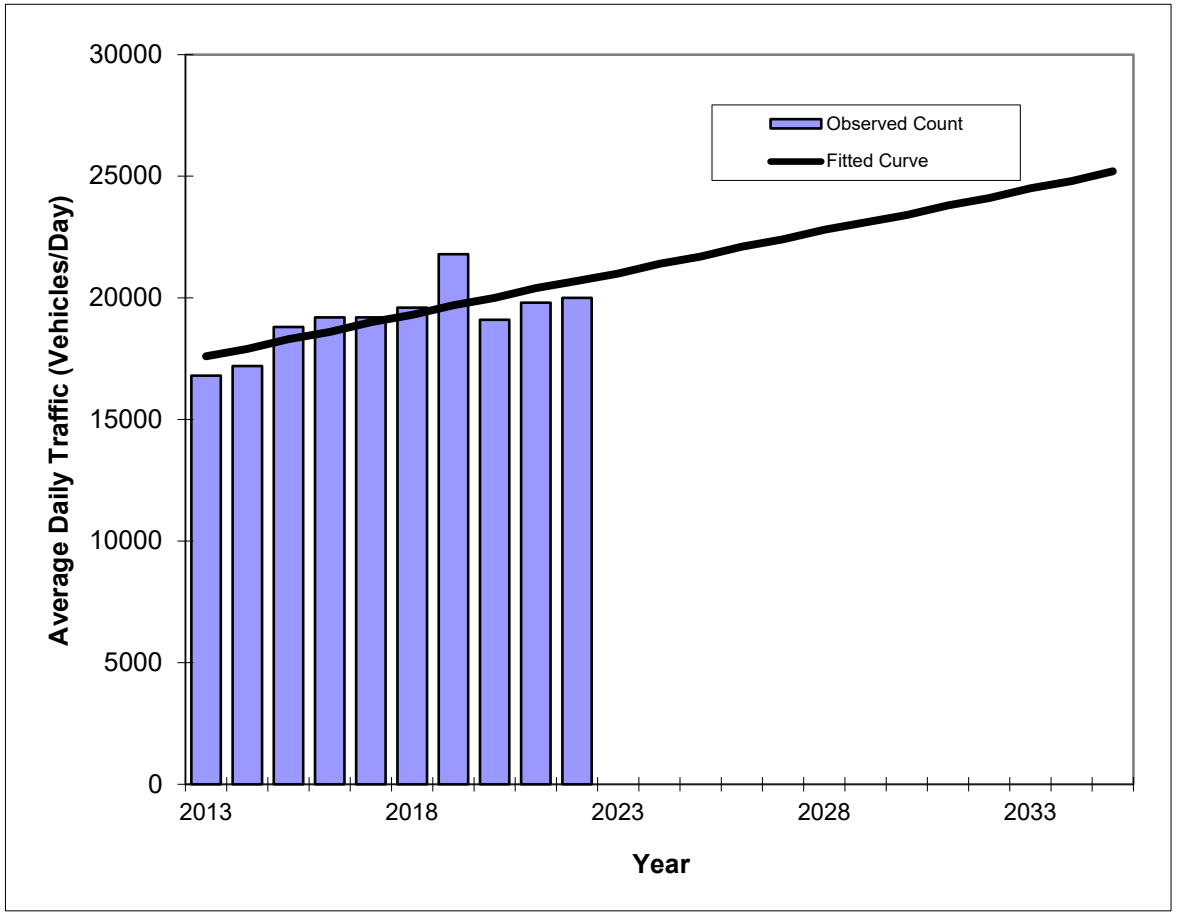
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	775
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2013	16800	17600
2014	17200	17900
2015	18800	18300
2016	19200	18600
2017	19200	19000
2018	19600	19300
2019	21800	19700
2020	19100	20000
2021	19800	20400
2022	20000	20700
2026 Opening Year Trend		
2026	N/A	22100
2027 Mid-Year Trend		
2027	N/A	22400
2028 Design Year Trend		
2028	N/A	22800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	344
Trend R-squared:	54.65%
Trend Annual Historic Growth Rate:	1.96%
Trend Growth Rate (2022 to Design Year):	1.69%
Printed:	6-Aug-24

Straight Line Growth Option

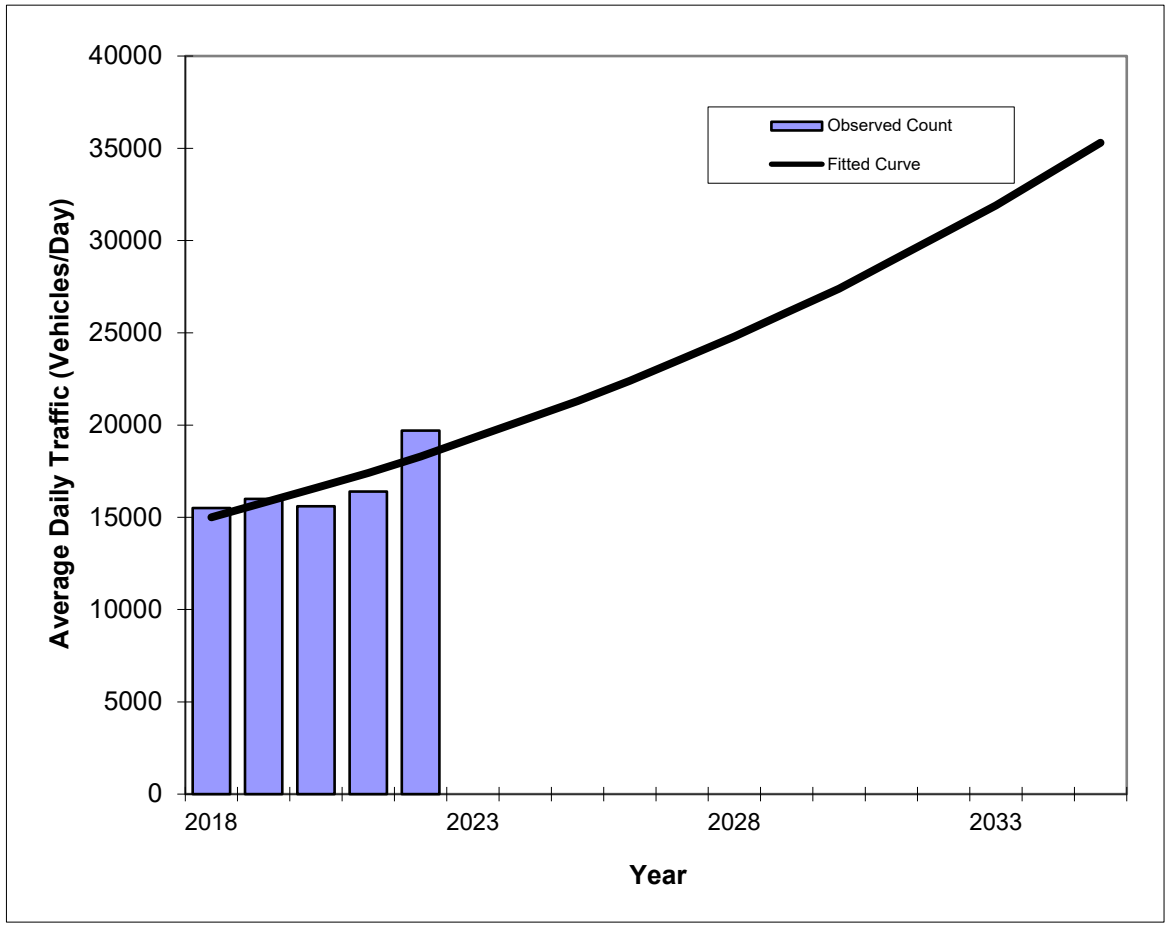
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900a
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2018	15500	15000
2019	16000	15800
2020	15600	16600
2021	16400	17400
2022	19700	18300
2026 Opening Year Trend		
2026	N/A	22400
2027 Mid-Year Trend		
2027	N/A	23600
2028 Design Year Trend		
2028	N/A	24800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	64.59%
Compounded Annual Historic Growth Rate:	5.10%
Compounded Growth Rate (2022 to Design Year):	5.20%
Printed:	20-Aug-24

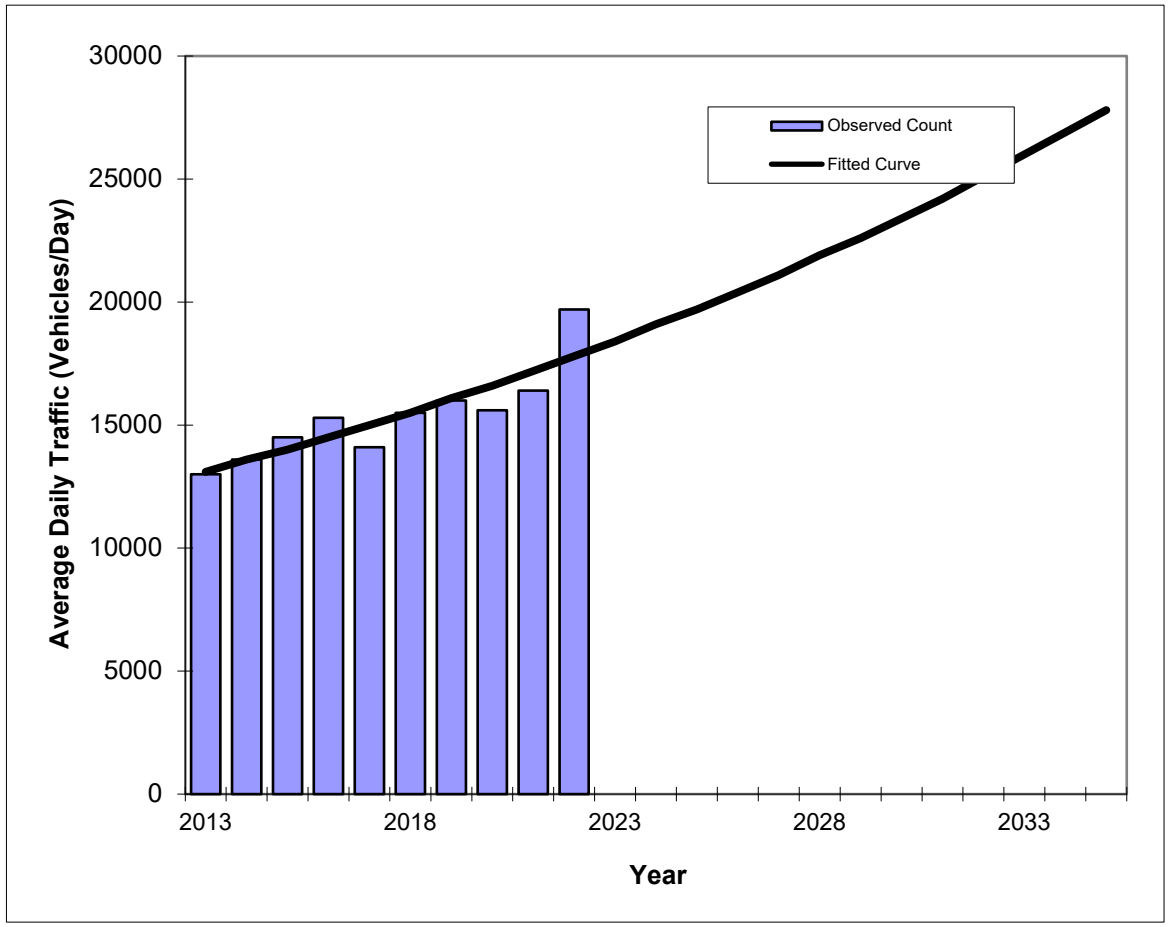
Exponential Growth Option

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900a
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2013	13000	13100
2014	13600	13600
2015	14500	14000
2016	15300	14500
2017	14100	15000
2018	15500	15500
2019	16000	16100
2020	15600	16600
2021	16400	17200
2022	19700	17800
2026 Opening Year Trend		
2026	N/A	20400
2027 Mid-Year Trend		
2027	N/A	21100
2028 Design Year Trend		
2028	N/A	21900
TRANPLAN Forecasts/Trends		

Trend R-squared:	79.70%
Compounded Annual Historic Growth Rate:	3.47%
Compounded Growth Rate (2022 to Design Year):	3.52%
Printed:	20-Aug-24

Exponential Growth Option

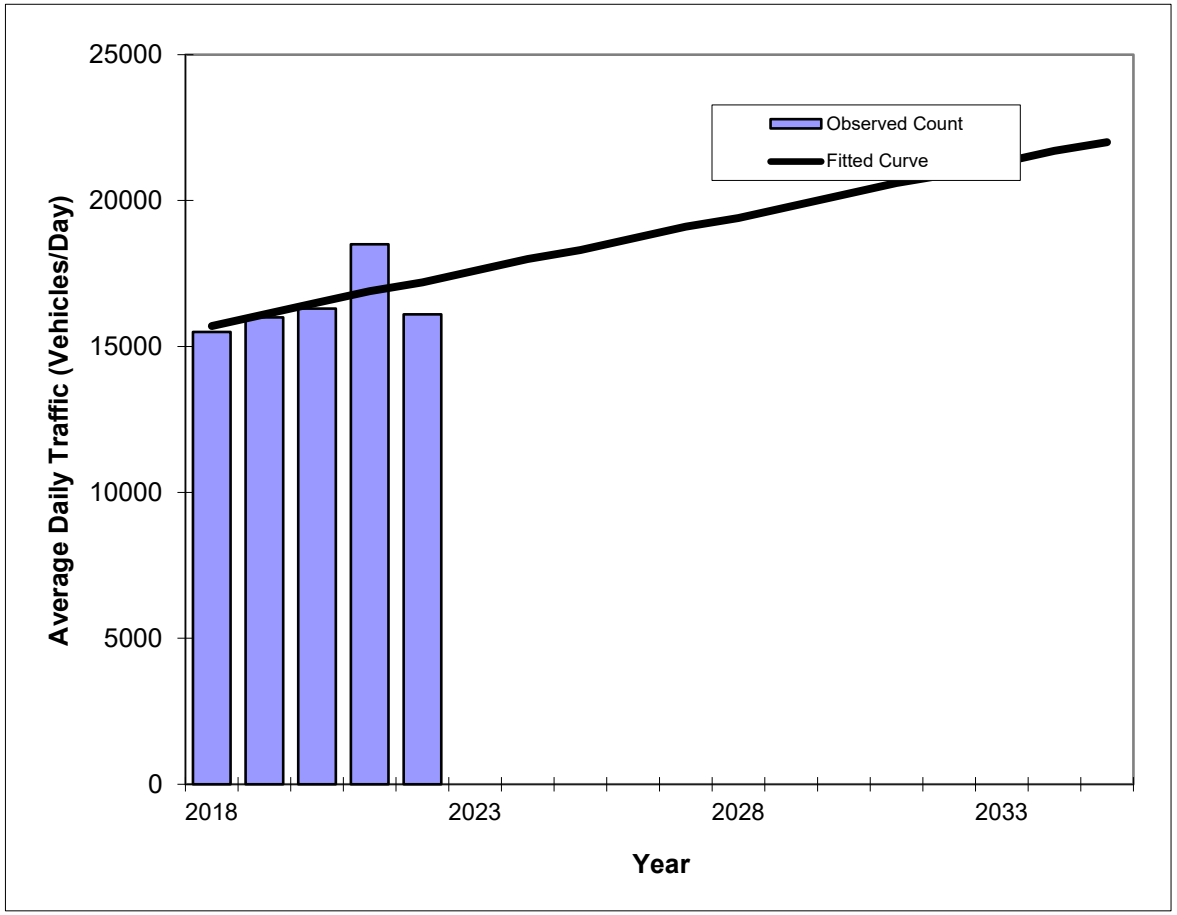
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900b
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2018	15500	15700
2019	16000	16100
2020	16300	16500
2021	18500	16900
2022	16100	17200
2026 Opening Year Trend		
2026	N/A	18700
2027 Mid-Year Trend		
2027	N/A	19100
2028 Design Year Trend		
2028	N/A	19400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	370
Trend R-squared:	25.13%
Trend Annual Historic Growth Rate:	2.39%
Trend Growth Rate (2022 to Design Year):	2.13%
Printed:	6-Aug-24

Straight Line Growth Option

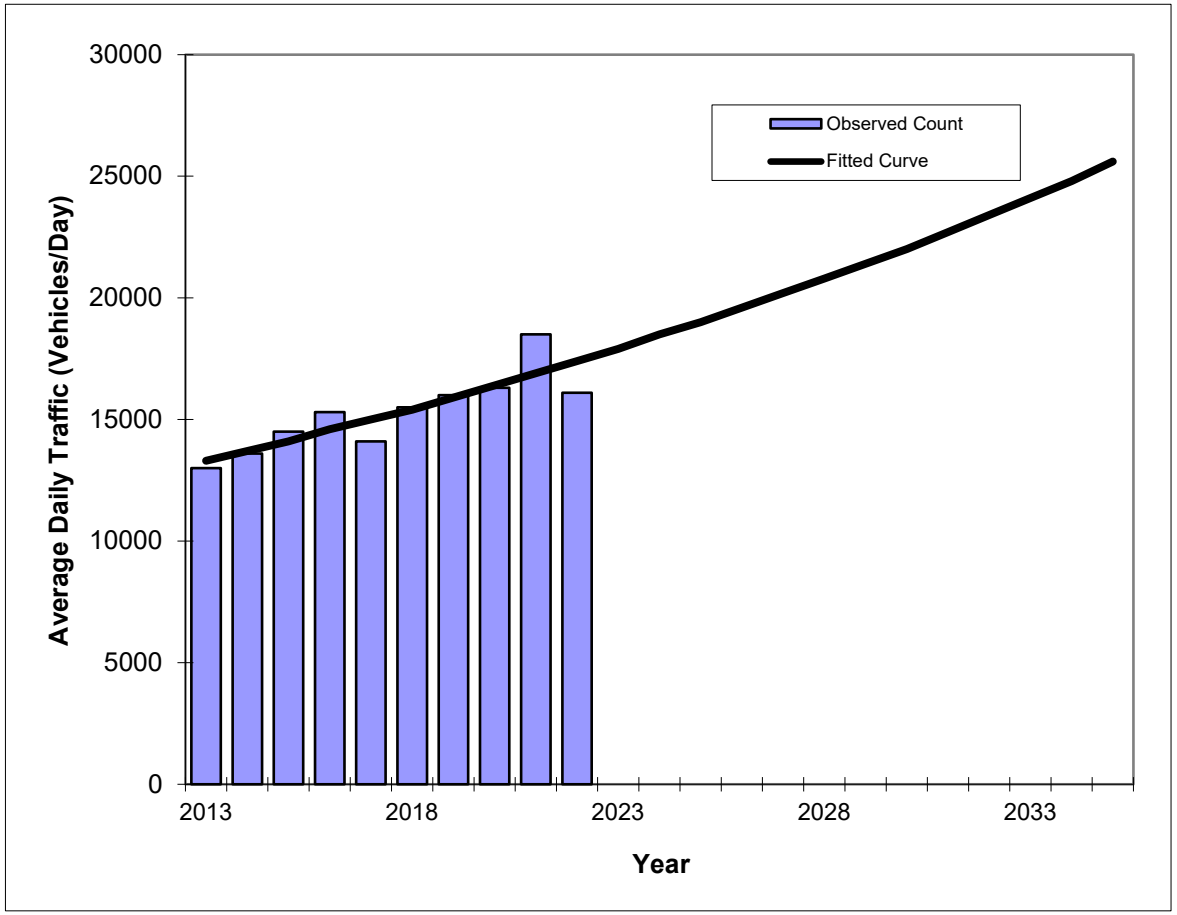
***Axle-Adjusted**

Traffic Trends - V03.a

GRAVES AVE --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	900b
Highway:	GRAVES AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2013	13000	13300
2014	13600	13700
2015	14500	14100
2016	15300	14600
2017	14100	15000
2018	15500	15400
2019	16000	15900
2020	16300	16400
2021	18500	16900
2022	16100	17400
2026 Opening Year Trend		
2026	N/A	19600
2027 Mid-Year Trend		
2027	N/A	20200
2028 Design Year Trend		
2028	N/A	20800
TRANPLAN Forecasts/Trends		

Trend R-squared:	76.75%
Compounded Annual Historic Growth Rate:	3.03%
Compounded Growth Rate (2022 to Design Year):	3.02%
Printed:	6-Aug-24

Exponential Growth Option

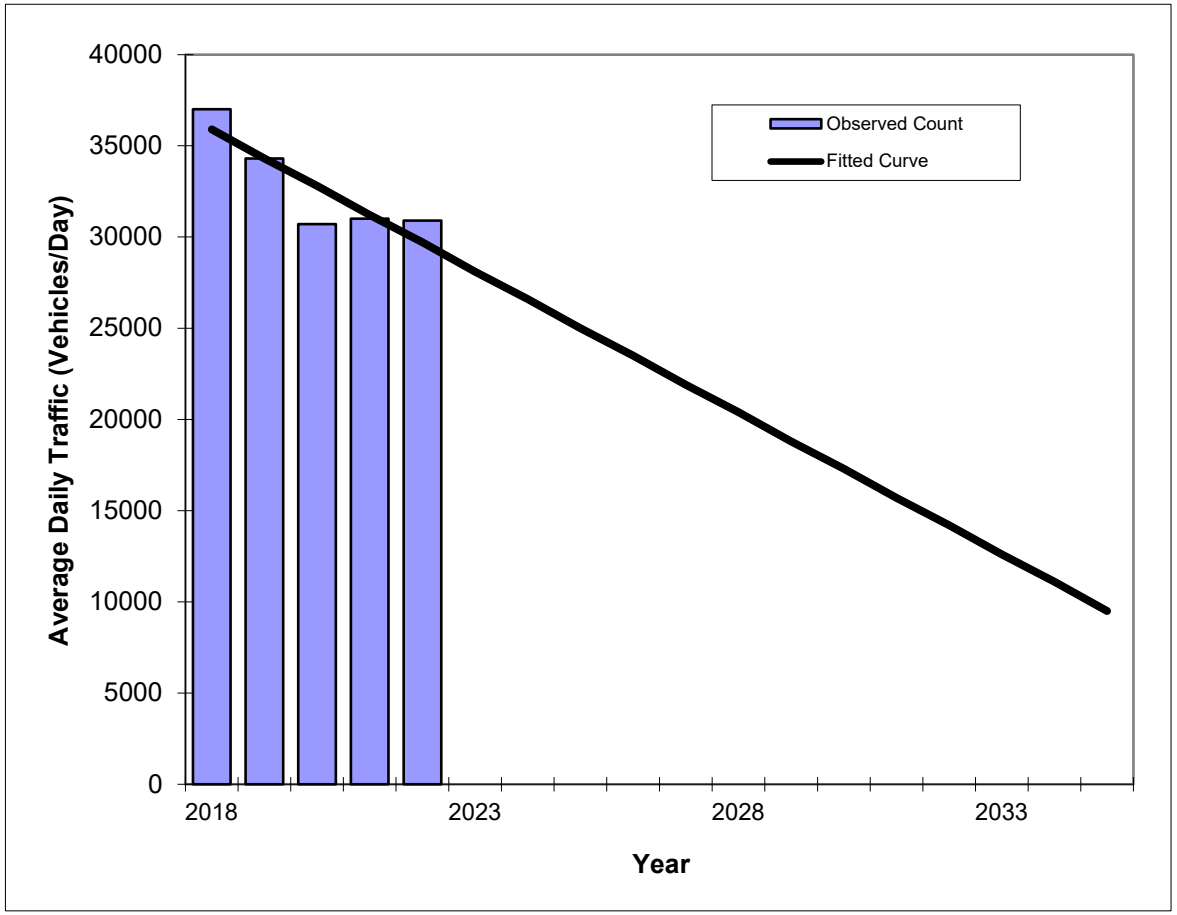
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	901
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	37000	35900
2019	34300	34300
2020	30700	32800
2021	31000	31200
2022	30900	29700
2026 Opening Year Trend		
2026	N/A	23500
2027 Mid-Year Trend		
2027	N/A	21900
2028 Design Year Trend		
2028	N/A	20400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,550
Trend R-squared:	77.13%
Trend Annual Historic Growth Rate:	-4.32%
Trend Growth Rate (2022 to Design Year):	-5.22%
Printed:	6-Aug-24

Straight Line Growth Option

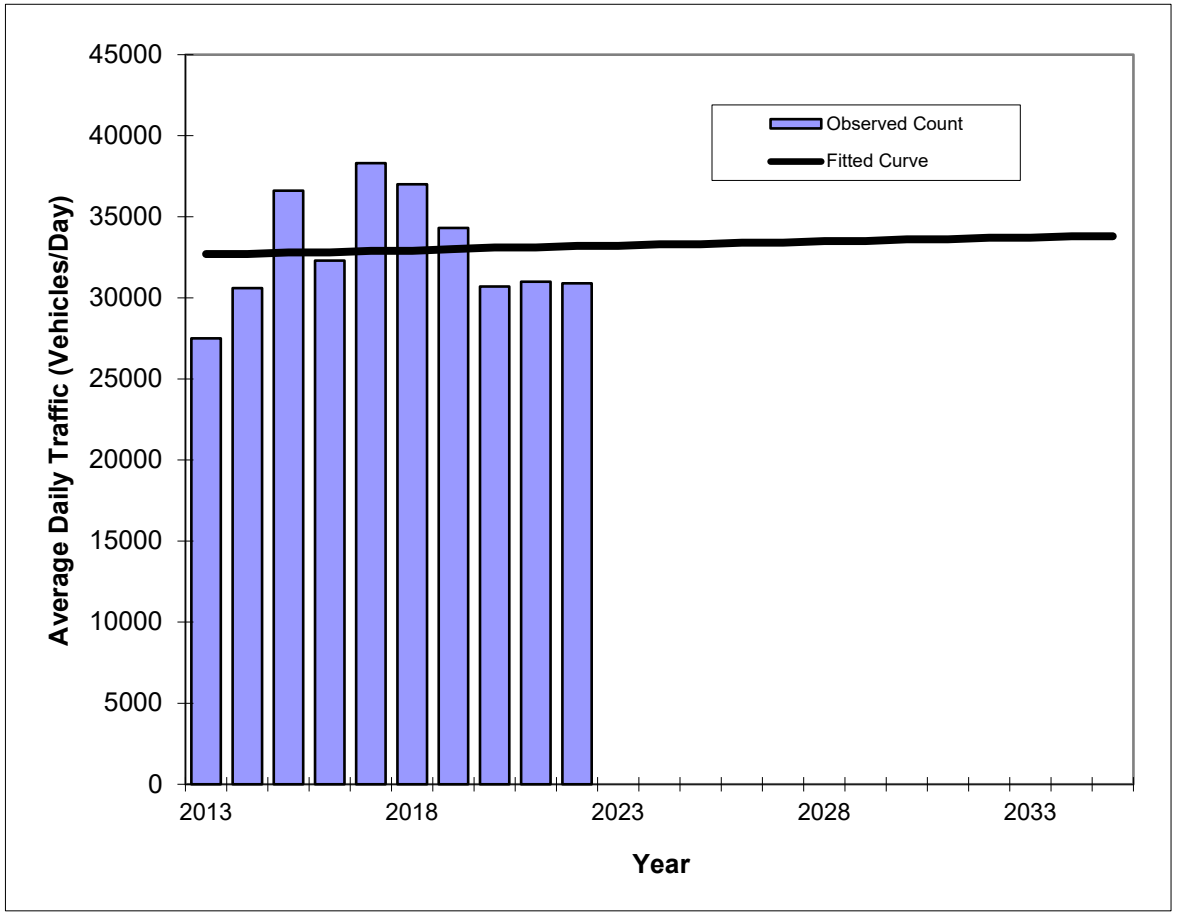
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	901
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	27500	32700
2014	30600	32700
2015	36600	32800
2016	32300	32800
2017	38300	32900
2018	37000	32900
2019	34300	33000
2020	30700	33100
2021	31000	33100
2022	30900	33200
2026 Opening Year Trend		
2026	N/A	33400
2027 Mid-Year Trend		
2027	N/A	33400
2028 Design Year Trend		
2028	N/A	33500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	52
Trend R-squared:	0.21%
Trend Annual Historic Growth Rate:	0.17%
Trend Growth Rate (2022 to Design Year):	0.15%
Printed:	6-Aug-24

Straight Line Growth Option

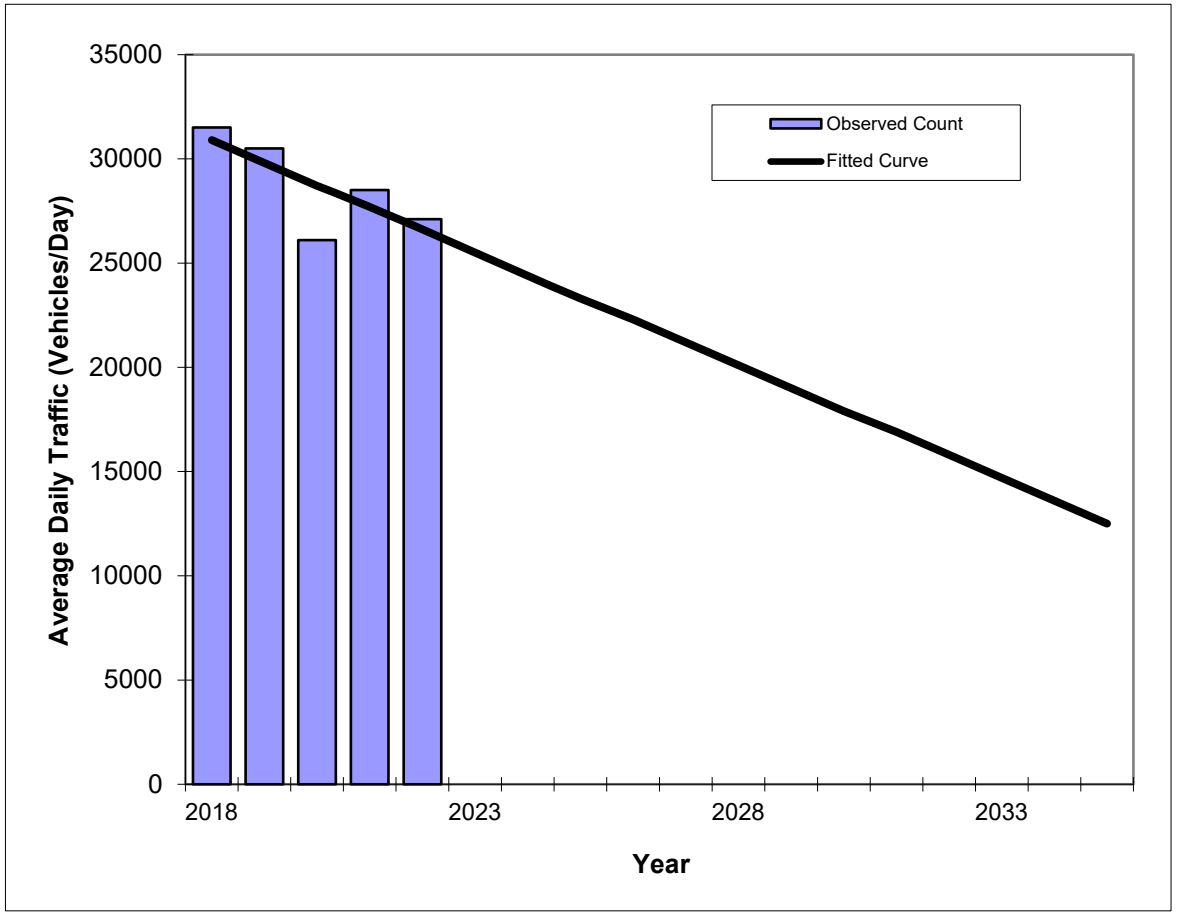
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	903
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	31500	30900
2019	30500	29800
2020	26100	28700
2021	28500	27700
2022	27100	26600
2026 Opening Year Trend		
2026	N/A	22300
2027 Mid-Year Trend		
2027	N/A	21200
2028 Design Year Trend		
2028	N/A	20100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,080
Trend R-squared:	57.09%
Trend Annual Historic Growth Rate:	-3.48%
Trend Growth Rate (2022 to Design Year):	-4.07%
Printed:	6-Aug-24

Straight Line Growth Option

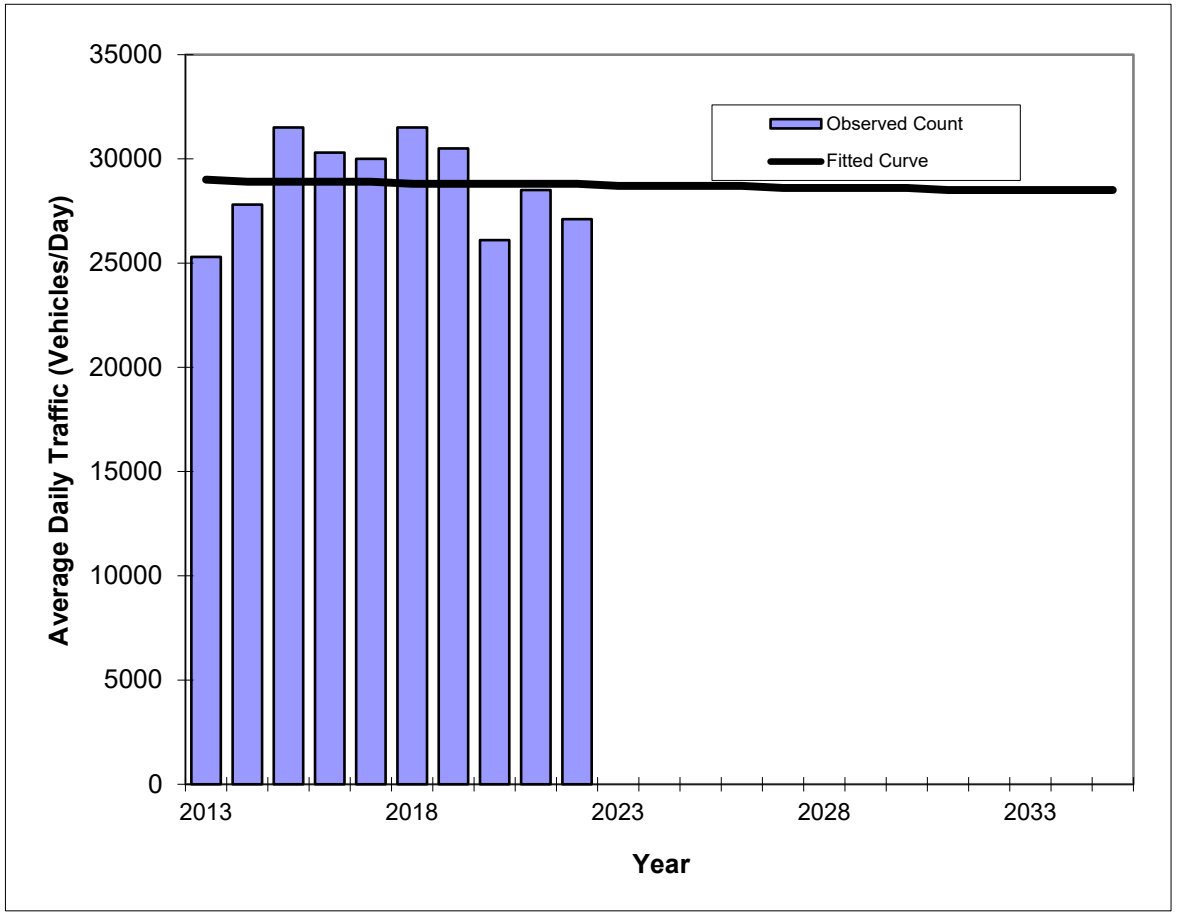
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	903
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	25300	29000
2014	27800	28900
2015	31500	28900
2016	30300	28900
2017	30000	28900
2018	31500	28800
2019	30500	28800
2020	26100	28800
2021	28500	28800
2022	27100	28800
2026 Opening Year Trend		
2026	N/A	28700
2027 Mid-Year Trend		
2027	N/A	28600
2028 Design Year Trend		
2028	N/A	28600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-23
Trend R-squared:	0.10%
Trend Annual Historic Growth Rate:	-0.08%
Trend Growth Rate (2022 to Design Year):	-0.12%
Printed:	6-Aug-24

Straight Line Growth Option

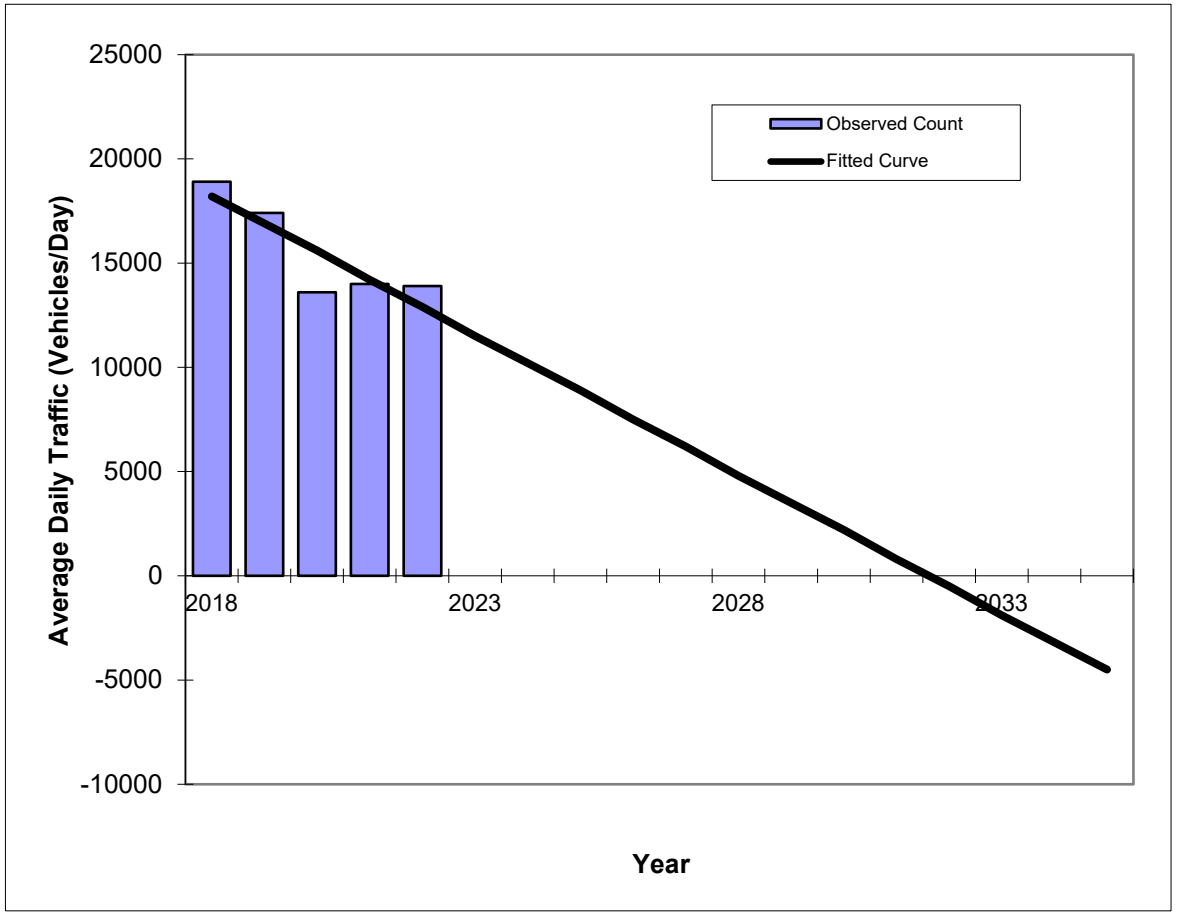
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	906
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	18900	18200
2019	17400	16900
2020	13600	15600
2021	14000	14200
2022	13900	12900
2026 Opening Year Trend		
2026	N/A	7500
2027 Mid-Year Trend		
2027	N/A	6200
2028 Design Year Trend		
2028	N/A	4800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,340
Trend R-squared:	76.18%
Trend Annual Historic Growth Rate:	-7.28%
Trend Growth Rate (2022 to Design Year):	-10.47%
Printed:	6-Aug-24

Straight Line Growth Option

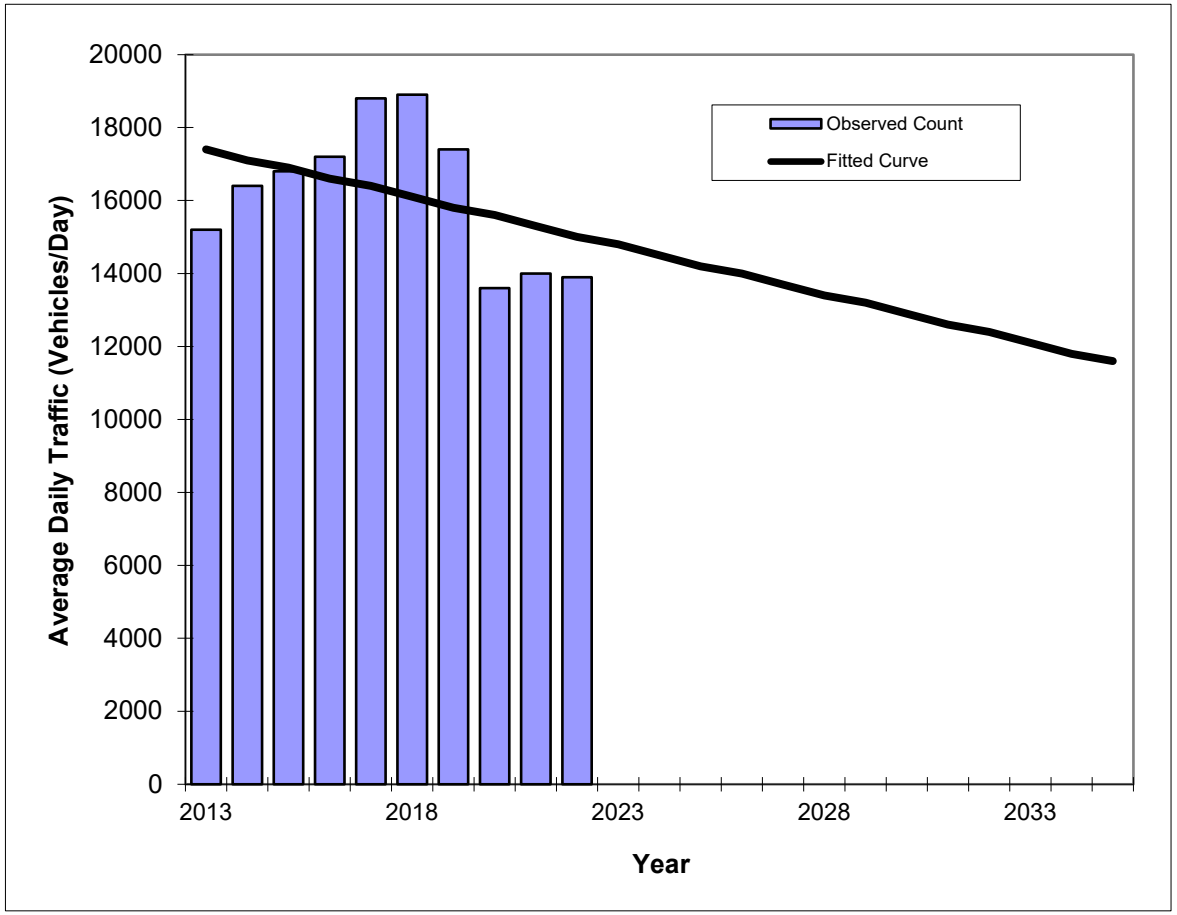
***Axle-Adjusted**

Traffic Trends - V03.a

HOWLAND BOULEVARD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	906
Highway:	HOWLAND BOULEVARD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	15200	17400
2014	16400	17100
2015	16800	16900
2016	17200	16600
2017	18800	16400
2018	18900	16100
2019	17400	15800
2020	13600	15600
2021	14000	15300
2022	13900	15000
2026 Opening Year Trend		
2026	N/A	14000
2027 Mid-Year Trend		
2027	N/A	13700
2028 Design Year Trend		
2028	N/A	13400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-265
Trend R-squared:	16.72%
Trend Annual Historic Growth Rate:	-1.53%
Trend Growth Rate (2022 to Design Year):	-1.78%
Printed:	6-Aug-24

Straight Line Growth Option

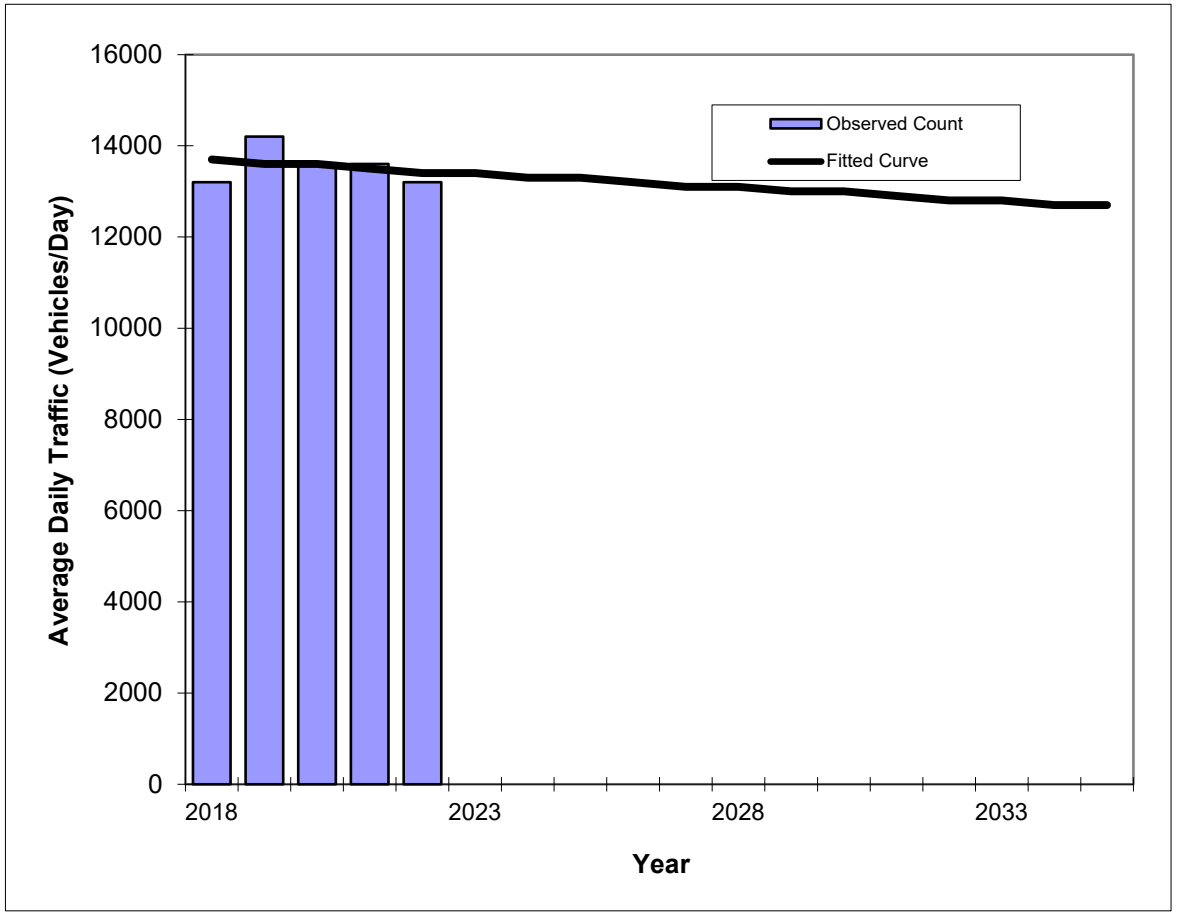
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1380
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	13200	13700
2019	14200	13600
2020	13600	13600
2021	13600	13500
2022	13200	13400
2026 Opening Year Trend		
2026	N/A	13200
2027 Mid-Year Trend		
2027	N/A	13100
2028 Design Year Trend		
2028	N/A	13100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-60
Trend R-squared:	5.36%
Trend Annual Historic Growth Rate:	-0.55%
Trend Growth Rate (2022 to Design Year):	-0.37%
Printed:	6-Aug-24

Straight Line Growth Option

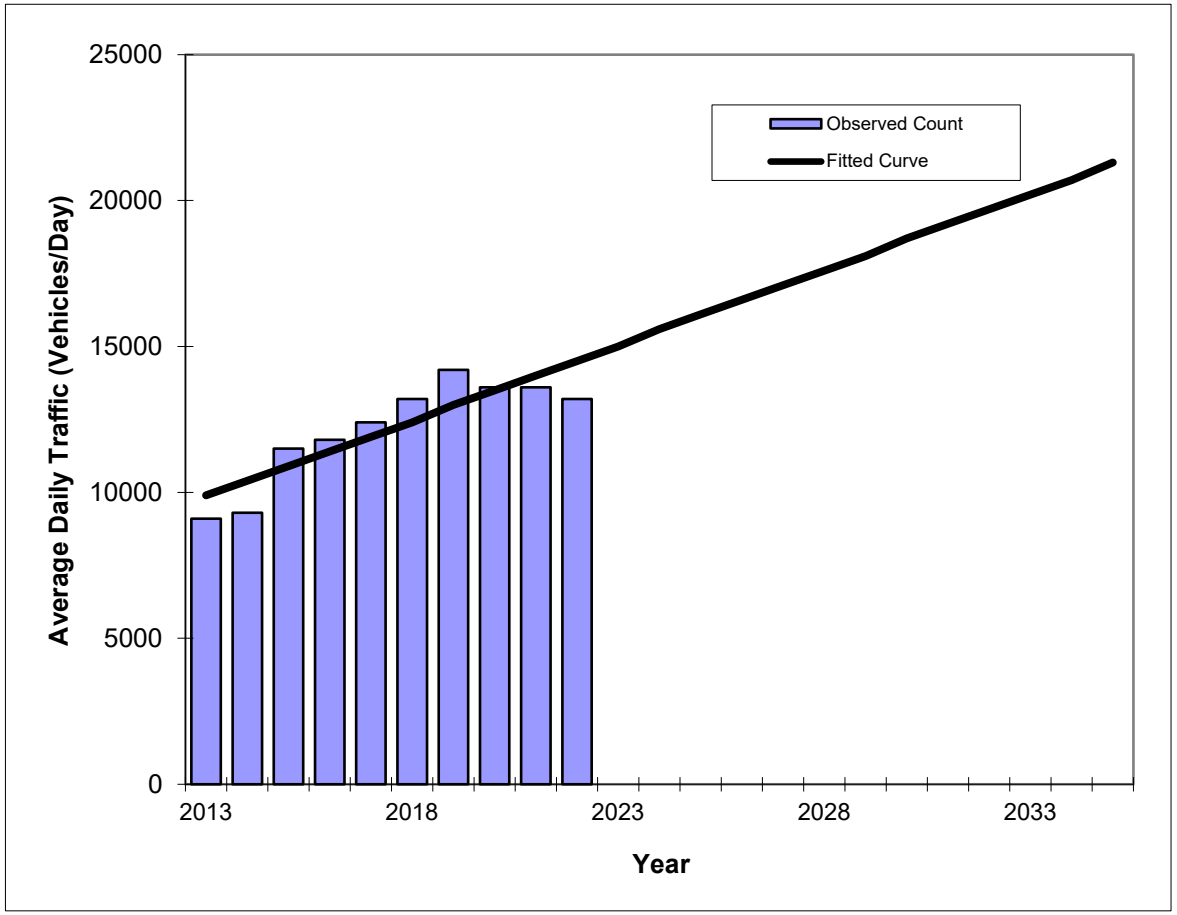
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1380
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	9100	9900
2014	9300	10400
2015	11500	10900
2016	11800	11400
2017	12400	11900
2018	13200	12400
2019	14200	13000
2020	13600	13500
2021	13600	14000
2022	13200	14500
2026 Opening Year Trend		
2026	N/A	16600
2027 Mid-Year Trend		
2027	N/A	17100
2028 Design Year Trend		
2028	N/A	17600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	518
Trend R-squared:	77.38%
Trend Annual Historic Growth Rate:	5.16%
Trend Growth Rate (2022 to Design Year):	3.56%
Printed:	6-Aug-24

Straight Line Growth Option

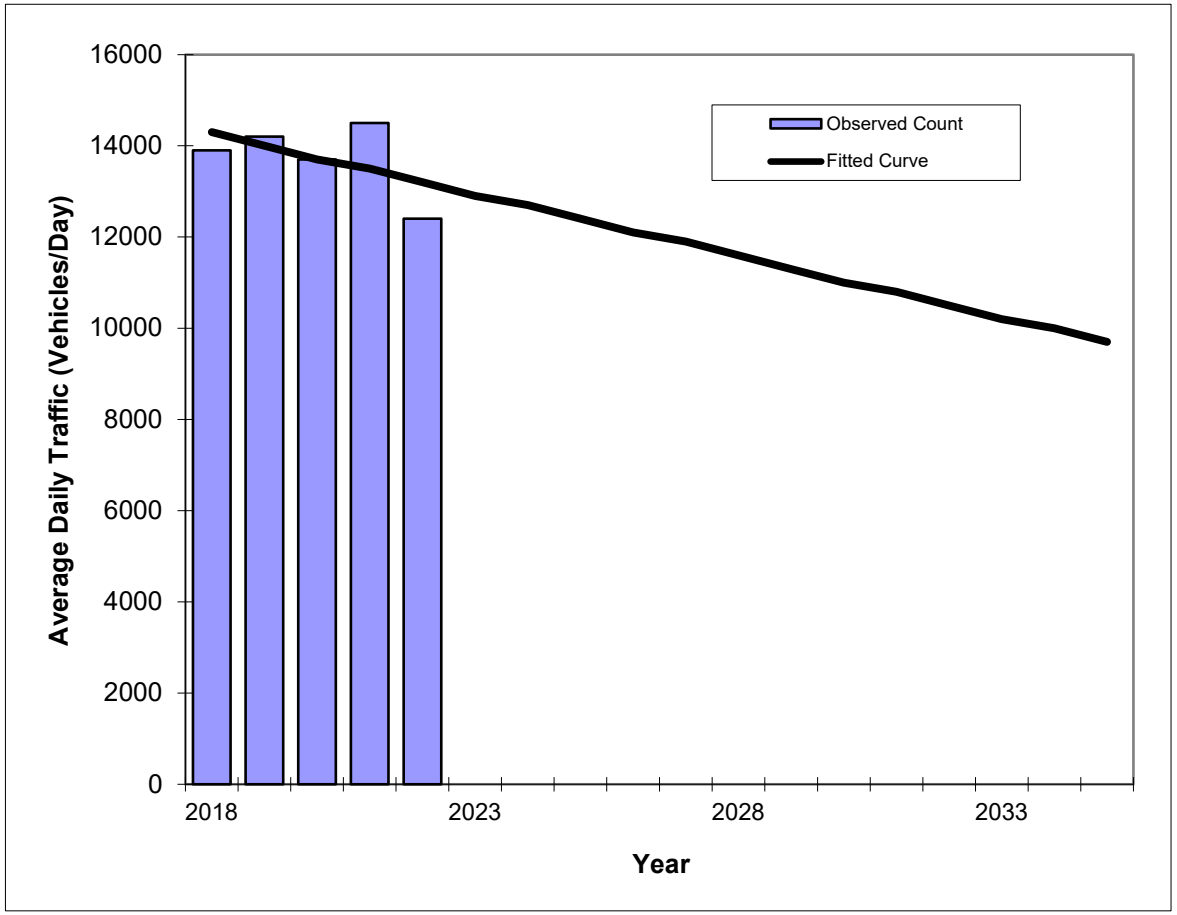
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1384
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	13900	14300
2019	14200	14000
2020	13700	13700
2021	14500	13500
2022	12400	13200
2026 Opening Year Trend		
2026	N/A	12100
2027 Mid-Year Trend		
2027	N/A	11900
2028 Design Year Trend		
2028	N/A	11600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-270
Trend R-squared:	27.91%
Trend Annual Historic Growth Rate:	-1.92%
Trend Growth Rate (2022 to Design Year):	-2.02%
Printed:	6-Aug-24

Straight Line Growth Option

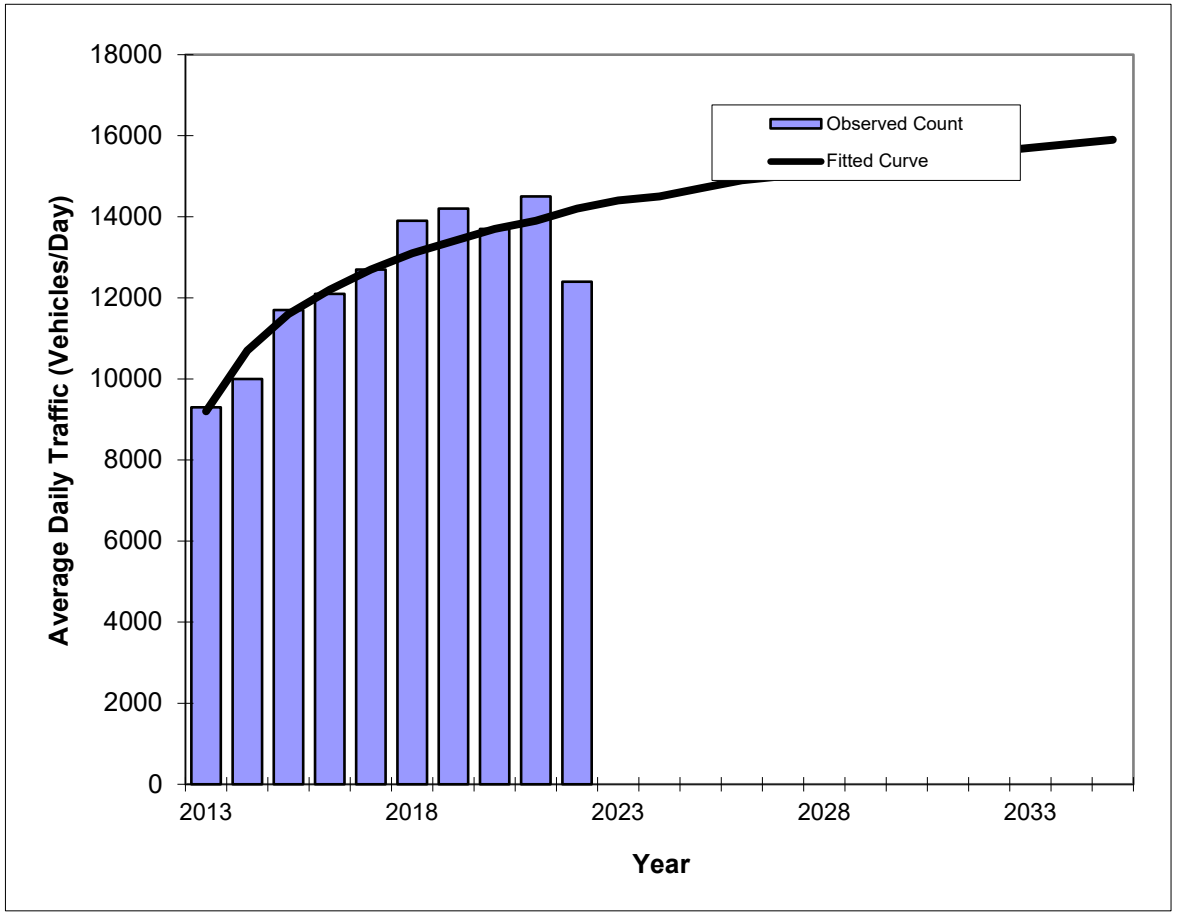
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1384
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	9300	9200
2014	10000	10700
2015	11700	11600
2016	12100	12200
2017	12700	12700
2018	13900	13100
2019	14200	13400
2020	13700	13700
2021	14500	13900
2022	12400	14200
2026 Opening Year Trend		
2026	N/A	14900
2027 Mid-Year Trend		
2027	N/A	15000
2028 Design Year Trend		
2028	N/A	15200
TRANPLAN Forecasts/Trends		

Trend R-squared:	80.82%
Compounded Annual Historic Growth Rate:	4.94%
Compounded Growth Rate (2022 to Design Year):	1.14%
Printed:	6-Aug-24

Decaying Exponential Growth Option

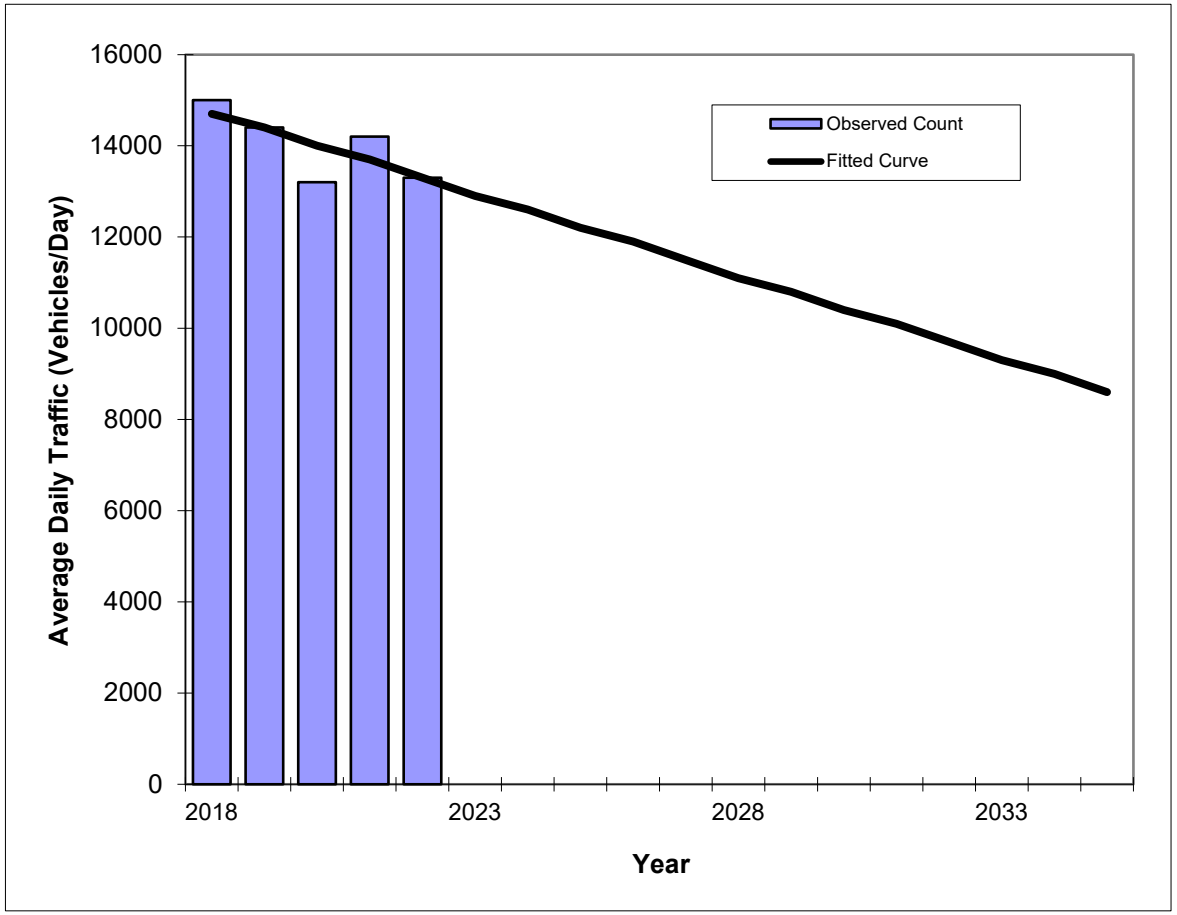
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1385
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	15000	14700
2019	14400	14400
2020	13200	14000
2021	14200	13700
2022	13300	13300
2026 Opening Year Trend		
2026	N/A	11900
2027 Mid-Year Trend		
2027	N/A	11500
2028 Design Year Trend		
2028	N/A	11100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-360
Trend R-squared:	55.67%
Trend Annual Historic Growth Rate:	-2.38%
Trend Growth Rate (2022 to Design Year):	-2.76%
Printed:	6-Aug-24

Straight Line Growth Option

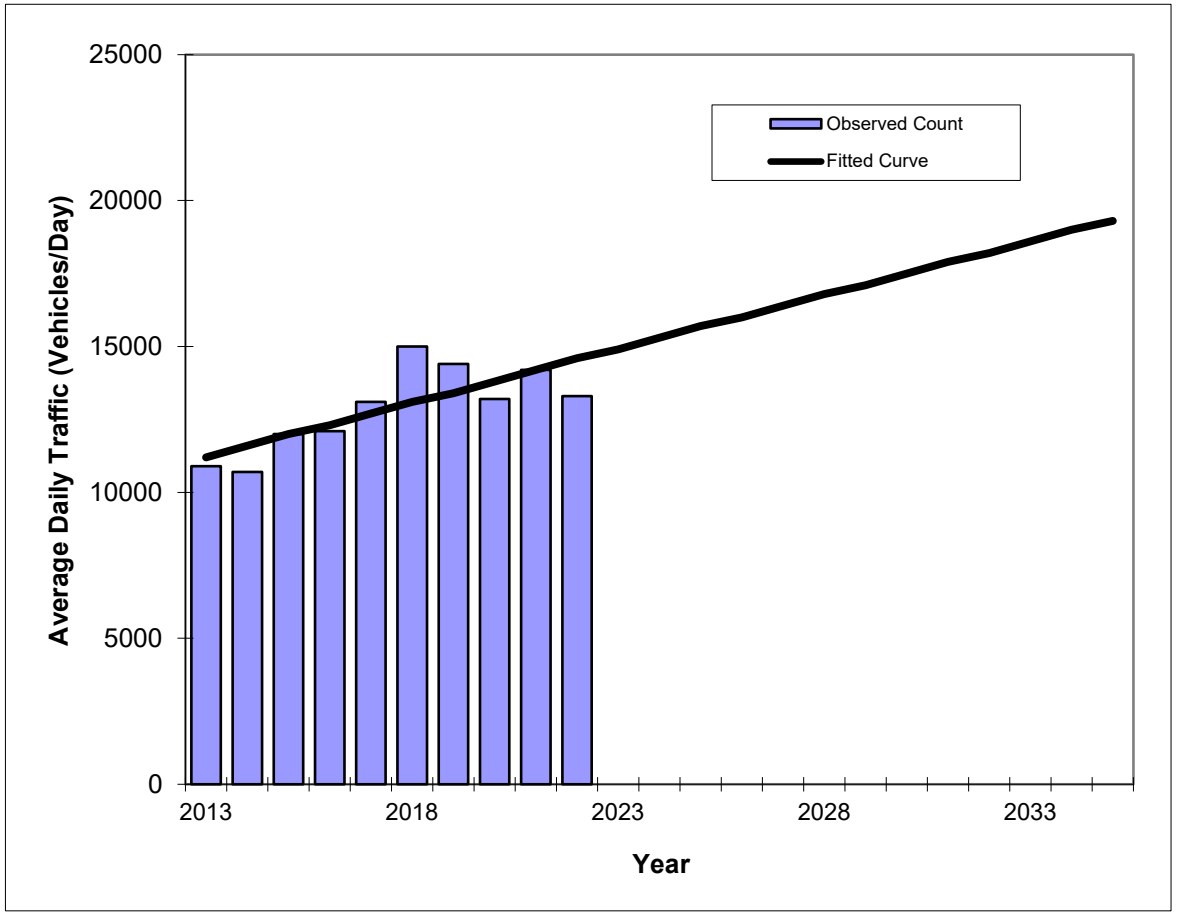
***Axle-Adjusted**

Traffic Trends - V03.a

ORANGE CAMP RD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1385
Highway:	ORANGE CAMP RD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	10900	11200
2014	10700	11600
2015	12000	12000
2016	12100	12300
2017	13100	12700
2018	15000	13100
2019	14400	13400
2020	13200	13800
2021	14200	14200
2022	13300	14600
2026 Opening Year Trend		
2026	N/A	16000
2027 Mid-Year Trend		
2027	N/A	16400
2028 Design Year Trend		
2028	N/A	16800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	369
Trend R-squared:	59.37%
Trend Annual Historic Growth Rate:	3.37%
Trend Growth Rate (2022 to Design Year):	2.51%
Printed:	6-Aug-24

Straight Line Growth Option

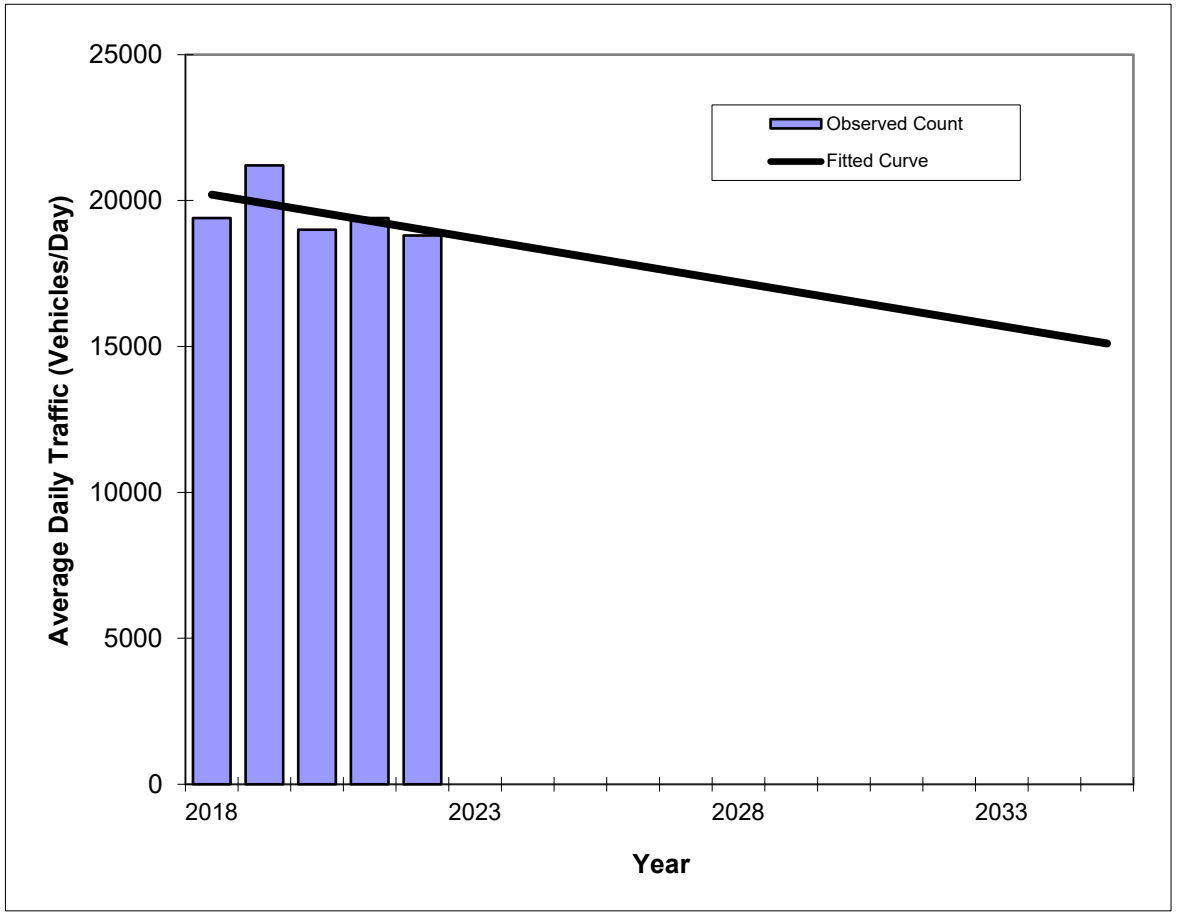
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1901
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	19400	20200
2019	21200	19900
2020	19000	19600
2021	19400	19300
2022	18800	19000
2026 Opening Year Trend		
2026	N/A	17800
2027 Mid-Year Trend		
2027	N/A	17500
2028 Design Year Trend		
2028	N/A	17200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-300
Trend R-squared:	24.78%
Trend Annual Historic Growth Rate:	-1.49%
Trend Growth Rate (2022 to Design Year):	-1.58%
Printed:	6-Aug-24

Straight Line Growth Option

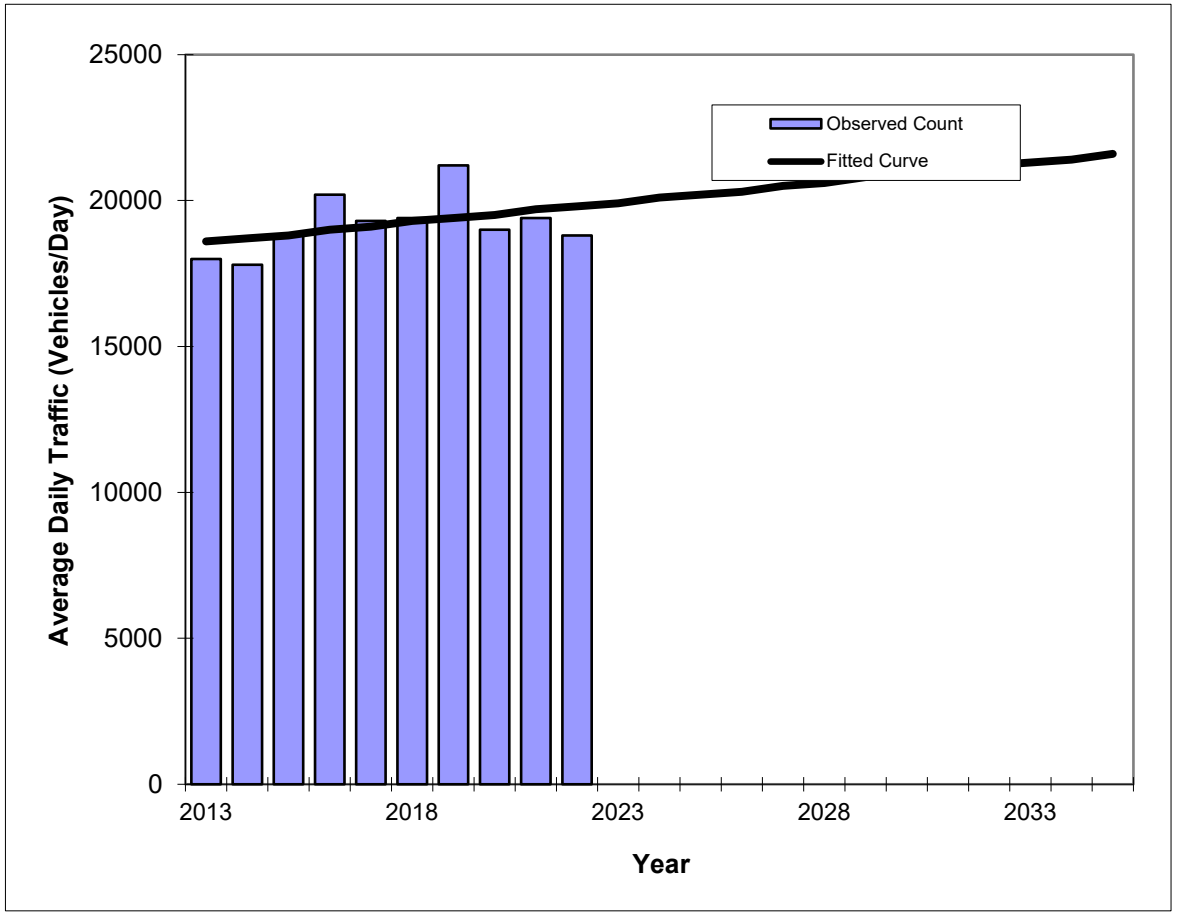
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1901
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	18000	18600
2014	17800	18700
2015	18800	18800
2016	20200	19000
2017	19300	19100
2018	19400	19300
2019	21200	19400
2020	19000	19500
2021	19400	19700
2022	18800	19800
2026 Opening Year Trend		
2026	N/A	20300
2027 Mid-Year Trend		
2027	N/A	20500
2028 Design Year Trend		
2028	N/A	20600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	136
Trend R-squared:	17.34%
Trend Annual Historic Growth Rate:	0.72%
Trend Growth Rate (2022 to Design Year):	0.67%
Printed:	6-Aug-24

Straight Line Growth Option

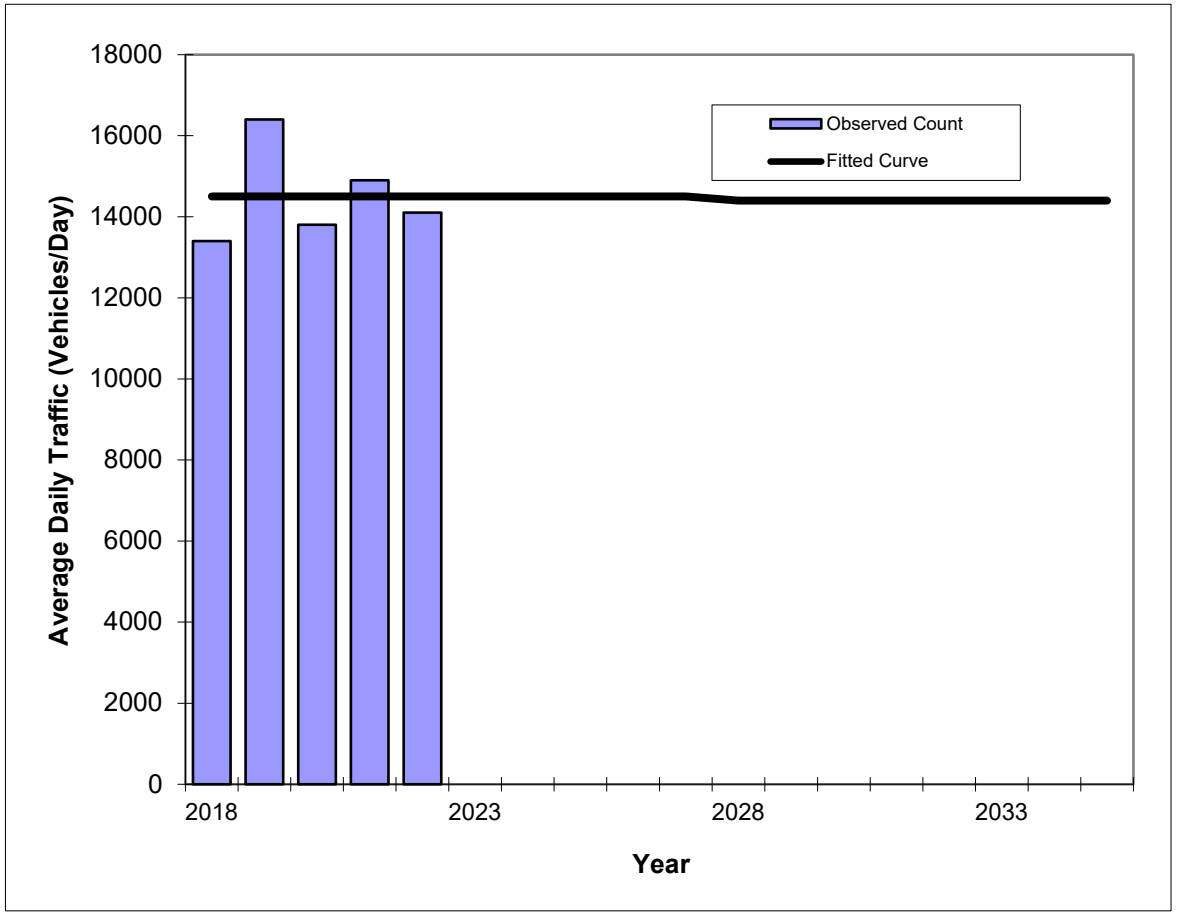
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1902
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	13400	14500
2019	16400	14500
2020	13800	14500
2021	14900	14500
2022	14100	14500
2026 Opening Year Trend		
2026	N/A	14500
2027 Mid-Year Trend		
2027	N/A	14500
2028 Design Year Trend		
2028	N/A	14400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-10
Trend R-squared:	0.02%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2022 to Design Year):	-0.11%
Printed:	6-Aug-24

Straight Line Growth Option

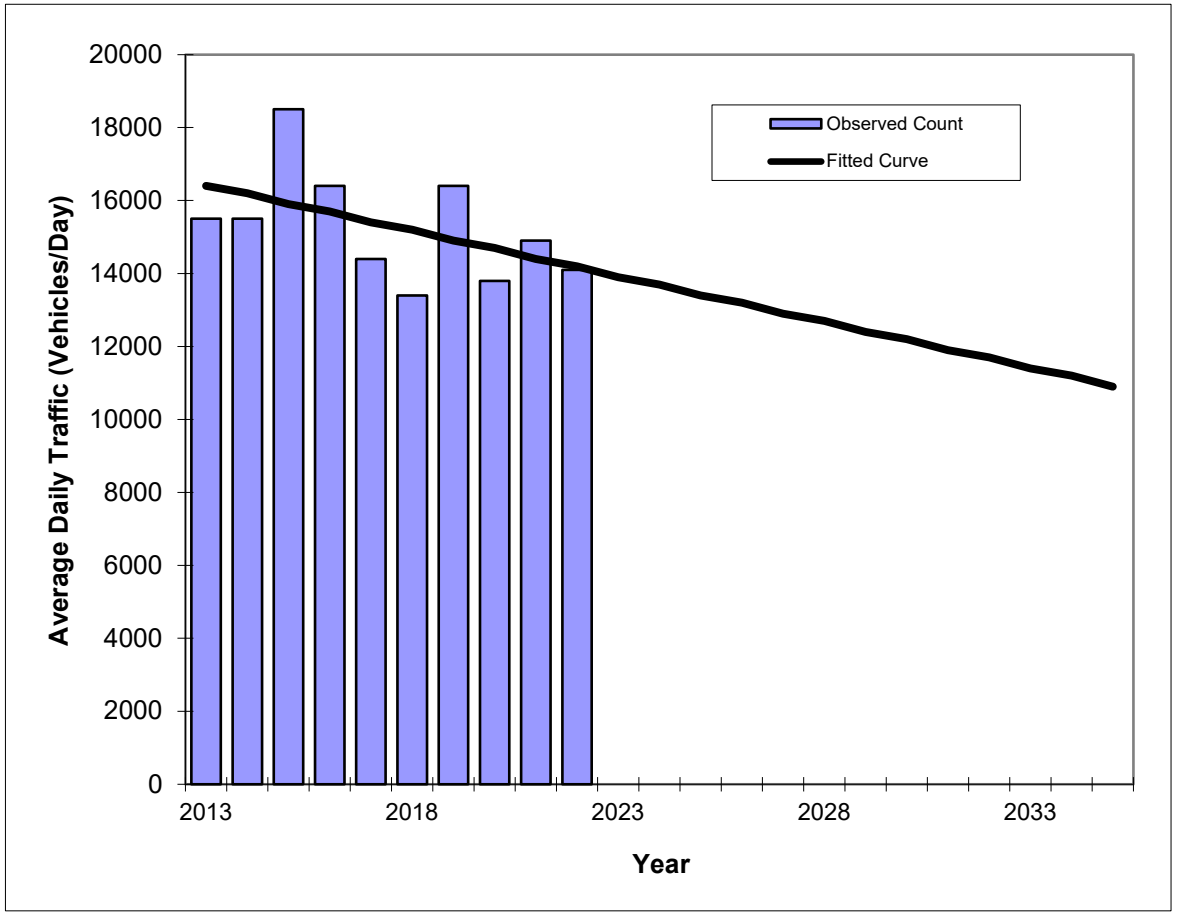
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1902
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	15500	16400
2014	15500	16200
2015	18500	15900
2016	16400	15700
2017	14400	15400
2018	13400	15200
2019	16400	14900
2020	13800	14700
2021	14900	14400
2022	14100	14200
2026 Opening Year Trend		
2026	N/A	13200
2027 Mid-Year Trend		
2027	N/A	12900
2028 Design Year Trend		
2028	N/A	12700
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-250
Trend R-squared:	24.60%
Trend Annual Historic Growth Rate:	-1.49%
Trend Growth Rate (2022 to Design Year):	-1.76%
Printed:	6-Aug-24

Straight Line Growth Option

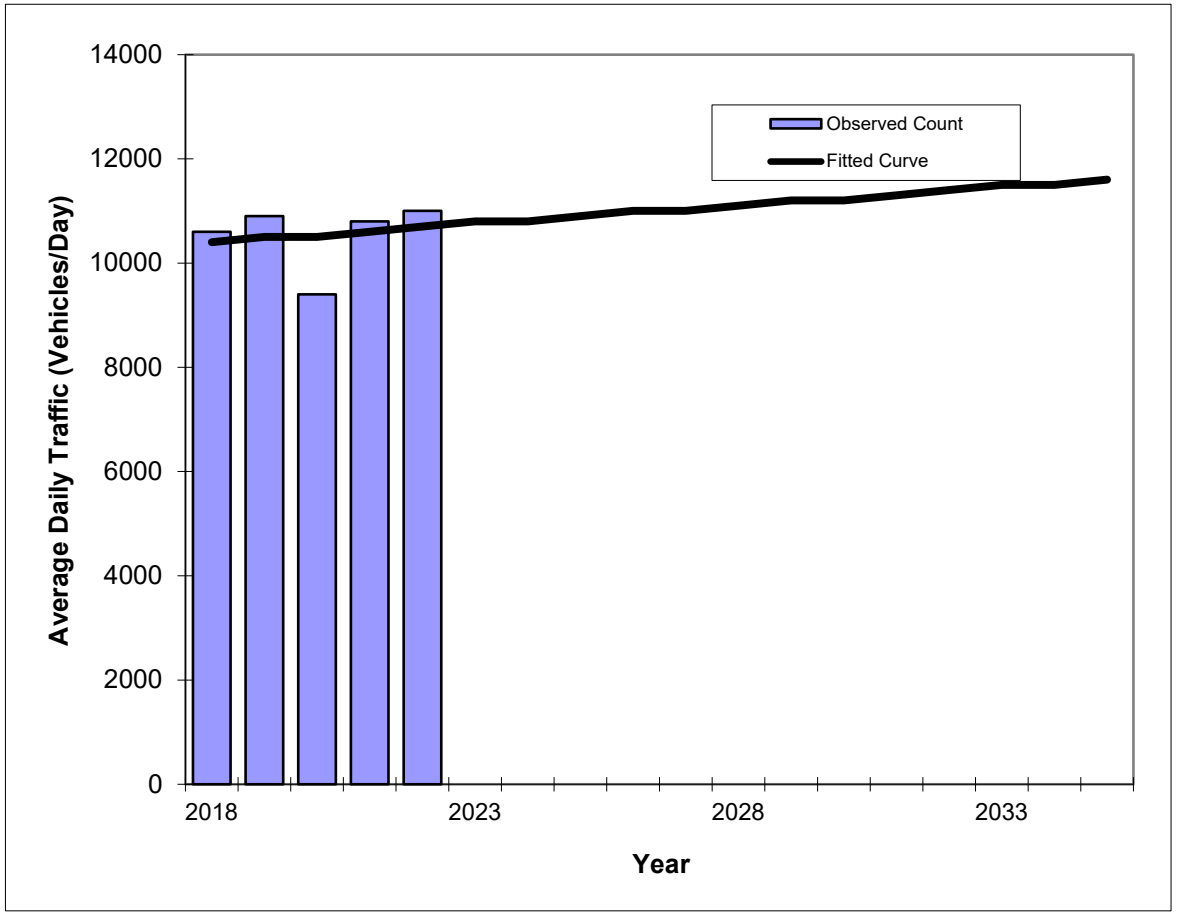
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1030
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	10600	10400
2019	10900	10500
2020	9400	10500
2021	10800	10600
2022	11000	10700
2026 Opening Year Trend		
2026	N/A	11000
2027 Mid-Year Trend		
2027	N/A	11000
2028 Design Year Trend		
2028	N/A	11100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	70
Trend R-squared:	2.86%
Trend Annual Historic Growth Rate:	0.72%
Trend Growth Rate (2022 to Design Year):	0.62%
Printed:	6-Aug-24

Straight Line Growth Option

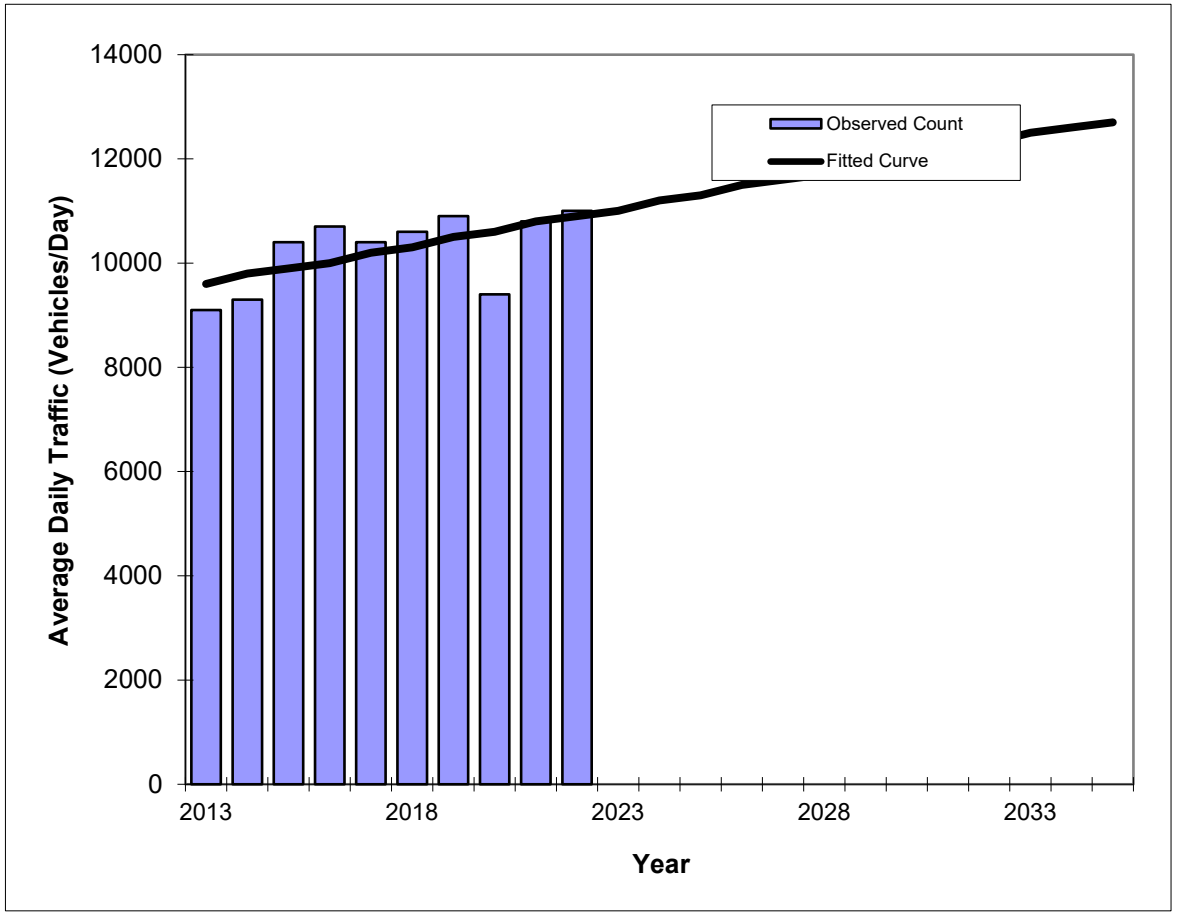
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1030
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	9100	9600
2014	9300	9800
2015	10400	9900
2016	10700	10000
2017	10400	10200
2018	10600	10300
2019	10900	10500
2020	9400	10600
2021	10800	10800
2022	11000	10900
2026 Opening Year Trend		
2026	N/A	11500
2027 Mid-Year Trend		
2027	N/A	11600
2028 Design Year Trend		
2028	N/A	11700
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	142
Trend R-squared:	36.04%
Trend Annual Historic Growth Rate:	1.50%
Trend Growth Rate (2022 to Design Year):	1.22%
Printed:	6-Aug-24

Straight Line Growth Option

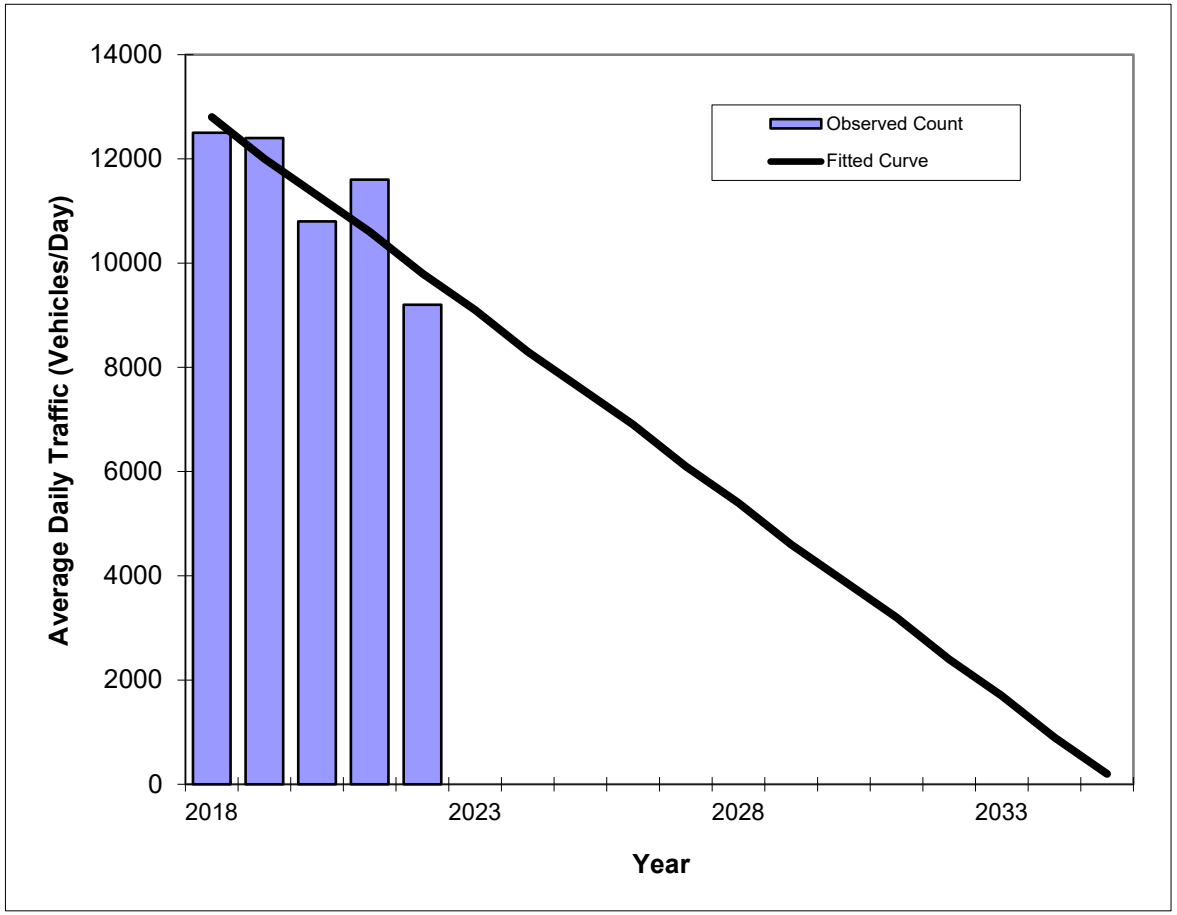
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1942
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	12500	12800
2019	12400	12000
2020	10800	11300
2021	11600	10600
2022	9200	9800
2026 Opening Year Trend		
2026	N/A	6900
2027 Mid-Year Trend		
2027	N/A	6100
2028 Design Year Trend		
2028	N/A	5400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-740
Trend R-squared:	74.00%
Trend Annual Historic Growth Rate:	-5.86%
Trend Growth Rate (2022 to Design Year):	-7.48%
Printed:	6-Aug-24

Straight Line Growth Option

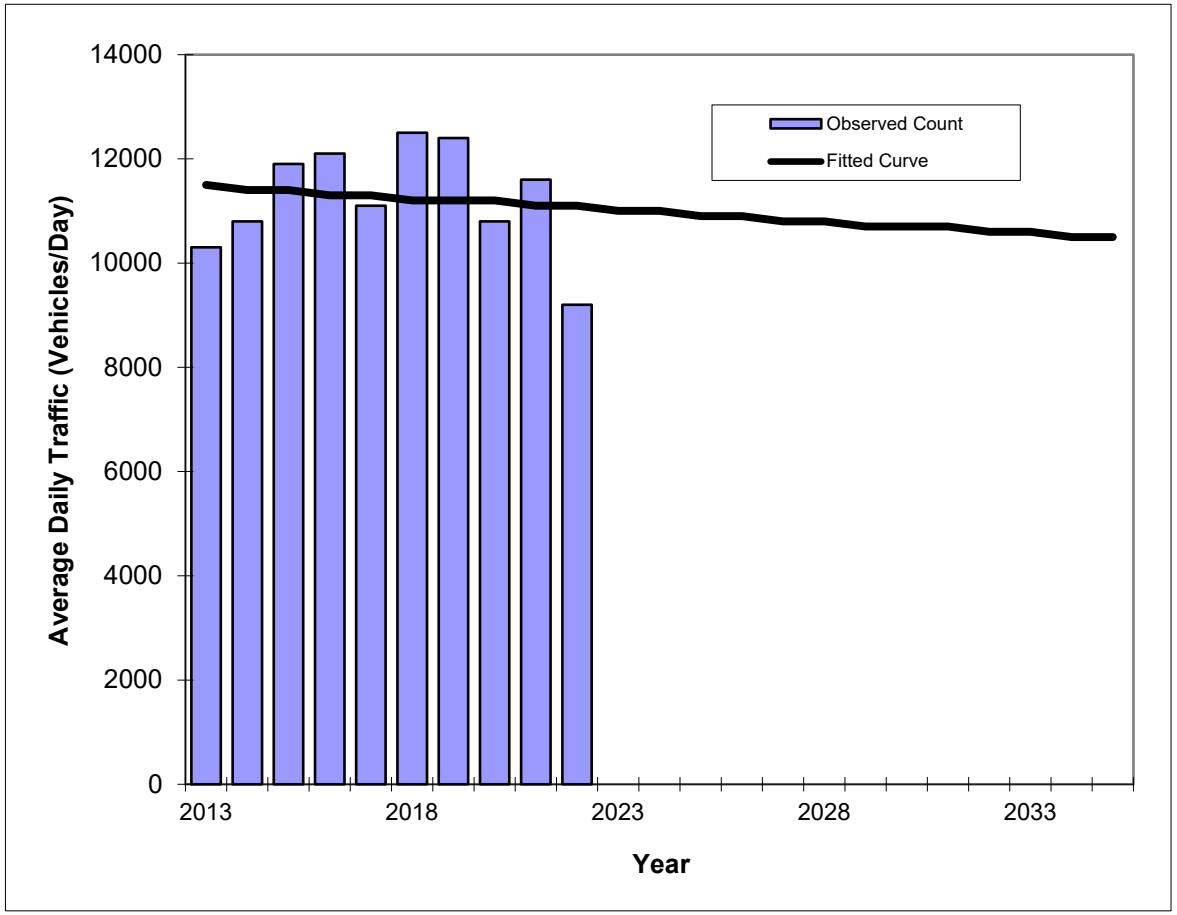
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1942
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	10300	11500
2014	10800	11400
2015	11900	11400
2016	12100	11300
2017	11100	11300
2018	12500	11200
2019	12400	11200
2020	10800	11200
2021	11600	11100
2022	9200	11100
2026 Opening Year Trend		
2026	N/A	10900
2027 Mid-Year Trend		
2027	N/A	10800
2028 Design Year Trend		
2028	N/A	10800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-45
Trend R-squared:	1.76%
Trend Annual Historic Growth Rate:	-0.39%
Trend Growth Rate (2022 to Design Year):	-0.45%
Printed:	6-Aug-24

Straight Line Growth Option

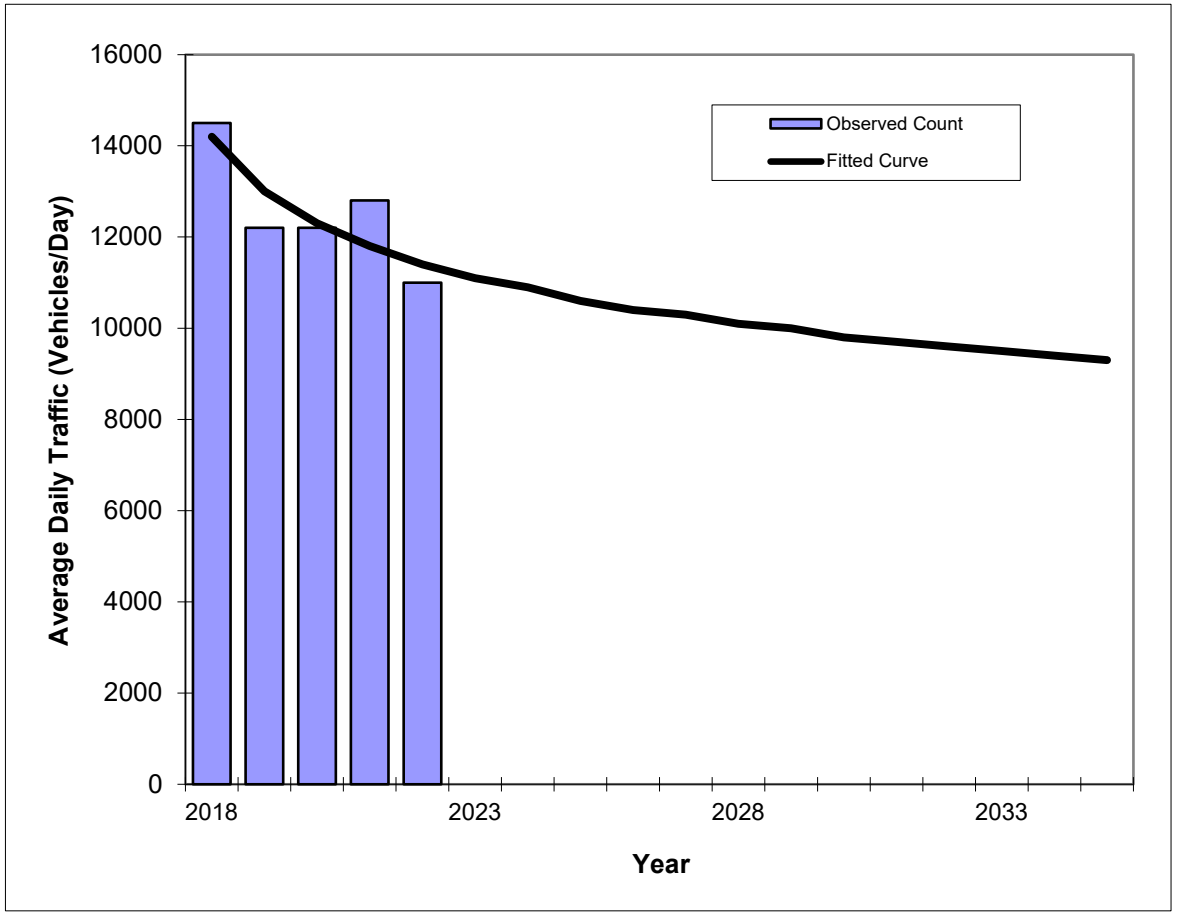
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1943
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2018	14500	14200
2019	12200	13000
2020	12200	12300
2021	12800	11800
2022	11000	11400
2026 Opening Year Trend		
2026	N/A	10400
2027 Mid-Year Trend		
2027	N/A	10300
2028 Design Year Trend		
2028	N/A	10100
TRANPLAN Forecasts/Trends		

Trend R-squared:	70.70%
Compounded Annual Historic Growth Rate:	-5.34%
Compounded Growth Rate (2022 to Design Year):	-2.00%
Printed:	6-Aug-24

Decaying Exponential Growth Option

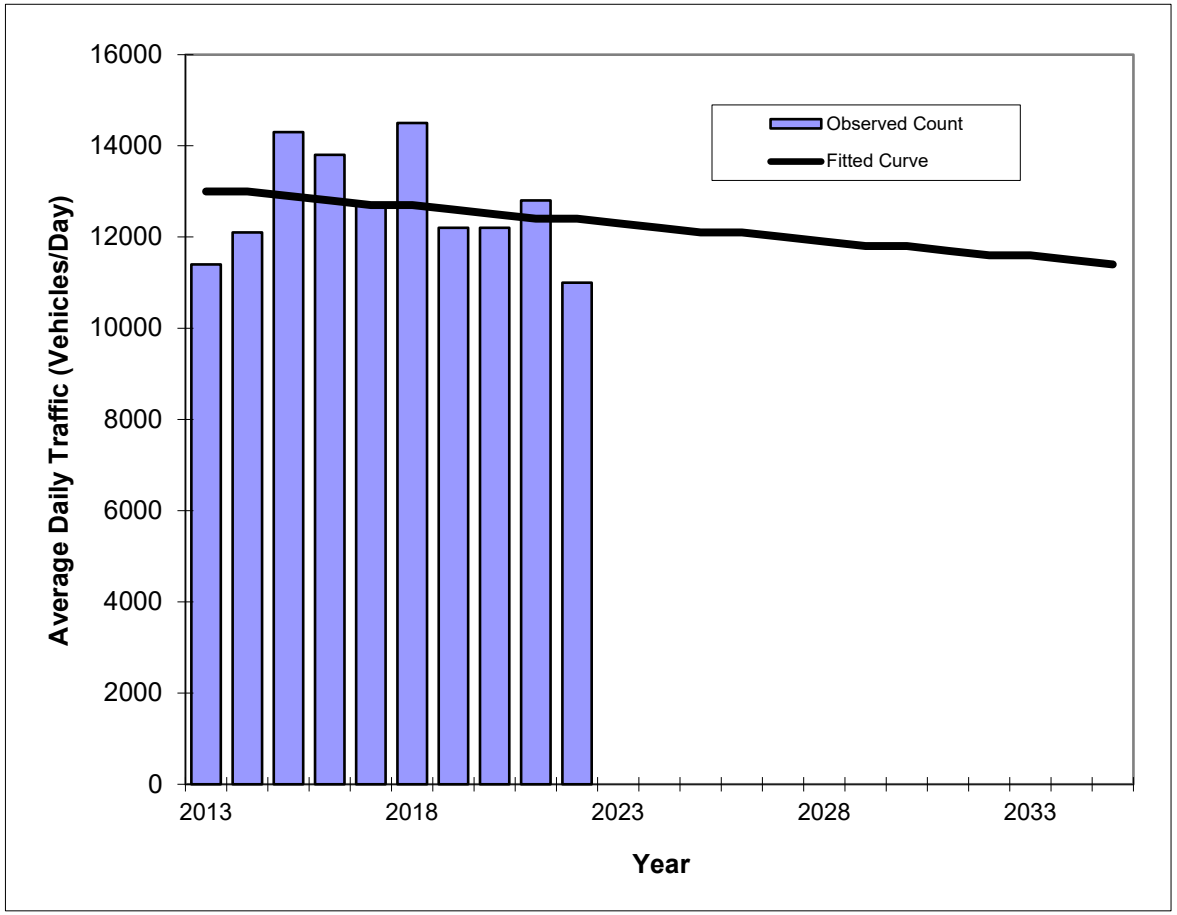
***Axle-Adjusted**

Traffic Trends - V03.a

W Volusia Beltway --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	1943
Highway:	W Volusia Beltway



Year	Traffic (ADT/AADT) Count*	Trend**
2013	11400	13000
2014	12100	13000
2015	14300	12900
2016	13800	12800
2017	12700	12700
2018	14500	12700
2019	12200	12600
2020	12200	12500
2021	12800	12400
2022	11000	12400
2026 Opening Year Trend		
2026	N/A	12100
2027 Mid-Year Trend		
2027	N/A	12000
2028 Design Year Trend		
2028	N/A	11900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-74
Trend R-squared:	3.62%
Trend Annual Historic Growth Rate:	-0.51%
Trend Growth Rate (2022 to Design Year):	-0.67%
Printed:	6-Aug-24

Straight Line Growth Option

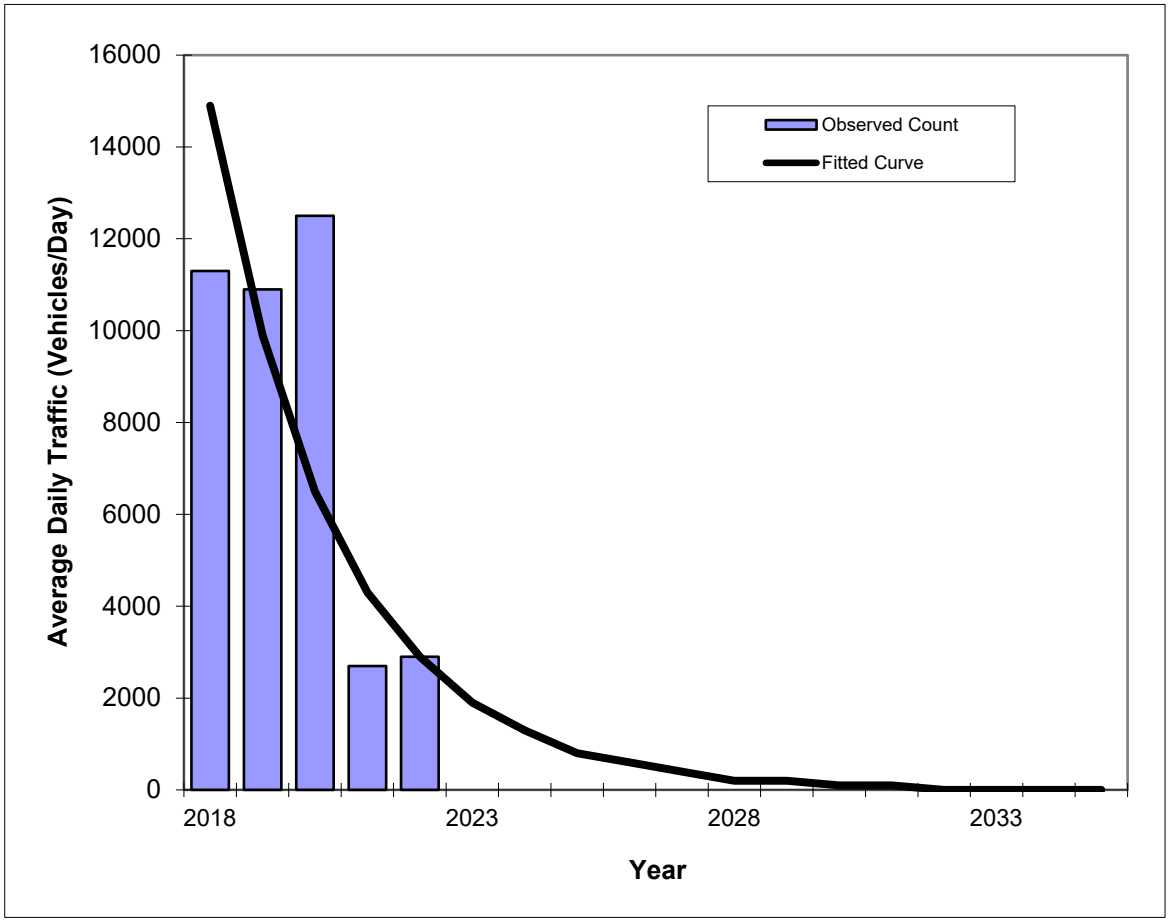
***Axle-Adjusted**

Traffic Trends - V03.a

CATALINA BLVD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	8193
Highway:	CATALINA BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2018	11300	14900
2019	10900	9900
2020	12500	6500
2021	2700	4300
2022	2900	2900
2026 Opening Year Trend		
2026	N/A	600
2027 Mid-Year Trend		
2027	N/A	400
2028 Design Year Trend		
2028	N/A	200
TRANPLAN Forecasts/Trends		

Trend R-squared:	69.89%
Compounded Annual Historic Growth Rate:	-33.58%
Compounded Growth Rate (2022 to Design Year):	-35.96%
Printed:	6-Aug-24

Exponential Growth Option

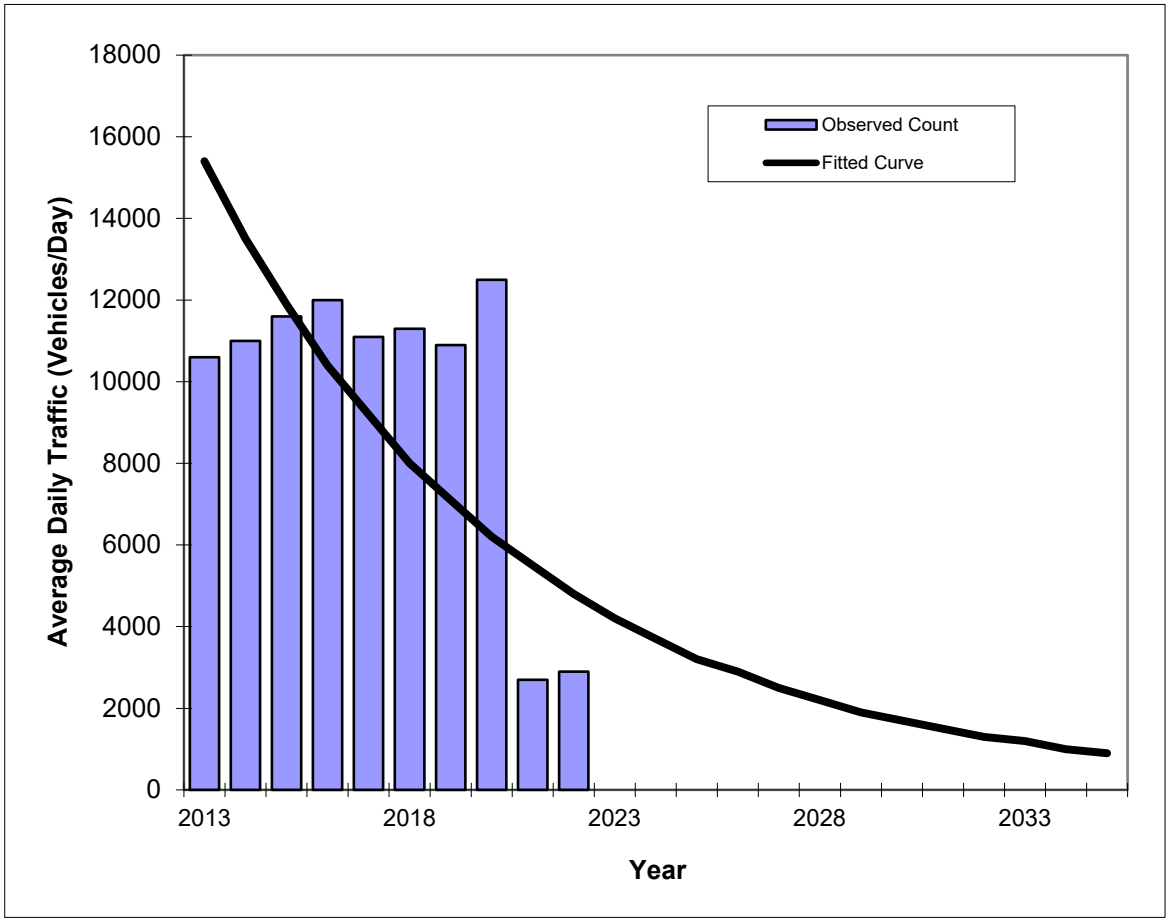
***Axle-Adjusted**

Traffic Trends - V03.a

CATALINA BLVD --

FIN#	21100
Location	1

County:	Volusia (79)
Station #:	8193
Highway:	CATALINA BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2013	10600	15400
2014	11000	13500
2015	11600	11900
2016	12000	10400
2017	11100	9200
2018	11300	8000
2019	10900	7100
2020	12500	6200
2021	2700	5500
2022	2900	4800
2026 Opening Year Trend		
2026	N/A	2900
2027 Mid-Year Trend		
2027	N/A	2500
2028 Design Year Trend		
2028	N/A	2200
TRANPLAN Forecasts/Trends		

Trend R-squared:	43.83%
Compounded Annual Historic Growth Rate:	-12.15%
Compounded Growth Rate (2022 to Design Year):	-12.19%
Printed:	6-Aug-24

Exponential Growth Option

***Axle-Adjusted**

Volusia County Vested Trip Database on Critical/Non-Critical Roads -
By Critical Area, PM Peak

Approved Devts and Devts under Review
Developments not considered vested
Parent Tract trips - should not be included in overall, only for informational purposes

****ALWAYS REFER TO THE VC AADT SPREADSHEET FOR COUNT AND CAPACITY INFO. (Not this spreadsheet)****

Updated #######

****ALWAYS REFER TO THE VC AADT SPREADSHEET FOR COUNT AND CAPACITY INFO. (Not this spreadsheet)****

Roadway	Segment	2021PM Pk Hr (VCTE) (VCTE Staff note. RED font = FDOT pk volumes based on daily V/C proportion.)	Capacity	2020 Parc Hill (50% Removed)	SWAC Phase IA Trips 11,444 (removed 13% Integra Daues)	Victoria Park Ph 2 Remaining Trips per city (reduced by 75%)	Victoria Park Ph 3 trips per city (0% removed)	Halifax Crossing s SPUD (37% Removed)	Hawthorne Landing	Rivera Bella East Unit 8&9 REMOVED 50%	Ft Florida Commons	Riverbend 2008	Springview Unit 8 REMOVED 90%	Canterwood ALF	Vineland Reserve	Fernanda Place (85% removed)	Enterprise Osteen (Reflects only 189 units as woad)	Enterprise Osteen East	Lincoln Oaks 2019	133 S. Courtland Blvd	Doyle Road Tract	Reserve at Victoria 2019	Park Lake Estates 2020	Cresswinds 2020	Beresford Woods 2019	DeBary Town Center	T.11 Kepler at SR 44 2019	Azalea Walk 2019 (20% removed)	Estates at Pelham Square 2019	Animal ER Critical Care 2019	Liberty Station, Orange City 2019	The Crossings, Orange City 2020	Eloah Estates 2022	Deltona Village PUD 2010 (see PUD trip tracker) 375 remaining not reflected on network	Deltona Village 2020/Mango Street	Portland Industrial 2020	Orange City Oncology 2025	Canopy Terrace/Kirk Subdivision	Grandview Gardens	Three Island Lake South	Villages at Pelham Square	Oak Hammock Reserve	Dean River Estates	Circle K at SR 40/US 17	Total Vested Trips	Lastest AADT plus Vested trips	V/C with Vested trips	V/C without Vested Trips	
I-4 Segments based on AADT V/C																																														
Graves Ave	VMP to Kentucky Ave	1640	1620	38	40	1	9	111																						13	143	44		98											470	2110	1.30	1.01	Critical
Graves Ave	Kentucky to Normandy	1420	1620		80	1	9	352																							311	44	19	109											925	2345	1.45	0.88	Vested Critical
Graves Ave	Normandy Blvd to Howland Blvd	1590	2740		80	1	9	352																							311	44	19	175											991	2581	0.94	0.58	Vested Near Critical
Howland Blvd	I-4 to Wolf Pack Run	2530	3410		130	15		254							9														10	187	82	57	116					8						868	3398	1.00	0.74	Vested Near Critical
Howland Blvd	Wolf Pack Run to Catalina Blvd	2310	3410		119			238							10																152	133	25	98					8						783	3093	0.91	0.68	Vested Near Critical
Howland Blvd	Providence Blvd to Elkcam	1110	1080					89							10																63	82		98					8						289	1389	1.14	0.90	Critical
Orange Camp Rd+B14	I-7/32 to Princeton	1,150	1270	0	20	8	57															19	16		11					3	20				14											168	1318	1.04	0.91	Near Critical
Orange Camp Rd	Blue Lake Ave to MLK	1,210	1540	0	20	11	80															22	16	4						3	20	2			21											197	1407	0.91	0.75	Vested Near Critical
Orange Camp Rd	MLK to I-4	1,170	1540		40	17	111															59	49	9						3	10	3			54											353	1523	0.99	0.78	Vested Critical
MLK	Taylor to Orange Camp	1030	1540			8	59															123	101	0											54											345	1375	0.89	0.67	Vested Near Critical
MLK	Orange Camp to Cassadaga Rd	990	1540	0	90	12	83															54	44	3						14	51	10			21											382	1372	0.89	0.64	Vested Near Critical
Kentucky	SR 472 to Graves	910	1540																											67	162	10		31											270	1180	0.77	0.59	
VMP	Graves Ave to Rhode Island	1200	1620	49	90	1	10																							48	91	8		35											332	1532	0.95	0.74	Vested Near Critical
VMP	Rhode Island to Harley Strickland	1490	1620	235	80	1	3																							35	20			23											397	1887	1.16	0.92	Vested Critical
Catalina Blvd	Howland Blvd to Sixma Road	1002	960																												123								3						*126*	1128	1.18	1.04	Vested Critical
Catalina Blvd	Sixma Rd to Lake Helen Osteen	856	960																												110														*110*	966	1.01	0.89	Vested Near Critical

Table 5: Future Buildout Roadway Volumes

Roadway	Segment	2027 2-Way PM Background Volume	Model Distribution	Buildout Trips	2027 2-Way PM Buildout Volume
Dr Martin Luther King Jr Beltway	SR 472 to Cassadaga Rd.	1,524	16.25%	198	1,722
	Cassadaga Rd. to Orange Camp Rd.	1,685	21.30%	260	1,945
	Orange Camp Rd. to Taylor Rd.	1,634	7.50%	92	1,726
	Taylor Rd. to Beresford Ave.	1,425	6.60%	81	1,506
Kentucky Avenue	Graves Ave. to SR 472	1,489	9.10%	111	1,600
Veteran's Memorial Parkway	Rhode Island Ave. to Graves Ave.	1,566	4.60%	56	1,622
Cassadaga Road	Dr. Martin Luther King Jr Bltwy. to Macy Ave.	308	9.80%	120	428
Orange Camp Road	Blue Lake Ave. to Dr Martin Luther King Jr Bltwy.	1,670	4.80%	59	1,729
Graves Avenue	Veteran's Memorial Pkwy. to Kentucky Ave.	2,203	7.00%	85	2,288
Howland Boulevard	I-4/SR 472 to Wolf Pack Rn.	3,580	15.28%	186	3,766
	Wolf Pack Rn. to Catalina Blvd.	3,307	11.60%	142	3,449
	Catalina Blvd. to Providence Blvd.	2,336	10.07%	123	2,459
SR 472	US 17/92 to Martin Luther King Jr Bltwy.	3,193	16.74%	204	3,397
	Martin Luther King Jr Bltwy. to I-4	3,466	26.40%	322	3,788
Macy Avenue	Ohio St. to Cassadaga Rd.	193	6.60%	81	274
Kicklighter Road	Macy Ave. to Lake Helen-Osteen Rd./Prevatt Ave.	270	5.60%	68	338
Normandy Blvd.	Graves Ave. to Rhode Island Ave.	1,547	5.65%	69	1,616

3.3 Roadway Segment Analysis

Roadway segment capacity was analyzed based on the adopted peak hour capacities, as obtained from the *Volusia County 2021 AADT & Historical Counts*. The analysis compares the roadway PM peak traffic to the segment capacity to determine if the segment's LOS operation is adequate. The analysis was conducted for the existing, projected background, and projected buildout traffic. **Table 4** summarizes the roadway capacity analysis.

Table 4
Roadway Capacity Analysis

Roadway Segment	Seg ID	# of Lns	2Way Cap	Existing		Background		Project Total			
				Vol	Adeq?	Vol	Adeq?	Dist	Trips	Vol	Adeq?
US 17 / 92											
SR 472 to SR 15A / Taylor Rd*	1,004	6	5,390	1,027	YES	1,190	YES	10%	12	1,202	YES
Graves Ave / CR 4145											
Veteran's Memorial Pkwy to Kentucky Ave	775	2	1,620	1,640	**NO**	1,905	**NO**	15%	18	1,923	**NO**
Kentucky Ave to Normandy Blvd	900a	2	1,620	1,420	YES	1,880	**NO**	5%	6	1,886	**NO**
Normandy Blvd to Howland Blvd	900b	4	2,740	1,590	YES	2,050	YES	5%	6	2,056	YES
Orange Camp Rd											
US 17 / 92 to Princeton Rd	1,380	2	1,270	1,160	YES	1,364	**NO**	3%	4	1,368	**NO**
Princeton Rd to Blue Lake Ave	1,382	2	1,540	1,170	YES	1,402	YES	4%	5	1,407	YES
Blue Lake Ave to W Volusia Bltwy (Dr. MLK Jr)	1,384	2	1,540	1,220	YES	1,531	YES	5%	6	1,537	YES
W Volusia Bltwy (Dr. MLK Jr) to I-4	1,385	2	1,540	1,920	**NO**	2,409	**NO**	5%	6	2,415	**NO**
W. Volusia Bltwy											
Saxon Blvd to Harley Strickland Blvd	1,900	4	3,410	1,280	YES	1,527	YES	5%	6	1,533	YES
Harley Strickland Blvd to Rhode Island Ave	1,901	2	1,540	1,490	YES	1,748	**NO**	5%	6	1,754	**NO**
Rhode Island Ave to Graves Ave	1,902	2	1,620	1,200	YES	1,408	YES	10%	12	1,420	YES
SR 472 to Cassadaga Rd	1,940	2	1,540	1,050	YES	1,232	YES	70%	85	1,317	YES

** 2021 volume obtained from FDOT's Florida Traffic Online*

The following roadway segments are projected to operate above their adopted capacities due to existing traffic volumes or projected background growth:

- Graves Avenue / CR 4145 from Veteran's Memorial Parkway to Normandy Boulevard
- Orange Camp Road from US 17/92 to Princeton Road
- Orange Camp Road from W Volusia Beltway to I-4
- W Volusia Beltway from Harley Strickland Boulevard to Rhode Island Avenue

It is recommended that the four (4) roadway segments be widened from 2-lanes to 4-lanes, and it should also be noted that the proposed development does not cause any roadway segments to become deficient.

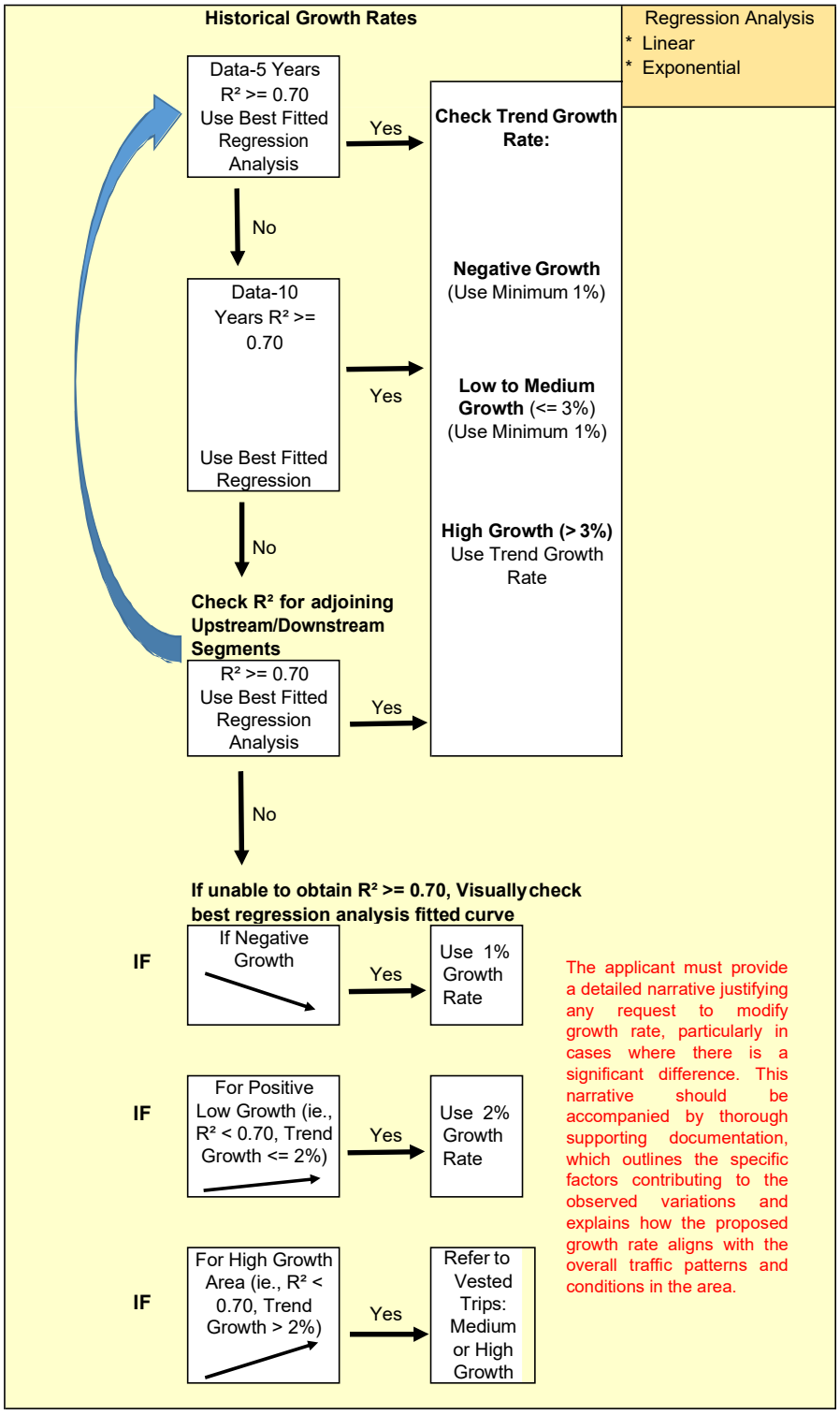
Segment Information			Deland Tech Park	TM BTR	Vested Trip Database
Roadway	From	To			
Cassadaga Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	Macy Ave	120	0	0
Cassadaga Rd*	W. Volusia Bltwy (Dr. MLK Bltwy)	Blue Lake Ave (Extension)	0	0	0
Graves Ave	Veterans Memorial Pkwy	Kentucky Ave	85	18	470
Graves Ave	Kentucky Ave	Normandy Blvd	0	6	925
Graves Ave	Normandy Blvd	Howland Blvd	0	6	991
Howland Blvd	I-4/SR 472	Wolf Pack Run	186	0	868
Howland Blvd	Wolf Pack Run	Catalina Blvd	142	0	783
Howland Blvd	Providence Blvd	Elkcam Blvd	0	0	289
Orange Camp Rd	US 17/92	Princeton Rd	0	4	168
Orange Camp Rd	Blue Lake Ave	W. Volusia Bltwy (Dr. MLK Bltwy)	59	6	197
Orange Camp Rd	W. Volusia Bltwy (Dr. MLK Bltwy)	I-4	0	6	355
W. Volusia Bltwy (Veterans Memorial Pkwy)	Harley Strickland Blvd	Rhode Island Ave	0	6	397
W. Volusia Bltwy (Veterans Memorial Pkwy)	Rhode Island Ave	Graves Ave	56	12	332
W. Volusia Bltwy (Kentucky Ave)	Graves Ave	SR 472	111	0	270
W. Volusia Bltwy (Dr. MLK Bltwy)	Cassadaga Rd	Orange Camp Rd	260	0	382
W. Volusia Bltwy (Dr. MLK Bltwy)	Orange Camp Rd	Taylor Rd	92	0	345
Catalina Blvd**	Howland Blvd	Sixma Rd	0	0	126
Catalina Blvd**	Sixma Rd	Lake Helen Osteen	0	0	110

Vested trips obtained from *Volusia County Vested Trip Database* and also include trips from Deland Tech Park and TM BTR (Yardley)

*This segments is an extension and do not currently exist. The only trips that will be using this segment would be the project trips.

**No data in *Volusia County 2022 AADT* . Historical AADT obtained from *Florida Traffic Online (FTO) 2023* . Existing PM Peak Hour Volume estimated using AADT, K factor and D Factor

Volusia County's Segment Growth Rates and Vested Trips Instructions Policy



The applicant must provide a detailed narrative justifying any request to modify growth rate, particularly in cases where there is a significant difference. This narrative should be accompanied by thorough supporting documentation, which outlines the specific factors contributing to the observed variations and explains how the proposed growth rate aligns with the overall traffic patterns and conditions in the area.

AND

IF there are - Vested Trips

Negative Growth (Use Minimum 1%):

\+ Vested Trips

Low to Medium Growth (<= 3%)(Use Minimum 1%):

\+ Vested Trips

High Growth (> 3%):

Use the Highest # of the two (growth rate or vested trips). Need to submit supporting documentation & justification.

HIGH GROWTH & HIGH VESTED TRIPS

If there are Vested Trips from multiple approved projects on segment.
And, Vested Trips comprise of multiple uses that would normally have significant interaction (residential, retail, office, restaurant, etc…).

And, Vested Trips make up more than 30% of the total future background traffic.

Then, Vested Trips can be reduced by 30% upon request by the Applicant

Signed:_____ Date:_____

Jay Williams, PE, PTOE

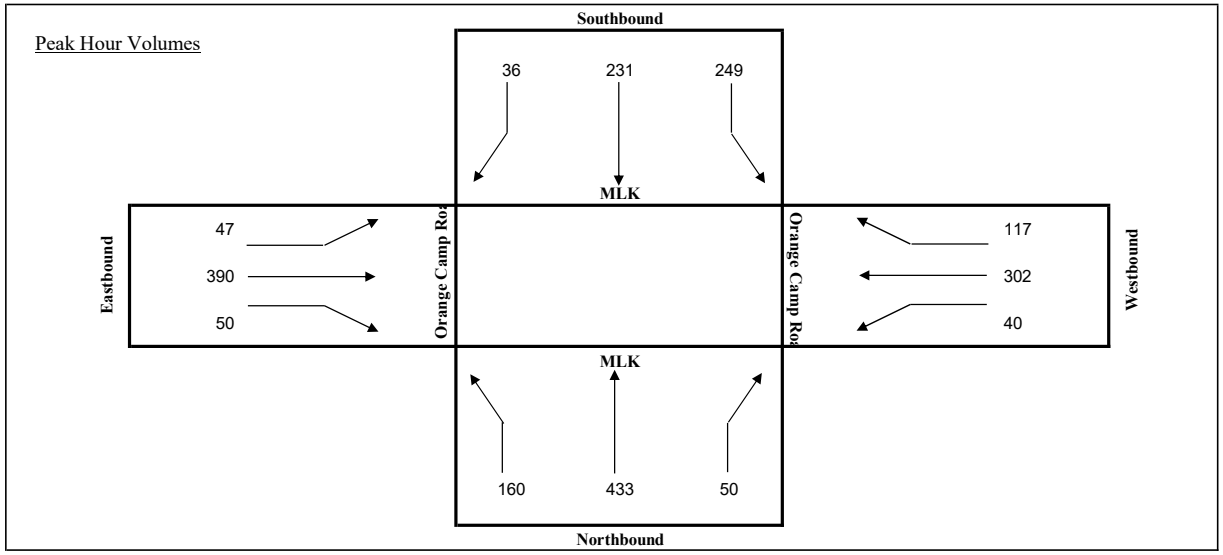
Appendix J
Turning Movement Counts, Seasonal Factor Report and Signal Timing

TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

			MLK			MLK			Orange Camp Road			Orange Camp Road			
			NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	21	56	8	44	49	6	10	90	10	5	59	14	372
7:15 AM	7:30 AM	25	64	13	62	65	7	7	110	11	6	67	17	454
7:30 AM	7:45 AM	40	88	10	74	66	10	12	116	14	6	69	28	533
7:45 AM	8:00 AM	41	127	14	69	53	12	14	103	11	11	77	31	563
8:00 AM	8:15 AM	35	111	12	56	59	5	10	92	9	10	86	30	515
8:15 AM	8:30 AM	44	107	14	50	53	9	11	79	16	13	70	28	494
8:30 AM	8:45 AM	40	85	10	66	60	4	13	89	11	9	58	30	475
8:45 AM	9:00 AM	31	77	14	58	50	7	9	75	12	8	65	22	428
Total for:	7:00 AM	8:00 AM	127	335	45	249	233	35	43	419	46	28	272	90	1922
Total for:	8:00 AM	9:00 AM	150	380	50	230	222	25	43	335	48	40	279	110	1912
Tota Peak Hour:	7:30 AM	8:30 AM	160	433	50	249	231	36	47	390	50	40	302	117	2105
Overall PHF:	0.93														

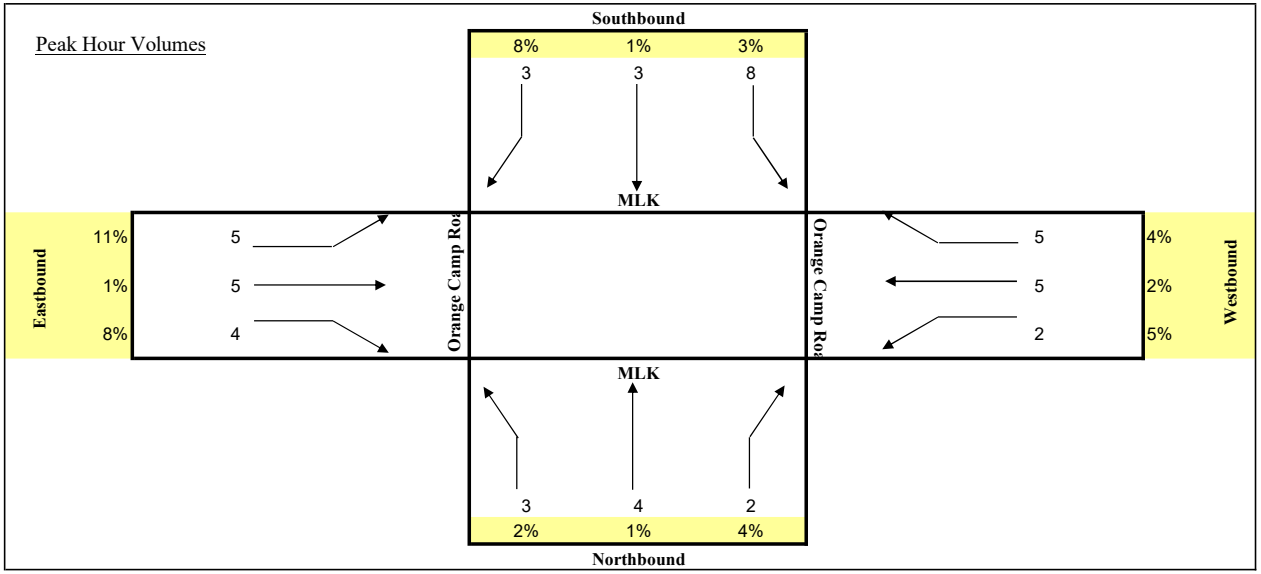


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

		MLK NB			MLK SB			Orange Camp Road EB			Orange Camp Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	2	2	1	0	1	1	3	1	1	0	2	2	16
7:15 AM	7:30 AM	0	1	1	2	1	0	0	2	0	0	1	1	9
7:30 AM	7:45 AM	1	0	0	1	0	1	1	0	0	2	0	0	6
7:45 AM	8:00 AM	1	1	0	4	0	1	2	1	1	1	3	1	16
8:00 AM	8:15 AM	1	0	1	1	2	0	0	1	0	0	1	1	8
8:15 AM	8:30 AM	0	0	1	0	1	1	2	0	2	0	1	3	11
8:30 AM	8:45 AM	1	3	0	3	0	1	1	3	1	1	0	0	14
8:45 AM	9:00 AM	0	0	0	1	1	0	1	0	0	0	2	1	6
Total for:	7:00 AM	8:00 AM	4	4	2	7	2	3	6	4	2	3	6	4	47
Total for:	8:00 AM	9:00 AM	2	3	2	5	4	2	4	4	3	1	4	5	39
Tota Peak Hour:	7:45 AM	8:45 AM	3	4	2	8	3	3	5	5	4	2	5	5	49
Overall PHF:	0.77														

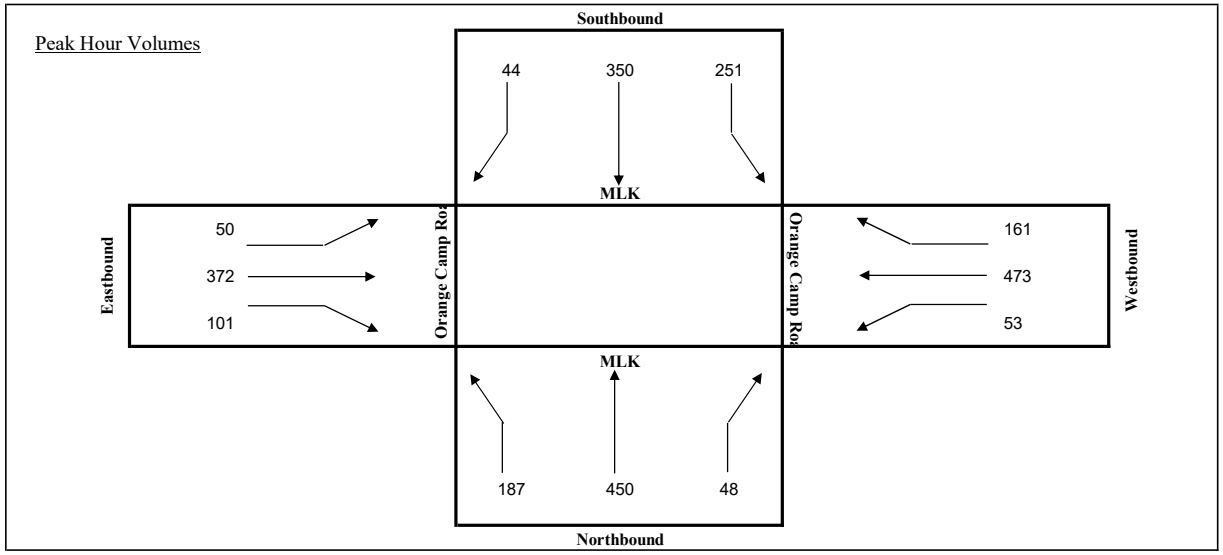


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

			MLK			MLK			Orange Camp Road			Orange Camp Road			
			NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	31	131	6	49	67	8	12	86	22	7	110	36	565
4:15 PM	4:30 PM	35	132	11	61	70	11	16	96	20	12	125	42	631
4:30 PM	4:45 PM	49	115	11	66	88	9	11	89	28	15	111	41	633
4:45 PM	5:00 PM	53	98	15	59	92	14	9	102	24	16	117	37	636
5:00 PM	5:15 PM	50	105	11	65	100	10	14	85	29	10	120	41	640
5:15 PM	5:30 PM	62	113	14	62	84	10	10	79	24	17	111	40	626
5:30 PM	5:45 PM	52	94	8	55	74	14	15	91	30	21	99	35	588
5:45 PM	6:00 PM	49	102	11	60	80	10	13	82	26	16	102	34	585
Total for:	4:00 PM	5:00 PM	168	476	43	235	317	42	48	373	94	50	463	156	2465
Total for:	5:00 PM	6:00 PM	213	414	44	242	338	44	52	337	109	64	432	150	2439
Tota Peak Hour:	4:15 PM	5:15 PM	187	450	48	251	350	44	50	372	101	53	473	161	2540
Overall PHF:	0.99														

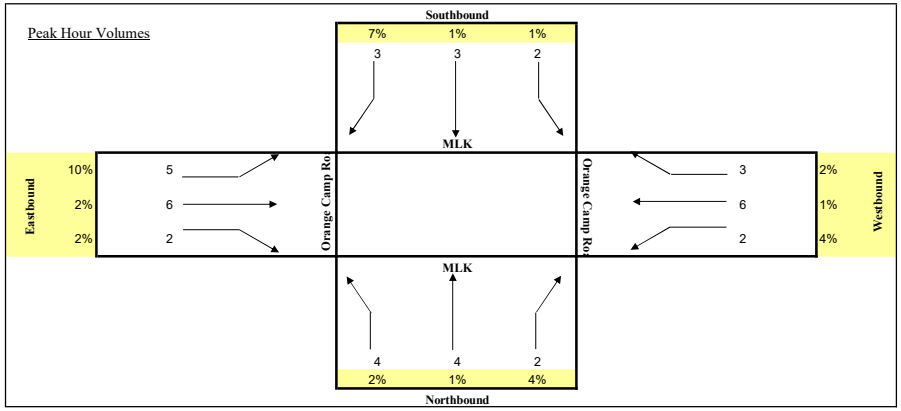


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Orange Camp Road
Date: 6/12/2024

		MLK NB			MLK SB			Orange Camp Road EB			Orange Camp Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	1	2	0	0	2	1	3	2	0	0	1	1	13
4:15 PM	4:30 PM	0	2	1	1	0	0	1	3	0	1	2	0	11
4:30 PM	4:45 PM	2	0	1	1	0	0	0	1	1	1	3	1	11
4:45 PM	5:00 PM	1	0	0	0	1	2	1	0	1	0	0	1	7
5:00 PM	5:15 PM	0	1	0	1	1	0	1	1	0	0	0	0	5
5:15 PM	5:30 PM	1	0	1	2	0	1	0	0	0	0	2	0	7
5:30 PM	5:45 PM	0	0	0	0	1	0	0	1	0	1	2	0	5
5:45 PM	6:00 PM	1	1	0	1	0	0	1	1	1	0	1	1	8
Total for:	4:00 PM	5:00 PM	4	4	2	2	3	3	5	6	2	2	6	3	42
Total for:	5:00 PM	6:00 PM	2	2	1	4	2	1	2	3	1	1	5	1	25
Tota Peak Hour:	4:00 PM	5:00 PM	4	4	2	2	3	3	5	6	2	2	6	3	42
Overall PHF:	0.81														

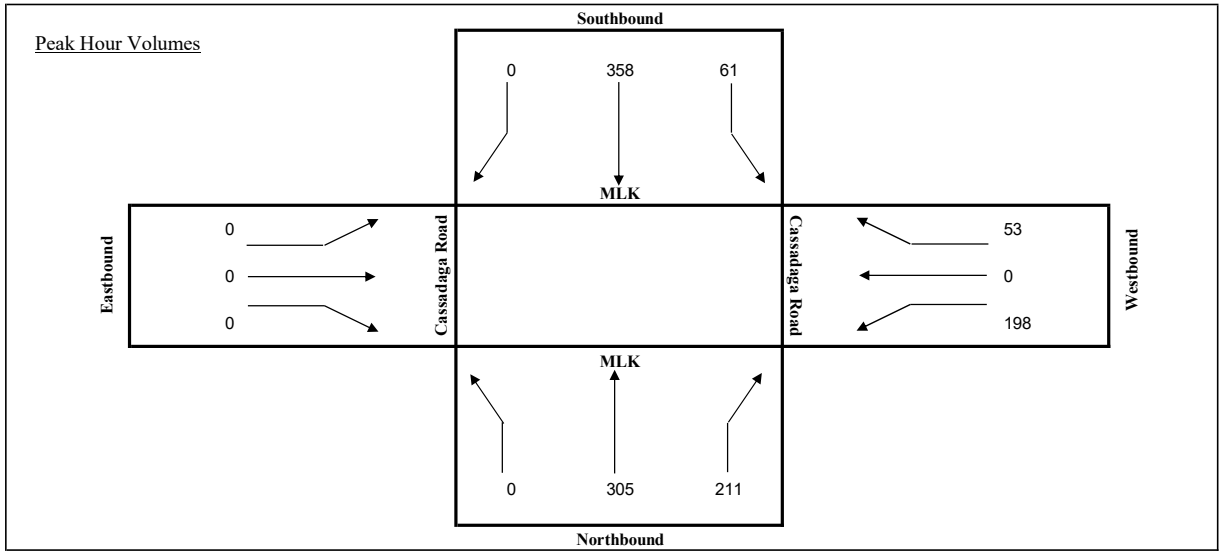


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

			MLK NB			MLK SB			Cassadaga Road EB			Cassadaga Road WB			
Start	End		L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM		0	59	44	10	69	0	0	0	0	27	0	7	216
7:15 AM	7:30 AM		0	82	53	12	71	0	0	0	0	35	0	8	261
7:30 AM	7:45 AM		0	79	50	13	73	0	0	0	0	47	0	12	274
7:45 AM	8:00 AM		0	83	54	18	96	0	0	0	0	58	0	16	325
8:00 AM	8:15 AM		0	69	51	17	102	0	0	0	0	51	0	11	301
8:15 AM	8:30 AM		0	74	56	13	87	0	0	0	0	42	0	14	286
8:30 AM	8:45 AM		0	62	50	16	63	0	0	0	0	37	0	10	238
8:45 AM	9:00 AM		0	56	41	11	68	0	0	0	0	34	0	12	222
Total for:	7:00 AM	8:00 AM	0	303	201	53	309	0	0	0	0	167	0	43	1076
Total for:	8:00 AM	9:00 AM	0	261	198	57	320	0	0	0	0	164	0	47	1047
Tota Peak Hour:	7:30 AM	8:30 AM	0	305	211	61	358	0	0	0	0	198	0	53	1186
Overall PHF:	0.91														

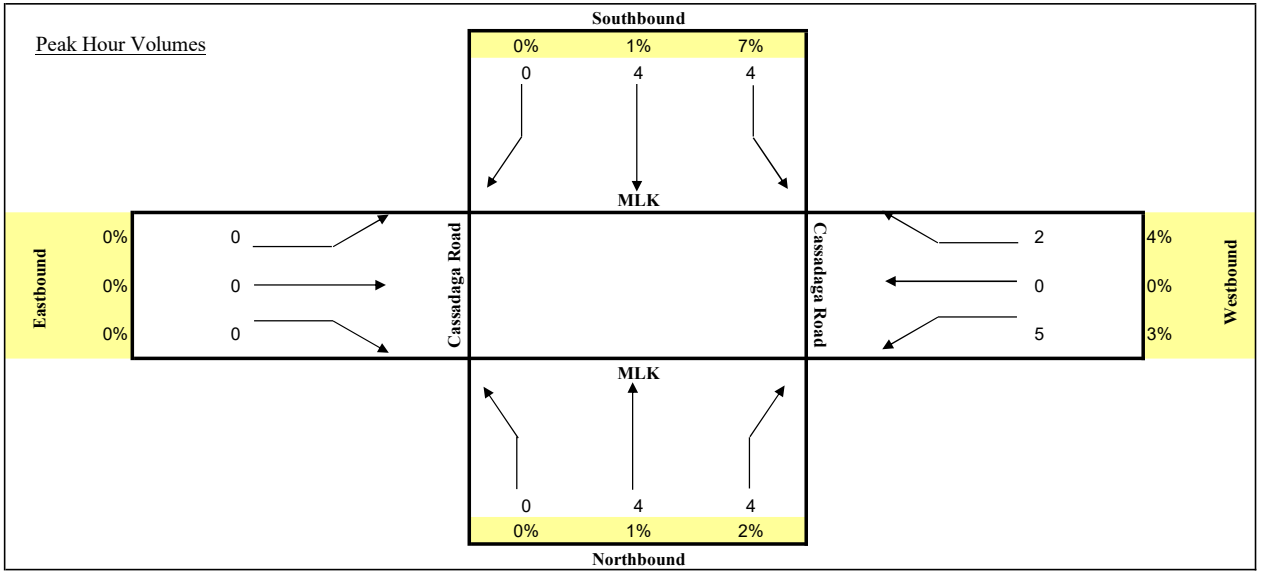


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK NB			MLK SB			Cassadaga Road EB			Cassadaga Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	0	2	0	1	2	0	0	0	0	2	0	1	8
7:15 AM	7:30 AM	0	1	2	1	1	0	0	0	0	1	0	0	6
7:30 AM	7:45 AM	0	0	1	0	0	0	0	0	0	0	0	1	2
7:45 AM	8:00 AM	0	1	0	1	1	0	0	0	0	3	0	0	6
8:00 AM	8:15 AM	0	2	1	2	2	0	0	0	0	1	0	1	9
8:15 AM	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	8:45 AM	0	0	2	2	0	0	0	0	0	1	0	1	6
8:45 AM	9:00 AM	0	2	0	1	1	0	0	0	0	2	0	1	7
Total for:	7:00 AM	8:00 AM	0	4	3	3	4	0	0	0	0	6	0	2	22
Total for:	8:00 AM	9:00 AM	0	5	3	5	3	0	0	0	0	4	0	3	23
Tota Peak Hour:	7:15 AM	8:15 AM	0	4	4	4	4	0	0	0	0	5	0	2	23
Overall PHF:	0.64														

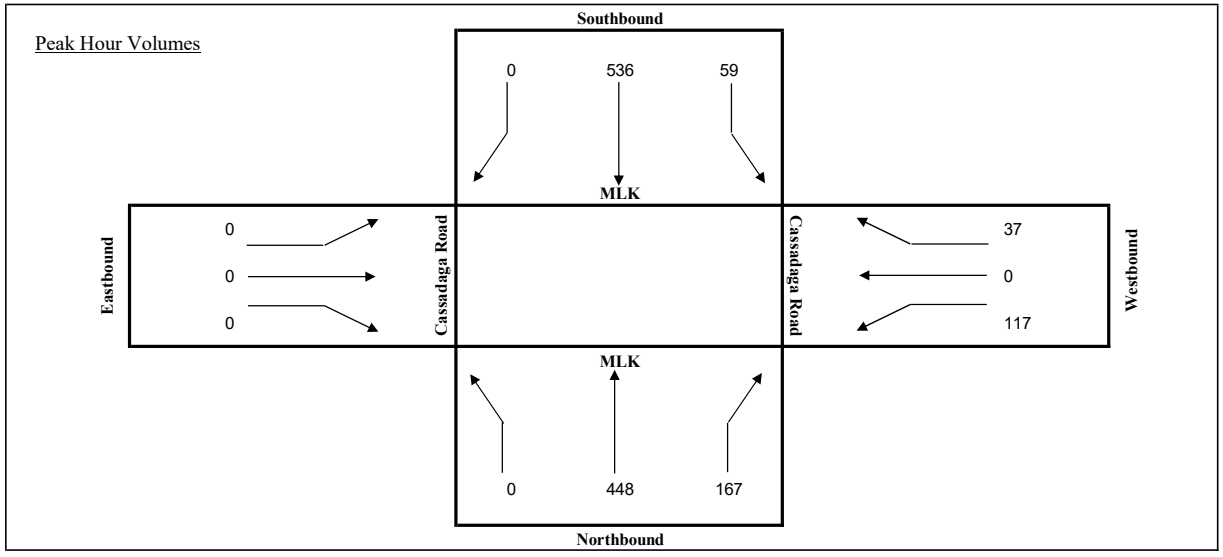


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK			MLK			Cassadaga Road			Cassadaga Road			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	0	101	24	11	111	0	0	0	0	17	0	11	275
4:15 PM	4:30 PM	0	101	33	13	112	0	0	0	0	26	0	7	292
4:30 PM	4:45 PM	0	100	39	22	136	0	0	0	0	36	0	13	346
4:45 PM	5:00 PM	0	116	45	16	131	0	0	0	0	32	0	9	349
5:00 PM	5:15 PM	0	107	41	12	115	0	0	0	0	21	0	7	303
5:15 PM	5:30 PM	0	125	42	9	154	0	0	0	0	28	0	8	366
5:30 PM	5:45 PM	0	116	37	17	128	0	0	0	0	35	0	3	336
5:45 PM	6:00 PM	0	96	30	13	118	0	0	0	0	30	0	7	294
Total for:	4:00 PM	5:00 PM	0	418	141	62	490	0	0	0	0	111	0	40	1262
Total for:	5:00 PM	6:00 PM	0	444	150	51	515	0	0	0	0	114	0	25	1299
Tota Peak Hour:	4:30 PM	5:30 PM	0	448	167	59	536	0	0	0	0	117	0	37	1364
Overall PHF:	0.93														

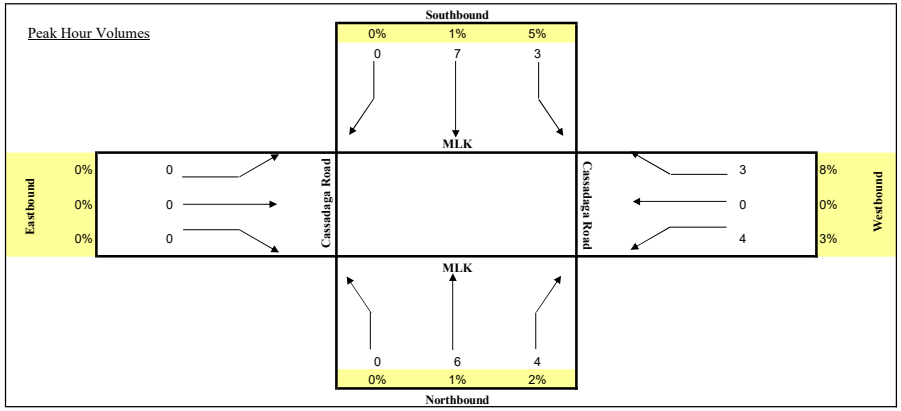


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK
Intersection (E/W): Cassadaga Road
Date: 6/12/2024

		MLK NB			MLK SB			Cassadaga Road EB			Cassadaga Road WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	0	3	0	1	2	0	0	0	0	0	0	1	7
4:15 PM	4:30 PM	0	0	0	0	1	0	0	0	0	1	0	1	3
4:30 PM	4:45 PM	0	3	3	2	0	0	0	0	0	0	0	0	8
4:45 PM	5:00 PM	0	1	0	0	2	0	0	0	0	2	0	0	5
5:00 PM	5:15 PM	0	0	1	1	1	0	0	0	0	0	0	2	5
5:15 PM	5:30 PM	0	2	0	0	4	0	0	0	0	2	0	1	9
5:30 PM	5:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	3
5:45 PM	6:00 PM	0	1	0	1	1	0	0	0	0	0	0	1	4
Total for:	4:00 PM	5:00 PM	0	7	3	3	5	0	0	0	0	3	0	2	23
Total for:	5:00 PM	6:00 PM	0	3	2	2	6	0	0	0	0	4	0	4	21
Tota Peak Hour:	4:30 PM	5:30 PM	0	6	4	3	7	0	0	0	0	4	0	3	27
Overall PHF:	0.75														

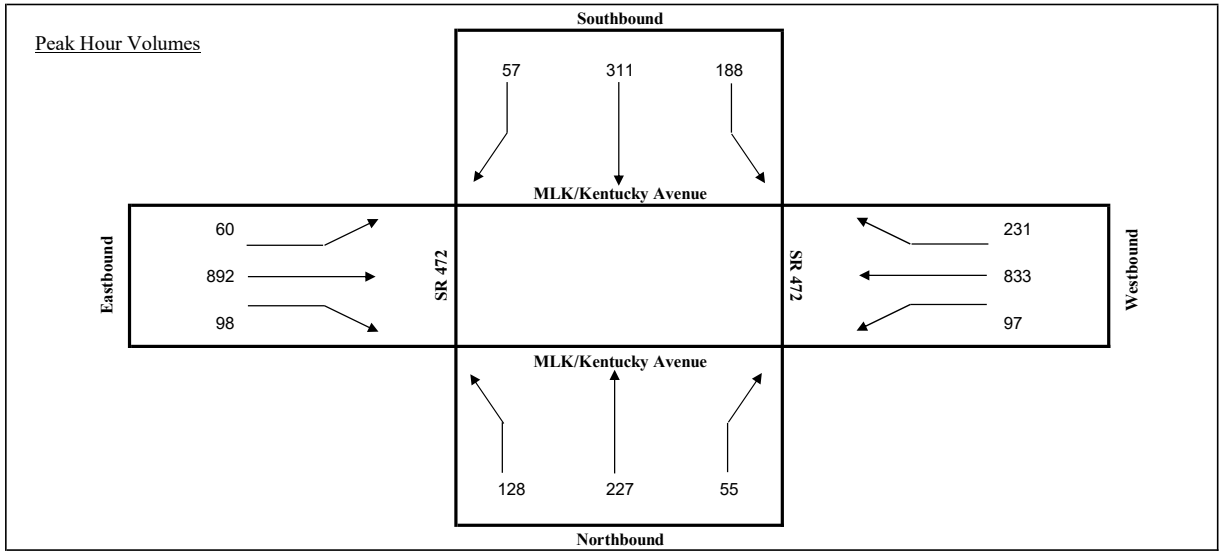


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

			MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
			NB			SB			EB			WB			
Start	End		L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM		27	51	6	29	53	13	10	209	11	17	187	43	656
7:15 AM	7:30 AM		30	62	11	36	60	10	16	209	11	11	199	57	712
7:30 AM	7:45 AM		25	67	12	44	67	9	12	210	19	20	212	50	747
7:45 AM	8:00 AM		35	59	17	52	86	16	11	237	21	22	214	67	837
8:00 AM	8:15 AM		37	50	12	51	81	21	17	240	33	30	210	54	836
8:15 AM	8:30 AM		31	51	14	41	77	11	20	205	25	25	197	60	757
8:30 AM	8:45 AM		23	42	11	37	57	6	15	217	31	19	191	55	704
8:45 AM	9:00 AM		21	52	12	29	62	10	12	180	24	17	169	33	621
Total for:	7:00 AM	8:00 AM	117	239	46	161	266	48	49	865	62	70	812	217	2952
Total for:	8:00 AM	9:00 AM	112	195	49	158	277	48	64	842	113	91	767	202	2918
Tota Peak Hour:	7:30 AM	8:30 AM	128	227	55	188	311	57	60	892	98	97	833	231	3177
Overall PHF:	0.95														

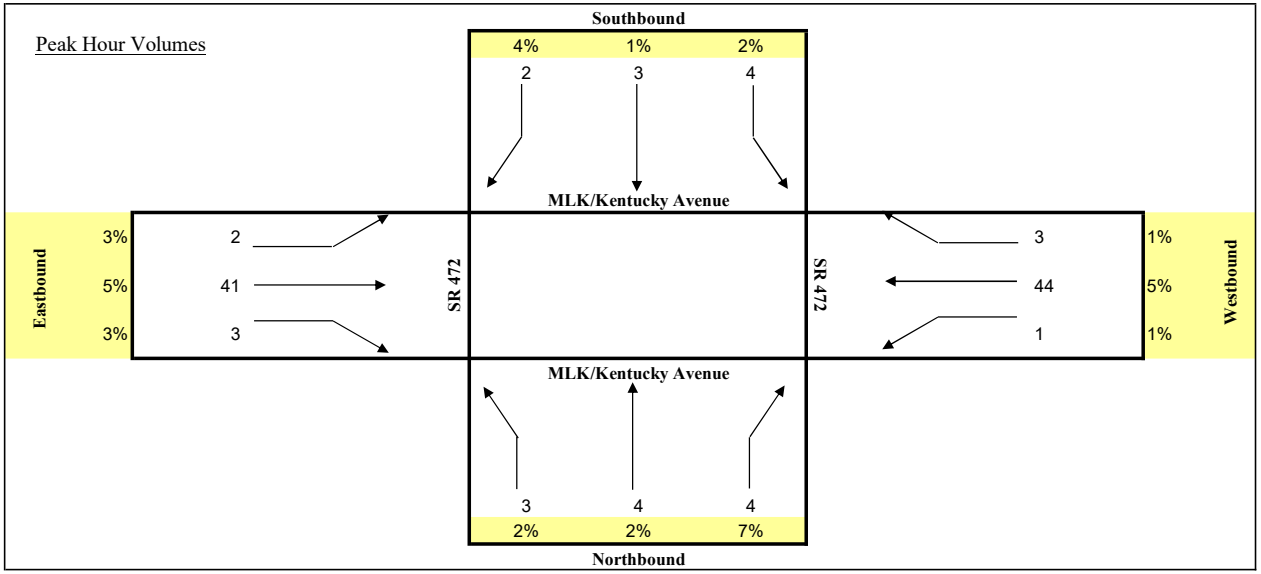


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

		MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	1	2	1	1	2	1	0	8	2	2	10	1	31
7:15 AM	7:30 AM	0	1	2	0	2	0	1	11	0	0	9	1	27
7:30 AM	7:45 AM	0	1	1	0	0	0	0	7	0	1	13	0	23
7:45 AM	8:00 AM	2	1	1	3	0	1	0	13	1	0	10	0	32
8:00 AM	8:15 AM	1	1	0	1	1	1	1	10	2	0	12	2	32
8:15 AM	8:30 AM	0	1	0	0	0	0	0	9	0	1	8	1	20
8:30 AM	8:45 AM	0	0	1	1	0	0	1	9	1	1	11	1	26
8:45 AM	9:00 AM	1	2	0	0	1	1	0	5	0	0	6	0	16
Total for:	7:00 AM	8:00 AM	3	5	5	4	4	2	1	39	3	3	42	2	113
Total for:	8:00 AM	9:00 AM	2	4	1	2	2	2	2	33	3	2	37	4	94
Tota Peak Hour:	7:15 AM	8:15 AM	3	4	4	4	3	2	2	41	3	1	44	3	114
Overall PHF:	0.89														

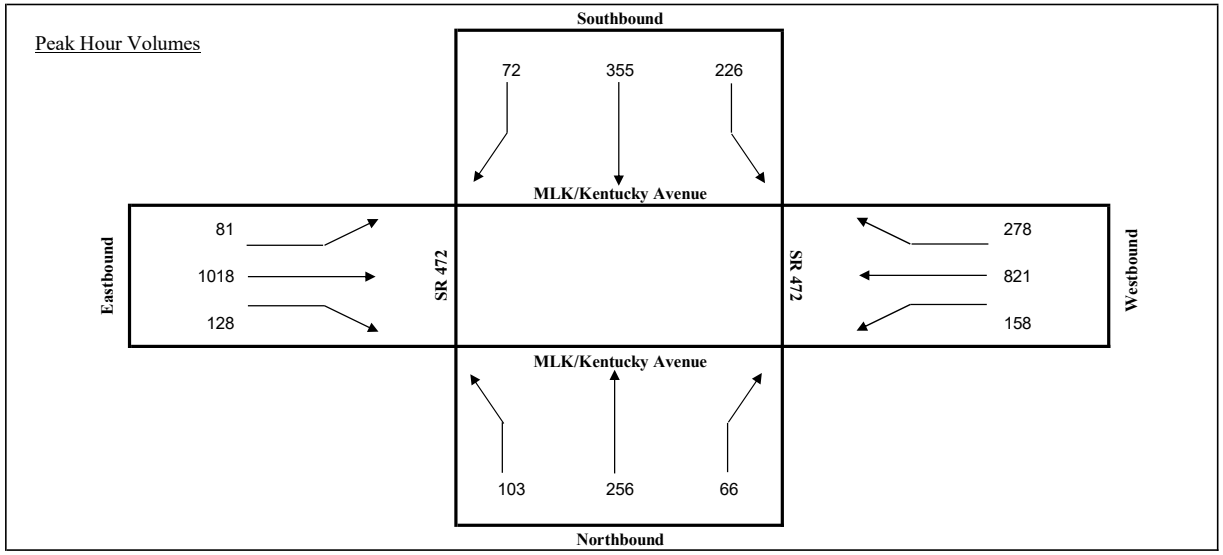


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

			MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
			NB			SB			EB			WB			
Start	End		L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM		25	53	22	51	63	14	21	205	30	34	193	50	761
4:15 PM	4:30 PM		30	59	19	48	71	19	21	247	36	31	202	54	837
4:30 PM	4:45 PM		28	64	21	58	95	19	20	296	42	37	212	55	947
4:45 PM	5:00 PM		25	65	13	56	92	15	22	257	28	41	224	74	912
5:00 PM	5:15 PM		25	60	16	49	70	17	21	242	26	43	181	67	817
5:15 PM	5:30 PM		25	67	16	63	98	21	18	223	32	37	204	82	886
5:30 PM	5:45 PM		18	58	16	52	99	19	16	242	26	35	193	79	853
5:45 PM	6:00 PM		20	44	11	53	86	15	14	212	22	37	185	68	767
Total for:	4:00 PM	5:00 PM	108	241	75	213	321	67	84	1005	136	143	831	233	3457
Total for:	5:00 PM	6:00 PM	88	229	59	217	353	72	69	919	106	152	763	296	3323
Tota Peak Hour:	4:30 PM	5:30 PM	103	256	66	226	355	72	81	1018	128	158	821	278	3562
Overall PHF:	0.94														

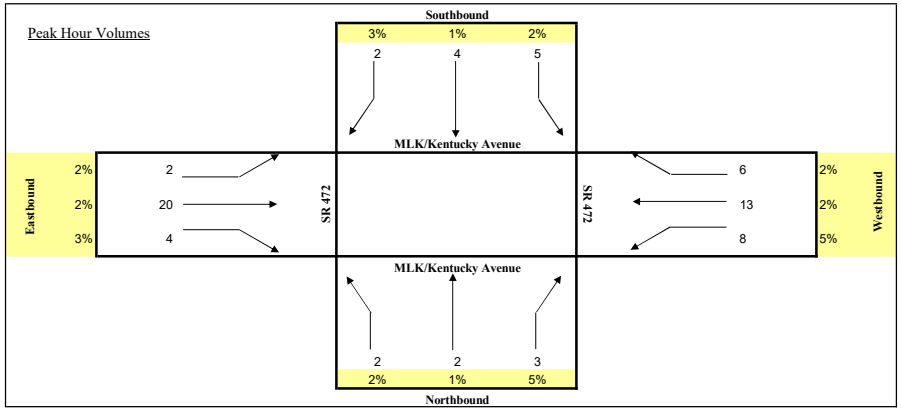


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): MLK/Kentucky Avenue
Intersection (E/W): SR 472
Date: 6/12/2024

		MLK/Kentucky Avenue			MLK/Kentucky Avenue			SR 472			SR 472			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	1	0	2	1	1	0	1	2	0	1	5	2	16
4:15 PM	4:30 PM	0	0	0	1	0	1	0	1	1	1	6	0	11
4:30 PM	4:45 PM	0	1	0	0	0	0	2	5	2	3	5	3	21
4:45 PM	5:00 PM	1	0	0	2	1	1	0	3	2	2	4	1	17
5:00 PM	5:15 PM	1	0	1	0	1	0	0	6	0	1	2	1	13
5:15 PM	5:30 PM	0	1	2	3	2	1	0	6	0	2	2	1	20
5:30 PM	5:45 PM	0	0	0	0	2	0	0	2	1	2	4	1	12
5:45 PM	6:00 PM	0	0	1	1	0	0	1	4	0	1	3	0	11
Total for:	4:00 PM	5:00 PM	2	1	2	4	2	2	3	11	5	7	20	6	65
Total for:	5:00 PM	6:00 PM	1	1	4	4	5	1	1	18	1	6	11	3	56
Tota Peak Hour:	4:30 PM	5:30 PM	2	2	3	5	4	2	2	20	4	8	13	6	71
Overall PHF:	0.85														

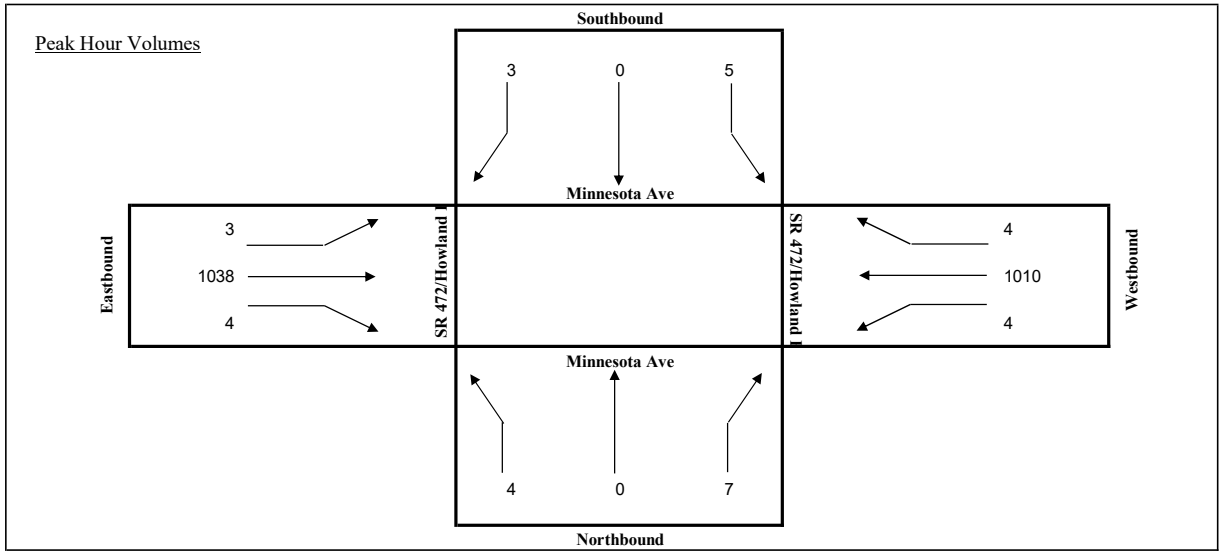


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	1	0	3	1	0	0	2	226	0	0	223	4	460
7:15 AM	7:30 AM	1	0	2	1	0	0	2	232	0	2	234	2	476
7:30 AM	7:45 AM	1	0	0	0	0	1	2	240	1	1	243	1	490
7:45 AM	8:00 AM	0	0	1	1	0	0	1	269	0	1	263	1	537
8:00 AM	8:15 AM	3	0	5	1	0	1	0	281	2	1	266	2	562
8:15 AM	8:30 AM	0	0	1	3	0	1	0	248	1	1	238	0	493
8:30 AM	8:45 AM	1	0	1	0	0	0	2	261	1	0	219	2	487
8:45 AM	9:00 AM	1	0	1	2	0	0	0	217	3	2	197	0	423
Total for:	7:00 AM	8:00 AM	3	0	6	3	0	1	7	967	1	4	963	8	1963
Total for:	8:00 AM	9:00 AM	5	0	8	6	0	2	2	1007	7	4	920	4	1965
Tota Peak Hour:	7:30 AM	8:30 AM	4	0	7	5	0	3	3	1038	4	4	1010	4	2082
Overall PHF:	0.93														

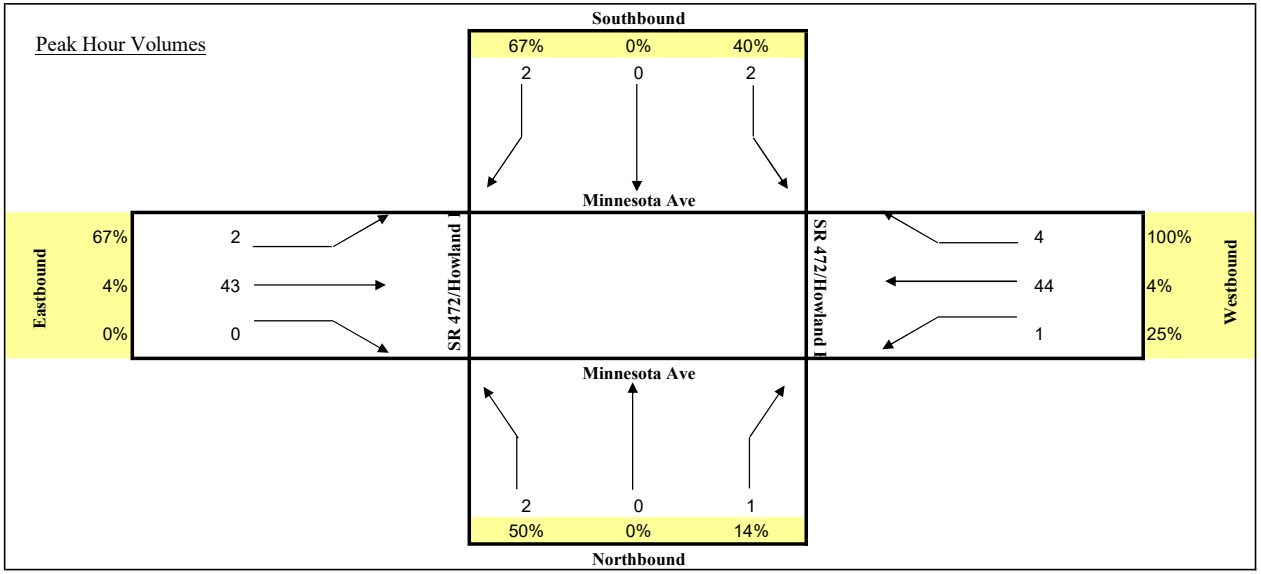


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 AM	7:15 AM	0	0	0	1	0	0	2	9	0	0	10	2	24
7:15 AM	7:30 AM	1	0	0	1	0	0	1	11	0	0	8	1	23
7:30 AM	7:45 AM	0	0	0	0	0	1	0	7	0	0	13	0	21
7:45 AM	8:00 AM	0	0	0	0	0	0	1	14	0	1	11	1	28
8:00 AM	8:15 AM	1	0	1	1	0	1	0	11	0	0	12	2	29
8:15 AM	8:30 AM	0	0	0	2	0	0	0	7	0	0	8	0	17
8:30 AM	8:45 AM	1	0	0	0	0	0	1	11	1	0	10	1	25
8:45 AM	9:00 AM	0	0	1	1	0	0	0	6	1	1	7	0	17
Total for:	7:00 AM	8:00 AM	1	0	0	2	0	1	4	41	0	1	42	4	96
Total for:	8:00 AM	9:00 AM	2	0	2	4	0	1	1	35	2	1	37	3	88
Tota Peak Hour:	7:15 AM	8:15 AM	2	0	1	2	0	2	2	43	0	1	44	4	101
Overall PHF:	0.87														

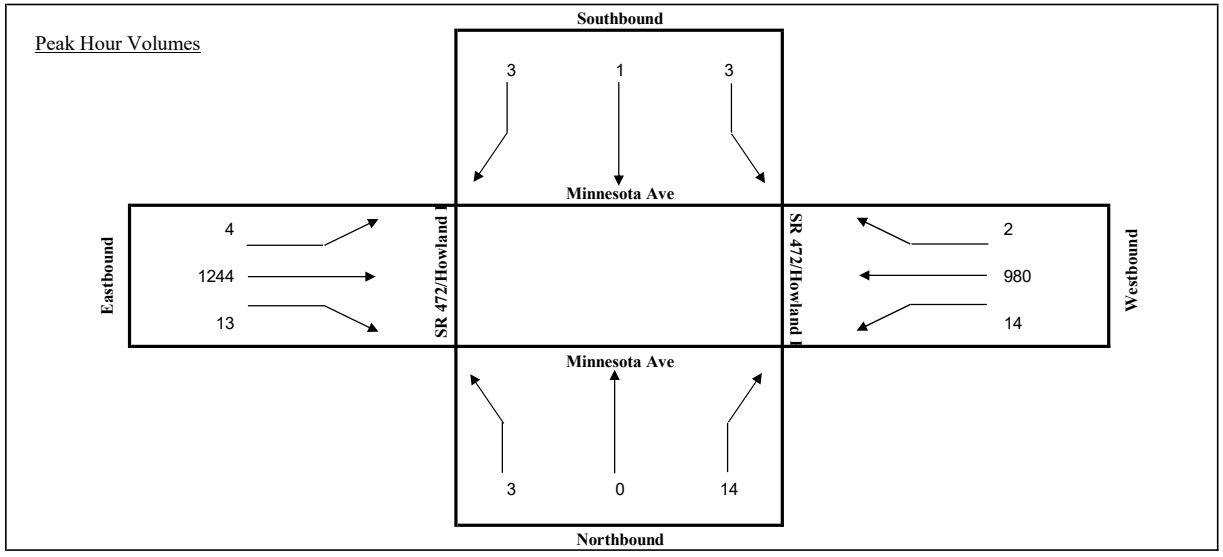


TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	2	0	6	0	0	3	1	250	7	3	227	2	501
4:15 PM	4:30 PM	0	0	4	2	0	1	0	300	3	6	244	1	561
4:30 PM	4:45 PM	1	0	5	0	0	0	0	354	5	2	256	0	623
4:45 PM	5:00 PM	2	0	2	1	0	1	1	305	3	5	258	0	578
5:00 PM	5:15 PM	0	0	3	0	1	1	3	285	2	1	222	1	519
5:15 PM	5:30 PM	0	1	2	1	0	0	3	271	7	4	253	2	544
5:30 PM	5:45 PM	1	0	2	2	0	1	0	279	5	4	225	0	519
5:45 PM	6:00 PM	0	0	4	1	0	0	1	245	7	5	213	1	477
Total for:	4:00 PM	5:00 PM	5	0	17	3	0	5	2	1209	18	16	985	3	2263
Total for:	5:00 PM	6:00 PM	1	1	11	4	1	2	7	1080	21	14	913	4	2059
Tota Peak Hour:	4:15 PM	5:15 PM	3	0	14	3	1	3	4	1244	13	14	980	2	2281
Overall PHF:	0.92														

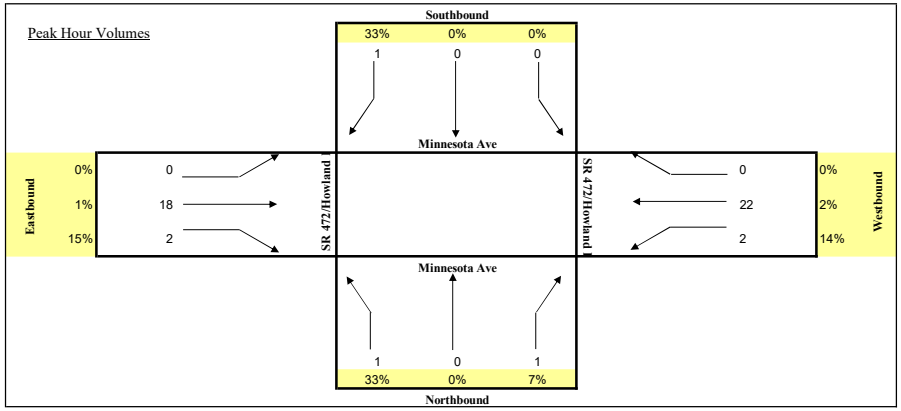


TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): Minnesota Ave
Intersection (E/W): SR 472/Howland Blvd
Date: 6/12/2024

		Minnesota Ave			Minnesota Ave			SR 472/Howland Blvd			SR 472/Howland Blvd			
		NB			SB			EB			WB			
Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 PM	4:15 PM	1	0	0	0	0	1	0	3	1	0	6	0	12
4:15 PM	4:30 PM	0	0	1	0	0	0	0	1	0	1	6	0	9
4:30 PM	4:45 PM	0	0	0	0	0	0	0	9	0	0	5	0	14
4:45 PM	5:00 PM	0	0	0	0	0	0	0	5	1	1	5	0	12
5:00 PM	5:15 PM	0	0	1	0	0	1	0	5	0	0	3	0	10
5:15 PM	5:30 PM	0	0	0	0	0	0	0	6	0	0	3	0	9
5:30 PM	5:45 PM	0	0	0	0	0	0	0	3	0	0	4	0	7
5:45 PM	6:00 PM	0	0	0	0	0	0	0	5	0	0	3	0	8
Total for:	4:00 PM	5:00 PM	1	0	1	0	0	1	0	18	2	2	22	0	47
Total for:	5:00 PM	6:00 PM	0	0	1	0	0	1	0	19	0	0	13	0	34
Tota Peak Hour:	4:00 PM	5:00 PM	1	0	1	0	0	1	0	18	2	2	22	0	47
Overall PHF:	0.84														



2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7900 VOLUSIA COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2023 - 01/07/2023	1.01	1.06
2	01/08/2023 - 01/14/2023	1.01	1.06
3	01/15/2023 - 01/21/2023	1.01	1.06
4	01/22/2023 - 01/28/2023	0.99	1.04
5	01/29/2023 - 02/04/2023	0.98	1.03
* 6	02/05/2023 - 02/11/2023	0.96	1.01
* 7	02/12/2023 - 02/18/2023	0.95	1.00
* 8	02/19/2023 - 02/25/2023	0.94	0.99
* 9	02/26/2023 - 03/04/2023	0.93	0.98
*10	03/05/2023 - 03/11/2023	0.92	0.97
*11	03/12/2023 - 03/18/2023	0.92	0.97
*12	03/19/2023 - 03/25/2023	0.93	0.98
*13	03/26/2023 - 04/01/2023	0.94	0.99
*14	04/02/2023 - 04/08/2023	0.95	1.00
*15	04/09/2023 - 04/15/2023	0.97	1.02
*16	04/16/2023 - 04/22/2023	0.97	1.02
*17	04/23/2023 - 04/29/2023	0.98	1.03
*18	04/30/2023 - 05/06/2023	0.98	1.03
19	05/07/2023 - 05/13/2023	0.99	1.04
20	05/14/2023 - 05/20/2023	1.00	1.05
21	05/21/2023 - 05/27/2023	1.01	1.06
22	05/28/2023 - 06/03/2023	1.02	1.07
23	06/04/2023 - 06/10/2023	1.03	1.08
24	06/11/2023 - 06/17/2023	1.04	1.09
25	06/18/2023 - 06/24/2023	1.04	1.09
26	06/25/2023 - 07/01/2023	1.05	1.11
27	07/02/2023 - 07/08/2023	1.06	1.12
28	07/09/2023 - 07/15/2023	1.06	1.12
29	07/16/2023 - 07/22/2023	1.06	1.12
30	07/23/2023 - 07/29/2023	1.06	1.12
31	07/30/2023 - 08/05/2023	1.06	1.12
32	08/06/2023 - 08/12/2023	1.06	1.12
33	08/13/2023 - 08/19/2023	1.06	1.12
34	08/20/2023 - 08/26/2023	1.05	1.11
35	08/27/2023 - 09/02/2023	1.05	1.11
36	09/03/2023 - 09/09/2023	1.04	1.09
37	09/10/2023 - 09/16/2023	1.04	1.09
38	09/17/2023 - 09/23/2023	1.03	1.08
39	09/24/2023 - 09/30/2023	1.02	1.07
40	10/01/2023 - 10/07/2023	1.01	1.06
41	10/08/2023 - 10/14/2023	1.00	1.05
42	10/15/2023 - 10/21/2023	0.99	1.04
43	10/22/2023 - 10/28/2023	0.99	1.04
44	10/29/2023 - 11/04/2023	0.99	1.04
45	11/05/2023 - 11/11/2023	0.99	1.04
46	11/12/2023 - 11/18/2023	1.00	1.05
47	11/19/2023 - 11/25/2023	1.00	1.05
48	11/26/2023 - 12/02/2023	1.00	1.05
49	12/03/2023 - 12/09/2023	1.00	1.05
50	12/10/2023 - 12/16/2023	1.01	1.06
51	12/17/2023 - 12/23/2023	1.01	1.06
52	12/24/2023 - 12/30/2023	1.01	1.06
53	12/31/2023 - 12/31/2023	1.01	1.06

* PEAK SEASON

09-MAR-2024 18:41:41 830UPD 5_7900_PKSEASON.TXT

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Sig #471, CR 4101 (MLK Beltway) @ Cassadaga Rd.
Orange City

FREE: X

DATE: 10/24/2022

SIGNAL #: 471

CO-ORD:

Design By: Sean Castello

NETWORK #:

Volusia County FLORIDA

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION		SB		WB	SBL	NB			
TURN TYPE		-		SPLIT LAG	PROT	-			
MIN GREEN		17		7	5	17			
EXTENSION		3		3	3	3			
YELLOW		5.5		4.0	5.5	5.5			
RED CLR		2.0		2.8	2.0	2.0			
WALK									
PED CLR									
MAX 1		70		50	30	70			
MAX 2									
MAX 3		-		-		-			
DYM MAX									
DYM STP									
RECALL		MIN		-		MIN			
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK			
FLASH		YELLOW		RED	RED	YELLOW			

COORDINATION TIMINGS

PATTERN	1	2	3	4	5	6	7	8	
CYCLE				-	-	-	-	-	
OFFSET				-	-	-	-	-	

PHASE	1	2	3	4	5	6	7	8	
PATTERN 1									
PATTERN 2									
PATTERN 3									
PATTERN 4	-	-	-	-	-	-	-	-	
PATTERN 5	-	-	-	-	-	-	-	-	
PATTERN 6	-	-	-	-	-	-	-	-	
PATTERN 7	-	-	-	-	-	-	-	-	

Controller IP		Switch IP		Camera IP	
Controller Gateway		Switch Gateway		Camera Gateway	

REMARKS:

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: I-71, CR 4101 (MLK Beltway) @ Cassada
Orange City

FREE: X

DATE: 10/24/2022

SIGNAL #: 471

CO-ORD:

Design By: Sean Castello

NETWORK #:

Volusia County
FLORIDA

TIME OF DAY SCHEDULE

BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
	TIME	00:00-00:00							
MON #1	PATTERN	FREE							P2
	TIME	00:00-00:00							
TUES #1	PATTERN	FREE							
	TIME	00:00-00:00							
WED #1	PATTERN	FREE							P4
	TIME	00:00-00:00							
THU #1	PATTERN	FREE							
	TIME	00:00-00:00							
FRI #1	PATTERN	FREE							P6
	TIME	00:00-00:00							
SAT #1	PATTERN	FREE							
	TIME	00:00-00:00							
SUN #1	PATTERN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	GOOD	PROGRAM NUMBER	
Econolite ASC/3		OVERHEAD STREET NAMES	NO		
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES		SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	YES	Controller IP Address	FDOT
CABINET DATE		PRE-EMPTION TYPE	INFRARED	0	LED YES

REMARKS:

Seq #4	2	1	4	3	Seq #5	1	2	3	4	Seq #7	1	2	4	3
	5	6				6	5				6	5		

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 @ CR 4101 (MLK Beltway)
Orange City

FREE: [ ]

DATE: 5/16/2022

SIGNAL #: 222

CO-ORD: [X]

Design By: Sean Castello

NETWORK #: OC/Deltona Area Network # 90

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	EBL	WB	SB	NB	WBL	EB			
TURN TYPE	PROT	-	SPLIT LEAD	SPLIT LAG	PROT	-			
MIN GREEN	5	17	7	7	5	17			
EXTENSION	3	4	4	4	3	4			
YELLOW	5.5	5.5	5.6	5.5	5.5	5.5			
RED CLR	2.8	2.8	3.8	3.3	2.8	2.8			
WALK									
PED CLR									
MAX 1	25	60	35	35	35	60			
MAX 2									
MAX 3		-		-		-			
DYM MAX		90		35		90			
DYM STP		10		10		10			
RECALL		MIN		-		MIN			
DETECTOR	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK			
FLASH	RED	YELLOW	RED	RED	RED	YELLOW			

COORDINATION TIMINGS

PATTERN	1	2	3	4	5	6	7	8	
CYCLE	150	130	150	-	-	-	-	-	
OFFSET	93	99	0	-	-	-	-	-	

PHASE	1	2	3	4	5	6	7	8	
PATTERN 1	19	57	37	37	19	57			
PATTERN 2	19	43	31	37	19	43			
PATTERN 3	19	59	35	37	20	58			
PATTERN 4	-	-	-	-	-	-	-	-	
PATTERN 5	-	-	-	-	-	-	-	-	
PATTERN 6	-	-	-	-	-	-	-	-	
PATTERN 7	-	-	-	-	-	-	-	-	

Controller IP	10.40.91.25	Switch IP	10.40.90.25	Camera IP	10.40.92.25
Controller Gateway	10.40.91.1	Switch Gateway	10.40.90.1	Camera Gateway	10.40.92.1

REMARKS:

Pattern #1		2	1		4	3	Pat #2		1	2		3	4	Pat #3		1	2		4	3
Seq #4		5	6				Seq #5		6	5				Seq #7		6	5			

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 @ CR 4101 (MLK Beltway)
Orange City

FREE: [ ]

DATE: 5/16/2022

SIGNAL #: 222

CO-ORD: [X]

Design By: Sean Castello

NETWORK #: OC/Deltona Area Network # 90

TIME OF DAY SCHEDULE

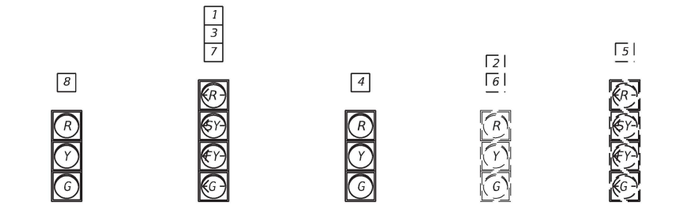
BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
MON #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				P2
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
TUES #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
WED #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				P4
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
THU #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				
	TIME	06:30-09:00	09:00-16:00	16:00-18:15	18:15-00:00				
FRI #1	PATTERN	PATTERN #1	PATTERN #2	PATTERN #3	FREE				P6
	TIME	00:00-00:00							
SAT #2	PATTERN	FREE							
	TIME	00:00-00:00							
SUN #2	PATTERN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	GOOD	PROGRAM NUMBER	
Econolite ASC/3		OVERHEAD STREET NAMES	NO		
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	02.62.00	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	YES	Controller IP Address	FDOT
CABINET DATE	03/2008	PRE-EMPTION TYPE	INFRARED	10.40.91.25	LED YES

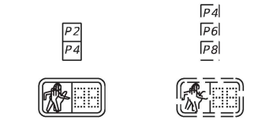
REMARKS:

Seq #4					Seq #5					Seq #7				
	2	1	4	3		1	2	3	4		1	2	4	3
	5	6				6	5				6	5		

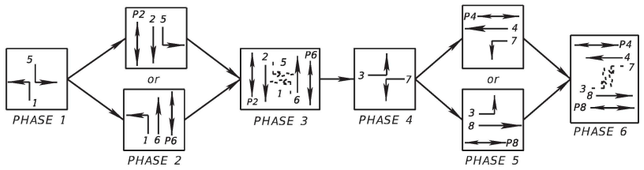
TRAFFIC SIGNAL HEAD DETAILS



PEDESTRIAN SIGNAL HEAD DETAILS



S.O.P. 10 (MOD)



EXISTING RADAR DETECTION

(R2) (R4)

(SEE VEHICLE DETECTION NOTES)

RADAR DETECTION PAY ITEMS

(R1) (R5) (R6) (R7) (R8)

660-3-12	2 EA
660-3-52	2 EA
660-3-62	1 EA

CABINET PAY ITEMS

632-7-1	1 PI
660-3-51	1 EA
671-2-40	1 EA

LEGEND:

- EXISTING SIGNAL HEAD
- RELOCATED SIGNAL HEAD
- PROPOSED SIGNAL HEAD
- EXISTING VEHICLE DETECTOR
- MODIFIED VEHICLE DETECTOR
- PROPOSED VEHICLE DETECTOR

RADAR DETECTION CONNECTION CHART

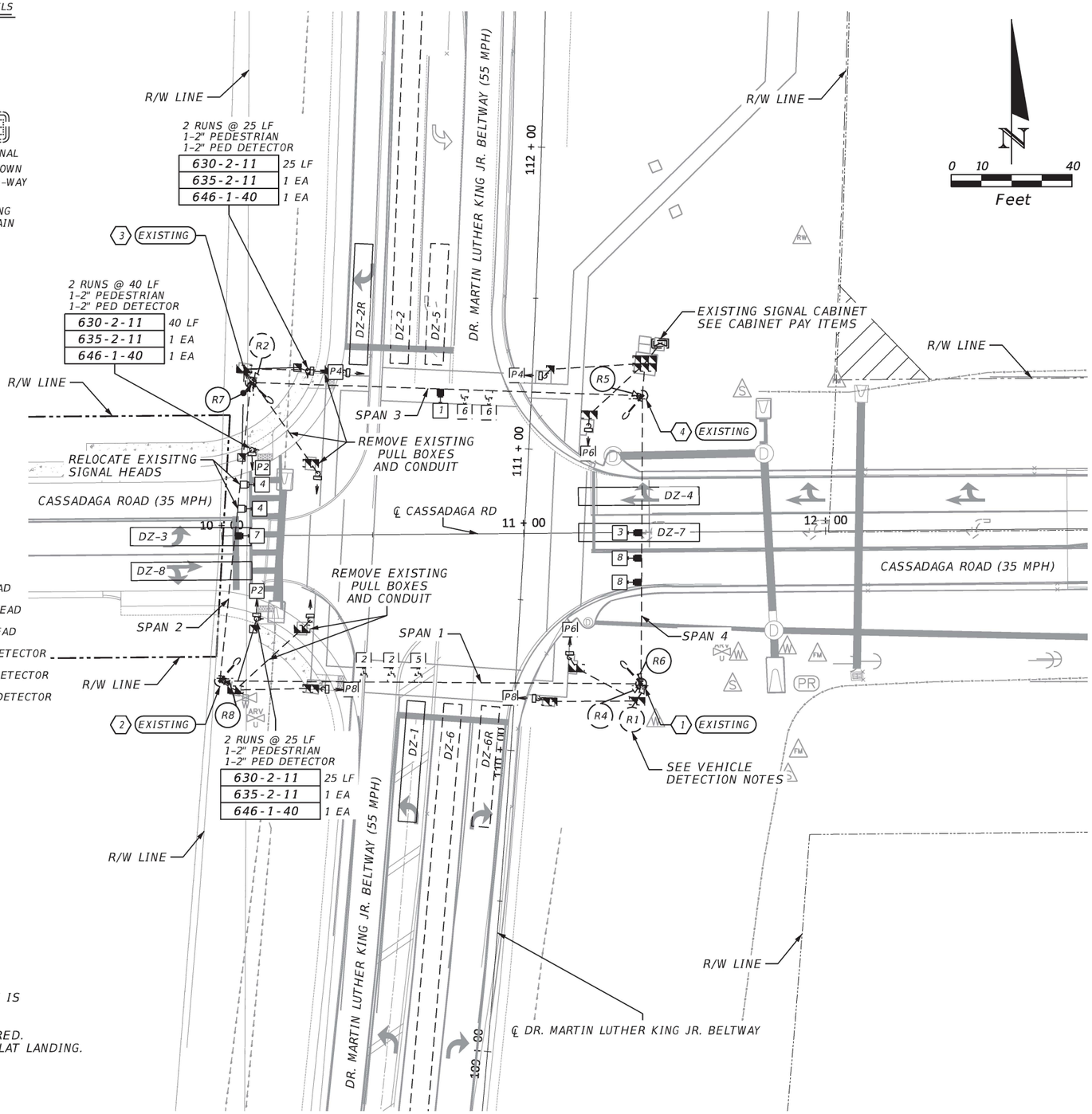
DETECTOR ID	DETECTION ZONE	DELAY TIME (SEC)	DETECTION ZONE DIMENSION	DETECTOR TYPE
R2	DZ-2	-	EXISTING	ADVANCE
R4	DZ-6	-	EXISTING	ADVANCE
R5	DZ-5	-	EXISTING	PRESENCE
	DZ-2R	10	6' X 40'	PRESENCE
R6	DZ-4	-	6' X 40'	PRESENCE
	DZ-7	-	6' X 40'	PRESENCE
R7	DZ-3	-	6' X 40'	PRESENCE
	DZ-8	-	6' X 40'	PRESENCE
R8	DZ-1	-	6' X 40'	PRESENCE
	DZ-6R	10	EXISTING	PRESENCE

SIZE AND PLACEMENT OF RADAR DETECTION ZONES ARE INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

INITIAL CONTROLLER TIMINGS

	PHASE	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
	TIMING FUNCTION								
	MOVEMENT NUMBER	1	2	3	4	5	6	7	8
TIMING FUNCTION	MINIMUM GREEN	5.0	10.0	5.0	7.0	5.0	10.0	5.0	7.0
	EXTENSION	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	MAXIMUM GREEN 1	30.0	70.0	30.0	60.0	30.0	70.0	30.0	60.0
	MAXIMUM GREEN 2	--	--	--	--	--	--	--	--
	YELLOW CLEARANCE	5.5	5.5	4.0	4.0	5.5	5.5	4.0	4.0
	ALL RED	3.0	2.0	3.0	2.1	3.0	2.0	3.0	2.1
	PEDESTRIAN WALK	--	7.0	--	7.0	--	7.0	--	7.0
	PED. CLEARANCE	--	13.0	--	18.0	--	19.0	--	18.0
	RECALL	--	MIN	--	--	--	MIN	--	--
	FLASH	R	Y	R	R	R	Y	R	R

SIGNAL TIMINGS TO BE ADJUSTED BY VOLUSIA COUNTY BASED ON THE OBSERVED TRAFFIC FLOW WITHIN TWO WEEKS AFTER INSTALLATION.



SIGNALIZATION NOTES:

1. THE MAJOR STREET IS DR. MARTIN LUTHER KING JR. BELTWAY (SPEED LIMIT 55 MPH) AND THE MINOR STREET IS CASSADAGA ROAD (SPEED LIMIT 35 MPH).
2. THE MAJOR STREET MOVEMENTS ARE 1,2,5&6, AND THE MINOR STREET MOVEMENTS ARE 3,4,7&8.
3. DURING FLASH OPERATION, MOVEMENTS 2&6 SHALL FLASH YELLOW, AND MOVEMENT 1,3,4,5,7&8 SHALL FLASH RED.
4. CONTRACTOR TO ENSURE ALL PEDESTRIAN DETECTORS ARE IMMEDIATELY ADJACENT TO A MINIMUM 48" X 48" FLAT LANDING.
5. CONTRACTOR SHALL USE EXISITNG CONDUIT UNLESS OTHERWISE NOTED ON THE PLANS.

VEHICLE DETECTION NOTES:

1. REMOVE DETECTOR R1. EXISTING CABLE TO REMAIN.
2. RELOCATE DETECTOR R5 FROM POLE 3 TO POLE 4. UTILIZE CABLE FROM REMOVED DETECTOR R3.
3. RELOCATE DETECTOR R6 FROM POLE 3 TO POLE 1. UTILIZE CABLE FROM REMOVED DETECTOR R1.
4. DETECTOR R7 TO UTILIZE CABLE FROM RELOCATED DETECTOR R5.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BLVD, SUITE 265
ORLANDO, FL 32803
OFFICE: (407) 531-5332
FAX: (407) 531-5331
JEREMY M. CROWE, P.E. 77064
CERTIFICATE OF AUTHORIZATION NO.:30024

Volusia County FLORIDA

SIGNALIZATION PLAN SIGNAL NO. 471

SHEET NO. T-5

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

4/24/2024 3:07:31 PM kv
P:\21145.1 Cassadaga Rd & Dr Martin Luther King Jr Beltway SIG DES\300 - CADD\Signalization\PLANS601.dgn

Appendix K
Excerpts of TM BTR TIAs

Project No. 22012 TM BTR Deland, v1.1

Intersection Volumes

Period	Tgen	Enter	Exit	DR MLK	SF	AGR	Years	Legend
AM Peak		23	72	4.30%	0.00	2.00%	3	Backg'd + (Project) = Total

Intersection= Orange Camp Rd & Dr. MLK Jr Bltwy — 1

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	46	1.00	46	1.06		49	0				0	49	49
EB	T	463	1.00	463	1.06		491	0				0	491	491
	R	55	1.00	55	1.06		58	0	38	5%		1	97	58 + [38] + (1) = 97
	L	42	1.00	42	1.06		45	0	70	5%		1	116	45 + [70] + (1) = 116
WB	T	343	1.00	343	1.06		364	0				0	364	364
	R	136	1.00	136	1.06		144	0				0	144	144
	L	158	1.00	158	1.13		178	0	14		5%	4	196	178 + [14] + (4) = 196
NB	T	369	1.00	369	1.13		417	0	20		10%	7	444	417 + [20] + (7) = 444
	R	42	1.00	42	1.13		47	0	25		5%	4	76	47 + [25] + (4) = 76
	L	331	1.00	331	1.13		374	0				0	374	374
SB	T	248	1.00	248	1.13		280	0	51	10%		2	333	280 + [51] + (2) = 333
	R	41	1.00	41	1.13		46	0				0	46	46

Intersection= Cassadaga Rd & Dr. MLK Jr Bltwy — 2

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	0	1.00	0	1.06		0	0				0	0	
EB	T	0	1.00	0	1.06		0	0				0	0	
	R	0	1.00	0	1.06		0	0				0	0	
	L	227	1.00	227	1.06		241	0	12		70%	50	303	241 + [12] + (50) = 303
WB	T	0	1.00	0	1.06		0	0				0	0	
	R	54	1.00	54	1.06		57	0	39		5%	4	100	57 + [39] + (4) = 100
	L	0	1.00	0	1.13		0	0				0	0	
NB	T	343	1.00	343	1.13		387	0	38		20%	14	439	387 + [38] + (14) = 439
	R	240	1.00	240	1.13		271	0	14			0	285	271 + [14] = 285
	L	77	1.00	77	1.13		87	0	70	25%		6	163	87 + [70] + (6) = 163
SB	T	360	1.00	360	1.13		406	0	143			0	549	406 + [143] = 549
	R	0	1.00	0	1.13		0	0				0	0	

Intersection= SR 472 & Dr. MLK Jr Bltwy — 3

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	88	1.00	88	1.06		93	0	21	15%		3	117	93 + [21] + (3) = 117
EB	T	915	1.00	915	1.06		970	0	82			0	1052	970 + [82] + = 1052
	R	103	1.00	103	1.06		109	0				0	109	109
	L	106	1.00	106	1.06		112	0	19			0	131	112 + [19] = 131
WB	T	864	1.00	864	1.06		916	0	34			0	950	916 + [34] = 950
	R	289	1.00	289	1.06		306	0	23	35%		8	337	306 + [23] + (8) = 337
	L	138	1.00	138	1.13		156	0				0	156	156
NB	T	185	1.00	185	1.13		209	0	9	20%		5	223	209 + [9] + (5) = 223
	R	56	1.00	56	1.13		63	0	56			0	119	63 + [56] = 119
	L	212	1.00	212	1.13		239	0	116		35%	25	380	239 + [116] + (25) = 380
SB	T	320	1.00	320	1.13		361	0	3		20%	14	378	361 + [3] + (14) = 378
	R	57	1.00	57	1.13		64	0	5		15%	11	80	64 + [5] + (11) = 80

Intersection= Kentucky Ave & Graves Ave — 4

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	159	1.00	159	1.00		159	0	46	15%		3	208	159 + [46] + (3) = 208
EB	T	359	1.00	359	1.00		359	119				0	478	359 + {119} = 478
	R	4	1.00	4	1.00		4	0				0	4	4
	L	2	1.00	2	1.00		2	0				0	2	2
WB	T	598	1.00	598	1.00		598	146				0	744	598 + {146} = 744
	R	204	1.00	204	1.00		204	0	13	5%		2	219	204 + [13] + (2) = 219
	L	6	1.00	6	1.13		7	0				0	7	7
NB	T	10	1.00	10	1.13		11	0				0	11	11
	R	9	1.00	9	1.13		10	0				0	10	10
	L	163	1.00	163	1.13		184	0	5		5%	4	193	184 + [5] + (4) = 193
SB	T	7	1.00	7	1.13		8	0				0	8	8
	R	361	1.00	361	1.13		408	0	18		15%	11	437	408 + [18] + (11) = 437

Project No. 22012 TM BTR Deland, v1.1

Intersection Volumes

Period	Tgen	Enter	Exit	DR MLK	SF	AGR	Years	Legend
PM Peak		76	45	4.30%	0.00	2.00%	3	Backg'd

Intersection= Orange Camp Rd & Dr. MLK Jr Bltwy — 1

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	53	1.00	53	1.06		56	0				0	56	56
EB	T	341	1.00	341	1.06		361	0				0	361	361
	R	103	1.00	103	1.06		109	0	33	5%		4	146	109 + [33] + (4) = 146
	L	68	1.00	68	1.06		72	0	60	5%		4	136	72 + [60] + (4) = 136
WB	T	454	1.00	454	1.06		481	0				0	481	481
	R	172	1.00	172	1.06		182	0				0	182	182
	L	256	1.00	256	1.13		289	0	54		5%	2	345	289 + [54] + (2) = 345
NB	T	355	1.00	355	1.13		401	0	73		10%	5	479	401 + [73] + (5) = 479
	R	40	1.00	40	1.13		45	0	92		5%	2	139	45 + [92] + (2) = 139
	L	244	1.00	244	1.13		275	0				0	275	275
SB	T	354	1.00	354	1.13		400	0	44	10%		8	452	400 + [44] + (8) = 452
	R	55	1.00	55	1.13		62	0				0	62	62

Intersection= Cassadaga Rd & Dr. MLK Jr Bltwy — 2

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	0	1.00	0	1.06		0	0				0	0	
EB	T	0	1.00	0	1.06		0	0				0	0	
	R	0	1.00	0	1.06		0	0				0	0	
	L	116	1.00	116	1.06		123	0	46		70%	32	201	123 + [46] + (32) = 201
WB	T	0	1.00	0	1.06		0	0				0	0	
	R	28	1.00	28	1.06		30	0	145		5%	2	177	30 + [145] + (2) = 177
	L	0	1.00	0	1.13		0	0				0	0	
NB	T	482	1.00	482	1.13		544	0	142		20%	9	695	544 + [142] + (9) = 695
	R	167	1.00	167	1.13		189	0	51			0	240	189 + [51] = 240
	L	59	1.00	59	1.13		67	0	60	25%		19	146	67 + [60] + (19) = 146
SB	T	570	1.00	570	1.13		644	0	123			0	767	644 + [123] = 767
	R	0	1.00	0	1.13		0	0				0	0	

Intersection= SR 472 & Dr. MLK Jr Bltwy — 3

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	109	1.00	109	1.06		116	0	18	15%		11	145	116 + [18] + (11) = 145
EB	T	1113	1.00	1,113	1.06		1180	0	71			0	1251	1180 + [71] = 1251
	R	137	1.00	137	1.06		145	0				0	145	145
	L	156	1.00	156	1.06		165	0	70			0	235	165 + [70] = 235
WB	T	844	1.00	844	1.06		895	0	127			0	1022	895 + [127] = 1022
	R	278	1.00	278	1.06		295	0	106	35%		27	428	295 + [106] + (27) = 428
	L	123	1.00	123	1.13		139	0				0	139	139
NB	T	271	1.00	271	1.13		306	0	8	20%		15	329	306 + [8] + (15) = 329
	R	83	1.00	83	1.13		94	0	48			0	142	94 + [48] = 142
	L	210	1.00	210	1.13		237	0	100		35%	16	353	237 + [100] + (16) = 353
SB	T	291	1.00	291	1.13		329	0	13		20%	9	351	329 + [13] + (9) = 351
	R	69	1.00	69	1.13		78	0	20		15%	7	105	78 + [20] + (7) = 105

Intersection= Kentucky Ave & Graves Ave — 4

Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	Vested	Tech Park	%Proj Ent	%Proj Ext	Project	Total	Formula
	L	336	1.00	336	1.00		336	0	40	15%		11	387	336 + [40] + (11) = 387
EB	T	677	1.00	677	1.00		677	146				0	823	677 + {146} = 823
	R	10	1.00	10	1.00		10	0				0	10	10
	L	13	1.00	13	1.00		13	0				0	13	13
WB	T	514	1.00	514	1.00		514	119				0	633	514 + {119} = 633
	R	139	1.00	139	1.00		139	0	11	5%		4	154	139 + [11] + (4) = 154
	L	17	1.00	17	1.13		19	0				0	19	19
NB	T	10	1.00	10	1.13		11	0				0	11	11
	R	9	1.00	9	1.13		10	0				0	10	10
	L	223	1.00	223	1.13		252	0	17		5%	2	271	252 + [17] + (2) = 271
SB	T	8	1.00	8	1.13		9	0				0	9	9
	R	350	1.00	350	1.13		395	0	66		15%	7	468	395 + [66] + (7) = 468

Appendix L
Projected Intersection Volume Calculation

Project No. 21145 Ford 472
Intersection Volumes

Analysis Period	Factors SF	AGR	Years	Tgen Enter	Exit	Legend
AM Peak	1.04	1.00%	4	30	91	Backg'd + (Tech Park) + [TM BTR] + (Project) = Total

Intersection: Dr. MLK Bltwy & Orange Camp Rd — 1

App	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Volumes
	L	0	160	1.04	**166**	1.04	**173**	14	4	**191**	0%	4%	**4**	**195**	173 + {14} + [4] + (4) = 195
NB	T	2	433	1.04	**450**	1.04	**468**	20	7	**495**	0%	8%	**7**	**502**	468 + {20} + [7] + (7) = 502
	R	0	50	1.04	**52**	1.04	**54**	25	4	**83**	0%	8%	**7**	**90**	54 + {25} + [4] + (7) = 90
	L	0	249	1.04	**259**	1.04	**269**			**269**	0%	0%	**0**	**269**	269
SB	T	2	231	1.04	**240**	1.04	**250**	51	2	**303**	8%	0%	**2**	**305**	250 + {51} + [2] + (2) = 305
	R	0	36	1.04	**37**	1.04	**38**			**38**	0%	0%	**0**	**38**	38
	L	0	47	1.04	**49**	1.05	**51**			**51**	0%	0%	**0**	**51**	51
EB	T	2	390	1.04	**406**	1.05	**425**			**425**	0%	0%	**0**	**425**	425
	R	1	50	1.04	**52**	1.05	**54**	38	1	**93**	4%	0%	**2**	**95**	54 + {38} + [1] + (2) = 95
	L	0	40	1.04	**42**	1.05	**44**	70	1	**115**	8%	0%	**2**	**117**	44 + {70} + [1] + (2) = 117
WB	T	2	302	1.04	**314**	1.05	**328**			**328**	0%	0%	**0**	**328**	328
	R	0	117	1.04	**122**	1.05	**128**			**128**	0%	0%	**0**	**128**	128

Intersection: Dr. MLK Bltwy & Cassadaga Rd — 2

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**1***			**1**	10%	0%	**3**	**4**	1 + (3) = 4
NB	T	1	305	1.04	317	1.04	**330**	38	14	**382**	0%	0%	**0**	**382**	330 + {38} + [14] = 382
	R	1	211	1.04	219	1.04	**228**	14		**242**	0%	0%	**0**	**242**	228 + {14} = 242
	L	1	61	1.04	63	1.04	**66**	70	6	**142**	0%	0%	**0**	**142**	66 + {70} + [6] = 142
SB	T	1	358	1.04	372	1.04	**387**	143		**530**	0%	0%	**0**	**530**	387 + {143} = 530
	R	0	0	1.04	0	1.04	**1***			**1**	20%	0%	**6**	**7**	1 + (6) = 7
	L	1	0	1.04	0	1.10	**2***			**2**	0%	20%	**18**	**20**	2 + {18} = 20
EB	T	1	0	1.04	0	1.10	**2***			**2**	0%	2%	**2**	**4**	2 + (2) = 4
	R	0	0	1.04	0	1.10	**3***			**3**	0%	10%	**9**	**12**	3 + {9} = 12
	L	1	198	1.04	206	1.10	**227**	12	50	**289**	0%	0%	**0**	**289**	227 + {12} + [50] = 289
WB	T	1	0	1.04	0	1.10	**0**			**0**	2%	0%	**1**	**1**	(1)
	R	0	53	1.04	55	1.10	**61**	39	4	**104**	0%	0%	**0**	**104**	61 + {39} + [4] = 104

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Dr. MLK Bltwy / Kentucky Ave & SR 472 — 3

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	128	1.04	133	1.08	**144**			**144**	3%	0%	**1**	**145**	144 + (1) = 145
NB	T	1	227	1.04	236	1.08	**255**	9	5	**269**	10%	0%	**3**	**272**	255 + {9} + [5] + (3) = 272
	R	1	55	1.04	57	1.08	**62**	56		**118**	0%	0%	**0**	**118**	62 + {56} = 118
	L	1	188	1.04	196	1.08	**212**	116	25	**353**	0%	0%	**0**	**353**	212 + {116} + [25] = 353
SB	T	1	311	1.04	323	1.08	**349**	3	14	**366**	0%	10%	**9**	**375**	349 + {3} + [14] + (9) = 375
	R	1	57	1.04	59	1.08	**64**	5	11	**80**	0%	0%	**0**	**80**	64 + {5} + [11] = 80
	L	1	60	1.04	62	1.04	**64**	21	3	**88**	0%	0%	**0**	**88**	64 + {21} + [3] = 88
EB	T	2	892	1.04	928	1.04	**965**	82		**1047**	0%	39%	**35**	**1082**	965 + {82} + (35) = 1082
	R	1	98	1.04	102	1.04	**106**			**106**	0%	3%	**3**	**109**	106 + (3) = 109
	L	1	97	1.04	101	1.04	**105**	19		**124**	0%	0%	**0**	**124**	105 + {19} = 124
WB	T	2	833	1.04	866	1.04	**901**	34		**935**	39%	0%	**11**	**946**	901 + {34} + (11) = 946
	R	1	231	1.04	240	1.04	**250**	23	8	**281**	0%	0%	**0**	**281**	250 + {23} + [8] = 281

Intersection: SR 472 & Blue Lake Ave (Ext.) — 4

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**8***			**8**	0%	42%	**38**	**46**	8 + (38) = 46
SB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	1	0	1.04	0	1.04	**8***			**8**	0%	26%	**24**	**32**	8 + (24) = 32
	L	1	0	1.04	0	1.04	**3***			**3**	26%	0%	**8**	**11**	3 + (8) = 11
EB	T	2	1050	1.04	1,092	1.04	**1136**	103	3	**1242**	0%	0%	**0**	**1242**	1136 + {103} + [3] = 1242
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	2	1018	1.04	1,059	1.04	**1101**	39	11	**1151**	0%	0%	**0**	**1151**	1101 + {39} + [11] = 1151
	R	1	0	1.04	0	1.04	**2***			**2**	42%	0%	**12**	**14**	2 + {12} = 14

EBT obtained adding EBT, SBL and NBR at the intersection of Howland Blvd (SR 472) and Minnesota Ave.
WBT obtained adding WBT, SBR and NBL at the intersection of MLK and SR 472.
Vested Trips from Tech Park and TM BTR estimated using vested trips from MLK and SR 472.
*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: SR 472 & Minnesota Ave — 5

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
NB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	7	1.04	7	1.04	**7**			**7**	0%	0%	**0**	**7**	7
	L	0	5	1.04	5	1.04	**5**			**5**	0%	0%	**0**	**5**	5
SB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
	L	1	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
EB	T	2	1038	1.04	1,080	1.04	**1123**	103	3	**1229**	26%	0%	**8**	**1237**	1123 + {103} + [3] + (8) = 1237
	R	1	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
	L	0	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
WB	T	2	1010	1.04	1,050	1.04	**1092**	39	11	**1142**	0%	26%	**24**	**1166**	1092 + {39} + [11] + (24) = 1166
	R	0	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4

Intersection: Cassadaga Rd (Ext.) & Access I — 6

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	1	0	1.04	0	1.04	**0**			**0**	0%	32%	**29**	**29**	(29)
SB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	38%	**35**	**35**	(35)
	L	1	0	1.04	0	1.04	**0**			**0**	38%	0%	**11**	**11**	(11)
EB	T	1	0	1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	1	0	1.04	0	1.04	**2***			**2**	0%	0%	**0**	**2**	2
	R	1	0	1.04	0	1.04	**0**			**0**	32%	0%	**10**	**10**	(10)

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Access II — 7

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1	0	1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
	R	1	0	1.04	0	1.04	**0**			**0**	30%	0%	**9**	**9**	(9)
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
SB	T	1	0	1.04	0	1.04	**23***			**23**	0%	0%	**0**	**23**	23
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
EB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	30%	**27**	**27**	(27)
WB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.) — 8

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1		1.04	0	1.04	**5***			**5**	30%	0%	**9**	**14**	5 + (9) = 14
	R	0		1.04	0	1.04	**0**			**0**	38%	0%	**11**	**11**	(11)
	L	0		1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
SB	T	1		1.04	0	1.04	**16***			**16**	0%	30%	**27**	**43**	16 + (27) = 43
	R	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
EB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	L	1		1.04	0	1.21	**0**			**0**	0%	38%	**35**	**35**	(35)
WB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	0		1.04	0	1.21	**2**			**2**	0%	0%	**0**	**2**	2

*Background Volumes Estimated using ITE Trip Generation Manual 11th Edition.

Project No. 21145 Ford 472
Intersection Volumes

Analysis Period	Factors SF	AGR	Years	Tgen Enter	Exit	Legend
PM Peak	1.04	1.00%	4	94	60	Backg'd + {Tech Park} + [TM BTR] + (Project) = Total

Intersection: Dr. MLK Bltwy & Orange Camp Rd — 1

App	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Volumes
	L	0	187	1.04	**194**	1.04	**202**	54	2	**258**	0%	4%	**2**	**260**	202 + {54} + [2] + (2) = 260
NB	T	2	450	1.04	**468**	1.04	**487**	73	5	**565**	0%	8%	**5**	**570**	487 + {73} + [5] + (5) = 570
	R	0	48	1.04	**50**	1.04	**52**	92	2	**146**	0%	8%	**5**	**151**	52 + {92} + [2] + (5) = 151
	L	0	251	1.04	**261**	1.04	**271**			**271**	0%	0%	**0**	**271**	271
SB	T	2	350	1.04	**364**	1.04	**379**	44	8	**431**	8%	0%	**8**	**439**	379 + {44} + [8] + (8) = 439
	R	0	44	1.04	**46**	1.04	**48**			**48**	0%	0%	**0**	**48**	48
	L	0	50	1.04	**52**	1.05	**54**			**54**	0%	0%	**0**	**54**	54
EB	T	2	372	1.04	**387**	1.05	**405**			**405**	0%	0%	**0**	**405**	405
	R	1	101	1.04	**105**	1.05	**110**	33	4	**147**	4%	0%	**3**	**150**	110 + {33} + [4] + (3) = 150
	L	0	53	1.04	**55**	1.05	**58**	60	4	**122**	8%	0%	**8**	**130**	58 + {60} + [4] + (8) = 130
WB	T	2	473	1.04	**492**	1.05	**514**			**514**	0%	0%	**0**	**514**	514
	R	0	161	1.04	**167**	1.05	**175**			**175**	0%	0%	**0**	**175**	175

Intersection: Dr. MLK Bltwy & Cassadaga Rd — 2

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**3***			**3**	10%	0%	**9**	**12**	3 + (9) = 12
NB	T	1	448	1.04	466	1.04	**485**	142	9	**636**	0%	0%	**0**	**636**	485 + {142} + [9] = 636
	R	1	167	1.04	174	1.04	**181**	51		**232**	0%	0%	**0**	**232**	181 + {51} = 232
	L	1	59	1.04	61	1.04	**63**	60	19	**142**	0%	0%	**0**	**142**	63 + {60} + [19] = 142
SB	T	1	536	1.04	557	1.04	**579**	123		**702**	0%	0%	**0**	**702**	579 + {123} = 702
	R	0	0	1.04	0	1.04	**3***			**3**	20%	0%	**19**	**22**	3 + (19) = 22
	L	1	0	1.04	0	1.10	**2***			**2**	0%	20%	**12**	**14**	2 + (12) = 14
EB	T	1	0	1.04	0	1.10	**0**			**0**	0%	2%	**1**	**1**	(1)
	R	0	0	1.04	0	1.10	**2***			**2**	0%	10%	**6**	**8**	2 + (6) = 8
	L	1	117	1.04	122	1.10	**134**	46	32	**212**	0%	0%	**0**	**212**	134 + {46} + [32] = 212
WB	T	1	0	1.04	0	1.10	**1***			**1**	2%	0%	**2**	**3**	1 + (2) = 3
	R	0	37	1.04	38	1.10	**42**	145	2	**189**	0%	0%	**0**	**189**	42 + {145} + [2] = 189

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Dr. MLK Bltwy / Kentucky Ave & SR 472 — 3

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	103	1.04	107	1.08	**116**			**116**	3%	0%	**3**	**119**	116 + (3) = 119
NB	T	1	256	1.04	266	1.08	**287**	8	15	**310**	10%	0%	**9**	**319**	287 + (8) + [15] + (9) = 319
	R	1	66	1.04	69	1.08	**75**	48		**123**	0%	0%	**0**	**123**	75 + {48} = 123
	L	1	226	1.04	235	1.08	**254**	100	16	**370**	0%	0%	**0**	**370**	254 + {100} + [16] = 370
SB	T	1	355	1.04	369	1.08	**399**	13	9	**421**	0%	10%	**6**	**427**	399 + {13} + [9] + (6) = 427
	R	1	72	1.04	75	1.08	**81**	20	7	**108**	0%	0%	**0**	**108**	81 + {20} + [7] = 108
	L	1	81	1.04	84	1.04	**87**	18	11	**116**	0%	0%	**0**	**116**	87 + {18} + [11] = 116
EB	T	2	1018	1.04	1,059	1.04	**1101**	71		**1172**	0%	39%	**23**	**1195**	1101 + {71} + (23) = 1195
	R	1	128	1.04	133	1.04	**138**			**138**	0%	3%	**2**	**140**	138 + {2} = 140
	L	1	158	1.04	164	1.04	**171**	70		**241**	0%	0%	**0**	**241**	171 + {70} = 241
WB	T	2	821	1.04	854	1.04	**888**	127		**1015**	39%	0%	**37**	**1052**	888 + {127} + (37) = 1052
	R	1	278	1.04	289	1.04	**301**	106	27	**434**	0%	0%	**0**	**434**	301 + {106} + [27] = 434

Intersection: SR 472 & Blue Lake Ave (Ext.) — 4

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**6***			**6**	0%	42%	**25**	**31**	6 + (25) = 31
SB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	1	0	1.04	0	1.04	**4***			**4**	0%	26%	**16**	**20**	4 + (16) = 20
	L	1	0	1.04	0	1.04	**10***			**10**	26%	0%	**24**	**34**	10 + (24) = 34
EB	T	2	1261	1.04	1,311	1.04	**1363**	89	11	**1463**	0%	0%	**0**	**1463**	1363 + {89} + [11] = 1463
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	2	996	1.04	1,036	1.04	**1077**	147	7	**1231**	0%	0%	**0**	**1231**	1077 + {147} + [7] = 1231
	R	1	0	1.04	0	1.04	**7***			**7**	42%	0%	**40**	**47**	7 + (40) = 47

EBT obtained addnq EBT, SBL and NBR at the intersection of Howland Blvd (SR 472) and Minnesota Ave.
WBT obtained addnq WBT, SBR and NBL at the intersection of MLK and SR 472.
Vested Trips from Tech Park and TM BTR estimated using vested trips from MLK and SR 472.
*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: SR 472 & Minnesota Ave — 5

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
NB	T	1	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	14	1.04	15	1.04	**16**			**16**	0%	0%	**0**	**16**	16
	L	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
SB	T	1	1	1.04	1	1.04	**1**			**1**	0%	0%	**0**	**1**	1
	R	0	3	1.04	3	1.04	**3**			**3**	0%	0%	**0**	**3**	3
	L	1	4	1.04	4	1.04	**4**			**4**	0%	0%	**0**	**4**	4
EB	T	2	1244	1.04	1,294	1.04	**1346**	89	11	**1446**	26%	0%	**24**	**1470**	1346 + {89} + [11] + (24) = 1470
	R	1	13	1.04	14	1.04	**15**			**15**	0%	0%	**0**	**15**	15
	L	0	14	1.04	15	1.04	**16**			**16**	0%	0%	**0**	**16**	16
WB	T	2	980	1.04	1,019	1.04	**1060**	147	7	**1214**	0%	26%	**16**	**1230**	1060 + {147} + [7] + (16) = 1230
	R	0	2	1.04	2	1.04	**2**			**2**	0%	0%	**0**	**2**	2

Intersection: Cassadaga Rd (Ext.) & Access I — 6

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	1	0	1.04	0	1.04	**0**			**0**	0%	32%	**19**	**19**	(19)
SB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	38%	**23**	**23**	(23)
	L	1	0	1.04	0	1.04	**0**			**0**	38%	0%	**36**	**36**	(36)
EB	T	1	0	1.04	0	1.04	**4***			**4**	0%	0%	**0**	**4**	4
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
WB	T	1	0	1.04	0	1.04	**7***			**7**	0%	0%	**0**	**7**	7
	R	1	0	1.04	0	1.04	**0**			**0**	32%	0%	**30**	**30**	(30)

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Access II — 7

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Tech Park	TM BTR	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1	0	1.04	0	1.04	**24***			**24**	0%	0%	**0**	**24**	24
	R	1	0	1.04	0	1.04	**0**			**0**	30%	0%	**28**	**28**	(28)
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
SB	T	1	0	1.04	0	1.04	**14***			**14**	0%	0%	**0**	**14**	14
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
EB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	L	0	0	1.04	0	1.04	**0**			**0**	0%	30%	**18**	**18**	(18)
WB	T	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
	R	0	0	1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Intersection: Blue Lake Ave (Ext.) & Cassadaga Rd (Ext.) — 8

Appr	Mvmt	Lns	Raw	SF	Adjusted	GR	Adj Bg'd	Redirect	Vested	Bg'd+Vested	ProjIn	ProjOut	Project	BldOut	Formula
	L	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
NB	T	1		1.04	0	1.04	**17***			**17**	30%	0%	**28**	**45**	17 + (28) = 45
	R	0		1.04	0	1.04	**0**			**0**	38%	0%	**36**	**36**	(36)
	L	0		1.04	0	1.04	**0**			**0**	0%	0%	**0**	**0**	
SB	T	1		1.04	0	1.04	**17***			**17**	0%	30%	**18**	**35**	17 + (18) = 35
	R	0		1.04	0	1.04	**4***			**4**	0%	0%	**4**	**4**	4
	L	0		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
EB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	L	1		1.04	0	1.21	**0**			**0**	0%	38%	**23**	**23**	(23)
WB	T	1		1.04	0	1.21	**0**			**0**	0%	0%	**0**	**0**	
	R	0		1.04	0	1.21	**7***			**7**	0%	0%	**0**	**7**	7

*Background Volumes Estimated using *ITE Trip Generation Manual 11th Edition*.

Appendix M
HCM Analysis Worksheets

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	546	514	718	576
Demand Flow Rate, veh/h	568	530	734	591
Vehicles Circulating, veh/h	595	737	793	573
Vehicles Exiting, veh/h	569	790	370	694
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	9.9	14.0	8.6
Approach LOS	A	A	B	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	267	301	249	281	345	389	278	313
Cap Entry Lane, veh/h	781	856	685	759	651	724	797	873
Entry HV Adj Factor	0.962	0.962	0.971	0.970	0.979	0.979	0.974	0.975
Flow Entry, veh/h	257	290	242	273	338	381	271	305
Cap Entry, veh/h	751	824	665	736	637	708	776	851
V/C Ratio	0.342	0.351	0.363	0.370	0.530	0.538	0.349	0.359
Control Delay, s/veh	9.0	8.5	10.3	9.6	14.5	13.5	8.9	8.4
LOS	A	A	B	A	B	B	A	A
95th %tile Queue, veh	2	2	2	2	3	3	2	2

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	612	615	826	656
Demand Flow Rate, veh/h	639	634	844	674
Vehicles Circulating, veh/h	759	816	828	697
Vehicles Exiting, veh/h	612	856	570	753
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.8	12.7	17.7	11.2
Approach LOS	B	B	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.470	0.530	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	300	339	298	336	397	447	317	357
Cap Entry Lane, veh/h	672	745	637	710	630	702	711	785
Entry HV Adj Factor	0.959	0.957	0.970	0.970	0.978	0.980	0.973	0.975
Flow Entry, veh/h	288	324	289	326	388	438	309	348
Cap Entry, veh/h	644	713	618	688	617	688	692	765
V/C Ratio	0.447	0.455	0.468	0.473	0.630	0.636	0.446	0.455
Control Delay, s/veh	12.3	11.5	13.2	12.2	18.4	17.1	11.6	10.8
LOS	B	B	B	B	C	C	B	B
95th %tile Queue, veh	2	2	2	3	4	5	2	2

Intersection	
Intersection Delay, s/veh	14.0
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	614	617	847	658
Demand Flow Rate, veh/h	641	636	865	676
Vehicles Circulating, veh/h	763	829	828	704
Vehicles Exiting, veh/h	617	864	576	761
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.9	12.9	18.4	11.3
Approach LOS	B	B	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	301	340	299	337	407	458	318	358
Cap Entry Lane, veh/h	669	742	630	702	630	702	706	781
Entry HV Adj Factor	0.959	0.957	0.970	0.970	0.978	0.980	0.973	0.975
Flow Entry, veh/h	289	325	290	327	398	449	309	349
Cap Entry, veh/h	641	710	611	681	617	689	687	761
V/C Ratio	0.450	0.458	0.475	0.480	0.646	0.652	0.450	0.459
Control Delay, s/veh	12.4	11.6	13.5	12.5	19.1	17.7	11.7	11.0
LOS	B	B	B	B	C	C	B	B
95th %tile Queue, veh	2	2	3	3	5	5	2	2

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	550	722	720	678
Demand Flow Rate, veh/h	576	744	735	696
Vehicles Circulating, veh/h	705	743	732	765
Vehicles Exiting, veh/h	756	724	549	722
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.2	13.2	12.7	12.7
Approach LOS	B	B	B	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	271	305	350	394	345	390	327	369
Cap Entry Lane, veh/h	706	780	681	755	688	762	668	741
Entry HV Adj Factor	0.954	0.956	0.970	0.971	0.980	0.978	0.974	0.973
Flow Entry, veh/h	259	292	339	383	338	381	318	359
Cap Entry, veh/h	673	746	661	733	675	745	650	721
V/C Ratio	0.384	0.391	0.514	0.522	0.501	0.512	0.490	0.498
Control Delay, s/veh	10.6	9.9	13.6	12.7	13.1	12.3	13.2	12.3
LOS	B	A	B	B	B	B	B	B
95th %tile Queue, veh	2	2	3	3	3	3	3	3

Intersection	
Intersection Delay, s/veh	19.0
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	612	819	979	757
Demand Flow Rate, veh/h	642	844	999	777
Vehicles Circulating, veh/h	853	912	763	922
Vehicles Exiting, veh/h	846	850	732	834
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	13.7	21.3	20.3	19.0
Approach LOS	B	C	C	C

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	302	340	397	447	470	529	365	412
Cap Entry Lane, veh/h	616	688	583	654	669	742	578	649
Entry HV Adj Factor	0.952	0.954	0.969	0.971	0.979	0.980	0.975	0.974
Flow Entry, veh/h	288	324	385	434	460	519	356	401
Cap Entry, veh/h	586	656	565	635	655	728	564	632
V/C Ratio	0.490	0.494	0.681	0.683	0.702	0.713	0.631	0.635
Control Delay, s/veh	14.4	13.2	22.3	20.4	20.9	19.8	19.8	18.3
LOS	B	B	C	C	C	C	C	C
95th %tile Queue, veh	3	3	5	5	6	6	4	5

Intersection	
Intersection Delay, s/veh	19.6
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	617	827	992	765
Demand Flow Rate, veh/h	648	852	1014	785
Vehicles Circulating, veh/h	869	920	763	932
Vehicles Exiting, veh/h	848	857	754	840
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	14.2	22.0	20.9	19.7
Approach LOS	B	C	C	C

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.471	0.529	0.469	0.531	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	305	343	400	452	477	537	369	416
Cap Entry Lane, veh/h	607	678	579	650	669	742	573	643
Entry HV Adj Factor	0.951	0.953	0.971	0.969	0.978	0.980	0.975	0.975
Flow Entry, veh/h	290	327	389	438	466	526	360	406
Cap Entry, veh/h	577	647	562	630	654	727	558	627
V/C Ratio	0.503	0.506	0.691	0.696	0.713	0.723	0.644	0.647
Control Delay, s/veh	14.9	13.7	22.9	21.2	21.5	20.4	20.6	18.9
LOS	B	B	C	C	C	C	C	C
95th %tile Queue, veh	3	3	5	6	6	6	5	5



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	55	317	219	63	372
Future Volume (veh/h)	206	55	317	219	63	372
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1870
Adj Flow Rate, veh/h	226	48	348	188	69	409
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	2	2	4	2
Cap, veh/h	298	265	630	534	409	1023
Arrive On Green	0.17	0.17	0.34	0.34	0.06	0.55
Sat Flow, veh/h	1753	1560	1870	1585	1753	1870
Grp Volume(v), veh/h	226	48	348	188	69	409
Grp Sat Flow(s),veh/h/ln	1753	1560	1870	1585	1753	1870
Q Serve(g_s), s	6.2	1.3	7.7	4.5	1.2	6.4
Cycle Q Clear(g_c), s	6.2	1.3	7.7	4.5	1.2	6.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	298	265	630	534	409	1023
V/C Ratio(X)	0.76	0.18	0.55	0.35	0.17	0.40
Avail Cap(c_a), veh/h	632	562	908	769	666	1575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	17.9	13.6	12.6	9.3	6.6
Incr Delay (d2), s/veh	4.0	0.3	0.8	0.4	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	2.3	4.3	7.9	0.5	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.9	18.3	14.4	13.0	9.5	6.9
LnGrp LOS	C	B	B	B	A	A
Approach Vol, veh/h	274		536			478
Approach Delay, s/veh	22.9		13.9			7.3
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.1		15.4	10.6	24.5
Change Period (Y+Rc), s		7.5		6.8	7.5	7.5
Max Green Setting (Gmax), s		42.5		18.2	10.5	24.5
Max Q Clear Time (g_c+I1), s		8.4		8.2	3.2	9.7
Green Ext Time (p_c), s		2.2		0.6	0.1	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	13.4
HCM 7th LOS	B

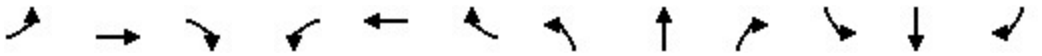
HCM 7th Signalized Intersection Summary
2: Dr MLK Bltwy & Cassadaga Rd Ext/Cassadaga Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	3	289	0	104	1	382	242	142	530	1
Future Volume (veh/h)	2	2	3	289	0	104	1	382	242	142	530	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	2	2	2	318	0	102	1	420	213	156	582	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	307	69	69	532	0	328	153	512	434	295	673	1
Arrive On Green	0.06	0.08	0.08	0.19	0.00	0.21	0.00	0.27	0.27	0.09	0.36	0.36
Sat Flow, veh/h	1781	858	858	1753	0	1585	1781	1870	1585	1753	1867	3
Grp Volume(v), veh/h	2	0	4	318	0	102	1	420	213	156	0	583
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1753	0	1585	1781	1870	1585	1753	0	1870
Q Serve(g_s), s	0.1	0.0	0.2	12.3	0.0	4.3	0.0	16.6	8.9	4.9	0.0	22.9
Cycle Q Clear(g_c), s	0.1	0.0	0.2	12.3	0.0	4.3	0.0	16.6	8.9	4.9	0.0	22.9
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	307	0	138	532	0	328	153	512	434	295	0	674
V/C Ratio(X)	0.01	0.00	0.03	0.60	0.00	0.31	0.01	0.82	0.49	0.53	0.00	0.86
Avail Cap(c_a), veh/h	713	0	1170	710	0	1081	635	1479	1253	618	0	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	33.5	24.0	0.0	26.6	22.4	26.9	24.1	19.7	0.0	23.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	0.5	0.0	3.3	0.9	1.5	0.0	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.1	8.6	0.0	2.9	0.0	11.2	6.0	3.3	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.0	0.0	33.6	25.1	0.0	27.1	22.4	30.2	24.9	21.2	0.0	27.0
LnGrp LOS	C		C	C		C	C	C	C	C		C
Approach Vol, veh/h		6			420			634			739	
Approach Delay, s/veh		32.1			25.6			28.4			25.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	36.0	12.0	22.4	15.5	29.1	22.0	12.4
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.0	24.9	2.1	6.3	6.9	18.6	14.3	2.2
Green Ext Time (p_c), s	0.0	3.5	0.0	0.6	0.3	3.0	0.6	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C

HCM 7th Signalized Intersection Summary
2: Dr MLK Bltwy & Cassadaga Rd Ext/Cassadaga Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	4	12	289	1	104	4	382	242	142	530	7
Future Volume (veh/h)	20	4	12	289	1	104	4	382	242	142	530	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	22	4	13	318	1	102	4	420	213	156	582	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	309	32	105	523	3	330	156	516	437	296	671	568
Arrive On Green	0.06	0.08	0.08	0.19	0.21	0.21	0.01	0.28	0.28	0.09	0.36	0.36
Sat Flow, veh/h	1781	387	1257	1753	15	1572	1781	1870	1585	1753	1870	1585
Grp Volume(v), veh/h	22	0	17	318	0	103	4	420	213	156	582	8
Grp Sat Flow(s),veh/h/ln	1781	0	1644	1753	0	1587	1781	1870	1585	1753	1870	1585
Q Serve(g_s), s	0.9	0.0	0.8	12.5	0.0	4.4	0.1	16.8	9.0	5.0	23.2	0.3
Cycle Q Clear(g_c), s	0.9	0.0	0.8	12.5	0.0	4.4	0.1	16.8	9.0	5.0	23.2	0.3
Prop In Lane	1.00		0.76	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	0	138	523	0	333	156	516	437	296	671	568
V/C Ratio(X)	0.07	0.00	0.12	0.61	0.00	0.31	0.03	0.81	0.49	0.53	0.87	0.01
Avail Cap(c_a), veh/h	710	0	1108	696	0	1069	626	1461	1238	613	1461	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	33.9	24.2	0.0	26.7	22.4	27.0	24.2	19.9	23.9	16.5
Incr Delay (d2), s/veh	0.1	0.0	0.4	1.1	0.0	0.5	0.1	3.2	0.8	1.5	3.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	0.6	8.7	0.0	3.0	0.1	11.3	6.0	3.3	14.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.6	0.0	34.3	25.3	0.0	27.2	22.5	30.2	25.1	21.4	27.5	16.6
LnGrp LOS	C		C	C		C	C	C	C	C	C	B
Approach Vol, veh/h		39			421			637			746	
Approach Delay, s/veh		31.7			25.8			28.4			26.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	36.2	12.0	22.9	15.5	29.6	22.1	12.8
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.1	25.2	2.9	6.4	7.0	18.8	14.5	2.8
Green Ext Time (p_c), s	0.0	3.5	0.0	0.7	0.3	3.0	0.6	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	27.0
HCM 7th LOS	C

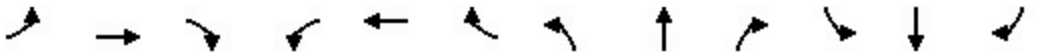


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	122	38	466	174	61	557
Future Volume (veh/h)	122	38	466	174	61	557
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1870
Adj Flow Rate, veh/h	131	29	501	135	66	599
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	2	2	4	2
Cap, veh/h	226	201	664	563	350	1071
Arrive On Green	0.13	0.13	0.35	0.35	0.06	0.57
Sat Flow, veh/h	1753	1560	1870	1585	1753	1870
Grp Volume(v), veh/h	131	29	501	135	66	599
Grp Sat Flow(s),veh/h/ln	1753	1560	1870	1585	1753	1870
Q Serve(g_s), s	3.4	0.8	11.3	2.9	1.0	9.6
Cycle Q Clear(g_c), s	3.4	0.8	11.3	2.9	1.0	9.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	226	201	664	563	350	1071
V/C Ratio(X)	0.58	0.14	0.75	0.24	0.19	0.56
Avail Cap(c_a), veh/h	666	593	957	811	627	1660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	18.5	13.6	10.9	9.3	6.4
Incr Delay (d2), s/veh	2.4	0.3	2.1	0.2	0.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	1.3	6.3	5.4	0.4	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	22.0	18.8	15.7	11.1	9.6	6.9
LnGrp LOS	C	B	B	B	A	A
Approach Vol, veh/h	160		636			665
Approach Delay, s/veh	21.4		14.7			7.2
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.9		13.0	10.4	24.5
Change Period (Y+Rc), s		7.5		6.8	7.5	7.5
Max Green Setting (Gmax), s		42.5		18.2	10.5	24.5
Max Q Clear Time (g_c+I1), s		11.6		5.4	3.0	13.3
Green Ext Time (p_c), s		3.6		0.3	0.1	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

HCM 7th Signalized Intersection Summary
2: Dr MLK Bltwy & Cassadaga Rd Ext/Cassadaga Rd

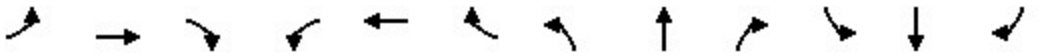


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	2	212	0	189	3	636	232	142	702	3
Future Volume (veh/h)	2	0	2	212	0	189	3	636	232	142	702	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	2	0	2	228	0	191	3	684	197	153	755	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	222	0	115	420	0	255	170	770	652	246	893	4
Arrive On Green	0.05	0.00	0.07	0.14	0.00	0.16	0.00	0.41	0.41	0.07	0.48	0.48
Sat Flow, veh/h	1781	0	1585	1753	0	1585	1781	1870	1585	1753	1862	7
Grp Volume(v), veh/h	2	0	2	228	0	191	3	684	197	153	0	758
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1753	0	1585	1781	1870	1585	1753	0	1869
Q Serve(g_s), s	0.1	0.0	0.1	11.0	0.0	11.0	0.1	32.5	8.0	4.7	0.0	34.0
Cycle Q Clear(g_c), s	0.1	0.0	0.1	11.0	0.0	11.0	0.1	32.5	8.0	4.7	0.0	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	222	0	115	420	0	255	170	770	652	246	0	897
V/C Ratio(X)	0.01	0.00	0.02	0.54	0.00	0.75	0.02	0.89	0.30	0.62	0.00	0.85
Avail Cap(c_a), veh/h	557	0	891	595	0	891	563	1220	1034	513	0	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	41.3	32.4	0.0	38.4	20.4	26.2	18.9	21.1	0.0	21.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	4.4	0.0	5.3	0.3	2.5	0.0	4.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.1	8.2	0.0	8.0	0.1	19.8	5.3	3.2	0.0	19.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.8	0.0	41.3	33.5	0.0	42.8	20.4	31.4	19.2	23.6	0.0	26.0
LnGrp LOS	D		D	C		D	C	C	B	C		C
Approach Vol, veh/h		4			419			884			911	
Approach Delay, s/veh		39.1			37.7			28.7			25.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	53.5	12.0	21.5	15.4	47.0	20.4	13.1
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.1	36.0	2.1	13.0	6.7	34.5	13.0	2.1
Green Ext Time (p_c), s	0.0	4.9	0.0	1.3	0.3	4.9	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C

HCM 7th Signalized Intersection Summary
2: Dr MLK Bltwy & Cassadaga Rd Ext/Cassadaga Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1	8	212	3	189	12	636	232	142	702	22
Future Volume (veh/h)	14	1	8	212	3	189	12	636	232	142	702	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1870	1841	1870	1870	1870	1841	1870	1870
Adj Flow Rate, veh/h	15	1	9	228	3	191	13	684	197	153	755	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	4	2	4	2	2	2	4	2	2
Cap, veh/h	220	12	105	413	4	251	178	770	652	246	876	742
Arrive On Green	0.05	0.07	0.07	0.14	0.16	0.16	0.02	0.41	0.41	0.07	0.47	0.47
Sat Flow, veh/h	1781	161	1449	1753	25	1564	1781	1870	1585	1753	1870	1585
Grp Volume(v), veh/h	15	0	10	228	0	194	13	684	197	153	755	24
Grp Sat Flow(s),veh/h/ln	1781	0	1610	1753	0	1589	1781	1870	1585	1753	1870	1585
Q Serve(g_s), s	0.7	0.0	0.6	11.0	0.0	11.2	0.4	32.5	8.0	4.7	34.5	0.8
Cycle Q Clear(g_c), s	0.7	0.0	0.6	11.0	0.0	11.2	0.4	32.5	8.0	4.7	34.5	0.8
Prop In Lane	1.00		0.90	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	0	117	413	0	255	178	770	652	246	876	742
V/C Ratio(X)	0.07	0.00	0.09	0.55	0.00	0.76	0.07	0.89	0.30	0.62	0.86	0.03
Avail Cap(c_a), veh/h	555	0	905	588	0	893	550	1219	1033	513	1219	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	41.5	32.4	0.0	38.5	20.4	26.2	19.0	21.1	22.7	13.8
Incr Delay (d2), s/veh	0.1	0.0	0.3	1.2	0.0	4.6	0.2	5.3	0.3	2.5	4.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.4	8.2	0.0	8.1	0.3	19.8	5.3	3.2	20.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.2	0.0	41.8	33.6	0.0	43.1	20.5	31.4	19.2	23.7	27.5	13.8
LnGrp LOS	D		D	C		D	C	C	B	C	C	B
Approach Vol, veh/h		25			422			894			932	
Approach Delay, s/veh		39.0			37.9			28.6			26.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	52.4	12.0	21.5	15.4	47.0	20.4	13.1
Change Period (Y+Rc), s	8.5	7.5	7.0	6.1	8.5	7.5	7.0	6.1
Max Green Setting (Gmax), s	21.5	62.5	23.0	53.9	21.5	62.5	23.0	53.9
Max Q Clear Time (g_c+I1), s	2.4	36.5	2.7	13.2	6.7	34.5	13.0	2.6
Green Ext Time (p_c), s	0.0	4.9	0.0	1.3	0.3	4.9	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.6
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	928	102	101	866	240	133	236	57	196	323	59
Future Volume (veh/h)	62	928	102	101	866	240	133	236	57	196	323	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	65	977	74	106	912	161	140	248	0	206	340	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	83	1154	494	127	1233	545	123	217		325	334	
Arrive On Green	0.05	0.32	0.32	0.07	0.35	0.35	0.19	0.19	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	652	1156	1572	1781	1826	1585
Grp Volume(v), veh/h	65	977	74	106	912	161	388	0	0	206	340	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1808	0	1572	1781	1826	1585
Q Serve(g_s), s	5.4	38.4	5.2	8.8	34.0	11.2	28.2	0.0	0.0	16.0	27.4	0.0
Cycle Q Clear(g_c), s	5.4	38.4	5.2	8.8	34.0	11.2	28.2	0.0	0.0	16.0	27.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.36		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	1154	494	127	1233	545	340	0		325	334	
V/C Ratio(X)	0.79	0.85	0.15	0.84	0.74	0.30	1.14	0.00		0.63	1.02	
Avail Cap(c_a), veh/h	127	1154	494	127	1233	545	340	0		325	334	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	70.8	47.2	35.9	68.8	42.8	35.4	60.9	0.0	0.0	56.7	61.3	0.0
Incr Delay (d2), s/veh	16.2	7.7	0.6	35.9	4.0	1.4	92.9	0.0	0.0	3.5	51.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	24.4	3.5	8.9	21.2	7.8	31.1	0.0	0.0	11.6	23.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	87.0	54.9	36.6	104.7	46.8	36.7	153.8	0.0	0.0	60.1	112.3	0.0
LnGrp LOS	F	D	D	F	D	D	F			E	F	
Approach Vol, veh/h		1116			1179			388			546	
Approach Delay, s/veh		55.6			50.6			153.8			92.6	
Approach LOS		E			D			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.2	60.8		37.0	19.0	57.0		37.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	48.7		28.2	10.7	48.7		27.4				
Max Q Clear Time (g_c+I1), s	7.4	36.0		30.2	10.8	40.4		29.4				
Green Ext Time (p_c), s	0.0	4.9		0.0	0.0	3.8		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		71.8
HCM 7th LOS		E

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Future Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1102	79	131	984	204	152	283	0	372	385	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	113	1154	494	127	1172	518	119	221		325	334	
Arrive On Green	0.06	0.32	0.32	0.07	0.33	0.33	0.19	0.19	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	632	1177	1572	1781	1826	1585
Grp Volume(v), veh/h	93	1102	79	131	984	204	435	0	0	372	385	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1809	0	1572	1781	1826	1585
Q Serve(g_s), s	7.7	45.5	5.5	10.7	38.8	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Cycle Q Clear(g_c), s	7.7	45.5	5.5	10.7	38.8	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.35		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	1154	494	127	1172	518	340	0		325	334	
V/C Ratio(X)	0.82	0.96	0.16	1.03	0.84	0.39	1.28	0.00		1.14	1.15	
Avail Cap(c_a), veh/h	127	1154	494	127	1172	518	340	0		325	334	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	69.4	49.6	36.1	69.6	46.4	38.5	60.9	0.0	0.0	61.3	61.3	0.0
Incr Delay (d2), s/veh	30.5	17.7	0.7	88.3	7.3	2.2	146.4	0.0	0.0	88.1	91.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	29.8	3.8	12.6	24.3	9.9	39.4	0.0	0.0	28.3	29.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.8	67.3	36.8	158.0	53.7	40.7	207.3	0.0	0.0	149.4	153.0	0.0
LnGrp LOS	F	E	D	F	D	D	F			F	F	
Approach Vol, veh/h		1274			1319			435			757	
Approach Delay, s/veh		67.8			62.0			207.3			151.2	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.8	58.2		37.0	19.0	57.0		37.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	48.7		28.2	10.7	48.7		27.4				
Max Q Clear Time (g_c+I1), s	9.7	40.8		30.2	12.7	47.5		29.4				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	0.8		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	98.5
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1082	109	124	947	281	145	272	118	353	375	80
Future Volume (veh/h)	88	1082	109	124	947	281	145	272	118	353	375	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1139	82	131	997	204	153	286	0	372	395	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	113	1154	494	127	1172	518	119	222		325	334	
Arrive On Green	0.06	0.32	0.32	0.07	0.33	0.33	0.19	0.19	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	631	1179	1572	1781	1826	1585
Grp Volume(v), veh/h	93	1139	82	131	997	204	439	0	0	372	395	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1809	0	1572	1781	1826	1585
Q Serve(g_s), s	7.7	47.8	5.8	10.7	39.5	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Cycle Q Clear(g_c), s	7.7	47.8	5.8	10.7	39.5	15.1	28.2	0.0	0.0	27.4	27.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.35		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	1154	494	127	1172	518	340	0		325	334	
V/C Ratio(X)	0.82	0.99	0.17	1.03	0.85	0.39	1.29	0.00		1.14	1.18	
Avail Cap(c_a), veh/h	127	1154	494	127	1172	518	340	0		325	334	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	69.4	50.3	36.2	69.6	46.6	38.5	60.9	0.0	0.0	61.3	61.3	0.0
Incr Delay (d2), s/veh	30.5	23.6	0.7	88.3	7.9	2.2	151.1	0.0	0.0	88.1	103.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	32.0	3.9	12.6	24.8	9.9	40.1	0.0	0.0	28.3	31.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.8	73.9	36.9	158.0	54.5	40.7	212.0	0.0	0.0	149.4	164.6	0.0
LnGrp LOS	F	E	D	F	D	D	F			F	F	
Approach Vol, veh/h		1314			1332			439			767	
Approach Delay, s/veh		73.5			62.5			212.0			157.2	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.8	58.2		37.0	19.0	57.0		37.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	48.7		28.2	10.7	48.7		27.4				
Max Q Clear Time (g_c+I1), s	9.7	41.5		30.2	12.7	49.8		29.4				
Green Ext Time (p_c), s	0.0	3.8		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		102.2
HCM 7th LOS		F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	1059	133	164	854	289	107	266	69	235	369	75
Future Volume (veh/h)	84	1059	133	164	854	289	107	266	69	235	369	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	89	1127	108	174	909	214	114	283	0	250	393	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	109	1177	504	139	1227	543	98	243		302	309	
Arrive On Green	0.06	0.33	0.33	0.08	0.35	0.35	0.19	0.19	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	521	1294	1572	1781	1826	1585
Grp Volume(v), veh/h	89	1127	108	174	909	214	397	0	0	250	393	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1815	0	1572	1781	1826	1585
Q Serve(g_s), s	7.4	46.6	7.7	11.7	34.0	15.5	28.2	0.0	0.0	20.3	25.4	0.0
Cycle Q Clear(g_c), s	7.4	46.6	7.7	11.7	34.0	15.5	28.2	0.0	0.0	20.3	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.29		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	1177	504	139	1227	543	341	0		302	309	
V/C Ratio(X)	0.82	0.96	0.21	1.25	0.74	0.39	1.16	0.00		0.83	1.27	
Avail Cap(c_a), veh/h	127	1177	504	139	1227	543	341	0		302	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	69.6	49.1	36.1	69.2	43.0	36.9	60.9	0.0	0.0	60.2	62.3	0.0
Incr Delay (d2), s/veh	28.7	17.8	1.0	159.4	4.1	2.1	101.0	0.0	0.0	15.3	142.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	30.4	5.2	18.2	21.2	10.1	32.5	0.0	0.0	15.2	35.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.2	66.9	37.1	228.5	47.0	39.1	161.9	0.0	0.0	75.5	204.6	0.0
LnGrp LOS	F	E	D	F	D	D	F			E	F	
Approach Vol, veh/h		1324			1297			397			643	
Approach Delay, s/veh		66.6			70.0			161.9			154.4	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	60.5		37.0	20.0	58.0		35.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	50.7		28.2	11.7	49.7		25.4				
Max Q Clear Time (g_c+I1), s	9.4	36.0		30.2	13.7	48.6		27.4				
Green Ext Time (p_c), s	0.0	5.4		0.0	0.0	0.8		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	93.6
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

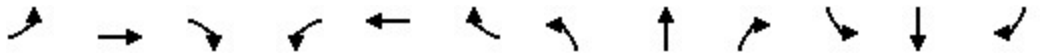
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Future Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1247	114	256	1080	369	123	330	0	394	448	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	127	1177	504	139	1192	527	93	249		302	309	
Arrive On Green	0.07	0.33	0.33	0.08	0.34	0.34	0.19	0.19	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	493	1323	1572	1781	1826	1585
Grp Volume(v), veh/h	123	1247	114	256	1080	369	453	0	0	394	448	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1816	0	1572	1781	1826	1585
Q Serve(g_s), s	10.3	49.7	8.1	11.7	43.9	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Cycle Q Clear(g_c), s	10.3	49.7	8.1	11.7	43.9	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.27		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	1177	504	139	1192	527	341	0		302	309	
V/C Ratio(X)	0.97	1.06	0.23	1.84	0.91	0.70	1.33	0.00		1.31	1.45	
Avail Cap(c_a), veh/h	127	1177	504	139	1192	527	341	0		302	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	69.5	50.1	36.2	69.2	47.4	43.1	60.9	0.0	0.0	62.3	62.3	0.0
Incr Delay (d2), s/veh	69.7	43.4	1.0	405.6	11.5	7.5	166.0	0.0	0.0	154.4	214.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	38.3	5.6	33.3	27.6	18.3	42.5	0.0	0.0	35.3	44.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	139.2	93.5	37.3	474.8	58.9	50.6	226.9	0.0	0.0	216.7	277.2	0.0
LnGrp LOS	F	F	D	F	E	D	F			F	F	
Approach Vol, veh/h		1484			1705			453			842	
Approach Delay, s/veh		93.0			119.5			226.9			248.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	59.0		37.0	20.0	58.0		35.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	50.7		28.2	11.7	49.7		25.4				
Max Q Clear Time (g_c+I1), s	12.3	45.9		30.2	13.7	51.7		27.4				
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	145.9
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Future Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1271	116	256	1119	369	127	339	0	394	454	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	127	1177	504	139	1192	527	93	248		302	309	
Arrive On Green	0.07	0.33	0.33	0.08	0.34	0.34	0.19	0.19	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1522	1781	3526	1560	495	1321	1572	1781	1826	1585
Grp Volume(v), veh/h	123	1271	116	256	1119	369	466	0	0	394	454	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1781	1763	1560	1816	0	1572	1781	1826	1585
Q Serve(g_s), s	10.3	49.7	8.3	11.7	46.2	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Cycle Q Clear(g_c), s	10.3	49.7	8.3	11.7	46.2	30.8	28.2	0.0	0.0	25.4	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.27		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	1177	504	139	1192	527	341	0		302	309	
V/C Ratio(X)	0.97	1.08	0.23	1.84	0.94	0.70	1.36	0.00		1.31	1.47	
Avail Cap(c_a), veh/h	127	1177	504	139	1192	527	341	0		302	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	69.5	50.1	36.3	69.2	48.2	43.1	60.9	0.0	0.0	62.3	62.3	0.0
Incr Delay (d2), s/veh	69.7	50.5	1.1	405.6	15.0	7.5	182.0	0.0	0.0	154.0	223.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	40.1	5.7	33.3	29.4	18.3	45.0	0.0	0.0	35.1	45.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	139.2	100.6	37.4	474.8	63.2	50.6	242.9	0.0	0.0	216.3	285.3	0.0
LnGrp LOS	F	F	D	F	E	D	F			F	F	
Approach Vol, veh/h		1510			1744			466			848	
Approach Delay, s/veh		98.9			120.9			242.9			253.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	59.0		37.0	20.0	58.0		35.0				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	10.7	50.7		28.2	11.7	49.7		25.4				
Max Q Clear Time (g_c+I1), s	12.3	48.2		30.2	13.7	51.7		27.4				
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	150.7	
HCM 7th LOS	F	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1242	1151	14	46	32
Future Vol, veh/h	11	1242	1151	14	46	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	515	-	-	275	275	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1350	1251	15	50	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1266	0	-	0	1950	626
Stage 1	-	-	-	-	1251	-
Stage 2	-	-	-	-	699	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	545	-	-	-	56	427
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	454	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	545	-	-	-	55	427
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	454	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	27.82
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	545	-	-	-	160	427
HCM Lane V/C Ratio	0.022	-	-	-	0.312	0.081
HCM Control Delay (s/veh)	11.8	-	-	-	37.3	14.2
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	1463	1231	47	31	20
Future Vol, veh/h	34	1463	1231	47	31	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	515	-	-	275	275	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1590	1338	51	34	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1389	0	-	0	2207	669
Stage 1	-	-	-	-	1338	-
Stage 2	-	-	-	-	869	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	489	-	-	-	38	400
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	371	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	489	-	-	-	35	400
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	371	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.29	0	31.27
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	489	-	-	-	130	400
HCM Lane V/C Ratio	0.076	-	-	-	0.259	0.054
HCM Control Delay (s/veh)	13	-	-	-	42.1	14.5
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1080	4	4	1050	4	4	0	7	5	0	3
Future Vol, veh/h	3	1080	4	4	1050	4	4	0	7	5	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1161	4	4	1129	4	4	0	8	5	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1133	0	0	1166	0	0	1743	2312	583	1727	2312	567
Stage 1	-	-	-	-	-	-	1170	1170	-	1140	1140	-
Stage 2	-	-	-	-	-	-	573	1142	-	587	1172	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	612	-	-	595	-	-	55	38	456	57	38	467
Stage 1	-	-	-	-	-	-	205	265	-	214	274	-
Stage 2	-	-	-	-	-	-	472	273	-	463	264	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	612	-	-	595	-	-	54	37	456	55	37	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	149	138	-	153	138	-
Stage 1	-	-	-	-	-	-	204	264	-	212	272	-
Stage 2	-	-	-	-	-	-	465	271	-	453	263	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.04	19.44	23.38
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	261	612	-	-	595	-	-	204
HCM Lane V/C Ratio	0.045	0.005	-	-	0.007	-	-	0.042
HCM Control Delay (s/veh)	19.4	10.9	-	-	11.1	-	-	23.4
HCM Lane LOS	C	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1229	4	4	1142	4	4	0	7	5	0	3
Future Vol, veh/h	3	1229	4	4	1142	4	4	0	7	5	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1322	4	4	1228	4	4	0	8	5	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1232	0	0	1326	0	0	1953	2571	663	1906	2571	616
Stage 1	-	-	-	-	-	-	1330	1330	-	1239	1239	-
Stage 2	-	-	-	-	-	-	623	1241	-	667	1332	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	561	-	-	517	-	-	38	26	404	42	26	433
Stage 1	-	-	-	-	-	-	163	222	-	186	246	-
Stage 2	-	-	-	-	-	-	441	245	-	414	222	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	561	-	-	517	-	-	38	25	404	40	25	433
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	116	-	131	116	-
Stage 1	-	-	-	-	-	-	162	221	-	184	244	-
Stage 2	-	-	-	-	-	-	434	243	-	404	220	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.04	22.47	26.37
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	218	561	-	-	517	-	-	177
HCM Lane V/C Ratio	0.054	0.006	-	-	0.008	-	-	0.049
HCM Control Delay (s/veh)	22.5	11.5	-	-	12	-	-	26.4
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1237	4	4	1166	4	4	0	7	5	0	3
Future Vol, veh/h	3	1237	4	4	1166	4	4	0	7	5	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1330	4	4	1254	4	4	0	8	5	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1258	0	0	1334	0	0	1974	2605	667	1936	2605	629
Stage 1	-	-	-	-	-	-	1339	1339	-	1265	1265	-
Stage 2	-	-	-	-	-	-	635	1267	-	672	1341	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	549	-	-	513	-	-	37	24	401	40	24	425
Stage 1	-	-	-	-	-	-	161	220	-	179	239	-
Stage 2	-	-	-	-	-	-	433	238	-	412	219	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	549	-	-	513	-	-	36	24	401	38	24	425
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	114	-	127	113	-
Stage 1	-	-	-	-	-	-	160	219	-	178	237	-
Stage 2	-	-	-	-	-	-	426	236	-	402	218	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.04	22.71	27.05
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	549	-	-	513	-	-	172
HCM Lane V/C Ratio	0.055	0.006	-	-	0.008	-	-	0.05
HCM Control Delay (s/veh)	22.7	11.6	-	-	12.1	-	-	27.1
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1294	14	15	1019	2	3	0	15	3	1	3
Future Vol, veh/h	4	1294	14	15	1019	2	3	0	15	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1407	15	16	1108	2	3	0	16	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1110	0	0	1422	0	0	2010	2565	711	1853	2572	555
Stage 1	-	-	-	-	-	-	1423	1423	-	1141	1141	-
Stage 2	-	-	-	-	-	-	587	1142	-	712	1430	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	625	-	-	475	-	-	35	26	376	46	25	475
Stage 1	-	-	-	-	-	-	143	200	-	213	274	-
Stage 2	-	-	-	-	-	-	463	273	-	389	198	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	625	-	-	475	-	-	33	25	376	42	24	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	114	-	136	109	-
Stage 1	-	-	-	-	-	-	142	199	-	206	264	-
Stage 2	-	-	-	-	-	-	442	264	-	370	197	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.19	19.6	25.1
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	266	625	-	-	475	-	-	187
HCM Lane V/C Ratio	0.074	0.007	-	-	0.034	-	-	0.041
HCM Control Delay (s/veh)	19.6	10.8	-	-	12.9	-	-	25.1
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1446	15	16	1214	2	3	0	16	3	1	3
Future Vol, veh/h	4	1446	15	16	1214	2	3	0	16	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1572	16	17	1320	2	3	0	17	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1322	0	0	1588	0	0	2284	2945	794	2150	2952	661
Stage 1	-	-	-	-	-	-	1589	1589	-	1355	1355	-
Stage 2	-	-	-	-	-	-	695	1357	-	795	1597	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	519	-	-	409	-	-	21	15	331	27	14	405
Stage 1	-	-	-	-	-	-	112	166	-	157	216	-
Stage 2	-	-	-	-	-	-	399	216	-	347	164	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	519	-	-	409	-	-	20	14	331	24	14	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	89	-	102	84	-
Stage 1	-	-	-	-	-	-	111	165	-	151	207	-
Stage 2	-	-	-	-	-	-	377	206	-	326	163	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.18	22.47	31.44
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	519	-	-	409	-	-	144
HCM Lane V/C Ratio	0.091	0.008	-	-	0.042	-	-	0.053
HCM Control Delay (s/veh)	22.5	12	-	-	14.2	-	-	31.4
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1470	15	16	1230	2	3	0	16	3	1	3
Future Vol, veh/h	4	1470	15	16	1230	2	3	0	16	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	-	520	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1598	16	17	1337	2	3	0	17	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1339	0	0	1614	0	0	2318	2989	807	2180	2996	670
Stage 1	-	-	-	-	-	-	1615	1615	-	1373	1373	-
Stage 2	-	-	-	-	-	-	704	1374	-	808	1623	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	511	-	-	400	-	-	20	14	324	26	13	400
Stage 1	-	-	-	-	-	-	108	161	-	153	212	-
Stage 2	-	-	-	-	-	-	394	211	-	341	160	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	511	-	-	400	-	-	19	13	324	23	13	400
Mov Cap-2 Maneuver	-	-	-	-	-	-	82	86	-	99	81	-
Stage 1	-	-	-	-	-	-	107	160	-	147	203	-
Stage 2	-	-	-	-	-	-	372	202	-	320	158	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	0.18	22.99	32.18
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	221	511	-	-	400	-	-	140
HCM Lane V/C Ratio	0.094	0.009	-	-	0.043	-	-	0.054
HCM Control Delay (s/veh)	23	12.1	-	-	14.4	-	-	32.2
HCM Lane LOS	C	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	7	2	10	29	35
Future Vol, veh/h	11	7	2	10	29	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	8	2	11	32	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	13	0	-	0	34	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1605	-	-	-	980	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	991	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1605	-	-	-	972	1082
Mov Cap-2 Maneuver	-	-	-	-	972	-
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	991	-

Approach	EB	WB	SB
HCM Control Delay, s/v	4.44	0	8.75
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1605	-	-	-	1029
HCM Lane V/C Ratio	0.007	-	-	-	0.068
HCM Control Delay (s/veh)	7.3	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	4	7	30	19	23
Future Vol, veh/h	36	4	7	30	19	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	275	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	4	8	33	21	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	40	0	-	0	90	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1569	-	-	-	910	1075
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1569	-	-	-	888	1075
Mov Cap-2 Maneuver	-	-	-	-	888	-
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s/v	6.62	0	8.85
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1569	-	-	-	981
HCM Lane V/C Ratio	0.025	-	-	-	0.047
HCM Control Delay (s/veh)	7.4	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	0	7	9	0	23
Future Vol, veh/h	27	0	7	9	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	275	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	0	8	10	0	25

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	33	8	0	0	-	-
Stage 1	8	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	981	1075	-	-	0	-
Stage 1	1015	-	-	-	0	-
Stage 2	998	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	981	1075	-	-	-	-
Mov Cap-2 Maneuver	981	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	998	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.78	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	981	-
HCM Lane V/C Ratio	-	-	0.03	-
HCM Control Delay (s/veh)	-	-	8.8	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	0	0	28	0	0
Future Vol, veh/h	18	0	0	28	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	275	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	0	0	30	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	-	-
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	1022	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	1022	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v		0	0
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s/veh)	-	-	-	-
HCM Lane LOS	-	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	2	14	11	7	43
Future Vol, veh/h	35	2	14	11	7	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	2	15	12	8	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	83	21	0	0	27	0
Stage 1	21	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	919	1056	-	-	1587	-
Stage 1	1001	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	914	1056	-	-	1587	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.07	0	1.02
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	914	1056	252	-
HCM Lane V/C Ratio	-	-	0.042	0.002	0.005	-
HCM Control Delay (s/veh)	-	-	9.1	8.4	7.3	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	7	45	36	4	28
Future Vol, veh/h	23	7	45	36	4	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	8	49	39	4	30

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	108	68	0	0	88	0
Stage 1	68	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	890	995	-	-	1508	-
Stage 1	954	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	887	995	-	-	1508	-
Mov Cap-2 Maneuver	887	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	980	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.05	0	0.92
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	887	995	225	-
HCM Lane V/C Ratio	-	-	0.028	0.008	0.003	-
HCM Control Delay (s/veh)	-	-	9.2	8.6	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Appendix N
HCM Analysis Worksheets-Improved

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Future Volume (veh/h)	88	1047	106	124	935	281	144	269	118	353	366	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1102	79	131	984	204	152	283	0	372	385	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	97	1294	554	165	1260	558	202	396		489	491	
Arrive On Green	0.05	0.36	0.36	0.05	0.36	0.36	0.11	0.11	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	93	1102	79	131	984	204	152	283	0	372	385	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	5.5	30.0	3.7	3.9	26.1	10.2	8.7	8.2	0.0	10.9	11.3	0.0
Cycle Q Clear(g_c), s	5.5	30.0	3.7	3.9	26.1	10.2	8.7	8.2	0.0	10.9	11.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1294	554	165	1260	558	202	396		489	491	
V/C Ratio(X)	0.96	0.85	0.14	0.80	0.78	0.37	0.75	0.71		0.76	0.78	
Avail Cap(c_a), veh/h	97	1294	554	165	1260	558	305	600		592	595	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.5	30.8	22.4	49.5	30.1	24.9	45.1	44.9	0.0	43.3	43.5	0.0
Incr Delay (d2), s/veh	78.8	7.2	0.5	23.2	4.9	1.9	5.6	2.4	0.0	4.7	5.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	18.8	2.3	3.9	16.3	6.7	7.2	6.4	0.0	8.4	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	128.4	38.0	22.9	72.7	34.9	26.8	50.7	47.3	0.0	48.0	49.1	0.0
LnGrp LOS	F	D	C	E	C	C	D	D		D	D	
Approach Vol, veh/h		1274			1319			435			757	
Approach Delay, s/veh		43.6			37.4			48.5			48.6	
Approach LOS		D			D			D			D	

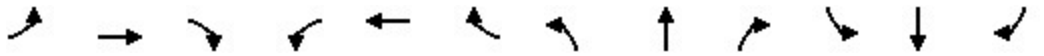
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	45.8		20.7	13.3	46.5		24.5				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	5.7	28.3		18.0	5.0	29.0		18.0				
Max Q Clear Time (g_c+I1), s	7.5	28.1		10.7	5.9	32.0		13.3				
Green Ext Time (p_c), s	0.0	0.1		1.2	0.0	0.0		1.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	43.0
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
3: Dr MLK Bltwy & SR 472



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1082	109	124	946	281	145	272	118	353	375	80
Future Volume (veh/h)	88	1082	109	124	946	281	145	272	118	353	375	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	93	1139	82	131	996	204	153	286	0	372	395	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	97	1283	550	165	1250	553	203	398		498	499	
Arrive On Green	0.05	0.36	0.36	0.05	0.35	0.35	0.11	0.11	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	93	1139	82	131	996	204	153	286	0	372	395	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	5.5	31.6	3.8	3.9	26.7	10.2	8.7	8.3	0.0	10.8	11.5	0.0
Cycle Q Clear(g_c), s	5.5	31.6	3.8	3.9	26.7	10.2	8.7	8.3	0.0	10.8	11.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1283	550	165	1250	553	203	398		498	499	
V/C Ratio(X)	0.96	0.89	0.15	0.80	0.80	0.37	0.75	0.72		0.75	0.79	
Avail Cap(c_a), veh/h	97	1283	550	165	1250	553	305	600		592	595	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.5	31.5	22.6	49.5	30.5	25.2	45.1	44.9	0.0	43.1	43.4	0.0
Incr Delay (d2), s/veh	78.8	9.3	0.6	23.2	5.3	1.9	5.6	2.4	0.0	4.3	6.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	20.0	2.4	3.9	16.7	6.8	7.3	6.5	0.0	8.3	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	128.4	40.9	23.2	72.7	35.8	27.1	50.7	47.3	0.0	47.4	49.5	0.0
LnGrp LOS	F	D	C	E	D	C	D	D		D	D	
Approach Vol, veh/h		1314			1331			439			767	
Approach Delay, s/veh		46.0			38.1			48.5			48.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	45.5		20.8	13.3	46.2		24.7				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	5.7	28.3		18.0	5.0	29.0		18.0				
Max Q Clear Time (g_c+I1), s	7.5	28.7		10.7	5.9	33.6		13.5				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	0.0		1.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	44.0
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Future Volume (veh/h)	116	1172	138	241	1015	434	116	310	123	370	421	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1247	114	256	1080	369	123	330	0	394	448	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	140	1354	580	276	1348	597	206	404		496	498	
Arrive On Green	0.08	0.38	0.38	0.08	0.38	0.38	0.12	0.12	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	123	1247	114	256	1080	369	123	330	0	394	448	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	8.5	41.8	6.3	9.2	34.1	23.9	8.2	11.5	0.0	13.8	15.9	0.0
Cycle Q Clear(g_c), s	8.5	41.8	6.3	9.2	34.1	23.9	8.2	11.5	0.0	13.8	15.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1354	580	276	1348	597	206	404		496	498	
V/C Ratio(X)	0.88	0.92	0.20	0.93	0.80	0.62	0.60	0.82		0.79	0.90	
Avail Cap(c_a), veh/h	140	1354	580	276	1348	597	257	504		498	500	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	36.9	25.9	57.1	34.4	31.2	52.5	54.0	0.0	51.8	52.6	0.0
Incr Delay (d2), s/veh	43.0	11.7	0.8	35.1	5.1	4.8	2.8	8.3	0.0	8.6	19.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.2	26.1	4.1	9.0	20.8	14.2	6.7	9.2	0.0	10.6	12.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	100.0	48.6	26.7	92.2	39.4	36.0	55.3	62.2	0.0	60.4	71.8	0.0
LnGrp LOS	F	D	C	F	D	D	E	E		E	E	
Approach Vol, veh/h		1484			1705			453			842	
Approach Delay, s/veh		51.2			46.6			60.3			66.5	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	56.1		23.3	18.3	55.9		27.5				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	9.8	44.2		18.0	10.0	44.0		18.0				
Max Q Clear Time (g_c+I1), s	10.5	36.1		13.5	11.2	43.8		17.9				
Green Ext Time (p_c), s	0.0	4.7		0.9	0.0	0.1		0.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	53.2
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Future Volume (veh/h)	116	1195	140	241	1052	434	119	319	123	370	427	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1796	1870	1856	1841	1870	1841	1856	1870	1826	1870
Adj Flow Rate, veh/h	123	1271	116	256	1119	369	127	339	0	394	454	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	7	2	3	4	2	4	3	2	5	2
Cap, veh/h	140	1352	579	268	1338	592	210	413		498	500	
Arrive On Green	0.08	0.38	0.38	0.08	0.38	0.38	0.12	0.12	0.00	0.14	0.14	0.00
Sat Flow, veh/h	1781	3554	1522	3456	3526	1560	1781	3497	1572	3456	3469	1585
Grp Volume(v), veh/h	123	1271	116	256	1119	369	127	339	0	394	454	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1522	1728	1763	1560	1781	1749	1572	1728	1735	1585
Q Serve(g_s), s	8.5	43.1	6.4	9.2	36.1	24.0	8.5	11.8	0.0	13.8	16.1	0.0
Cycle Q Clear(g_c), s	8.5	43.1	6.4	9.2	36.1	24.0	8.5	11.8	0.0	13.8	16.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1352	579	268	1338	592	210	413		498	500	
V/C Ratio(X)	0.88	0.94	0.20	0.95	0.84	0.62	0.60	0.82		0.79	0.91	
Avail Cap(c_a), veh/h	140	1352	579	268	1338	592	257	504		498	500	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	37.4	26.0	57.4	35.2	31.5	52.4	53.8	0.0	51.7	52.7	0.0
Incr Delay (d2), s/veh	43.0	13.8	0.8	42.5	6.3	4.9	2.8	8.8	0.0	8.5	20.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.2	27.2	4.2	9.3	22.0	14.3	7.0	9.5	0.0	10.5	13.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	100.0	51.2	26.7	100.0	41.6	36.4	55.1	62.7	0.0	60.2	73.2	0.0
LnGrp LOS	F	D	C	F	D	D	E	E		E	E	
Approach Vol, veh/h		1510			1744			466			848	
Approach Delay, s/veh		53.3			49.0			60.6			67.2	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	55.8		23.5	18.0	55.9		27.6				
Change Period (Y+Rc), s	8.3	8.3		8.8	8.3	8.3		9.6				
Max Green Setting (Gmax), s	9.8	44.2		18.0	9.7	44.3		18.0				
Max Q Clear Time (g_c+I1), s	10.5	38.1		13.8	11.2	45.1		18.1				
Green Ext Time (p_c), s	0.0	3.9		0.9	0.0	0.0		0.0				

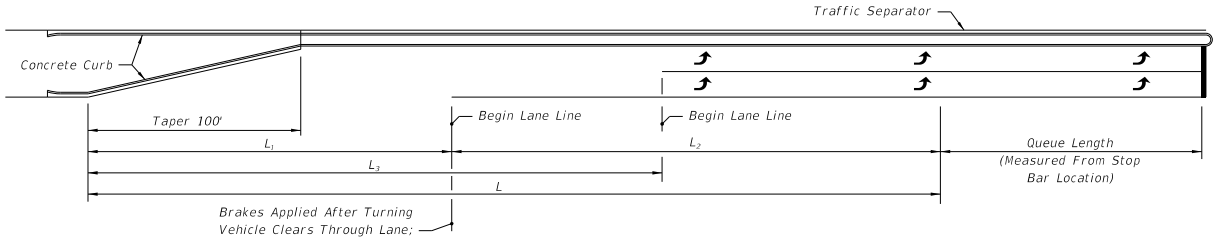
Intersection Summary	
HCM 7th Control Delay, s/veh	55.0
HCM 7th LOS	D

Notes

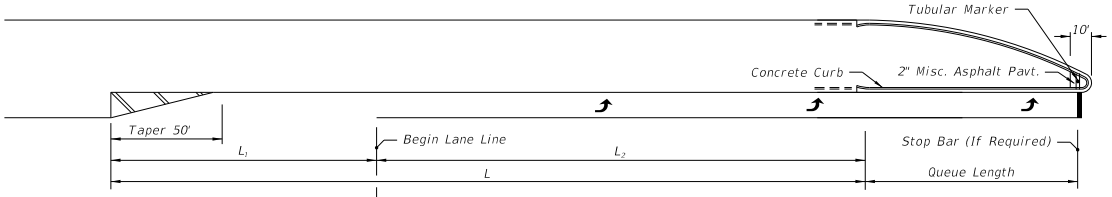
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Appendix O
FDM Exhibit 212-1

MEDIAN TURN LANES
MINIMUM DECELERATION LENGTHS



DOUBLE LEFT TURN



SINGLE LEFT TURN

MEDIAN TURN LANES					
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L_1 (ft.)	Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)
25	15	70	25	95	90
30	20	70	50	120	100
35	25	70	75	145	110
40	30	80	75	155	120
45	35	85	100	185	135
50	44	105	185	290	160
55	48	125	225	350	195
60	52	145	260	405	230
65	55	170	290	460	270
70	58	200	325	525	300

NOTE:

1) For C3 Context Classification roadways with Design Speeds of 50 mph, the following values may be used under constrained conditions:
   - Entry Speed of 40 mph
   - Brake to stop distance (L_2) of 135 ft.
   - Total deceleration distance (L) of 240 ft.

2) For RRR Projects with Design Speeds of 50 mph and Entry Speeds of 40 mph, existing brake to stop distances (L_2) of 135 ft. and total deceleration distances (L) of 240 ft. may be retained.

NOT TO SCALE

EXHIBIT 212-1
01/01/2024

Appendix P
Volusia County Land Development Code Turn Lane Guidelines

Major DW	355	365	370	385
Signalized, 4 lanes or more	370	380	385	1320*

DW = Driveway

Minor DW = Maximum ADT of 500 or a maximum peak hour volume of 50

Intermediate DW = Maximum ADT of 1,500 or maximum peak hour volume of 150

Major DW = Maximum ADT of 5,000 or maximum peak hour volume of 500

*Desirable spacing.

Driveway centerline spacing may be increased if the required turn lane storage or transition is increased by any governmental agency. Minimum driveway centerline spacing may be decreased if one-way driveways are utilized and accepted by the DRC.

(4) *Special driveway requirements.* In the case of a land use with special driveway needs, an applicant may submit a traffic engineering study requesting deviations from the requirements of this section. If deviations from driveway requirements are permitted, substitute requirements which deviate no more than necessary to serve the special land use needs may be applied to the development in order to minimize the impact on the adjacent street.

(5) *Turn lanes requirements.*

a. *Turn lane requirements immediately adjacent to the development.*

1. A left-turn lane of 12 feet in width, conforming to Table VI, shall be provided at each driveway when the average daily trip ends of the driveway is 1,000 vehicles or more and/or the average peak hour inbound left-turn volume is 25 vehicles or more. Increased queue lengths (waiting vehicle storage) may be required by the CTE to provide for additional storage, based upon a peak hour entering volume greater than 75 vehicles in the peak hour. No queue length is required if the peak hour entering volume is 75 vehicles in the peak hour or less.
2. A right-turn lane of 12 feet in width, conforming to Table VI shall be provided at each driveway when the speed limit equals or exceeds 35 miles per hour or if the development will generate 100 or more right-turn movements during the peak hour. Increased storage and transition queue lengths (waiting vehicle storage) may be

required by the CTE to provide for additional storage, based upon a peak hour entering volume greater than 150 vehicles in the peak hour. No queue length is required if the peak hour entering volume is 150 vehicles in the peak hour or less.

b. *Additional improvements immediately adjacent to the development.* At intersections, with a thoroughfare which abut the development, the following improvements shall be provided:

1. A right-turn lane of 12 feet in width, conforming to subsection (e)(5) and Table VI, shall be provided if the development will generate 100 or more right turns during the peak hour.
2. A left-turn lane of 12 feet in width conforming to subsection (e)(5) and Table VI, shall be provided if the street's speed limit is 35 miles per hour or greater and if the development will generate 25 or more left turns during the peak hour.

c. *Through lane pavement transition tapers.* A through lane pavement transition taper shall be provided on all streets and roadways where the through lane is offset to provide for right turn lanes, left turn lanes, lane width changes and an increase or reduction in the number of through lanes. The through lane pavement transition taper length shall be based upon FDOT Standard Index #526 and 17346, and calculated using the following formulas:

For design speeds less than or equal to 40 m.p.h. use:

$$L = \frac{WS^2}{60}$$

For design speeds greater than or equal to 45 m.p.h. use:

L	=	WS
L	=	the pavement transition taper length in feet.
W	=	the width of the through lane lateral transition in feet (offset).

TABLE VI. TURN LANE DIMENSIONAL REQUIREMENTS

EXPAND

Speed Limit (mph)	Urban Section Deceleration Length (feet)*	Rural Section Deceleration Length (feet)*
30	145	145
35	155	155
40	185	185
45	240	320
50	N/A**	385
55	N/A**	455

Appendix Q
VOTRAN Bus Route Information

We drive a great bargain

Votran



English/Español January 2024

For DeLand, Deltona, Orange City, and DeBary

WEST VOLUSIA COUNTY

Area Bus Service Guide



VO to GO

Text VO and your bus stop ID to 321123 to receive a real-time update of the next bus to arrive at your stop.

Download the free myStop app

myStop brings rider information to your mobile devices. Plan trips, track buses in real time or setup rider alerts to receive up-to-date notifications about possible delays, detours or schedule changes to each route.

How to contact us

Votran, 950 Big Tree Road, South Daytona, FL 32119

Telephone **386-756-7496** Fax **386-756-7487**

website **www.votran.org**

FOR INFORMATION:

Greater Daytona Beach Area **386-761-7700**
West Volusia **386-943-7033**

Buses displaying "Out of Service" do not stop for passengers.

Votran
We drive a great bargain
A service of Volusia County Government

Welcome



Thank you for choosing Votran, a service of Volusia County Government. Votran is a safe, affordable and convenient option. We hope you'll continue to ride Votran every day...to work, to school, to shop, and to play.

How to use the bus map and timetables

System map

Find your street or the street nearest to you on the map. Note the name, number and color of the route nearest you. Bus departure times can be found on the timetable for this route.

Find your destination on the map. Look for the nearest bus route to this location. If this route is different from the first route you have selected, look at the second timetable and map and check where a transfer may be made. Most transfers are made at **Market Place, Providence/Fort Smith Boulevards and Amelia SuperStop at Northgate Plaza.**

> "Votran's mission is to identify and safely meet the mobility needs of Volusia County. This mission will be accomplished through a courteous, dependable and environmentally-sound team committment to quality service."

Timetable

Check the timetable on the schedule under your route number and look for the time point (cross streets) closest to where you would like to board the bus. Follow the column down the timetable and find a departure time convenient for your trip. Read across the line to the time point closest to your destination transfer point to find your arrival time.

If your boarding or destination point is between two timepoints, the bus will arrive at your destination at a time between the time the bus passes the first timepoint and arrives at the second timepoint. If your trip appears difficult to plan or you have questions, please call **386-943-7033** for assistance. We will help you plan your trip.

Fares - exact fare only

(Subject to change without notice)

Votran does not issue transfers. We recommend that you purchase an all day pass.

ADULT	**$1.75**
SENIOR CITIZENS (65 OR OLDER)	**$0.85**
DISABLED	**$0.85**
YOUTHS (AGES 7-18)	**$0.85**
CHILDREN (under age 7)	**FREE**

Children must be accompanied by a fare-paying adult passenger. Limited to three children.

Passengers must show valid proof of status when paying a reduced fare or showing a reduced fare pass.

SENIOR CITIZENS (65 AND OLDER):
Government ID or license, U.S. Medicare card (red, white and blue), passport, etc.

DISABLED:
Valid agency ID: Conklin Center, ACT, WORC, Medicare card (red, white and blue), passport, (Not Medicaid Gold Card) or Votran ID card indicating "disabled."

YOUTH (AGES 7-18):
Government ID or license showing valid proof of age, school ID (not college ID)

SAVE MONEY WITH VALUE PASSES

Value passes offer convenience and cost-savings for frequent riders. There are multiple options to suit your travel need.

1-DAY PASS	**$3.75**
3-DAY PASS	**$7.50**
7-DAY PASS	**$13.00**
31-DAY PASS	**$46.00**

SENIOR CITIZENS/DISABLED/YOUTH

1-DAY PASS	**$1.85**
3-DAY PASS	**$3.75**
7-DAY PASS	**$6.50**
31-DAY PASS	**$23.00**

- Passes offer unlimited rides for the duration of the pass.
- Fares can be paid with cash, tokens or passes.
- One-day passes are available on-board all fixed route buses.
- Other value passes are available for purchase at the following locations:

VOTRAN OFFICE:	Weekdays, 8:00 a.m. – 5:00 p.m.
TRANSFER PLAZA:	Monday – Saturday, 7:30 a.m. – 5:00 p.m.
DELTONA REGIONAL PUBLIC LIBRARY:	2150 Eustace Ave, Deltona Call (386) 289-7207 Cash only.
HISTORIC COURTHOUSE	Treasury and Billing Office 125 W. New York Ave, Room 120 DeLand, FL 32720 Monday – Friday, 8:00 a.m. – 4:30 p.m.

Purchase Fare Passes online at votran.org.

Travel tips

1. **EXACT FARE**
When boarding always have exact change ready with proper ID card. Operators are not allowed to make change, handle or deposit fares.

2. **REDUCED FARE**
If you qualify for reduced fares, have your U.S. Medicare, proof of age or Votran ID card ready.

3. **SMOKING, EATING AND DRINKING**
Extinguish your cigarettes and finish your food and soft drink before boarding. All are prohibited. This includes electronic smoking devices.

4. **GETTING ON BUS**
When you have arrived at the street location where you need to catch the bus, stand near a designated stop or where there is no sign, stand at the far side of the intersection, not the near side. The bus will not stop in midblock. Watch for your bus to determine the correct route number before signaling the operator to stop. Signal the bus operator by raising your hand.

5. **GETTING OFF BUS**
When you get within a block of your destination, signal the operator to stop by pushing the yellow strip next to the window or by pulling the cord. Stay seated until the bus comes to a complete stop, then move to the rear of the bus to exit. Wait until the green light above the door signals you to push the vertical bars.

6. **PET CARRIERS ON BUS**
Small dogs or cats may ride Votran provided they are in a pet carrier. Pet carriers will need to fit between the riders feet or in the riders lap. Pet carriers may not block the aisle nor be placed in a seat. Small dogs that exhibit excessive barking or aggression will be asked to leave the bus.

7. **BAGGAGE AND STROLLERS**
You may carry on items that can be safely stowed on board once you are seated. Due to safety regulations Votran is unable to permit items such as bicycles, surf boards, or any article that will block the aisles. Bike racks are provided on the exterior of all buses. Strollers must be folded prior to boarding the bus.

8. **NO SHOES, NO SHIRT, NO SERVICE!**

9. **HOLIDAYS**
Votran routes operate on a limited schedule for New Years Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day. Log into our website at **www.votran.org** for more details.

10. **HAVE A COMMENT, MISUNDERSTANDING OR COMMENDATION?**
Should you wish to make a comment, outline a misunderstanding or commendation of an employee, please contact our office at **386-943-7033**. Please note the bus route, bus number, time of day and location involved in the matter. You also may describe it in writing and mail it to Votran, 950 Big Tree Rd., South Daytona, FL 32119, or report it through our website **www.votran.org**.

11. **UNFORSEEN EVENTS WILL DELAY BUSES.**

SCHEDULE IS SUBJECT TO CHANGE WITHOUT NOTICE

Points of interest served by Votran

Point of Interest	See Map	Grid Ref	Votran Routes
ATTRACTION/RECREATION			
Dupont Lakes	West Volusia	I6	21, 22
GOVERNMENT/SOCIAL SERVICE			
DeLand City Hall/Government Center	West Volusia	E3	20, VoRide
Deltona City Hall	West Volusia	I6	21, 22, 23
Deltona Library	West Volusia	I5	21, 22, 23
DeBary City Hall	West Volusia	K3	20, 23, 31, 33
Methodist Children's Home	West Volusia	K4	21, 22
Orange City City Hall	West Volusia	H3	20, 31
Thomas C. Kelly County Admin Center	West Volusia	E3	20, 31, VoRide
HOSPITALS/MEDICAL CENTERS			
AdventHealth - DeLand	West Volusia	D2	20, VoRide
AdventHealth - Orange City	West Volusia	I3	23, 33
Ambulatory Surgical Ctr of Central FL	West Volusia	E2	20, VoRide
Deltona Healthcare Rehab Cntr	West Volusia	I6	21, 22
V.A. Clinic Deltona	West Volusia	J4	21, 22
V.C. Health Department	West Volusia	I3	23, 33
SCHOOLS/COLLEGES/UNIVERSITIES			
BCU - Deltona Campus	West Volusia	J5	23, 33
DeLand Middle School	West Volusia	F3	20, 31, VoRide
DeLand High School	West Volusia	E3	VoRide
Daytona State College - DeLand	West Volusia	F5	VoRide
Daytona State College - Deltona	West Volusia	I6	21, 22, 23
Deltona Christian School	West Volusia	K5	21, 22
Deltona Middle School	West Volusia	K4	21, 22
Discovery Elementary School	West Volusia	J4	21, 22
Friendship Elementary School	West Volusia	I7	21, 22
Galaxy Middle School	West Volusia	I5	21, 22
Heritage Middle School	West Volusia	J7	21, 22
Orange City Elementary School	West Volusia	H3	20, 31
Pine Ridge High School	West Volusia	J7	21, 22
Southwestern Middle School	West Volusia	F2	20, 31, VoRide
Spirit Elementary School	West Volusia	J5	23, 33
Starke Elementary School	West Volusia	F3	20, 31, VoRide
Stetson University	West Volusia	E3	20, 31, VoRide
Sunrise Elementary School	West Volusia	K7	21, 22
Timbercrest Elementary School	West Volusia	I5	21, 22
SHOPPING CENTERS			
Breezewood Plaza	West Volusia	I3	20, 31
Country Club Corners - Publix	West Volusia	G3	20, 31, VoRide
Crowne Centre Plaza	West Volusia	J3	20, 21, 22, 23, 33
DeBary Commons Shopping Ctr	West Volusia	J3	20, 23, 31, 33
DeLand Plaza	West Volusia	E3	20, VoRide
Deltona Plaza	West Volusia	J4	21, 22
Dogwood Plaza	West Volusia	I3	20, 31
Dupont Lakes Shopping Center	West Volusia	I7	21, 22, 23
Four Townes Shopping Center	West Volusia	I3	20, 31
Marketplace Shopping Center	West Volusia	J3	20, 21, 22, 23, 33
Northgate Shopping Center	West Volusia	D3	20, 31, 60, VoRide
Oakbrook Professional Center	West Volusia	E2	20, VoRide
Orange City Plaza	West Volusia	I3	20, 31
Saxon Plaza Shopping Center	West Volusia	J4	23, 33
Three Seasons Plaza	West Volusia	I3	20, 31
Village Marketplace	West Volusia	I3	20
Walmart - DeLand	West Volusia	D3	20, VoRide
Walmart - Osteen	West Volusia	K7	21, 22
Walmart - South DeLand	West Volusia	F3	20, 31, VoRide
West Volusia Shopping Center	West Volusia	G3	20, 31
Whispering Pines Plaza	West Volusia	I3	20, 31
Woodland Plaza	West Volusia	F3	20, 31, VoRide
TRANSPORTATION			
Amelia SuperStop	West Volusia	D3	20, 31, 60, VoRide
DeLand Municipal Airport	West Volusia	D3	60
Market Place Transfer Center	West Volusia	J3	20, 21, 22, 23, 33
DeLand Intermodal Transfer Facility	West Volusia	E3	20, 31, VoRide
Saxon Park and Ride	West Volusia	J4	23, 33
SunRail - Debary	West Volusia	F5	31, 33
DeLand Amtrak	West Volusia	E1	VoRide

Other services

PERSONS WITH DISABILITIES
All regular fixed buses are equipped for wheelchair accessibility. Votran's Gold service provides door-to-door transportation to persons unable to use the regular fixed bus service. Transportation is provided daily between 6 a.m. – 6 p.m. with a charge of **$3.00** per trip. Applications for Gold service can be obtained from **votran.org** or by request by calling **386-322-5100**. All applicants must be certified by their doctors.

Greater Daytona Beach Area **386-761-7700**
West Volusia **386-943-7033**

COMMUTER ASSISTANCE SERVICES
If bus services are unable to meet your needs, please consider car or van pooling to reach your destination. Votran offers a variety of commuter assistance services to persons who travel to work within Volusia County or to neighboring areas. To learn more please visit our web site or reach us toll-free at **866-610-RIDE**.

BIKES STOW AND GO
All Votran fixed route buses are equipped with bicycle racks that accommodate up to two bicycles. Racks are available on a first-come, first-served basis, so be prepared to secure your bicycle if the positions are full.

LOST AND FOUND
If you've lost something on the bus, please call **386-756-7496** between 8 a.m. – 5 p.m., Monday – Friday.

Bienvenidos



Muchas gracias por elegir Votran, un servicio del Gobierno del Condado de Volusia. Votran es la opción de transporte segura, al alcance y más conveniente. Esperamos continúe usted viajando con Votran todos los días...al trabajo, la escuela, las tiendas, y a jugar.

Como usar el Horario y el Mapa de las rutas Votran

El Mapa Del Sistema Votran

Encuentre la calle donde usted está ubicado o la calle más cerca de usted en el mapa. Fíjese en el nombre, el número, y el color de la ruta más cerca. La hora de salida del autobús se puede ver en el horario de esta ruta.

Encuentre la localización del lugar adonde usted quiere ir en el mapa. Busque la ruta del autobús más cerca a esta localidad. Si esta ruta es diferente a la primera ruta que usted escogió, mire a la segunda ruta y su horario y busque en donde usted puede hacer un transbordo. El transbordo se puede hacer en **'Market Place', 'Providence/Fort Smith' bulevares y Amelia Super Stop en Northgate Plaza.**

> "La misión de Votran es identificar y satisfacer las necesidades de mobilidad en forma segura por el condado de Volusia. Esta misión se logrará a través de un cortés, confiable y un equipo ecológico compromiso a servicio de calidad."

Horario

Revíse la parte que indica el horario del autobús debajo del número de la ruta que usted ha determinado como la mejor para su viaje, y busque la calle o el punto de embarcar que está más cerca a donde usted quiere tomar el autobús. Siga la columna a través del horario hasta que usted encuentre una hora de salida conveniente para su viaje. Lea hacía abajo de esta linea hasta la hora y lugar más cerca de donde usted quiere ir para estimar su hora de llegada.

Si su calle o punto de embarcar o desembarcar el autobús está en el medio de dos paradas, usted puede calcular su llegada con la hora de llegada de la parada antes y de la parada después de la suya. Su autobús llegará a una hora entre estos dos horarios. Si su viaje le parece difícil de planear, o si usted tiene preguntas o necesita ayuda, por favor de llamar este número, **386-943-7033.**

Tarifa - Exacta Solamente

(Conforme a cambio sin aviso)

Votran no emite traslados. Le recomendamos que compre un pase de día entero.

ADULTOS	**$1.75**
CIUDADANOS MAYORES (DE 65 AÑOS)	**$0.85**
PERSONAS INCAPACITADAS	**$0.85**
JOVENES (ENTRE LAS EDADES DE 7 A 18 AÑOS)	**$0.85**
NIÑOS (menores de 7 años de edad)	**GRATIS**

Todo niño debe de ser acompañado por un pasajero adulto con tarifa pagada. Limitado a tres (3) niños.

Todo pasajero debe de mostrar la prueba válida de su estado personal al pagar el precio reducido del pase, o demostrar su pase reducido.

CIUDADANOS JUBILADOS (DESDE 65 AÑOS Y MÁS DE EDAD):
Identificación del gobierno o licencia, tarjeta de Medicare de los EEUU. (rojo, blanco y azul), pasaporte, etc.

INCAPACITADOS:
Identificación valida de la agencia emisora: Conklin Center, ACT, WORC, Tarjeta de Medicare (rojo, blanco y azul), pasaporte, (No se acepta la tarjeta de oro de Medicaid) o tarjeta de identificación de Votran indicando la palabra "disabled."

JÓVENES (DESDE LAS EDADES DE 7 A 18 AÑOS):
Identificación del gobierno o licencia que demuestra la prueba válida de la edad, identificación escolar (no se acepta tarjeta de identificación universitaria).

AHORE SU DINERO COMPRANDO LOS PASES DE TRANSPORTACIÓN

Los pasos del valor ofrecen la conveniencia y los coste-ahorros para los jinetes frecuentes. Hay opciones múltiples para satisfacer su necesidad del recorrido.

PASE DE UN DÍA	**$3.75**
PASE DE 3 DÍAS	**$7.50**
PASE DE 7 DÍAS	**$13.00**
PASE DE 31 DÍA	**$46.00**

PERSONAS JUBILADAS/INCAPACITADOS/JÓVENES

PASE DE UN DÍA	**$1.85**
PASE DE 3 DÍAS	**$3.75**
PASE DE 7 DÍAS	**$6.50**
PASE DE 31 DÍA	**$23.00**

- Los pases ofrecen paseos ilimitados para la duración del paseo.
- Las tarifas se pueden pagar con dinero en efectivo, fichas, o pases.
- Pases de un día están disponibles a bordo todos los autobuses con rutas fijas.
- Otros pases están disponibles para la venta en las siguientes localizaciones:

OFICINA DE VOTRAN:	días laborales, 8:00 a.m. – 5:00 p.m.
PLAZA DE TRANSFERENCIA:	lunes a sábado, 7:30 a.m. – 5:00 p.m.
DELTONA REGIONAL PUBLIC LIBRARY (BIBLIOTECA REGIONAL):	2150 Eustace Ave, Deltona Llame al (386) 289-7207 Únicamente efectivo.
HISTORIC COURTHOUSE	Treasury and Billing Office 125 W. New York Ave, Room 120 DeLand, FL 32720 lunes a viernes, 8:00 a.m. – 5:00 p.m.

Compra de una tarifa pasa en línea en votran.org.

Lo que necesita para el recorrido

1. **TARIFA EXACTA**
Al abordar siempre tenga listo el cambio exacto con la tarjeta apropiada de identificación. No se permite a los operadores a hacer cambio, manejar o depositar el dinero.

2. **PRECIOS REDUCIDOS**
Si usted califica a recibir precios reducidos, tenga listo su tarjeta de Medicare de los EEUU, prueba de su edad, o tarjeta de identificación de Votran.

3. **EL FUMAR, COMER, Y CONSUMIR BEBIDA**
Extinga sus cigarrillos y acabe de alimentarse con comida y refrescos antes de subir. Se prohíben todos. Esto incluye dispositivos electronicós fumadores.

4. **SUBIRSE EN EL AUTOBUS**
Cuando usted ha llegado a la localización en la calle donde usted necesita tomar el autobús, debe de pararse cerca de una parada designada o donde no hay una señal, debe de pararse a los mas lejano de la intersección, no al lado cercano. El autobús no se parará en medio bloque de la calle. Asómese a su autobús para determinar el número correcto de la ruta antes que le señale al operador que se pare. Señale al operador del autobús levantando su mano.

5. **BAJAR DEL AUTOBUS**
Cuando usted ya llegue dentro un bloque de su destinación, señale al operador para que se pare oprimiendo la tira amarilla al lado de la ventana o jalando la cuerda. Permanezca sentado hasta que el autobús se pare completamente. Después muévase a la parte trasera del autobús para salir. Espere hasta que la luz verde sobre la puerta le señale que empuje las barras verticales.

6. **PORTADORES DE MASCOTAS EN EL AUTOBUS**
Perros o gatos pequeños pueden montar Votran siempre que estén en unportador de mascotas. Los portadores deben caber entre sus pies orencima de sus piernas. Los portadores no pueden bloquear el pasillo oser colocados en un asiento. Los perros pequeños que exhiben excesivosladridos o agresión se les pedirá que bajen el autobús.

7. **MALETAS Y COCHES**
Usted puede cargar adentro artículos que se puedan guardar con seguridad a bordo una vez que esté sentado. Debido a las normas de seguridad, Votran no puede permitir artículos tales como bicicletas, tablas de surfear, o cualquier artículo que bloquee los pasillos. Los estantes de bicicletas se proveen en el exterior de todos los autobuses. Cochecitos debe doblarse antes de abordar el autobus.

8. **¡NO ZAPATOS, NO CAMISA, NO SERVICIO!**

9. **DIAS FERIADOS**
Las Rutas de Votran operan en un horario limitado para el Día de Año Nuevo, Memorial Day, el 4 de julio, Labor Day, Thanksgiving Day y el Dia de Navidad. Inicie sesión en nuestro sitio web en **www.votran.org** para más detalles.

10. **¿TIENE ALGUN COMENTARIO, UN MALENTENDIDO, O UNA RECOMENDACION?**
Si usted desea hacer un comentario, dar un resumen sobre un malentendido o elogiar un empleado, por favor comuníquese con nuestra oficina llamando al **386-943-7033**. Favor de anotar la ruta del autobús, número del autobús, la hora del día y la localización implicada en el caso. Usted también puede describir en detalle por escrito y enviarlo por correo postal a Votran, 950 Big Tree Rd., South Daytona, FL 32119, informe a través de nuestro sitio web **www.votran.org**.

11. **EVENTOS IMPREVISTOS RETRASARAN LOS AUTOBUSES**

ESTE HORARIO PUEDE CAMBIAR SIN AVISO

WEST VOLUSIA BUS SERVICE

- All times shown in **bold** are p.m. trips.
- All trips shown in ▭ do not operate on Saturdays.
- All trips shown in ▭ operate on Saturdays only.

Schedule is subject to change without notice

20 DeLand/Orange City

MON-SAT: ***Northbound from Market Place to Deland***

Charles Beall/ Angeles	Market Place *(Arrive)*	Market Place *(Depart)*	Volusia/ Rhode Island	Volusia/ French	Woodland/ Orange Camp	DeLand ITF Gate 2	Thomas C. Kelly County Adm.Ctr	AdventHealth DeLand	Int'l Speedway/ S.R. 15-A	Amelia SuperStop
-:-	-:-	-:-	5:45	5:49	5:55	6:03	-:-	-:-	-:-	6:13
-:-	-:-	6:16	6:24	6:29	6:37	6:47	6:52	6:59	7:04	7:10
-:-	-:-	-:-	6:38	6:43	6:50	-:-	-:-	-:-	-:-	7:10
-:-	-:-	7:25	7:31	7:36	7:42	7:53	8:00	8:08	8:13	8:19
-:-	-:-	8:25	8:31	8:36	8:42	8:53	9:00	9:08	9:13	9:19
9:03	9:13	9:25	9:31	9:36	9:42	9:53	10:00	10:08	10:13	10:19
9:55	10:05	10:25	10:31	10:36	10:42	10:53	11:00	11:08	11:13	11:19
10:55	11:05	11:25	11:31	11:36	11:42	11:53	**12:00**	**12:08**	**12:13**	**12:19**
11:55	**12:05**	**12:25**	**12:31**	**12:36**	**12:42**	**12:53**	**1:00**	**1:08**	**1:13**	**1:19**
12:55	**1:05**	**1:25**	**1:31**	**1:36**	**1:42**	**1:53**	**2:00**	**2:08**	**2:13**	**2:19**
1:55	**2:05**	**2:25**	**2:31**	**2:36**	**2:42**	**2:53**	**3:00**	**3:08**	**3:13**	**3:19**
2:55	**3:05**	**3:25**	**3:31**	**3:36**	**3:42**	**3:53**	**4:00**	**4:08**	**4:13**	**4:19**
3:55	**4:05**	**4:25**	**4:31**	**4:36**	**4:42**	**4:53**	**5:00**	**5:08**	**5:13**	**5:19**
4:55	**5:05**	**5:25**	**5:31**	**5:36**	**5:42**	**5:53**	**6:00**	**6:08**	**6:13**	**6:19**
5:55	**6:05**	**6:25**	**6:31**	**6:36**	**6:42**	**6:53**	**7:00**	**7:08**	**7:13**	**7:19**

MON-SAT ***Southbound from Deland to Market Place***

Amelia SuperStop	Walmart Deland	Amelia SuperStop	Int'l Speedway/ S.R. 15-A	AdventHealth DeLand	Thomas C. Kelly Co. Admin. Ctr	DeLand ITF Gate 1 *(Depart)*	Woodland/ McGregor	Volusia/ French	Volusia/ Rhode Island	Market Place	Charles Beall/ Angeles
6:14	6:23	6:28	6:35	6:39	6:45	6:50	7:00	7:07	7:11	7:20	-:-
7:14	7:19	7:26	7:33	7:37	7:43	7:50	8:00	8:07	8:11	8:20	-:-
8:14	-:-	-:-	-:-	-:-	-:-	8:24	8:34	8:40	8:44	8:53	9:03
8:29	8:34	8:41	8:49	8:54	9:01	9:15	9:24	9:30	9:34	9:45	9:55
9:29	9:34	9:41	9:49	9:54	10:01	10:15	10:24	10:30	10:34	10:45	10:55
10:29	10:34	10:41	10:49	10:54	11:01	11:15	11:24	11:30	11:34	11:45	11:55
11:29	11:34	11:41	11:49	11:54	**12:01**	**12:15**	**12:24**	**12:30**	**12:34**	**12:45**	**12:55**
12:29	**12:34**	**12:41**	**12:49**	**12:54**	**1:01**	**1:15**	**1:24**	**1:30**	**1:34**	**1:45**	**1:55**
1:29	**1:34**	**1:41**	**1:49**	**1:54**	**2:01**	**2:15**	**2:24**	**2:30**	**2:34**	**2:45**	**2:55**
2:29	**2:34**	**2:41**	**2:49**	**2:54**	**3:01**	**3:15**	**3:24**	**3:30**	**3:34**	**3:45**	**3:55**
3:29	**3:34**	**3:41**	**3:49**	**3:54**	**4:01**	**4:15**	**4:24**	**4:30**	**4:34**	**4:45**	**4:55**
4:29	**4:34**	**4:41**	**4:49**	**4:54**	**5:01**	**5:15**	**5:24**	**5:30**	**5:34**	**5:45**	**5:55**
5:29	**5:34**	**5:41**	**5:49**	**5:54**	**6:01**	**6:15**	**6:24**	**6:30**	**6:34**	**6:45**	-:-
6:20	**6:29**	-:-	-:-	-:-	-:-	**6:40**	**6:50**	**6:57**	-:-	-:-	-:-
6:24	**6:29**	**6:36**	**6:44**	**6:49**	**6:56**	**7:10**	**7:19**	**7:25**	**7:29**	**7:38**	-:-
7:20	**7:29**	-:-	-:-	-:-	-:-	**7:40**	**7:50**	**7:57**	**8:01**	-:-	-:-

21 Deltona

MON-SAT: ***Outbound from Market Place to Walmart/Osteen via Providence/Ft. Smith***

Market Place	Deltona Plaza	Providence/ Normandy	Methodist Children's Home	Providence/ Normandy	Providence/ Tivoli	Walmart/ Osteen
-:-	-:-	-:-	-:-	-:-	5:08	5:20
6:25	6:33	6:40	6:46	6:52	6:57	7:11
-:-	-:-	-:-	-:-	-:-	7:04	7:18
8:25	8:33	8:40	8:46	8:52	8:57	9:11
10:25	10:33	10:40	10:46	10:52	10:57	11:11
12:25	**12:33**	**12:40**	**12:46**	**12:52**	**12:57**	**1:11**
2:25	**2:33**	**2:40**	**2:46**	**2:52**	**2:57**	**3:11**
4:25	**4:33**	**4:40**	**4:46**	**4:52**	**4:57**	**5:11**
6:25	**6:33**	**6:40**	**6:46**	**6:52**	**6:57**	**7:11**

MON-SAT: ***Inbound Walmart/Osteen to Market Place via Elkcam/Providence***

Walmart/ Osteen	Pine Ridge High School	Howland/ Elkcam	Newmark/ Montecito	Providence/ Ft. Smith	Deltona City Hall	Deltona Library	Providence/ Tivoli	Providence/ Normandy	Deltona Plaza	Market Place
5:21	5:24	5:31	5:36	5:40	-:-	5:46	5:52	5:56	6:03	6:15
7:19	7:22	7:29	7:34	7:38		7:44	7:50	7:54	8:01	8:13
7:22	7:25	7:32	7:37	7:41	7:45	7:47	7:53	7:57	8:04	8:19
9:22	9:25	9:32	9:37	9:41	9:45	9:47	9:53	9:57	10:04	10:19
11:22	11:25	11:32	11:37	11:41	11:45	11:47	11:53	11:57	**12:04**	**12:19**
1:22	**1:25**	**1:32**	**1:37**	**1:41**	**1:45**	**1:47**	**1:53**	**1:57**	**2:04**	**2:19**
3:22	**3:25**	**3:32**	**3:37**	**3:41**	**3:45**	**3:47**	**3:53**	**3:57**	**4:04**	**4:19**
5:22	**5:25**	**5:32**	**5:37**	**5:41**	**5:45**	**5:47**	**5:53**	**5:57**	**6:04**	**6:19**
7:19	**7:22**	**7:29**	-:-	-:-	-:-	-:-	-:-	-:-	-:-	-:-

22 Deltona

MON-SAT: ***Outbound from Market Place to Walmart/Osteen via Elkcam/Providence***

Market Place	Deltona Plaza	Providence/ Normandy	Providence/ Tivoli	Deltona City Hall	Deltona Library	Elkcam/ Howland	Pine Ridge High School	Walmart/ Osteen
-:-	-:-	5:52	5:57	-:-	6:03	6:11	6:18	6:22
7:25	7:33	7:40	7:45	7:51	7:54	8:03	8:10	8:15
9:25	9:33	9:40	9:45	9:51	9:54	10:03	10:10	10:15
11:25	11:33	11:40	11:45	11:51	11:54	**12:03**	**12:10**	**12:15**
1:25	**1:33**	**1:40**	**1:45**	**1:51**	**1:54**	**2:03**	**2:10**	**2:15**
3:25	**3:33**	**3:40**	**3:45**	**3:51**	**3:54**	**4:03**	**4:10**	**4:15**
5:25	**5:33**	**5:40**	**5:45**	**5:51**	**5:54**	**6:03**	**6:10**	**6:15**

MON-SAT: ***Inbound from Walmart/Osteen to Market Place via Ft. Smith/Providence***

Walmart/ Osteen	Providence/ Tivoli	Providence/ Normandy	Methodist Children's Home	Providence/ Normandy	Deltona Plaza	Market Place
6:24	6:37	6:41	6:47	6:54	7:01	7:18
8:24	8:37	8:41	8:47	8:54	9:01	9:18
10:24	10:37	10:41	10:47	10:54	11:01	11:18
12:24	**12:37**	**12:41**	**12:47**	**12:54**	**1:01**	**1:18**
2:24	**2:37**	**2:41**	**2:47**	**2:54**	**3:01**	**3:18**
4:24	**4:37**	**4:41**	**4:47**	**4:54**	**5:01**	**5:18**
6:20	**6:33**	**6:37**	**6:43**	**6:50**	**6:57**	**7:14**

ROUTE 22 DOES NOT OPERATE ON HOLIDAYS
LA RUTA 22, NO TRABAJA EN LOS DIAS DE FIESTA

23 Orange City

MON-FRI: ***Eastbound from Market Place to Ft. Smith/Providence***

Market Place	Charles Beall/ Angeles	Saxon Blvd Market Place	AdventHealth Orange City	Saxon/Tivoli	Providence/ Ft. Smith
-:-	5:24	5:31	5:35	5:45	5:49
6:20	6:28	6:35	6:39	6:49	6:53
7:20	7:28	7:35	7:39	7:49	7:53
8:20	8:28	8:35	8:39	8:49	8:53
9:20	9:28	9:35	9:39	9:49	9:53
10:20	10:28	10:35	10:39	10:49	10:53
11:20	11:28	11:35	11:39	11:49	11:53
12:20	**12:28**	**12:35**	**12:39**	**12:49**	**12:53**
1:20	**1:28**	**1:35**	**1:39**	**1:49**	**1:53**
2:25	-:-	-:-	**2:31**	**2:41**	**2:45**
3:25	-:-	-:-	**3:31**	**3:41**	**3:45**
4:25	-:-	-:-	**4:31**	**4:41**	**4:45**
5:25	-:-	-:-	**5:31**	**5:41**	**5:45**

MON-FRI: ***Westbound from Providence/Ft. Smith to Market Place***

Providence/ Ft. Smith	Saxon Blvd Park & Ride	Market Place
5:49	6:01	6:16
6:53	7:05	7:20
7:53	8:05	8:20
8:53	9:05	9:20
9:53	10:05	10:20
10:53	11:05	11:20
11:53	**12:05**	**12:20**
12:53	**1:05**	**1:20**
1:53	**2:05**	**2:20**
2:45	**2:57**	**3:12**
3:45	**3:57**	**4:12**
4:45	**4:57**	**5:12**
5:45	**5:57**	**6:12**

SAT ONLY: ***Eastbound from Market Place to Ft. Smith/Providence***

Market Place	Charles Beall/ Angeles	Saxon Blvd Market Place	AdventHealth Orange City	Saxon/Tivoli	Providence/ Ft. Smith
-:-	-:-	-:-	6:39	6:49	6:53
7:20	7:28	7:35	7:39	7:49	7:53
8:20	8:28	8:35	8:39	8:49	8:53
9:20	9:28	9:35	9:39	9:49	9:53
10:20	10:28	10:35	10:39	10:49	10:53
11:20	11:28	11:35	11:39	11:49	11:53
12:20	**12:28**	**12:35**	**12:39**	**12:49**	**12:53**
1:20	**1:28**	**1:35**	**1:39**	**1:49**	**1:53**
2:20	**2:28**	**2:35**	**2:39**	**2:49**	**2:53**
3:20	**3:28**	**3:35**	**3:39**	**3:49**	**3:53**
4:20	**4:28**	**4:35**	**4:39**	**4:49**	**4:53**
5:20	**5:28**	**5:35**	**5:39**	**5:49**	**5:53**

SAT ONLY: ***Westbound from Providence/Ft. Smith to Market Place***

Providence/ Ft. Smith	Saxon Blvd Park & Ride	Market Place
6:53	7:05	7:20
7:53	8:05	8:20
8:53	9:05	9:20
9:53	10:05	10:20
10:53	11:05	11:20
11:53	**12:05**	**12:20**
12:53	**1:05**	**1:20**
1:53	**2:05**	**2:20**
2:53	**3:05**	**3:20**
3:53	**4:05**	**4:20**
4:53	**5:05**	**5:20**
5:53	**6:05**	**6:20**

31 SunRail - US 17-92

MON-FRI ONLY: ***Southbound to SunRail DeBary Station***

Amelia Super Stop	DeLand ITF *(Departs)*	Woodland/ McGreggor	Volusia/ Graves	Charles Beall/ Saxon	Charles Beall/ Highbanks	DeBary SunRail Station	SunRail Departs
4:43	4:53	5:00	5:05	5:12	5:16	5:20	5:30
5:13	5:23	5:30	5:35	5:42	5:46	5:50	6:00
5:43	5:53	6:00	6:05	6:12	6:16	6:20	6:30
6:13	6:23	6:30	6:35	6:42	6:46	6:50	7:00
6:43	6:53	7:00	7:05	7:12	7:16	7:20	7:30
7:08	7:18	7:25	7:30	7:37	7:41	7:45	8:00
7:43	7:53	8:00	8:05	8:12	8:16	8:20	9:00
3:15	**3:31**	**3:40**	**3:47**	**3:56**	**4:02**	**4:08**	**4:30**
3:45	**4:01**	**4:10**	**4:17**	**4:26**	**4:32**	**4:38**	**5:00**
4:15	**4:31**	**4:40**	**4:47**	**4:56**	**5:02**	**5:08**	**5:30**
4:45	**5:01**	**5:10**	**5:17**	**5:26**	**5:32**	**5:38**	-:-
5:15	**5:31**	**5:40**	**5:47**	**5:56**	**6:02**	**6:08**	-:-
5:45	**6:01**	**6:10**	**6:17**	**6:26**	**6:32**	**6:38**	**6:50**
6:18	**6:34**	**6:43**	**6:50**	**6:59**	**7:05**	**7:11**	-:-
6:48	**7:04**	**7:13**	**7:20**	**7:29**	**7:35**	**7:41**	**8:10**

MON-FRI ONLY: ***Northbound to Amelia Super Stop***

SunRail Arrives	DeBary SunRail Station	Charles Beall/ Highbanks	Saxon/ Charles Beall	Volusia/ Graves	Woodland/ McGreggor	DeLand ITF *(departs)*	Amelia Super Stop
-:-	5:25	5:30	5:33	5:39	5:44	5:57	6:06
-:-	5:55	6:00	6:03	6:09	6:14	6:27	6:36
-:-	6:25	6:30	6:33	6:39	6:44	6:52	7:01
-:-	6:55	7:00	7:03	7:09	7:14	7:27	7:36
7:18	7:25	7:30	7:33	7:39	7:44	7:57	8:06
7:48	7:55	8:00	8:03	8:09	8:14	8:27	8:36
2:43	**3:25**	**3:30**	**3:33**	**3:39**	**3:44**	**4:00**	**4:09**
3:48	**3:55**	**4:00**	**4:03**	**4:09**	**4:14**	**4:30**	**4:39**
-:-	**4:25**	**4:30**	**4:33**	**4:39**	**4:44**	**5:00**	**5:09**
4:48	**4:55**	**5:00**	**5:03**	**5:09**	**5:14**	**5:30**	**5:39**
5:18	**5:25**	**5:30**	**5:33**	**5:39**	**5:44**	**6:00**	**6:09**
5:48	**5:55**	**6:00**	**6:03**	**6:09**	**6:14**	**6:30**	**6:39**
6:18	**6:25**	**6:30**	**6:33**	**6:39**	**6:44**	**7:00**	**7:09**
6:53	**7:05**	**7:10**	**7:13**	**7:19**	**7:24**	**7:40**	**7:49**
7:23	**7:35**	**7:40**	**7:43**	**7:49**	**7:54**	**8:10**	**8:19**
7:53	**8:05**	**8:10**	**8:13**	**8:19**	**8:24**	**8:40**	**8:49**

33 SunRail - Dupont Lakes

MON-FRI ONLY: ***Westbound to SunRail DeBary Station***

Dupont Lakes Shopping Ctr	Deltona City Hall	Saxon Blvd Park & Ride*	Saxon Blvd Market Place*	DeBary SunRail Station	SunRail Departs
4:25	4:35	4:50	4:58	5:15	5:30
5:25	5:35	5:50	5:58	6:15	6:30
6:25	6:35	6:50	6:58	7:15	7:30
2:25	**2:35**	**2:50**	**2:58**	**3:15**	**3:30**
4:25	**4:35**	**4:50**	**4:58**	**5:15**	**5:30**
-:-	-:-	-:-	**6:25**	**6:42**	**6:50**

MON-FRI ONLY: ***Eastbound to Dupont Lakes***

SunRail Arrives	DeBary SunRail Station	Saxon Blvd Market Place*	AdventHealth Orange City	Saxon Blvd Park & Ride*	Deltona City Hall	Dupont Lakes Shopping Ctr
7:18	7:28	7:40	7:44	7:48	8:06	8:20
8:18	8:28	8:40	8:44	8:48	9:06	9:20
2:43	**3:20**	**3:32**	**3:36**	**3:40**	**3:58**	**4:12**
5:18	**5:28**	**5:40**	**5:44**	**5:48**	**6:06**	**6:20**
6:53	**6:58**	**7:07**	**7:11**	**7:14**	**7:24**	**7:37**

* Buses do not enter Deltona City Hall, Park & Ride, or Market Place. Bus stops are located on the main road.
** Los autobuses no entran en el Ayuntamiento de Deltona, Park & Ride o Market Place. Las paradas de autobús se encuentran en la carretera principal.*

60 East/West Connector

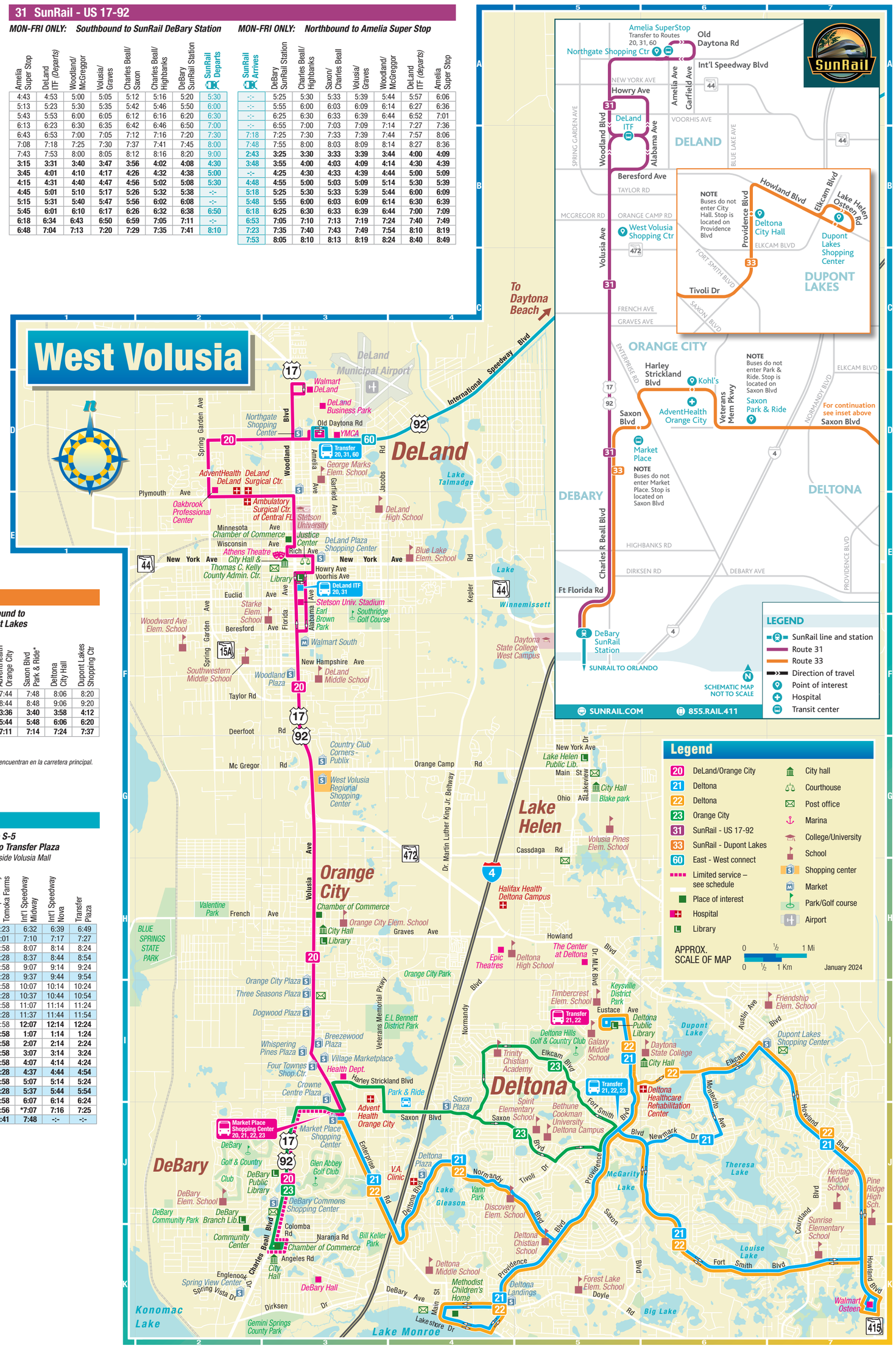
MON-SAT: ***Departs Gate S-5 Westbound to Amelia Superstop***
Does not go inside Volusia Mall

Transfer Plaza	Int'l Speedway Nova	Int'l Speedway Midway	Int'l Speedway Tomoka Farms	Branch Jail	Int'l Speedway Kepler Rd	Amelia Super Stop
-:-	-:-	5:15	5:20	-:-	5:36	5:40
-:-	-:-	*5:57	6:03	-:-	6:19	6:23
6:32	6:40	6:45	6:53	7:01	7:13	7:19
-:-	-:-	6:56	7:01	-:-	7:13	7:19
7:02	7:10	7:15	7:23	7:31	7:43	7:49
7:32	7:40	7:45	7:53	8:01	8:13	8:19
8:02	8:10	8:15	8:23	8:31	8:43	8:49
8:32	8:40	8:45	8:53	9:01	9:13	9:19
9:02	9:10	9:15	9:23	9:31	9:43	9:49
9:32	9:40	9:45	9:53	10:01	10:13	10:19
10:02	10:10	10:15	10:23	10:31	10:43	10:49
10:32	10:40	10:45	10:53	11:01	11:13	11:19
11:32	11:40	11:45	11:53	**12:01**	**12:13**	**12:19**
12:32	**12:40**	**12:45**	**12:53**	**1:01**	**1:13**	**1:19**
1:32	**1:40**	**1:45**	**1:53**	**2:01**	**2:13**	**2:19**
2:32	**2:40**	**2:45**	**2:53**	**3:01**	**3:13**	**3:19**
3:02	**3:10**	**3:15**	**3:23**	**3:31**	**3:43**	**3:49**
3:32	**3:40**	**3:45**	**3:53**	**4:01**	**4:13**	**4:19**
4:02	**4:10**	**4:15**	**4:23**	**4:31**	**4:43**	**4:49**
4:32	**4:40**	**4:45**	**4:53**	**5:01**	**5:13**	**5:19**
5:32	**5:40**	**5:45**	**5:53**	**6:01**	**6:13**	**6:19**
6:32	**6:40**	**6:45**	**6:53**	**7:01**	**7:13**	**7:19**

MON-SAT: ***Arrives Gate S-5 Eastbound to Transfer Plaza***
Does not go inside Volusia Mall

Amelia Super Stop	Int'l Speedway Kepler Rd	Branch Jail	Int'l Speedway Tomoka Farms	Int'l Speedway Midway	Int'l Speedway Nova	Transfer Plaza
5:51	5:56	6:12	6:23	6:32	6:39	6:49
6:29	6:34	6:50	7:01	7:10	7:17	7:27
7:26	7:31	7:47	7:58	8:07	8:14	8:24
7:56	8:01	8:17	8:28	8:37	8:44	8:54
8:26	8:31	8:47	8:58	9:07	9:14	9:24
8:56	9:01	9:17	9:28	9:37	9:44	9:54
9:26	9:31	9:47	9:58	10:07	10:14	10:24
9:56	10:01	10:17	10:28	10:37	10:44	10:54
10:26	10:31	10:47	10:58	11:07	11:14	11:24
10:56	11:01	11:17	11:28	11:37	11:44	11:54
11:26	11:31	11:47	11:58	**12:07**	**12:14**	**12:24**
12:26	**12:31**	**12:47**	**12:58**	**1:07**	**1:14**	**1:24**
1:26	**1:31**	**1:47**	**1:58**	**2:07**	**2:14**	**2:24**
2:26	**2:31**	**2:47**	**2:58**	**3:07**	**3:14**	**3:24**
3:26	**3:31**	**3:47**	**3:58**	**4:07**	**4:14**	**4:24**
3:56	**4:01**	**4:17**	**4:28**	**4:37**	**4:44**	**4:54**
4:26	**4:31**	**4:47**	**4:58**	**5:07**	**5:14**	**5:24**
4:56	**5:01**	**5:17**	**5:28**	**5:37**	**5:44**	**5:54**
5:26	**5:31**	**5:47**	**5:58**	**6:07**	**6:14**	**6:24**
6:24	**6:29**	**6:45**	**6:56**	***7:07**	**7:16**	**7:25**
*****7:23**	**7:27**	-:-	**7:41**	**7:48**	-:-	-:-

* Serves the Daytona Airport at 5:55 a.m. Westbound and 7:05 p.m. Eastbound.
** Sirve al aeropuerto de Daytona a las 5:55 a.m. en dirección oeste y a las 7:05 p.m. hacia el este.*
***The last eastbound trip ends at Clyde Morris. Passengers may deboard at Midway and take Route 10. Night Service at :31 past the hour to go to the Intermodal Transit Facility at Earl St. and A1A.
****El último viaje en dirección este termina en Clyde Morris. Los pasajeros pueden desembarcar en Midway y tomar el servicio nocturno de la ruta 10 a las: 31 después de la hora para ir a la instalación de tránsito intermodal en Earl St. y A1A.*



Appendix R
Signal Four Analytics Crash Data

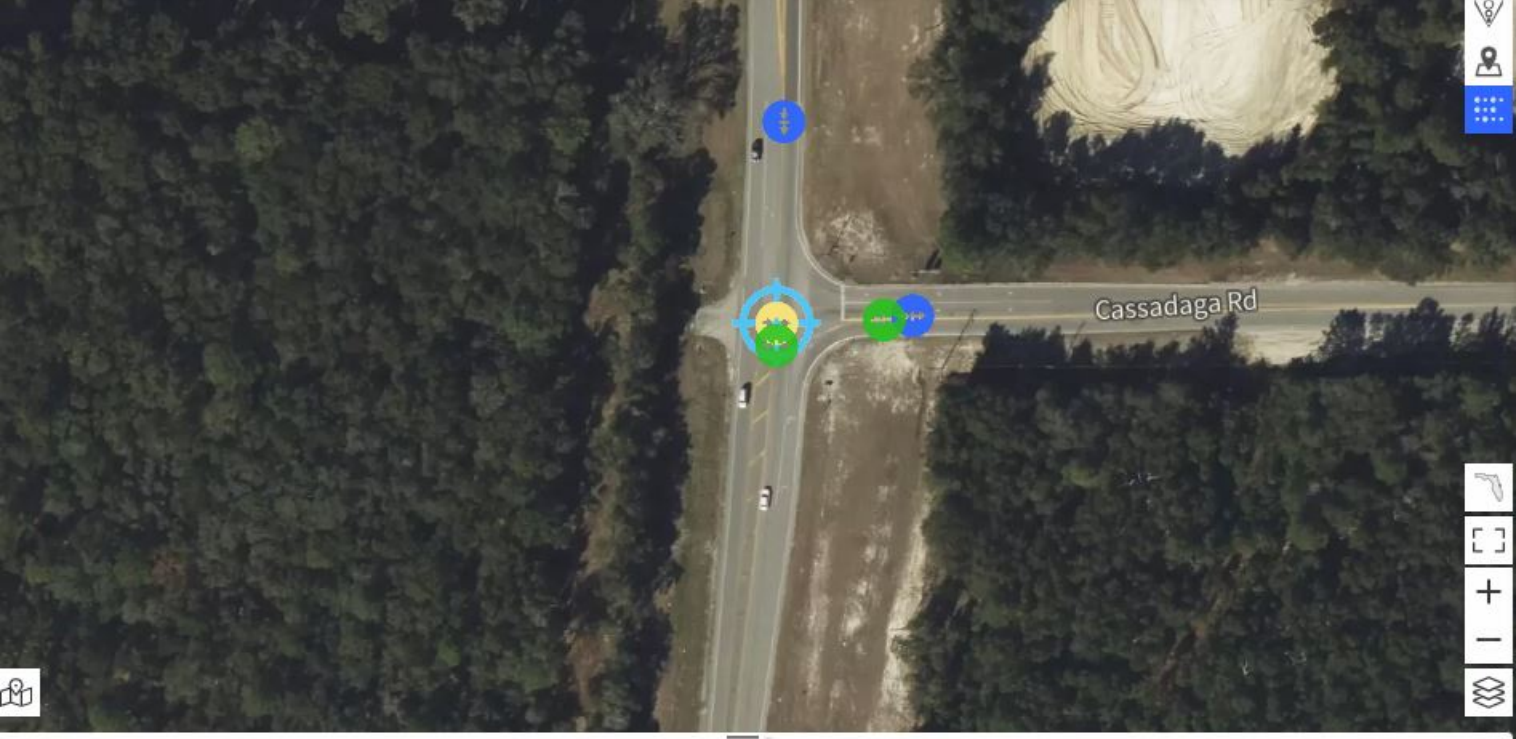
MLK Beltway and Cassadaga Road

REPORT_NUMBER	CRASH_YEAR	TOTAL_NUMBER_OF_VEHICLES	TOTAL_NUMBER_OF_PERSONS	COUNTY_CODE	CITY_CODE	COUNTY_NAME	CITY_NAME	RURAL_OR_URBAN	ON_STREET_ROAD_HIGHWAY	DIRECTION_FROM_INTERSECTION	FROM_INTERSECTION_OF	TYPE_OF_INTERSECTION	PHOTOS_TAKEN	LIGHT_CONDITION	WEATHER_CONDITION	ROAD_SURFACE_CONDITION	SCHOOL_BUS_RELATED_CODE	TYPE_OF_IMPACT	FIRST_HARMFUL_EVENT	LOCATION	INTERCHANGE_FLAG	JUNCTION_FLAG	ROAD_CIRCUMSTANCES_1	ROAD_CIRCUMSTANCES_2	ROAD_CIRCUMSTANCES_3	ENVIRONMENT_CIRCUMSTANCES_1	ENVIRONMENT_CIRCUMSTANCES_2
88074562	2019	2	1	8	36	Volusia	Deland	Urban	CASSADAGA ROAD	East	COUNTY ROAD 4101	T-Intersect	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Intersectio	None			None	
88074557	2019	2	2	8	36	Volusia	Deland	Urban	CASSADAGA ROAD	East	COUNTY ROAD 4101	T-Intersect	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Intersectio	None			None	
87240604	2019	3	3	8	48	Volusia	Orange Cit	Rural	COUNTY ROAD 4101 (	North	CASSADAGA RD	Not at Inte	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Non-Juncti	None			None	
24974479	2022	2	2	8	36	Volusia	Deland	Rural	COUNTY ROAD 4101 (DR. MLK BE		CASSADAGA ROAD	Not at Inte	N	Daylight	Clear	Dry	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Non-Juncti	Work Zone			None	
25074130	2023	2	4	8	0	Volusia	Unincorpo	Rural	COUNTY ROAD 4101	South	CASSADAGA ROAD	Not at Inte	N	Dark - Ligh	Clear	Wet	N	Front to Rear	Motor Vehicle in Transport	On Roadwa	N	Non-Juncti	None			None	

ENVIRONMENT_CIRCUMSTANCES_3	WORK_ZONE_RELATED_FLAG	CRASH_IN_WORK_ZONE	TYPE_OF_WORK_ZONE	WORKERS_PRESENT	LAW_ENFORCEMENT_PRESENT	INVESTIGATOR_RANK	INVESTIGATING_AGENCY_NAME	INVESTIGATING_AGENCY_TYPE	LOAD_DATE	CODEABLE	S4_CRASH_TYPE	S4_CRASH_TYPE_SIMPLIFIED	S4_CRASH_SEVERITY_DETAIL	S4_DAY_OR_NIGHT	S4_IS_AGGRESSIVE_DRIVING	S4_IS_ALCOHOL_RELATED	S4_IS_CMV_INVOLVED	S4_IS_DISTRACTED	S4_IS_DRUG_RELATED	S4_IS_HIT_AND_RUN	S4_IS_INTERSECTION_RELATED	S4_IS_LANE_DEPARTURE_RELATED	S4_IS_SPEEDING_RELATED	S4_NONE_INJURY_COUNT	S4_INJURY_COUNT	S4_POSSIBLE_INJURY_COUNT	S4_NON_INCAPACITATING_INJURY_COUNT	S4_INCAPACITATING_INJURY_COUNT	S4_FATALITY_COUNT	S4_FATALITY_WITHIN_30_DAYS_COUNT
	N					TROOPER	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	No Injury	DAY	N	N	N	N	N	Y	Y	N	N	1	0	0	0	0	0	0
	N					TROOPER	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	Possible Injury	DAY	N	N	N	Y	N	N	Y	N	N	1	1	1	0	0	0	0
	N					SERGEANT	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	Possible Injury	DAY	N	N	N	N	N	N	N	N	N	1	2	2	0	0	0	0
	Y	Activity Are	Work on Sh	Y	N	TPR	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	Non-Incapacitating I	DAY	N	N	N	N	N	N	N	N	N	1	1	0	1	0	0	0
	N					TPR	Florida Hig	Florida Hig	########	Y	Rear End	Rear End	No Injury	NIGHT	N	N	N	Y	N	N	N	N	N	4	0	0	0	0	0	0

S4_NON_TRAFFIC_FATALITY_COUNT	S4_TRAILER_COUNT	S4_MOTORCYCLE_COUNT	S4_MOPED_COUNT	S4_NON_MOTORIST_COUNT	S4_BICYCLIST_COUNT	S4_PEDESTRIAN_COUNT	S4_DRIVER_COUNT	S4_AGING_DRIVER_COUNT	S4_TEENAGER_DRIVER_COUNT	S4_PASSENGER_COUNT	S4_UNRESTRAINED_COUNT	S4_UNRESTRAINED_INJURY_COUNT	S4_UNRESTRAINED_INCAPACITATING_INJURY_COUNT	S4_UNRESTRAINED_FATALITY_COUNT	S4_MOTORCYCLIST_COUNT	S4_MOTORCYCLIST_INCAPACITATING_INJURY_COUNT	S4_MOTORCYCLIST_FATALITY_COUNT	S4_IS_PEDESTRIAN_INVOLVED	S4_PEDESTRIAN_INCAPACITATING_INJURY_COUNT	S4_PEDESTRIAN_FATALITY_COUNT	S4_IS_BICYCLIST_INVOLVED	S4_BICYCLIST_INCAPACITATING_INJURY_COUNT	S4_BICYCLIST_FATALITY_COUNT	S4_CITATION_COUNT	S4_CITATION_AMOUNT	S4_PROPERTY_DAMAGE_COUNT	S4_PROPERTY_DAMAGE_AMOUNT	S4_VEHICLE_DAMAGE_COUNT	S4_VEHICLE_DAMAGE_AMOUNT	S4_TOTAL_DAMAGE_AMOUNT	S4_TRANSPORT_BY_EMS_COUNT
0	0	0	0	0	0	0	1	0	0	0	0	0	0	0				N	0	0	N	0	0	0	0	0	0	1	1000	1000	0
0	0	0	0	0	0	0	2	1	0	0	0	0	0	0				N	0	0	N	0	0	1	0	0	0	2	8000	8000	0
0	0	0	0	0	0	0	3	0	0	0	0	0	0	0				N	0	0	N	0	0	1	0	0	0	3	21500	21500	0
0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	N	0	0	N	0	0	2	0	0	0	2	2000	2000	1
0	0	0	0	0	0	0	2	0	1	2	0	0	0	0	0	0	0	N	0	0	N	0	0	1	0	0	0	2	15000	15000	0

S4_TRANSPORT_BY_LAW_ENFORCEMENT_COUNT	S4_TRANSPORT_BY_OTHER_COUNT	S4_GEOLOCATION_STATUS	S4_PRELIMINARY_GEOLOCATION_STATUS	S4_X	S4_Y	S4_LATITUDE	S4_LONGITUDE
0	0	Preliminary	Editor Map	474153.9	3204263	28.96614	-81.2653
0	0	Preliminary	Editor Map	474160.4	3204264	28.96615	-81.2652
0	0	Preliminary	Editor Map	474131	3204309	28.96655	-81.2655
0	0	Preliminary	Computer	474129.2	3204263	28.96613	-81.2655
0	0	Preliminary	Editor Map	474129.2	3204258	28.96609	-81.2655



Injury Summary | Common Attributes | FDOT Attributes

	Total	Fatal Crashes	Serious Injury Cras...	Injury Crashes	Property Damage ...
Crashes	5	0	0	3	2
Fatalities (within 30 Days)	0	0	0	0	0
Incapacitating Injuries	0	0	0	0	0
Non-Incapacitating Injuries	1	0	0	1	0
Possible Injuries	3	0	0	3	0
No Injuries	8	0	0	3	5
Non-Traffic Fatalities	0	0	0	0	0

SR 472 & S Blue Lake Avenue

REPORT_NUMBER	CRASH_YEAR	LIGHT_CONDITION	WEATHER_CONDITION	ROAD_SURFACE_CONDITION	S4_CRASH_TYPE_SIMPLIFIED	S4_CRASH_SEVERITY_DETAIL	S4_DAY_OR_NIGHT	
88091687	2019	Daylight	Clear	Dry	Rear End	Incapacitating Injury	DAY	
24654910	2022	Dark - Not Lighted	Clear	Dry	Sideswipe	No Injury	NIGHT	



Appendix S
Volusia County Master Proportionate Share Table and Relevant Information

Master Prop Fair Share approved costs & formulas

12/10/2024

Updated 10/23. FDOT Cost Per Mile Reports were calculated 10-22 therefore the 9-23 CPI for Transportation Services of 9.1% is applied. If there is already a county project with estimates based on itemized estimated costs then those amounts are used. Bridge estimates are $300/sf.

Roadway/ Intersection	Segment	Length	Improvement	Cost per Lane Mile (FDOT 11/22)	Additional Cost	Improvement Cost	Design + CEI (25%)	ROW/Mitigation/ Other Costs	2022 Total Improvement Cost	CPI - Trans Svcs (9.2%)	2023-24 Total Improvement Cost	Existing Capacity	Improved Capacity	Capacity Increase	Project Trips	Project Percentage	Prop Share	Prop Share
Graves Ave	Leavitt Ave to VMP	1.18	Widen 2 to 4 lanes, urban	$4,717,890		$5,567,110	$1,391,778		$6,958,888	$640,218	$7,599,105.42	1,620	3,410	1,790		0.00%	$0.00	updated LREs in PFS spreadsheet
	VMP to Kentucky Ave	0.33	Widen 2 to 4 lanes, urban	$4,717,890	$300,000	$1,856,904	$464,226		$2,321,130	$213,544	$2,534,673.55	1,620	3,410	1,790	15	0.84%	$21,240.28	updated LREs in PFS spreadsheet
	Kentucky Ave to 4L at overpass	0.38	Widen 2 to 4 lanes, rural	$3,250,379	$12,050,000	$13,285,144	$3,321,286		$16,606,430	$1,527,792	$18,134,221.59	1,620	3,410	1,790	5	0.28%	$50,654.25	detailed est
Howland Blvd	Forest Edge to Wolf Pack Run	0.25	Widen 4 to 6 lanes, urban	$4,723,934	$300,000	$1,480,984	$370,246		$1,851,229	$170,313	$2,021,542.48	3,410	5,120	1,710		0.00%	$0.00	detailed est
	I-4/SR 472 to Wolf Pack Run	0.40	Widen 4 to 6 lanes, urban	$4,723,934	$480,000	$2,369,574	$592,393		$2,961,967	$272,501	$3,234,467.96	3,410	5,120	1,710	14	0.82%	$26,481.02	detailed est
	Wolf Pack Run to Catalina Blvd	1.20	Widen 4 to 6 lanes, urban	$4,723,934	$1,870,000	$7,538,721	$1,884,680		$9,423,401	$866,953	$10,290,353.89	3,410	5,120	1,710		0.00%	$0.00	detailed est
Kentucky Ave	Graves Ave to SR 472	0.80	Widen 2 to 4 lanes, rural	$3,250,379	$1,715,000	$4,315,303	$1,078,826		$5,394,129	$496,260	$5,890,388.87	1,540	3,410	1,870	20	1.07%	$62,998.81	detailed est
Orange Camp Road	US 17-92 to MLK	2.15	Widen 2 to 4 lanes, urban	Sales Surtax					$19,080,000	$1,755,360	$20,835,360.00							Sales Surtax
Broken out	US 17-92 to Princeton	0.55	Widen 2 to 4 lanes, urban	$8,874,418					$4,880,930	$449,046	$5,329,975.81	1,270	3,410	2,140	3	0.14%	$7,471.93	Sales Surtax
Broken out	Princeton to Blue Lake	1.05	Widen 2 to 4 lanes, urban	$8,874,418					$0	$0	$0.00	1,540	3,410	1,870		0.00%		Sales Surtax
Broken out	Blue Lake to MLK	0.55	Widen 2 to 4 lanes, urban	$8,874,418					$4,880,930	$449,046	$5,329,975.45	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Veterans Memorial Pkwy	SR 472 to Graves Ave	1.00	Widen 2 to 4 lanes, rural	Sales Surtax					$15,000,000	$1,380,000	$16,380,000.00	1,620	3,410	1,790		0.00%	$0.00	Sales Surtax
	Graves Ave to Harley Strickland	2.62	Widen 2 to 4 lanes, rural	Sales Surtax					$9,800,000	$901,600	$10,701,600.00							Sales Surtax
Broken out	Parc Hill Driveway to Rhode Island	0.42	Widen 2 to 4 lanes, rural	ARPA					$4,285,000	$394,220	$4,679,220.00	1,540	3,410	1,870		0.00%	$0.00	Aug 2021 ARPA Presentation to CC
Broken out	Harley Strickland Blvd to Rhode Island	1.22	Widen 2 to 4 lanes, rural	ARPA					$12,446,905	$1,145,115	$13,592,020.00	1,540	3,410	1,870	5	0.27%	$36,342.30	Aug 2021 ARPA Presentation to CC
	Rhode Island to Graves Avenue	1.40	Widen 2 to 4 lanes, rural	ARPA					$7,358,000	$676,936	$8,034,936.00	1,620	3,410	1,790		0.00%	$0.00	Aug 2021 ARPA Presentation to CC
West Volusia Beltway (Kepler Road/MLK)	SR 472 to US 92	7.93	Widen 2 to 4 lanes, rural	Sales Surtax					$44,550,000	$4,098,600	$48,648,600.00							Sales Surtax
Broken out	US 92 to Minnesota Ave	1.90	Widen 2 to 4 lanes, rural	$6,197,772		$11,775,767			$11,775,767	$1,083,371	$12,859,137.35	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Minnesota Ave to SR 44	0.76	Widen 2 to 4 lanes, rural	$6,197,772		$4,710,307			$4,710,307	$433,348	$5,143,654.94	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	SR 44 to E Euclid Ave	0.75	Widen 2 to 4 lanes, rural	$6,197,772		$1,375.53			$1,376	$127	$1,502.08	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	E Euclid Ave to Beresford Ave	0.75	Widen 2 to 4 lanes, rural	$6,197,772		$3,272.80			$3,273	$301	$3,573.90	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Beresford Ave to Taylor Rd	1.05	Widen 2 to 4 lanes, rural	$6,197,772		$6,507,661			$6,507,661	$598,705	$7,106,365.38	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Taylor Rd to Orange Camp Rd	1.04	Widen 2 to 4 lanes, rural	$6,197,772		$6,445,683			$6,445,683	$593,003	$7,038,685.70	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Orange Camp Rd to Cassadaga Rd	1.28	Widen 2 to 4 lanes, rural	$6,197,772		$7,933,148			$7,933,148	$729,850	$8,662,997.79	1,540	3,410	1,870		0.00%	$0.00	Sales Surtax
Broken out	Cassadaga Rd to SR 472	0.40	Widen 2 to 4 lanes, rural	$6,197,772		$2,479,109			$2,479,109	$228,078	$2,707,186.81	1,540	3,410	1,870	15	0.80%	$21,715.40	Sales Surtax

Segment

	Yellow highlighted segments were available in the Master PropShare and used directly for PropShare calculations.
	Orange highlighted segments were estimated based on data from similar road segments, adjusted for length differences, for PropShare calculations.
	Gray Highlights represent the segments whose data were used to estimate Orange Highlight segments.

Model	Cost Per Mile	Report
Rural		
New Construction Undivided 2 Lane Rural Road with 5' Paved Shoulders: R01	$4,054,799.93	Report
New Construction Undivided 3 Lane Rural Road with 5' Paved Shoulders, Center Turn Lane: R02	$4,864,537.52	Report
New Construction Undivided 4 Lane Rural Road with 5' Paved Shoulders: R03	$5,706,368.51	Report
New Construction Divided 4 Lane Rural Road with 2' Paved Shoulders Inside and 5' Paved Shoulders Outside: R04	$7,951,226.49	Report
New Construction Divided 4 Lane Rural Interstate with Paved Shoulders 10' Outside and 4' Inside: R05	$10,097,170.21	Report
New Construction Undivided 5 Lane Rural Road with 5' Paved Shoulders, Center Turn Lane: R06	$6,767,484.45	Report
New Construction Divided 6 Lane Rural Road with 5' Paved Shoulders Inside and Out: R07	$9,608,322.81	Report
New Construction Divided 6 Lane Rural Interstate with 10' Paved Shoulders Inside and Out: R08	$11,768,829.26	Report
New Construction Extra Cost for 1 Single Additional Lane on Rural Arterial: R09	$869,856.58	Report
New Construction Extra Cost for 1 Single Additional Lane on a Rural Interstate: R10	$1,017,259.79	Report
Mill and Resurface 2 Lane Rural Road with 5' Paved Shoulders: R11	$725,185.30	Report
Mill and Resurface 3 Lane Rural Road with 5' Paved Shoulders and Center Turn Lane: R12	$1,006,207.20	Report
Mill and Resurface 4 Lane Rural Road with 5' Paved Shoulders: R13	$1,564,875.63	Report
Mill and Resurface 4 Lane Divided Rural Arterial with 5' Outside Shoulders and 2' Inside: R14	$1,650,420.86	Report
Mill and Resurface 4 Lane Divided Rural Interstate with Paved Shoulders 10' Outside and 4' Inside: R15	$1,900,930.32	Report
Mill and Resurface 5 Lane Rural Road with 5' Paved Shoulders and Center Turn Lane: R16	$1,888,819.25	Report
Mill and Resurface 6 Lane Divided Rural Arterial with 5' Paved Shoulders Inside and Out: R17	$2,353,319.54	Report
Mill and Resurface 6 Lane Divided Rural Interstate with 10' Paved Shoulders Inside and Out: R18	$2,712,032.04	Report
Mill and Resurface 1 Additional Lane Rural Interstate: R19	$446,396.49	Report
Mill and Resurface 1 Additional Lane Rural Arterial: R20	$373,714.37	Report
Widen Existing 2 Lane Arterial to 4 Lanes Undivided; Add 1 Lane to Each Side; 5' Paved Shoulders: R21	$4,225,423.96	Report
Widen Existing 2 Lane Arterial to 4 Lane Divided; Resurface Existing 2 Lanes; 5' Paved Shoulders Inside and Out: R22	$5,088,776.22	Report
Widen Existing 4 Lane Divided Arterial to 6 Lane Divided; Resurface Existing 4 Lanes; 5' Paved Shoulders Inside and Out: R23	$4,836,960.89	Report
Widen 4 Lane Interstate to 6 Lanes (In Median); Mill and Resurface Existing; 10' Paved Shoulders Inside and Out: R24	$7,113,435.51	Report
Widen 4 Lane Interstate to 6 Lanes (Outside); Mill and Resurface Existing; 10' Shoulders Outside; Widen Existing 4' Inside Shoulders to 10': R25	$6,668,747.14	Report
Widen Existing 6 Lane Divided Arterial to 8 Lane Divided; Resurface Existing 6 Lanes; 5' Paved Shoulders Inside and Out: R26	$5,295,850.61	Report
Widen 6 Lane Interstate to 8 Lanes (in Median); Mill and Resurface Existing; 10' Paved Shoulders Inside and Out: R27	$7,831,556.14	Report
Widen Divided Rural 4-Lane to Allow for Left Turn Lane, 300': R28	$270,409.62	Report
Widen Divided Rural 4-Lane for Right Turn Lane, 300': R29	$266,909.26	Report

VOLUSIA COUNTY SCHOOLS

Carmen J. Balgobin, Ed.D
Superintendent of Schools

School Board of Volusia County

Ms. Jamie M. Haynes, Chair
Mr. Ruben Colón, Vice Chair
Ms. Krista Goodrich
Mrs. Jessie Thompson
Ms. Donna Brosemer

School Concurrency Determination
Concurrency Letter

May 20, 2025

Mr. Mark A. Watts, Esq.
Cobb Cole
231 N. Woodland Blvd
DeLand, FL 32720

RE : Ford 472 – County of Volusia
School Concurrency Case # 25-02-25-001-R

Mr. Watts:

District staff has reviewed the school concurrency application for the residential project known as Ford 472, associated with 39.24 +/- acres of property. The property is located at or near the intersection of State Road 472 and Dr. Martin L King Jr. Blvd within an unincorporated area of Volusia county. Information provided in the application indicates the development activity will consist of ninety-one (91) single family units and one hundred twelve (112) multi-family.

The district uses a county wide Student Generation Rate (SGR) of (0.258) per single family and 0.137 per multi-family dwelling unit to calculate projected students. By applying the SGR to the use types in Table 1 below, the project could generate Thirty-Five (35) full time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	0.258	91	14
Multi Family Dwelling Unit	0.137	112	21
Mobile/ Manufactured Home Dwelling Unit	0.052	0	0
	Total	**203**	**35**

The Concurrency Analysis (Table 2, next page) adjusts for impacts to the Concurrency Service Areas (CSAs) by accounting for current school year enrollments, existing reservations at the impacted schools, and the projected students generated by the applicant. These factors give an associated utilization or Level of Service (LOS) percentage for each CSA.

The schools impacted by this development are Orange City Elementary School, Deland Middle School, and University High School.

Concurrency Analysis

Table 2

Schools	Adopted LOS	SY 2024/25 Enrollment	Active Reservations	Existing LOS w/ Res	Students Generated by Request	Result LOS
Orange City Elementary	115%	595	17	119%	15	122%
Deland Middle	115%	1067	85	100%	8	104%
<Planning Area> CSA (University High)	120%	2881	80	114%	13	115%
Other					35	

The adopted LOS standard for elementary and middle school is (115%) of permanent student stations, and (120%) for high school CSAs. This projected increase in students **will** exceed the adopted LOS at the elementary level. However, the classroom addition at Orange City elementary is projected to be completed within the coming school year, therefore the school district has no objection to this proposed residential development. Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering.

Please note that the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Therefore, students generated from this project may not attend the current assigned schools.

Should you need additional information, please contact me at (386) 947-8786, ext. 50754.

Sincerely,

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

CC: Carmen J. Balgobin, Ed.D, Superintendent of Schools
Ron Young, Director of Planning & Construction
Robert J. Voges, Ed.S, Planning Coordinator
Kimberly Reading, Land Development Manager, County of Volusia

VOLUSIA COUNTY SCHOOLS

Certificate of School Concurrency

VOLUSIA COUNTY SCHOOL BOARD

Project Information

Project Name	Ford 472
VCSB Project #	25-02-25-001-R
Jurisdiction Project #	
Parcel ID Numbers	8001-00-00-0020
Project Location	State Road 472 and Dr. Martin L King Jr. Blvd
# of Residential Units	203
Residential Unit Type	91 Single Family Homes 112 Multi-Family Townhomes
Property Owners	Pulte Home Company, LLC
Applicant/Agent Name	Mark A. Watts Esp., Cobb Cole

This School Concurrency Certificate shall reserve student stations for the above referenced project and shall confirm that said project meets the School Concurrency requirements of the adopted Interlocal Agreement for Public School Facility Planning.

School Concurrency Analysis

School Levels	Elementary	Middle	High	Other	Total Student Stations Reserved
Students Generated	**15**	**8**	**5**	0	**35**

Comments: This certificate is required to be included with the building permit submittal(s) as proof of school concurrency.

This concurrency reservation shall expire two (2) years from the date of issuance of this certificate.

Cody F. Shepard

Cody F. Shepard
Specialist, Planning & GIS

May 20, 2025
Issue Date

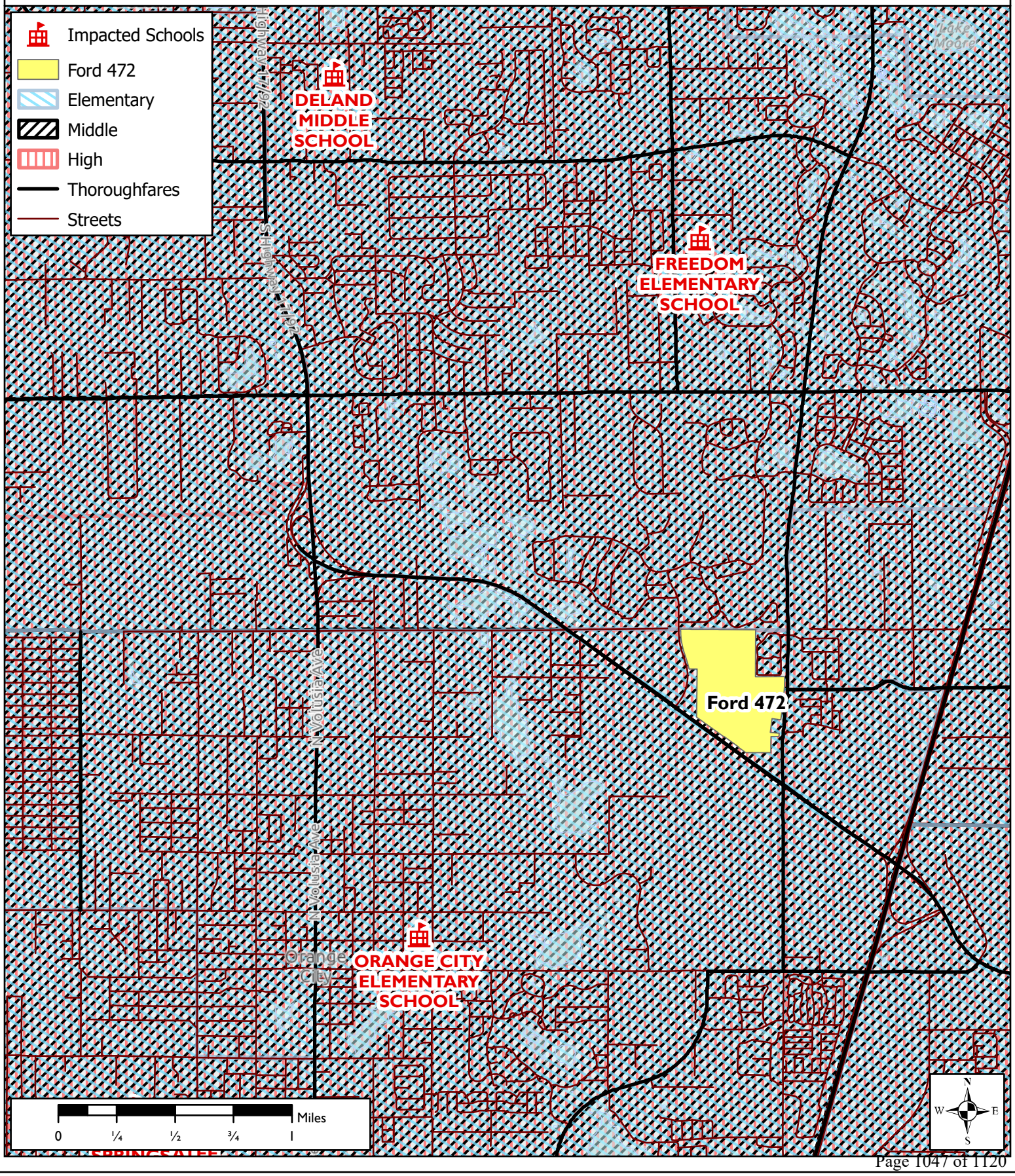
Created: 9/2007
Rev: 1/2018
Owner: Facilities Services

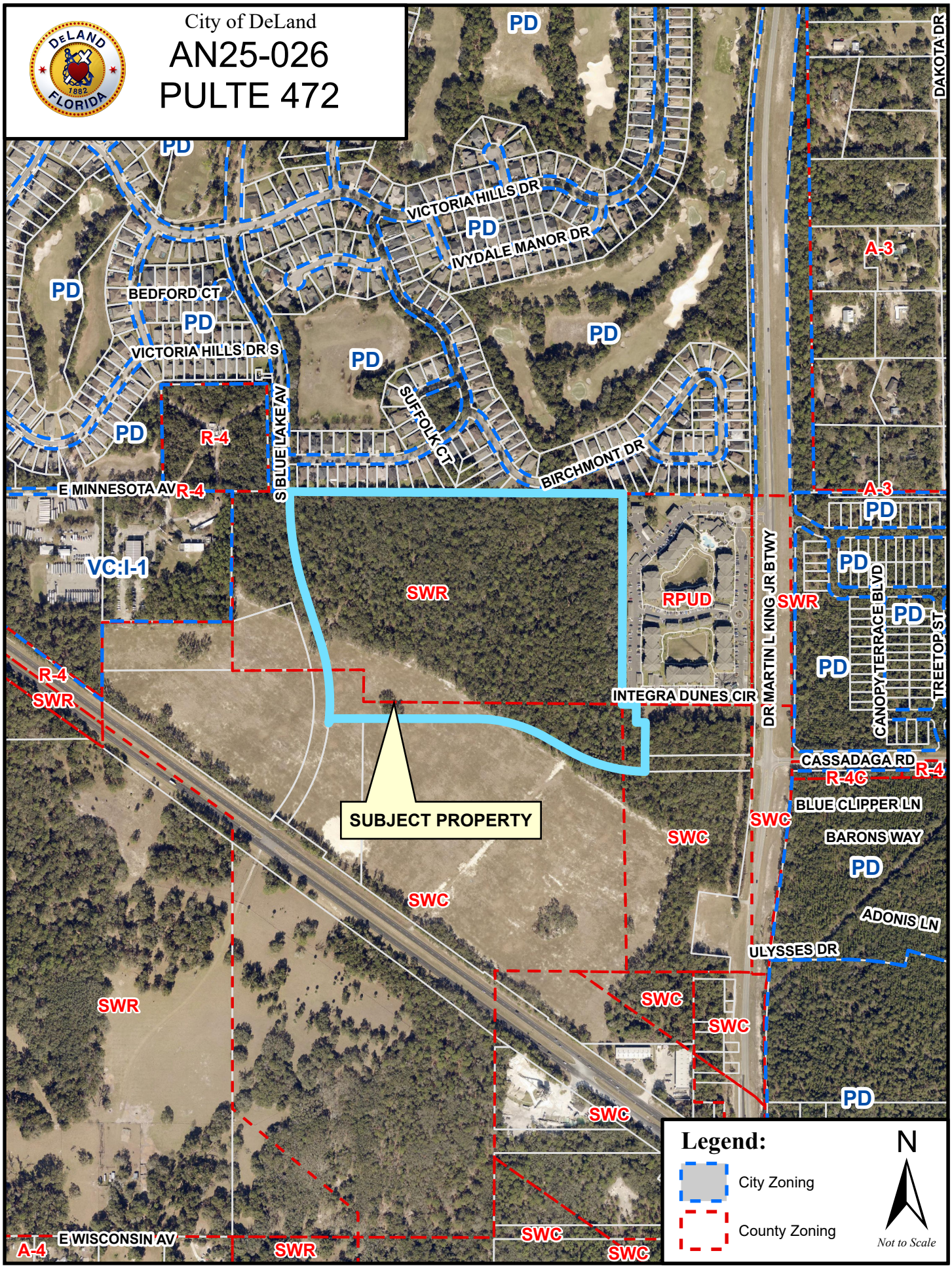
2008-072-VCS
Print Locally

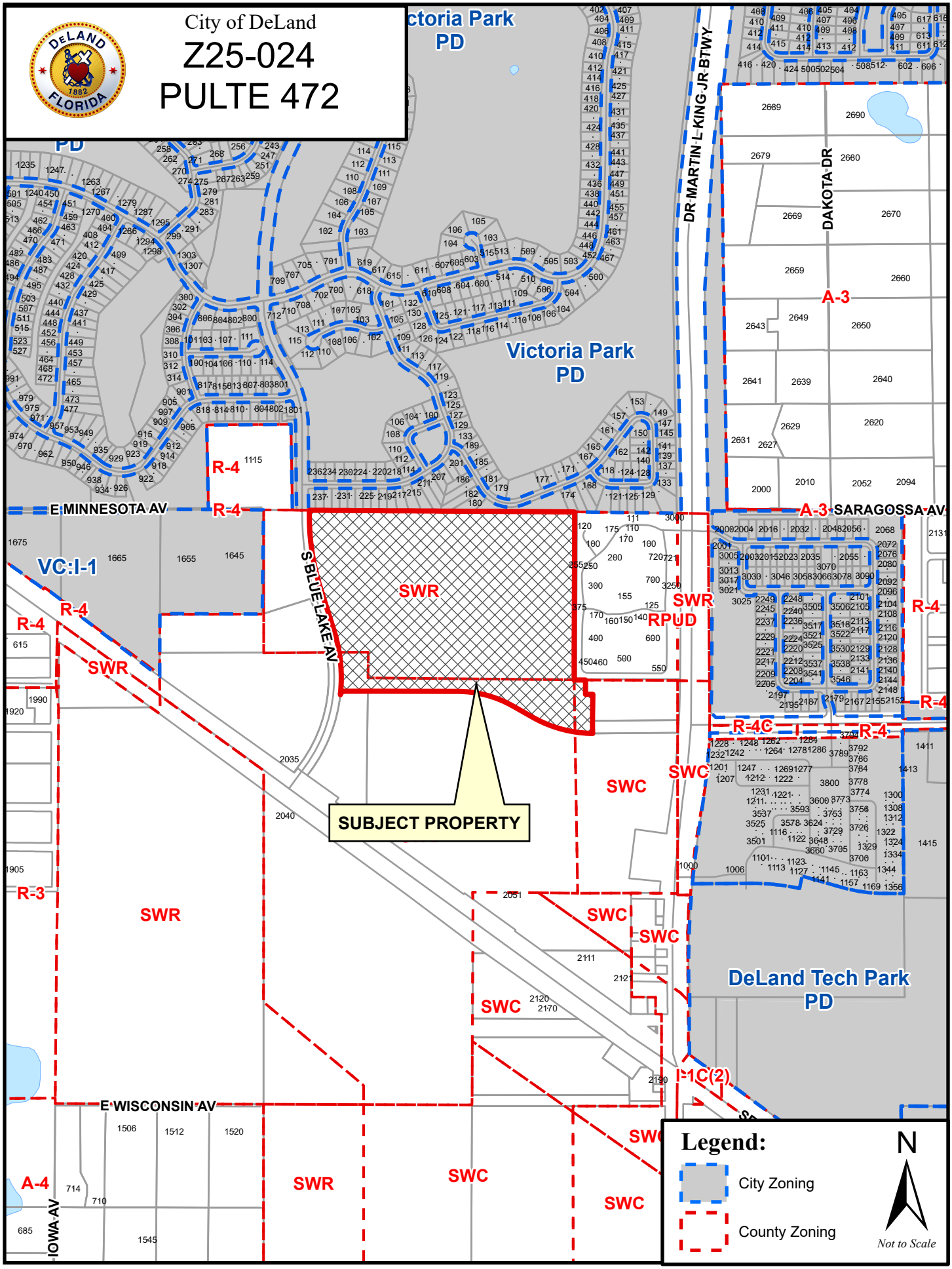
VCSB Schools Impacted by Development

School Concurrency Review - Ford 472

VOLUSIA COUNTY SCHOOLS
Planning & Business Services
May 2025




City of DeLand
AN25-026
PULTE 472
SUBJECT PROPERTY
VICTORIA HILLS DR
IVYDALE MANOR DR
BEDFORD CT
VICTORIA HILLS DR S
SUFFOLK CT
BIRCHMONT DR
S BLUE LAKE AV
E MINNESOTA AV
INTEGRA DUNES CIR
DR MARTIN L KING JR BTWY
CANOPY TERRACE BLVD
TREETOP ST
CASSADAGA RD
BLUE CLIPPER LN
BARONS WAY
ADONIS LN
ULYSSES DR
DAKOTA DR
E WISCONSIN AV
PD
R-4
A-3
A-4
VC:I-1
RPUD
SWR
SWC
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
Z25-024
PULTE 472
Victoria Park PD
Victoria Park PD
DR MARTIN L KING JR BTWY
DAKOTA DR
E MINNESOTA AV
SARAGOSSA AV
S BLUE LAKE AV
E WISCONSIN AV
IOWA AV
VC:I-1
R-4
R-4C
R-3
A-3
A-4
SWR
SWC
RPUD
I-1C(2)
SUBJECT PROPERTY
DeLand Tech Park PD
Legend:
City Zoning
County Zoning
N
Not to Scale

CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Resolution Approving the Preliminary Plat for Taylor Ridge, Located at the Northwest Corner of South Blue Lake Avenue and East Taylor Avenue.

DEPARTMENT: Planning

PREPARED BY: Kendall Story, Senior Planner

ATTACHMENTS: Resolution, PSB24-090 Taylor Ridge Pre Plat, PSB24-090 Landscape Plans, PSB24-090 Boundary & Topo Survey, PSB24-090 Staff Report, PSB24-090 Aerial, PSB24-090 Zoning, PSB24-090 VCSB School Concurrency approved

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The applicant, Sean Fortier of KCG, Inc., has submitted an application for the review and approval of a preliminary plat for the Taylor Ridge residential subdivision. The subject property has a zoning designation of PD (Taylor Ridge Planned Development) which was approved by the City Commission on February 5, 2024. The development is located at the northwest corner of Taylor Ave. and S. Blue Lake Ave. and is ±26.01 acres in size. The applicant seeks to develop the property into a 63-lot single-family residential subdivision.

The individual lots will be 60'x115' in size, with all lots meeting the dimensional requirements outlined in the Taylor Ridge PD agreement. Access will be provided from S. Blue Lake Ave. as well as from E. Taylor Rd. The development agreement states that the project will utilize low impact development measures to protect environmental features. The development includes enhanced amenities, as required by the TRD (Transitional Residential Development) land use designation from the City's Comprehensive Plan. The development provides internal sidewalks and bike lanes, enhanced recreational amenities and is located within a mile of an arterial roadway in accordance with the TRD requirements.

The project will have an overall density of approximately 2.4 units per acre. In general, unless otherwise stated in the PD Agreement, the development standards will mirror the R-1 district regulations from the city’s land development regulations. An amendment to the PD was unanimously approved by the City Commission on July 21, 2025, modifying the tree mitigation requirements for trees in poor health.

The proposed subdivision complies with the development standards set forth in Sec. 33-146 "Subdivision of Land" of the City's land development regulations as well as the standards in the development agreement "Taylor Ridge PD", also including the amended tree mitigation standards that were approved as part of the first amendment.

On May 29, 2024, the Volusia County School Board provided a School Concurrency Determination Letter with no objections from the Board.
A transportation analysis was done as part of the PD rezoning. However, one is not required, as the trips do not exceed the 1,000 average daily trip threshold.

Prior to issuance of a development order, all tree mitigation fees will be paid.

On August 14, 2024, the Planning Board recommended approval of the preliminary plat.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Institute Smart Growth Principles.

SUSTAINABILITY:

N/A

FISCAL IMPACT:

The eventual recording of this plat will allow for the individual lots to be added to the City's ad-valorem tax roll.

RECOMMENDATION:

It is recommended that the City Commission approve the Preliminary Plat for the Taylor Ridge subdivision.

BACKGROUND/DISCUSSION:

The City Commission approved the rezoning request of the subject property to the Taylor Ridge Planned Development on February 5, 2024. An amendment to the PD was later unanimously approved by the City Commission on July 21, 2025, modifying the tree mitigation requirements for trees in poor health.

RESOLUTION NO. 2025 -

A RESOLUTION OF THE CITY COMMISSION OF DELAND, FLORIDA, APPROVING THE PRELIMINARY SUBDIVISION PLAT FOR TAYLOR RIDGE LOCATED AT THE NORTHWEST CORNER OF SOUTH BLUE LAKE AVENUE AND EAST TAYLOR AVENUE; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the applicant, Sean Fortier of KCG, Inc., has submitted a proper and complete application under Chapter 33, Article 13 of the City of DeLand Code of Ordinances (hereinafter the "Code") for approval of a preliminary subdivision plat for Taylor Ridge located at the northwest corner of South Blue Lake Avenue and Taylor Avenue; and

WHEREAS, the applicant intends to develop the subject property into a 63-lot single-family residential subdivision; and

WHEREAS, on August 14, 2024, the Planning Board recommended approval of the preliminary subdivision plat for Taylor Ridge.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City Commission hereby approves the preliminary subdivision plat for Taylor Ridge, located at the northwest corner of South Blue Lake Avenue and Taylor Avenue.

Section 2. If any section, sentence, clause or phrase of this Resolution is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the remaining portions of this Resolution.

Section 3. This Resolution shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this 6th day of October, 2025.

_____
Christopher M. Cloudman
Mayor-Commissioner

ATTEST:

_____
Julie A. Hennessy
City Clerk – Auditor

APPROVED AS TO FORM AND LEGALITY:

_____
Darren J. Elkind
City Attorney

PARCEL DESCRIPTION

PARCEL 1:

THAT PART OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 22, TOWNSHIP 17 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 OF SECTION 22, TOWNSHIP 17 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA THENCE S01°09'26"E 1357.82 FEET ALONG THE EAST BOUNDARY OF SAID SOUTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4; THENCE S88°57'54"W 30.00 FEET TO A POINT ON THE WEST RIGHT OF WAY LINE OF BLUE LAKE AVENUE AS SHOWN ON VOLUSIA COUNTY RIGHT OF WAY MAP PROJECT #1335 FOR THE POINT OF BEGINNING; THENCE S01°09'26"E 678.79 FEET ALONG SAID WEST RIGHT OF WAY LINE; THENCE N89°11'44"E 5.00 FEET ALONG SAID RIGHT OF WAY LINE; THENCE S01°09'26"E 651.92 FEET ALONG SAID RIGHT OF WAY LINE TO A POINT ON THE NORTH RIGHT OF WAY LINE OF TAYLOR ROAD AS SHOWN ON VOLUSIA COUNTY RIGHT OF WAY MAP PROJECT #1113-4-5/P4172-3; THENCE S81°19'36"W 1250.26 FEET ALONG SAID RIGHT OF WAY LINE TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHERLY AND HAVING A RADIUS OF 3981.24 FEET AND A CENTRAL ANGLE OF 01°00'58"; THENCE WESTERLY 61.73 FEET ALONG THE ARC OF SAID CURVE AND SAID RIGHT OF WAY LINE TO A POINT ON THE WEST BOUNDARY OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4; THENCE N01°06'37"W 631.00 FEET ALONG SAID WEST BOUNDARY TO THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4; THENCE N89°11'44"E 662.65 FEET ALONG THE NORTH BOUNDARY OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4 TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4; THENCE N01°08'02"W 676.25 FEET ALONG THE WEST BOUNDARY OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4 TO THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4; THENCE N88°57'54"E 632.36 FEET ALONG THE NORTH BOUNDARY OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

CONTAINING: 26.011 ACRES, MORE OR LESS.

NOTE:

PARCEL DESCRIPTION PROVIDED BY JONES, WOOD AND GENTRY, INC., DATED 10/04/2021

SITE CONSTRUCTION PLANS

FOR:

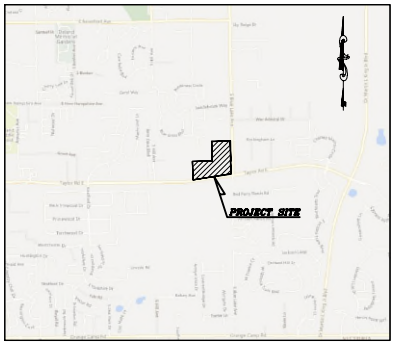
TAYLOR RIDGE

RESIDENTIAL PLANNED DEVELOPMENT, TAYLOR RIDGE PD

NW OF BLUE LAKE & TAYLOR ROAD
CITY OF DELAND VOLUSIA COUNTY, FL.

PARCEL ID #:
70-22-00-00-0090, 70-22-00-00-0191

VICINITY MAP



SCALE: 1"=2000'

TAYLOR RIDGE
CITY OF DELAND, FL

PREPARED FOR:

TLC
BLUE LAKE, LLC
605 COMMONWEALTH AVENUE
ORLANDO, FLORIDA 32803
PHONE: (407) 625 4747

DEVELOPMENT TEAM:

DEVELOPER
HANOVER LAND COMPANY
605 COMMONWEALTH AVENUE
ORLANDO, FLORIDA 32803
ATTN: ANDRES ARVELO PE
PHONE: (407) 625 4747

ENGINEER
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
ATTN: SEAN FORTIER PE
PHONE: (407) 898-7858
FAX: (407) 898-1488

GEOTECHNICAL ENGINEER
GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.
919 LAKE BALDWIN LANE,
ORLANDO, FL 32814
ATTN: CRAIG BALLOCK PE
PHONE: (407) 898-1818

SURVEYOR
ON POINT SURVEYING, INC.
P.O. BOX 770931
WINTER GARDEN, FL 34777
ATTN: DAN GENTRY
PHONE (321) 239-4868

LANDSCAPE ARCHITECT
BONNET DESIGN GROUP, LLC
400 SOUTH ORANGE AVE.,
SUITE 201
MAITLAND, FL 32751
ATTN: BRETT LARUE
PHONE: (407) 622-1588 (EXT. 7)

UTILITIES:

WATER / SEWER / REUSE
CITY OF DELAND
1101 SOUTH AMELIA AVENUE,
DELAND, FLORIDA 32724
ATTN: JIM AILES
PHONE: (386) 626-7250

ELECTRIC TRANSMISSION
DUKE ENERGY
4306 E. CR 62, BLDF F
WILDWOOD, FL 34785
ATTN: CHRIS PADILLA
PHONE (352) 661-4532

ELECTRIC DISTRIBUTION
DUKE ENERGY
EMAIL: DEFUDT@DUKE-ENERGY.COM
PHONE: (866) 372-4663

PREPARED BY:

KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE
SUITE 400
ORLANDO, FLORIDA 32804
PHONE (407) 898-7858
FAX (407) 898-1488

VERTICAL DATUM:

VERTICAL INFORMATION SHOWN ON THIS PLAN REFERENCES THE VOLUSIA COUNTY NAVD 1988 DATUM, PER THE BOUNDARY AND TOPOGRAPHIC SURVEY PROVIDED BY JONES, WOOD & GENTRY, INC. DATED REVISED 10/04/21.

REVISION NOTE:

REVISION CLOUDS PROVIDED TO ASSIST THE CONTRACTOR. ONLY THE LATEST REVISION IS SHOWN. OTHER PLAN CHANGES MAY BE NECESSARY AS A RESULT OF THIS REVISION WHICH MAY NOT BE CLOUDED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THIS PLAN SET IN ITS ENTIRETY TO ENSURE ALL PLAN CHANGES ARE ACCOUNTED FOR, INCLUDING PREVIOUS REVISIONS, AND CHANGES TO OTHER PLAN SHEETS AS A RESULT OF THE REVISIONS SHOWN.

SHEET INDEX

SHEET TITLE	SHEET NO.
COVER SHEET	C-1.0
GENERAL NOTES	GN-1.0 TO GN-1.1
BOUNDARY & TOPOGRAPHIC SURVEY	1 OF 1
TREE REMOVAL & PROTECTION PLAN	TR-1.0
DEMOLITION & EROSION CONTROL PLAN	EC-1.0
OVERALL PLAN	C-2.0
DIMENSION PLAN	C-3.0 TO C-3.1
PAVING, GRADING, & DRAINAGE PLAN	C-4.0 TO C-4.1
UTILITY PLAN	C-5.0
PLAN AND PROFILE	C-6.0 TO C-6.3
ROADWAY IMPROVEMENTS PLAN	C-7.0 TO C7.1
SITE DETAILS	C-8.0 TO C-8.2
UTILITY DETAILS	C-9.0 TO C-9.6

FOR REVIEW ONLY
CIVIL DESCRIPTIVE ONLY
CERTIFICATE OF AUTHORIZATION
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION 68306
NOT VALID FOR CONSTRUCTION
UNLESS SEALED IN THIS BLOCK

Sean Fortier
2025.04.18
15:05:20-04'00'

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SEAN C. FORTIER, P.E. ON THE DATE AND TIME STAMP SHOWN USING A DIGITAL SIGNATURE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

REVISIONS:

DATE	DESCRIPTION

DRAWN: TT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.00
DATE: 04/18/2025

SHEET
C-1.0

SECTION 14, TOWNSHIP 17 SOUTH, RANGE 30 EAST, VOLUSIA COUNTY, FLORIDA

GENERAL NOTES:

1. GENERAL:
   A. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE LATEST STANDARDS AND SPECIFICATIONS. **STANDARDS AND SPECIFICATIONS** INCLUDE BUT ARE NOT LIMITED TO THE APPROVED PLANS AND APPROVED REVISIONS, GEOTECHNICAL REPORT(S), APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES, STANDARDS, SPECIFICATIONS AND REGULATIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
      - LOCAL CITY AND/OR COUNTY
      - WATER MANAGEMENT DISTRICT: SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), ETC.
      - FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)
      - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
      - FLORIDA BUILDING CODE AND FLORIDA ACCESSIBILITY CODE
      - AMERICANS WITH DISABILITIES ACT (ADA), U.S. DEPARTMENT OF JUSTICE
      - MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), U.S. DEPARTMENT OF TRANSPORTATION
      - FAIR HOUSING ACT, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)
   B. ALL STANDARDS AND SPECIFICATIONS SHALL BE OF LATEST REVISION. IN THE EVENT OF A CONFLICT BETWEEN THE REQUIREMENTS, THE MOST STRINGENT CRITERIA SHALL APPLY AS DETERMINED BY THE OWNER'S REPRESENTATIVE. IF THE MORE STRINGENT CRITERIA IS UNCLEAR, A REQUEST SHOULD BE MADE IN WRITING FOR ENGINEER'S INTERPRETATION OF THE MORE STRINGENT CRITERIA.
   C. ALL STANDARDS AND SPECIFICATIONS AS LISTED HEREIN, THE APPROVED PLANS AND APPROVED REVISIONS, THE GEOTECHNICAL REPORT(S), BOUNDARY AND TOPOGRAPHIC SURVEY(S), AND REQUIRED PERMITS ARE HEREBY INCORPORATED AS THE COMPLETE SITE CIVIL CONSTRUCTION DOCUMENTS.
   D. CONTRACTOR SHALL COMPLY WITH ALL PERMIT CONDITIONS DURING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN COPIES OF PERMITS FOR ALL AGENCIES HAVING JURISDICTION FROM THE OWNER.

2. MATERIALS: ALL MATERIALS PROVIDED SHALL MEET THE MOST STRINGENT STANDARDS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO CITY OR COUNTY, FDOT, UTILITY COMPANY, GEOTECHNICAL REPORT, FDEP, AND/OR AS REQUIRED BY OWNER.

3. INSTALLATION: ALL INSTALLATIONS SHALL MEET THE MOST STRINGENT STANDARDS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO CITY OR COUNTY, FDOT, AND/OR AS REQUIRED BY OWNER, GEOTECHNICAL REPORT, FDEP, AND/OR AS REQUIRED BY THE OWNER.

4. INSPECTIONS AND TESTING:
   A. TESTING OF MATERIALS AND INSTALLATION SHALL BE PROVIDED BY THE OWNER RETAINED TESTING COMPANY. CONTRACTOR TO COORDINATE CLOSELY WITH TESTING COMPANY AND OWNER TO ENSURE THAT ALL PROPER TESTING IS COMPLETED.
   B. CONTRACTOR IS RESPONSIBLE TO PERFORM ALL TESTING AS REQUIRED BY CITY AND/OR COUNTY, FDOT, GEOTECHNICAL ENGINEER, UTILITY COMPANY, FDEP, AND AS REQUIRED BY OWNER AND/OR ENGINEER.
   C. TEST RESULTS SHALL BE SUPPLIED BY CONTRACTOR IN A TIMELY MANOR AND UPON REQUEST.
   D. MATERIALS TESTING RESULTS SHALL BE SUPPLIED BY CONTRACTOR IN A TIMELY MANOR AND UPON REQUEST.
   E. THE CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL CERTIFY ALL SITE, UTILITY, POND BERMS, AND ROADWAY COMPACTION ALONG WITH UNDERDRAINS AND PAVEMENT HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE OF THE STANDARDS AND SPECIFICATIONS.

5. SHOP DRAWINGS: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO RESPECTIVE GOVERNING AGENCIES AND KCG FOR REVIEW PRIOR TO PURCHASES AND FIELD INSTALLATION.

6. NOTIFICATIONS:
   A. PRIOR TO CONSTRUCTION: CONTRACTOR SHALL NOTIFY ENGINEER AND APPROPRIATE AGENCIES AT LEAST 3 WORKING DAYS PRIOR TO CONSTRUCTION AND SUPPLY THEM WITH THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED CONSTRUCTION SCHEDULE, ALL REQUIRED SHOP DRAWINGS, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
   B. RIGHT OF WAY: CONTRACTOR SHALL NOTIFY THE CITY, COUNTY, OR FDOT OFFICE 48 HOURS PRIOR TO ANY WORK WITHIN THEIR RESPECTIVE RIGHT OF WAY.

7. DISCREPANCIES:
   A. PLANS & SPECIFICATIONS: CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS, KCG SPECIFICATIONS, CITY OR COUNTY SPECIFICATIONS, ARCHITECTURAL PLANS, GEOTECHNICAL REPORT, SURVEY, AND/OR FIELD CONDITIONS PRIOR TO CONSTRUCTION.
   B. MATERIAL QUANTITIES: CONTRACTOR SHALL VERIFY THE QUANTITIES OF MATERIALS SHOWN ON PLANS PRIOR TO BIDDING. CONTRACTOR SHOULD REQUEST OWNER'S REPRESENTATIVE AND ENGINEER OF ANY DISCREPANCIES SHOWN BETWEEN THE PLAN VIEW AND CALLOUTS AND REQUEST CLARIFICATION FROM THE ENGINEER.
   C. LAYOUT: CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN PLAN AND/OR SURVEY MEASUREMENTS AND FIELD CONDITIONS.
   D. PLAT: CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THE PLANS AND PLAT. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT THE PLAT IS CORRECT PRIOR TO CONSTRUCTION.

8. BUILDING SPECIFIC INFORMATION:
   A. ARCHITECTURAL PLANS: CONTRACTOR SHALL REFER TO LATEST ARCHITECTURAL PLANS ISSUED BY ARCHITECT FOR BUILDING SPECIFIC INFORMATION (I.E. LAYOUT, ROOF DOWNSPOUT LOCATIONS, UTILITY SERVICE LOCATIONS, FOUNDATION DESIGN, ETC.).
   B. PLAN COORDINATION: CONTRACTOR SHALL COORDINATE BUILDINGS FROM ARCHITECTURAL PLANS WITH BUILDING OFFSETS AS SHOWN ON ENGINEERING PLAN TO ENSURE THAT THEY CAN BE CONSTRUCTED AS SHOWN. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
   C. PROPOSED LOCATIONS: LOCATIONS OF THE PROPOSED BUILDING SHOWN ON THIS PLAN ARE MEANT AS A REFERENCE FOR CONSTRUCTING SITE IMPROVEMENTS. THE ACTUAL LOCATIONS AND DIMENSIONS OF PROPOSED BUILDING IMPROVEMENTS SHALL BE DETERMINED FROM THE ARCHITECTURAL PLANS AND FIELD LOCATED BY A SURVEYOR RETAINED BY THE CONTRACTOR.
   D. FOUNDATION DESIGN: CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR FOUNDATION DESIGN.

9. GEOTECHNICAL RECOMMENDATIONS:
   A. GEOTECHNICAL REPORTS: CAN BE OBTAINED FROM THE OWNER AND/OR GEOTECHNICAL ENGINEER AS LISTED ON THE PLANS. IF A REPORT IS NOT PROVIDED WITH BID PACKAGE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ATTAIN A COPY AND VERIFY THE SPECIFICATIONS WITH THE ENGINEER.
   B. CONTRACTOR RESPONSIBILITY: KELLY, COLLINS & GENTRY, INC. (KCG) HAS RELIED UPON THE GEOTECHNICAL REPORT(S) IN PREPARATION OF THE PLANS AND IS NOT RESPONSIBLE FOR THE GEOTECHNICAL REQUIREMENTS OR RECOMMENDATIONS AS PROVIDED IN GEOTECHNICAL REPORT(S). THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT BETWEEN THE INFORMATION CONTAINED IN THE GEOTECHNICAL REPORT(S) AND THESE PLANS. KCG ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS, OR ACCURACY OF THE GEOTECHNICAL REPORT(S). WHEN THE PLANS AND/OR SPECIFICATIONS CONTAIN THE RESULTS OF A SOILS SURVEY, THE CONTRACTOR SHALL NOT ASSUME THE INFORMATION IS A GUARANTEE OF THE DEPTH, EXTENT OR CHARACTER OF MATERIAL PRESENT. THE CONTRACTOR IS RESPONSIBLE TO MAKE A NECESSARY EXAMINATION OF THE SITE AND OF ANY MATERIAL SOURCES INDICATED ON THE PLANS TO BE INFORMED OF THE CONDITIONS UNDER WHICH CONSTRUCTION IS TO OCCUR.

10. SITE LAYOUT:
   A. DIMENSIONS SHOWN ARE MEASURED TO/FROM THE FACE OF CURB, PROPERTY LINE, PROPERTY CORNER, OR FACE OF BUILDING, UNLESS OTHERWISE NOTED ON PLANS.
   B. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE DIMENSION, BASELINE AND OFFSETS PROVIDED ON THE PLANS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL (INCLUDING MINIMUM BUILDING SETBACKS) PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS.
   C. CONTRACTOR SHALL HAVE DESIGN SURVEYOR SET/LOCATE THE PROPERTY CORNERS AND BENCHMARKS PRIOR TO CONSTRUCTION.
   D. BUILDING LAYOUT SHALL BE PROVIDED OR VERIFIED BY SURVEYOR THAT PROVIDED THE SURVEY THE DESIGN WAS BASED ON AND/OR SURVEYOR THAT CREATED THE PLAT.
   E. CENTERLINE OF ROADWAYS SHALL BE LAID OUT OR VERIFIED/CERTIFIED BY SURVEYOR THAT CREATED THE PLAT.
   F. ALL LIGHT POLES AND STRUCTURES SHALL BE LOCATED IN FIELD BY SURVEYOR RETAINED BY CONTRACTOR.

11. FENCING: FENCING MATERIALS AND INSTALLATION SHALL BE PER FDOT SPECIFICATIONS (LATEST EDITION) AND/OR AS REQUIRED BY OWNER.

12. PAVEMENT MARKINGS:
   A. ALL PAVEMENT MARKINGS SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, MANUAL OF UNIFORM CONTROL TRAFFIC DEVICES, AND LOCAL CODE.
   B. ALL TRAFFIC ARROWS, STOP BARS, AND STRIPING SHALL BE THERMOPLASTIC. MATERIAL CERTIFICATION SHALL BE REQUIRED FOR ALL PAINT AND THERMOPLASTIC STATING SAID MATERIALS DO NOT CONTAIN LEAD.

13. TRAFFIC SIGNS AND EQUIPMENT:
   A. PERMANENT TRAFFIC SIGNS, THEIR SUPPORTS, ASSOCIATED HARDWARE, AND REFLECTIVE SHEETING SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND LOCAL CODE.
   B. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ANY TRAFFIC EQUIPMENT, INCLUDING BUT NOT LIMITED TO, FIBER, LOOP SENSORS, PULL BOXES, CONDUIT, TRAFFIC SIGNALS, AND CABINETS, ANY ITEMS DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE AGREED UPON BY THE STATE AND/OR LOCAL ENGINEER.

14. MAINTENANCE OF TRAFFIC:
   A. REFER TO THE LATEST EDITION OF THE FDOT STANDARD PLANS FOR ROAD CONSTRUCTION INDEX 102 SERIES FOR MAINTENANCE OF TRAFFIC.
   B. MAINTENANCE OF TRAFFIC SETUP SHALL BE SUPERVISED BY A CERTIFIED MAINTENANCE OF TRAFFIC INDIVIDUAL.

15. RESTORATION: ALL AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITIONS WHERE NO SPECIFIC IMPROVEMENTS ARE SHOWN.

PAVING, GRADING, AND DRAINAGE NOTES:

1. SURVEY: TOPOGRAPHIC INFORMATION, BOUNDARY INFORMATION, AND VERTICAL CONTROL PROVIDED WITHIN THESE CONSTRUCTION PLANS ARE TAKEN FROM A SURVEY BY THE SURVEYOR LISTED ON THE PLANS AND CAN BE OBTAINED FROM OWNER.

2. GENERAL:
   A. THE MOST STRINGENT STANDARDS AND SPECIFICATIONS AS DEFINED ABOVE AND/OR MENTIONED HEREIN SHALL BE ADHERED TO. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF LATEST STANDARDS AND SPECIFICATIONS.
   B. CONTRACTOR SHALL RETAIN A COPY OF THE LOCAL JURISDICTIONAL, WATER MANAGEMENT DISTRICT, AND ANY OTHER RELATED PERMITS ON-SITE AT ALL TIMES AND SHALL ADHERE TO BOTH GENERAL CONDITIONS AND SPECIFIC CONDITIONS OF THE RESPECTIVE PERMITS AND APPLICATIONS.
   C. CONSTRUCTION SEQUENCE SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATIONS OF EVERY KIND, INCLUDING SPRINKLERS, SHALL BE PLACED BENEATH THE PAVEMENT AND ITS EDGES AND SHALL BE TESTED OR INSPECTED PRIOR TO THE CONSTRUCTION OF THE PAVEMENT. THE PAVEMENT SHALL NOT BE CUT WITHOUT PRIOR APPROVAL OF ENGINEER AND OWNER.

PAVING, GRADING, AND DRAINAGE NOTES (CONT.):

3. MATERIALS: ALL MATERIALS PROVIDED SHALL MEET THE STANDARDS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO CITY OR COUNTY, FDOT, AND ANY SPECIFICATIONS IN PLANS AND GEOTECHNICAL REPORT.

4. INSTALLATION: ALL INSTALLATIONS SHALL MEET THE STANDARDS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO CITY OR COUNTY, FDOT, AND ANY SPECIFICATIONS IN PLANS AND GEOTECHNICAL REPORT.

5. INSPECTIONS AND TESTING:
   A. TESTING OF MATERIALS AND INSTALLATION SHALL BE PROVIDED BY THE OWNER RETAINED TESTING COMPANY UNLESS OTHERWISE AGREED UPON BY OWNER. CONTRACTOR TO COORDINATE CLOSELY WITH TESTING COMPANY AND OWNER TO ENSURE THAT ALL PROPER TESTING IS COMPLETED.
   B. ALL GRADING SHALL BE INSPECTED AND TESTED BY OR UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL INSPECT AND TEST THE EXCAVATION, PLACEMENT, AND COMPACTION OF FILLS AND SHALL INSPECT AND TEST THE BACKFILLING AND COMPACTION OF TRENCHES. THE GEOTECHNICAL ENGINEER SHALL PROVIDE A REPORT OF TESTING AND STATE THAT OBSERVATIONS AND TESTS WERE MADE BY HIM/HER OR UNDER HIS/HER SUPERVISION; THAT, IN THE GEOTECHNICAL ENGINEER'S OPINION, ALL EMBANKMENTS AND EXCAVATIONS WERE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL ASPECTS OF ALL STANDARDS AND SPECIFICATION AND THAT ALL EMBANKMENTS AND EXCAVATIONS ARE ACCEPTABLE FOR THEIR INTENDED USE.
   C. CONTRACTOR IS RESPONSIBLE TO PERFORM ALL TESTING AS REQUIRED BY CITY AND/OR COUNTY, FDOT, GEOTECHNICAL ENGINEER, AND AS REQUIRED BY OWNER.
   D. TEST RESULTS SHALL BE SUPPLIED BY CONTRACTOR IN A TIMELY MANOR AND UPON REQUEST.
   E. MATERIALS TESTING RESULTS SHALL BE SUPPLIED BY CONTRACTOR IN A TIMELY MANOR AND UPON REQUEST.
   F. BASE TO BE INSPECTED PRIOR TO ASPHALT INSTALLATION. ENGINEER TO BE NOTIFIED 72 HOURS IN ADVANCE.
   G. CONCRETE FORMWORK TO BE INSPECTED PRIOR TO CONCRETE INSTALLATION. ENGINEER TO BE NOTIFIED 72 HOURS IN ADVANCE.
   H. CONTRACTOR TO PROVIDE GEOTECHNICAL TESTING AFTER CONSTRUCTION TO VERIFY SOIL CONDITIONS. NUMBER OF LOCATIONS SHOULD BE THE GREATER OF 50' GRID, 3 LOCATIONS, OR BASED ON DESIGN GEOTECHNICAL ENGINEER RECOMMENDATIONS. CONTRACTOR TO ADHERE TO ANY REMEDIATION REQUIREMENTS IF NECESSARY.
   I. CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL CERTIFY THAT THE POND BERMS HAVE BEEN CONSTRUCTED PER THE RECOMMENDATIONS OF THE DESIGN GEOTECHNICAL ENGINEER AND CIVIL ENGINEER OF RECORD.
   J. CONTRACTOR SHALL RETAIN DESIGN GEOTECHNICAL ENGINEER TO PROVIDE GEOTECHNICAL CERTIFICATION THAT THE RETENTION BASINS (INCLUDING UNDERGROUND SYSTEMS) RECEIVER AS PERMITTED/DESIGNED. CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL PERFORM PERMEABILITY TESTING AND BORINGS WITHIN DRY RETENTION/DETENTION BASINS (INCLUDING UNDERGROUND SYSTEMS) AS REQUIRED FOR DESIGN GEOTECHNICAL ENGINEER TO CERTIFY. THIS GEOTECHNICAL CERTIFICATION IS REQUIRED PRIOR TO CIVIL ENGINEER CERTIFICATION THAT THE SITE IS SUBSTANTIALLY COMPLETE. THE CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL PERFORM BORINGS AND PERMEABILITY TESTS AS NECESSARY AND SHALL BE PROVIDED TO ENGINEER OF RECORD.

6. SHOP DRAWINGS: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO RESPECTIVE GOVERNING AGENCIES AND KCG FOR REVIEW PRIOR TO PURCHASES AND FIELD INSTALLATION.

7. COMPACTION: CONTRACTOR TO ADHERE TO THE STANDARDS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO LOCAL CODE REQUIREMENTS, AND GEOTECHNICAL REPORT FOR COMPACTION REQUIREMENTS.

8. EARTHWORK
   A. GENERAL: IN THE CASE OF CONFLICTS, THE REQUIREMENTS OF THE EARTHWORK SPECIFICATIONS PREPARED FOR THE PROJECT BY THE GEOTECHNICAL ENGINEER SHALL GOVERN THE REQUIREMENTS OF THIS PLAN AND THESE NOTES. PLANS SHALL BE REVISED ACCORDINGLY.
   B. EARTHWORK QUANTITIES: UNLESS DIRECTED OTHERWISE BY OWNER OR OWNER'S REPRESENTATIVE, CONTRACTOR SHALL PERFORM INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO CONFIRM THE EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED OR FOR REMOVAL AND DISPOSAL OF ANY EXCESS MATERIALS.
   C. FILL PREPARATION: ALL AREAS TO BE FILLED SHALL BE PREPARED PRIOR TO FILLING, AND FILL SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE GEOTECHNICAL REPORT. ALL VEGETATIVE MATTER AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED BY CONTRACTOR FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED. LOOSE FILL AND ALL ORGANIC SOILS SHALL BE REMOVED TO SUITABLE, FIRM NATURE GROUND. THE APPROVED SOILS SHALL BE SCARIFIED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND THEN COMPACTED TO A MINIMUM OF 90% OF ASTM D3557. CONTRACTOR SHALL PLACE, SPREAD, WATER, AND COMPACT THE FILL IN STRICT ACCORDANCE WITH THE SPECIFICATIONS.
   D. FILL MATERIAL: ALL FILL MATERIALS SHALL BE FREE OF MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH, OR OTHER UNSUITABLE MATTER. TOP LAYER WITHIN 2 FEET OF FINISH GRADE SHALL BE SANDY SOILS (SW OR SP), FREE OF SILT AND CLAY. ADDITIONALLY, ALL FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE GEOTECHNICAL REPORT.
   E. COMPACTION: EXISTING GROUND AND IMPORT FILL SHALL BE COMPACTED PER THE MOST STRINGENT OF THE PLANS, LOCAL CODE REQUIREMENTS, AND GEOTECHNICAL REPORT. FOR USE OF ON SITE SOILS, REFER TO GEOTECHNICAL REPORT PROVIDED BY GEOTECHNICAL ENGINEER INDICATED ON COVER SHEET.
   F. TRENCH SOILS: ALL ORGANIC SOILS BELOW UTILITY TRENCHES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AND COMPACTED TO NO LESS THAN 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T-180).

9. GRADING:
   A. EXISTING GRADES: CONTRACTOR SHALL VERIFY ALL EXISTING GRADES ON SITE BEFORE BEGINNING WORK. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY MAJOR DIFFERENCES BETWEEN CONTRACTOR'S DATA AND DRAWINGS.
   B. PROPOSED GRADING INTENT: GRADING SHOWN ON THESE PLANS IS PROVIDED TO CONTRACTOR TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. CONTRACTOR SHALL GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS TO PREVENT PONDING OF WATER, SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE, AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER PRIOR TO DEMOBILIZATION OF CONSTRUCTION EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED.
   C. PAVEMENT GRADING: CONTRACTOR SHALL CONSTRUCT PAVEMENT TO THE SPOT GRADES SHOWN. IN ADDITION, ALL GRADE LINES AND R.P. AND L.P. LINES SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN. FINAL ELEVATIONS MUST FALL WITHIN 0.25' OF THE PROPOSED SPOT GRADES AND LINES. ALL PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT SPECIFICATIONS (LATEST EDITION).
   D. PAVEMENT SPOTS: SPOT ELEVATIONS ARE SHOWN AT THE EDGE OF PAVEMENT EXCEPT WHEN CALLED OUT AS TOP OF CURB (TC).
   E. BUILDING TIE-IN: AT ALL BUILDING ENTRANCES OR DRIVE-THRUS, CONTRACTOR SHALL MATCH EXISTING ELEVATIONS WITH THE SURFACE COURSE.
   F. FINISH FLOOR ELEVATIONS (FFE) ARE MINIMUMS. CONTRACTOR SHALL GRADE LOT PER SPECIFIC FLOOR PLAN REQUIREMENTS WITH MINIMUM 1% POSITIVE SLOPE AWAY FROM BUILDING. ACTUAL FINISH FLOOR ELEVATIONS MAY BE HIGHER IF NECESSARY BUT SHALL BE VERIFIED AND APPROVED BY ENGINEER.
   G. SIDEWALKS ADJACENT TO BUILDING: ARE TO BE BELOW FINISH FLOOR ELEVATIONS (FFE) UNLESS OTHERWISE STATED ON PLANS. FOR SIDEWALKS ABOVE FFE, BUILDING TO HAVE PROPER WATER SEALING. REFER TO ARCHITECT FOR WATER SEALING DETAILS. FOR DISCREPANCIES, CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION.
   H. TRANSITIONS: ALL SLOPES LESS THAN 5H:1V SHALL BE 1/4-INCH HIGH MAXIMUM OR, IF BEVELED, 1/2 INCH HIGH MAXIMUM PER FLORIDA ACCESSIBILITY CODE (OR LESS IF ANOTHER APPLICABLE CODE IS MORE STRINGENT). CHANGES IN ELEVATION SHALL COMPLY WITH FLORIDA ACCESSIBILITY CODE. SIDEWALKS SHALL SLOPE AWAY FROM ALL BUILDINGS. FOR DISCREPANCIES, CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION.
   I. SLOPES: SLOPES AND TRANSITIONS OF CONCRETE SIDEWALK, RAMP TAPERS, AND VEHICULAR USE AREAS SHALL NOT BE ANY STEEPER THAN 20:1 (5%) UNLESS OTHERWISE NOTED ON PLANS. ALL PEDESTRIAN USE AREAS TO MEET ADA SPECIFICATIONS, FLORIDA ACCESSIBILITY CODE, AND SHALL NOT HAVE A CROSS SLOPE STEEPER THAN 2%.
   J. HANDICAP PARKING SPACES: SLOPES AND TRANSITIONS IN HANDICAP PARKING SPACES SHALL MEET ALL REQUIREMENTS OF ADA SPECIFICATION AND FLORIDA ACCESSIBILITY CODE. IN THE EVENT OF A CONFLICT BETWEEN CODE AND PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR CLARIFICATION.

10. PAVEMENT:
   A. SHOULDERS: PAVED SHOULDERS SHALL BE SAW CUT AND REMOVED PRIOR TO CONSTRUCTION.
   B. SAW CUT: CONTRACTOR SHALL SAW CUT THE EXISTING ASPHALT PAVING WHERE PROPOSED PARKING ISLANDS ARE LOCATED AND AT PARKING AREA PERIMETERS. PARKING AREAS AND TRAVEL WAYS SHALL BE OVERLAID WITH A SURFACE COURSE. POSITIVE DRAINAGE MAY REQUIRE ADDITIONAL ASPHALT.
   C. PAVEMENT MIX: PAVEMENT MIX AND COMPONENTS SHALL MEET MOST STRINGENT REQUIREMENT OF FDOT, GEOTECHNICAL ENGINEER, AND CIVIL ENGINEER. MIX DESIGN SHALL BE SUBMITTED TO ENGINEER PRIOR TO INSTALLATION. WATER SHALL NOT BE ADDED TO CONCRETE MIX BY DRIVER OR BY ENGINEER.
   D. ASPHALT BINDER: UNLESS OTHERWISE SPECIFIED IN PLANS THE FOLLOWING SHALL APPLY. ASPHALT BINDER FOR STANDARD DUTY PAVEMENT SHALL BE A MINIMUM OF PG 67-22. ASPHALT BINDER FOR HEAVY DUTY PAVEMENT SHALL BE A MINIMUM OF PG 76-22.
   E. EXISTING PAVEMENT TIE-IN: CONTRACTOR SHALL TRIM, TACK, AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
   F. TACK COAT: CONTRACTOR SHALL APPLY TACK COATS BETWEEN ALL LAYERS OF ASPHALTIC CONCRETE COURSES. TACK COAT SHALL MEET THE LATEST EDITIONS OF FDOT OR COUNTY AND FDOT SPECIFICATIONS.
   G. EXISTING PAVEMENT MARKINGS: CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH THIS PROPOSED PLAN.
   H. ROADWAY: CONSTRUCTION OF THE ROADWAY SHALL BE IN ACCORDANCE WITH THE PAVEMENT SECTION INCLUDED IN THESE PLANS, LOCAL CODE, FDOT, AND THE GEOTECHNICAL REPORT. ANY CONFLICTS BETWEEN THE PAVEMENT SECTION SHOWN WITHIN THESE PLANS AND THE GEOTECHNICAL REPORT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONTRACT BID. SUBGRADE PREPARATION AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS (LATEST EDITION) AND GEOTECHNICAL REPORT RECOMMENDATIONS.
   I. PAVEMENT LIFTS: PAVEMENT LIFT THICKNESS SHALL MEET FDOT SPECIFICATIONS. SUBDIVISION ROADS SHALL BE INSTALLED IN A MINIMUM OF 2 LIFTS WITH THE FINAL LIFT AFTER FINAL HOME CONSTRUCTION UNLESS OTHERWISE APPROVED BY OWNER OR ENGINEER.
   J. SUBGRADE STABILIZATION: SHALL BE PER GEOTECHNICAL REPORT AND MEET FDOT SPECIFICATIONS (LATEST EDITION).
   K. PAVEMENT REMOVAL AND REPLACEMENT: SHALL BE PER CITY OR COUNTY AND FDOT SPECIFICATIONS (LATEST EDITION).

11. WALLS: CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN CERTIFIED BY A STRUCTURAL ENGINEER FOR RETAINING WALLS AND SCREEN WALLS. PROVIDE SHOP DRAWINGS, AND ATTAIN APPROVAL THROUGH THE LOCAL BUILDING DEPARTMENT.

12. EROSION CONTROL: SEE SEPARATE NOTES AND PLAN. CONTRACTOR SHALL PROVIDE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FDEP, CITY OR COUNTY, AND FDOT REQUIREMENTS.

13. STORM SEWER SYSTEM:
   A. ALL RELATED ITEMS REQUIRED FOR THE CONSTRUCTION OF THE STORM SEWER (OUTFALL PROTECTION, POLLUTION CONTROL, ETC.) SHALL BE IN ACCORDANCE WITH DETAILS SHOWN ON THE CONSTRUCTION PLANS, FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION), AND FDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION).
   B. CONTRACTOR SHALL PROTECT ALL EXISTING STORM SEWER SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES. SEE EROSION CONTROL NOTES AND PLAN.
   C. STORM CLEAN OUTS LOCATED IN PAVEMENT SHALL BE TRAFFIC BEARING.
   D. STORM AND UTILITY STRUCTURES SHOWN WITHIN PAVED AREAS SHALL HAVE TRAFFIC BEARING STEEL GRATES.
   E. CULVERTS AND STORM PIPES SHALL MEET FDOT AND LOCAL JURISDICTIONAL SPECIFICATIONS AND REQUIREMENTS PROVIDED BY MANUFACTURER. ALL PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP), MINIMUM CLASS III WITH A MAX MANNINGS COEFFICIENT OF 0.012 UNLESS OTHERWISE SPECIFIED ON PLANS.
   F. STORM PIPE JOINTS SHALL BE WRAPPED WITH FDOT APPROVED FILTER FABRIC.

PAVING, GRADING, AND DRAINAGE NOTES (CONT.):

14. STORMWATER RETENTION PONDS
   A. CARE SHOULD BE TAKEN WHEN EXCAVATING AND CONSTRUCTING RETENTION PONDS TO AVOID OVERLY COMPACTING POND BOTTOM. SOD SHALL NOT BE PLACED ON RETENTION POND BOTTOMS. IF LANDSCAPE PLAN INDICATES OTHERWISE, CONTRACTOR SHALL VERIFY THE SPECIFICATION WITH THE ENGINEER.
   B. SOD SHALL NOT BE PLACED ON RETENTION POND BOTTOMS. IF LANDSCAPE PLAN INDICATES OTHERWISE, CONTRACTOR SHALL VERIFY THE SPECIFICATION WITH THE ENGINEER.
   C. RETENTION PONDS SHALL NOT BE UTILIZED AS A SEDIMENT BASIN FOR DEWATERING ACTIVITIES. IF DEWATERING ON SITE IS REQUIRED, A TEMPORARY SEDIMENT BASIN SHALL BE CONSTRUCTED OUTS DE OF RETENTION POND AREA, IN ACCORDANCE WITH FDEP REQUIREMENTS.
   D. RETENTION POND

UTILITY NOTES (CONT.):

23. DEWATERING:
   A. CONTRACTOR SHALL INCLUDE DEWATERING AS NECESSARY IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND LOCAL TECHNICAL SPECIFICATIONS.
   B. CONTRACTOR IS RESPONSIBLE TO COORDINATE DEWATERING WITH OTHER SITE ACTIVITIES.
   C. CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY FOR DEWATERING.
   D. CONTRACTOR IS RESPONSIBLE TO ADHERE TO ALL CITY OR COUNTY, FDEP, FDOT, AND ALL OTHER APPLICABLE ENVIRONMENTAL REGULATIONS.
   E. CONTRACTOR SHOULD NOTIFY ENGINEER PRIOR TO ANY DEWATERING THAT RESULTS IN OFF-SITE RUNOFF.

24. BORING AND JACKING: CONTRACTOR IS RESPONSIBLE TO ADHERE TO UTILITY COMPANY, CITY OR COUNTY, AND FDOT SPECIFICATIONS (LATEST EDITION).

25. DIRECTIONAL DRILLING: CONTRACTOR IS RESPONSIBLE TO ADHERE TO UTILITY COMPANY, CITY OR COUNTY, AND FDOT SPECIFICATIONS (LATEST EDITION).

26. CONCRETE (DRAINAGE & UTILITY) STRUCTURES:
   A. STRUCTURES SHALL BE CONSTRUCTED PER UTILITY COMPANY AND FDOT SPECIFICATIONS (LATEST EDITION).
   B. GROUTING OF STRUCTURES SHALL BE PER UTILITY COMPANY AND FOOT SPECIFICATIONS (LATEST EDITION).
   C. STORM AND UTILITY STRUCTURES SHALL HAVE TRAFFIC BEARING STEEL GRATES UNLESS OTHERWISE NOTED.

27. RELOCATIONS: CONTRACTOR SHALL VERIFY THE SUITABILITY OF REUSE OF ANY AND ALL OBJECTS CALLED OUT TO BE RELOCATED. IF AN OBJECT IS NOT SUITABLE FOR RELOCATION, CONTRACTOR TO NOTIFY ENGINEER OF RECORD AND OWNER PRIOR TO CONSTRUCTION.

28. WATER LINE CONSTRUCTION FDEP PERMIT NOTES:
   A. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT WILL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
   B. ALL WATER SYSTEM COMPONENTS THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.A.C. OR OTHER APPLICABLE STANDARDS, REGULATIONS, OR REQUIREMENTS REFERENCED IN PARAGRAPH 62-555.320(3)(b), F.A.C.
   C. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LEAD.
   D. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(23)(B), F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WIL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.)
   E. NEW OR ALTERED FIRE HYDRANT LEADS INCLUDED IN THIS PROJECT WILL HAVE AN INSIDE DIAMETER OF AT LEAST SIX INCHES AND WILL INCLUDE AN AUXILIARY VALVE.
   F. ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL HAVE UNPLUGGED, UNDERGROUND DRAINS WILL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER. AT LEAST SIX FEET FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-10, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
   G. AT HIGH POINTS WHERE AIR CAN ACCUMULATE IN NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT, PROVISIONS WILL BE MADE TO REMOVE THE AIR BY MEANS OF AIR RELIEF VALVES, AND AUTOVACTIC AIR RELIEF VALVES WILL NOT BE USED IN SITUATIONS WHERE FLOODING OF THE VALVE MANHOLE OR CHAMBER MAY OCCUR.
   H. THE OPEN END OF THE AIR RELIEF PIPE FROM ALL AUTOMATIC AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT WILL BE EXTENDED TO AT LEAST ONE FOOT ABOVE GRADE AND WILL BE PROVIDED WITH A SCREENED, DOWNWARD-FACING ELBOW.
   I. NEW OR ALTERED CHAMBERS, PITS, OR MANHOLES THAT CONTAIN VALVES, BLOW-OFFS, METERS, OR OTHER SUCH WATER DISTRIBUTION SYSTEM APPURTENANCES AND THAT ARE INCLUDED IN THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER, AND BLOW-OFFS OR AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER.
   J. NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS OR IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED PROCEDURES.
   K. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT.
   L. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS INSTALLED UNDER THIS PROJECT WILL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO PREVENT MOVEMENT.
   M. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE CONSTRUCTED OF ASBESTOS-CEMENT OR POLYVINYL CHLORIDE PIPE WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C., AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-555.330.
   N. NEW OR ALTERED WATER MAINS, INCLUDING FIRE HYDRANT LEADS AND INCLUDING SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, WILL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62-555.340, F.A.C.
   O. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE INSTALLED IN AREAS WHERE THERE ARE KNOWN AGGRESSIVE SOIL CONDITIONS WILL BE PROTECTED THROUGH USE OF CORROSION-RESISTANT WATER MAIN MATERIALS, THROUGH ENCASEMENT OF THE WATER MAINS IN POLYETHYLENE, OR THROUGH PROVISION OF CATHODIC PROTECTION.
   P. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER FOR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER); A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
   Q. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.
   R. AT THE UTILITY CROSSINGS DESCRIBED IN PART II.C.1.W ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
   S. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ABOVE SURFACE WATER WILL BE ADEQUATELY SUPPORTED AND ANCHORED, PROTECTED FROM DAMAGE AND FREEZING, AND ACCESSIBLE FOR REPAIR OR REPLACEMENT.
   T. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS UNDER SURFACE WATER WILL HAVE A MINIMUM COVER OF TWO FEET.
   U. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS UNDER SURFACE WATER COURSES GREATER THAN 15 FEET IN WIDTH WILL HAVE FLEXIBLE OR RESTRAINED, WATERTIGHT PIPE JOINTS AND WILL INCLUDE VALVES AT BOTH ENDS OF THE WATER CROSSING SO THE UNDERWATER MAIN CAN BE ISOLATED FOR TESTING AND REPAIR; THE AFOREMENTIONED ISOLATION VALVES WILL BE EASILY ACCESSIBLE AND WILL NOT BE SUBJECT TO FLOODING; THE ISOLATION VALVE CLOSEST TO THE WATER SUPPLY SOURCE WILL BE IN A MANHOLE; AND PERMANENT TAPS WILL BE PROVIDED ON EACH SIDE OF THE ISOLATION VALVE WITHIN THE MANHOLE TO ALLOW FOR INSERTION OF A SMALL METER TO DETERMINE LEAKAGE FROM THE UNDERWATER MAIN AND TO ALLOW FOR SAMPLING OF WATER FROM THE UNDERWATER MAIN.

REVISION NOTES:

REVISION CLOUDS PROVIDED TO ASSIST THE CONTRACTOR. ONLY THE LATEST REVISION IS SHOWN. OTHER PLAN CHANGES MAY BE NECESSARY AS A RESULT OF THIS REVISION WHICH MAY NOT BE CLOUDED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THIS PLAN SET IN ITS ENTIRETY TO ENSURE ALL PLAN CHANGES ARE ACCOUNTED FOR, INCLUDING PREVIOUS REVISIONS AND CHANGES TO OTHER PLAN SHEETS AS A RESULT OF THE REVISIONS SHOWN (EX. SCREENED IMAGES AT PIPES, ETC.).

UTILITY LOCATIONS:

THE CONTRACTOR SHALL NOTIFY SUNSHINE LOCATORS FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION AT 811 OR 1-800-432-4770, MONDAY THROUGH FRIDAY 7:00 A.M. TO 4:30 P.M. CHAPTER 553 - 851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING. THE DRAWINGS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS (IF ANY) AND DO NOT SHOW SERVICE LINES.



NOTE:
PRIOR TO ACCEPTANCE OF STORM SEWER INFRASTRUCTURE, ALL STORM PIPES ARE TO BE TELEVISED AND THE RECORDINGS ALONG WITH REPORTS SHALL BE PROVIDED IN ELECTRONIC FORMAT TO THE CITY FOR REVIEW AND COMMENT.

AS-BUILT SURVEY:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR TO OBTAIN A COPY OF MINIMUM REQUIREMENTS FOR AS-BUILT SURVEY/RECORD DRAWING ACCEPTANCE FROM THE AGENCY HAVING JURISDICTION (AHJ) SUCH AS CITY AND/OR COUNTY, WATER MANAGEMENT DISTRICT, FDOT, FDEP, AND UTILITY SERVICE PROVIDER(S).. CONTRACTOR TO BE FAMILIAR WITH THESE REQUIREMENTS AND PRODUCE AS-BUILT SURVEY THAT SUBSTANTIALLY COMPLIES OR EXCEEDS THESE REQUIREMENTS INCLUDING ANY REQUIRED ELECTRONIC DATA SUBMITTAL.

2. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH COMPLETE AS-BUILT SURVEY CERTIFIED BY A REGISTERED LAND SURVEYOR. CONTRACTOR MAY FURNISH PARTIAL AS-BUILT DRAWINGS FOR VARIOUS PURPOSES (SUCH AS FDEP CLEARANCES), HOWEVER, A COMPLETE AS-BUILT SURVEY SHALL BE PROVIDED UPON COMPLETION OF CONSTRUCTION. NO ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY PURPOSES WILL BE MADE UNTIL A COMPLETE AS-BUILT SURVEY IS RECEIVED AND APPROVED BY THE ENGINEER.

3. MINIMUM REQUIREMENTS. IN ADDITION TO THE REQUIREMENTS LISTED ELSEWHERE, AT A MINIMUM THE AS-BUILT SURVEY SHALL INCLUDE SUFFICIENT AS-BUILT INFORMATION TO CONVEY THAT THE CONSTRUCTION HAS BEEN COMPLETE WITHIN ACCEPTABLE TOLERANCES TO THE APPROVED DESIGN AND SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:

   A. GRADING AND DRAINAGE
      i. ELEVATIONS AT ALL PROPOSED SPOT ELEVATIONS, DITCHES/SWALES, BERMS, TOP OF BANKS, TOE OF SLOPES, GRADE BREAKS LOCATIONS, AND PONDS.
      ii. LOCATIONS AND SIZE OF STORM PIPE, UNDER DRAINS, STORM STRUCTURE LOCATIONS, AND ANY OTHER STORM/DRAINAGE FACILITIES.
      iii. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER/GRATE ALONG WITH ALL OTHER DRAINAGE STRUCTURES (OUTFALL/CONTROL STRUCTURE, WEIRS, HEADWALLS, ETC.)
      iv. ELEVATIONS OF ALL COMPONENTS OF OUTFALL/CONTROL STRUCTURES INCLUDING INVERTS, WEIRS, SKIMMERS, ETC.
      v. INVERT OF EACH LINE ENTERING AND LEAVING EACH STORM STRUCTURES INCLUDING UNDERDRAIN PIPES.
      vi. INVERTS OF MITERED END SECTIONS AND HEADWALLS.
      vii. STUB-OUT LOCATIONS WITH TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS AND INVERT ELEVATIONS.
      viii. MATERIAL TYPES THAT VARY FROM PLAN AND/OR STANDARDS AND SPECIFICATIONS. IF ALTERNATES WERE ALLOWED, THE SELECTED MATERIAL TYPE SHOULD BE SHOWN.

   B. SANITARY SEWER
      i. LOCATIONS OF SANITARY MAINS (GRAVITY AND FORCE MAINS), SANITARY LATERALS, SANITARY STRUCTURES, SANITARY SERVICE LATERALS, SANITARY CLEAN-OUTS, AND ANY OTHER SANITARY FACILITIES AND FITTINGS. ANY OBJECTS NOT VISIBLE FROM THE SURFACE (SUCH AS FITTINGS, ETC.) SHALL INCLUDE TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS.
      ii. STUB-OUT AND SERVICE WYE LOCATIONS WITH TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS AND INVERT ELEVATIONS. ADDITIONALLY, THE DEPTH OF STUB-OUTS AND SERVICE WYES AND DISTANCE FROM MAIN LINE.
      iii. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER AND CLEANOUTS.
      iv. INVERT OF EACH LINE ENTERING AND LEAVING EACH MANHOLE/STRUCTURE.
      v. SIZE, SLOPE, AND LENGTH OF EACH RUN OF MAIN BETWEEN MANHOLES (CENTER TO CENTER).
      vi. MATERIAL TYPES THAT VARY FROM PLAN AND/OR STANDARD AND SPECIFICATIONS. IF ALTERNATES WERE ALLOWED, THE SELECTED MATERIAL TYPE SHOULD BE SHOWN.

   C. WATER, REUSE/RECLAIM, AND FORCE MAINS
      i. LOCATIONS OF ALL PIPES, INCLUDING MAINS AND SERVICES, VALVES, FIRE APPARATUS, AND FITTINGS.
      ii. LENGTH OF PIPES BETWEEN BRANCHES AND VALVES.
      iii. DEPTH & SIZE OF LINES AT ALL VALVES, FITTINGS AND FIRE APPARATUS.
      iv. CLEARANCES FROM OTHER UTILITIES AT ALL CROSSINGS FROM OUTSIDE OF PIPE. AS-BUILTS SURVEY SHALL CLEARLY INDICATE COMPLIANCE WITH MINIMUM SEPARATION DISTANCES.
      v. MATERIAL TYPES THAT VARY FROM PLAN AND/OR STANDARD AND SPECIFICATIONS. IF ALTERNATES WERE ALLOWED, THE SELECTED MATERIAL TYPE SHOULD BE SHOWN.

   D. OTHER IMPROVEMENTS
      i. LOCATIONS OF ALL STRUCTURES, DITCHES, BERMS, BUILDING(S), SIDEWALK, CURB, GUTTERS, PAVEMENT, AND SIGNS.

4. THE ENGINEER RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER, RETEST, AND OR PERFORM ANY ACTION NECESSARY TO ENSURE THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

REVISED: JANUARY 6, 2021

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
REGISTERED PROFESSIONAL ENGINEER
No. 73888
STATE OF FLORIDA
SEAN C. FORTIER, P.E.
DOCUMENTATION, VIEWS NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

REVISION	DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

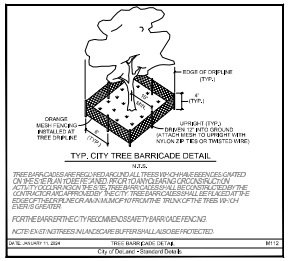
TAYLOR RIDGE
SUBDIVISION

GENERAL NOTES

DRAWN:	TMT
DESIGN:	DSR
CHECKED:	SCF
JOB NO.:	1517.000
DATE:	04/18/2025

SHEET
GN-1.1





LEGEND

- PROJECT BOUNDARY
- TREE PROTECTION BOUNDARY
- GRADING LIMITS
- NATURAL VEGETATION RETENTION AREA
- TREE PROTECTION AREA
- CA — CONSERVATION AREA SIGN SEE DETAIL
- HISTORIC TREE
- SPECIMEN TREE
- TREE REMOVED

NOTES:

1. REPLANTINGS REQUIRED IN BUFFER AREAS WHERE TREE PROTECTION AREA IS LESS THAN 30 FEET.
2. TREES WITHIN TREE PROTECTION AREAS MUST BE RETAINED OR REPLACED BY OWNER IF DAMAGED OR DETERIORATED.
3. TREE PROTECTION AREA
4. REFER TO LANDSCAPE PLANS FOR TREE REMOVAL, TREE PRESERVATION AND ASSOCIATED DETAILS.

TREE PROTECTION

TREE PROTECTION AREA REQUIRED (15%):	3.90 AC
TREE PROTECTION AREA PROVIDED:	**4.10 AC**

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER 0000-0000

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7256 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

TREE REMOVEAL & PROTECTION PLAN

DRAWN:	TMT
DESIGN:	DSH
CHECKED:	SCF
JOB NO.:	1512.000
DATE:	04/18/2025

SHEET
TR-1.0

EROSION CONTROL:

1. GENERAL: CONTRACTOR SHALL INSTALL ANY ADDITIONAL EROSION CONTROL WHEN NECESSARY IN ORDER TO MEET STATE AND LOCAL STANDARDS.
2. EXISTING SYSTEMS: CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. CONFLICTS: CONTRACTOR SHALL COORDINATE ALL UTILITY CROSSINGS AND ADDRESS CONFLICTS PRIOR TO BEGINNING WORK IN A GIVEN AREA(S).
4. STABILIZATION:
   A. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER, AND REGULATORY AGENCIES.
   B. AREAS DISTURBED THAT WILL NOT BE IMPROVED FOR A PERIOD OF 30 DAYS OR MORE SHALL RECEIVE TEMPORARY STABILIZATION AS DEEMED NECESSARY BY THE MUNICIPAL INSPECTOR.
5. BMP:
   A. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES BMP TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
   B. WHEN UTILIZING CONSTRUCTION PHASES, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ON-SITE BMPs AS DEEMED NECESSARY AND SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
   C. ALL BMPs SHALL BE CLEANED OF SEDIMENT WHEN 50% OR LESS OF BMP IS REACHED.
   D. ALL BMPs SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE MUNICIPAL INSPECTOR ALLOWS REMOVAL.
   E. APPROPRIATE BMPs MUST BE IMPLEMENTED TO ENSURE THAT DISCHARGES DO NOT EXCEED SURFACE WATER QUALITY STANDARDS PER THE FDEP CONSTRUCTION GENERIC PERMIT (CGP). IF DEWATERING OFFSITE OR INTO A COUNTY MS4, TURBIDITY MUST BE MONITORED TO ENSURE THAT DISCHARGES DO NOT EXCEED 29 NTU OVER BACKGROUND PER 62-302.530 FAC. REFER TO THE DEWATERING REQUIREMENTS IN 62-621.300(4)(a) CONSTRUCTION GENERIC PERMIT OR 62-621.300(2)(a) DEWATERING GENERIC PERMIT AS APPLICABLE.
   F. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAIN EVENT OF 1/2" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, AND REMULCHING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED SHALL BE REQUIRED.
   G. CONTRACTOR SHALL INSPECT BMPs AT END OF EACH WORKING DAY.
   H. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.
   I. BMPs USED ON SITE MUST MEET THE MINIMUM SPECIFICATIONS IN THE 2013 STATE OF FLORIDA ES&C DESIGNER AND REVIEWER MANUAL
6. MULCH:
   A. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER.
   B. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
7. ENTRANCE/EXIT:
   A. CONSTRUCTION ENTRANCE SHALL BE GRADED SO THAT NO SEDIMENTS LEAVE THE SITE.
   B. ALL EMPLOYEES, SUBCONTRACTORS, AND SUPPLIERS SHALL UTILIZE CONSTRUCTION ACCESS.
   C. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT ONE LOCATION.
   D. ALL EXIT LOCATIONS INTENDED SHALL BE USED CONTINUOUSLY AND FOR A PERIOD OF TIME SHALL HAVE STABILIZED CONSTRUCTION ENTRANCE/EXIT BMPs (TC-1 "STABILIZED CONSTRUCTION ENTRANCE/EXIT" OR TC-2 "ENTRANCE/OUTLET TIRE WASH").
   E. INSPECT ROUTINELY FOR DAMAGE AND ASSESS EFFECTIVENESS OF THE BMP. REMOVE AGGREGATE, SEPARATE AND DISPOSE OF SEDIMENT IF CONSTRUCTION ENTRANCE/EXIT IS CLOGGED NO MORE THAN 50% WITH SEDIMENT.
   F. IF APPLICABLE, ROUTE RUNOFF FROM STABILIZED ENTRANCES THROUGH A SEDIMENT TRAPPING DEVICE BEFORE DISCHARGE.
8. INLETS:
   G. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND, AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED BY CONTRACTOR.
   H. PROVIDE GEOHAY HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AND PROVIDE FILTER FABRIC UNDER THE GRATE OF ALL DITCH BOTTOM INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
9. DAILY:
   A. CONSTRUCTION SITE SHALL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". A RAIN GAUGE SHALL BE ON SITE TO MEASURE THE RAIL AMOUNTS.
   B. THE ADJACENT STREETS SHALL BE SWEPT AT THE END OF EACH DAY OR DRT FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL IMPLEMENT STREET SWEEPING AND VACUUMING AS NEEDED. CLEAN DIRT FROM ROADWAYS DAILY.
   C. CONSTRUCTION SITE SHALL BE CLEANED OF LITTER AND TRASH EACH DAY AND DISPOSED OF OFF-SITE.
   D. INSPECT ALL SEDIMENT CONTROL DEVICES FOR DAMAGE DAILY AND REPAIRS AS NEEDED.
   E. CONTRACTOR SHALL EMPLOY SAFETY AND ROADWAY ENTRY AND EXIT PLANS ON A DAILY/WEEKLY BASIS.
   F. HUMAN WASTEWATER SHALL BE COLLECTED ON-SITE BY THE USE OF TEMPORARY SANITARY SERVICE.
10. SILT FENCE:
    A. SILT FENCE SHALL BE IN PLACE AS SHOWN PRIOR TO CONSTRUCTION.
    B. PRIOR TO CONSTRUCTION, SILT FENCE SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION AS DEFINED THROUGHOUT THIS PLAN SET. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL.
    C. SILT FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. SOD: ALL DISTURBED AREAS SHALL BE SODDED EXCEPT AS SHOWN ON PLAN. ALL SOD IN RIGHT OF WAY SHALL BE ARGENTINE BAHIA. ALL SLOPES 4:1 OR GREATER SHALL BE SODDED.
12. STOCKPILES: SHALL BE ENCOMPASSED WITH SILT FENCE, SHALL NOT EXCEED 35' IN HEIGHT, AND SHALL NOT BE LOCATED NEAR SITE PERIMETER. LOCATION AND SLOPE SHALL BE APPROVED BY MUNICIPAL INSPECTOR AND OTHER JURISDICTIONAL AUTHORITIES AS REQUIRED.
13. TOXIC SUBSTANCES: ALL TOXIC SUBSTANCES (IF ANY) BROUGHT ON SITE SHALL BE HANDLED AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STANDARDS. ALL SUBSTANCES THAT MAY BE CONSIDERED TOXIC SHALL ALSO BE HANDLED AND STORED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS AND STANDARDS.
14. DRAINAGE/GRADE: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER; SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE; AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. GRAVEL LAYER: GRAVEL LAYER SHALL BE 12" MIN THICK AND PLACED OVER GEOTEXTILE MAT.
16. SPEED: TRUCK SPEED TO BE REDUCED TO CONTROL DUST.
17. DITCHES: KEEP ALL TEMPORARY ROADWAY DITCHES CLEAR.
18. WATER DOWN: CONTRACTOR TO WATER DOWN AREAS WHEN AND WHERE DISTURBED SOIL IS RAISING AND BECOMING AIRBORNE IN ORDER TO SETTLE IT. REPEAT AS NEEDED.
19. SEDIMENT BASIN: LARGE SITES MAY REQUIRE A TEMPORARY SEDIMENT BASIN. CONTRACTOR SHALL DETERMINE LOCATION. TEMPORARY SEDIMENT BASIN SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
20. STORMWATER DISCHARGES: CONTRACTOR TO ABIDE BY ALL PROVISIONS OF THE FDEP GENERAL PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.
21. DUST ABATEMENT: CONTRACTOR TO PROVIDE A DUST ABATEMENT PLAN INCLUDING A 6-FOOT HIGH SCREEN FENCE ALONG ALL PROPERTY LINES.

DEMOLITION NOTES:

1. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
2. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
3. THIS PLAN IS TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS. DO NOT REMOVE ANY ITEMS WITHOUT VERIFYING AND COORDINATING WITH ALL GENERAL TRADES AS TO HOW THEY RELATE TO THE OVERALL PROJECT.
4. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTIONS OF ACCIDENTS.
5. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORTS, INSULATIONS, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.

CONTRACTOR CERTIFICATION:

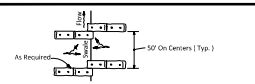
" I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PLAN THEREUNDER."

NAME: TITLE:

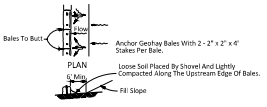
CONTRACTING FIRM: ADDRESS:

TELEPHONE #: DATE:

THIS SOIL EROSION/SEDIMENT CONTROL & DUST ABATEMENT PLAN IS FOR THE PURPOSE OF SHOWING INTENTION OF METHOD TO CONTROL STORM WATER RUNOFF & DUST DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL ADJUST AND/OR ADD BMP'S BASED ON SPECIFIC SITE CONDITIONS & CONSTRUCTION ACTIVITY SATISFYING NPDES REQUIREMENTS. CONTRACTOR TO OBTAIN GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)

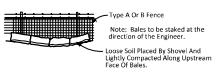


TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE

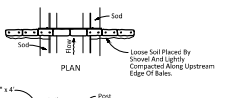


TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES AWAY FROM THE TOE OF SLOPE

BARRIERS FOR FILL SLOPES

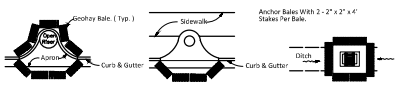


BALES BACKED BY FENCE

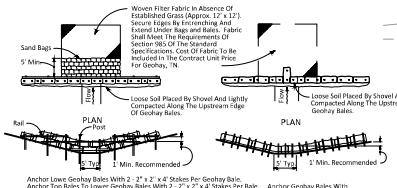


Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart 1, Sheet 1 of 3, Index No. 102

BARRIER FOR PAVED DITCH

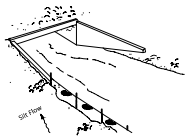


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

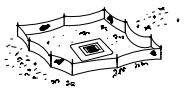


Application and Spacing: The use of Types I & II Geohay bale barriers should be limited to the conditions outlined in Chart 1, Sheet 1 of 3, Index No. 102

BARRIER FOR UNPAVED DITCHES



Type "" Silt Fence



Type "" Silt Fence Protection Around Ditch Bottom Inlets.



Note: Spacing for Type "" Fence to be in accordance with Chart "; Sheet 1 of 3 and ditch installations at drainage structures Sheet 2 of 3.

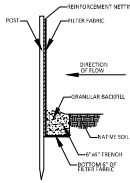
Type "" Silt Fence

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

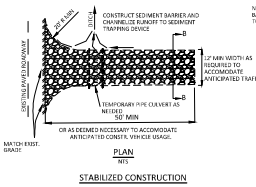
SILT FENCE APPLICATIONS

BALED GEOHAY AND SILT FENCES

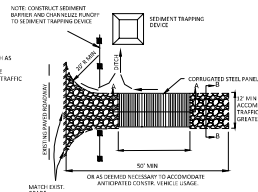
N.T.S



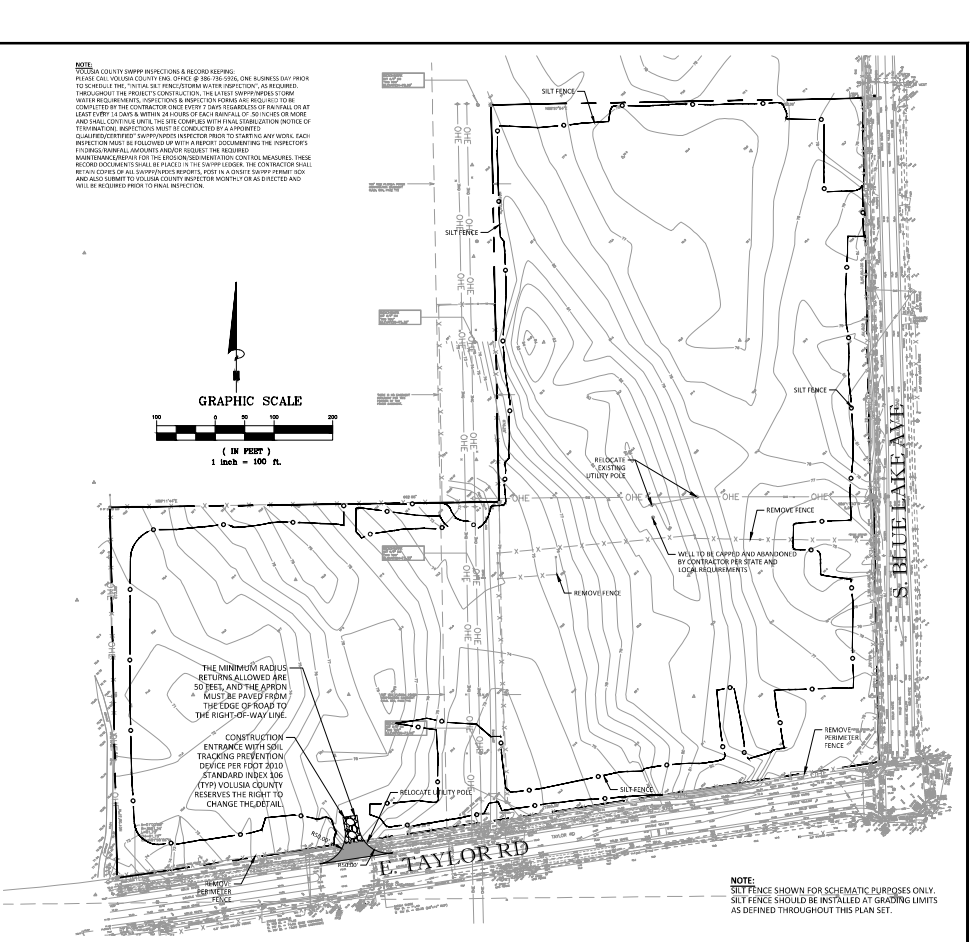
SILT BARRIER DETAIL
N.T.S.

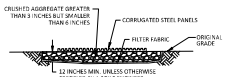


STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1)

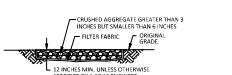


STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 2)





SECTION A-A
NTS



SECTION B-B
NTS

SITE LEGEND

- PROJECT BOUNDARY
- GRADING LIMITS
- SILT FENCE
- CRUSH AGGREGATE
- PAVED CONST. ENTRANCE

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CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NO. 69846
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

NO.	REVISION	DATE

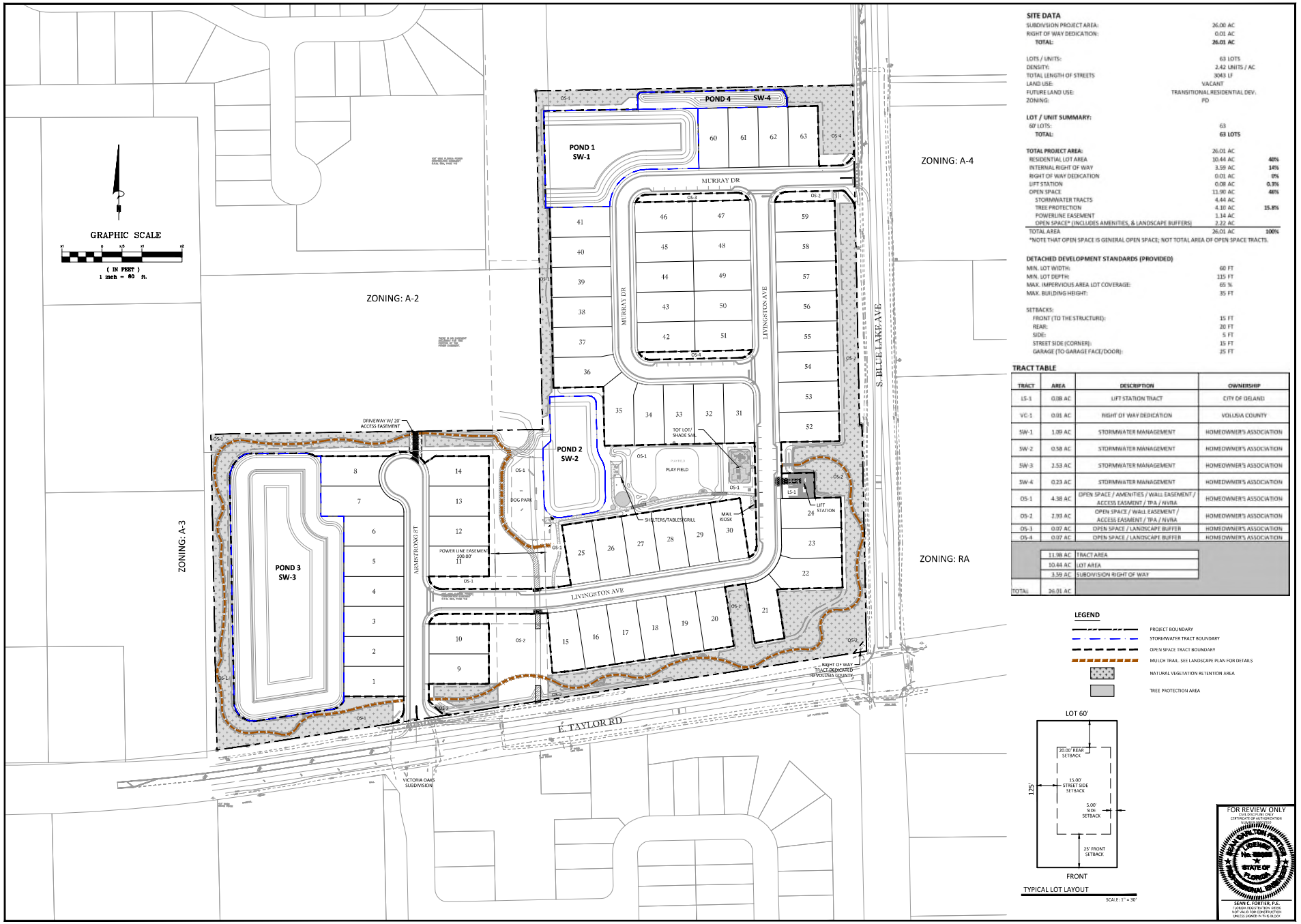
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

DEMOLITION & EROSION CONTROL PLAN

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
EC-1.0



SITE DATA

SUBDIVISION PROJECT AREA:	26.00 AC
RIGHT OF WAY DEDICATION:	0.01 AC
TOTAL:	**26.01 AC**
LOTS / UNITS:	63 LOTS
DENSITY:	2.42 UNITS / AC
TOTAL LENGTH OF STREETS	3043 LF
LAND USE:	VACANT
FUTURE LAND USE:	TRANSITIONAL RESIDENTIAL DEV.
ZONING:	PD

LOT / UNIT SUMMARY:

60' LOTS:	63
TOTAL:	**63 LOTS**

TOTAL PROJECT AREA:	26.01 AC	
RESIDENTIAL LOT AREA	10.44 AC	40%
INTERNAL RIGHT OF WAY	3.59 AC	14%
RIGHT OF WAY DEDICATION	0.01 AC	0%
LIFT STATION	0.08 AC	0.3%
OPEN SPACE	11.90 AC	46%
STORMWATER TRACTS	4.44 AC	
TREE PROTECTION	4.10 AC	15.8%
POWERLINE EASEMENT	1.14 AC	
OPEN SPACE* (INCLUDES AMENITIES, & LANDSCAPE BUFFERS)	2.22 AC	
TOTAL AREA	26.01 AC	100%

*NOTE THAT OPEN SPACE IS GENERAL OPEN SPACE; NOT TOTAL AREA OF OPEN SPACE TRACTS.

DETACHED DEVELOPMENT STANDARDS (PROVIDED)

MIN. LOT WIDTH:	60 FT
MIN. LOT DEPTH:	115 FT
MAX. IMPERVIOUS AREA LOT COVERAGE:	65 %
MAX. BUILDING HEIGHT:	35 FT
SETBACKS:	
FRONT (TO THE STRUCTURE):	15 FT
REAR:	20 FT
SIDE:	5 FT
STREET SIDE (CORNER):	15 FT
GARAGE (TO GARAGE FACE/DOOR):	25 FT

TRACT TABLE

TRACT	AREA	DESCRIPTION	OWNERSHIP
LS-1	0.08 AC	LIFT STATION TRACT	CITY OF DELAND
VC-1	0.01 AC	RIGHT OF WAY DEDICATION	VOLUSIA COUNTY
SW-1	1.09 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-2	0.58 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-3	2.53 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
SW-4	0.23 AC	STORMWATER MANAGEMENT	HOMEOWNER'S ASSOCIATION
OS-1	4.38 AC	OPEN SPACE / AMENITIES / WALL EASEMENT / ACCESS EASEMENT / TPA / NVRA	HOMEOWNER'S ASSOCIATION
OS-2	2.93 AC	OPEN SPACE / WALL EASEMENT / ACCESS EASEMENT / TPA / NVRA	HOMEOWNER'S ASSOCIATION
OS-3	0.07 AC	OPEN SPACE / LANDSCAPE BUFFER	HOMEOWNER'S ASSOCIATION
OS-4	0.07 AC	OPEN SPACE / LANDSCAPE BUFFER	HOMEOWNER'S ASSOCIATION
	11.98 AC	TRACT AREA	
	10.44 AC	LOT AREA	
	3.59 AC	SUBDIVISION RIGHT OF WAY	
TOTAL	26.01 AC		

LEGEND

- PROJECT BOUNDARY
- STORMWATER TRACT BOUNDARY
- OPEN SPACE TRACT BOUNDARY
- MULCH TRAIL. SEE LANDSCAPE PLAN FOR DETAILS
- NATURAL VEGETATION RETENTION AREA
- TREE PROTECTION AREA

TYPICAL LOT LAYOUT

SCALE: 1" = 30'

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CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
REGISTERED PROFESSIONAL ENGINEER
No. 73555
STATE OF FLORIDA
SEAN C. FORTIER, P.E.
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SEAN C. FORTIER, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7900 FAX (407) 895-1488

REVISION | DATE

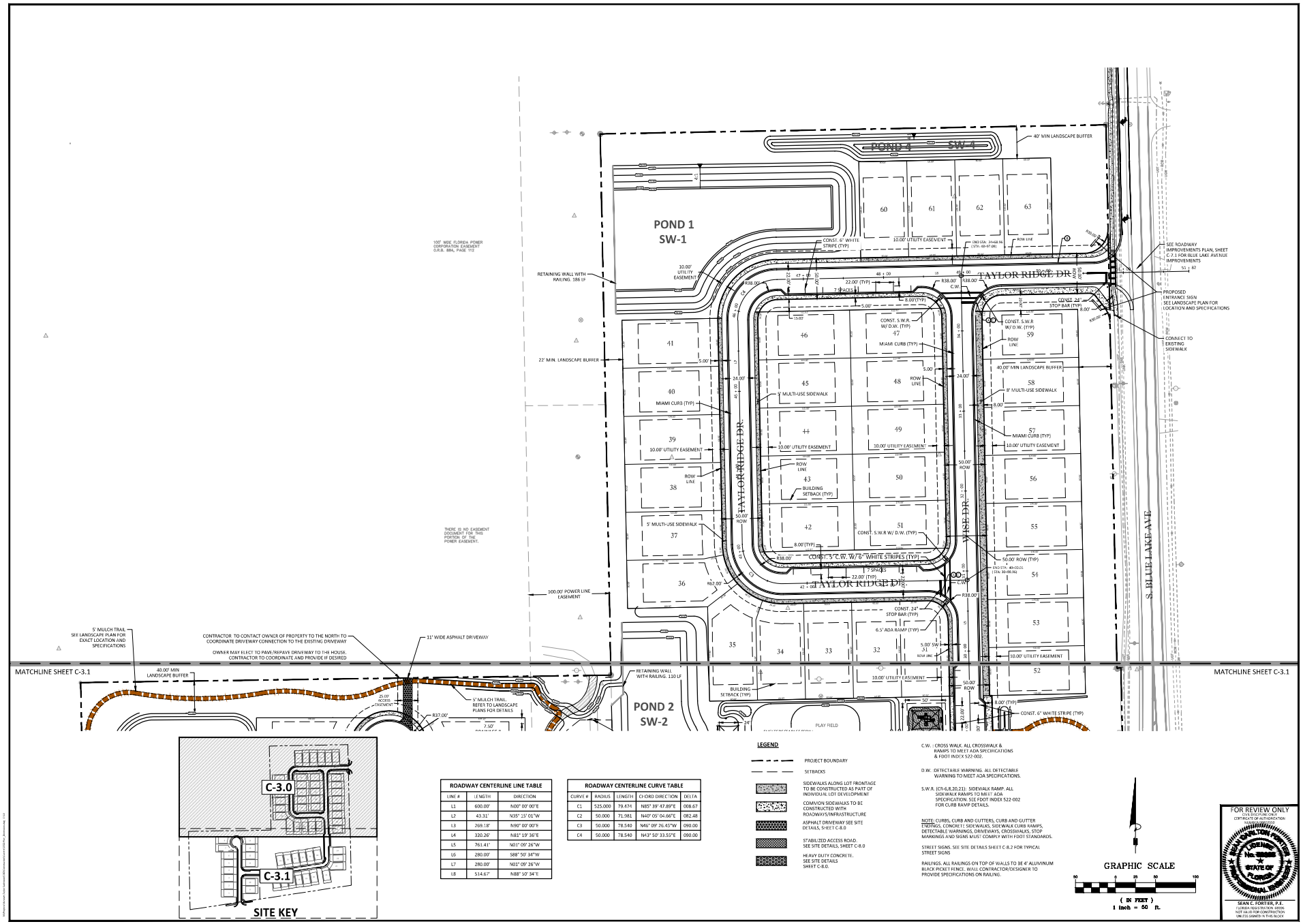
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

OVERALL PLAN

DRAWN: TMT
DESIGN: DSK
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/10/2025

SHEET
C-2.0



ROADWAY CENTERLINE LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	600.00'	N00° 00' 00"E
L2	43.31'	N35° 15' 01"W
L3	269.18'	N90° 00' 00"E
L4	320.26'	N81° 19' 36"E
L5	761.41'	N01° 09' 26"W
L6	280.00'	S88° 50' 34"W
L7	280.00'	N01° 09' 26"W
L8	514.67'	N88° 50' 34"E

ROADWAY CENTERLINE CURVE TABLE				
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	DELTA
C1	525.000	79.474	N85° 39' 47.89"E	008.67
C2	50.000	71.981	N40° 05' 04.66"E	082.48
C3	50.000	78.540	N46° 09' 26.45"W	090.00
C4	50.000	78.540	N43° 50' 33.55"E	090.00

LEGEND

- PROJECT BOUNDARY
- SETBACKS
- SIDEWALKS ALONG LOT FRONTAGE TO BE CONSTRUCTED AS PART OF INDIVIDUAL LOT DEVELOPMENT
- COMMON SIDEWALKS TO BE CONSTRUCTED WITH ROADWAYS/INFRASTRUCTURE
- ASPHALT DRIVEWAY SEE SITE DETAILS, SHEET C-8.0
- STABILIZED ACCESS ROAD. SEE SITE DETAILS, SHEET C-8.0
- HEAVY DUTY CONCRETE. SEE SITE DETAILS SHEET C-8.0.

C.W. : CROSS WALK. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

D.W. :DETECTABLE WARNING. ALL DETECTABLE WARNING TO MEET ADA SPECIFICATIONS.

S.W.R. (CH-6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522-002 FOR CURB RAMP DETAILS.

NOTE: CURBS, CURB AND GUTTERS, CURB AND GUTTER TYPINGS, CONCRETE SIDEWALKS, SIDEWALK CURB RAMPS, DETECTABLE WARNINGS, DRIVEWAYS, CROSSWALKS, STOP MARKINGS AND SIGNS MUST COMPLY WITH FDOT STANDARDS.

STREET SIGNS. SEE SITE DETAILS SHEET C-8.2 FOR TYPICAL STREET SIGNS

RAILINGS. ALL RAILINGS ON TOP OF WALLS TO BE 4' ALUMINUM BLACK PICKET FENCE. WALL CONTRACTOR/DESIGNER TO PROVIDE SPECIFICATIONS ON RAILING.

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

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REGISTERED PROFESSIONAL ENGINEER
No. 73555
STATE OF FLORIDA
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KCG
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ORLANDO, FLORIDA 32804
(407) 540-7080 FAX (407) 895-1488

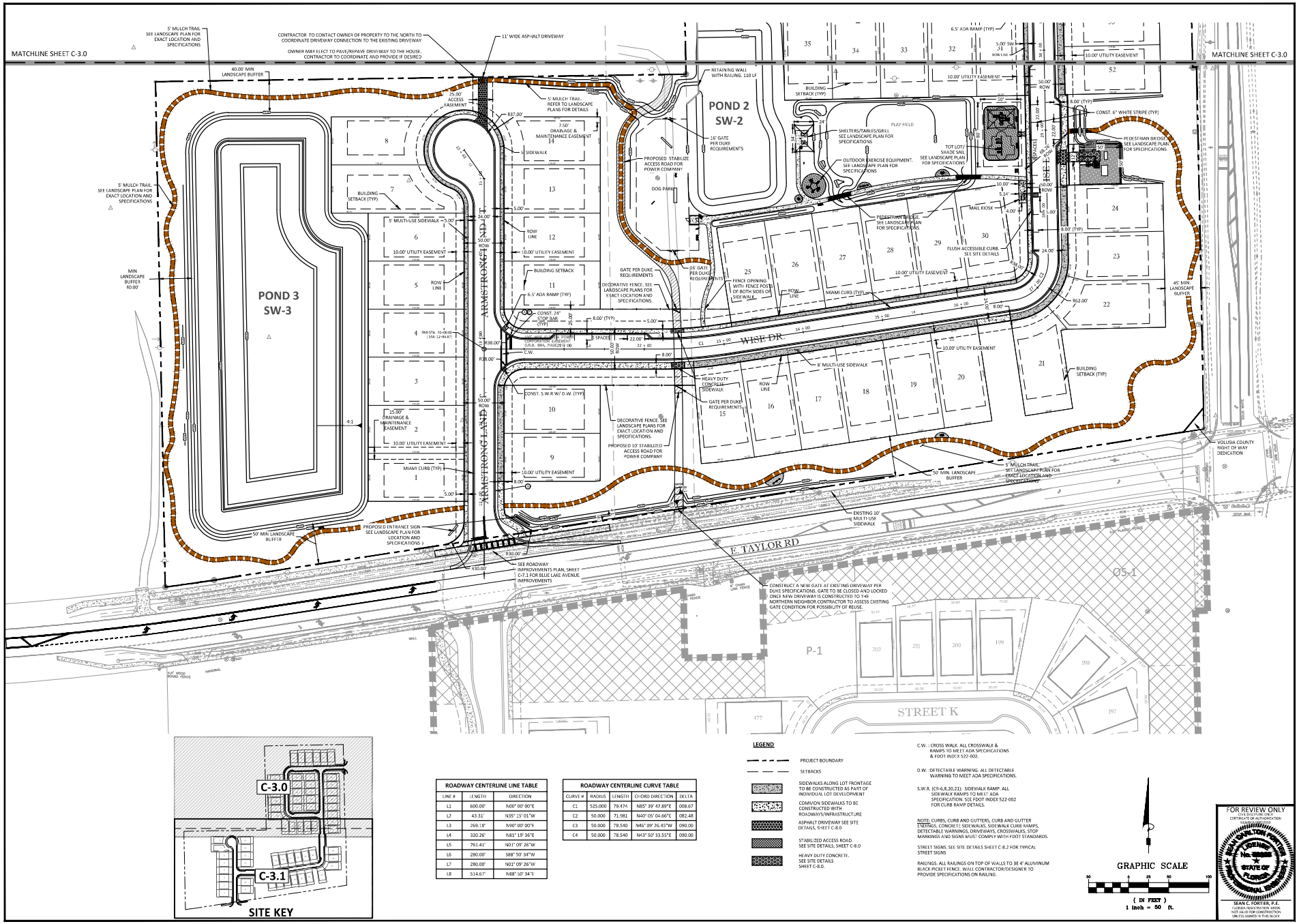
REVISION	DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

DIMENSION PLAN

DRAWN: TMT
DESIGN: DSK
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/10/2025
SHEET
C-3.0



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C3	50.000	78.540	N46° 09' 26.45"W	090.00
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STREET SIGNS. SEE SITE DETAILS SHEET C-8.2 FOR TYPICAL STREET SIGNS

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GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

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REVISION
DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

DIMENSION PLAN

DRAWN: TMT
DESIGN: DSR
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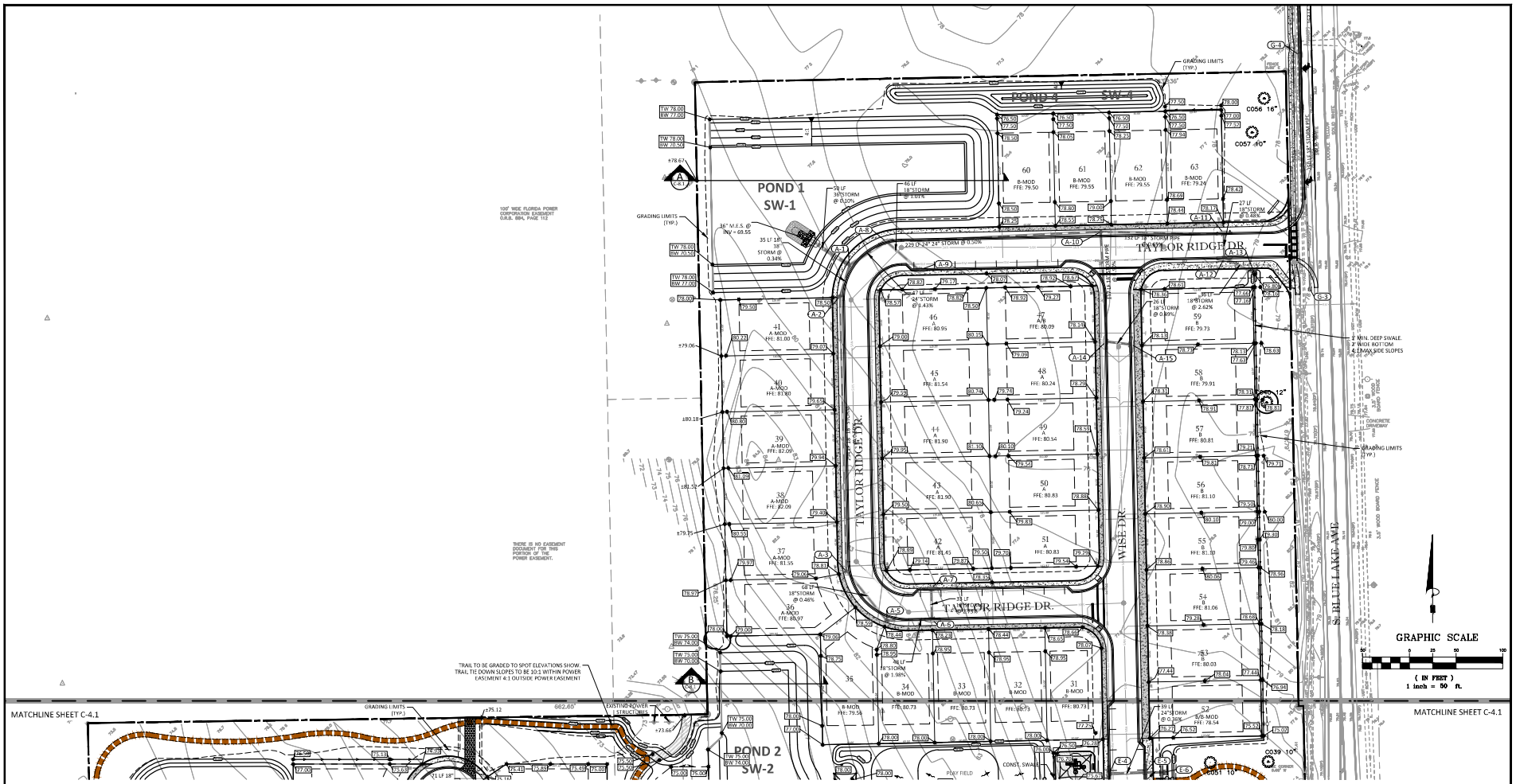
JOB NO.: 1512.000
DATE: 04/10/2025
SHEET
C-3.1



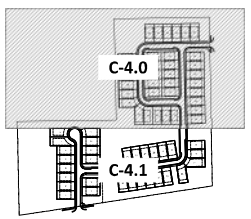
STORM SEWER SCHEDULE

ALL STRUCTURES SHOWN WITHIN PAVED AREAS SHALL HAVE TRAFFIC BEARING STEEL GRATES.

STRUCTURE TOPS ELEVATIONS ARE FOR INFORMATIONAL PURPOSE ONLY . CONTRACTOR TO ADJUST STRUCTURE TOPS TO PROPOSED GRADE.

STORM

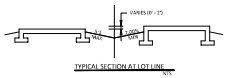
A-1	STORM MANHOLE TOP = 78.08 NE INV = 70.20 S INV = 70.20 NW INV = 69.55	A-8	FDOT TYPE 'S' INLET TOP = 78.09 E INV = 70.87 SE INV = 73.40 SW INV = 70.87	A-14	FDOT TYPE 'S' INLET TOP = 78.17 E INV = 72.08 N INV = 72.08	D-5	FDOT TYPE 'S' INLET TOP = 74.82 E INV = 68.90 N INV = 68.90	E-3	STORM MANHOLE TOP = 75.75 N INV = 68.86 W INV = 68.86	E-9	FDOT TYPE 'S' INLET TOP = 74.64 S INV = 69.37 N INV = 68.24 W INV = 68.24	G-5	FDOT TYPE 'S' INLET TOP = 76.76 N INV = 72.55 S INV = 72.55
A-2	STORM MANHOLE TOP = 78.33 S INV = 70.32 N INV = 70.32	A-9	FDOT TYPE 'S' INLET TOP = 77.73 NW INV = 73.87	A-15	FDOT TYPE 'S' INLET TOP = 78.16 W INV = 72.21	D-6	FDOT TYPE 'E' INLET TOP = 74.00 W INV = 69.00	E-4	FDOT TYPE 'S' INLET TOP = 75.66 E INV = 69.02 S INV = 69.02	E-10	FDOT TYPE 'S' INLET TOP = 74.61 N INV = 69.46	G-6	FDOT TYPE 'C' INLET TOP = 76.00 S INV = 72.50
A-3	STORM MANHOLE TOP = 78.66 SE INV = 71.98 N INV = 71.79	A-10	STORM MANHOLE TOP = 78.59 E INV = 72.02 S INV = 71.95 W INV = 72.02	C-3	FDOT TYPE 'S' INLET TOP = 74.88 E INV = 68.20	D-7	STORM MANHOLE TOP = 75.73 N INV = 67.55 S INV = 64.69	E-5	FDOT TYPE 'S' INLET TOP = 75.66 E INV = 69.16 W INV = 69.16	G-1	FDOT TYPE 'C' INLET TOP = 72.20 E INV = 68.50 W SLOT ELEV.= 71.30 (SLOT WIDTH OR BOX) (BOTTOM = 67.50 W/ WISEHOLE PER FDOT INDEX 425-031 PG.4		
A-4	STORM MANHOLE TOP = 78.30 E INV = 72.30 NW INV = 72.30	A-11	FDOT TYPE 'S' INLET TOP = 78.20 S INV = 72.87 W INV = 72.87	D-1	FDOT TYPE 'S' INLET TOP = 74.00 E INV = 64.00	D-8	FDOT TYPE 'S' INLET TOP = 75.54 W INV = 67.92 S INV = 67.92	E-6	FDOT TYPE 'C' INLET TOP = 74.00 W INV = 69.23	G-2	FDOT TYPE 'C' INLET TOP = 72.00 W INV = 68.60 E SLOT ELEV.= 73.60 (SLOT WIDTH OF BOX) BOTTOM = 67.60 W/ WISEHOLE PER FDOT INDEX 425-031 PG.4		
A-5	FDOT TYPE 'S' INLET TOP = 78.26 N INV = 73.26 W INV = 73.26	A-12	FDOT TYPE 'S' INLET TOP = 78.20 SE INV = 73.03 N INV = 73.00	D-2	FDOT TYPE 'S' INLET TOP = 74.86 E INV = 64.10 W INV = 64.10	E-1	STORM MANHOLE TOP = 73.68 E INV = 68.60 E INV = 68.60	E-7	FDOT TYPE 'C' INLET TOP = 74.97 S INV = 68.57 N INV = 68.96	G-3	FDOT TYPE 'C' INLET TOP = 77.62 N INV = 74.00		
A-6	FDOT TYPE 'S' INLET TOP = 78.26 N INV = 73.26 W INV = 73.26	A-13	FDOT TYPE 'C' INLET TOP = 78.27 NW INV = 73.95	D-3	FDOT TYPE 'S' INLET TOP = 74.86 S INV = 68.68 N INV = 64.19 W INV = 64.19	E-2	FDOT TYPE 'E' INLET TOP = 77.10 E INV = 68.07 W INV = 68.07	E-8	FDOT TYPE 'C' INLET TOP = 74.97 S INV = 68.57 N INV = 68.96	G-4	FDOT TYPE 'S' INLET TOP = 77.68 N INV = 73.10 S INV = 73.10		



SITE KEY

NOTES:

1. SITE CONTRACTOR TO GRADE BUILDING PADS TO 8" BELOW FINISHED FLOOR ELEVATION.
2. REAR YARD GRADE TRANSITION CANNOT EXCEED 4:1 SLOPE. IF GRADE TRANSITION EXCEEDS 4:1 SLOPE, RETAINING WALLS ARE REQUIRED. IF SIDE YARD SLOPE EXCEEDS 5:1, A STEM WALL OR THICKENED EDGE SLAB WILL BE REQUIRED.
3. FFE OF THE LOTS ARE AT LEAST 1' ABOVE CENTER LINE ELEVATION OF THE ADJACENT ROADWAY AND A MIN. OF 1' ABOVE THE MAXIMUM STORMWATER POND STAGE ELEVATION FOR A 100YR 24-HR STORM EVENT.



STORM PIPE MATERIAL ALTERNATIVE:

STORM PIPES TO BE RCP OR HP UNLESS OTHERWISE STATED

AT CONTRACTOR'S DISCRETION, ***ADS HP STORM PIPE*** MAY BE BID AS AN ALTERNATIVE FOR STORM PIPES CALLED OUT AS RCP.

LEGEND

- PROJECT BOUNDARY
- GRADING LIMITS
- STORM PIPES
- PROPOSED CONTOUR (78.0)
- EXISTING CONTOUR (73)
- EXISTING STORM PIPES
- SIDEWALKS ALONG LOT FRONTAGE TO BE CONSTRUCTED AS PART OF INDIVIDUAL LOT DEVELOPMENT
- COMMON SIDEWALKS TO BE CONSTRUCTED WITH ROADWAYS/INFRASTRUCTURE
- ASPHALT DRIVEWAY SEE SITE DETAILS, SHEET C-8.0
- STABILIZED ACCESS ROAD. SEE SITE DETAILS, SHEET C-8.0
- HEAVY DUTY CONCRETE SIDEWALKS. SEE SITE DETAILS, SHEET C-8.0
- BIOSWALE SEE SITE DETAILS, SHEET C-8.1.
- B-1 BORING LOCATION
- FDOT TYPE 'S' INLET
- FDOT TYPE 'S' INLET
- STORM MANHOLE
- TYPE 'C' INLET

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION



SEAN C. FORTNER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID WITHOUT AN ORIGINAL
SIGNATURE & EMBOSSED SEAL

KCG
KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7900 FAX (407) 895-1488

REVISION | DATE

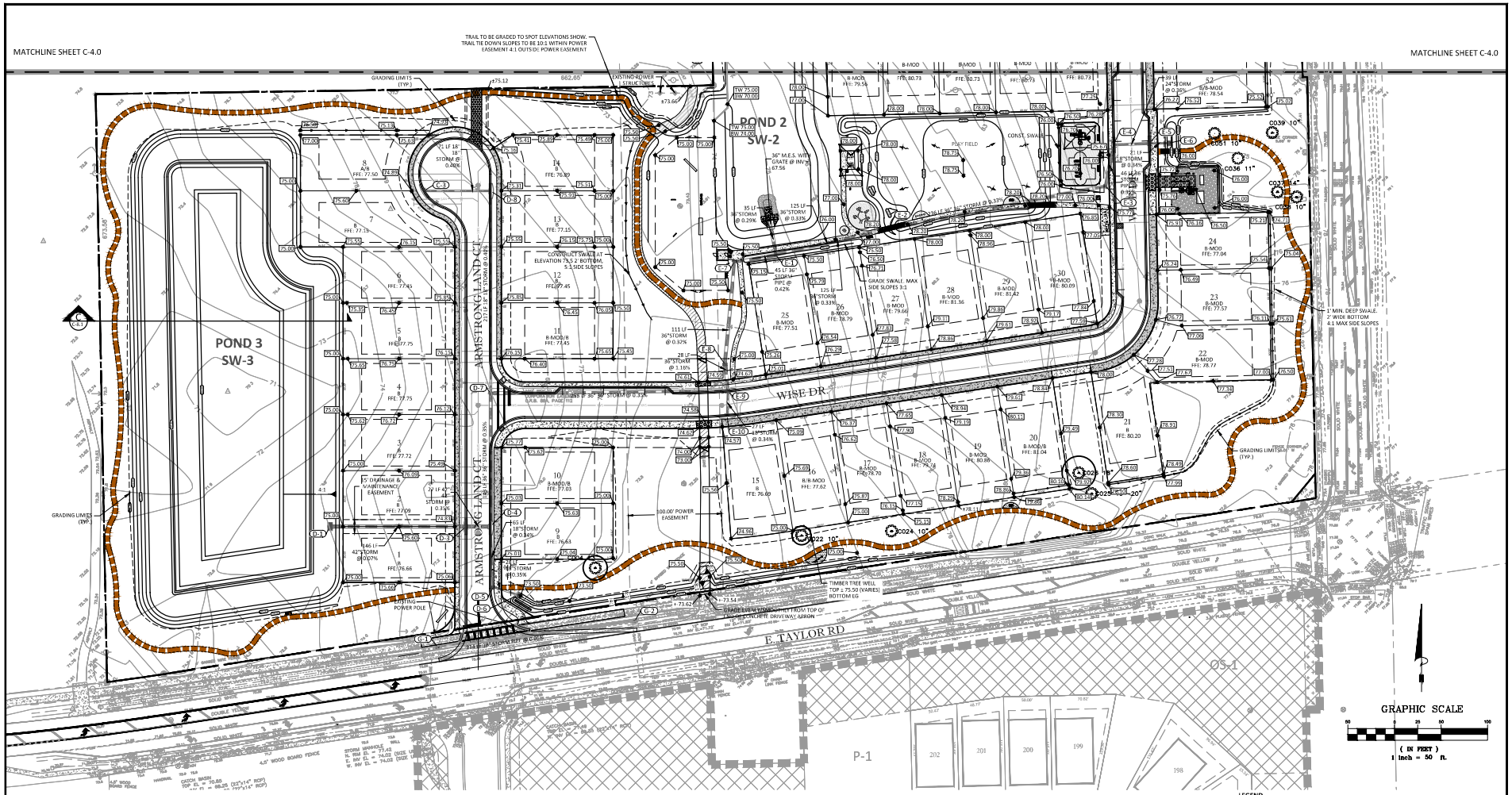
PREPARED FOR:
TLC
BLUE LAKE, LLC

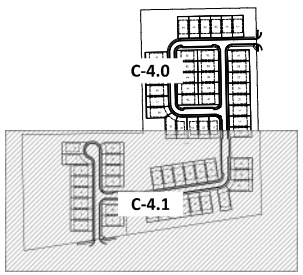
TAYLOR RIDGE
SUBDIVISION

PAVING, GRADING,
& DRAINAGE PLAN

DRAWN: TMT
DESIGN: DSK
CHECKED: SCF
JOB NO.: 1512.009
DATE: 04/18/2025

SHEET
C-4.0





SITE KEY

STORM

A-1	STORM MANHOLE TOP = 78.08 NE INV = 70.20 S INV = 70.20 NW INV = 69.55	A-8	FDOT TYPE 'S' INLET TOP = 78.00 E INV = 70.87 SE INV = 73.40 SW INV = 70.87	A-14	FDOT TYPE 'S' INLET TOP = 78.17 E INV = 72.08 N INV = 72.08	D-5	FDOT TYPE 'S' INLET TOP = 74.82 E INV = 68.90 N INV = 68.90	E-3	STORM MANHOLE TOP = 75.75 N INV = 68.86 W INV = 68.86
A-2	STORM MANHOLE TOP = 78.33 S INV = 70.32 N INV = 70.32	A-9	FDOT TYPE 'S' INLET TOP = 77.72 NW INV = 73.87	A-15	FDOT TYPE 'S' INLET TOP = 78.16 W INV = 72.21	D-6	FDOT TYPE 'E' INLET TOP = 74.00 W INV = 69.00	E-4	FDOT TYPE 'S' INLET TOP = 75.66 E INV = 69.02 S INV = 69.02
A-3	STORM MANHOLE TOP = 78.66 SE INV = 71.98 N INV = 71.79	A-10	STORM MANHOLE TOP = 78.59 E INV = 72.02 S INV = 71.49 W INV = 72.02	C-3	FDOT TYPE 'S' INLET TOP = 77.88 E INV = 68.20	D-7	STORM MANHOLE TOP = 75.75 E INV = 67.35 N INV = 67.05 S INV = 64.49	E-5	FDOT TYPE 'S' INLET TOP = 75.66 E INV = 69.16 W INV = 69.16
A-5	STORM MANHOLE TOP = 78.30 E INV = 72.30 NW INV = 72.30	A-11	FDOT TYPE 'S' INLET TOP = 78.20 S INV = 72.87 W INV = 72.87	D-1	FDOT TYPE 'S' INLET TOP = 74.00 E INV = 64.00	D-8	FDOT TYPE 'E' INLET TOP = 75.34 W INV = 67.92 S INV = 67.92	E-6	FDOT TYPE 'C' INLET TOP = 74.00 W INV = 69.23
A-6	FDOT TYPE 'S' INLET TOP = 78.26 N INV = 73.26 W INV = 73.26	A-12	FDOT TYPE 'S' INLET TOP = 78.20 SE INV = 73.00 N INV = 73.00	D-3	FDOT TYPE 'S' INLET TOP = 74.86 E INV = 66.10 W INV = 66.10	E-1	FDOT TYPE 'C' INLET TOP = 74.50 E INV = 67.66 W INV = 68.41 N INV = 67.66	E-7	STORM MANHOLE TOP = 73.68 S INV = 68.60 E INV = 68.60
A-7	FDOT TYPE 'S' INLET TOP = 78.06 S INV = 74.15	A-13	FDOT TYPE 'C' INLET TOP = 76.57 NW INV = 73.95	D-4	FDOT TYPE 'S' INLET TOP = 74.86 S INV = 68.68 N INV = 64.19 W INV = 64.19	E-2	FDOT TYPE 'E' INLET TOP = 77.50 E INV = 68.07 W INV = 68.07	E-8	FDOT TYPE 'C' INLET TOP = 74.97 S INV = 68.57 N INV = 68.96

E-9	FDOT TYPE 'S' INLET TOP = 74.64 S INV = 69.37 N INV = 68.24 W INV = 68.24	G-5	FDOT TYPE 'S' INLET TOP = 76.76 N INV = 72.55 S INV = 72.55
E-10	FDOT TYPE 'S' INLET TOP = 74.61 N INV = 69.46	G-6	FDOT TYPE 'C' INLET TOP = 76.00 S INV = 72.50
G-1	FDOT TYPE 'C' INLET TOP = 72.20 E INV = 68.50 W SCOT ELEV = 71.50 (SLOT WIDTH OF BOX) BOTTOM= 67.50 W/ WEEPHOLE PER FDOT INDEX 425-001 PG-4		
G-2	FDOT TYPE 'C' INLET TOP = 72.00 W INV = 68.60 E SLOT ELEV = 72.60 (SLOT WIDTH OF BOX) BOTTOM = 67.60 W/ WEEPHOLE PER FDOT INDEX 425-001 PG-4		
G-3	FDOT TYPE 'C' INLET TOP = 77.62 N INV = 74.00		
G-4	FDOT TYPE 'S' INLET TOP = 77.68 N INV = 73.10 S INV = 73.10		

NOTES:

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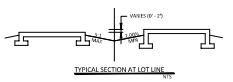

STORM PIPE MATERIAL ALTERNATIVE:

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LEGEND

- PROJECT BOUNDARY
- GRADING LIMITS
- STORM PIPES
- PROPOSED CONTOUR (78.0)
- EXISTING CONTOUR (73)
- EXISTING STORM PIPES
- B-1 BORING LOCATION
- FDOT TYPE 'S' INLET
- STORM MANHOLE
- TYPE 'C' INLET
- SIDEWALKS ALONG LOT FRONTAGE TO BE CONSTRUCTED AS PART OF INDIVIDUAL LOT DEVELOPMENT
- COMMON SIDEWALKS TO BE CONSTRUCTED WITH ROADWAYS/INFRASTRUCTURE
- ASPHALT DRIVEWAY SEE SITE DETAILS, SHEET C-8.0
- STABILIZED ACCESS ROAD. SEE SITE DETAILS, SHEET C-8.0
- HEAVY DUTY CONCRETE SIDEWALKS. SEE SITE DETAILS, SHEET C-8.0
- BIOSWALE SEE SITE DETAILS, SHEET C-8.1.

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION

SEAN C. FORTNER, P.E.
FLORIDA REGISTRATION NO.
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7868 FAX (407) 895-1488

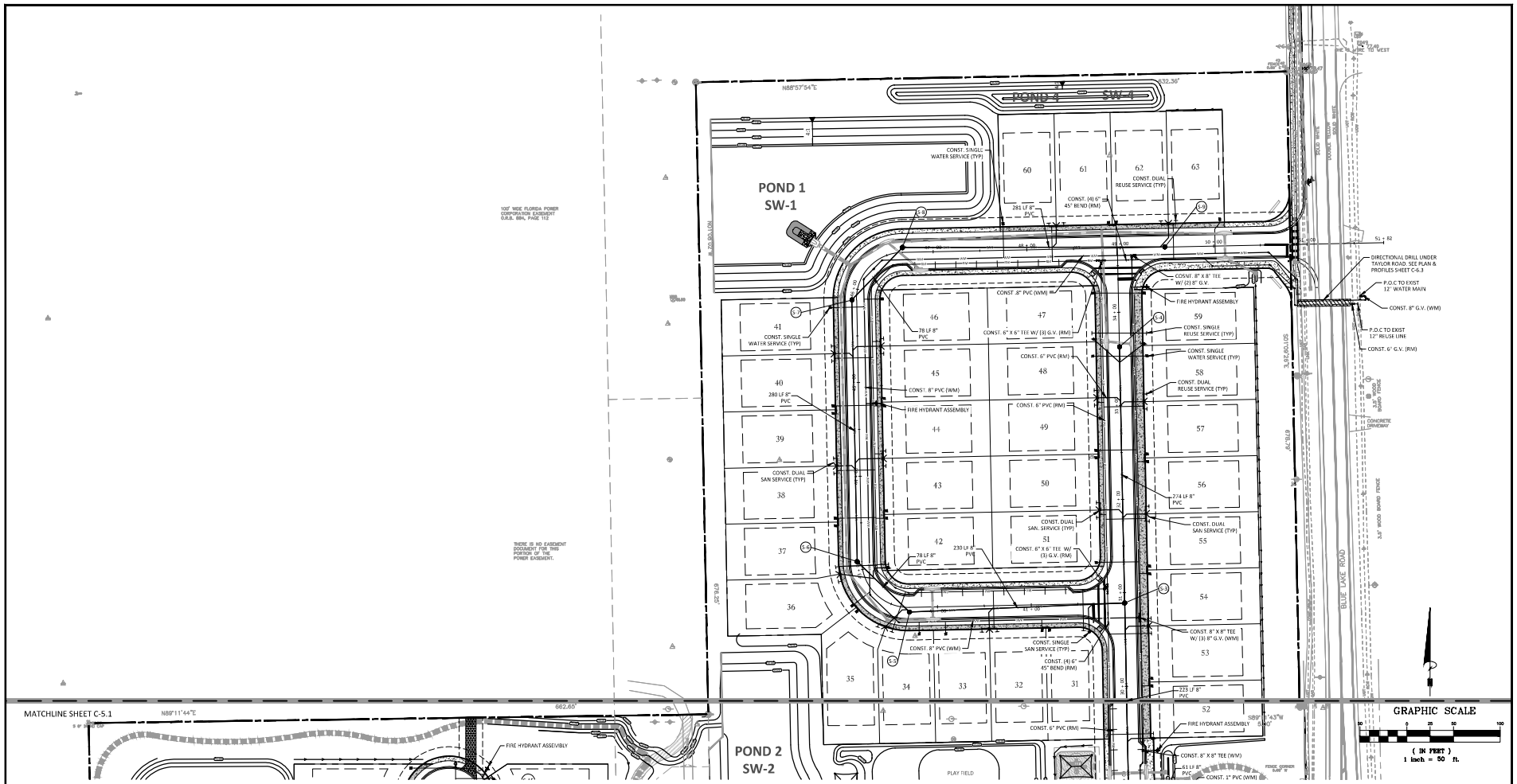
REVISION | DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

PAVING, GRADING, & DRAINAGE PLAN

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.009
DATE: 04/18/2025
SHEET
C-4.1



SANITARY SEWER SCHEDULE

STRUCTURE TOPS ELEVATIONS ARE FOR INFORMATIONAL PURPOSE ONLY . CONTRACTOR TO ADJUST STRUCTURE TOPS TO PROPOSED GRADE.

SANITARY

S-1 SANITARY MANHOLE
TOP = 76.00
W INV = 64.02
S INV = 63.92

S-2 SANITARY MANHOLE
TOP = 75.52
N INV = 65.53
S INV = 64.36
E INV = 64.26

S-3 SANITARY MANHOLE
TOP = 76.40
N INV = 60.54
W INV = 65.49
S INV = 66.42

S-4 SANITARY MANHOLE
TOP = 77.00
S INV = 70.64

S-5 SANITARY MANHOLE
TOP = 78.02
NW INV = 67.51
E INV = 67.41

S-6 SANITARY MANHOLE
TOP = 78.56
N INV = 67.92
SE INV = 67.82

S-7 SANITARY MANHOLE
TOP = 78.19
NE INV = 69.34
S INV = 69.04

S-8 SANITARY MANHOLE
TOP = 77.09
E INV = 69.93
SW INV = 69.45

S-9 SANITARY MANHOLE
TOP = 78.24
W INV = 70.67

S-10 SANITARY MANHOLE
TOP = 76.25
SW INV = 64.97
N INV = 64.87

S-11 SANITARY MANHOLE
TOP = 77.12
W INV = 63.36
NE INV = 65.76

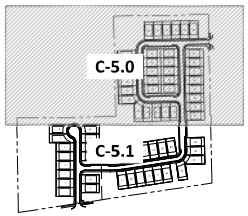
S-12 SANITARY MANHOLE
TOP = 78.17
W INV = 66.24
E INV = 66.14

S-13 SANITARY MANHOLE
TOP = 74.33
N INV = 67.18
E INV = 67.08

S-14 SANITARY MANHOLE
TOP = 75.94
N INV = 70.08
S INV = 70.18
E INV = 69.00

S-15 SANITARY MANHOLE
TOP = 74.89
S INV = 71.02

S-16 SANITARY MANHOLE
TOP = 74.60
N INV = 70.73



SITE KEY

LEGEND

- PROJECT BOUNDARY
- W — WATER MAIN
- RW — REUSE MAIN
- FM — SANITARY FORCE MAIN
- SW — SANITARY PIPE
- SANITARY MANHOLE
- G.V. GATE VALVE
- F.H. FIRE HYDRANT ASSEMBLY
- A.R.V. AIR RELEASE VALVE, SEE UTILITY DETAILS
- DUAL SANITARY SERVICE
- DUAL REUSE SERVICE
- DUAL WATER SERVICE
- STORM PIPE

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION

REGISTERED PROFESSIONAL ENGINEER
No. 73555
STATE OF FLORIDA

SEAN C. FORTIER, P.E.
DIGITALLY SIGNED TEN (TEN)
NOT VALID WITHOUT SIGNATURE
AND ORIGINAL RAISED SEAL

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7900 FAX (407) 895-1468

REVISION
DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

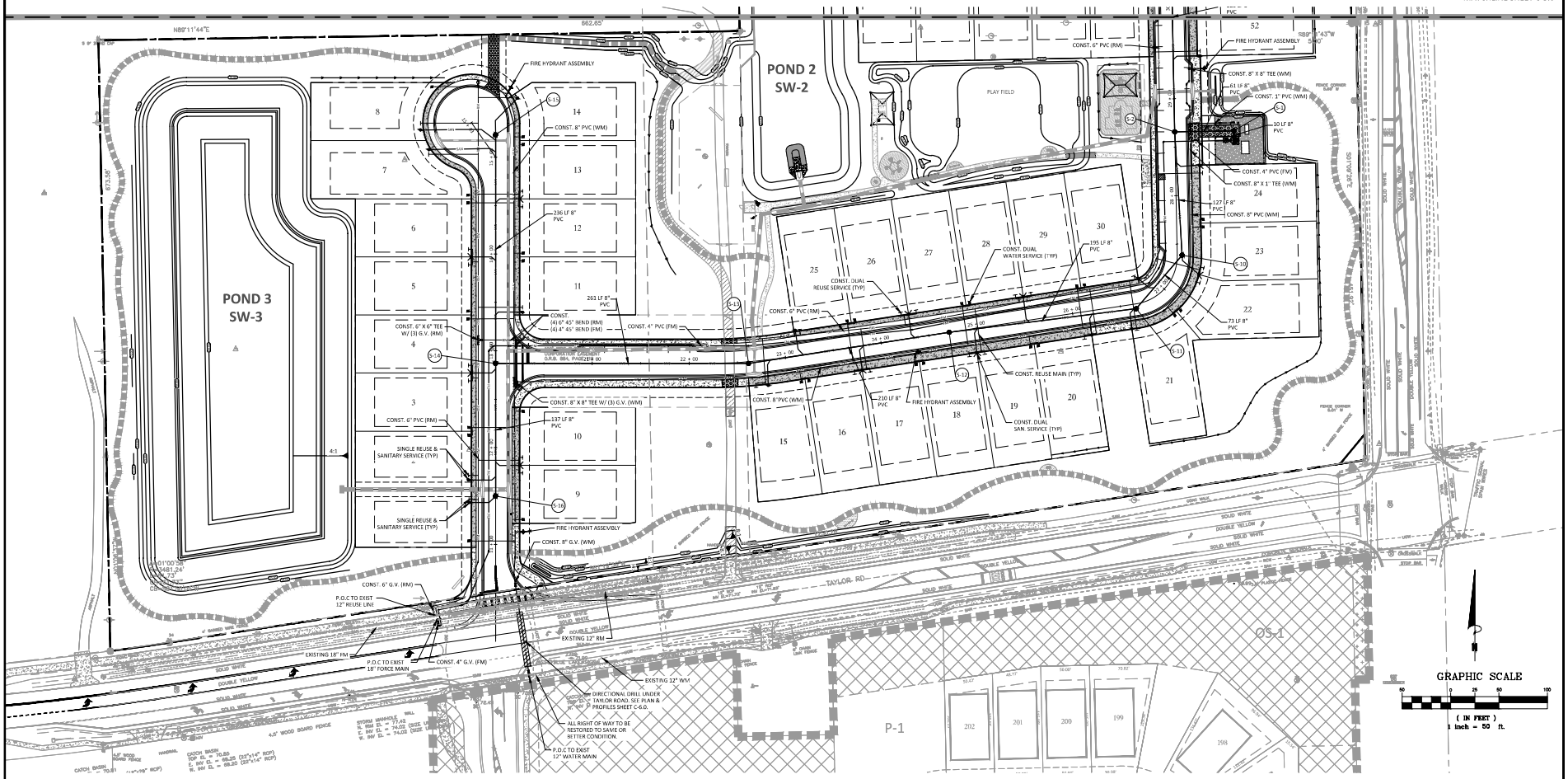
UTILITY PLAN

DRAWN: TMT
DESIGN: DSK
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/10/2025

SHEET
C-5.0

MATCHLINE SHEET C-5.0

MATCHLINE SHEET C-5.0



SANITARY SEWER SCHEDULE

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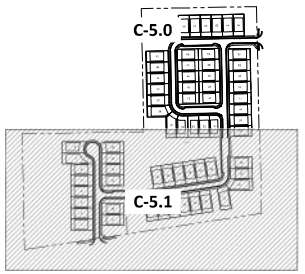
SANITARY

S-1	SANITARY MANHOLE TOP = 76.00 W INV = 64.02 S INV = 63.92
S-2	SANITARY MANHOLE TOP = 75.52 E INV = 65.53 S INV = 64.36 E INV = 64.26
S-3	SANITARY MANHOLE TOP = 78.40 N INV = 69.54 W INV = 66.49 S INV = 66.42
S-4	SANITARY MANHOLE TOP = 77.90 S INV = 70.64
S-5	SANITARY MANHOLE TOP = 78.02 NW INV = 67.51 E INV = 67.41
S-6	SANITARY MANHOLE TOP = 78.56 N INV = 67.92 SE INV = 67.82
S-7	SANITARY MANHOLE TOP = 78.10 NE INV = 69.14 S INV = 69.04
S-8	SANITARY MANHOLE TOP = 77.59 E INV = 69.55 SW INV = 69.45
S-9	SANITARY MANHOLE TOP = 78.24 W INV = 70.67
S-10	SANITARY MANHOLE TOP = 76.35 SW INV = 64.97 N INV = 64.87
S-11	SANITARY MANHOLE TOP = 77.52 W INV = 65.36 NE INV = 65.26
S-12	SANITARY MANHOLE TOP = 78.17 W INV = 66.24 E INV = 66.14
S-13	SANITARY MANHOLE TOP = 74.31 W INV = 67.18 E INV = 67.08
S-14	SANITARY MANHOLE TOP = 75.94 N INV = 70.08 S INV = 70.18 E INV = 69.00
S-15	SANITARY MANHOLE TOP = 74.89 S INV = 71.02
S-16	SANITARY MANHOLE TOP = 74.60 N INV = 70.73



SITE KEY

LEGEND

PROJECT BOUNDARY	SANITARY MANHOLE
UTILITY EASEMENT	DUAL SANITARY SERVICE
TRACT BOUNDARY	DUAL REUSE SERVICE
WATER MAIN	DUAL WATER SERVICE
REUSE MAIN	G.V. GATE VALVE
SANITARY FORCE MAIN	F.H.A. FIRE HYDRANT ASSEMBLY
SANITARY GRAVITY MAIN	
STORM PIPE	

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CIVIL ENGINEERING ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER 0000-0000

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7256 FAX (407) 898-1488

DATE	REVISION

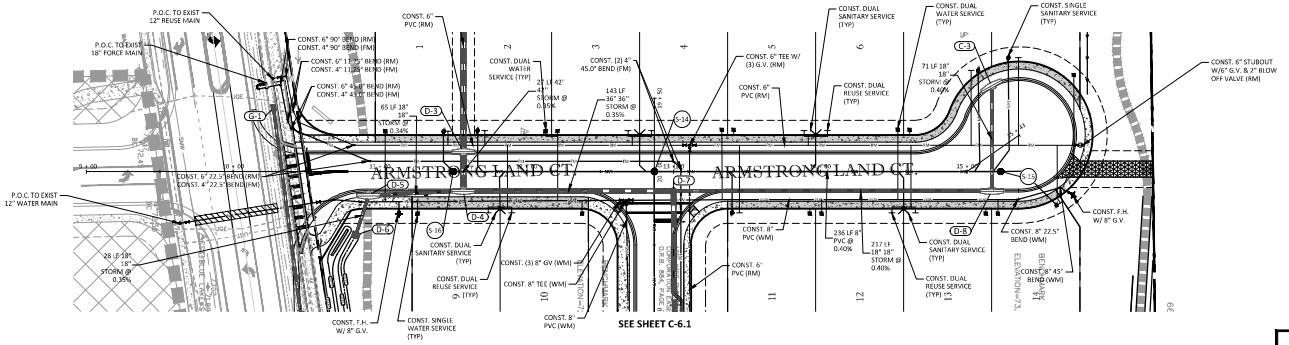
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

UTILITY PLAN

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

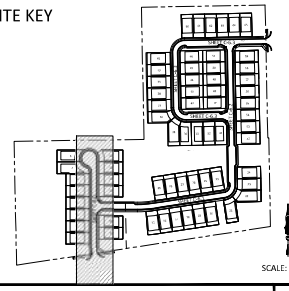
SHEET
C-5.1



GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SITE KEY

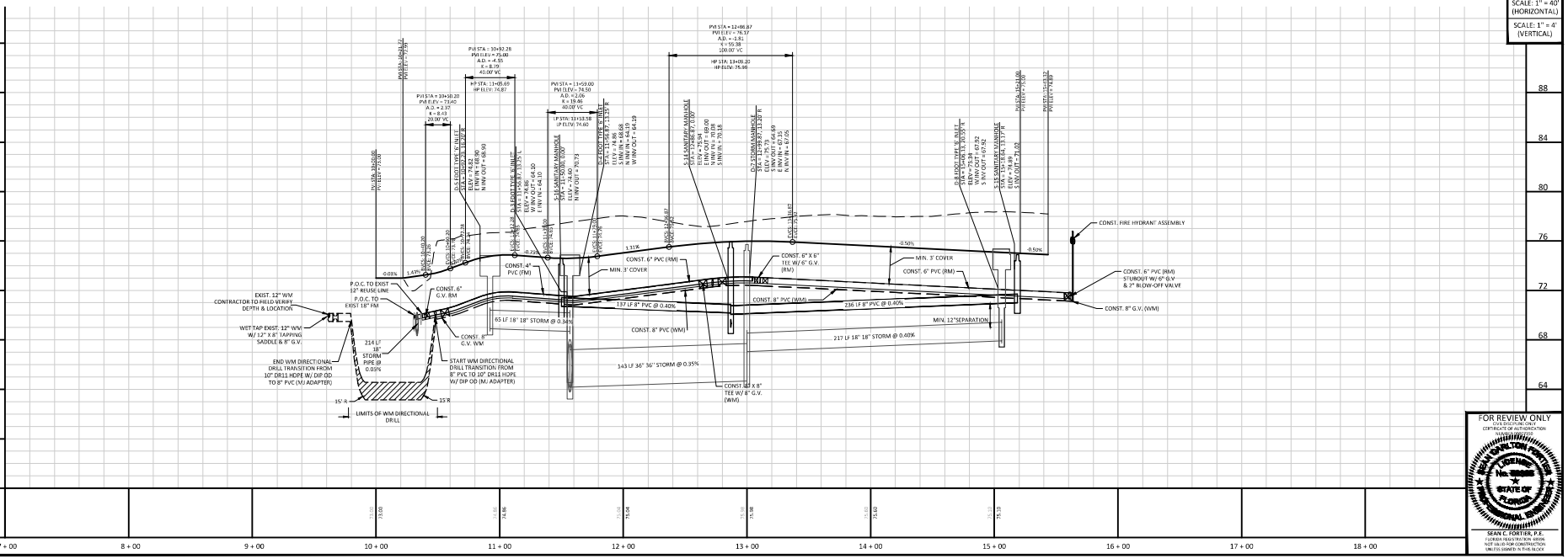


SCALE: 1" = 300'

SCALE: 1" = 40' (HORIZONTAL)
SCALE: 1" = 4' (VERTICAL)

DIRECTIONAL DRILL NOTES:

1. IF HDPE IS CHOSEN FOR DIRECTIONAL DRILL, DR-11 WITH DIP OD IS REQUIRED. HDPE WELDED MJ ADAPTER AT THE START AND FINISH OF DIRECTIONAL DRILL APPLICANTS REQUIRED.
2. IF PVC IS SELECTED FOR INSTALLATION BY DIRECTIONAL DRILL, DR-18 CERTAINTEED PIPE WITH CERTA-LOK RESTRAINED JOINTS MUST BE USED.
3. THE ANGLE OF ENTRY SHALL NOT EXCEED 15 DEGREES, AND SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS ON DEFLECTION, ANGLE, OR RADIUS OF CURVATURE.
4. THE EXIT ANGLE SHALL BE BETWEEN 6 TO 12 DEGREES TO FACILITATE PULLBACK, AND SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS ON DEFLECTION, ANGLE, OR RADIUS OF CURVATURE.
5. COMPOUND CURVATURES MAY BE USED, BUT SHALL NOT EXCEED THE MANUFACTURER OR AWWA STANDARDS, WHICHEVER IS MORE STRINGENT.



FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION

REGISTERED PROFESSIONAL ENGINEER
No. 78886
STATE OF FLORIDA

SEAN C. FORTIER, P.E.
DIGITALLY SIGNED TEN ITEMS, PAGES
NOT VALID WITHOUT ALL SIGNATURES
UNLESS SHOWN IN THIS BLOCK

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/10/2025

SHEET
C-6.0

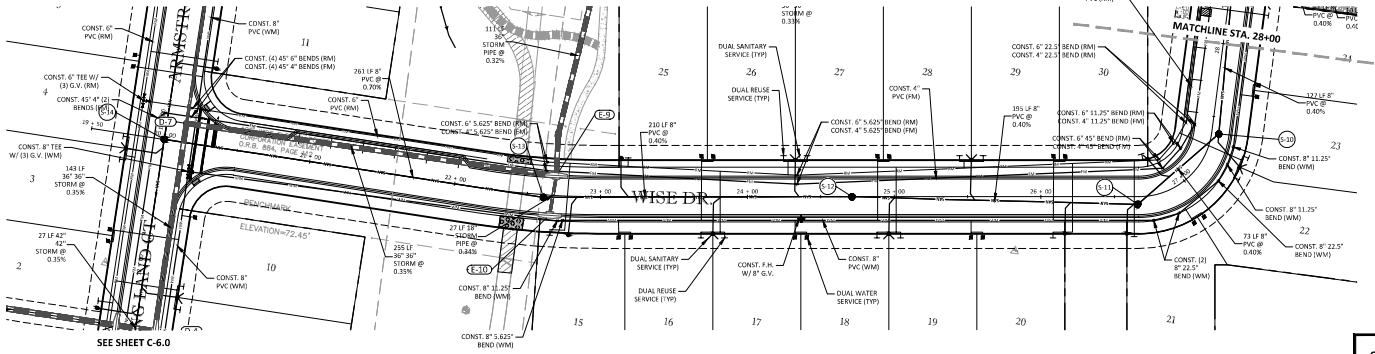
KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

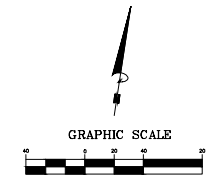
DATE	REVISION

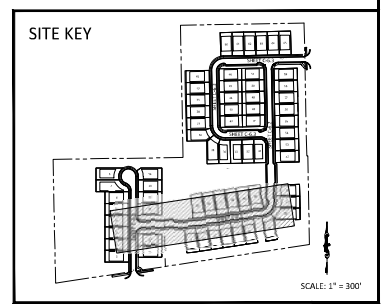
PREPARED FOR:
TLC
BLUE LAKE, LLC

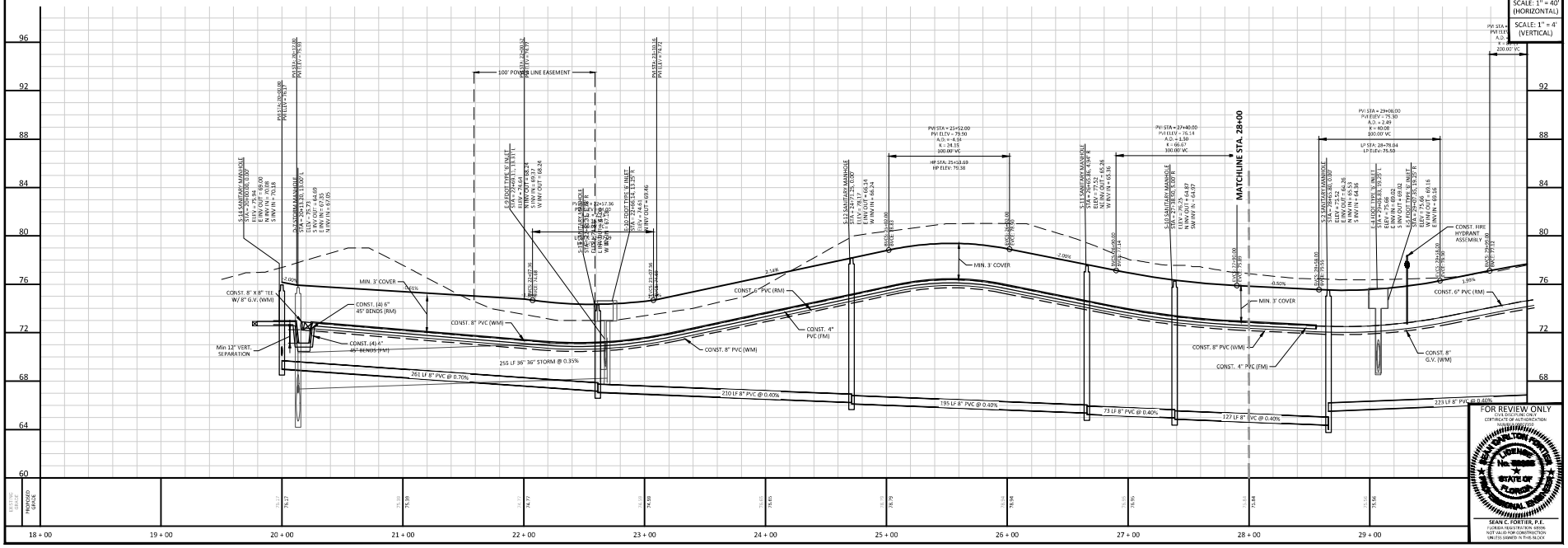
TAYLOR RIDGE SUBDIVISION

PLAN AND PROFILE - ARMSTRONG LAND CT









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CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NAVD 88 DATUM
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NBR
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7550 FAX (407) 898-1488

DATE	REVISION

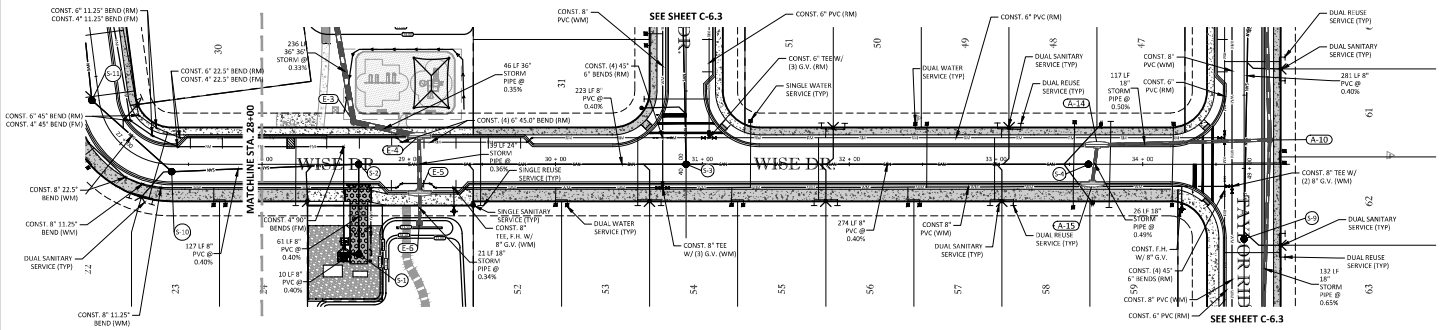
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

PLAN AND PROFILE - WISE DR

DRAWN: TMT
DESIGN: DSB
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

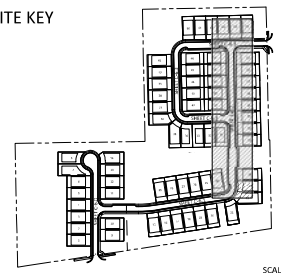
SHEET
C-6.1



GRAPHIC SCALE

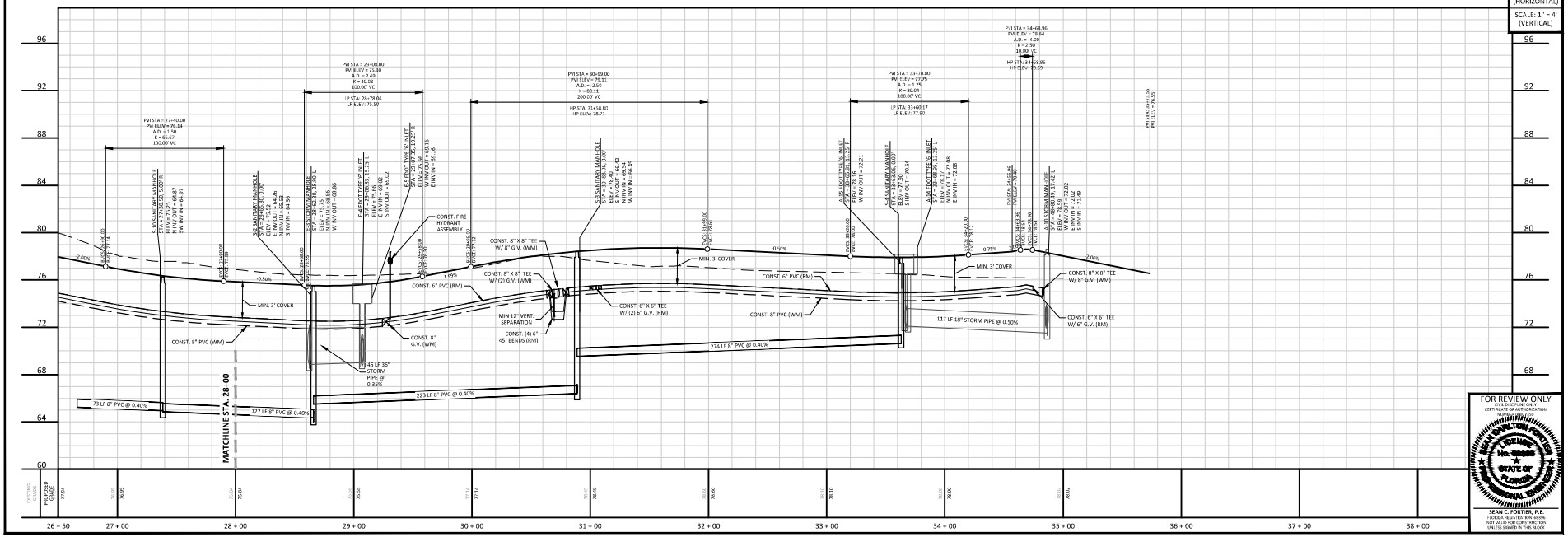
(IN FEET)
1 inch = 40 ft.

SITE KEY



SCALE: 1" = 300'

SCALE: 1" = 40' (HORIZONTAL)
SCALE: 1" = 4' (VERTICAL)



FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NO.
NOT VALID WITHOUT SIGNATURE
UNLESS SHOWN IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7900 FAX (407) 895-1488

DATE	REVISION

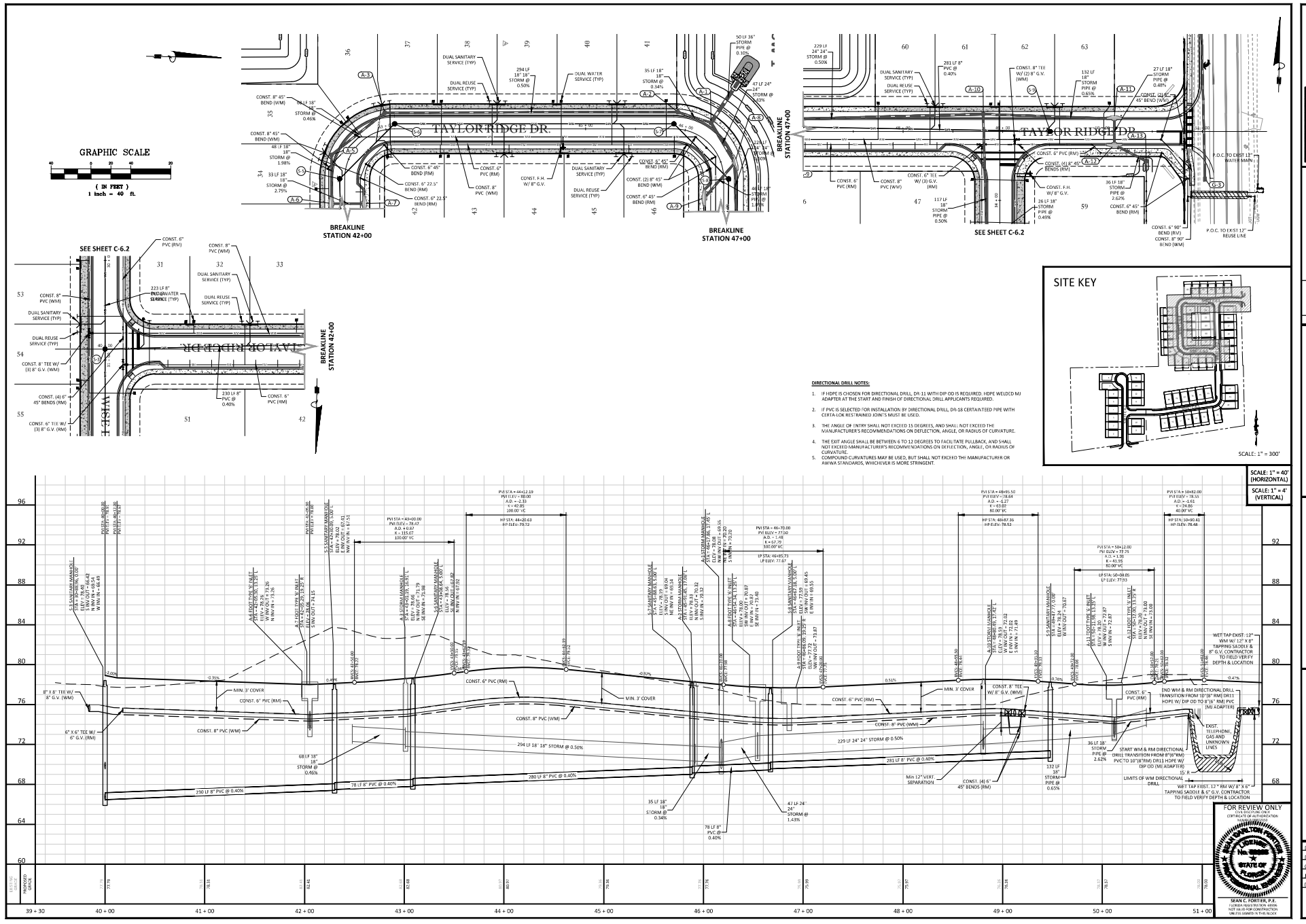
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

PLAN AND PROFILE -
WISE DR

DRAWN:	TMT
DESIGN:	DSK
CHECKED:	SCF
JOB NO.:	1512.000
DATE:	04/10/2025

SHEET
C-6.2



DIRECTIONAL DRILL NOTES:

1. IF HDPE IS CHOSEN FOR DIRECTIONAL DRILL, DR-11 WITH DIP OD IS REQUIRED. HDPE WELDED MJ ADAPTER AT THE START AND FINISH OF DIRECTIONAL DRILL APPLICANTS REQUIRED.
2. IF PVC IS SELECTED FOR INSTALLATION BY DIRECTIONAL DRILL, DR-18 CERTAINTEED PIPE WITH CERTA-LOK RESTRAINED JOINTS MUST BE USED.
3. THE ANGLE OF ENTRY SHALL NOT EXCEED 15 DEGREES, AND SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS ON DEFLECTION, ANGLE, OR RADIUS OF CURVATURE.
4. THE EXIT ANGLE SHALL BE BETWEEN 6 TO 12 DEGREES TO FACILITATE PULLBACK, AND SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS ON DEFLECTION, ANGLE, OR RADIUS OF CURVATURE.
5. COMPOUND CURVATURES MAY BE USED, BUT SHALL NOT EXCEED THE MANUFACTURER OR AWWA STANDARDS, WHICHEVER IS MORE STRINGENT.

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KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7250 FAX (407) 898-1488

DATE	REVISION

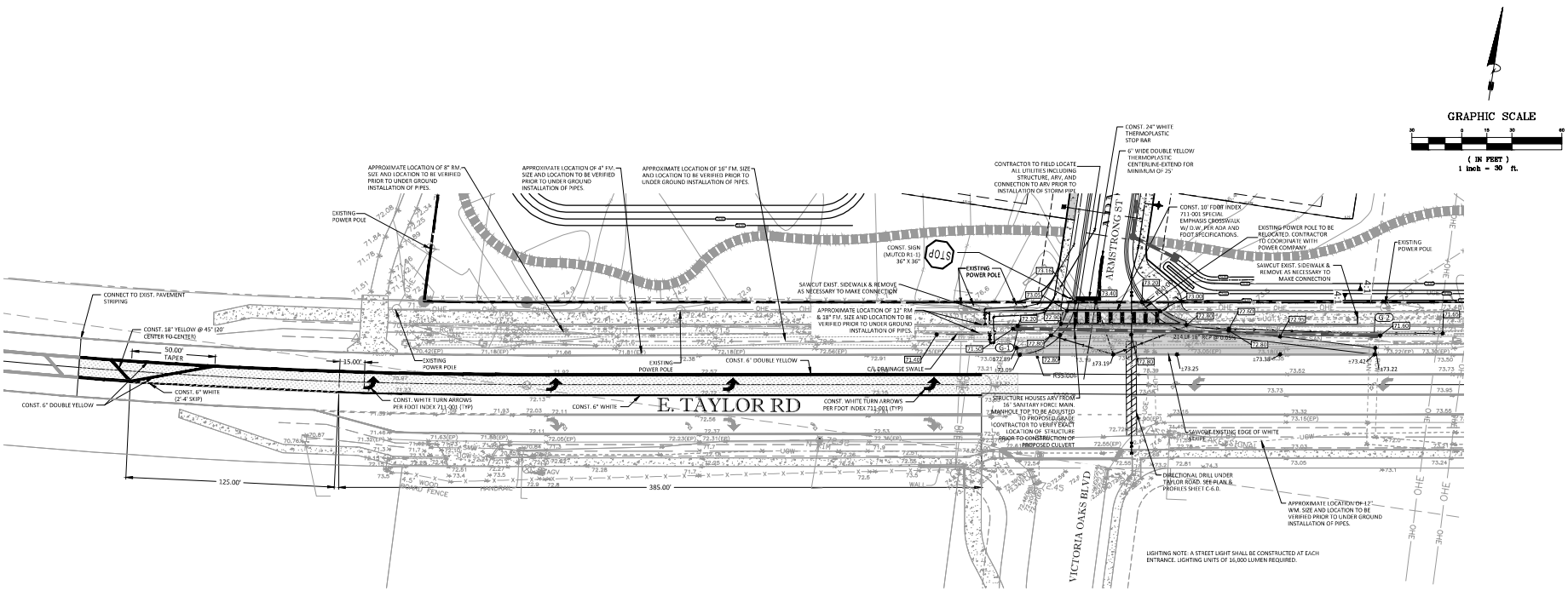
PREPARED FOR:
TLC
BLUE LAKE, LLC

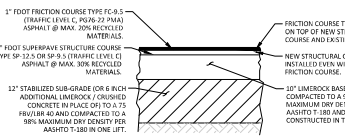
TAYLOR RIDGE SUBDIVISION

PLAN AND PROFILE - TAYLOR RIDGE DR

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-6.3

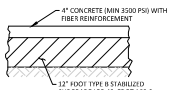




NOTE: SHELL-ROCK BASE AND SOIL-CEMENT BASE IS ONLY ALLOWED WITH APPROVAL OF THE COUNTY ENGINEER. ALL MATERIALS, PRODUCTION, TRANSPORTATION, PLACEMENT, AND CONSTRUCTION METHODS SHALL BE CONSISTENT WITH FDOT DESIGN STANDARDS AND FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN EFFECT AT THE START OF CONSTRUCTION ACTIVITY. ALL TESTING, INSPECTIONS, AND VERIFICATIONS SHALL BE PERFORMED CONSISTENT WITH FDOT QUALITY CONTROL TESTING CRITERIA IN EFFECT AT THE START OF CONSTRUCTION ACTIVITY.

VOLUSIA COUNTY PAVEMENT TYPICAL CROSS SECTION

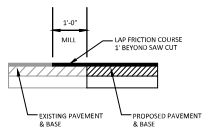
SCALE:NTS



NOTE: TO BE CONSTRUCTED PER FDOT SPECIFICATIONS (SECTIONS 350) AND GEOTECHNICAL ENGINEERING REPORT

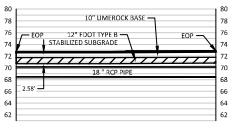
CONCRETE SIDEWALK TYPICAL CROSS SECTION

SCALE:NTS



PAVEMENT SPLICE DETAIL

SCALE:NTS



CULVERT/PIPE PROFILE UNDER DRVIEWAY
TAYLOR ROAD ENTRANCE

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'

LEGEND

- PROJECT BOUNDARY
- PROPOSED PAVEMENT — REFER TO TYPICAL ROADWAY SECTION FOR PAVEMENT DETAILS.
- LIMITS OF MILL & RESURFACE — MILL 1.5". RESURFACE 1.5" FC-12.5 (MAX 20% RAP)
- SIDEWALKS ALONG LOT FRONTAGE TO BE CONSTRUCTED AS PART OF INDIVIDUAL LOT DEVELOPMENT
- COMMON SIDEWALKS TO BE CONSTRUCTED WITH ROADWAYS

TW: TOP OF WALL
BW: BOTTOM OF WALL

C.W. : CROSS WALK. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

D.W. : DETECTABLE WARNING. ALL DETECTABLE WARNING TO MEET ADA SPECIFICATIONS. ALL SIDEWALK TRUNCATED DOMES MUST BE BRICK RED IN COLOR AND PLACED AS SHOWN IN THE LATEST FDOT INDEX 304.

S.W.R. (CR-6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522-002 FOR CURB RAMP DETAILS.

NOTE: CURBS, CURB AND GUTTERS, CURB AND GUTTER ENDINGS, CONCRETE SIDEWALKS, SIDEWALK CURB RAMPS, DETECTABLE WARNINGS, DRIVEWAYS, CROSSWALKS, STOP MARKINGS AND SIGNS MUST COMPLY WITH FDOT STANDARDS.

NOTE: ALL SIDEWALKS TO REMAIN OPEN AT ALL TIMES. CONTRACTOR TO PROVIDE AN ADA COMPLIANT SIDEWALK DETOUR DURING REMOVAL/REPLACEMENT OF SIDEWALK.

SEE SITE DETAILS SHEET C-8.2 FOR TYPICAL STREET SIGNS

VOLUSIA COUNTY NOTES

1. NOTIFY VOLUSIA COUNTY DEVELOPMENT ENGINEERING DIVISION AT (386) 736-5926 A MINIMUM OF 24 HOURS PRIOR TO THE START OF CONSTRUCTION. FAILURE OF THE PERMITTEE TO OBTAIN THE APPROPRIATE INSPECTIONS PRIOR TO PROCEEDING WITH WORK SHALL NOT RELIEVE THE PERMITTEE FROM RECEXCAVATION OR OTHER MEASURES NECESSARY FOR THE INSPECTION OF WORK.
2. VOLUSIA COUNTY TRAFFIC ENGINEERING (386) 736-5968 IS NOT A MEMBER OF SUNSHINE ONE CALL. WHEN REQUESTING LOCATES, PLEASE PROVIDE A MINIMUM ADVANCED NOTIFICATION OF TWO (2) BUSINESS DAYS PRIOR TO PROPOSED WORK.
3. COORDINATION WITH VOLUSIA COUNTY ENGINEERING'S INSPECTOR JIM PRICE AT (386) 561-8666 IS REQUIRED WITH A MINIMUM ADVANCED NOTICE OF SEVEN (7) DAYS PRIOR TO ANY SIDEWALK, LANE OR ROAD CLOSURE (INCLUDING FLAGGING OPERATIONS).
4. OPERATIONS WITHIN THE COUNTY RIGHT-OF-WAY SHALL NORMALLY BE CONDUCTED 7:00 A.M. TO 7:00 P.M., MONDAY THROUGH FRIDAY. ANY DEVIATION FROM THESE HOURS REQUIRES PRIOR APPROVAL FROM THE COUNTY DEVELOPMENT ENGINEER. EMERGENCY REPAIRS ARE EXCLUDED FROM THIS TIME RESTRICTION.
5. ALL EXISTING SIDEWALKS WITHIN COUNTY RIGHT-OF-WAY SHALL EITHER REMAIN OPEN OR BE PROVIDED A TEMPORARY WALKWAY IN ACCORDANCE WITH THE CURRENT VERSION OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX NO. 660. ANY DAMAGE TO SIDEWALKS SHALL BE REPAIRED AND/OR REPLACED IN LIKE KIND BY THE CONTRACTOR. NEW SIDEWALKS AND SECTIONS THROUGH DRIVEWAYS MUST BE AT A 1.5% CROSS SLOPE AND 2% MAXIMUM CROSS SLOPE PER ADA STANDARDS.
6. DRIVING ON STAGING OF CONSTRUCTION VEHICLES OR MATERIALS IS NOT PERMITTED WITHIN THE COUNTY RIGHT-OF-WAY OR ON PEDESTRIAN WALKWAYS AND PATHS. THERE SHALL BE NO OVERNIGHT CONSTRUCTION VEHICLE RELATED PARKING, CONSTRUCTION MATERIAL PLACEVEENT OR STORAGE OF ANY KIND PERMITTED WITHIN THE COUNTY RIGHT-OF-WAY.
7. NO TRENCH OR EXCAVATION SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT, UNLESS APPROVED BY THE COUNTY DEVELOPMENT ENGINEERING INSPECTOR. EXCAVATIONS SHALL MEET THE DROP OFF PROTECTION REQUIREMENTS OF THE LATEST FDOT DESIGN STANDARD INDEX NO. 600.
8. RESTORATION SHALL BE REQUIRED FOR ANY DAMAGE TO SIDEWALKS, CURBS, OR OTHER EXISTING STRUCTURES IN THE RIGHT-OF-WAY. ALL DISTURBED AREAS WITHIN THE COUNTY RIGHT OF WAY SHALL BE RE-GRADED AND SODDED. SEED AND MULCH IS NOT AN ACCEPTABLE ALTERNATIVE TO SODDING.

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION



SEAN C. FORTIER, P.E.
THESE PLANS ARE NOT VALID UNLESS SIGNED IN THE BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

NO.	DATE	REVISION

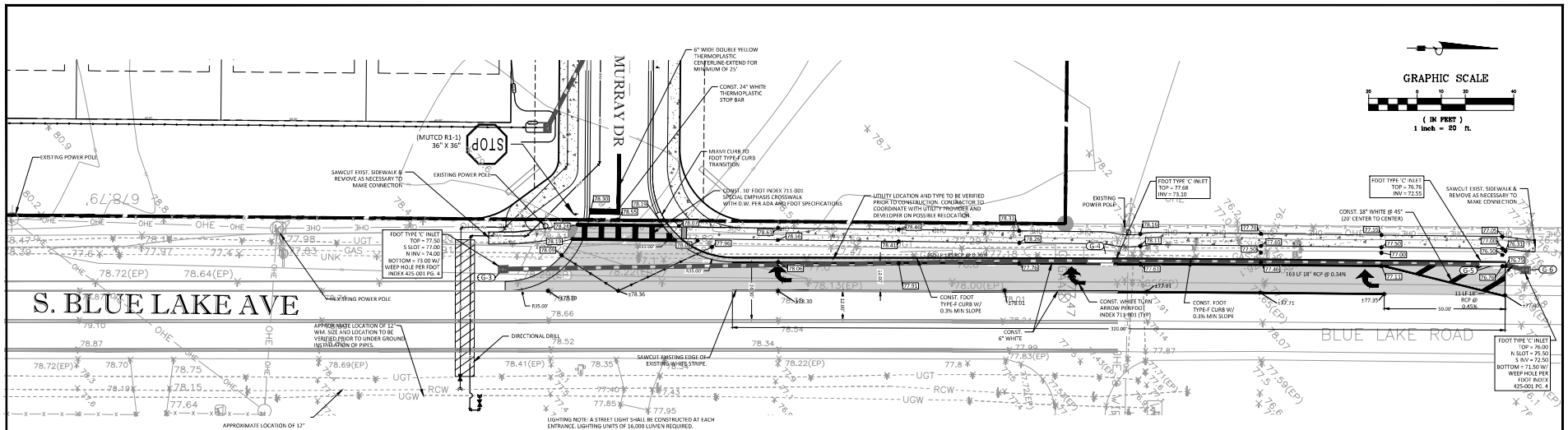
PREPARED FOR:
TLC
BLUE LAKE, LLC

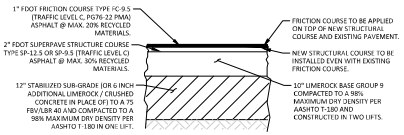
TAYLOR RIDGE SUBDIVISION

ROADWAY IMPROVEMENTS PLAN

DRAWN: TMT
DESIGN: DSK
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-7.0





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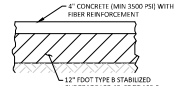
VOLUSIA COUNTY PAVEMENT
TYPICAL CROSS SECTION

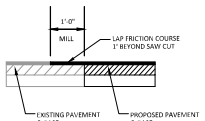
SCALE:NTS



NOTE: TO BE CONSTRUCTED PER FDOT SPECIFICATIONS (SECTIONS 350) AND GEOTECHNICAL ENGINEERING REPORT

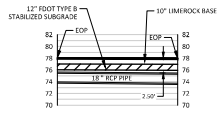
CONCRETE SIDEWALK
TYPICAL CROSS SECTION

SCALE:NTS



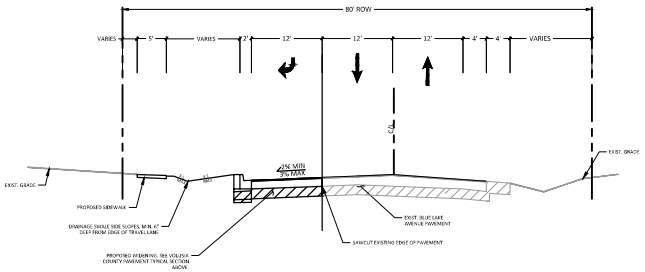
PAVEMENT SPLICE DETAIL

SCALE:NTS



CULVERT/PIPE PROFILE UNDER DRVIEWAY
BLUE LAKE AVE ENTRANCE

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



NOTES:

1. ALL ASPHALT MIX DESIGNS MUST BE PRE-APPROVED BY VOLUSIA COUNTY BEFORE PLACEMENT.
2. SHOULDER WIDTH TO BE MINIMUM 8' WIDE ADJACENT TO THROUGH LANES AND 6' WIDE ADJACENT TO THE TURN LANE.
3. THE STRUCTURAL SECTION OF THE EXISTING PAVED SHOULDERS WILL NEED TO BE FIELD VERIFIED. SAW-CUTTING AT THE LINE SHALL BE REQUIRED IF EXISTING PAVED SHOULDERS WERE NOT CONSTRUCTED TO THE FULL DEPTH ROADWAY PAVEMENT SECTION.
4. CONTRACTOR TO SOD ALL DISTURBED AREAS OF THE COUNTY RIGHT-OF-WAY.

D TYPICAL CROWNED ROADWAY SECTION - RIGHT TURN LANE
BLUE LAKE AVENUE

HORIZONTAL: 1" = 10'
VERTICAL: 1" = 5'

LEGEND

- PROJECT BOUNDARY
- PROPOSED PAVEMENT REFER TO TYPICAL ROADWAY SECTION FOR PAVEMENT DETAILS.
- LIMITS OF MILL & RESURFACE MILL 1.5". RESURFACE 1.5" FC 12.5 (MAX 20% RAP)
- SIDEWALKS ALONG LOT FRONTAGE TO BE CONSTRUCTED AS PART OF INDIVIDUAL LOT DEVELOPMENT
- COMMON SIDEWALKS TO BE CONSTRUCTED WITH ROADWAYS

TW: TOP OF WALL

BW: BOTTOM OF WALL

C.W. : CROSS WALK. ALL CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 522-002.

D.W. :DETECTABLE WARNING. ALL DETECTABLE WARNING TO MEET ADA SPECIFICATIONS. -ALL SIDEWALK TRUNCATED DOMES MUST BE BRICK RED IN COLOR AND PLACED AS SHOWN IN THE LATEST FDOT INDEX 304.

S.W.R. (CR-6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 522-002 FOR CURB RAMP DETAILS.

NOTE: CURBS, CURB AND GUTTERS, CURB AND GUTTER ENDINGS, CONCRETE SIDEWALKS, SIDEWALK CURB RAMPS, DETECTABLE WARNINGS, DRIVEWAYS, CROSSWALKS, STOP MARKINGS AND SIGNS MUST COMPLY WITH FDOT STANDARDS.

NOTE: ALL SIDEWALKS TO REMAIN OPEN AT ALL TIMES. CONTRACTOR TO PROVIDE AN ADA COMPLIANT SIDEWALK DETOUR DURING REMOVAL/REPLACEMENT OF SIDEWALK.

SEE SITE DETAILS SHEET C-8.2 FOR TYPICAL STREET SIGNS

VOLUSIA COUNTY NOTES

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FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
REGISTERED PROFESSIONAL ENGINEER
No. 73555
STATE OF FLORIDA
SEAN C. FORTIER, P.E.
THESE PLANS INCOMPLETE WITHOUT ALL SHEETS IN THE SET. NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THE BLOCK

KCG
KELLY, COLLINS & GENTRY, INC.
1796 NORTH GRANDE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7900 FAX (407) 895-1485

REVISION
DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

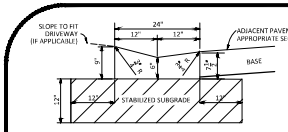
TAYLOR RIDGE
SUBDIVISION

ROADWAY
IMPROVEMENTS
PLAN

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/10/2025

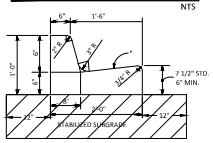
SHEET
C-7.1

CURB DETAILS



MIAMI CURB

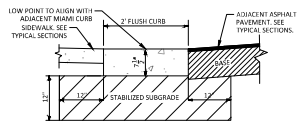
NTS



*NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

TYPE "F" CURB & GUTTER

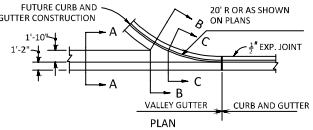
NTS



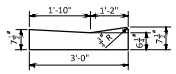
FLUSH ACCESSIBLE CURB DETAIL

NTS

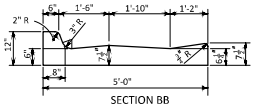
CURB NOTES:
1. DETAILS FOR DIMENSION ONLY. TO BE CONSTRUCTED TO MOST STRINGENT SPECIFICATIONS AND REQUIREMENTS OF THE FOLLOWING: FDOT, GEOTECHNICAL ENGINEER, LOCAL JURISDICTION, AND TENANT.
2. FOR CURB, GUTTER, CURB AND GUTTER AND TRAFFIC SEPARATORS PROVIDE '**X**' - '**X**' CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS.



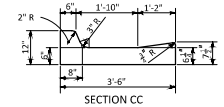
PLAN



SECTION AA



SECTION BB



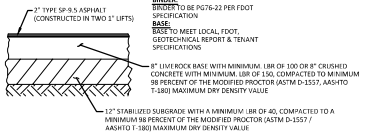
SECTION CC

VALLEY GUTTER (FDOT INDEX 520-001)

NTS

PAVEMENT DETAILS

NOTE: TO BE CONSTRUCTED TO MOST STRINGENT SPECIFICATIONS AND REQUIREMENTS OF THE FOLLOWING: FDOT, GEOTECHNICAL ENGINEER, & LOCAL JURISDICTION.



STANDARD DUTY ASPHALT PAVEMENT

NTS



ASPHALT DRIVEWAY PAVEMENT

NTS



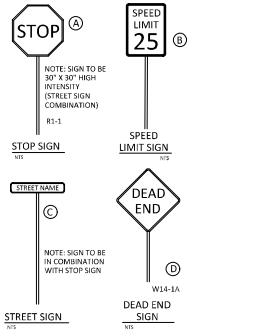
SIDEWALK CONCRETE PAVEMENT - STANDARD DUTY

NTS

SIDEWALK CONCRETE PAVEMENT - HEAVY DUTY

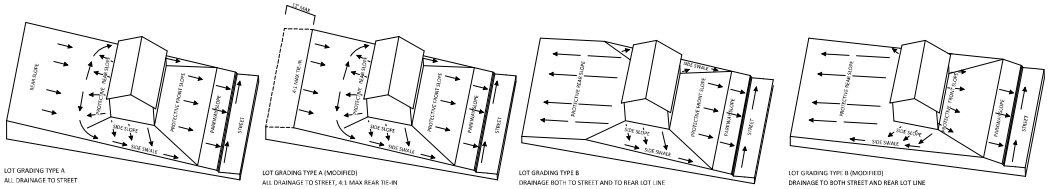
NTS

SIGNAGE & STRIPING DETAILS



TYPICAL STREET SIGNS

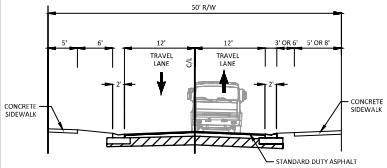
LOCATE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS APPLICABLE



NOTE: REAR YARDS TO BE GRADED AT 10:1 MAX. A STEEPER TIE-IN SLOPE OF 4:1 MAY BE USED WITHIN 12' OF REAR PROPERTY LINE ONLY.

LOT GRADING DETAILS

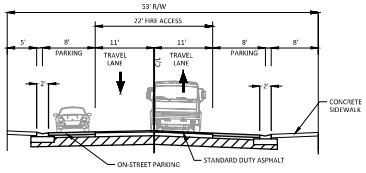
NTS



50' ROW SECTION - TYPICAL CROSS SECTION

NON-DESIGNATED PARKING

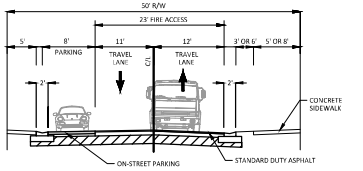
HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



53' ROW SECTION - TYPICAL CROSS SECTION

DESIGNATED PARKING 2-SIDES

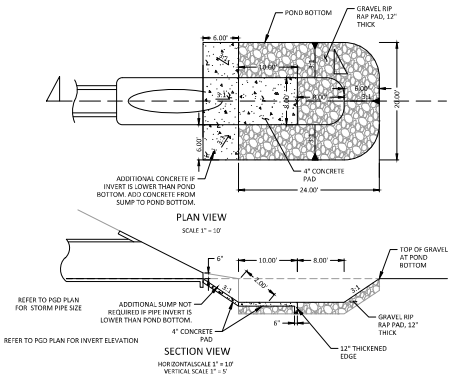
HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



50' ROW SECTION - TYPICAL CROSS SECTION

DESIGNATED PARKING 1-SIDE

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



MITERED END SECTION DETAIL

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION



SEAN C. FORTIER, P.E.
THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

REVISION	DATE

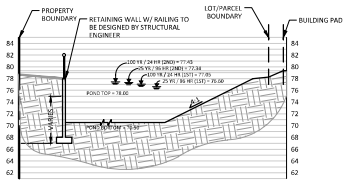
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

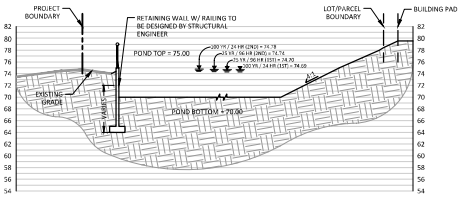
SITE DETAILS

DRAWN:	TMT
DESIGN:	DSK
CHECKED:	SCF
JOB NO.:	1512.000
DATE:	04/10/2025

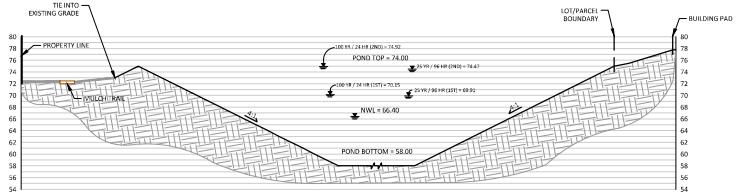
SHEET
C-8.0



A POND 1 TYPICAL CROSS SECTION - DRY POND
C-4.0
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



B POND 2 TYPICAL CROSS SECTION - DRY POND
C-4.1
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



C POND 3 TYPICAL CROSS SECTION - WET POND
C-4.1
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
REAL ESTATE 2025
SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

KCG
KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

DATE	REVISION

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

SITE DETAILS

DRAWN: TMT
DESIGN: DSR
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-8.1

SHEET	TABLE OF CONTENTS
1	General Notes, TTC Tables
2	Definitions Temporary Traffic Control Devices Overhead Work Railroads Sight Distance Above Ground Hazard
3	Clear Zone Widths For Work Zones Superelevation Length Of Lane Closures Overweight/Oversize Vehicles Lane Widths High-Visibility Safety Apparel Speed Reduction Signing
4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Commonly Used Warning and Regulatory Signs in Work Zones
7	Rainbales/Crossmarks/Joints Truck Mounted Attenuators Signals Channelizing Devices Channelizing Devices Consistency Advanced Warning Arrow Boards
8	Drop-Offs In Work Zones
9	Business Entrance Temporary Asphalt Separator
10	Channelizing Devices Notes Temporary Barrier Notes
11	Pavement Markings

GENERAL NOTES:

1. This index contains information specific to the Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimal requirements provided in the MUTCD.
2. Use this Index in accordance with the Plans and Indexes 102-001 through 102-600. Indexes 102-001 through 102-600 are Department-specific typical applications of commonly encountered situations. Adjust device location or number thereof as recommended by the Worksite Traffic Supervisor and approved by the Engineer. Devices include, but are not limited to, Flaggers, portable temporary signals, signs, pavement markings, and channelizing devices. Comply with MUTCD or applicable Department criteria for any changes and document the reason for the change.
3. Except for emergencies, any road closure on State Highway System must comply with Section 335.15, F.S.

TABLE 1
CHANNELIZING DEVICE SPACING

Work Zone Speed (mph)	Max. Spacing (Feet)			
	Cones or Temporary Tubular Markers		Type III Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2
TAPER LENGTH "L"

Work Zone Speed (mph)	Min. Length (Feet)
K 40	$L = \frac{WS^2}{60}$
S 45	$L = WS$

Where: W = width of offset in Feet
S = speed in mph

TABLE 3
WORK ZONE SIGN SPACING "X"

Road Type	Min. Spacing (Feet)
Arterials and Collectors with Work Zone Speed ≤ 45 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways *	1,500

* For limited access roadways with work zone speed ≥ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.

TABLE 4
BUFFER LENGTH "B"

Work Zone Speed (mph)	Min. Length (Feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 Feet.

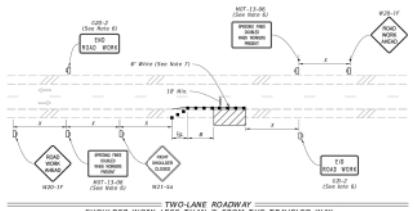
LAST REVISION	DESCRIPTION	FDOT			INDEX	SHEET
11/01/20		FY 2021-22 STANDARD PLANS	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES		102-600	1 of 11

NOTES:

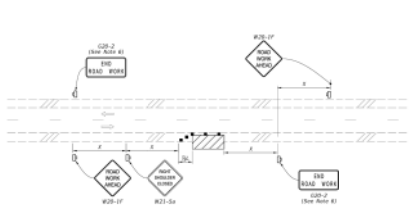
1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Ramps of divided roadways, with work on the shoulder.
2. L = Taper Length
   S = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "S", "B", and channelizing device spacing values.
3. For incidental work (e.g. mowing or litter removal), only the Road Work Ahead sign is required.
4. When four or more work vehicles enter the through traffic lanes in a one hour period (including establishing and terminating the work area), use a Flagger or lane closure to accommodate work vehicle ingress and egress.
5. For work less than two feet from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
6. The "Speeding Fines Doubled When Workers Present"signs (NOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the temporary condition is in place for 24 hours or less.
7. Temporary pavement markings may be omitted when the work zone is in place for 3 days or less.
8. If the work encroaches on a marked bicycle lane or ridable shoulder, close the lane or shoulder in accordance with the Plans.
9. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic



TWO-LANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY WITH WORK ZONE SPEED OF 45 MPH OR LESS

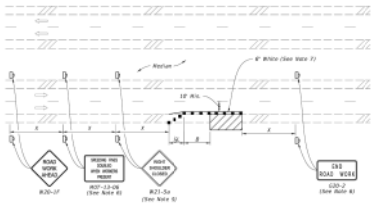


TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

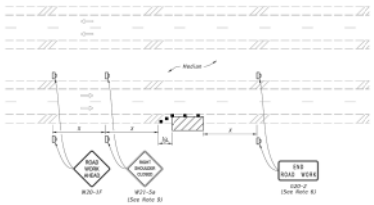
LAST REVISION	DESCRIPTION	FDOT			INDEX	SHEET
11/01/20		FY 2021-22 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER		102-602	1 of 2

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic

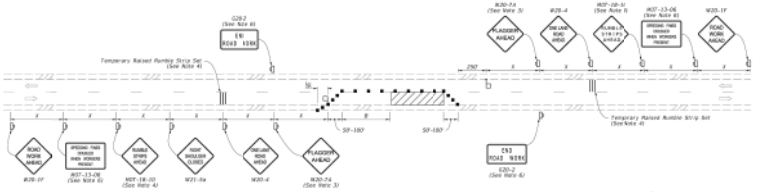


MULTILANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY WITH WORK ZONE SPEED OF 45 MPH OR LESS



MULTILANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

LAST REVISION	DESCRIPTION	FDOT			INDEX	SHEET
11/01/20		FY 2021-22 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER		102-602	2 of 2



NOTES:

1. This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
2. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Spacing
   See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
3. Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
4. Use temporary raised rumble when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (NOT-18-10) and associated work zone sign spacing.
5. Additional one-way control may be provided by the following means:
   a. Flag-carrying vehicle
   b. Official vehicle
   c. Pilot vehicles
   d. Traffic signals

   When Flaggers are the sole means of one-way control, the Flaggers must be in sight of each other or in direct communication at all times.
6. The "Speeding Fines Doubled When Workers Present" signs (NOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work zone will be in place for 24 hours or less.
7. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the AFL vendor drawings.
8. Special Conditions may be required in accordance with these notes and the following sheets:

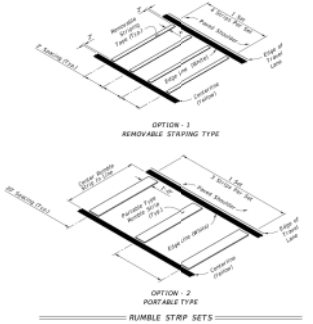
   A. Railroad Crossings:
      a. If an active railroad crossing is located closer to the Work Area than the queue length plus 280 feet, extend the Buffer Space as shown on Sheet 2.
      b. If the queuing is vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or Flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-railgrade crossing, even if automatic train warning devices are in place.

   B. If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 2 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the Work Area and the Edge of Existing Paved Shoulder and the Work Zone will be in place for 24 hours or less. Reduce the posted speed when appropriate.

   C. If the work encroaches on a marked bicycle lane or ridable shoulder, close the lane or shoulder in accordance with the Plans.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic
- Flagger



RUMBLE STRIP SETS

LAST REVISION	DESCRIPTION	FDOT			INDEX	SHEET
11/01/20		FY 2021-22 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY		102-603	1 of 2

FOR REVIEW ONLY
CVX DISCIPLINE ONLY
CONTRACTS OR AUTHORIZATION

REGISTERED PROFESSIONAL ENGINEER
No. 73888
STATE OF FLORIDA

SEAN C. FORTIER, P.E.
FLORIDA REGISTRATION NUMBER
NOT VALID WITHOUT SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER

KCG
KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7988 FAX (407) 895-1488

DATE	REVISION

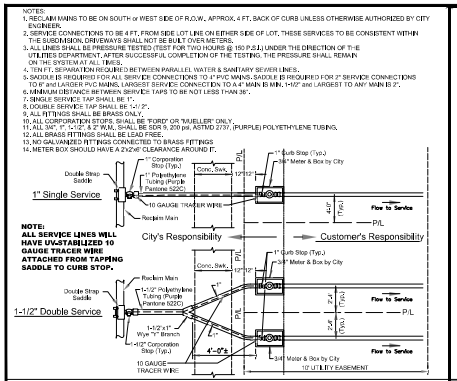
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

SITE DETAILS

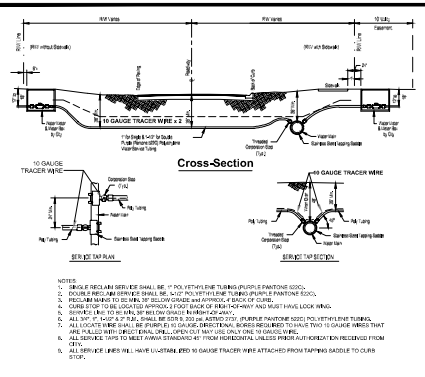
DRAWN: TMT
DESIGN: SCF
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-8.2



DATE: 11/07/2023 | **RECLAIM MAIN SERVICE CONN. WITH SIDEWALK** | R402

City of DeLand - Standard Details

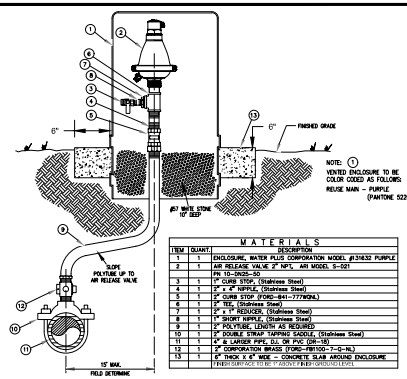


NOTES:
1. SINGLE RECLAIM SERVICE SHALL BE 1" POLYETHYLENE TUBING (PURPLE PANTONE 522C).
2. DOUBLE RECLAIM SERVICE SHALL BE 1-1/2" POLYETHYLENE TUBING (PURPLE PANTONE 522C).
3. RECLAIM MAINS TO BE MIN. 36" BELOW GRADE and APPROX. 4' BACK OF CURB.
4. CURB STOP TO BE LOCATED APPROX. 2 FOOT BACK OF END-FACE-WAY AND MUST HAVE LOCK WING.
5. SERVICES LINE TO BE MIN. 36" BELOW GRADE TO RIGHT-OF-WAY.
6. ALL 3/4", 1", 1-1/2" & 2" P.W., SHALL BE SDR 9, 200 psi, ASTMD 2737, (PURPLE PANTONE 522C) POLYETHYLENE TUBING.
7. ALL LOCATE WIRE SHALL BE (PURPLE) 10 GAUGE, DIRECTIONAL BORES REQUIRED TO HAVE TWO 10 GAUGE WIRES THAT ARE PULLED WITH DIRECTIONAL DRILL, OPEN CUT MAY USE ONLY ONE 10 GAUGE WIRE.
8. ALL SERVICE TAPS TO MEET AWWA STANDARD 45° FROM HORIZONTAL UNLESS PRIOR AUTHORIZATION RECEIVED FROM CITY.
9. ALL SERVICE LINES WILL HAVE U-STABILIZED 10 GAUGE TRACER WIRE ATTACHED FROM TAPPING SADDLE TO CURB STOP.

Cross-Section

DATE: 11/07/2023 | **RECLAIM MAIN SERVICE LINES** | R403

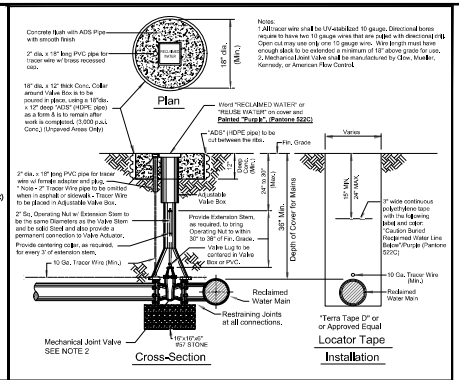
City of DeLand - Standard Details



ITEM	QUANT.	DESCRIPTION
1	1	ENCLOSURE, WATER PLUS CORPORATION MODEL #13632 PURPLE
2	1	AIR RELEASE VALVE 2" NPT, ARI MODEL S-021 PA 10-SN250-SO
3	1	1" CURB STOP, (Stainless Steel)
4	1	2" x 4" NIPPLE, (Stainless Steel)
5	1	2" CURB STOP (FORD-B41-777WQNL)
6	1	2" TEE, (Stainless Steel)
7	1	2" x 1" REDUCER, (Stainless Steel)
8	1	1" SHORT NIPPLE, (Stainless Steel)
9	1	2" POLYTUBE, LENGTH AS REQUIRED
10	1	2" DOUBLE STRAP TAPPING SADDLE, (Stainless Steel)
11	1	4" & LARGER PIPE, DJ, DR PVC (DR-18)
12	1	2" CORPORATION BRASS (FORD-FB1100-7-Q-NL)
13	1	6" THICK X 6" WIDE – CONCRETE SLAB AROUND ENCLOSURE (WHEN SERVICE TO BE 1" ABOVE FINISH GROUND LEVEL)

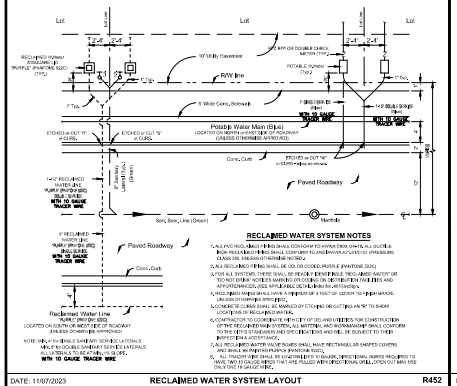
DATE: 11/07/2023 | **OFFSET AIR RELEASE VALVE** | R421

City of DeLand - Standard Details



DATE: 11/07/2023 | **RECLAIMED WATER VALVE SETTING** | R450

City of DeLand - Standard Details



DATE: 11/07/2023 | **RECLAIMED WATER SYSTEM LAYOUT** | R452

City of DeLand - Standard Details

1. THE CITY OF DeLand's UTILITIES DEPARTMENT (386-626-7250) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO the BEGINNING OF ANY RECLAIMED WATER SYSTEM CONSTRUCTION.
2. DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW PROPOSED RECLAIMED WATER MAIN.
3. ALL RECLAIMED WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
4. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 95% IN UNPAVED AREAS AND 98% IN PAVED AREAS IN ACCORDANCE WITH AASHTO T-180.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS ARE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
6. 3" METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. MARKER TAPE SHALL BE PROVIDED ON ALL DIPS AS WELL.
7. ALL SINGLE RESIDENTIAL RECLAIMED WATER SERVICES SHALL BE 1" AND DOUBLE RESIDENTIAL SERVICES SHALL BE 1-1/2". SERVICES SHALL BE CTS 3408 HIGH DENSITY POLYETHYLENE TUBING RATED FOR A MINIMUM OF 200 PSI WITH SDR 9 (CTS). THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER SHALL FURNISH A CERTIFICATE OF PURITY. THE TUBING SHALL BE "PURPLE" (PANTONE) IN COLOR and SHALL HAVE THE WORDS "RECLAIMED WATER" PERMANENTLY PRINTED ON THE OUTSIDE. THE TUBING SHALL HAVE U.V. PROTECTION and SHALL NOT BE AFFECTED BY DIRECT SUNLIGHT. THE TUBING SHALL COMPLY WITH OR EXCEED THE APPLICABLE STANDARDS OF A.S.D.M. D1248, D3350, D2239, D2737, N.S.F.-14 AND A.W.W.A. C901 AND SHALL COME WITH A LIFETIME WARRANTY. APPROVED SIZES: 1", 1-1/2" and 2" DIAMETERS. ACCEPTABLE MANUFACTURERS: ENDOT ENDOCORE RWT OR APPROVED EQUAL
8. REFER TO 'NEW POTABLE AND REUSE SERVICE WHIP" R426.
9. RECLAIMED WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACING OF 1,000 FEET.
10. AT ALL RECLAIMED WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS EXCEPT ONE.
11. APPROVED WATER VALVE TYPES MUELLER OR CLOW:
    A. STANDARD GATE VALVES EQUAL TO OR LESS THAN 24" DIAMETER (AWWA C-500) OR RESILIENT SEAT GATE VALVES (AWWA C-509)
    B. TAPPING VALVES WITH MECHANICAL OR STAINLESS STEEL TAPPING SLEEVE.
12. ALL RECLAIMED WATER VALVES SHALL BE ADJUSTED TO FINISH GRADE and THE CAPS SHALL BE PAINTED PURPLE (PANTONE 522C) TO MAKE THEM PLAINLY DISTINGUISHABLE.
13. AS STANDARD PRACTICE RECLAIMED WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF THE CURB ON THE OPPOSITE SIDE OF THE POTABLE WATER LINES OR AS APPROVED BY THE CITY.

DATE: 11/07/2023 | **RECLAIMED WATER NOTES - 1 OF 3** | R460

City of DeLand - Standard Details

14. ALL RECLAIMED WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES. IN SPECIAL CASES WHERE IT IS IMPOSSIBLE OR INAPPROPRIATE TO PROVIDE ADEQUATE COVER, DUCTILE IRON PRESSURE CLASS 350 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY.
15. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED INSPECTOR PRIOR TO ATTEMPTING TO CLEAR ANY RECLAIMED WATER MAIN FOR USE. THE INSPECTOR SHALL COORDINATE WITH CITY PERSONNEL AT THE RECLAIMED WATER PLANT 48 HOURS PRIOR TO BEGINNING OF ANY FULL-DIAMETER FLUSH OF MAINS. THE CONTRACTOR WILL CONDUCT A STANDARD WATER PRESSURE TEST, 150 PSI STATIC PRESSURE FOR A PERIOD OF 2 HOURS PER AWWA POTABLE WATER STANDARDS. THE RECLAIMED LINES WILL THEN BE DISINFECTED WITH CHLORINE, FLUSHED CLEAR AGAIN.
16. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL RECLAIMED MAINS IN EXCESS OF 4" IN DIAMETER AND PRIMARY DISTRIBUTION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR. ALL PIGGING OPERATIONS SHALL BE WITNESSED BY A PUBLIC UTILITIES REPRESENTATIVE OR CITY UTILITY INSPECTOR.
17. RECLAIMED WATER MAINS SHALL BE PVC AWWA CLASS C-900 OR C-905, CL 150 (COLOR: "PURPLE" PANTONE 522C) OR DIP PRESSURE CLASS 350, STANDARD CEMENT LINED UNLESS APPROVED OTHERWISE BY THE CITY.
18. ALL RECLAIMED WATER MAINS SHALL USE A THRUST RESTRAINED JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) GUIDELINES. IN THE EVENT THAT PVC FITTINGS ARE SPECIFIED, THE RESTRAINED JOINT SHALL BE MODIFIED IN ACCORDANCE WITH THE RECOMMENDED ADDITIONAL RESTRAINED LENGTH REQUIRED FOR PIPE WRAPPED WITH POLYETHYLENE. IN NO INSTANCE SHALL THRUST BLOCKS BE PERMITTED.
19. MEGALUGS, BOLTLESS RESTRAINED JOINTS, OR GRIPPER GASKETS SHALL BE USED ON ALL RESTRAINED JOINT INSTALLATIONS. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES. SEE DETAILS W408 AND W409.
20. GRIPPER RING GASKETS BY ROMAC MAY BE USED AS APPROPRIATE FOR RESTRAINING PRESSURE PIPE TO FITTINGS, VALVES, ETC.
21. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO INSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE CITY OF DeLand UTILITIES AND "AS-BUILTS" ARE PROVIDED TO THE CITY, PRIOR TO ANY USE OF THIS SYSTEM.
22. ALL RECLAIMED WATER MAINS AND SERVICE LINES SHALL BE READILY DISTINGUISHABLE BY THEIR "PURPLE" (PANTONE 522C) COLOR OR TAPE MARKINGS. DUCTILE IRON PIPE SHALL BE WRAPPED WITH PURPLE PANTONE 522C POLYETHYLENE.
23. ALL RECLAIMED WATER SERVICES SHALL BE MARKED ALONG THE OUTSIDE EDGE OF CURB WITH AN "R". VALVES AND BLOW-OFFS FOR RECLAIMED WATER MAINS SHALL BE MARKED BY AN "X" SET INTO THE CURB.
24. RECLAIM WATER SERVICES SHALL BE NORMALLY DOUBLE 1-1/2" SERVICES LOCATED AT SIDE LOT LINES ALTERNATING WITH POTABLE WATER SERVICE LOCATIONS. IN INSTANCES WHERE RECLAIMED WATER SERVICES NEED TO BE OFFSET, DUE TO SEWER LATERAL CONNECTION, 1" SINGLE SERVICES SHALL BE SPECIFIED, THESE SERVICES MAY BE OFFSET FROM THE LOT LINE A MAXIMUM DISTANCE OF 4.0".

DATE: 11/07/2023 | **RECLAIMED WATER NOTES - 2 OF 3** | R461

City of DeLand - Standard Details

25. MAXIMUM OBTAINABLE SEPARATION OF PUBLIC RECLAIMED WATER MAINS, STORMWATER MAINS, AND SANITARY SEWER MAINS SHALL BE MAINTAINED. A MINIMUM HORIZONTAL SEPARATION OF THREE (3) FEET (OUTSIDE TO OUTSIDE), TEN (10) FEET PREFERRED. A MINIMUM VERTICAL SEPARATION OF SIX (6) INCHES, IF WATER MAIN IS ABOVE STORM, SAN. SEW. & RECLAIMED MAINS. A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18) INCHES, IF WATER MAIN IS BELOW STORM, SAN. SEW. & RECLAIMED MAINS. (Ref Detail W420)
26. NO RECLAIMED WATER HOSE BIBBS ARE PERMITTED.
27. A 75-FOOT SETBACK DISTANCE SHALL BE PROVIDED FROM PUBLIC ACCESS REUSE WETTED AREAS TO ANY PUBLIC AND ANY PRIVATE POTABLE WATER SUPPLY WELLS.
28. LOW TRAJECTORY NOZZLES ARE REQUIRED WITHIN 100 FEET OF PUBLIC EATING, DRINKING OR BATHING FACILITIES.
29. ALL TAPPING OF MAINS SHALL BE PERFORMED BY THE CONTRACTOR AND WITNESSED BY THE CITY INSPECTOR. SCHEDULING OF THESE CONNECTIONS SHALL REQUIRED A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE THE WORK DIRECTLY WITH THE CITY'S UTILITIES DEPARTMENT. SUBSEQUENTLY, THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 7:00 A.M. AND NOON ON THE APPROPRIATE DAY, UNLESS ALTERNATE TIMES HAVE BEEN APPROVED BY THE CITY.
30. WITH RESPECT TO RE-IN CONNECTIONS, THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
31. ALL WORK PERFORMED UPON RECLAIMED WATER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY, SHALL BE CONSTRUCTED BY AN UNDERGROUND UTILITY OR GENERAL CONTRACTOR LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
32. FOR CONSTRUCTION PURPOSES, THE PLANS SHALL PROVIDE DIMENSION OF THE PROPOSED LOCATIONS OF ALL RECLAIMED WATER MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT IF NO CURB EXISTS).
33. ALL HDPE PIPE RECLAIMED WATER MAINS SHALL BE SDR 11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP TO WHICH IT IS ATTACHED.
34. ALL P.V.C. PIPE SHALL BE STORED IN SUCH A WAY AS TO PREVENT WARPING, DEFLECTION, OR ANY DEFORMATION.
35. RECLAIMED WATER HYDRANTS ARE NOT ALLOWED BY THE CITY.
36. NO USED, RE-USED, RUSTED, SECOND HAND, OR ANY MATERIAL THAT IS NOT "NEW" SHALL BE USED IN ANY UTILITY IMPROVEMENT PROJECTS WITHIN THE CITIES SERVICE AREA.
37. LARGE RECLAIMED WATER METERS GREATER THAN 2" TAKES A MINIMUM OF 6 WEEKS FOR DELIVERY. IN ADDITION, ALL METERS AND VAULTS GREATER THAN 2" SHALL BE INSTALLED BY THE OWNER/ DEVELOPER OR CONTRACTOR. THE FEE COLLECTED BY THE CITY IS FOR MATERIALS ONLY. ALL METERS, 2" AND LESS, SHALL BE INSTALLED BY THE CITY, AFTER ALL FEES HAVE BEEN PAID.
38. TYPICALLY, THE CITY PREFERS DOUBLE SERVICE INSTALLATIONS WHEREVER FEASIBLE. WHEN DESIGN CONFLICTS EXIST, SINGLE SERVICES MAY BE ALLOWED. THIS MAY APPLY AT STORMWATER INLETS, FIRE HYDRANTS, FPL TRANSFORMERS, ETC. AND OTHER LOCATIONS DEEMED APPROPRIATE BY THE CITY.
39. ALL RECLAIMED WATER VALVE BOXES SHALL HAVE RECTANGULAR SHAPED COVERS, AND SHALL BE PAINTED "PURPLE" (PANTONE 522C) AND LABELED REUSE OR RECLAIM.
40. NO DIRECTIONAL BORES ON FRIDAYS, WEEKENDS OR HOLIDAYS. PULL BACKS ARE ALLOWED.

NOTE: DIP = DUCTILE IRON PIPE

DATE: 11/07/2023 | **RECLAIMED WATER NOTES - 3 OF 3** | R462

City of DeLand - Standard Details

THIS IS NOT INCLUDED WITH THE CIVIL PLANS AND IS FOR INFORMATIONAL PURPOSES ONLY.

KELLY, COLLINS & GENTRY, INC.
KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7788 FAX (407) 895-1488

REVISION | DATE

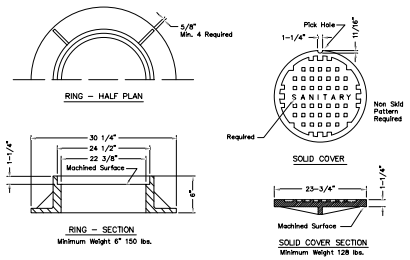
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

UTILITY DETAILS

DRAWN: TMT
DESIGN: DSK
CHECKED: SCC
JOB NO.: 1512.000
DATE: 04/18/2025

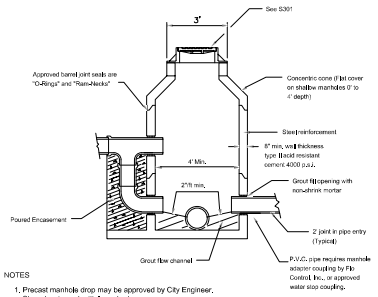
SHEET
C-9.0



NOTE:
Manufacturers model of storm ring and cover to be approved by City Engineer.

DATE: 11/07/2023 | SANITARY MANHOLE COVER - USF 170-E | S301

City of DeLand - Standard Details



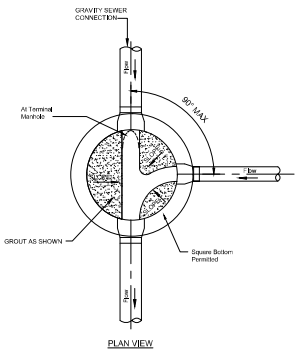
NOTES

1. Precast manhole drop may be approved by City Engineer. Shop drawing submittal required.
2. Drop required when 2' or over.
3. Manholes shall have an interior and exterior coating of at least 15 mils dry thickness PROLO EP214-351 Epoxi-Mastic
4. Polymer concrete manholes are accepted upon review and approval by the City of DeLand Engineering Dept.

SEE S303 FOR PLAN VIEW

DATE: 11/07/2023 | SANITARY MANHOLE | S302

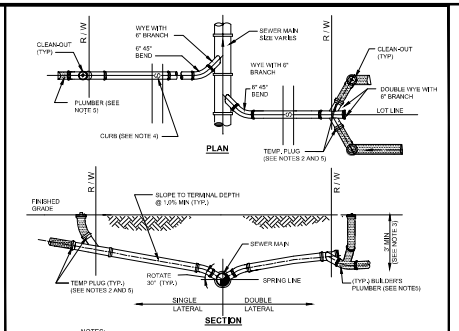
City of DeLand - Standard Details



SEE S302 FOR SECTION

DATE: 11/07/2023 | SANITARY MANHOLE | S303

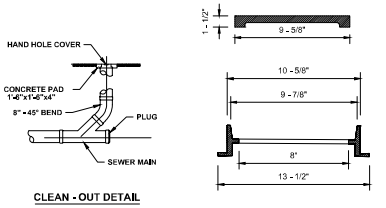
City of DeLand - Standard Details



NOTES:
1. INVERT OF SERVICE LATERAL MUST BE ABOVE SPRING LINE.
2. SERVICE LATERAL SHALL BE CAPPED BY THE CONTRACTOR.
3. WYE SHALL BE NO SHALLOWER THAN 3-FEET AND NO DEEPER THAN 5-FEET.
4. CUT OR CAST "S" IN CONCRETE CURB AT SEWER LATERAL LOCATION AND PAINT GREEN.
5. PLUMBER SHALL REMOVE PLUG, INSTALL CLEAN-OUT, AND CONNECT SERVICE LATERAL TO HOUSE.

DATE: 11/07/2023 | SANITARY SERVICE LATERALS | S305

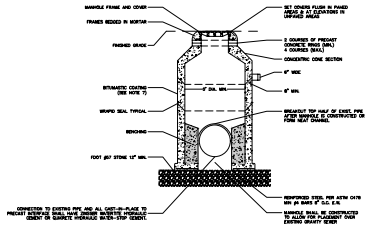
City of DeLand - Standard Details



NOTE: HAND HOLE COVER TO BE U.S. FOUNDRY 7621 OR EQUAL

DATE: 11/07/2023 | CLEAN - OUT | S308

City of DeLand - Standard Details



NOTES:

1. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION AND ANGLE OF ENTRY SHOULD BE AS REQUIRED BY THE PLANS.
2. OPENINGS IN PRE-CAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
3. MANHOLE COVERS TYPICAL FOR ALL FRAME TYPES.
4. WRAPID SEAL MUST BE USED ON ALL JOINTS, CASTINGS AND RISER RINGS; ON ALL JOINTS ON ROUND AIR RELEASE AND ROUND MANHOLE STRUCTURES.
5. WRAPID SEAL MUST BE USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. MAX. MANHOLE DEPTH SHALL BE 15' TO LOWEST PIPE INVERT.
7. MANHOLES SHALL HAVE AN INTERIOR AND EXTERIOR COATING OF AT LEAST 15 MILS DRY THICKNESS PROLO EP214-351 EPOXI-MASTIC OR PROTECH EW-1 TOP TO BOTTOM.
8. POLYMER CONCRETE MANHOLES ARE ACCEPTED UPON REVIEW AND APPROVAL BY THE CITY OF DELAND ENGINEERING DEPT.

DATE: 11/07/2023 | DOGHOUSE MANHOLE | S309

City of DeLand - Standard Details

THIS IS NOT INCLUDED WITH THE CIVIL PLANS AND IS FOR INFORMATIONAL PURPOSES ONLY.

KCG
KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

REVISION | DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

UTILITY DETAILS

DRAWN: TMT
DESIGN: DSK
CHECKED: KCG
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-9.1

NOTES:
1. WATER MAINS TO BE ON NORTH or EAST SIDE OF R.O.W., APPROX. 4 FT., BACK OF CURB UNLESS OTHERWISE AUTHORIZED BY CITY ENGINEER.
2. SERVICE CONNECTIONS TO BE 4 FT. FROM SIDE LOT LINE ON EITHER SIDE OF LOT. THESE SERVICES TO BE CONSISTENT WITHIN THE SUBDIVISION, DRIVEWAYS SHALL NOT BE BUILT OVER METERS.
3. ALL LINES SHALL BE CHLORINATED and PRESSURE TESTED (TEST FOR TWO HOURS @ 150 P.S.I.) UNDER THE DIRECTION OF THE UTILITIES DEPARTMENT, AFTER SUCCESSFUL COMPLETION OF THE TESTING and CHLORINATION, THE PRESSURE SHALL REMAIN ON THE SYSTEM AT ALL TIMES.
4. TEN FT. SEPARATION REQUIRED BETWEEN PARALLEL WATER & SANITARY SEWER LINES.
5. SADDLE IS REQUIRED FOR ALL SERVICE CONNECTIONS TO 4" PVC MAINS. SADDLE IS REQUIRED FOR 2" SERVICE CONNECTIONS TO 8" and LARGER PVC MAINS. LARGEST SERVICE CONNECTION TO A 4" MAIN IS MIN. 1-1/2" and LARGEST TO ANY MAIN IS 2".
6. MINIMUM DISTANCE BETWEEN SERVICE TAPS TO BE NOT LESS THAN 36".
7. SINGLE SERVICE TAP SHALL BE 1".
8. DOUBLE SERVICE TAP SHALL BE 1-1/ 2".
9. ALL FITTINGS SHALL BE BRASS ONLY.
10. ALL CORPORATION STOPS, SHALL BE "FORD" OR "MUELLER" ONLY.
11. FREEZE PROTECTION VALVE, SHALL BE "COMPRACO" 4ELR007PVDF.
12. ALL 3/4", 1", 1-1/2", & 2" WLM, SHALL BE SDR 9, 200 psi, ASTMD 2737, (BLUE) POLYETHYLENE TUBING.
13. ALL BRASS FITTINGS SHALL BE LEAD FREE.
14. NO GALVANIZED FITTINGS CONNECTED TO BRASS FITTINGS
15. METER BOX SHOULD HAVE A 2'x2'x6" CLEARANCE AROUND IT.

1" Single Service

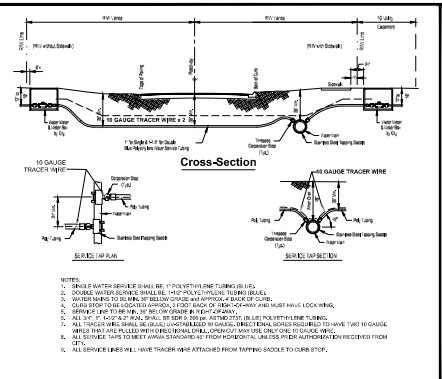
1-1/2" Double Service

NOTE:
ALL SERVICE LINES WILL HAVE UV-STABILIZED 10 GAUGE TRACER WIRE ATTACHED FROM TAPPING SADDLE TO CURB STOP.

City's Responsibility | Customer's Responsibility

DATE: 11/07/2023 **WATER MAIN SERVICE CONNECTION WITH SIDEWALK (BACKFLOW)** W402

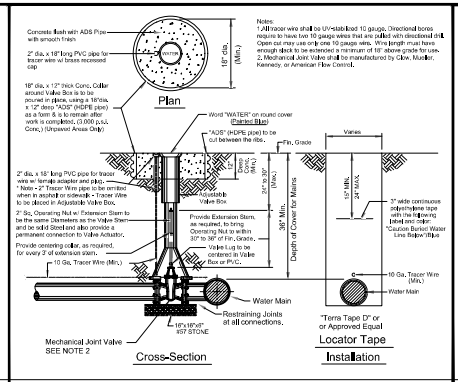
City of DeLand - Standard Details



NOTES:
1. SINGLE WATER SERVICE SHALL BE 1" POLYETHYLENE TUBING (BLUE).
2. DOUBLE WATER SERVICE SHALL BE 1-1/2" POLYETHYLENE TUBING (BLUE).
3. WATER MAINS TO BE MIN. 36" BELOW GRADE and APPROX. 4' BACK OF CURB.
4. CURB STOP TO BE LOCATED APPROX. 2 FOOT BACK OF HIGH-WAY AND MUST HAVE LOCK WING.
5. SERVICE LINE TO BE MIN. 18" BELOW GRADE IN RIGHT-OF-WAY.
6. ALL 3/4", 1", 1-1/2" & 2" WLM., SHALL BE SDR 9, 200 psi, ASTMD 2737, (BLUE) POLYETHYLENE TUBING.
7. ALL TRACER WIRE SHALL BE (BLUE) UV-STABILIZED 10 GAUGE, DIRECTIONAL BORES REQUIRED TO HAVE TWO 10 GAUGE WIRES THAT ARE PULLED WITH DIRECTIONAL DRILL, OPEN CUT MAY USE ONLY ONE 10 GAUGE WIRE.
8. ALL SERVICE TAPS TO MEET AWWA STANDARD 45° FROM HORIZONTAL UNLESS PRIOR AUTHORIZATION RECEIVED FROM CITY.
9. ALL SERVICE LINES WILL HAVE TRACER WIRE ATTACHED FROM TAPPING SADDLE TO CURB STOP.

DATE: 11/07/2023 **WATER MAIN SERVICE LINES** W403

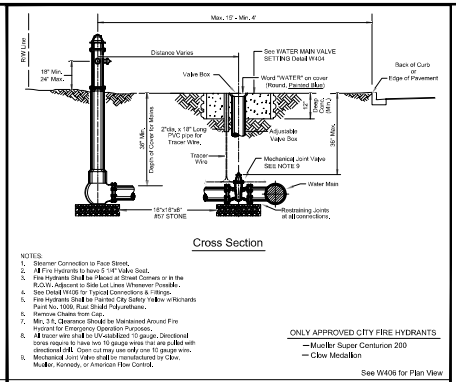
City of DeLand - Standard Details



Notes:
1.All tracer wire shall be UV-stabilized 10 gauge. Directional bores require to have two 10 gauge wires that are pulled with directional drill. Open cut may use only one 10 gauge wire.
2. Mechanical Joint Valve shall be manufactured by Clow, Mueller, Kennedy, or American Flow Control.

DATE: 11/07/2023 **WATER MAIN VALVE SETTING** W404

City of DeLand - Standard Details



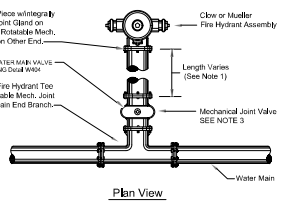
NOTES:
1. Steamer Connection to Face Street.
2. All Fire Hydrants to have 5 1/4" Valve Seat.
3. Fire Hydrants Shall be 7'Head at Street Corners or in the R.O.W., Adjacent to Side Lot Lines Whenever Possible.
4. See Detail W406 for Typical Connections & Fittings.
5. Fire Hydrants Shall be Painted City Safety Yellow w/ Richards Paint No., 1008, Rust Shield Polyurethane.
6. Remove Chains from Cap.
7. Min. 3 ft. Clearance Should be Maintained Around Fire Hydrant for Emergency Operation Purposes.
8. All tracer wire shall be UV-stabilized 10 gauge. Directional bores require to have two 10 gauge wires that are pulled with directional drill. Open cut may use only one 10 gauge wire.
9. Mechanical Joint Valve shall be manufactured by Clow, Mueller, Kennedy, or American Flow Control.

ONLY APPROVED CITY FIRE HYDRANTS
— Mueller Super Centurion 200
— Clow Medallion

See W406 for Plan View

DATE: 11/07/2023 **FIRE HYDRANT SETTING SECTION** W405

City of DeLand -Standard Details



NOTES:
1. On Fire Hydrants Requiring Runout Last Two Joints Must Be Restrained Per Detail W409 .
2. Fire Hydrants Should Have a 2'x2'x6" Clearance Around It.
3. Mechanical Joint Valve shall be manufactured by Clow, Mueller, Kennedy, or American Flow Control.

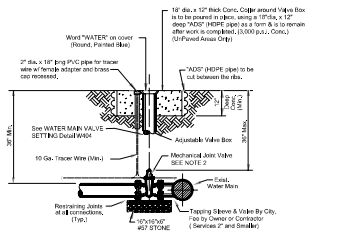
ONLY APPROVED CITY FIRE HYDRANTS
— Mueller Super Centurion 200
— Clow Medallion

See W405 for Cross Section

DATE: 11/07/2023 **FIRE HYDRANT SETTING PLAN** W406

City of DeLand - Standard Details

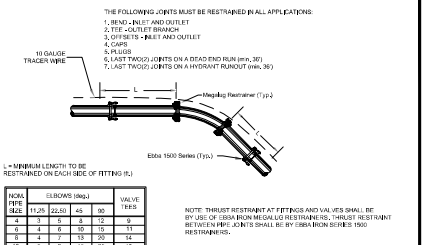
1. All tracer wire shall be UV-stabilized 10 gauge. Directional bores require to have two 10 gauge wires that are pulled with directional drill. Open cut may use only one 10 gauge wire.



Notes:
1. For Wet Taps larger than 2", Sleeves & Valves will be furnished and installed by the contractor in the presence of the city inspector. Tapping sleeve shall be Ford, Romac, or JCM stainless steel only.
2. Mechanical Joint Valve shall be manufactured by Clow, Mueller, Kennedy, or American Flow Control.

DATE: 11/07/2023 **TAPPING SLEEVE & VALVE** W407

City of DeLand - Standard Details



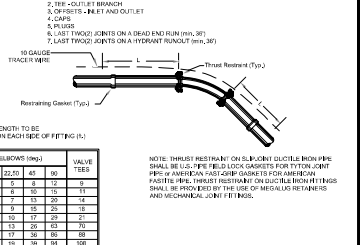
L = MINIMUM LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING (ft.)

NOM. PIPE SIZE	ELBOWS (deg.)				VALVE TEES
	11.25	22.50	45	90	
4	3	5	8	12	9
6	4	6	10	15	11
8	4	7	13	20	14
10	5	9	16	25	18
12	6	10	17	29	21
14	6	13	28	61	30
16	7	14	28	67	49
18	8	15	31	73	68
20	9	16	33	80	65

NOTE: THRUST RESTRAINT AT FITTINGS AND VALVES SHALL BE BY USE OF EBBA IRON MEGALUG RESTRAINERS. THRUST RESTRAINT BETWEEN HDPE JOINTS SHALL BE BY EBBA IRON SERIES 1500 RESTRAINERS.

DATE: 11/07/2023 **THRUST RESTRAINING DETAIL FOR PVC PIPE** W408

City of DeLand - Standard Details



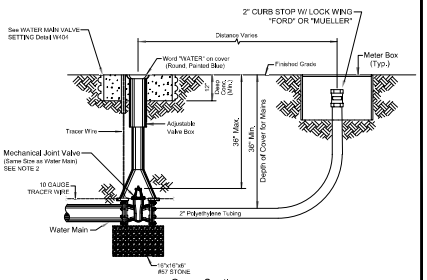
L = MINIMUM LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING (ft.)

NOM. PIPE SIZE	ELBOWS (deg.)				VALVE TEES
	11.25	22.50	45	90	
4	2	3	5	9	6
6	4	6	10	15	11
8	4	7	13	20	14
10	5	9	15	25	18
12	6	10	17	29	21
16	6	13	26	63	70
18	9	17	36	86	88
20	10	19	39	94	106
24	13	22	45	109	145

NOTE: THRUST RESTRAINT ON SLIP-JOINT DUCTILE IRON PIPE SHALL BE U.S.-PIPE FIELD LOCK GASKETS FOR TYTON JOINT PIPE or AMERICAN FAST-GRIP GASKETS FOR AMERICAN FASTITE PIPE. THRUST RESTRAINT ON DUCTILE IRON FITTINGS SHALL BE PROVIDED BY THE USE OF MEGALUG RETAINERS AND MECHANICAL JOINT FITTINGS.

DATE: 11/07/2023 **THRUST RESTRAINING DETAIL FOR DUCTILE IRON PIPE** W409

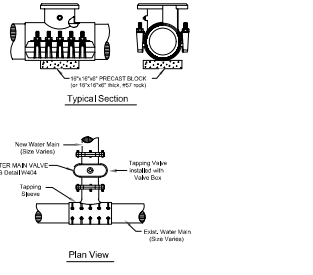
City of DeLand - Standard Details



Notes:
1. All tracer wire shall be UV-stabilized 10 gauge. Directional bores require to have two 10 gauge wires that are pulled with directional drill. Open cut may use only one 10 gauge wire.
2. Mechanical Joint Valve shall be manufactured by Clow, Mueller, Kennedy, or American Flow Control.

DATE: 11/07/2023 **WATER MAIN BLOWOFF DETAIL** W410

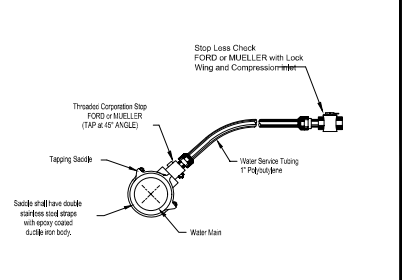
City of DeLand - Standard Details



NOTES:
1. ALL TAPPING SLEEVES ABOVE 2" IN DIA. SHALL BE STAINLESS STEEL ONLY.
2. INSTALL REQUIRED RESTRAINED JOINTS, IN NO INSTANCE SHALL THRUST BLOCKS BE PERMITTED.
3. ONLY ROMAC INDUSTRIES, FORD STAINLESS STEEL OR JCM STAINLESS STEEL TAPPING SLEEVES ARE TO BE USED.
4. IN NEW CONSTRUCTION, ALL SADDLES, SLEEVES, VALVES, CORPORATION & CURB STOPS, TUBING WILL BE FURNISHED BY THE CONTRACTOR.

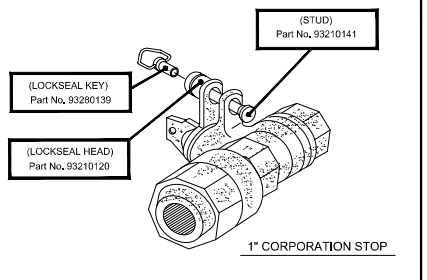
DATE: 11/07/2023 **STAINLESS STEEL TAPPING SLEEVE** W414

City of DeLand - Standard Details



DATE: 11/07/2023 **CHLORINATION TAP** W416

City of DeLand - Standard Details



NOTE:
ALL SERVICE LINE WHIPS SHALL BE BULLET LOCKED ***OFF*** BY THE CONTRACTOR AFTER INSTALLATION AND SAMPLING HAVE BEEN COMPLETED

Manufacturer:
"FIROMATIC LOCKSEAL"

DATE: 11/07/2023 **WATER METER LOCKSEAL ASSEMBLY** W418

City of DeLand - Standard Details

THIS IS NOT INCLUDED WITH THE CIVIL PLANS AND IS FOR INFORMATIONAL PURPOSES ONLY.

KCG
KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 540-7900 FAX (407) 895-1486

NO.	REVISION	DATE

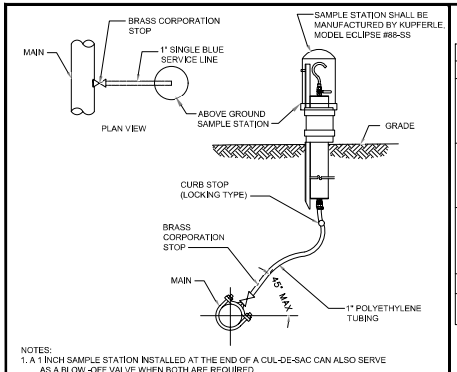
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

UTILITY DETAILS

DRAWN: TMT
DESIGN: DSK
CHECKED: KG
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-9.2



NOTES:
1. A 1 INCH SAMPLE STATION INSTALLED AT THE END OF A CUL-DE-SAC CAN ALSO SERVE AS A BLOW -OFF VALVE WHEN BOTH ARE REQUIRED.

DATE: 11/07/2023 **WATER SAMPLE STATION** W419

City of DeLand - Standard Details

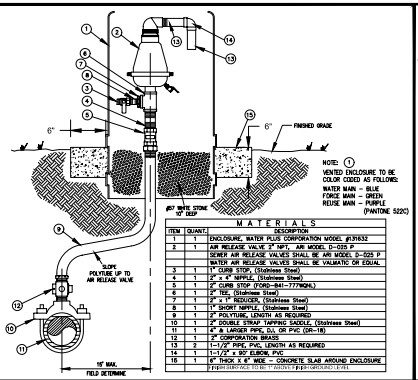
LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossing (Full Joint Centered)
Storm Sewer Stormwater Force Main, Reclaimed Water (2)	WATER MAIN 3 ft. minimum	WATER MAIN 12 inches is the minimum except for storm sewer,then 6 inches is the minimum and 12 inches is preferred	Alternate 3' ft. minimum WATER MAIN
Vacuum Sanitary Sewer	WATER MAIN 10 ft. preferred 3 ft. minimum	WATER MAIN 12 inches preferred 6 inches minimum	Alternate 3' ft. minimum WATER MAIN
Gravity Sewer Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	WATER MAIN 10 ft. preferred 6 ft. minimum (3)	WATER MAIN 12 inches is the minimum except for gravity sewer,then 6 inches is the minimum and 12 inches is preferred	Alternate 6' ft. minimum WATER MAIN
On-Site Sewage Treatment & Disposal System(4)	10 ft minimum	---	---

(1) Water Main Should Cross Above other pipe. When Water Main Must Be Below Other Pipe,the Minimum Separation is 12" inches.
(2) Reclaimed Water Regulated Under Part II of chapter 62-610, F.A.C.
(3) 3 ft. for Gravity Sanitary sewer where the Bottom of the Water Main is laid at least 6 inches above the top of gravity sanitary sewer.
(4) Reclaimed water not regulated under Part III of Chapter 62-180, F.A.C.

DATE: 11/07/2023 **WATER PIPE SEPERATION REQUIREMENTS** W420

City of DeLand - Standard Details



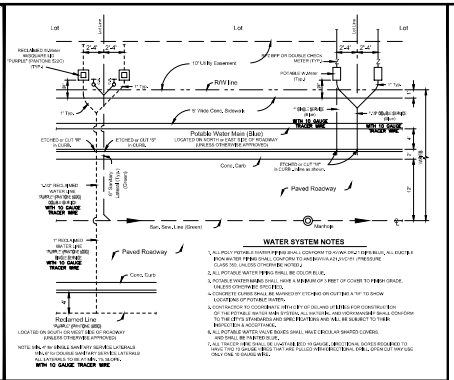
NOTE: ① VENTED ENCLOSURE TO BE COLOR CODED AS FOLLOWS: WATER MAIN – BLUE FORCE MAIN – GREEN REUSE MAIN – PURPLE (PANTONE 522C)

MATERIALS

ITEM	QUANT.	DESCRIPTION
1	1	ENCLOSURE, WATER PLUS CORPORATION MODEL #VB632
2	1	AIR RELEASE VALVE 2" NPT, APCO MODEL D-025 F SEWER AIR RELEASE VALVES SHALL BE APCO MODEL D-025 P WATER AIR RELEASE VALVES SHALL BE VALMATIC OR EQUAL
3	1	1" CURB STOP, (Stainless Steel)
4	1	2" x 4" NIPPLE, (Stainless Steel)
5	1	2" CURB STOP (FORD-B41-777NQNL)
6	1	2" TEE, (Stainless Steel)
7	1	2" x 1" REDUCER, (Stainless Steel)
8	1	1" SHORT NIPPLE, (Stainless Steel)
9	1	2" POLYTUBE, LENGTH AS REQUIRED
10	1	2" DOUBLE STRAP TAPPING SADDLE, (Stainless Steel)
11	1	4" & LARGER PIPE, CL. 09 PVC (DR-18)
12	1	2" CORPORATION BRASS
13	2	1-1/2" PIPE, PVC, LENGTH AS REQUIRED
14	1	1-1/2" x 90° ELBOW, PVC
15	1	6" THICK X 4' WIDE — CONCRETE SLAB AROUND ENCLOSURE (FINISH SURFACE TO BE 1" ABOVE FINISH GROUND LEVEL)
16	1	WITH 10 GAUGE TRACER WIRE

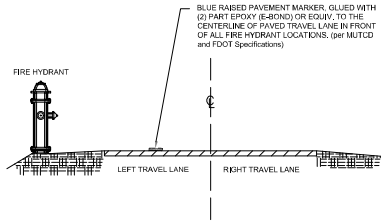
DATE: 11/07/2023 **OFFSET AIR RELEASE VALVE** W421

City of DeLand - Standard Details



DATE: 11/07/2023 **RESIDENTIAL UTILITY LAYOUT** W422

City of DeLand - Standard Details



DATE: 11/07/2023 **REFLECTIVE PAVEMENT MARKER FOR FIRE HYDRANT LOCATION** W423

City of DeLand - Standard Details

Approved Ford Valve for Service Lines

1" SERVICE



Pack Joint for Copper or Plastic Tubing (CTS) Inlet by Meter Swivel Nut

Catalog Number	Description Valve Size	Sems. Line Size	Meter Size	Approx. Wt. Lbs.
B43-211W-NL	5/8"	1/2"	5/8"	1.4
B43-212W-NL	5/8"	1/2"	5/8"x3/4" & 3/4"	1.5
B43-231W-NL	5/8"	3/4"	5/8"	1.6
B43-232W-NL	5/8"	3/4"	5/8"x3/4" & 3/4"	1.7
B43-331W-NL	3/4"	3/4"	5/8"	2.1
B43-332W-NL	3/4"	3/4"	5/8"x3/4" & 3/4"	2.4
B43-334W-NL	3/4"	3/4"	1"	2.3
B43-341W-NL	3/4"	1"	5/8"	2.7
B43-342W-NL	3/4"	1"	5/8"x3/4" & 3/4"	2.4
B43-344W-NL	3/4"	1"	1"	2.7
B43-444W-NL	1"	1"	1"	3.2
B43-454W-NL	1"	1-1/4"	1"	3.1

2" SERVICE



Pack Joint for Copper or Plastic Tubing (CTS) by Female Iron Pipe Thread

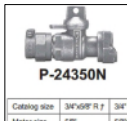
Catalog Number	Valve Size	CTS End	FIP End	Approx. Wt. Lbs.
B41-333-NL	3/4"	3/4"	3/4"	2.0
B41-334-NL	3/4"	3/4"	1"	2.1
B41-343-NL	3/4"	1"	3/4"	2.2
B41-344-NL	3/4"	1"	1"	2.4
RL41-344-4.875-NL	3/4"	1"	1"	3.1
B41-444-NL	1"	1"	1"	2.8
B41-454-NL	1"	1-1/4"	1"	3.2
B41-455-NL	1"	1-1/4"	1-1/4"	3.7
B41-555-NL	1-1/4"	1-1/4"	1-1/4"	5.6
B41-666-NL	1-1/2"	1-1/2"	1-1/2"	7.0
B41-677-NL	1-1/2"	2"	2"	9.6
B41-777-NL	2"	2"	2"	10.1

DATE: 11/07/2023 **VALVE FOR WATER AND RECLAIM SERVICE LINE** W424

City of DeLand - Standard Details

Approved Muller Valve for Service Lines

1" SERVICE



P-24350N

Mueller 300 Ball Straight Meter Valve
Mueller Pack Joint Connection for CTS O.D.* tubing x meter swivel nut**.
Quarter turn check - lock wing. 360° turn option available by adding -3 suffix to catalog number.
Example: P-24350-3

Catalog size	3/4"x5/8" R †	3/4" R †	3/4"	5/8"x3/4" †	1" R †	1"
Meter size	5/8"	5/8"x3/4", 3/4"	5/8"x3/4", 3/4"	5/8"x3/4", 3/4"	1"	1"
Tubing size	3/4"	3/4"	3/4"	1"	1"	1"

2" SERVICE



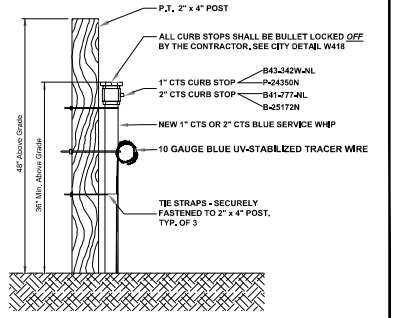
P-25172N

Mueller 300 Ball Curb Valve
Inlet: Mueller Pack Joint Connection for CTS O.D.* tubing
Outlet: F.I.P. thread
Quarter turn check-this valve may be ordered with 360° turn option by adding -3 to end of catalog number (P-25172-3)

3/4"R	3/4"	1"R	1"	1-1/2"	2"

DATE: 11/07/2023 **VALVE FOR WATER AND RECLAIM SERVICE LINE** W425

City of DeLand - Standard Details



DATE: 11/07/2023 **NEW POTABLE SERVICE WHIP** W426

City of DeLand - Standard Details

THIS IS NOT INCLUDED WITH THE CIVIL PLANS AND IS FOR INFORMATIONAL PURPOSES ONLY.

KCG KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

REVISION | DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

UTILITY DETAILS

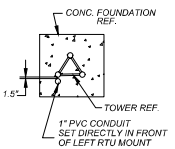
DRAWN: TMT
DESIGN: DSK
CHECKED: KG
JOB NO.: 1512.000
DATE: 04/18/2025

SHEET
C-9.3

SPARE PARTS

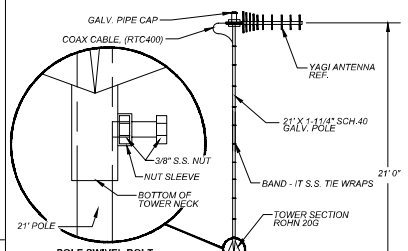
1. VACUUM PUMP AND FLOAT CHECK VALVE
2. CHECK VALVE
3. CW OR CCW IMPELLER
4. PARKER SOLENOID VALVE (25 PSI)
5. MECHANICAL SEAL
6. SONIC START VACUUM DOME HOUSING
7. SONIC START REPLACEMENT PRIME SENSOR

MOTORS:
THE PUMP MOTORS SHALL BE VERTICAL, SOLID SHAFT, NEMA P-BASE, SQUIRREL-CAGE INDUCTION TYPE, SUITABLE FOR 3 PHASE, 60 CYCLE, 480 VOLT ELECTRIC CURRENT, THEY SHALL HAVE CLASS F INSULATION, INSULATION TEMPERATURE SHALL, HOWEVER, BE LIMITED TO CLASS B, THE MOTORS SHALL HAVE NORMAL STARTING TORQUE AND LOW-STARTING CURRENT, AS SPECIFIED BY NEWMAN DESIGN B CHARACTERISTICS. THEY SHALL BE OPEN DRIP-PROOF DESIGN WITH FORCED AIR CIRCULATION BY INTEGRAL FAN, OPENINGS FOR VENTILATION SHALL BE UNIFORMLY SPACED AROUND THE FRAME, LEADS SHALL BE TERMINATED IN CAST CONNECTION BOX AND SHALL BE CLEARLY IDENTIFIED.
THE MOTORS SHALL HAVE 1.15 SERVICE FACTOR, THE SERVICE FACTOR SHALL BE RESERVED THE OWNERS PROTECTION, THE MOTORS SHALL NOT BE OVERLOADED BEYOND THEIR NAMEPLATE RATING, AT THE DESIGN CONDITIONS, NOR AT ANY HEAD IN THE OPERATING RANGE AS SPECIFIED UNDER OPERATING CONDITIONS.
THE MOTOR-PUMP SHAFT SHALL BE CENTERED, IN RELATION TO THE MOTOR BASE, WITHIN 0.005", THE SHAFT RUBOUT SHALL NOT EXCEED 0.003".
THE MOTORS SHAFT SHALL BE EQUAL OR EXCEED THE DIAMETER SPECIFIED UNDER MAIN PUMPS AT ALL POINTS FROM IMMEDIATELY BELOW THE TOP BEARING TO THE TOP OF THE IMPELLER HUB. A BEARING CAP SHALL BE PROVIDED TO HOLD THE BOTTOM MOTOR BEARING IN A FIXED POSITION. BEARING HOUSINGS SHALL BE PROVIDED WITH FITTING FOR LUBRICATION AS WELL AS PURGING OLD LUBRICANT, THE MOTORS SHALL BE FITTED WITH HEAVY LIFTING EYES OR LUGS, EACH CAPABLE OF SUPPORTING THE ENTIRE WEIGHT OF THE PUMP AND MOTOR.

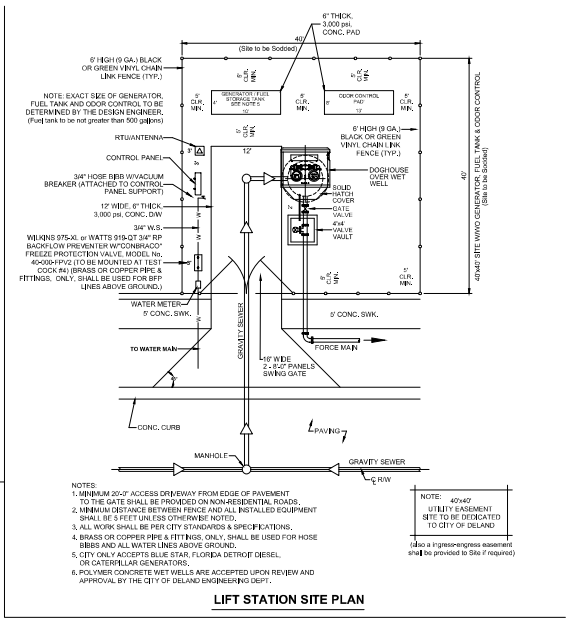


CONDUIT DETAIL

SECTION "A-A"
N.T.S.



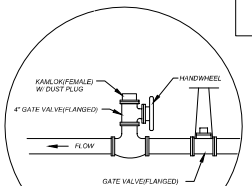
ANTENNA DETAIL
N.T.S.



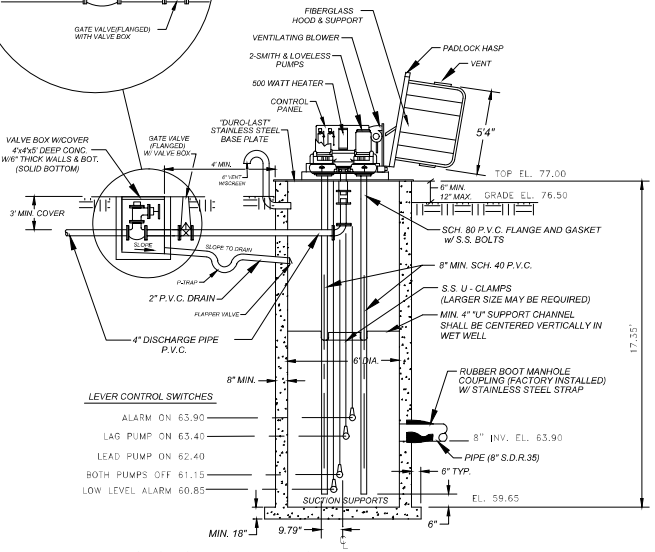
NOTES:
1. MINIMUM 20'-0" ACCESS DRIVEWAY FROM EDGE OF PAVEMENT TO THE GATE SHALL BE PROVIDED ON NON-RESIDENTIAL ROADS.
2. MINIMUM DISTANCE BETWEEN FENCE AND ALL INSTALLED EQUIPMENT SHALL BE 5 FEET UNLESS OTHERWISE NOTED.
3. ALL WORK SHALL BE PER CITY STANDARDS & SPECIFICATIONS.
4. BRASS OR COPPER PIPE & FITTINGS, ONLY, SHALL BE USED FOR HOSE BIBBS AND ALL WATER LINES ABOVE GROUND.
5. CITY ONLY ACCEPTS BLUE STAR, FLORIDA DETROIT DIESEL, OR CATERPILLAR GENERATORS.
6. POLYMER CONCRETE WET WELLS ARE ACCEPTED UPON REVIEW AND APPROVAL BY THE CITY OF DELAND ENGINEERING DEPT.

NOTE: 40'x40' UTILITY EASEMENT SITE TO BE DEDICATED TO CITY OF DELAND
(also a ingress-egress easement shall be provided to Site if required)

LIFT STATION SITE PLAN

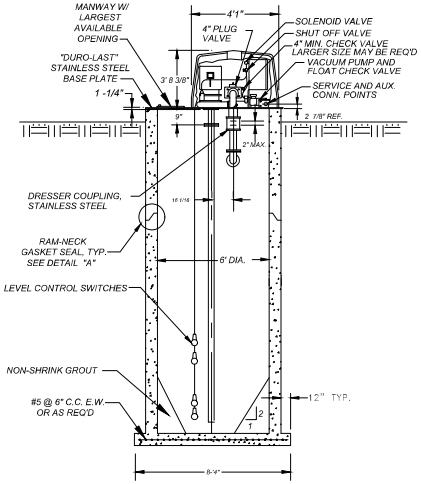


SEE PAGE 2 & 3 FOR CONTROL PANEL RACK AND SET-UP

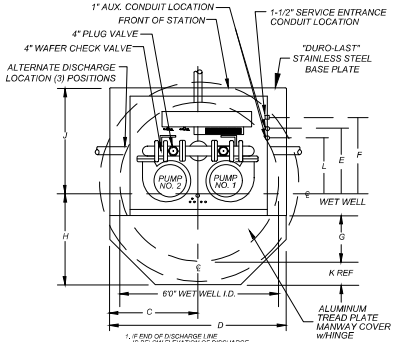


SECTIONAL ELEVATION
N.T.S.

1. ALL MAJOR COMMERCIAL OR RESIDENTIAL PROJECTS MUST PROVIDE AN ON- SITE GENERATOR OR CONTRIBUTE TO THE GENERATOR FUND.
2. GENERATOR MAKE SHALL BE A BLUE STAR, FLORIDA DETROIT DIESEL, OR CATERPILLAR.
3. DIESEL FUEL TANK WITH THREE DAY RUN TIME MIN. (500 Gallon Maximum Storage)
4. AUTOMATIC TRANSFER SWITCH SHALL BE REQUIRED.
5. GENERATOR SHALL BE CONNECTED TO THE REMOTE TELEMETRY UNIT FOR MONITORING.
6. NEW SUBDIVISIONS OF 80 HOMES OR MORE WILL BE REQUIRED TO PROVIDE A UNIT W/ GENERATOR. (LESS THAN 80 HOMES WILL PAY A PRO RATA SHARE $450 PER UNIT)
7. POLYMER CONCRETE WET WELLS ARE ACCEPTED UPON REVIEW AND APPROVAL BY THE CITY OF DELAND ENGINEERING DEPT.



CROSS SECTION
N.T.S.



1. IF END OF DISCHARGE LINE IS BELOW ELEVATION OF DISCHARGE LINE @ POINT OF LEAVING WET WELL A PRIMING LOCK LOOP MAY BE REQ'D. (CONSULT FACTORY)
2. IF DISCHARGE LINE IS LESS THAN 250' IN LENGTH AN ADDITIONAL CHECK VALVE OR PRIMING LOCK LOOP MAY BE REQ'D. (CONSULT FACTORY)
3. PROVIDE 60" SLOPE IN WET WELL, AS REQ'D.
4. VOLUME IN GALLONS BETWEEN L.L. ON AND L.L. OFF SHOULD BE EQUAL OR GREATER THAN THE PUMPING RATE IN G.P.M.
5. MAXIMUM CAPACITY - 400 G.P.M.

PLAN VIEW
N.T.S.
MACH. CHAMBER (SHOWN LESS HOOD)

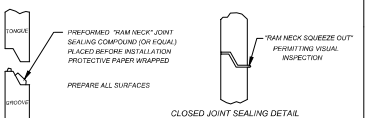
Index No.
30800
REVISED 5/31/07
REVISED 8/6/08
REVISED 10/12/09
REVISED 4/8/10
REVISED 8/1/13
REVISED 9/2/14
REVISED 5/15/17
REVISED 7/24/18
REVISED 11/05/21
SHEET 1 OF 3

GENERAL SITE PLAN NOTES:

1. BACKFLOW PREVENTER SHALL BE, WILKINS 3/4" 975-XL RP or WATTS 3/4" 919-QT RP , W/ "CONBRACO" FREEZE PROTECTION VALVE, MODEL No. 40-000-FP/V2, TO BE MOUNTED AT TEST COCK #4.
2. ALL 3/4" HOSE BIBBS SHALL ALSO HAVE A VACUUM BREAKER.
3. LIFT STATION SITE SHALL BE SODDED.
4. PRIOR TO ACCEPTANCE OF THIS LIFT STATION, CITY STAFF WILL OBSERVE THAT THIS STATION WILL PUMP DOWN TO THE CITY'S SPECIFIED CUT-OFF LEVEL UNDER THE CONDITIONS OF A FULL DISCHARGE PRESSURE SEWER, BEING PRESSURIZED W/ ALL OTHER PUMP STATIONS OPERATING, IF THERE EXISTS A MANIFOLD CONDITION. THE DEVELOPER WILL SUPPLY LABOR AND MATERIALS FOR THIS DEMONSTRATION.
5. DO NOT PLACE TRANSFORMERS OR OTHER APPURTENANCES WITHIN THE DESIGNATED EASEMENT THAT WILL IMPEDE MAINTENANCE ACTIVITIES OF THIS STATION.
6. ORIENTATE THE MANWAY TOWARD THE STREET SIDE FOR EASY ACCESS BY OPERATING & MAINTENANCE PERSONNEL.
7. PROVIDE ADEQUATE PAVING (CONC. OR ASPHALT) 12' WIDE DRIVE FROM STREET TO PUMP STATION FOR SAFE ACCESS OF EMERGENCY GENERATOR, SEWER CLEANER, AND OTHER MAINTENANCE VEHICLES.
8. FENCE WITH 6' HIGH COMMERCIAL GRADE CYCLONE FENCE, USING TWO 8' FOOT GATES . FENCE SHOULD BE LOCATED IN SUCH A WAY AS NOT TO INTERFERE WITH ANY PANEL DOORS OR HATCH OPENINGS, AND GATE POSITIONED TO ALLOW EASY ACCESS TO WET WELL. (BLACK OR GREEN VINYL COATED), (REFER TO SITE PLAN)
9. A 40' x 40' TRACT SHALL BE DEDICATED TO THE CITY OF DELAND FOR THE LIFT STATION SITE.
10. PROVIDE "DURO-LAST" STAINLESS STEEL BASE PLATE ON LIFT STATION.
11. BRASS OR COPPER PIPE & FITTINGS, ONLY, SHALL BE USED FOR BFP & HOSE BIBBS AND LINES ABOVE GROUND.
12. ALL SEWER AIR RELEASE VALVES SHALL BE 2" A.R.I. MODEL D-025TPO2.
13. MIN. 2'x'2' AROUND AND 6' CLEARANCE ABOVE METER

CONTROLS:
THE CONTROL EQUIPMENT SHALL BE MOUNTED IN A NEMA TYPE 1 STEEL ENCLOSURE WITH A REMOVABLE ACCESS COVER, THE CIRCUIT BREAKERS, STARTER RESET BUTTONS, AND CONTROL SWITCHES SHALL BE OPERABLE WITHOUT REMOVING THE ACCESS COVER, FOR DEADFRONT OPERATION.
A GFCI TYPE CONVENIENCE OUTLET SHALL BE PROVIDED ON THE SIDE OF THE CABINET FOR OPERATION OF 120 VOLT AC DEVICES, THERMAL MAGNETIC AIR CIRCUIT BREAKERS SHALL BE PROVIDED FOR BRANCH DISCONNECT SERVICE AND SHORT CIRCUIT PROTECTION OF ALL MOTOR CONTROL AND AUXILIARY CIRCUITS.
MAGNETIC ACROSS-THE-LINE STARTERS WITH UNDER-VOLTAGE RELEASE AND OVERLOAD COILS FOR EACH PHASE SHALL BE PROVIDED FOR EACH PUMP MOTOR TO GIVE POSITIVE PROTECTION, EACH SINGLE-PHASE AUXILIARY MOTOR SHALL BE EQUIPPED WITH AN OVER-CURRENT PROTECTION DEVICE IN ADDITION TO THE BRANCH CIRCUIT BREAKER, OR SHALL BE IMPEDANCE PROTECTED, ALL SWITCHES SHALL BE LABELED AND A CODED WIRING DIAGRAM SHALL BE PROVIDED.
TO CONTROL THE OPERATION OF THE PUMPS WITH VARIATIONS OF LIQUID LEVEL IN THE WET WELL, A MINIMUM OF FOUR (4) DISPLACEMENT SWITCHES SHALL BE PROVIDED. A 30' CORD SHALL BE PROVIDED WITH EACH SWITCH, THE CORD SHALL HAVE A CORROSION-RESISTANT VINYL JACKET AND BE MULTI-STRANDED IN ORDER TO PREVENT FATIGUE.
AN AUTOMATIC ALTERNATOR WITH MANUAL SWITCH SHALL BE PROVIDED TO CHANGE THE SEQUENCE OF OPERATION OF THE PUMPS EVERY EIGHT HOURS, ALTERNATING THE PUMPS AT LESS THAN EIGHT HOUR INTERVALS WILL NOT BE ACCEPTABLE, PROVISIONS SHALL ALSO BE MADE FOR THE PUMPS TO OPERATE IN PARALLEL SHOULD THE LEVEL IN THE WET WELL CONTINUE TO RISE ABOVE THE STARTING LEVEL FOR THE LAG PUMP.

WET WELL DIA.	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "J"	DIM "K"	DIM "L"
6'-0"	2"	1'-1 13/16"	3'-4"	6'-8"	2'-1 3/8"	2'-5 7/8"	1'-8"	3'-10"	3'-5 1/2"	10"	1'-8 7/8"



DETAIL "A"
N.T.S.

Note:
Air release valves shall be provided at all high points on force main.

Wet Well (Anti-Floation)
REFER TO UTILITIES CALCULATION MANUAL FOR DISPLACEMENT INFORMATION.

Valve Vault (Anti-Floation)
REFER TO UTILITIES CALCULATION MANUAL FOR DISPLACEMENT INFORMATION.

PUMP SELECTION:

MAKE: SMITH AND LOVELESS
MODEL: 4B3B*1
SPEED: 1760 RPM
POWER: 20 HP & 22.3%
IMPELLER DIA: 9"
OPERATING POINT: 80 GPM @ 105.8 FT

THIS IS NOT INCLUDED WITH THE CIVIL PLANS AND IS FOR INFORMATIONAL PURPOSES ONLY.

KCG
KELLY, COLLINS & GENTRY, INC.
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

REVISION | DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

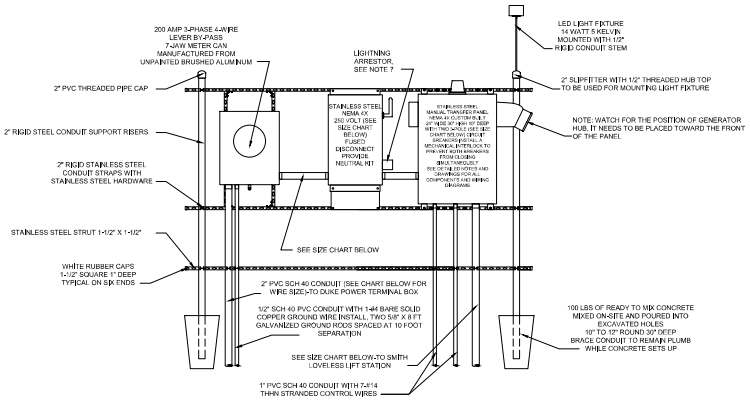
TAYLOR RIDGE SUBDIVISION

UTILITY DETAILS

DRAWN: TMT
DESIGN: DSK
CHECKED: KG
JOB NO.: 1512.000
DATE: 04/18/2025

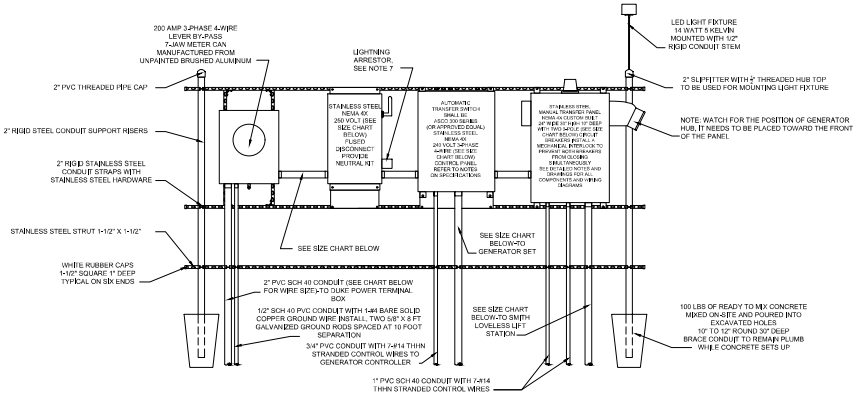
SHEET
C-9.4

DETAIL "A"

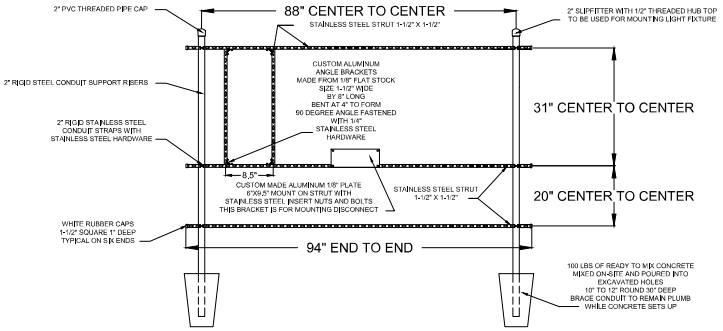


240 VOLT POWER RACK WITHOUT GENERATOR

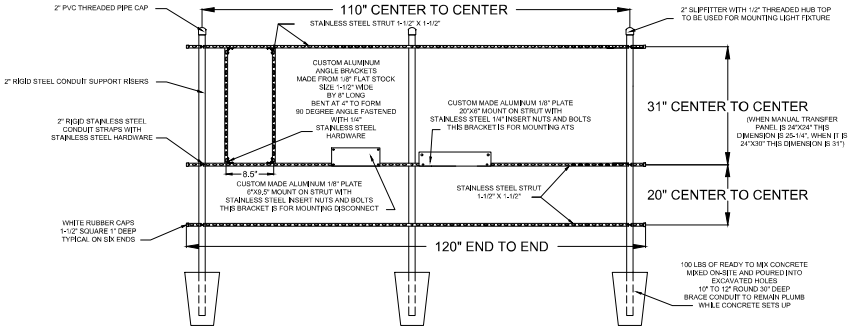
DETAIL "B"



240 VOLT POWER RACK WITH GENERATOR AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS
240 VOLT WITHOUT AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS
240 VOLT WITH AUTOMATIC TRANSFER SWITCH

CONTROL GENERATOR RECEPTACLE PANEL

1. ENCLOSURE : NEMA 4X STAINLESS, 304 GRADE, 14 GAUGE, GASKETED, #4 BRUSHED FINISH, U.L. AND CSA APPROVED, HASP AND STAPLE FOR PADLOCKING, INSIDE PRINT POCKET, STAINLESS STEEL HINGE. MIN. SIZE 24" x 24"x 8" FOR UP TO 15 H.P.
2. MAIN BREAKER : SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
3. EMERGENCY BKR : SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
4. MECH. INTERLOCK: ALL ALUMINUM AND STAINLESS STEEL W/POSITIVE MEANS OF LOCKING OFF BREAKER NOT IN USE. THE BREAKERS WILL PROTRUDE THROUGH INNER DOOR.
5. RECEPTACLE: RUSSELL STOLL JRS104AFR (230 VOLT ONLY), MELTRIC PART #57-98047 (480 VOLT ONLY)
6. ANGLE ADAPTER: RUSSELL STOLL IAAB-10, 20 DEG. ADAPTER
7. LIGHTNING ARRESTOR: HEAVY DUTY, SQUARE D P/N SDSA3650
8. PHASE MONITOR: DIVERSIFIED P/N SLA-230-ASA, 8 PIN WITH N.O. AND N.C. CONTACTS WIRE TO TERMINAL FOR RTU EQUIPMENT.
9. HIGH WATER ALARM: RED, LEXAN, W/NO EXTERNAL SCREWS,
10. HWA RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL.
11. ALARM HORN: RED, WHEELOCK P/N 31T-115 MOUNTED TO RED WEATHER PROOF CAST BOX ON EXTERIOR OF ENCLOSURE.
12. ALARM RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL.
13. ALARM RESET/SIL: SQUARE D, WEATHER PROOF MOUNTED ON EXTERIOR OF ENCLOSURE.
14. ENCL. BACKPLATE: ALUMINUM, 12 GAUGE
15. TERMINAL STRIP: BUCHANON P/N 0625
16. GROUND LUG: BUCHANON P/N 824
17. NEUTRAL LUG: BUCHANON P/N 824
18. MAIN LOAD LUG: SQUARE D P/N U3
19. LABELS: ALL BREAKERS AND SWITCHES TO BE IDENTIFIED BY PERMANENTLY ATTACHED LABEL TO PANEL DOOR INTERIOR
20. MOUNTING SCREWS: STAINLESS STEEL 304
21. SCHEMATIC DWG.: PROTECTED BY PLASTIC COATING AND ATTACHED TO PANEL DOOR INTERIOR.
22. MANUFACTURER: STACON, ECS OR CITY OF DELAND APPROVAL.
23. R.T.U.: IDATA FLOW MELBOURNE FLA. (R.T.U. 204) OR EQUAL TO BE INSTALLED BY CITY- DEVELOPER TO BEAR ALL COSTS.
24. PROVIDE SPARE PARTS - SEE SPARE PARTS LIST
25. WET WELL TO BE COATED INSIDE AND OUT WITH MIN. 24 MILS OF COAL/TAR EPOXY.
26. EQUIVALENT PRODUCTS CAN ONLY BE APPROVED UPON RECEIPT OF WRITTEN AUTHORIZATION FROM THE CITY OF DELAND.

SIZE CHART

Index No.
30800
REVISED 11/05/21
SHEET 2 OF 3

STEP #1: DETERMINE LIFT STATION SIZE & SPECIFICATIONS FROM THE UTILITY CONTRACTOR OR CITY OF DELAND ENGINEERING DEPT.

STEP #2: MAKE NOTE OF THE FOLLOWING: THE VOLTAGE FOR THE STATION, THE NUMBER OF PUMPS (2 OR 3) & THE HORSEPOWER OF PUMPS.

STEP #3: REFER TO THE ELECTRICAL SERVICE DATA CHARTS FOR THE STANDARD 2 PUMP OR 3 PUMP STATION (FOUND ON SHEET 3 OF 3).

STEP #4: USE THE VOLTAGE COLUMN AND THE HORSEPOWER ROW TO FIND THE TOTAL STATION FULL LOAD AMPS.

STEP #5: UPON DETERMINING THE FULL LOAD AMPS OF THE STATION, THE SERVICE ENTRANCE SIZE SHALL NOT BE SMALLER THAN 100 AMPS. STATIONS THAT REQUIRE A SERVICE SIZE LARGER THAN 100 AMPS SHALL BE SIZED CLOSEST TO THE STANDARD SIZES LISTED BELOW.

SERVICE SIZE	CONDUIT SIZE	WIRE SIZE	BREAKER OR FUSE RATING
100 AMP	1-1/2"	#3 THHN CU	100 AMP
125 AMP	1-1/2"	#2 THHN CU	125 AMP
150 AMP	2"	#1 THHN CU	150 AMP
200 AMP	2"	3/0 THHN CU	200 AMP
225 AMP	2-1/2"	4/0 THHN CU	225 AMP

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ORLANDO, FLORIDA 32804
(407) 648-7900 FAX (407) 895-1485

REVISION
DATE

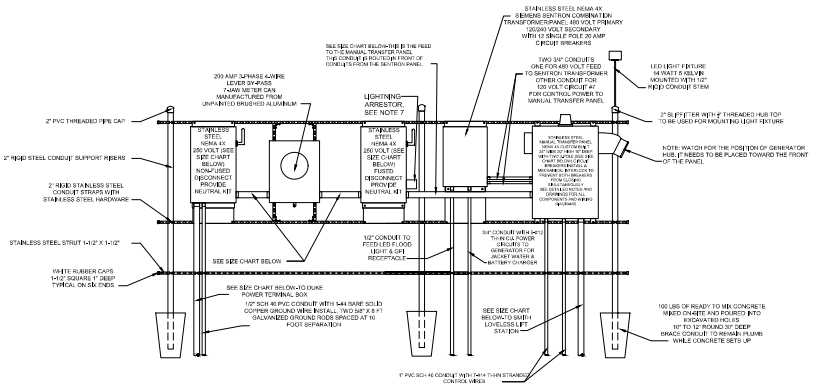
PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE
SUBDIVISION

UTILITY DETAILS

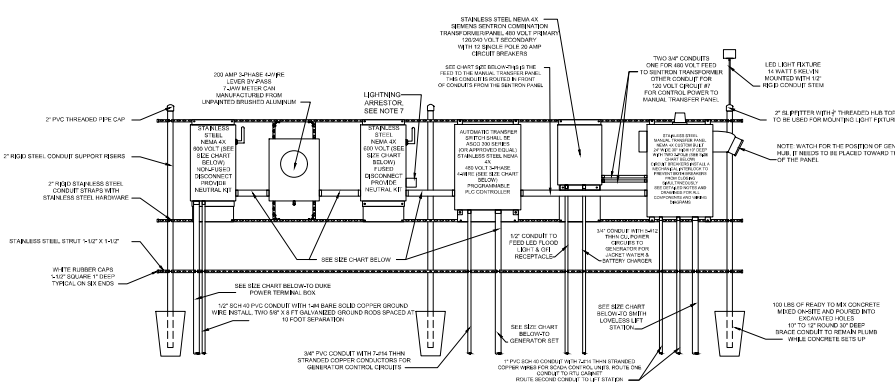
DRAWN: TMT
DESIGN: DSK
CHECKED: KG
JOB NO.: 1512.000
DATE: 04/16/2025
SHEET
C-9.5

DETAIL "C"

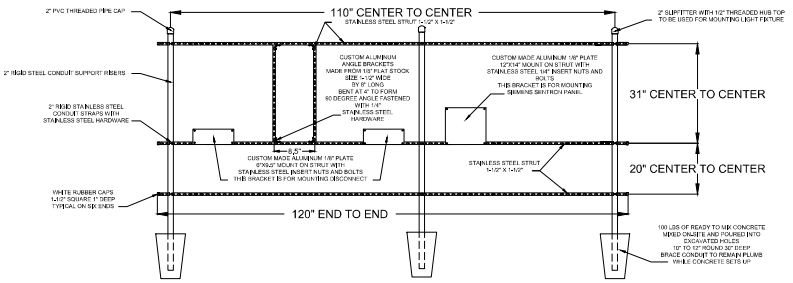


480 VOLT POWER RACK WITHOUT GENERATOR AUTOMATIC TRANSFER SWITCH

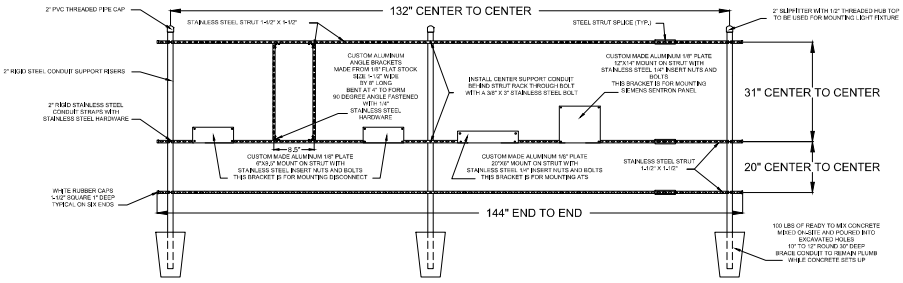
DETAIL "D"



480 VOLT POWER RACK WITH GENERATOR WITH AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS 480 VOLT WITHOUT AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS 480 VOLT WITH AUTOMATIC TRANSFER SWITCH

CONTROL GENERATOR RECEPTACLE PANEL

1. ENCLOSURE : NEMA 4X STAINLESS, 304 GRADE, 14 GAUGE, GASKETED, #4 BRUSHED FINISH, U.L. AND CSA APPROVED, HASP AND STAPLE FOR PADLOCKING, INSIDE PRINT POCKET, STAINLESS STEEL HINGE, MIN. SIZE 24" x 24"x 8" FOR UP TO 15 H.P.
2. MAIN BREAKER : SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
3. EMERGENCY BKR.: SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
4. MECH. INTERLOCK: ALL ALUMINUM AND STAINLESS STEEL W/POSITIVE MEANS OF LOCKING OFF BREAKER NOT IN USE. THE BREAKERS WILL PROTRUDE THROUGH INNER DOOR.
5. RECEPTACLE: RUSSELL STOLL JRS10MFR (230 VOLT ONLY), MELTRIC PART #37-98047 (480 VOLT ONLY)
6. ANGLE ADAPTER: RUSSELL STOLL JAAB-10, 20 DEG. ADAPTER
7. LIGHTNING ARRESTOR: HEAVY DUTY, SQUARE D P/N SDASA3650, OR INTERMATIC AL503C 600V.
8. PHASE MONITOR: DIVERSIFIED P/N SLA-230-ASA, 8 PIN WITH N.O. AND N.C. CONTACTS WIRE TO TERMINAL FOR RTU EQUIPMENT.
9. HIGH WATER ALARM: RED, LEXAN, WINO EXTERNAL SCREWS.
10. HWA RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL.
11. ALARM HORN: RED, WHEELOCK P/N 31T-115 MOUNTED TO RED WEATHER PROOF CAST BOX ON EXTERIOR OF ENCLOSURE.
12. ALARM RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL.
13. ALARM RESET/SIL: SQUARE D, WEATHER PROOF MOUNTED ON EXTERIOR OF ENCLOSURE.
14. ENCL. BACKPLATE: ALUMINUM, 12 GAUGE
15. TERMINAL STRIP: BUCHANON P/N 0625
16. GROUND LUG: BUCHANON P/N 824
17. NEUTRAL LUG: BUCHANON P/N 824
18. MAIN LOAD LUG: SQUARE D P/N U3
19. LABELS: ALL BREAKERS AND SWITCHES TO BE IDENTIFIED BY PERMANENTLY ATTACHED LABEL TO PANEL DOOR INTERIOR
20. MOUNTING SCREWS: STAINLESS STEEL 304
21. SCHEMATIC DWG.: PROTECTED BY PLASTIC COATING AND ATTACHED TO PANEL DOOR INTERIOR.
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23. R.T.U.: (DATA FLOW MELBOURNE FLA. (R.T.U. 204) OR EQUAL TO BE INSTALLED BY CITY- DEVELOPER TO BEAR ALL COSTS.
24. PROVIDE SPARE PARTS - SEE SPARE PARTS LIST
25. WET WELL TO BE COATED INSIDE AND OUT WITH MIN. 24 MILS OF COAL/TAR EPOXY
26. EQUIVALENT PRODUCTS CAN ONLY BE APPROVED UPON RECEIPT OF WRITTEN AUTHORIZATION FROM THE CITY OF DELAND.

ELECTRICAL SERVICE DATA STANDARD 2-PUMP WET WELL MOUNTED PUMP STATION

MAIN PUMP MOTOR SIZE	TOTAL STATION FULL LOAD AMPS		
RATED HP EACH	208 VOLT	230 VOLT	460 VOLT
1	17.6	15.3	7.6
1-1/2	21.8	18.9	9.5
2	25.9	22.5	11.3
3	33.1	28.8	14.5
5	47.7	41.4	20.7
7-1/2	65.3	56.7	28.4
10	80.8	70.2	35.1
15	117.0	101.7	50.9
20	148.1	128.7	64.4
25	190.44	160.2	80.1
30	215.3	187.2	93.6
40	—	—	120.6
50	—	—	150.0

ELECTRICAL SERVICE DATA STANDARD 3-PUMP WET WELL MOUNTED PUMP STATION

MAIN PUMP MOTOR SIZE	TOTAL STATION FULL LOAD AMPS		
RATED HP EACH	208 VOLT	230 VOLT	460 VOLT
1	27.3	23.7	11.9
1-1/2	33.3	28.9	14.5
2	39.3	34.1	17.1
3	49.6	43.2	21.6
5	70.6	61.4	30.7
7-1/2	96.1	83.5	41.8
10	118.5	103.0	51.5
15	170.9	148.5	74.3
20	215.7	187.5	93.8
25	---	—	116.5
30	---	—	136.0
40	---	—	175.0
50	---	—	217.3

Index No.
30800
REVISED 11/05/21
SHEET 3 OF 3

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KCG
1706 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 648-7988 FAX (407) 895-1488

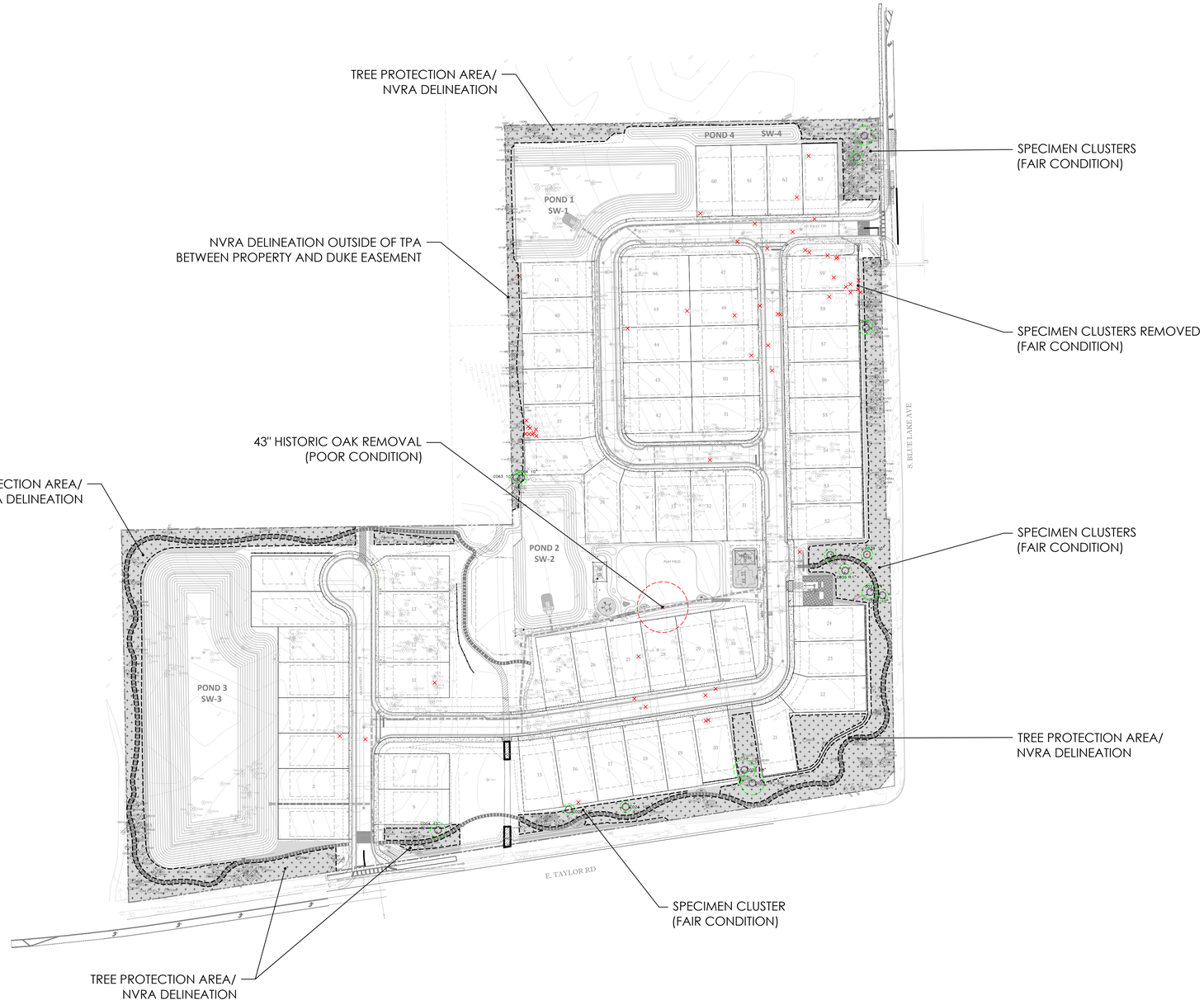
REVISION | DATE

PREPARED FOR:
TLC
BLUE LAKE, LLC

TAYLOR RIDGE SUBDIVISION

UTILITY DETAILS

DRAWN: TMT
DESIGN: DSK
CHECKED: SCF
JOB NO.: 1512.000
DATE: 04/16/2021
SHEET
C-9.6



TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

TREE SURVEY LEGEND

- = LIVE OAK
- = LAUREL OAK
- = SLASH PINE
- = SAND PINE
- = PALM

*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L110

SCALE: 1" = 100'

0' 50' 100' 200'

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
OVERALL TREE MITIGATION PLAN

DATE:	April 12, 2024
DRAWN BY:	BRL
CHECKED BY:	TWB
JOB NUMBER:	2021.188
FILE NAME:	2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:

1. City Comments 07-26-2024
2. City Comments 09-09-2024
3. City Comments 10-28-2024
4. City Comments 03-07-2025

This item has been electronically signed and sealed by Todd W. Bonnett, RLA FL#LA1718 using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by Todd W Bonnett
Date: 2025.06.17 16:57:14-04'00'

Todd W. Bonnett, RLA # FL0001718

2

L100

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TREE MITIGATION LEGEND

SPECIMEN TREES REMOVED

HISTORIC TREE REMOVED POOR CONDITION

SPECIMEN TREE SAVED

TREE PROTECTION AREA

NATURAL VEGETATION RETENTION AREA

TREE SURVEY LEGEND

= LIVE OAK

= LAUREL OAK

= SLASH PINE

= SAND PINE

= PALM



4

ACREAGE 0.25	SECTION 1	TREE	SIZE
	POOR	A062	LAUREL	16
	POOR	A063	LIVE	7
	POOR	A064	LAUREL	14
	POOR	A065	LAUREL	6
	HEALTHY	A066	LAUREL	10
	HEALTHY	A067	SLASH	14
	POOR	A068	SLASH	6
	POOR	A069	LAUREL	12
	POOR	A070	LIVE	6
	POOR	A071	LAUREL	10
	POOR	A072	LIVE	8
	HEALTHY	A073	SLASH	9
	HEALTHY	A074	LAUREL	13
	HEALTHY	A075	LIVE	9
	HEALTHY	A075	LIVE	9
	POOR	A084	LAUREL	7
	HEALTHY	A085	LAUREL	10
	HEALTHY	A086	SLASH	11
	HEALTHY	A087	LAUREL	8
			TOTAL	93
			healthy protected tree inches per acre	372
			deteriorated laurels >20" per acre	0
			palm inches per acre	0
			poor protected tree inches per acre	368

ACREAGE 0.3	SECTION 2	TREE	SIZE
	HEALTHY	A116	SLASH	20
	POOR	A117	SLASH	14
	POOR	A118	LIVE	9
	HEALTHY	A119	LAUREL	8
	POOR	A120	LAUREL	14
	POOR	A121	LAUREL	10
	POOR	A121	LAUREL	12
	HEALTHY	A122	SLASH	14
	POOR	A123	LAUREL	14
	HEALTHY	A124	SLASH	18
	POOR	A125	LAUREL	9
	POOR	A126	LAUREL	11
	POOR	A127	LAUREL	15
	POOR	A128	LIVE	7
	POOR	A129	LIVE	6
	POOR	A130	LIVE	8
	HEALTHY	A131	SLASH	15
	POOR	A132	LAUREL	17
	POOR	A134	LAUREL	12
	POOR	A135	LAUREL	11
	POOR	A135	LAUREL	8
	HEALTHY	A136	SLASH	22
	HEALTHY	A137	LAUREL	11
	POOR	A138	LAUREL	10
	HEALTHY	A139	LAUREL	7
	HEALTHY	A140	SLASH	17
			TOTAL	332
			healthy protected tree inches per acre	440
			deteriorated laurels >20" per acre	0
			palm inches per acre	0
			poor protected tree inches per acre	529

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ACREAGE 0.25	SECTION 3	TREE	SIZE
	POOR	T131	LAUREL	16
	POOR	T132	LAUREL	9
	POOR	T133	LAUREL	11
	POOR	T134	SAND	25
	POOR	T136	LAUREL	9
	HEALTHY	T137	LAUREL	12
	POOR	T138	BLACK CHERRY	9
	HEALTHY	T140	LAUREL	12
	POOR	T141	LAUREL	10
	POOR	T145	LAUREL	6
	HEALTHY	T147	LAUREL	12
	POOR	T148	LAUREL	10
	POOR	T149	LAUREL	10
	POOR	T150	LAUREL	8
	POOR	T151	LAUREL	15
	POOR	T152	LAUREL	13
	POOR	T153	LAUREL	11
	POOR	T154	SLASH	16
	HEALTHY	T155	LAUREL	17
	POOR	T156	LAUREL	8
	POOR	T157	LAUREL	6
	POOR	T158	LAUREL	7
	OMIT	T164	LAUREL*	21
	POOR	T164	LAUREL	11
	POOR	T164	LAUREL	18
	POOR	T165	LAUREL	16
	HEALTHY	T166	LAUREL	18
	OMIT	T167	LAUREL*	43
			TOTAL	71
			healthy protected tree inches per acre	284
			deteriorated laurels >20" per acre	8
			palm inches per acre	0
			poor protected tree inches per acre	976

ACREAGE 0.25	SECTION 4	TREE	SIZE
	POOR	T015	LAUREL	12
	POOR	T016	SLASH	12
	POOR	T017	LAUREL	7
	POOR	T018	LAUREL	9
	HEALTHY	T020	SLASH	17
	HEALTHY	T020	SLASH	16
	POOR	T021	LAUREL	15
	HEALTHY	T022	LAUREL	9
	POOR	T023	LAUREL	11
	HEALTHY	T024	LAUREL	10
	HEALTHY	T025	LAUREL	11
	OMIT	T026	PALM*	25
	HEALTHY	T027	LAUREL	10
	POOR	T028	LAUREL	8
	POOR	T029	LAUREL	6
	POOR	T029	LAUREL	7
	POOR	T030	LAUREL	6
	HEALTHY	T031	SLASH	8
	HEALTHY	T037	LAUREL	13
	POOR	T038	LAUREL	12
	POOR	T039	LAUREL	9
	POOR	T040	LAUREL	15
			TOTAL	94
			healthy protected tree inches per acre	376
			deteriorated laurels >20" per acre	0
			palm inches per acre	100
			poor protected tree inches per acre	516

ACREAGE 0.25	SECTION 5	TREE	SIZE
	POOR	T046	LAUREL	11
	POOR	T047	LAUREL	7
	POOR	T048	LAUREL	7
	POOR	T049	LAUREL	9
	POOR	T050	LAUREL	9
	POOR	T051	LAUREL	6
	POOR	T051	LAUREL	7
	POOR	T052	LAUREL	8
	POOR	T053	LAUREL	9
	OMIT	T054	LAUREL*	40
	POOR	T055	LAUREL	7
	POOR	T056	LAUREL	13
	HEALTHY	T057	SLASH	15
	POOR	T058	LAUREL	7
	POOR	T059	LAUREL	18
	OMIT	T061	LAUREL*	24
	OMIT	T063	LAUREL*	23
	POOR	T066	LAUREL	7
	POOR	T069	LAUREL	7
	POOR	T070	LAUREL	8
	POOR	T071	LAUREL	6
	POOR	T072	SLASH	17
	OMIT	T073	PALM*	20
	POOR	T074	LAUREL	9
	OMIT	T075	LAUREL*	20
	POOR	T076	LAUREL	17
	POOR	T077	LAUREL	13
			TOTAL	15
			healthy protected tree inches per acre	60
			deteriorated laurels >20" per acre	16
			palm inches per acre	80
			poor protected tree inches per acre	816

ACREAGE 0.3	SECTION 6	TREE	SIZE
	HEALTHY	T184	SLASH	15
	POOR	T185	SLASH	14
	POOR	T186	LAUREL	12
	POOR	T187	LAUREL	13
	OMIT	T188	LAUREL*	22
	POOR	T189	LAUREL	15
	POOR	T189	LAUREL	17
	POOR	T190	LAUREL	19
	POOR	T191	LAUREL	6
	POOR	T192	LAUREL	8
	OMIT	T193	LAUREL*	41
	POOR	T194	LAUREL	19
	POOR	T195	LAUREL	18
	POOR	T196	SLASH	15
	OMIT	T197	LAUREL*	20
	OMIT	T197	LAUREL*	21
	POOR	T198	LAUREL	13
	OMIT	T201	LAUREL*	20
	HEALTHY	T205	LAUREL	6
	POOR	T206	LAUREL	15
	POOR	T207	LAUREL	13
	OMIT	T208	LAUREL*	21
	POOR	T209	LAUREL	17
	POOR	T210	LAUREL	7
	POOR	T211	SLASH	16
	HEALTHY	T212	SLASH	14
	POOR	T213	LAUREL	8
	HEALTHY	T214	SLASH	17
	POOR	T215	LAUREL	10
	HEALTHY	T216	SLASH	17
	POOR	T217	LAUREL	8
	HEALTHY	T219	SLASH	18
	POOR	T220	LAUREL	9
	POOR	T221	LAUREL	15
	OMIT	T222	LAUREL*	20
	POOR	T223	SLASH	14
	POOR	T224	LAUREL	15
	OMIT	T225	LAUREL*	20
	OMIT	T226	LAUREL*	24
			TOTAL	87
			healthy protected tree inches per acre	290
			deteriorated laurels >20" per acre	30
			palm inches per acre	0
			poor protected tree inches per acre	1053

6

ACREAGE 0.3	SECTION 7	TREE	SIZE
	POOR	A002	LAUREL	12
	POOR	A003	LAUREL	12
	HEALTHY	A004	SLASH	16
	HEALTHY	T321	SLASH	30
	POOR	T322	LAUREL	12
	POOR	T323	LAUREL	11
	POOR	T327	LAUREL	8
	POOR	T328	LAUREL	8
	POOR	T328	LAUREL	9
	POOR	T330	LAUREL	6
	OMIT	T331	LAUREL*	20
	POOR	T332	LAUREL	9
	POOR	T333	LAUREL	13
	POOR	T334	LAUREL	12
	POOR	T335	LAUREL	12
	POOR	T336	LAUREL	9
	HEALTHY	T337	SLASH	13
	POOR	T338	LAUREL	9
	POOR	T339	SLASH	15
	POOR	T340	LAUREL	10
	HEALTHY	T341	SLASH	13
			TOTAL	72
			healthy protected tree inches per acre	280
			deteriorated laurels >20" per acre	0
			palm inches per acre	0
			poor protected tree inches per acre	557

6

ACREAGE 0.4	SECTION 8	TREE	SIZE
	HEALTHY	T269	SLASH	17
	POOR	T270	LAUREL	10
	HEALTHY	T271	SLASH	8
	HEALTHY	T271	SLASH	12
	POOR	T272	LAUREL	11
	POOR	T273	SLASH	14
	POOR	T274	LAUREL	13
	POOR	T274	LAUREL	18
	POOR	T275	LAUREL	10
	POOR	T276	LAUREL	13
	POOR	T278	LAUREL	6
	POOR	T279	LAUREL	8
	POOR	T280	LAUREL	8
	POOR	T281	LAUREL	6
	POOR	T282	LAUREL	12
	HEALTHY	T283	SLASH	18
	POOR	T286	LAUREL	8
	HEALTHY	T287	SLASH	14
	POOR	T296	LAUREL	10
	HEALTHY	T297	SLASH	14
	POOR	T298	LAUREL	7
	POOR	T298	LAUREL	11
	POOR	T300	SLASH	12
	POOR	T301	SLASH	7
	POOR	T302	SLASH	7
	POOR	T304	LAUREL	9
	POOR	T305	SLASH	15
	HEALTHY	T306	SLASH	15
	HEALTHY	T307	LAUREL	8
	POOR	T308	LAUREL	7
	POOR	T308	LAUREL	9
	POOR	T309	LAUREL	9
	POOR	T310	LAUREL	10
	POOR	T311	LAUREL	13
	POOR	T312	LAUREL	9
	POOR	T313	LAUREL	6
	POOR	T315	SLASH	20
	POOR	T316	LAUREL	6
	POOR	T317	LAUREL	6
	POOR	T318	LAUREL	7
	HEALTHY	T319	SLASH	16
			TOTAL	122
			healthy protected tree inches per acre	305
			deteriorated laurels >20" per acre	0
			palm inches per acre	0
			poor protected tree inches per acre	793

6

3
4
6

Statistical Protected HEALTHY Tree Plot Totals		
PLOT #	INCHES PER PLOT	INCHES PER ACRE
1	93	372
2	132	440
3	71	284
4	94	376
5	15	60
6	87	290
7	72	240
8	122	305
	AVERAGE PER ACRE	296
20.8 acres clearing	TOTAL INCHES	6154

Statistical Protected POOR Tree Plot Totals		
PLOT #	INCHES PER PLOT	INCHES PER ACRE
1	92	368
2	187	623
3	244	976
4	129	516
5	204	816
6	316	1053
7	167	557
8	317	793
	AVERAGE PER ACRE	713
20.8 acres clearing	TOTAL INCHES	14825

Statistical Protected Tree Saves		
UNCLEARED ACRES	AVERAGE INCHES PER ACRE	TOTAL ESTIMATE
4.07	296	1204

TREE INVENTORY LEGEND:

STATISTICAL SURVEY SECTION
(SEE CHARTS FOR SECTION SQ.FT.)

SCALE: 1" = 100'

0' 50' 100' 200'

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landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida

STATISTICAL TREE MITIGATION PLAN

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1 City Comments 07-26-2024
2 City Comments 09-09-2024
3 City Comments 10-28-2024
4 City Comments 03-07-2025
5 City Comments 05-27-2025

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CITY SUBMITTAL - 2024-04-12

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*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L110

TREE INVENTORY LEGEND:

- SPECIMEN TREE TO BE REMOVED
- SPECIMEN TREE TO BE RETAINED

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

TREE SURVEY LEGEND

- = LIVE OAK
- = LAUREL OAK
- = SLASH PINE
- = SAND PINE
- = PALM

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SPECIMEN REMOVALS	INCHES	CONDITION
I006	19	POOR
I006	12	POOR
I006	18	POOR
I006	13	POOR
C021	12	POOR
C030	11	POOR
C031	12	HEALTHY
C032	10	HEALTHY
C034	16	POOR
C035	17	HEALTHY
C041	13	HEALTHY
C042	12	HEALTHY
C043	12	HEALTHY
C044	14	HEALTHY
C045	13	HEALTHY
C046	10	HEALTHY
C047	13	HEALTHY
C048	10	HEALTHY
C049	11	HEALTHY
C050	10	POOR
C052	10	POOR
C053	10	POOR
C058	10	HEALTHY
C059	15	POOR
C065	12	HEALTHY
C066	12	HEALTHY
C067	13	HEALTHY
C068	13	HEALTHY
C069	12	HEALTHY
C070	10	HEALTHY
C071	11	HEALTHY
C072	10	HEALTHY
C073	10	HEALTHY
C074	10	HEALTHY
A105	10	HEALTHY
A012	10	HEALTHY
A013	11	HEALTHY
A014	11	HEALTHY
A015	15	HEALTHY
A016	10	HEALTHY
A023	10	HEALTHY
A025	18	POOR
A029	12	POOR
A030	15	HEALTHY
A035	12	POOR
A041	11	HEALTHY
T002	10	HEALTHY
T003	13	HEALTHY
T019	19	POOR
T229	11	POOR
T229	10	POOR
T229	10	POOR
T303	10	HEALTHY
T365	13	HEALTHY
T367	12	HEALTHY
T367	13	HEALTHY
T368	10	POOR
T369	10	POOR
T371	10	HEALTHY
HEALTHY	452	
POOR	258	
TOTAL	710	

SCALE: 1" = 100'

0' 50' 100' 200'

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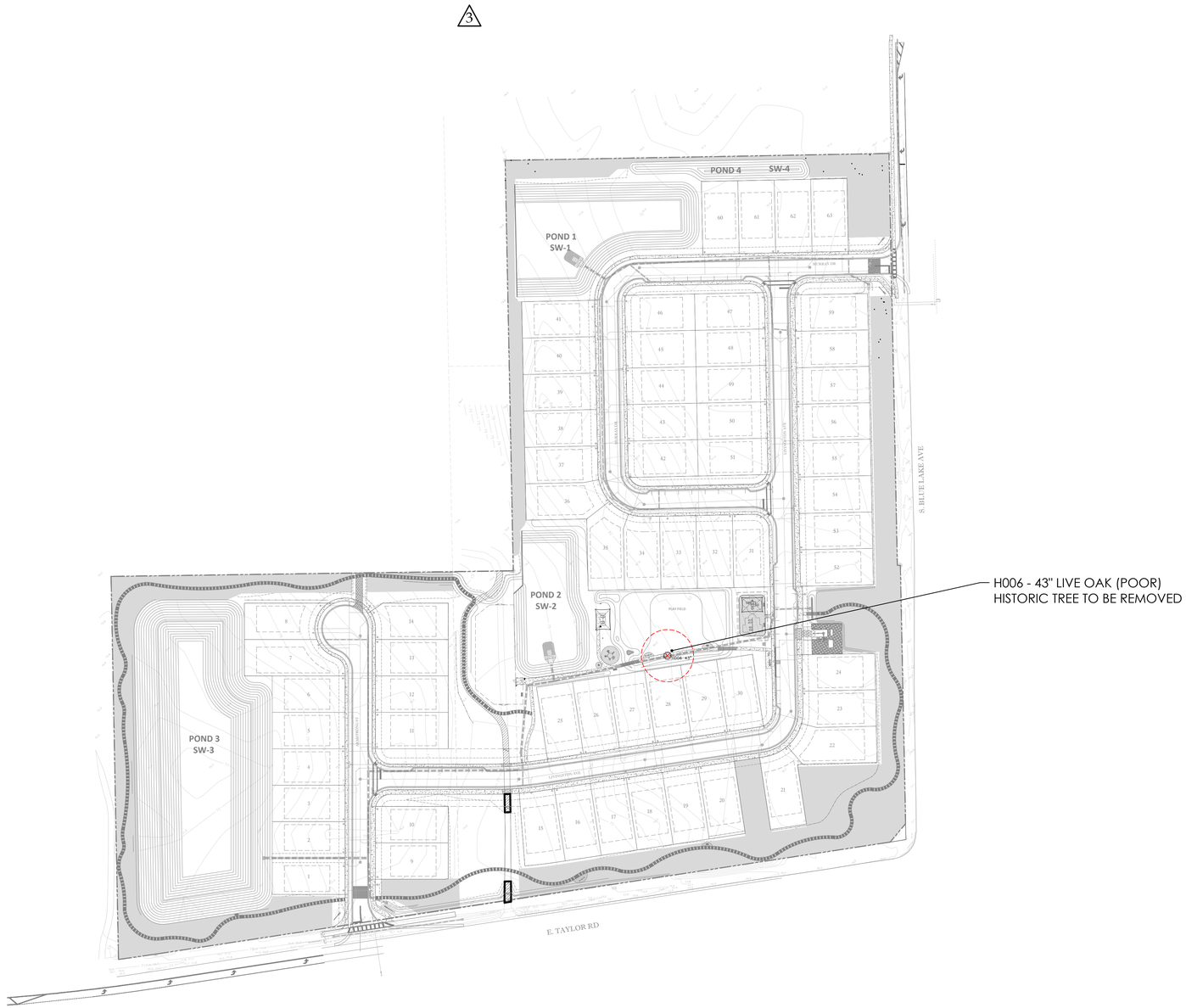

TREE MITIGATION LEGEND

SPECIMEN TREES REMOVED

HISTORIC TREE REMOVED POOR CONDITION

SPECIMEN TREE SAVED

TREE PROTECTION AREA

NATURAL VEGETATION RETENTION AREA

TREE SURVEY LEGEND

= LIVE OAK
= LAUREL OAK
= SLASH PINE
= SAND PINE
= PALM

HISTORIC REMOVALS	INCHES
H006	43
TOTAL	43

*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L110

TREE INVENTORY LEGEND:

HISTORIC TREE TO BE REMOVED

SCALE: 1" = 100'

0' 50' 100' 200'

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community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
HISTORIC TREE MITIGATION PLAN

DATE: April 12, 2024
DRAWN BY: BRL
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JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

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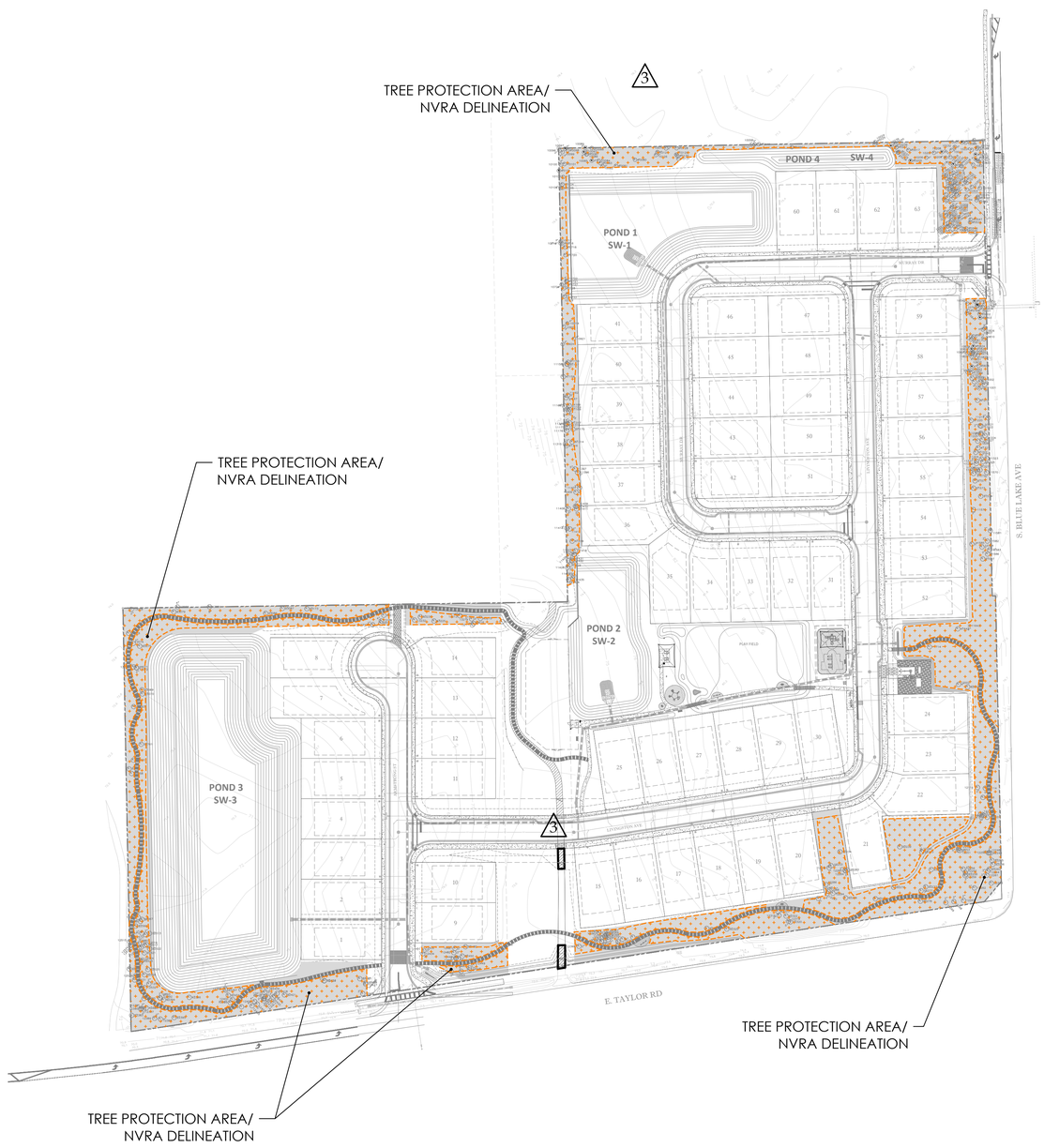

*SEE TREE MITIGATION CALCULATIONS AND TREE PROTECTION FENCE DETAIL ON SHEET L110

TREE INVENTORY LEGEND:

NATURAL VEGETATION RETENTION AREA 2"-5" TREES TO BE RETAINED

NVRA TABULATION

10001	OAK3"	3
10006	OAK2"	2
10009	OAK2"	2
10010	OAK2"	2
10017	OAK2"	2
10019	OAK4"	4
10024	OAK4"	4
10025	OAK5"	5
10058	OAK5"	5
10070	OAK2"	2
10080	OAK4"	4
10081	OAK4"	4
10082	OAK3"	3
10083	OAK3"	3
10084	OAK3"	3
10085	OAK3"	3
10086	OAK3"	3
10087	OAK5"	5
10088	OAK4"	4
10089	OAK4"	4
10093	OAK5"	5
10096	OAK2"	2
10097	OAK5"	5
10098	OAK3"	3
10099	OAK4"-3"	7
10100	OAK3"	3
10101	OAK4"	4
10102	OAK4"	4
10103	OAK2"	2
10104	OAK2"	2
10105	OAK2"	2
10106	OAK2"	2
10126	OAK3"	3
10127	OAK5"	5
10128	OAK5"	5
10129	OAK4"	4
10130	OAK4"	4
10131	OAK4"	4
10147	OAK4"	4
10149	OAK4"	4
10180	OAK2"	2
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10193	OAK3"	3
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10240	OAK3"	3
10241	OAK3"	3
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10306	OAK2"	2
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10308	OAK3"	3
10309	OAK3"	3
10310	OAK2"	2
10311	OAK2"	2
10312	OAK5"	5
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10315	OAK3"	3
10316	OAK2"	2
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10319	OAK3"	3
10320	OAK3"	3
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10324	OAK3"	3
10325	OAK4"	4
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10390	OAK3"	3
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10510	OAK3"	3
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10528	OAK4"	4
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10532	OAK3"	3
10533	OAK2"	2
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10544	OAK5"	5
10545	OAK2"	2
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10547	OAK3"	3
10548	OAK3"	3
10549	OAK3"	3
10551	OAK4"	4
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10554	OAK5"	5
10555	OAK5"	5
10556	OAK2"	2
10557	OAK2"	2
10558	OAK5"	5
10559	OAK5"	5
10566	OAK5"	5
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10642	OAK2"	2
10716	OAK3"-2"	5
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10721	OAK4"	4
10722	OAK4"	4
10724	OAK4"	4
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10733	OAK3"	3
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10807	OAK5"	5
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10823	OAK2"	2
10824	OAK4"	4
10827	OAK3"	3
10828	OAK5"	5
10829	OAK2"	2
10830	OAK3"	3
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10833	OAK2"	2
10834	OAK3"	3
10843	OAK5"	5
10844	OAK5"	5
10919	OAK4"	4
10920	OAK3"	3
10921	OAK4"	4
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11001	OAK2"	2
11002	OAK3"	3
11003	OAK4"	4
11004	OAK4"	4
11005	OAK2"	2
11006	OAK4"	4
11007	OAK5"	5
11015	OAK3"	3
11021	OAK2"	2
11156	OAK5"	5
11157	OAK2"	2
11158	OAK5"	5
11159	OAK4"	4
11162	OAK5"	5
11164	OAK4"	4
11165	OAK2"	2
11166	OAK2"	2
11167	OAK2"	2
11168	OAK2"	2
11169	OAK4"	4
11175	OAK3"	3
11176	OAK2"	2
11177	OAK4"	4
11216	OAK5"	5
11219	OAK2"	2
11220	OAK5"	5
11221	OAK2"	2
11222	OAK2"	2
11224	OAK3"	3
11225	OAK5"	5
11226	OAK3"	3
11227	OAK4"	4
11228	OAK4"	4
11314	OAK5"	5
11315	OAK5"	5
11316	OAK5"	5
11317	OAK4"	4
11318	OAK4"	4
11319	OAK4"	4
11321	OAK4"	4
11322	OAK5"	5
11323	OAK2"	2
11324	OAK4"	4
11325	OAK5"	5
11327	OAK5"	5
11328	OAK5"	5
11329	OAK2"	2
11330	OAK4"	4
11331	OAK5"	5
11396	OAK3"	3
11397	OAK5"	5
11406	OAK2"	2
11407	OAK3"	3
11408	OAK3"	3
11409	OAK3"	3
11410	OAK3"	3
11411	OAK5"	5
11412	OAK3"	3
11413	OAK3"	3
11416	OAK4"	4
11418	OAK2"	2
11419	OAK5"	5
11426	OAK3"	3
11427	OAK2"	2
11428	OAK3"	3
11429	OAK2"	2
11430	OAK3"	3
11431	OAK3"	3
11433	OAK2"	2
11434	OAK2"	2
11435	OAK4"	4
11570	OAK2"	2
11571	OAK2"	2
11572	OAK2"	2
11573	OAK2"	2
11574	OAK3"	3
11579	OAK3"	3
11581	OAK3"	3
11582	OAK3"	3
11583	OAK2"	2
11584	OAK2"	2
11585	OAK2"	2
11586	OAK2"	2
11587	OAK2"	2
11642	OAK4"	4
11714	OAK5"	5
12001	OAK5"	5
12002	OAK4"	4
12114	OAK5"	5
12115	OAK2"	2
12116	OAK2"	2
12117	OAK2"	2
12118	OAK3"	3
12119	OAK3"	3
12120	OAK2"	2
12121	OAK2"	2
12232	OAK3"	3
12233	OAK2"	2
12234	OAK5"	5
12239	OAK2"	2
12243	OAK2"	2
12248	OAK2"	2
12249	OAK5"	5
12250	OAK2"	2
12251	OAK2"	2
12252	OAK3"	3
12253	OAK5"	5
12256	OAK2"	2
12257	OAK2"	2
12258	OAK2"	2
12259	OAK2"	2
12261	OAK2"	2
12262	OAK5"	5
12263	OAK2"	2
12264	OAK3"	3
12265	OAK3"	3
12266	OAK2"	2
12267	OAK2"	2
12268	OAK3"	3
12269	OAK2"	2
12273	OAK2"	2
12274	OAK2"	2
12276	OAK3"	3
12277	OAK3"	3
12278	OAK2"	2
12281	OAK5"	5
12283	OAK2"	2
12284	OAK3"	3
12285	OAK2"	2
12286	OAK2"	2
12287	OAK2"	2
12288	OAK5"	5
12289	OAK2"	2
12293	OAK3"	3
12294	OAK4"	4
12295	OAK5"	5
12318	OAK2"	2
12320	OAK3"	3
12321	OAK5"	5
12322	OAK4"	4
12323	OAK5"	5
12325	OAK3"	3
12333	OAK3"	3
12335	OAK4"	4
12361	OAK2"	2
12362	OAK2"	2
12363	OAK2"	2
12364	OAK2"	2
12365	OAK2"-2"	4
12366	OAK2"	2
12367	OAK2"	2
12368	OAK3"	3
12369	OAK4"	4
12370	OAK2"	2
12371	OAK2"	2
12372	OAK2"	2
12373	OAK3"	3
12374	OAK3"	3
12375	OAK4"	4
12376	OAK4"	4
12377	OAK2"	2
12383	OAK5"	5
12385	OAK3"	3
12386	OAK4"-3"	7
12387	OAK3"	3
12388	OAK4"	4
12389	OAK2"	2
12390	OAK2"	2
12391	OAK3"	3
12392	OAK2"	2
12393	OAK2"	2
12394	OAK5"	5
12395	OAK2"	2
12396	OAK4"	4
12397	OAK2"	2
12398	OAK2"	2
12399	OAK3"-3"	6
12400	OAK4"	4
12403	OAK5"-4"-3"	12
12404	OAK4"	4
12405	OAK4"	4
12406	OAK4"	4
12407	OAK5"	5
12408	OAK4"	4
12409	OAK5"	5
12410	OAK4"	4
12412	OAK5"-3"	8
12413	OAK3"	3
12414	OAK2"	2
12415	OAK2"	2
12416	OAK5"	5
12417	OAK3"	3
12418	OAK4"	4
12419	OAK3"	3
12420	OAK5"	5
12421	OAK5"	5
12423	OAK3"	3
12424	OAK2"	2
12425	OAK5"-5"	10
12426	OAK3"	3
12427	OAK2"	2
12428	OAK2"	2
12434	OAK3"	3
12435	OAK3"	3
12442	OAK3"	3
12443	OAK2"	2
12444	OAK2"	2
12445	OAK3"	3
12446	OAK4"	4
12447	OAK3"	3
12448	OAK2"	2
12449	OAK2"	2
12450	OAK5"	5
12456	OAK5"	5
12480	OAK5"	5
12481	OAK2"	2
12482	OAK3"	3
12515	OAK2"	2
12516	OAK2"	2
12517	OAK2"	2
12518	OAK2"	2
12519	OAK3"	3
12520	OAK3"	3
12521	OAK2"	2
12522	OAK2"	2
12523	OAK2"	2
12524	OAK3"	3
12525	OAK2"	2
12528	OAK3"	3
12529	OAK3"	3
12530	OAK3"	3
12531	OAK2"	2
12532	OAK3"	3
12533	OAK2"	2
12567	OAK2"	2
12568	OAK3"	3
12569	OAK2"	2
12570	OAK2"	2
12571	OAK2"	2
12572	OAK2"	2
12573	OAK3"	3
12574	OAK4"	4
12575	OAK5"	5
12758	OAK2"	2
12759	OAK2"	2
12760	OAK2"	2
12761	OAK3"	3
12763	OAK2"	2
13099	OAK2"	2
13070	OAK2"	2
13071	OAK2"	2
13072	OAK2"	2
13073	OAK3"	3
13074	OAK2"	2
13075	OAK5"	5
13076	OAK2"	2
13078	OAK2"	2
13079	OAK2"	2
13080	OAK4"	4
13081	OAK5"	5
13086	OAK2"	2
13087	OAK2"	2
13173	OAK2"	2
13174	OAK2"	2
13176	OAK3"	3
13178	OAK4"	4
13179	OAK3"	3
13206	OAK2"	2
13213	OAK2"	2
13214	OAK3"	3
13215	OAK4"	4
13216	OAK5"	5
13217	OAK4"	4
13230	OAK5"	5
13232	OAK3"	3
13235	OAK5"	5
TOTAL INCHES		**1497**

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

TREE SURVEY LEGEND

- = LIVE OAK
- = LAUREL OAK
- = SLASH PINE
- = SAND PINE
- = PALM

SCALE: 1" = 100'

0' 50' 100' 200'

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BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida

NATURAL VEGETATION RETENTION AREA PLAN

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1. City Comments 07-26-2024
2. City Comments 09-09-2024
3. City Comments 10-28-2024
4. City Comments 03-07-2025

This item has been electronically signed and sealed by Todd W. Bonnett, RLA FLA1718 using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Originally signed by Todd W Bonnett
Date: 2025.06.17 16:57:15-04'00'

Todd W. Bonnett, RLA # FLA0001718

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L104

DRAWING PLOTTED: 4/18/2025 2:15:20 PM
Z:\SHARED\BONNETT DESIGN GROUP\2021\2021.188_HANOVER - TAYLOR RIDGE\DESIGN\2021.188_HANOVER-TAYLOR RIDGE_LSBASE.DWG

OVERALL TREE CALCULATIONS:

Tree Protection Table (Per Civil Plans)		
Total Site Area	26.01	AC
Net Developable Area	24.87	AC
Residential Lot Area	10.44	AC
Internal Right of Way	3.59	AC
Tract Area	11.90	AC
Lift Station	0.08	AC
Stormwater Tract	4.44	AC
Powerline Easement	1.14	AC
Open Space	2.22	AC
Tree Protection Required	**3.73**	**AC**
Tree Protection Area Provided	4.10	AC

Tree Coverage Table	REQUIRED	PROPOSED	UNIT
Net Developable Area	24.87		AC
Minimum Coverage Trees (1,083,337 / 2,500)	**433**	**744**	**Trees**
Minimum DBH Coverage (433x 6")	**2,598**	**4,267**	**Inches**
Specimen Inches Retained (Sheet L102	710	203	Inches
Protected Inches Retained (from Statistical Survey)	390	1,204	Inches
NVRA Inches Retained (Sheet L104)		1,497	Inches
Total Proposed Inches (Sheet L430)		1,363	Inches
Overage Inches		**1,669**	**Inches**

Specimen Tree Summary		
Total Specimen Trees on Site	75	Trees
Specimen Trees per Acre (Total Trees / 26)	2.88	Trees
Per Code Specimen Trees to be retained per Acre	100%	Trees
Minimum Number of Specimen Trees to be Retained (100%)	75	Trees
Total Specimen Trees to be Protected / Retained	16	Trees

Common Area Tree Replacement Table				
Total Trees in Common Areas	250	Trees	500	Inches
Total Palms in Common Areas to Replace Palms	117	12" dbh Trees	468	1/3 Inches Credit
Total Common Area Street Trees	25	Trees	50	Inches
Total Trees to Replace Deteriorated Laurels >20"	151	Trees	302	Inches
Total Trees to Replace Historic Removals	9	Trees	45	Inches
Total Common Area Plantings	**552**	**Trees**	**1,365**	**Inches**

*SEE SHEET L430 FOR PROPOSED PLANT SCHEDULE

Lot Trees Replacement Table				
Total 60' x 115' (One 4" DBH palm/ Lot)(Max. 25%)	48	Lots	192	Inches
Total 60' x 115' (Three 3" DBH Trees/ Lot)	60	Lots	540	Inches
Total 60' x 115' (Four 3" DBH Trees/ Lot)	3	Lots	36	Inches
Total Lot Tree Replacement	**240**	**Trees**	**768**	**Inches**

*49 PALMS ARE IN ADDITION TO REQUIRED CANOPY TREES

Palm Tree Summary		
Palm Tree credits in Common Areas	468	Inches
Palm Tree credits on Lots	192	Inches
Total Credits for Palm Trees (19.35%)	**660**	**Inches**
Maximum Palm Credits per Code (25% x 3,432)	972	Inches

SPECIMEN REMOVALS	INCHES	CONDITION
I006	19	POOR
I006	12	POOR
I006	18	POOR
I006	13	POOR
C021	12	POOR
C030	11	POOR
C031	12	HEALTHY
C032	10	HEALTHY
C034	16	POOR
C035	17	HEALTHY
C041	13	HEALTHY
C042	12	HEALTHY
C043	12	HEALTHY
C044	14	HEALTHY
C045	13	HEALTHY
C046	10	HEALTHY
C047	13	HEALTHY
C048	10	HEALTHY
C049	11	HEALTHY
C050	10	POOR
C052	10	POOR
C053	10	POOR
CO58	10	HEALTHY
C059	15	POOR
C065	12	HEALTHY
C066	10	HEALTHY
C067	13	HEALTHY
C068	13	HEALTHY
C069	12	HEALTHY
C070	10	HEALTHY
C071	11	HEALTHY
C072	10	HEALTHY
C073	10	HEALTHY
C074	10	HEALTHY
A 105	10	HEALTHY
A012	10	HEALTHY
A013	11	HEALTHY
A014	11	HEALTHY
A015	15	HEALTHY
A016	10	HEALTHY
A023	10	HEALTHY
A025	18	POOR
A029	12	POOR
A030	15	HEALTHY
A035	12	POOR
A041	11	HEALTHY
T002	10	HEALTHY
T003	13	HEALTHY
T019	19	POOR
T229	11	POOR
T229	10	POOR
T229	10	POOR
T303	10	HEALTHY
T365	13	HEALTHY
T367	12	HEALTHY
T367	13	HEALTHY
T368	10	POOR
T369	10	POOR
T371	10	HEALTHY
HEALTHY	**452**	
POOR	**258**	
TOTAL	**710**	

Tree Replacement Table		
Historic Trees to be Removed	43	Inches
Specimen Trees to be Removed (Healthy)	452	Inches
Specimen Trees to be Removed (Poor)	258	Inches
Required Mitigation for Specimen Removal	312	Inches
Healthy Protected Tree Removal at 1/3 (Statistical)	2,051	Inches
Poor Protected Tree Removal at 10% (Statistical)	1,482	Inches
Total Number of Tree Replacement Required	**3,889**	**Inches**
Total Trees to be Planted on Lots & Common Areas	1,363	Inches
Total Credit for NVRA (2" DBH to 5" DBH)	1,497	Inches
Net Mitigation Required	**1,029**	**Inches**

Replacement Summary		
Total Common Area Plantings for mitigation	595	Inches
Total Lot Trees Planting	768	Inches
Grand Total	**1,363**	**Inches**

Inches deficit	1,029
total contribution is DBH deficit multiplied by 75. (1" = $75)	**$77,165.75**

HISTORIC REMOVALS	INCHES
H006	43
TOTAL	**43**

*SEE "QV-H" IN PLANT SCHEDULE FOR HISTORIC TREE REPLACEMENT

SPECIMEN SAVES	INCHES
C004	13
C022	10
C024	10
C025	19
C025	20
C026	18
C036	11
C037	14
C038	10
C039	10
C040	12
C051	10
C056	16
C057	10
C063	10
C064	10
TOTAL	**203**

STATISTICAL TREE CALCULATIONS:

SITE DATA	ACRES
DEVELOPABLE AREA	24.87
UNCLEARED	4.07
CLEARING AREA	**20.8**

*GRADING LIMITS PROVIDED BY CIVIL

Statistical Protected HEALTHYTree Inches Summary		
TOTAL INCHES	**AVERAGE INCHES PER ACRE**	**TOTAL ESTIMATE**
2367	**296**	**6154**

*SEE TREE MITIGATION CALCULATIONS

Statistical Protected POOR Tree Inches Summary		
TOTAL INCHES	**AVERAGE INCHES PER ACRE**	**TOTAL ESTIMATE**
5702	**713**	**14825**

Statistical Deteriorated Laurel Oak >20" Summary		
TOTAL TREES	**AVERAGE TREES PER ACRE**	**TOTAL ESTIMATE**
58	**7**	**151**

*151 LONGLEAF PINES AT 3" CALIPER PROVIDED TO REPLACE THE 151 DETERIORATED LAURELS >20"

Statistical Palm Tree Inches Summary		
TOTAL INCHES	**AVERAGE INCHES PER ACRE**	**TOTAL ESTIMATE**
180	**23**	**468**

*A TOTAL OF 117 PALMS (468" DBH) PROVIDED IN OPEN SPACE TO MITIGATE THE REQUIRED 468" DBH

20.8 acres clearing	**AVERAGE PER ACRE**	**296**
	TOTAL INCHES	**6154**

*A TOTAL ESTIMATE OF 4,105 PROTECTED INCHES REMAIN IN UNCLEARED TREE PROTECTION AREAS

Statistical Protected HEALTHY Tree Plot Totals		
PLOT #	**INCHES PER PLOT**	**INCHES PER ACRE**
1	93	372
2	132	440
3	71	284
4	94	376
5	15	60
6	87	290
7	72	240
8	122	305
	AVERAGE PER ACRE	**296**
20.8 acres clearing	**TOTAL INCHES**	**6154**

Statistical Protected POOR Tree Plot Totals		
PLOT #	**INCHES PER PLOT**	**INCHES PER ACRE**
1	92	368
2	187	623
3	244	976
4	129	516
5	204	816
6	316	1053
7	167	557
8	317	793
	AVERAGE PER ACRE	**713**
20.8 acres clearing	**TOTAL INCHES**	**14825**

ACREAGE

0.25	SECTION 1	TREE	SIZE
POOR	A062	LAUREL	16
POOR	A063	LIVE	7
POOR	A064	LAUREL	14
POOR	A065	LAUREL	6
HEALTHY	A066	LAUREL	10
HEALTHY	A067	SLASH	14
POOR	A068	SLASH	6
POOR	A069	LAUREL	12
POOR	A070	LIVE	6
POOR	A071	LAUREL	10
POOR	A072	LIVE	8
HEALTHY	A073	SLASH	9
HEALTHY	A074	LAUREL	13
HEALTHY	A075	LIVE	9
HEALTHY	A075	LIVE	9
POOR	A084	LAUREL	7
HEALTHY	A085	LAUREL	10
HEALTHY	A086	SLASH	11
HEALTHY	A087	LAUREL	8
		TOTAL	93

healthy protected tree inches per acre 372
deteriorated laurels >20" per acre 0
palm inches per acre 0
poor protected tree inches per acre 368

ACREAGE

0.3	SECTION 2	TREE	SIZE
HEALTHY	A116	SLASH	20
POOR	A117	SLASH	14
POOR	A118	LIVE	9
HEALTHY	A119	LAUREL	8
POOR	A120	LAUREL	14
POOR	A121	LAUREL	10
POOR	A121	LAUREL	12
HEALTHY	A122	SLASH	14
POOR	A123	LAUREL	14
HEALTHY	A124	SLASH	18
POOR	A125	LAUREL	9
POOR	A126	LAUREL	11
POOR	A127	LAUREL	15
POOR	A128	LIVE	7
POOR	A129	LIVE	6
POOR	A130	LIVE	8
HEALTHY	A131	SLASH	15
POOR	A132	LAUREL	17
POOR	A134	LAUREL	12
POOR	A135	LAUREL	11
POOR	A135	LAUREL	8
HEALTHY	A136	SLASH	22
HEALTHY	A137	LAUREL	11
POOR	A138	LAUREL	10
HEALTHY	A139	LAUREL	7
HEALTHY	A140	SLASH	17
		TOTAL	132

healthy protected tree inches per acre 440
deteriorated laurels >20" per acre 0
palm inches per acre 0
poor protected tree inches per acre 623

ACREAGE

0.25	SECTION 3	TREE	SIZE
POOR	T131	LAUREL	16
POOR	T132	LAUREL	9
POOR	T133	LAUREL	11
POOR	T134	SAND	25
POOR	T136	LAUREL	9
HEALTHY	T137	LAUREL	12
POOR	T138	BLACK CHERRY	9
HEALTHY	T140	LAUREL	12
POOR	T141	LAUREL	10
POOR	T145	LAUREL	6
HEALTHY	T147	LAUREL	12
POOR	T148	LAUREL	10
POOR	T149	LAUREL	10
POOR	T150	LAUREL	8
POOR	T151	LAUREL	15
POOR	T152	LAUREL	13
POOR	T153	LAUREL	11
POOR	T154	SLASH	16
HEALTHY	T155	LAUREL	17
POOR	T156	LAUREL	8
POOR	T157	LAUREL	6
POOR	T158	LAUREL	7
OMIT	T164	LAUREL*	21
POOR	T164	LAUREL	11
POOR	T164	LAUREL	18
POOR	T165	LAUREL	16
HEALTHY	T166	LAUREL	18
OMIT	T167	LAUREL*	43
		TOTAL	71

healthy protected tree inches per acre 284
deteriorated laurels >20" per acre 8
palm inches per acre 0
poor protected tree inches per acre 976

ACREAGE

0.25	SECTION 4	TREE	SIZE
POOR	T015	LAUREL	12
POOR	T016	SLASH	12
POOR	T017	LAUREL	7
POOR	T018	LAUREL	9
HEALTHY	T020	SLASH	17
HEALTHY	T020	SLASH	16
POOR	T021	LAUREL	15
HEALTHY	T022	LAUREL	9
POOR	T023	LAUREL	11
HEALTHY	T024	LAUREL	10
HEALTHY	T025	LAUREL	11
OMIT	T026	PALM*	25
HEALTHY	T027	LAUREL	10
POOR	T028	LAUREL	8
POOR	T029	LAUREL	6
POOR	T029	LAUREL	7
POOR	T030	LAUREL	6
HEALTHY	T031	SLASH	8
HEALTHY	T037	LAUREL	13
POOR	T038	LAUREL	12
POOR	T039	LAUREL	9
POOR	T040	LAUREL	15
		TOTAL	94

healthy protected tree inches per acre 376
deteriorated laurels >20" per acre 0
palm inches per acre 100
poor protected tree inches per acre 516

ACREAGE

0.25	SECTION 5	TREE	SIZE
POOR	T046	LAUREL	11
POOR	T047	LAUREL	9
POOR	T048	LAUREL	7
POOR	T049	LAUREL	9
POOR	T050	LAUREL	9
POOR	T051	LAUREL	6
POOR	T051	LAUREL	7
POOR	T052	LAUREL	8
POOR	T053	LAUREL	9
OMIT	T054	LAUREL*	40
POOR	T055	LAUREL	7
POOR	T056	LAUREL	13
HEALTHY	T057	SLASH	15
POOR	T058	LAUREL	7
POOR	T059	LAUREL	18
OMIT	T061	LAUREL*	24
OMIT	T063	LAUREL*	23
POOR	T066	LAUREL	7
POOR	T069	LAUREL	7
POOR	T070	LAUREL	8
POOR	T071	LAUREL	6
POOR	T072	SLASH	17
OMIT	T073	PALM*	20
POOR	T074	LAUREL	9
OMIT	T075	LAUREL*	20
POOR	T076	LAUREL	17
POOR	T077	LAUREL	13
		TOTAL	15

healthy protected tree inches per acre 60
deteriorated laurels >20" per acre 16
palm inches per acre 80
poor protected tree inches per acre 816

ACREAGE

0.3	SECTION 6	TREE	SIZE
HEALTHY	T184	SLASH	15
POOR	T185	SLASH	14
POOR	T186	LAUREL	12
POOR	T187	LAUREL	13
OMIT	T188	LAUREL*	22
POOR	T189	LAUREL	15
POOR	T189	LAUREL	17
POOR	T190	LAUREL	19
POOR	T191	LAUREL	6
POOR	T192	LAUREL	8
OMIT	T193	LAUREL*	41
POOR	T194	LAUREL	19
POOR	T195	LAUREL	18
POOR	T196	SLASH	15
OMIT	T197	LAUREL*	20
OMIT	T197	LAUREL*	21
POOR	T198	LAUREL	13
OMIT	T201	LAUREL*	20
HEALTHY	T205	LAUREL	6
POOR	T206	LAUREL	15
POOR	T207	LAUREL	13
OMIT	T208	LAUREL*	21
POOR	T209	LAUREL	17
POOR	T210	LAUREL	7
POOR	T211	SLASH	16
HEALTHY	T212	SLASH	14
POOR	T213	LAUREL	8
HEALTHY	T214	SLASH	17
POOR	T215	LAUREL	10
HEALTHY	T216	SLASH	17
POOR	T217	LAUREL	8
HEALTHY	T219	SLASH	18
POOR	T220	LAUREL	9
POOR	T221	LAUREL	15
OMIT	T222	LAUREL*	20
POOR	T223	SLASH	14
POOR	T224	LAUREL	15
OMIT	T225	LAUREL*	20
OMIT	T226	LAUREL*	24
		TOTAL	87

healthy protected tree inches per acre 290
deteriorated laurels >20" per acre 0
palm inches per acre 0
poor protected tree inches per acre 1053

ACREAGE

0.3	SECTION 7	TREE	SIZE
POOR	A002	LAUREL	12
POOR	A003	LAUREL	12
HEALTHY	A004	SLASH	16
HEALTHY	T321	SLASH	30
POOR	T322	LAUREL	12
POOR	T323	LAUREL	11
POOR	T327	LAUREL	8
POOR	T328	LAUREL	8
POOR	T328	LAUREL	9
POOR	T330	LAUREL	6
OMIT	T331	LAUREL*	20
POOR	T332	LAUREL	9
POOR	T333	LAUREL	13
POOR	T334	LAUREL	12
POOR	T335	LAUREL	12
POOR	T336	LAUREL	9
HEALTHY	T337	SLASH	13
POOR	T338	LAUREL	9
POOR	T339	SLASH	15
POOR	T340	LAUREL	10
HEALTHY	T341	SLASH	13
		TOTAL	72

healthy protected tree inches per acre 220
deteriorated laurels >20" per acre 4
palm inches per acre 0
poor protected tree inches per acre 557

ACREAGE

0.4	SECTION 8	TREE	SIZE
HEALTHY	T269	SLASH	17
POOR	T270	LAUREL	10
HEALTHY	T271	SLASH	8
HEALTHY	T271	SLASH	12
POOR	T272	LAUREL	11
POOR	T273	SLASH	14
POOR	T274	LAUREL	13
POOR	T274	LAUREL	18
POOR	T275	LAUREL	10
POOR	T276	LAUREL	13
POOR	T278	LAUREL	6
POOR	T279	LAUREL	8
POOR	T280	LAUREL	8
POOR	T281	LAUREL	6
POOR	T282	LAUREL	12
HEALTHY	T283	SLASH	18
POOR	T286	LAUREL	8
HEALTHY	T287	SLASH	14
POOR	T296	LAUREL	10
HEALTHY	T297	SLASH	14
POOR	T298	LAUREL	7
POOR	T298	LAUREL	11
POOR	T300	SLASH	12
POOR	T301	SLASH	7
POOR	T302	SLASH	7
POOR	T304	LAUREL	9
POOR	T305	SLASH	15
HEALTHY	T306	SLASH	15
HEALTHY	T307	LAUREL	8
POOR	T308	LAUREL	7
POOR	T308	LAUREL	9
POOR	T309	LAUREL	9
POOR	T310	LAUREL	10
POOR	T311	LAUREL	13
POOR	T312	LAUREL	9
POOR	T313	LAUREL	6
POOR	T315	SLASH	20
POOR	T316	LAUREL	6
POOR	T317	LAUREL	6
POOR	T318	LAUREL	7
HEALTHY	T319	SLASH	16
		TOTAL	122

healthy protected tree inches per acre 305
deteriorated laurels >20" per acre 0
palm inches per acre 0
poor protected tree inches per acre 793

Bdg

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landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida

TREE MITIGATION CALCULATIONS

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1. City Comments 07-26-2024
2. City Comments 09-09-2024
3. City Comments 10-28-2024
4. City Comments 03-07-2025
5. City Comments 05-27-2025

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Todd W. Bonnett, RLA # FL0001718

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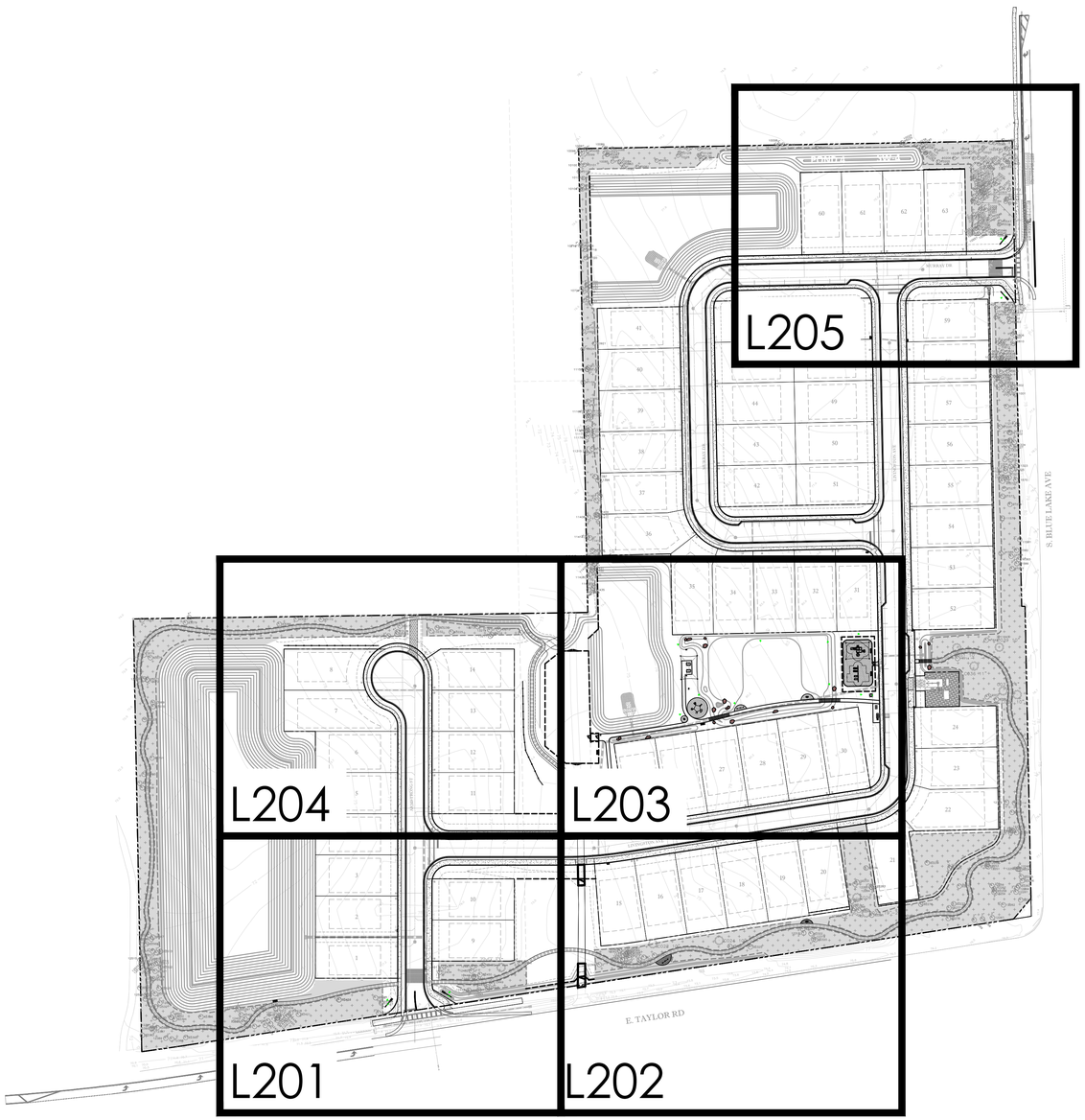

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407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
OVERALL LAYOUT PLAN

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
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0' 50' 100' 200'

L200

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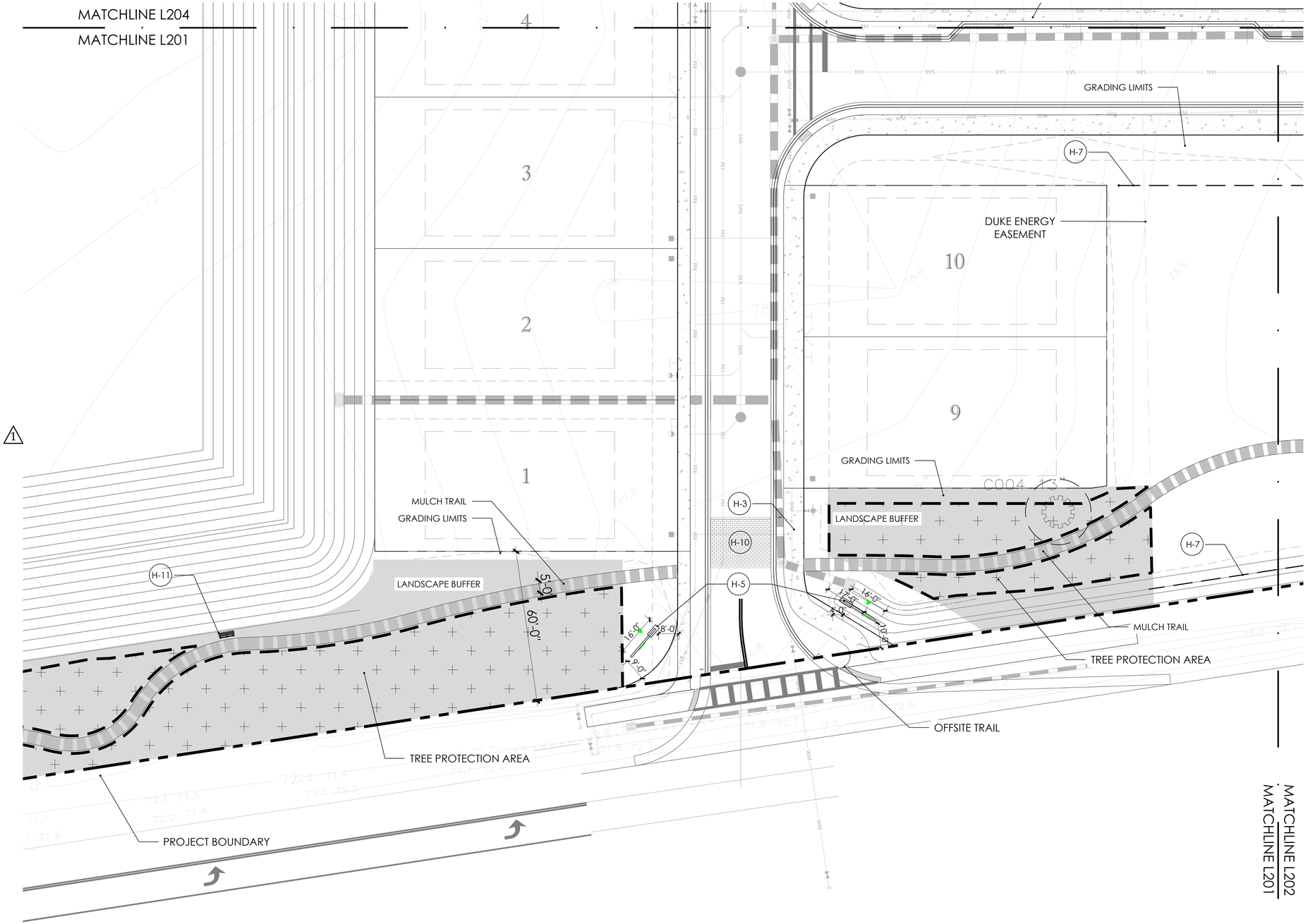

HARDSCAPE SCHEDULE

- H-1 SHADE STRUCTURE
- H-2 BOARDWALK
- H-3 CONCRETE WALK, REFER TO CIVIL PLANS
- H-4 MAIL BOXES
- H-5 COMMUNITY SIGN
- H-6 PLAY FENCE
- H-7 DECORATIVE FENCE
- H-8 DOG FENCE
- H-9 DOG PARK SIGN, BAGS, & TRASH CAN
- H-10 VEHICULAR PAVERS
- H-11 BENCH
- H-12 BICYCLE RACK
- H-13 TRASH RECEPTACLE
- H-14 PLAY EQUIP.
- H-15 PLAY SURFACE
- H-16 RIVER ROCK MULCH
- H-17 LANDSCAPE BOULDER
- H-18 TREE UP LIGHT
- H-19 SIGN FLOOD LIGHT

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 20'

0' 10' 20' 40'

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landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
LAYOUT PLAN

DATE:	April 12, 2024
DRAWN BY:	BRL
CHECKED BY:	TWB
JOB NUMBER:	2021.188
FILE NAME:	2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:

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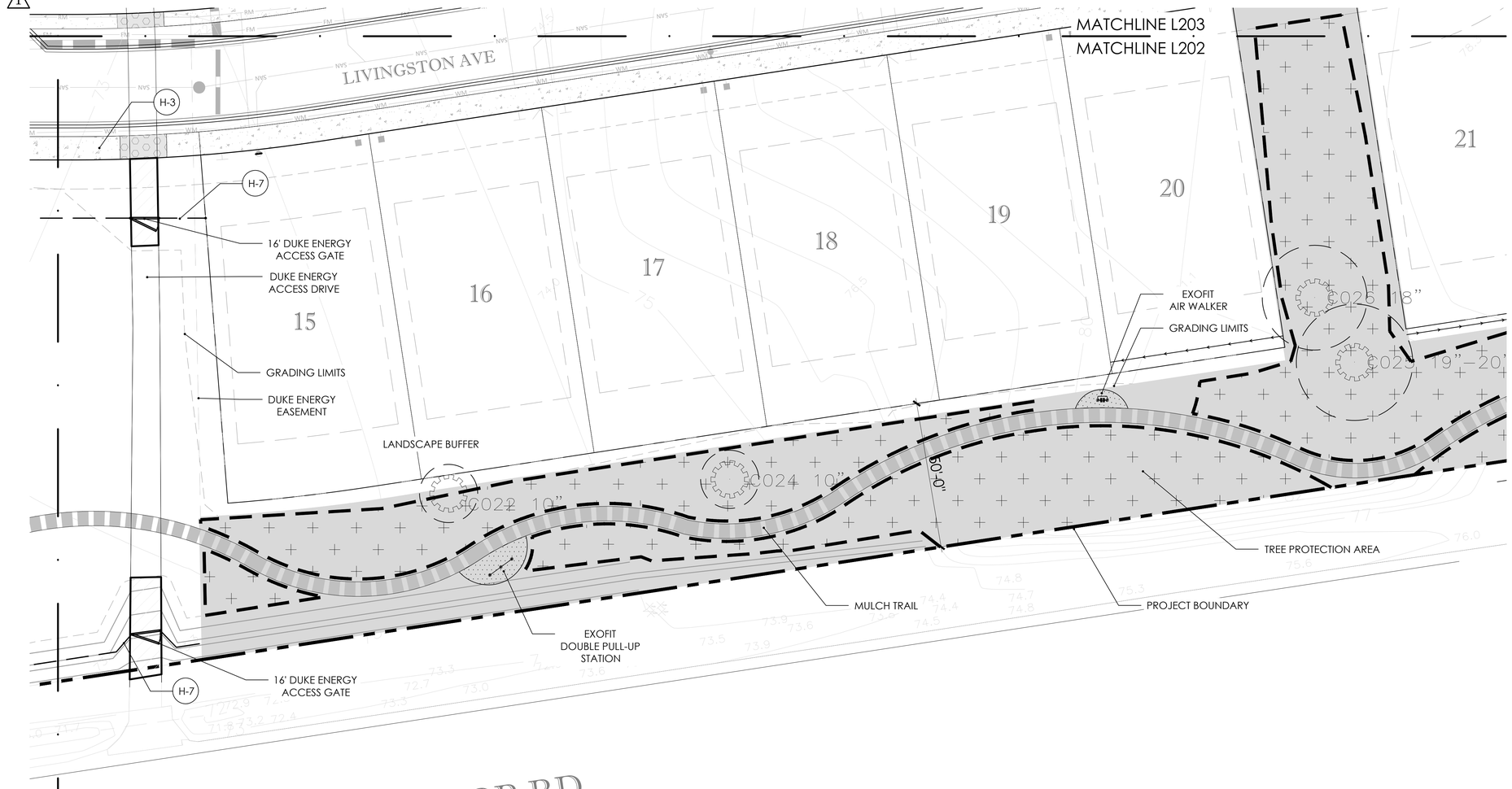

MATCHLINE L202
MATCHLINE L201

HARDSCAPE SCHEDULE

- H-1 SHADE STRUCTURE
- H-2 BOARDWALK
- H-3 CONCRETE WALK, REFER TO CIVIL PLANS
- H-4 MAIL BOXES
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- H-17 LANDSCAPE BOULDER
- H-18 TREE UP LIGHT
- H-19 SIGN FLOOD LIGHT

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 20'

0' 10' 20' 40'

Bdg

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landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
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407.622.1588

Taylor Ridge
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Hanover Land Company, LLC
Deland, Florida
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DATE: April 12, 2024
DRAWN BY: BRL
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JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

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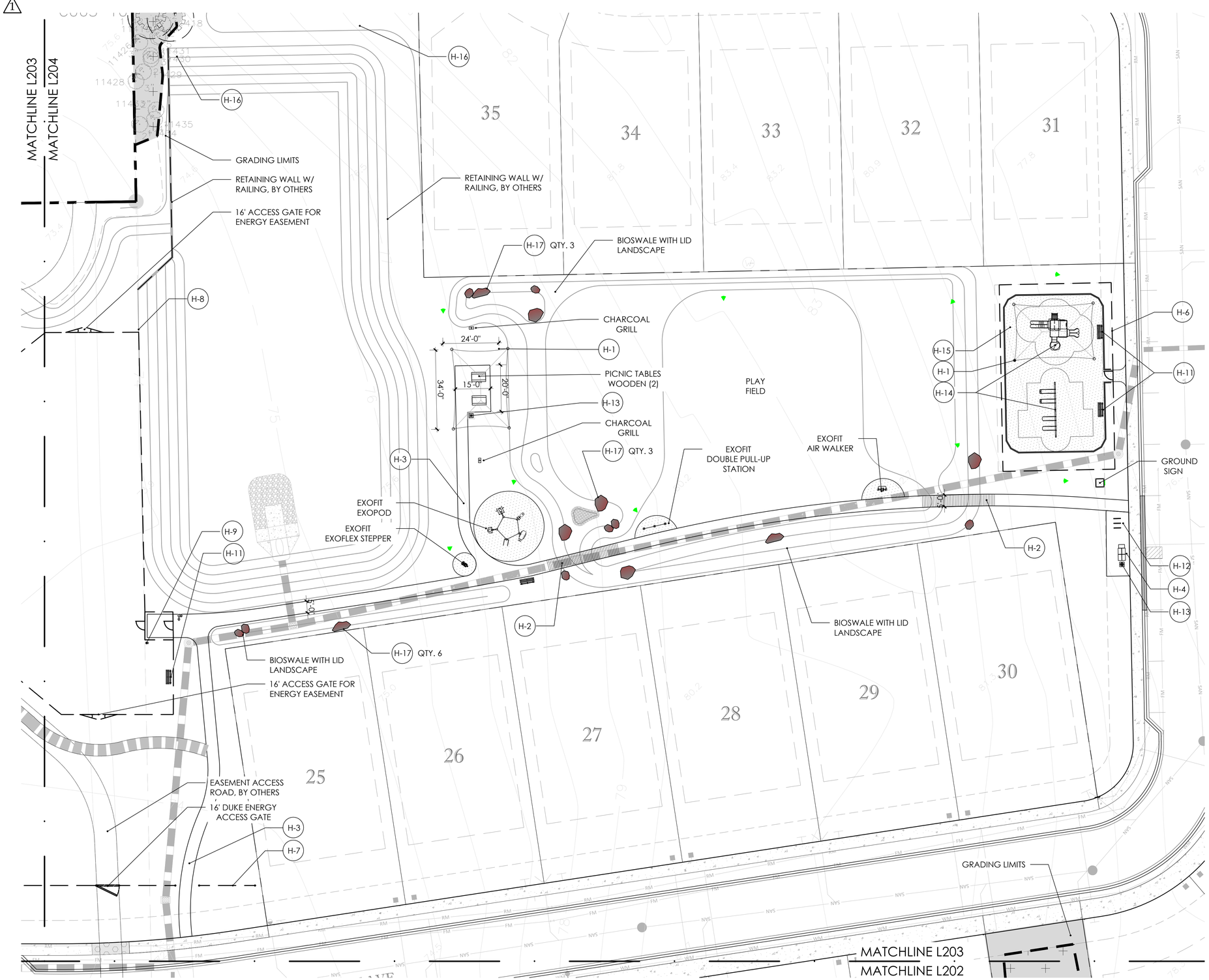

HARDSCAPE SCHEDULE

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- H-17 LANDSCAPE BOULDER
- H-18 TREE UP LIGHT
- H-19 SIGN FLOOD LIGHT

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 20'

0' 10' 20' 40'

Bdg

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FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
LAYOUT PLAN

DATE: April 12, 2024
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CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 021.188_HANOVER-TAYLOR RIDGE_LSBASE

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L203

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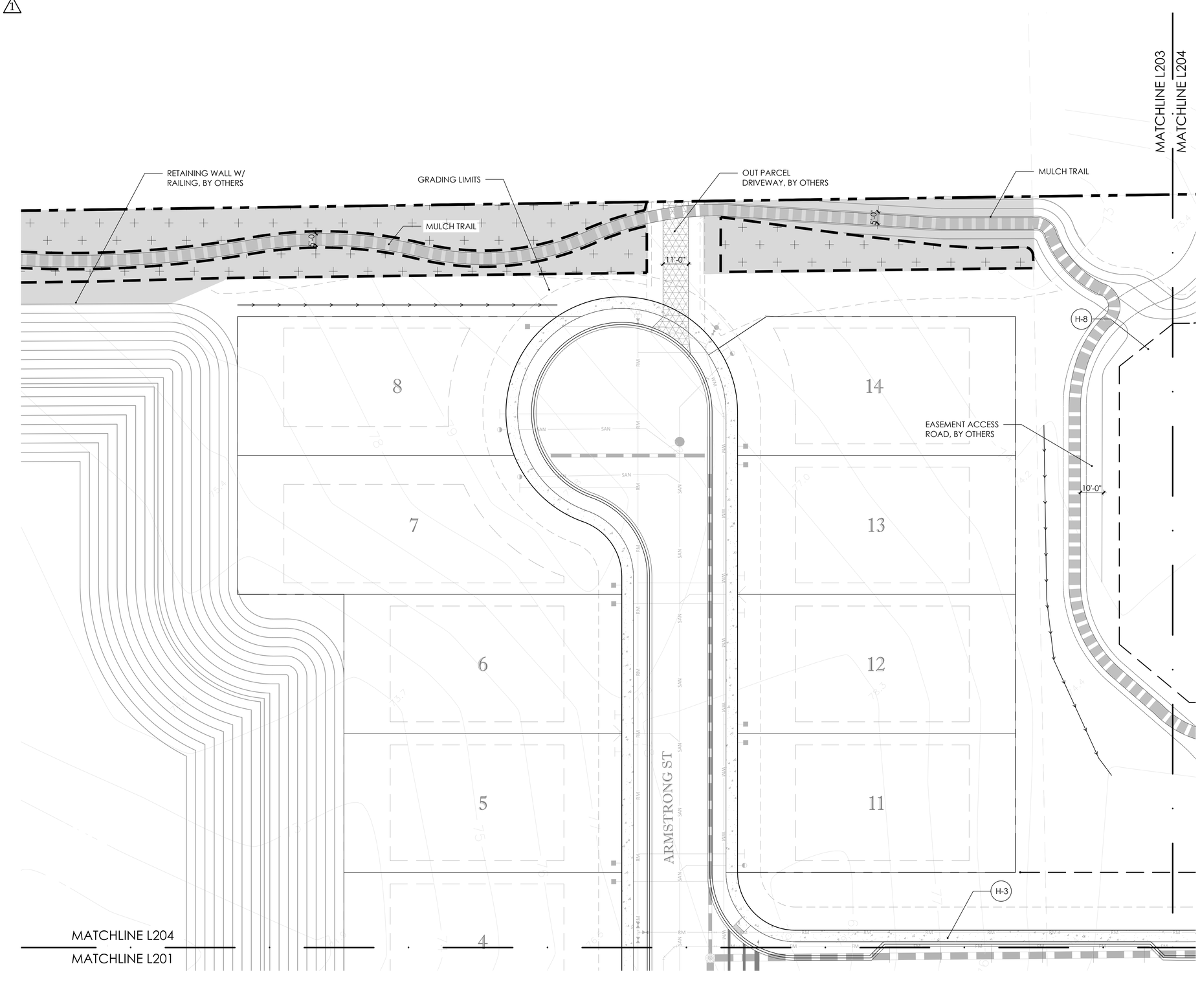

HARDSCAPE SCHEDULE

- H-1 SHADE STRUCTURE
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- H-18 TREE UP LIGHT
- H-19 SIGN FLOOD LIGHT

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 20'

0' 10' 20' 40'

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Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
LAYOUT PLAN

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 021.188_HANOVER-TAYLOR RIDGE_LSBASE

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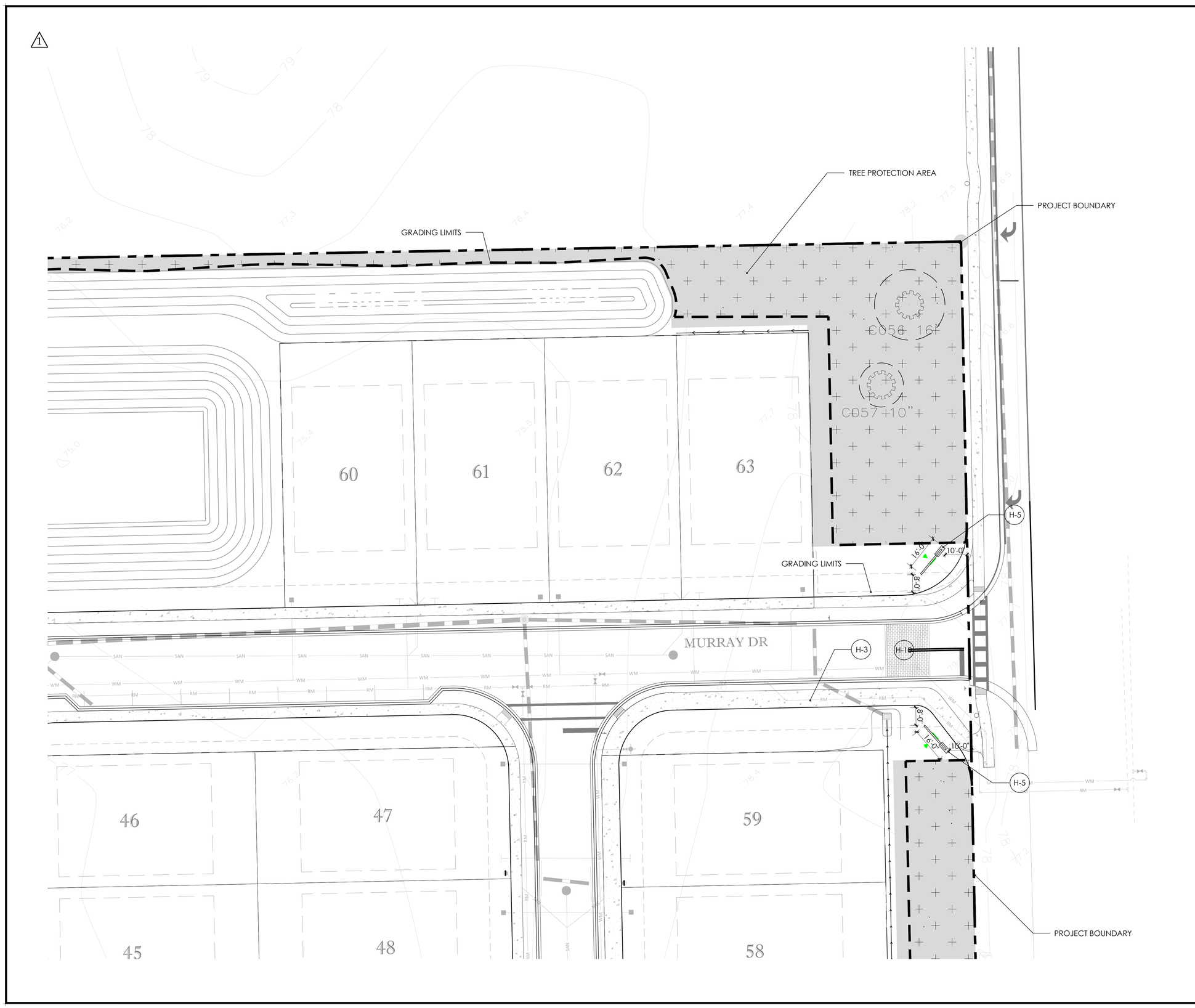
CITY SUBMITTAL - 2024-04-12



HARDSCAPE SCHEDULE

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- H-19 SIGN FLOOD LIGHT

TREE MITIGATION LEGEND

- SPECIMEN TREES REMOVED
- HISTORIC TREE REMOVED POOR CONDITION
- SPECIMEN TREE SAVED
- TREE PROTECTION AREA
- NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 20'

0' 10' 20' 40'

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Deland, Florida
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DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
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4. City Comments 03-07-2025

REGISTERED LANDSCAPE ARCHITECT TODD W. BONNETT LA1718 STATE OF FLORIDA

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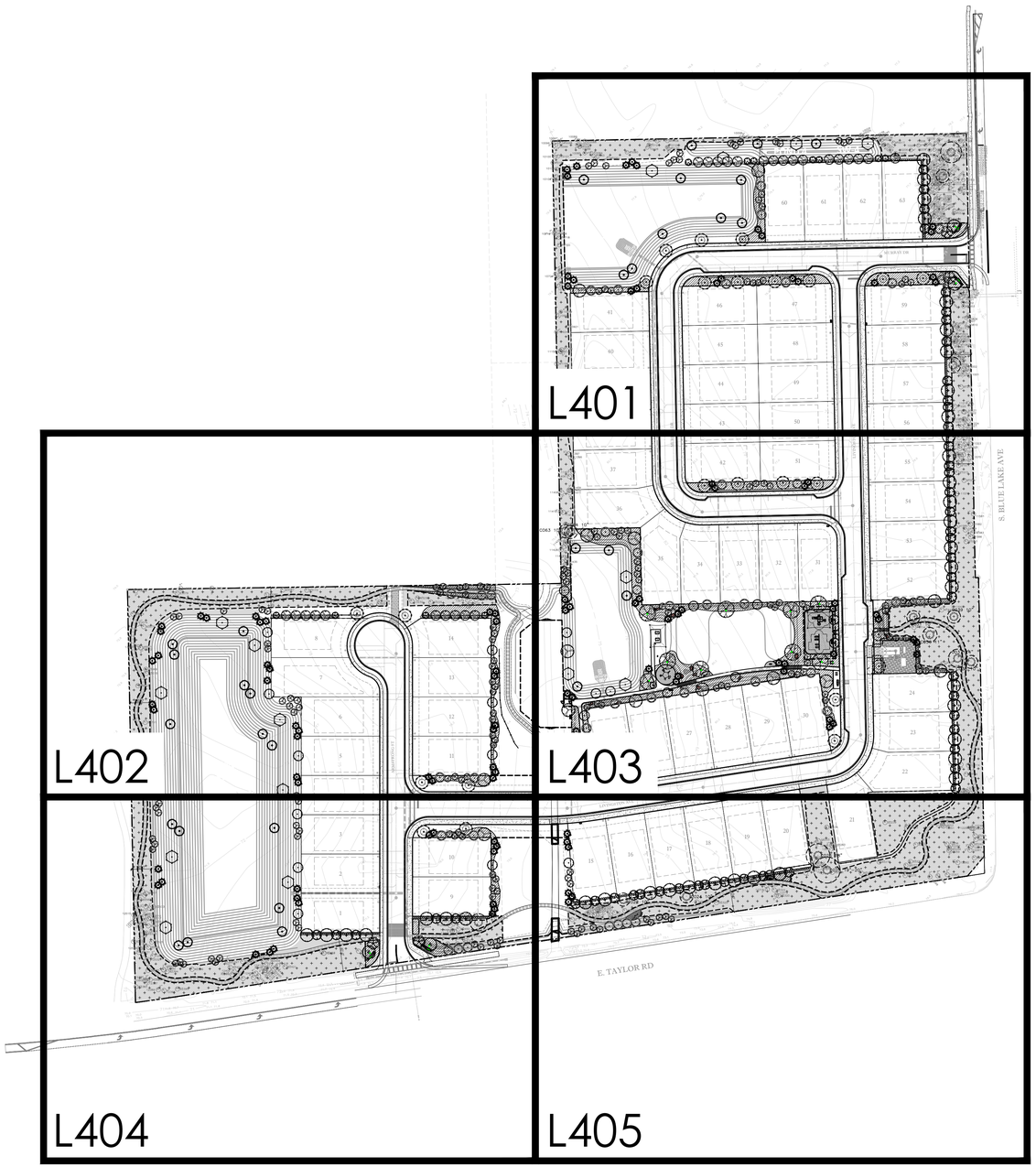

SCALE: 1" = 100'

0' 50' 100' 200'

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Taylor Ridge
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Hanover Land Company, LLC
Deland, Florida

OVERALL LANDSCAPE PLAN

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
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STATE OF FLORIDA LANDSCAPE ARCHITECT TODD W. BONNETT LA1718 STATE OF FLORIDA

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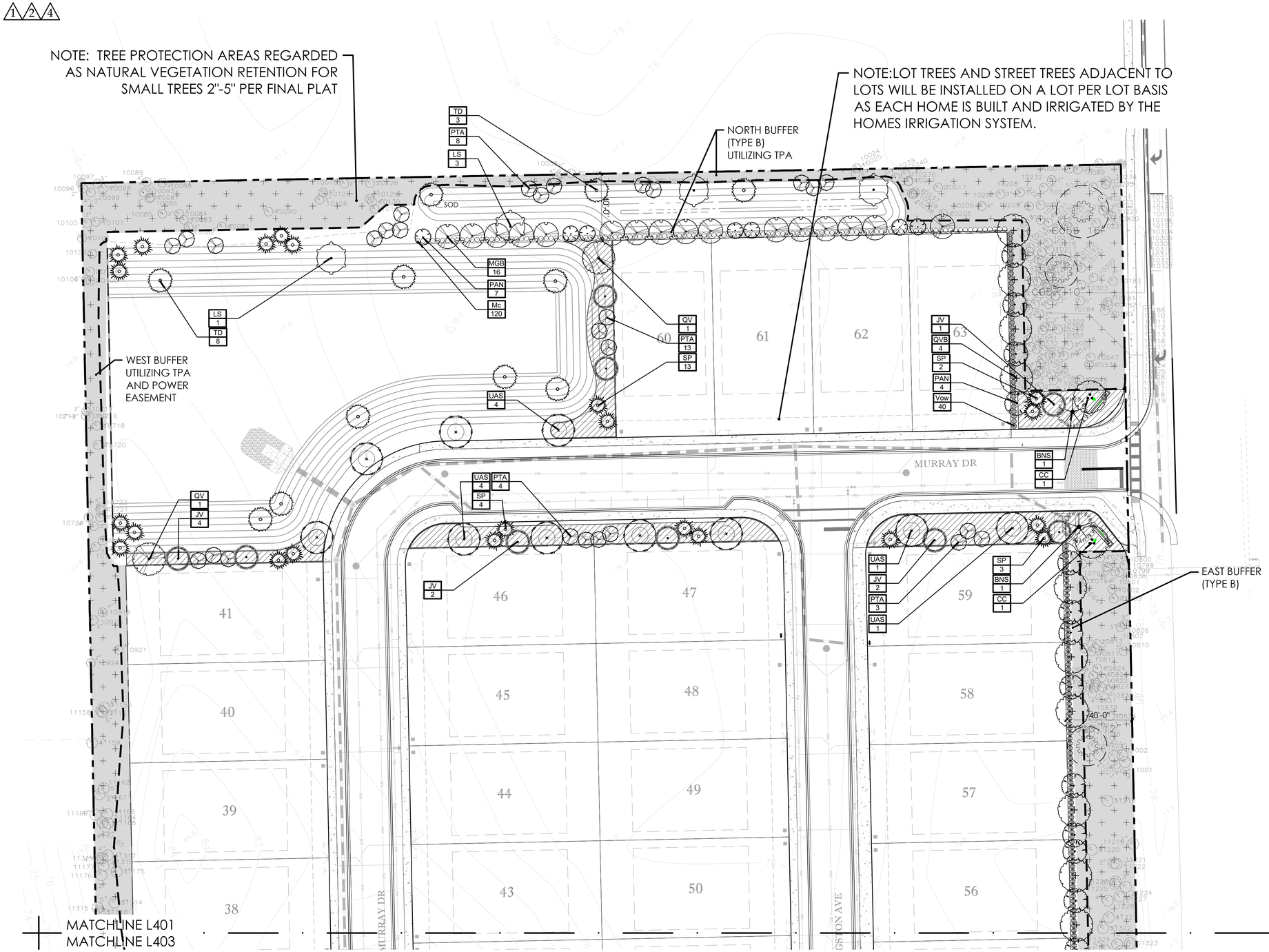

REFER TO SHEET L430 FOR CODE CALCULATIONS & PLANT SCHEDULE

NOTE:
ALL CANOPY TREES SHALL BE PLANTED A MINIMUM 5' FROM ANY UNDERGROUND UTILITY OR A ROOT BARRIER SHALL BE INSTALLED. (SEE DETAIL ON SHEET L431)

Sheet Legend

Project Boundary
Fence/Gate

PLANT SCHEDULE CODE

SYMBOL	CODE	QTY
TREES		
	CC	4
	JV	40
	LS	15
	PTA	166
	QV	15
	QV-H	9
	TD	30
BUFFER TREES		
	MGB	26
	QVB	38
PALM TREES		
	BNS	4
	SP	113
STREET TREES		
	UAS	25
UNDERSTORY		
	LIN	23
	PAN	59
SHRUBS		
	Ip	29
	Mc	190
	Vow	461

LANDSCAPE AREA

TREE MITIGATION LEGEND

SPECIMEN TREES REMOVED
HISTORIC TREE REMOVED POOR CONDITION
SPECIMEN TREE SAVED
TREE PROTECTION AREA
NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 30'

0' 15' 30' 60'

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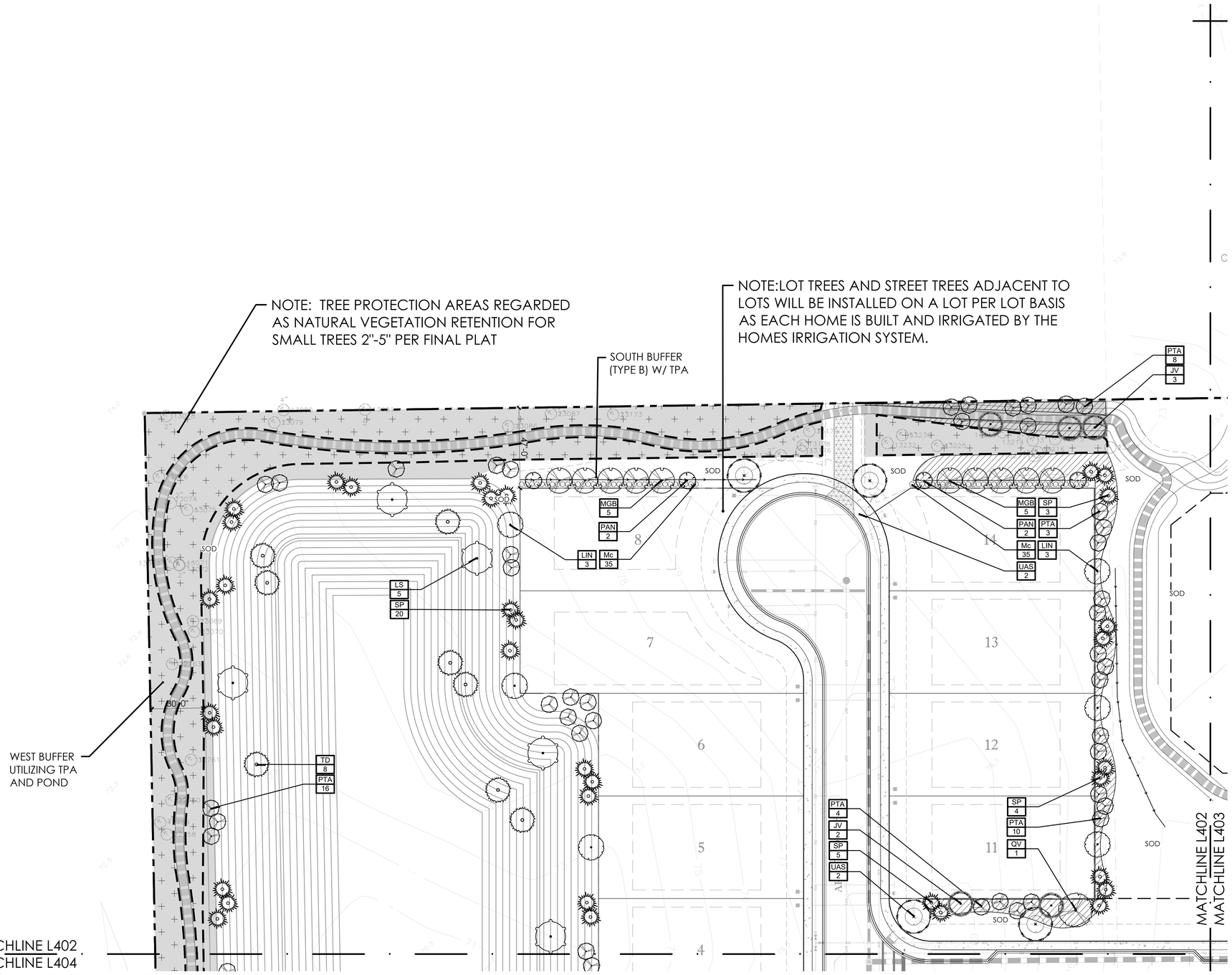

REFER TO SHEET L430 FOR CODE CALCULATIONS & PLANT SCHEDULE

NOTE:
ALL CANOPY TREES SHALL BE PLANTED A MINIMUM 5' FROM ANY UNDERGROUND UTILITY OR A ROOT BARRIER SHALL BE INSTALLED. (SEE DETAIL ON SHEET L431)

Sheet Legend

Project Boundary
Fence/Gate

PLANT SCHEDULE CODE

SYMBOL	CODE	QTY
TREES		
	CC	4
	JV	40
	LS	15
	PTA	166
	QV	15
	QV-H	9
	TD	30
BUFFER TREES		
	MGB	26
	QVB	38
PALM TREES		
	BNS	4
	SP	113
STREET TREES		
	UAS	25
UNDERSTORY		
	LIN	23
	PAN	59
SHRUBS		
	Ip	29
	Mc	190
	Vow	461

LANDSCAPE AREA

TREE MITIGATION LEGEND

SPECIMEN TREES REMOVED
HISTORIC TREE REMOVED POOR CONDITION
SPECIMEN TREE SAVED
TREE PROTECTION AREA
NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 30'
0' 15' 30' 60'

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
LANDSCAPE PLAN

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

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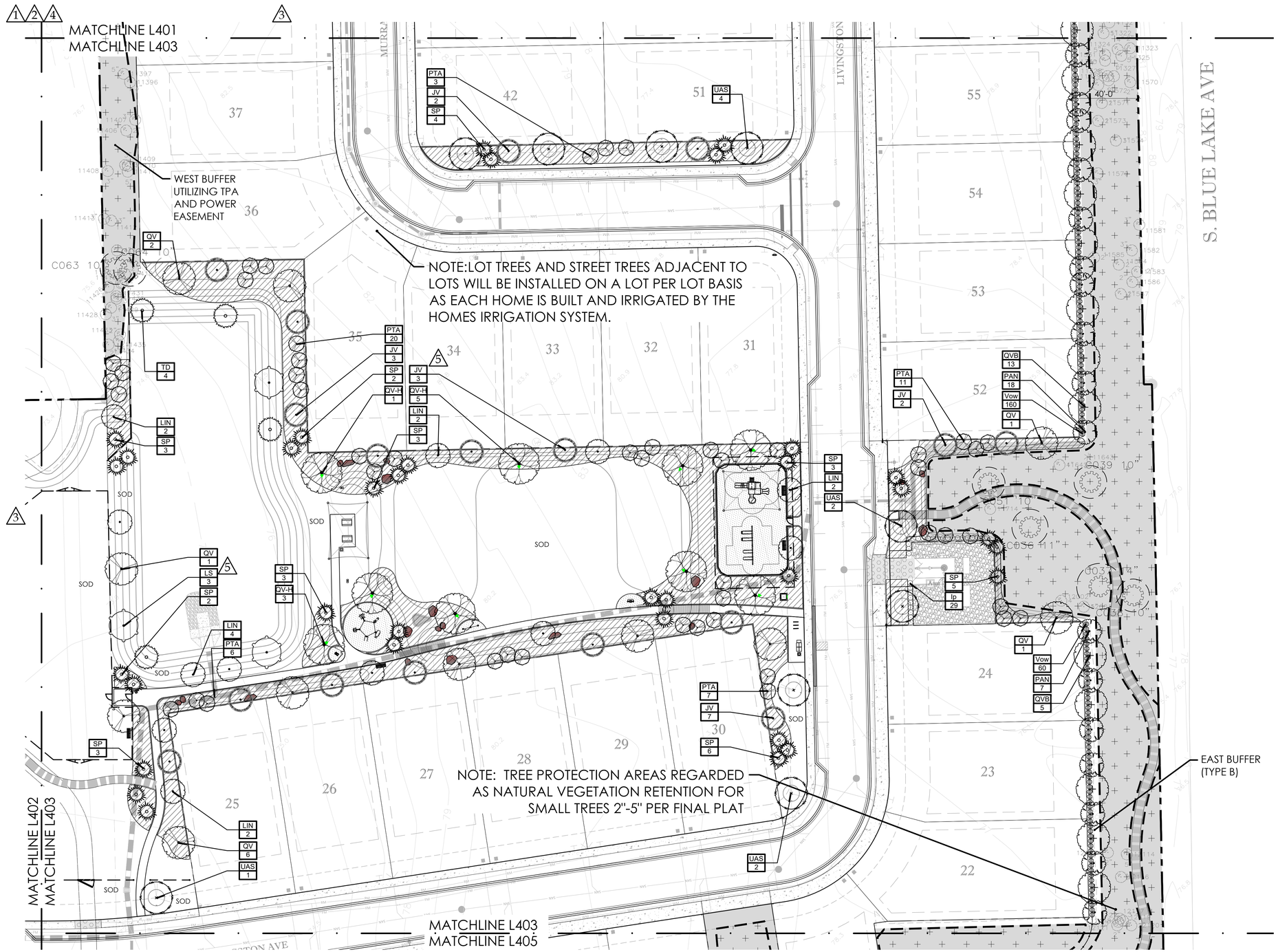

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	LS	15
	PTA	151
	QV	15
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BUFFER TREES		
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LANDSCAPE AREA

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SPECIMEN TREES REMOVED

HISTORIC TREE REMOVED POOR CONDITION

SPECIMEN TREE SAVED

TREE PROTECTION AREA

NATURAL VEGETATION RETENTION AREA

SCALE: 1" = 30'

0' 15' 30' 60'

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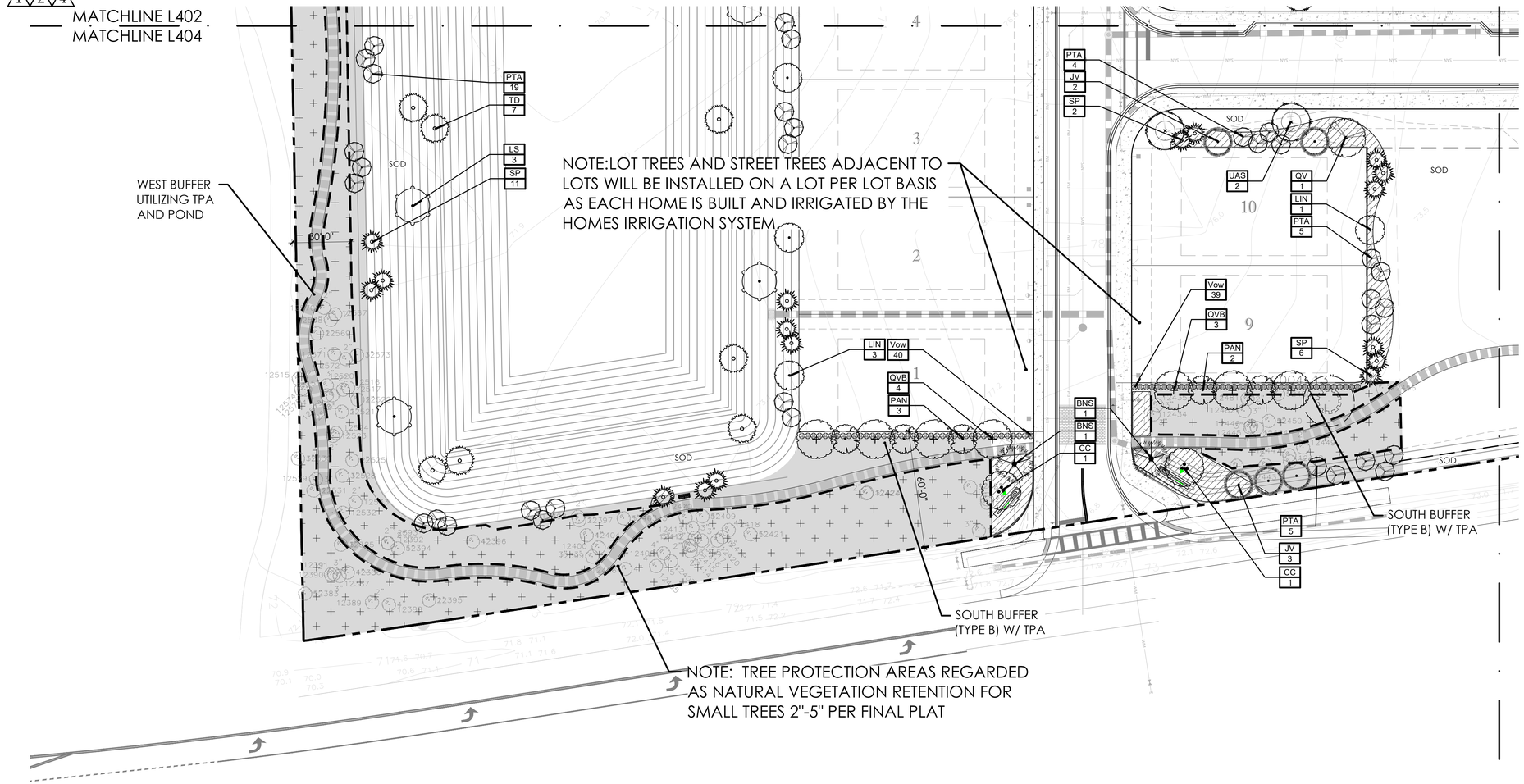

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TREE PROTECTION AREA
NATURAL VEGETATION RETENTION AREA

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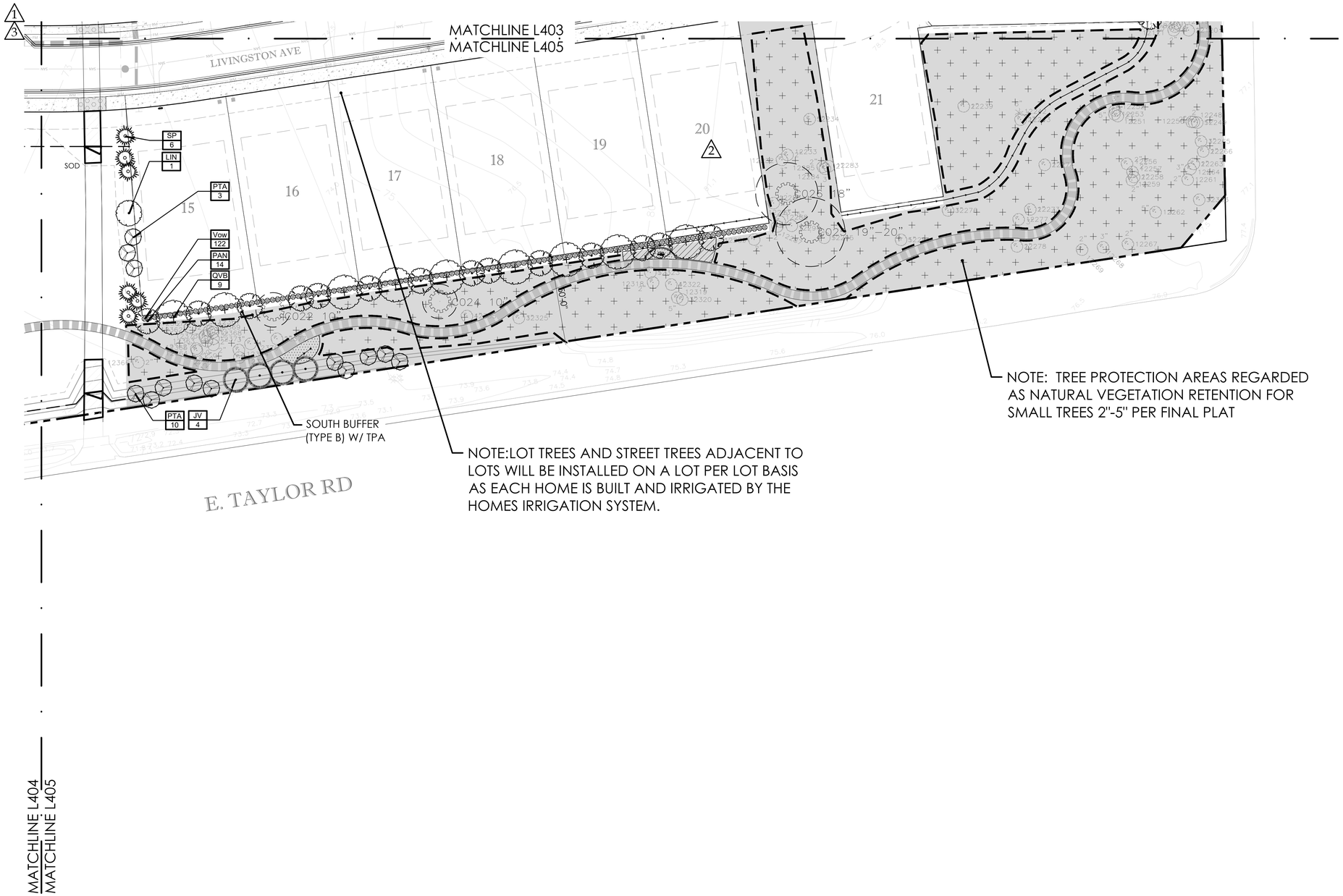

NOTE:LOT TREES AND STREET TREES ADJACENT TO LOTS WILL BE INSTALLED ON A LOT PER LOT BASIS AS EACH HOME IS BUILT AND IRRIGATED BY THE HOMES IRRIGATION SYSTEM.

NOTE: TREE PROTECTION AREAS REGARDED AS NATURAL VEGETATION RETENTION FOR SMALL TREES 2"-5" PER FINAL PLAT

REFER TO SHEET L430 FOR CODE CALCULATIONS & PLANT SCHEDULE

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REQUIRED LOT TREES:

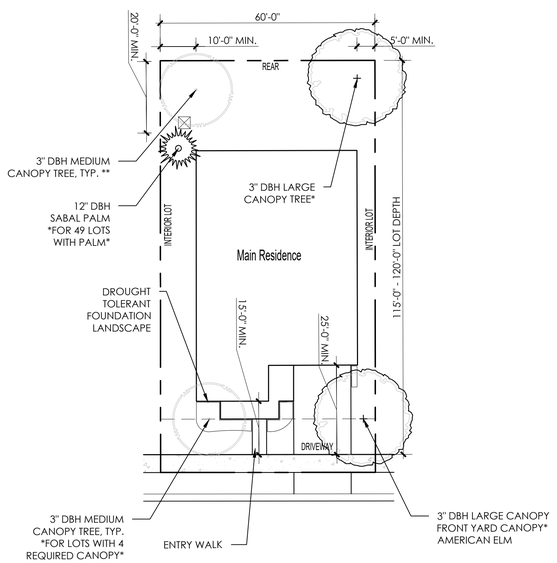
Lot #	Area (sf)	# of Trees Required	# of Trees Provided
1	7200	2.88	3
2	7200	2.88	3
3	7200	2.88	3
4	7200	2.88	3
5	7200	2.88	3
6	7200	2.88	3
7	8808	3.52	4
8	7248	2.90	3
9	7197	2.88	3
10	7199	2.88	3
11	7200	2.88	3
12	7200	2.88	3
13	7200	2.88	3
14	7246	2.90	3
15	7511	3.00	3
16	7200	2.88	3
17	7200	2.88	3
18	7200	2.88	3
19	7200	2.88	3
20	7200	2.88	3
21	7369	2.95	3
22	8167	3.27	4
23	7157	2.86	3
24	7200	2.88	3
25	7200	2.88	3
26	7200	2.88	3
27	7200	2.88	3
28	7200	2.88	3
29	7200	2.88	3
30	7199	2.88	3
31	7066	2.83	3
32	7200	2.88	3
33	7200	2.88	3
34	7172	2.87	3
35	8145	3.26	4
36	7493	3.00	3
37	7157	2.86	3
38	7200	2.88	3
39	7200	2.88	3
40	7200	2.88	3
41	7200	2.88	3
42	6893	2.76	3
43	6900	2.76	3
44	6900	2.76	3
45	6900	2.76	3
46	6893	2.76	3
47	6893	2.76	3
48	6900	2.76	3
49	6900	2.76	3
50	6900	2.76	3
51	6893	2.76	3
52	7200	2.88	3
53	7200	2.88	3
54	7200	2.88	3
55	7200	2.88	3
56	7200	2.88	3
57	7200	2.88	3
58	7200	2.88	3
59	7199	2.88	3
60	7208	2.88	3
61	7200	2.88	3
62	7200	2.88	3
63	7200	2.88	3
		TOTAL	**192**

LOT TREE LIST

LARGE TREES	BOTANICAL NAME	SPECIFICATION	NATIVE	WATER USE ZONE
Florida Maple	Acer barbatum	3" DBH, 10' ht min, 72" sp, 100 gal.	YES	MEDIUM
Red Maple	Acer rubrum	3" DBH, 10' ht min, 72" sp, 100 gal.	YES	MEDIUM
Shumard Oak	Quercus shumardii	3" DBH, 10' ht min, 72" sp, 100 gal.	YES	MEDIUM
Live Oak	Quercus virginiana	3" DBH, 10' ht min, 72" sp, 100 gal.	YES	MEDIUM
Winged Elm	Ulmus alata	3" DBH, 10' ht min, 72" sp, 100 gal.	YES	MEDIUM

MEDIUM TREES	BOTANICAL NAME	SPECIFICATION	NATIVE	WATER USE ZONE
Eastern Redbud	Cercis canadensis	3" DBH, 9' ht min, 5' sp, 100 gal.	YES	MEDIUM
Japanese Blueberry	Eleocarpus dicipens	3" DBH, 10' ht min, 3' sp, 100 gal.	NO	MEDIUM
East Palatka Holly	Ilex x East Palatka	3" DBH, 10' ht min, 3' sp, 100 gal.	YES	MEDIUM
Dahoon Holly	Ilex cassine	3" DBH, 10' ht min, 3' sp, 100 gal.	YES	MEDIUM
American Holly	Ilex opaca	3" DBH, 10' ht min, 6' sp, 100 gal.	YES	MEDIUM
Crape Myrtle	Lagerstroemia indica	3" DBH, 9' ht min, 5' sp, 100 gal.	NO	MEDIUM

PALM TREES	BOTANICAL NAME	SPECIFICATION	NATIVE	WATER USE ZONE
Sabal palm	Sabal palmetto	12" DBH, 12' ht min, 7' sp, 100 gal.	YES	LOW



NOTES:
1. ALL SERVICE EQUIPMENT AND UTILITY BOXES MUST BE FULLY SCREENED.
2. ALL LOT TREES SHALL BE A MINIMUM 3" DBH.

TYPICAL LOT LANDSCAPE PLAN

SCALE: 1" = 20'

NOTE:
TYPICAL LOT LAYOUT IS FOR DESIGN INTENT ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION DOCUMENTATION.

*LARGE CANOPY TREES INCLUDE:

Acer barbatum	Florida Maple
Acer rubrum	Red Maple
Quercus shumardii	Shumard Oak
Quercus virginiana	Live Oak
Ulmus alata	Winged Elm

**MEDIUM CANOPY TREES INCLUDE:

Cercis canadensis	Redbud
Eleocarpus dicipens	Japanese Blueberry
Ilex x East Palatka	East Palatka Holly
Ilex cassine	Dahoon Holly
Ilex opaca	American Holly
Lagerstroemia indica	Crape myrtle *single trunk only*

* EXISTING TREES TO BE INCLUDED INTO PROVIDED LOT TREES

** LOT TREES TO BE INSTALLED BY HOME BUILDER AT TIME OF CONSTRUCTION. SEE TYPICAL LOT LAYOUT ON SHEET L430.

*** UNDERSTORY AND SHRUB PLANTING TO BE SUPPLEMENTED AS NEEDED TO COMPLIMENT PROPOSED LOT DESIGN

**** PALM TREES ON LOTS ARE IN ADDITION TO REQUIRED CANOPY TREES

CITY OF DELAND LDC REFERENCES:

33-57.070 MINIMUM REQUIREMENTS

(a) Minimum tree coverage:

1.Except in the C-2A zoning district, which is exempt from these standards, excluding those standards governing historic trees; each lot shall contain a minimum of one tree for every 2,500 square feet of lot area (rounded to the nearest whole number). When determination of the number of trees required by this section results in a fractional tree, the fraction of less than one-half may be disregarded, and a fraction of one-half or greater shall be counted as one tree. The minimum tree coverage requirement of this section shall be considered, with credit given for each tree retained, when determining compliance with the minimum landscaping requirements otherwise required by this Code. No more than 25 percent of the minimum tree coverage requirements may consist of palms on the approved tree adopted by resolution of the city commission and contained in the document entitled "List of Permitted Shrubs and Trees for Landscaping and Tree Protection.

2.Tree replacement requirement. If a lot or parcel contains an insufficient number of existing trees to meet the requirement of this section, a replacement tree shall be provided for every 2,500 square feet of lot or parcel area.

3.Any replacement trees required by a site plan, subdivision or building permit must be in place prior to a building receiving a certificate of occupancy or the recording of a final plat.

33-92.02. REQUIRED LANDSCAPING

(d) Front yard trees.

1.For single-family uses. The developer shall plant, within each front yard setback area, no closer than five feet or further than 15 feet from the right-of-way, one shade tree for every 75 linear feet of right-of-way. Except where property on one side of the right-of-way is not owned by the developer, the trees shall be planted alternately on either side of the street. Existing trees and native tree species that need less water and maintenance are preferred.

2.Trees planted pursuant to this section shall be selected from the approved list of canopy trees contained in the document entitled "List of permitted shrubs and trees for landscaping and tree protection," and shall have a minimum overall height of eight feet at time of planting. The planning department shall be consulted in selecting appropriate tree species and planting procedures. Existing trees and native tree species that need less water and maintenance are preferred.

1. NEWLY INSTALLED "SHADE" TREES SHALL HAVE THEIR CAUPER MEASURED 6" ABOVE THE TOP OF THE ROOT BALL. ALL NEWLY INSTALLED "UNDERSTORY" TREES SHALL HAVE THEIR CALIPER MEASURED 6" ABOVE THE TOP OF THE ROOT BALL.

2. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE STANDARDS OF FLORIDA NO 1 AS GIVEN IN "GRADES AND STANDARDS FOR NURSERY PLANTS 2022," STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, AND ANY AMENDMENTS THERETO.

3. THE LANDSCAPE ARCHITECT MAY REJECT ANY PLANT MATERIAL BROUGHT TO THE SITE WHICH HE DEEMS TO BE OF INFERIOR QUALITY OR APPEARANCE.

4. ALL PLANT BEDS SHALL BE TOP DRESSED WITH A MINIMUM OF 3" DEPTH PINE BARK MULCH. MAINTAIN A 4" CLEAR SPACE BETWEEN MULCH AND THE PLANT STEM..

5. ALL TREES SHALL HAVE ALL SYNTHETIC BURLAP REMOVED FROM THE ENTIRE ROOT BALL. JUTE BURLAP SHALL BE REMOVED FROM THE TOP ONE-THIRD OF THE ROOT BALL. THE TOP THREE ROWS OF SQUARES ON ALL CAGES AROUND THE ROOT BALLS SHALL BE CLIPPED OFF AND REMOVED.

6. THE CONTRACTOR SHALL READ AND ADHERE TO ALL WRITTEN SPECIFICATIONS.

7. THE CONTRACTOR SHALL VISUALLY INSPECT THE SOILS CONDITION OF THE SITE. HE SHALL DIG A MINIMUM OF 12 TEST HOLES 3 FOOT DEEP RANDOMLY AROUND THE SITE. HE SHALL PERFORM PERCOLATION TESTS IN THESE HOLES FOR A PERIOD OF ONE HOUR EACH. THE HOLES SHALL BE FILLED WITH WATER AND IF THE HOLES HOLD MORE THAN 6" OF WATER AFTER ONE HOUR, THE LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF THE PROBLEM. THE CONTRACTOR SHALL RECOMMEND SUBSTITUTIONS OF PLANT MATERIAL AND PLANTING INSTALLATION TO ACCOMMODATE POOR DRAINING SOILS. ANY SUBSTITUTIONS MUST BE SUBMITTED TO THE CITY FORESTER IN WRITING FOR APPROVAL.

8. THE CONTRACTOR SHALL PROVIDE A SOIL TEST IN FOUR LOCATIONS AND PROVIDE RECOMMENDATIONS FOR AMENDMENTS BASED ON THE RESULTS. IMPROPER SOIL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL RECTIFY ALL INCURRED DAMAGES AT NO ADDITIONAL COST TO THE OWNER.

9. THE CONTRACTOR SHALL REVIEW THE SOILS REPORT ON FILE WITH THE OWNER.

10. THE INSTALLATION OF PLANT MATERIAL SHALL BE VIEWED AS ACCEPTANCE BY THE CONTRACTOR OF EXISTING GRADES AS GIVEN TO HIM. THE CONTRACTOR SHALL PROVIDE TO THE LANDSCAPE ARCHITECT A WRITTEN LETTER OF ACCEPTABILITY OF GRADES. FAILURE TO DO SO WILL BE VIEWED AS AN ACCEPTANCE OF EXISTING GRADES BY THE CONTRACTOR.

11. THE CONTRACTOR SHALL BERM ALL PARKING LOT ISLANDS 12" ABOVE TOP OF CURB ELEVATION WITHOUT EXCEEDING A 4:1 SLOPE (TYPICAL).

12. WHERE LIGHT POLES AND TREES BOTH OCCUR IN A PARKING LOT ISLANDS, THE TREE SHALL BE SPACED AN ADEQUATE DISTANCE FROM THE POLE.

13. THE CONTRACTOR WILL BE REQUIRED TO SAND AREAS OF SOD THAT ARE NOT SMOOTHLY APPLIED TO ELIMINATE SMALL IRREGULARITIES IN GRADES. LARGE IRREGULARITIES IN GRADE WILL REQUIRE REGRADING & RESODDING.

14. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE SITE INCLUDING ALL MOWING, EDGING, TRIMMING, PRUNING & SPRAYING OF PESTICIDES & FUNGICIDES UNTIL THE TIME OF FINAL ACCEPTANCE BY THE OWNER.

15. ALL NEWLY PLANTED STREET TREES SHALL BE PLANTED ALONG AN ALIGNMENT LINE, GENERALLY 3' TO 2.5' FROM THE BACK OF CURB.

16. AT PLANTING TREES SHALL BE AT GRADE OR NOT GREATER THAN THREE (3) INCHES IN HEIGHT ABOVE THE FINISH GRADE.

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Todd W. Bonnett, RLA # FLA0001718

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Date: 2025.06.17 16:57:25-04'00'

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PLANT SCHEDULE CODE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	NATIVE	WATER USE ZONE	SPACING	
TREES									
	CC	4	Cercis canadensis	Eastern Redbud	3" cal., 8` ht. x 42" spd, 45 gal.	YES	LOW	As Shown	
	JV	40	Juniperus virginiana `Silicola`	Southern Red Cedar	3" cal., 8` ht, 24" sp, 45 gal.	YES	LOW	As Shown	
	LS	15	Liquidambar styraciflua	American Sweet Gum	3" cal., 8` ht, 48" sp, 45 gal.	YES	LOW	As Shown	
6 2	PTA	151	Pinus palustris	Long-leaf Pine	3" cal., 8` ht, 24" sp, 45 gal.	YES	HIGH	As Shown	* PROPOSED PTA TREES USED TO MITIGATE 1:1 OF DETERIORATED LAURELS REMOVED
3	QV	15	Quercus virginiana	Live Oak	3" cal., 8` ht, 48" sp, 45 gal.	YES	LOW	As Shown	
	QV-H	9	Quercus virginiana	Live Oak	6" cal., 17' ht. min. x 10' spd.	YES	LOW	As Shown	* PROPOSED 6" CALIPER QV-H TREES USED TO MITIGATE 100% OF THE REMOVED HISTORIC INCHES
	TD	30	Taxodium distichum	Bald Cypress	3" cal., 8` ht, 24" sp, 45 gal.	YES	LOW	As Shown	
BUFFER TREES									
	MGB	26	Magnolia grandiflora `Brackens Brown Beauty`	Bracken`s Southern Magnolia	3" cal., 8` ht, 24" sp, 45 gal.	YES	MEDIUM	As Shown	
	QVB	38	Quercus virginiana	Live Oak	3" cal., 8` ht, 48" sp, 45 gal.	YES	LOW	As Shown	
PALM TREES									
2	BNS	4	Bismarckia nobilis	Bismarck Palm	6`CT, matched. Heavy trunk, Full.	NO	LOW	As Shown	* PROPOSED PALM TREES USED TO MITIGATE THE PALM TREE INCHES REMOVED
	SP	113	Sabal palmetto	Sabal Palm	8'-12' CT, mixed	YES	LOW	As Shown	
STREET TREES									
3	UAS	25	Ulmus alata	Winged Elm	3" cal., 8` ht. x 54" spd, 45 gal.	YES	LOW	As Shown	
UNDERSTORY									
	LIN	23	Lagerstroemia x `Natchez`	Natchez Crape Myrtle	3" cal., 8` ht. x 42" spd, 45 gal.	NO	HIGH	As Shown	
	PAN	59	Prunus angustifolia	Chickasaw Plum	3" cal., 8` ht. x 42" spd, 45 gal.	YES	LOW	As Shown	
TOTAL: 567 TREES									
SHRUBS									
	Ip	29	Illicium parviflorum	Yellow Anise	3 gal., 24"-30" o.a.	YES	MEDIUM	30"	
	Mc	190	Myrica cerifera	Wax Myrtle	7 gal., 30"-36" ht., 24"-30" spd.	YES	MEDIUM	36" o.c.	
	Vow	461	Viburnum obovatum	Walter`s Viburnum	7 gal., 30"-36" ht., 24"-30" spd.	YES	LOW	36" o.c.	

LANDSCAPE AREA

NOTE:
ALL CANOPY TREES SHALL BE PLANTED A MINIMUM 5' FROM ANY UNDERGROUND UTILITY OR A ROOT BARRIER SHALL BE INSTALLED. (SEE DETAIL ON SHEET L431)

ALL PLANT MATERIAL MUST BE SELECTED FLORIDA GRADE 1

* EXISTING TREES TO BE INCLUDED INTO PROVIDED BUFFER LANDSCAPE

** UNDERSTORY AND SHRUB PLANTING TO BE SUPPLEMENTED AS NEEDED TO COMPLIMENT EXISTING PLANT MATERIAL

NOTE:
ALL CANOPY TREES SHALL BE PLANTED A MINIMUM 5' FROM ANY CURB/UTILITY OR A ROOT BARRIER SHALL BE INSTALLED.
(SEE DETAIL ON SHEET L431)

BUFFER REQUIREMENT

*Existing Trees in TPA to be included into Provided Buffer Landscape

BUFFER	WIDTH	LENGTH	CALC	CANOPY TREES	CALC	UNDERSTORY TREES	CALC	SHRUBS
NORTH	40	1295						
TYPE 'B'	REQUIRED		4.4X360/100=	57	1X360/100=	13	10X360/100=	130
	PROVIDED			26		11		190
	RETAINED*			TPA		TPA		TPA
SOUTH	50	1312						
TYPE 'B'	REQUIRED		4.4X367/100=	58	1X367/100=	13	10X367/100=	131
	PROVIDED			16		19		201
	RETAINED*			TPA		TPA		TPA
EAST	40	1131						
TYPE 'B'	REQUIRED		4.4X660/100=	50	1X660/100=	11	10X660/100=	113
	PROVIDED			22		29		240
	RETAINED*			TPA		TPA		TPA
WEST	40	1307						
TYPE 'B'	REQUIRED		4.4X660/100=	58	1X660/100=	13	10X660/100=	131
	PROVIDED			0		0		0
	RETAINED*			TPA		TPA		TPA

4

Common Area Tree Replacement Table				
Total Trees in Common Areas	250	Trees	500	Inches
Total Palms in Common Areas to Replace Palms	117	12" dbh Trees	468	1/3 Inches Credit
Total Common Area Street Trees	25	Trees	50	Inches
Total Trees to Replace Deteriorated Laurels >20"	151	Trees	302	Inches
Total Trees to Replace Historic Removals	9	Trees	45	Inches
Total Common Area Plantings	**552**	**Trees**	**1,365**	**Inches**

CITY OF DELAND LDC REFERENCES:

33-57.070 MINIMUM REQUIREMENTS

(a) Minimum tree coverage:

1.Except in the C-2A zoning district, which is exempt from these standards, excluding those standards governing historic trees; each lot shall contain a minimum of one tree for every 2,500 square feet of lot area (rounded to the nearest whole number). When determination of the number of trees required by this section results in a fractional tree, the fraction of less than one-half may be disregarded, and a fraction of one-half or greater shall be counted as one tree. The minimum tree coverage requirement of this section shall be considered, with credit given for each tree retained, when determining compliance with the minimum landscaping requirements otherwise required by this Code. No more than 25 percent of the minimum tree coverage requirements may consist of palms on the approved tree adopted by resolution of the city commission and contained in the document entitled "List of Permitted Shrubs and Trees for Landscaping and Tree Protection.

2.Tree replacement requirement. If a lot or parcel contains an insufficient number of existing trees to meet the requirement of this section, a replacement tree shall be provided for every 2,500 square feet of lot or parcel area.

3.Any replacement trees required by a site plan, subdivision or building permit must be in place prior to a building receiving a certificate of occupancy or the recording of a final plat.

33-57.15 PALM REPLACEMENT REQUIREMENTS

(a) Palms may be used as replacement stock for other palms up to the full DBH replacement requirement for the palms being removed from the site. Palms may be substituted as replacements for other species under the following conditions:

1.If the DBH of palms being removed from the site is less than 25 percent of the total DBH of trees being removed, palms may be substituted for replacement of non-palm species up to a maximum of 25 percent of the total DBH replacement required.

2.Because palms are generally moved as mature trees, it is necessary to equate the DBH of commonly moved palms to the DBH of commonly planted non-palm species when substituting palms for non-palm species pursuant to subsection (a)1 of this section. For the purpose of substitution of palms for non-palm species, each three-inch DBH of palm equates to one-inch DBH non-palm species.

33-92.01. LANDSCAPING

(a) Statement of intent. The intent of this section is to:

1.Ensure that for all new development in DeLand, Florida, where off-street parking, open lot sales, vehicular use areas, and service areas are provided, a portion of such areas shall be devoted to landscape beautification and natural plant growth.

2.Require that landscaped areas be created that provide an appropriate buffer between incompatible land uses, as an attractive boundary of the parcel or use, or as both a buffer and attractive boundary.

3.Protect trees in DeLand, to assist in the control of flooding, soil erosion, dust, heat, air quality and noise pollution, and to improve the appearance, environment, character and value of the total urban area and to protect nearby properties, thereby promoting the public health and general welfare.

4.Provide landscape regulations that are applied generally throughout the City of DeLand and are supplemented by the Gateway Corridor Overlay District.

5.Promote xeriscape landscaping techniques that conserve water and protect the environment by utilizing drought tolerant and native plant material and is consistent with Volusia County's Minimum Standards for Environmental Protection section called "Water Wise Landscape Irrigation."

(b) Exemptions. These exemptions shall apply to vehicular use areas but not to buffering between land uses, pursuant to section 33-92.02(b). This section does not apply to the following:

1.Single- or two-family residences. This shall not be construed to exempt any residential developments that require the approval of a development plan or plat under this chapter.

2.Existing building on which five or fewer parking spaces are provided.

(c) Redevelopment. All redevelopment projects that require a Class II, III or IV site plan shall be required to meet the landscaping requirements of section 33-92 to the fullest extent possible. Due to site limitations, the technical review committee, planning board or the city commission, depending on the type of site plan, may allow modifications that still meet the intent of the regulations.

(d) Buffer alteration. Alteration of an existing buffer requires submittal of a site plan in accordance with section 33-132.03 and, at a minimum, approval of the technical review committee.

33-92.02. REQUIRED LANDSCAPING

(b) Buffer Zones. A Buffer Zone is a landscaped strip along parcel boundaries that serves as a buffer between incompatible uses and zoning districts, as an attractive boundary of the parcel or use, or as both a buffer and an attractive boundary.

1.Nothing in the section shall be interpreted to mean that parcels zoned C-2A (downtown commercial) must meet these buffering requirements. Developments that have an approved PD designation must meet the above requirements unless specifically addressed in the development agreement. The width and degree of vegetation required depends upon the nature of the adjoining thoroughfares and land uses.

2.The standards for Buffer Zones for development outside of the gateway corridors are set out in Table 33-92.02(b) below specifying the width and number of plants required per 100 linear feet. The developer may choose among the available widths within a given standard, so long as the corresponding number of plants is provided. To determine the total number of plants required, the length of each side of the property requiring a buffer shall be divided by 100 and multiplied by the appropriate number of plants shown in the table. Percentages of trees, bushes and shrubs shall be rounded to the closest whole number, except that the requirement shall never be less than one tree, bush or shrub. The minimum sizes of the canopy trees are also provided in the table below. As illustrated below, when the smallest buffer area is selected the larger trees are required or the number of trees are increased. The canopy trees shall be spread approximately 25 feet apart along the length of the buffer. Flexibility will be allowed in the location of the plant material required, and the planning department will have the final approval.

(c) Subdivision entryways. Entryways into a subdivision shall screen the sides of any proposed single family dwellings by one of the following methods or combination of methods: 1) Perimeter roadway buffers shall be extended along any roadway entrance into the subdivision, a minimum distance of 100 feet complying with Buffer Standard "B"; 2) stormwater facilities with perimeter landscaping and fountains; 3) signage, complying with Section 33-75.04(e); or 4) amenity center.

(d) Front yard trees.

1.For single-family uses. The developer shall plant, within each front yard setback area, no closer than five feet or further than 15 feet from the right-of-way, one shade tree for every 75 linear feet of right-of-way. Except where property on one side of the right-of-way is not owned by the developer, the trees shall be planted alternately on either side of the street. Existing trees and native tree species that need less water and maintenance are preferred.

2.Trees planted pursuant to this section shall be selected from the approved list of canopy trees contained in the document entitled "List of permitted shrubs and trees for landscaping and tree protection," and shall have a minimum overall height of eight feet at time of planting. The planning department shall be consulted in selecting appropriate tree species and planting procedures. Existing trees and native tree species that need less water and maintenance are preferred.

LANDSCAPE NOTES

1. NEWLY INSTALLED "SHADE" TREES SHALL HAVE THEIR CAUPER MEASURED 6" ABOVE THE TOP OF THE ROOT BALL. ALL NEWLY INSTALLED "UNDERSTORY" TREES SHALL HAVE THEIR CALIPER MEASURED 6" ABOVE THE TOP OF THE ROOT BALL. 1
2. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE STANDARDS OF FLORIDA NO 1 AS GIVEN IN "GRADES AND STANDARDS FOR NURSERY PLANTS 2022," STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, AND ANY AMENDMENTS THERETO.
3. THE LANDSCAPE ARCHITECT MAY REJECT ANY PLANT MATERIAL BROUGHT TO THE SITE WHICH HE DEEMS TO BE OF INFERIOR QUALITY OR APPEARANCE.
4. ALL PLANT BEDS SHALL BE TOP DRESSED WITH A MINIMUM OF 3" DEPTH PINE BARK MULCH. MAINTAIN A 4" CLEAR SPACE BETWEEN MULCH AND THE PLANT STEM.
5. ALL TREES SHALL HAVE ALL SYNTHETIC BURLAP REMOVED FROM THE ENTIRE ROOT BALL. JUTE BURLAP SHALL BE REMOVED FROM THE TOP ONE-THIRD OF THE ROOT BALL. THE TOP THREE ROWS OF SQUARES ON ALL CAGES AROUND THE ROOT BALLS SHALL BE CLIPPED OFF AND REMOVED.
6. THE CONTRACTOR SHALL READ AND ADHERE TO ALL WRITTEN SPECIFICATIONS.
7. THE CONTRACTOR SHALL VISUALLY INSPECT THE SOILS CONDITION OF THE SITE. HE SHALL DIG A MINIMUM OF 12 TEST HOLES 3 FOOT DEEP RANDOMLY AROUND THE SITE. HE SHALL PERFORM PERCOLATION TESTS IN THESE HOLES FOR A PERIOD OF ONE HOUR EACH. THE HOLES SHALL BE FILLED WITH WATER AND IF THE HOLES HOLD MORE THAN 6" OF WATER AFTER ONE HOUR, THE LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF THE PROBLEM. THE CONTRACTOR SHALL RECOMMEND SUBSTITUTIONS OF PLANT MATERIAL AND PLANTING INSTALLATION TO ACCOMMODATE POOR DRAINING SOILS. ANY SUBSTITUTIONS MUST BE SUBMITTED TO THE CITY FORESTER IN WRITING FOR APPROVAL.
8. THE CONTRACTOR SHALL PROVIDE A SOIL TEST IN FOUR LOCATIONS AND PROVIDE RECOMMENDATIONS FOR AMENDMENTS BASED ON THE RESULTS. IMPROPER SOIL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL RECTIFY ALL INCURRED DAMAGES AT NO ADDITIONAL COST TO THE OWNER.
9. THE CONTRACTOR SHALL REVIEW THE SOILS REPORT ON FILE WITH THE OWNER.
10. THE INSTALLATION OF PLANT MATERIAL SHALL BE VIEWED AS ACCEPTANCE BY THE CONTRACTOR OF EXISTING GRADES AS GIVEN TO HIM. THE CONTRACTOR SHALL PROVIDE TO THE LANDSCAPE ARCHITECT A WRITTEN LETTER OF ACCEPTABILITY OF GRADES. FAILURE TO DO SO WILL BE VIEWED AS AN ACCEPTANCE OF EXISTING GRADES BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL BERM ALL PARKING LOT ISLANDS 12" ABOVE TOP OF CURB ELEVATION WITHOUT EXCEEDING A 4:1 SLOPE (TYPICAL).
12. WHERE LIGHT POLES AND TREES BOTH OCCUR IN A PARKING LOT ISLANDS, THE TREE SHALL BE SPACED AN ADEQUATE DISTANCE FROM THE POLE.
13. THE CONTRACTOR WILL BE REQUIRED TO SAND AREAS OF SOD THAT ARE NOT SMOOTHLY APPLIED TO ELIMINATE SMALL IRREGULARITIES IN GRADES. LARGE IRREGULARITIES IN GRADE WILL REQUIRE REGRADING & RESODDING.
14. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE SITE INCLUDING ALL MOWING, EDGING, TRIMMING, PRUNING & SPRAYING OF PESTICIDES & FUNGICIDES UNTIL THE TIME OF FINAL ACCEPTANCE BY THE OWNER.
15. ALL NEWLY PLANTED STREET TREES SHALL BE PLANTED ALONG AN ALIGNMENT LINE, GENERALLY 3' TO 2.5' FROM THE BACK OF CURB.
16. AT PLANTING TREES SHALL BE AT GRADE OR NOT GREATER THAN THREE (3) INCHES IN HEIGHT ABOVE THE FINISH GRADE.

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BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
LANDSCAPE SCHEDULE & NOTES

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1 City Comments 07-26-2024
2 City Comments 09-09-2024
3 City Comments 10-28-2024
4 City Comments 03-07-2025
5 City Comments 05-27-2025

FLORIDA REGISTERED LANDSCAPE ARCHITECT TODD W. BONNETT LA1718 STATE OF FLORIDA

This item has been electronically signed and sealed by Todd W. Bonnett, BLA FLA1718 using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by Todd W Bonnett
Date: 2025.06.17 16:57:25-04'00'

Todd W. Bonnett, BLA # FL1000718

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GENERAL REQUIREMENTS

The Landscape Contractor shall be responsible for all materials and all work as called for on the landscape plans. The list of plant quantities accompanying the plans shall be used as guide only. If a discrepancy occurs between the plans and the plant list, the plans shall control.

The Landscape Contractor shall warranty all trees for a period of one (1) year and shrubs and ground covers for a period of six (6) months from the time of final acceptance by Owner and Landscape Architect.

The Landscape Contractor shall be wholly responsible for the stability and plumb condition of all trees and shall be legally liable for any damage caused by the instability of any plant material. Staking of trees and palms, if required, shall be done utilizing a method agreed upon by the Landscape Architect.

The Landscape Contractor shall research plans and contact appropriate agencies to determine the location of any utilities and obstructions prior to commencing work. Any utilities or unanticipated obstructions shall be reported to Landscape Architect or Owner immediately.

All plant material and sodded areas shall have an automatic underground irrigation system providing 100% coverage.

Positive drainage shall be maintained away from all structures on the site.

PLANT SPECIFICATIONS

All nursery stock plant material shall be Florida #1 or better in accordance with Grades and Standards for Nursery Plants Parts I & II, latest edition as published by the Florida Department of Agriculture and Consumer Services- Division of Plant Industry.

All plant material shall be planted, fertilized and mulched as per the plant details and planting specifications noted on the plans.

All container grown material shall be healthy, vigorous, well rooted plants, and established in the container in which they are delivered to the site. The plants shall have tops which are good quality and in a healthy growing condition. Established container grown plant material shall be grown in that container sufficiently long enough for the new fibrous roots to have developed enabling the root mass to retain it's shape when removed the container. Plants which have become root bound in the container are unacceptable.

All plant material that is not container grown shall be freshly dug, sound, healthy, vigorous, well branched, and free of disease and insect eggs and larvae, and shall have adequate root systems. Where any requirements are omitted from the plant list, the plants furnished shall be normal for the variety. Plants may be pruned prior to delivery only upon the approval of the Landscape Architect.

FERTILIZER

Two fertilizers shall be used on all types of plantings, except palms. Granular fertilizer shall be uniform in composition, dry and free flowing. This fertilizer shall be delivered to the site in the original unopened bags bearing the manufacturer's statement of analysis. Granular fertilizer shall be a controlled release variety meeting the following requirements: sixteen percent (16%) nitrogen, four percent (4%) phosphorus, eight percent (8%) potassium, plus iron. tablet fertilizer ("Agriform" or approved equal) in 21 gram size shall meet the following requirements: twenty percent (20%) nitrogen, ten percent (10%) phosphorus, five percent (5%) potassium.

Application Rates:

Plant size	16-4-8	"Agriform" tablet (21 grams)
1 gallon	1/4 lb.	1 tablet
3 gallon	1/3 lb.	2 tablets
7-15 gallon	1/2 lb.	4 tablets
1" - 6" caliper	2 lbs. per 1" caliper	2 tablets per 1" caliper
6" + caliper	3 lbs. per 1" caliper	2 tablets per 1" caliper

Sodded areas shall receive an application of the granular fertilizer (16-4-8) at a rate of 1/2 lb. of Nitrogen per 1,000 square feet of sod area.

"Palm Special" fertilizer shall be applied to all palms at installation at a rate of 1 1/2 lbs. per 100 square feet of canopy area. Palm fertilizer shall be a controlled release variety containing chelated micro nutrients and a ratio of N-P-K-Mg of 2:1:3:1.

SOIL

Planting soil for use in preparing the backfill material for planting pits shall be added a rate of fifty percent (50%) planting soil to fifty percent (50%) existing soil. This soil mix shall be used in all plant pits except Sabal Palms which shall be backfilled with clean sand. Planting soil shall be a fertile, friable natural topsoil of loamy character. It shall contain forty (40) to fifty (50) percent decomposed organic matter and be free of heavy clay, stones larger than 1" in diameter, noxious weeds and plants, sod, partially disintegrated debris, insects or any other undesirable material, plants or seeds that would be toxic or harmful to plant growth.

MULCH

All plant beds and tree watering basins shall be top dressed with three inches (3") of pine bark mini nuggets.

SOD

Refer to Landscape Plan for limits of sod.

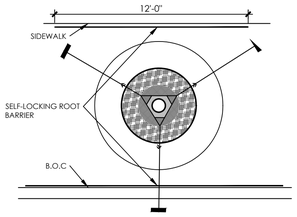
All areas disturbed by construction (including material staging, equipment storage, temporary facilities, site access, construction staff parking, etc.) beyond the minimum limits of sod as shown on the Landscape Plan shall be sodded as needed.

All lawn areas to receive sod shall be disked four (4) to six (6) inches and graded to establish a level finished grade ensuring positive drainage from all structures. All debris shall be removed from the site.

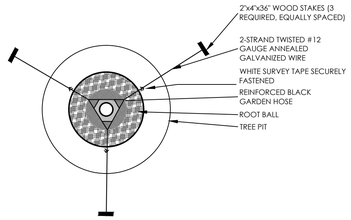
Sod shall be free of weeds and pests. It shall be laid evenly with tight fitting joints and rolled. The sod shall contain moist soil which does not fall apart or tear when lifted.

See plant list for specific sod species and locations.

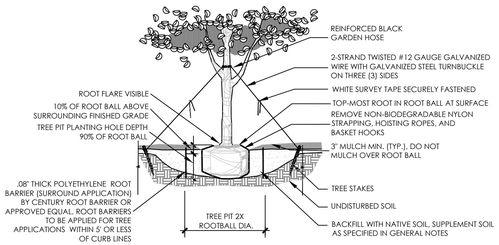
See 'Fertilizer' for requirements of all sodded areas.



ROOT BARRIER



LARGE CANOPY TREE STAKING PLAN



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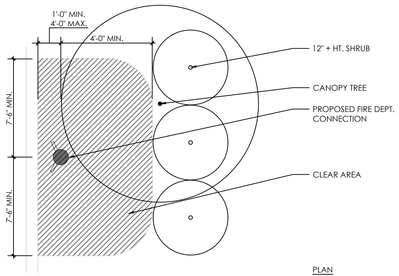
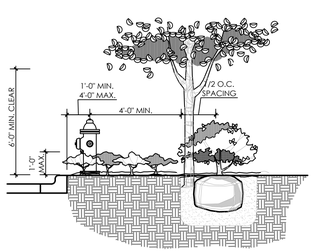
LARGE CANOPY TREE PLANTING DETAIL

N.T.S.



PLAN



TREES AND SHRUBS TALLER THAN 12" SHALL NOT BE PLANTED ANY CLOSER THAN 4'-0" FROM THE BACK OR 7'-6" FROM EACH SIDE OF A FIRE HYDRANT OR FIRE DEPT. CONNECTION

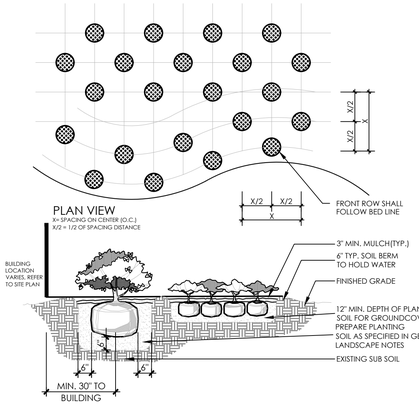
NO TREES OR SHRUBS SHALL BE PLANTED IN FRONT OF A FIRE HYDRANT OR FIRE DEPT. CONNECTION.

TURF AND GROUNDCOVER SHORTER THAN 12" IS PERMITTED WITHIN THE CLEARANCE AREA

SECTION

TYPICAL PLANTING AT FIRE HYDRANT

N.T.S.

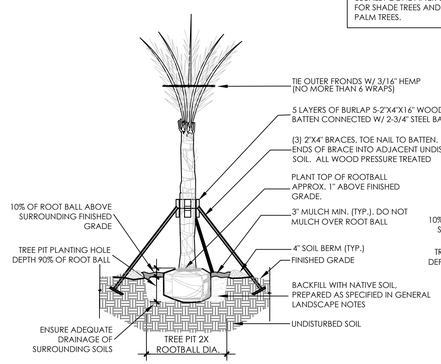


PLAN VIEW
X= SPACING ON CENTER (O.C.)
X/2 = 1/2 OF SPACING DISTANCE

SHRUB AND GROUNDCOVER PLANTING DETAIL

N.T.S.

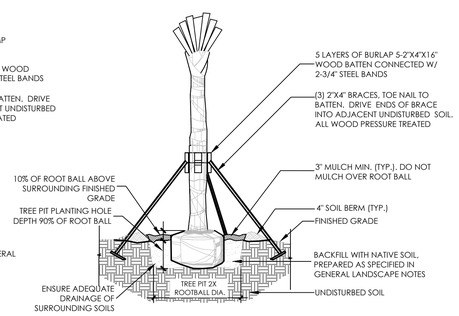
NOTE: TREE SUPPORT MATERIALS SHALL BE REMOVED FROM EACH TREE ONCE IT IS ESTABLISHED. THIS IS USUALLY DONE AFTER 6 MONTHS FOR SHADE TREES AND 1 YEAR FOR PALM TREES.



PALM PLANTING DETAIL

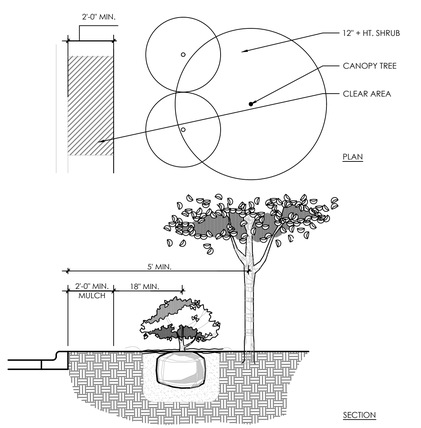
N.T.S.

NOTE:
REFER TO MEP DRAWINGS FOR LIGHTING ASSOCIATED W/ ALL SPECIMEN PALMS



HURRICANE CUT PALM PLANTING DETAIL

N.T.S.



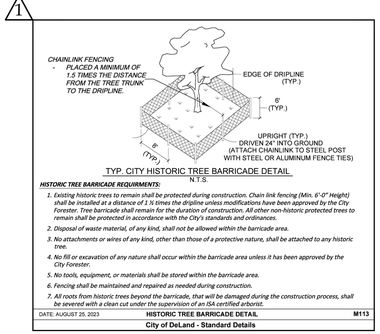
PLAN

SECTION

TYPICAL PLANTING ADJACENT TO PARKING

N.T.S.

1



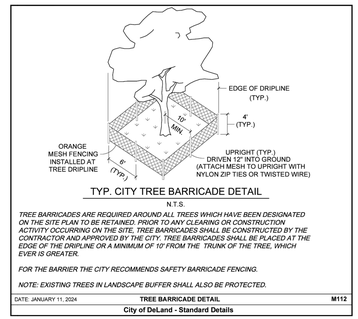
TYP. CITY HISTORIC TREE BARRICADE DETAIL

N.T.S.

HISTORIC TREE BARRICADE REQUIREMENTS:

1. *Existing historic trees to remain shall be protected during construction. Chain link fencing (Min. 6'-0" Height) shall be installed at a distance of 1 ½ times the dripline unless modifications have been approved by the City Forester. Tree barricade shall remain for the duration of construction. All other non-historic protected trees to remain shall be protected in accordance with the City's standards and ordinances.*
2. *Disposal of waste material, of any kind, shall not be allowed within the barricade area.*
3. *No attachments or wires of any kind, other than those of a protective nature, shall be attached to any historic tree.*
4. *No fill or excavation of any nature shall occur within the barricade area unless it has been approved by the City Forester.*
5. *No tools, equipment, or materials shall be stored within the barricade area.*
6. *Fencing shall be maintained and repaired as needed during construction.*
7. *All roots from historic trees beyond the barricade, that will be damaged during the construction process, shall be severed with a clean cut under the supervision of an ISA certified arborist.*

DATE: AUGUST 25, 2023	HISTORIC TREE BARRICADE DETAIL	M113
City of DeLand - Standard Details		



TYP. CITY TREE BARRICADE DETAIL

N.T.S.

TREE BARRICADES ARE REQUIRED AROUND ALL TREES WHICH HAVE BEEN DESIGNATED ON THE SITE PLAN TO BE RETAINED. PRIOR TO ANY CLEARING OR CONSTRUCTION ACTIVITY OCCURRING ON THE SITE, TREE BARRICADES SHALL BE CONSTRUCTED BY THE CONTRACTOR AND APPROVED BY THE CITY. TREE BARRICADES SHALL BE PLACED AT THE EDGE OF THE DRIPLINE OR A MINIMUM OF 10' FROM THE TRUNK OF THE TREE, WHICH EVER IS GREATER.

FOR THE BARRIER THE CITY RECOMMENDS SAFETY BARRICADE FENCING.

NOTE: EXISTING TREES IN LANDSCAPE BUFFER SHALL ALSO BE PROTECTED.

DATE: JANUARY 11, 2024	TREE BARRICADE DETAIL	M112
City of DeLand - Standard Details		

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Bdg

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida

LANDSCAPE DETAILS & NOTES

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1. City Comments 07-26-2024
2. City Comments 09-09-2024
3. City Comments 10-28-2024
4. City Comments 03-07-2025

This item has been electronically signed and sealed by Todd W. Bennett, RLA FL#LA1718 using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Todd W. Bennett, R.L.A. # FL0001718

Originally signed by Todd W Bonnett
Date: 2025.06.17 16:57:26 -04'00'

L431

CITY SUBMITTAL - 2024-04-12

SECTION 32.92.00 SODDING

PART 1– GENERAL

1.01 SCOPE OF WORK

A. This section shall govern the furnishing of all sod, labor, materials, equipment and services necessary for the complete installation of all sodding and other items necessary to complete the work as shown on the drawings and as specified herein

1.02 GENERAL REQUIREMENTS

A. See drawings for area to be sodded
B. Labor crews shall be directed by a landscape foreman experienced in plant materials, planting, reading blueprints, and coordination between job and nursery
C. Coordinate work with other related work in order to expedite installation of work

1.03 APPLICABLE DOCUMENTS

A. The following publications of the issues listed below form a part of this specification.
A.1. American Joint Committee on Horticultural Nomenclature (AJCHN) Standard Plant Names, Second Edition (1942)
A.2. American National Standards Institute (ANSI)– Z60.1–2004 Nursery Stock (sponsored by the American Association of Nurserymen, Inc.)
A.3. Grades and Standards for Nursery Plants, Part I and Part II, State Plant Board of Florida

PART 2– MATERIALS

2.01 TOPSOIL

A. If the quantity of existing stored or excavated topsoil is inadequate for sodding, sufficient additional topsoil shall be furnished. Topsoil furnished shall be a natural, fertile, friable soil, possessing characteristics of representative productive soils in the vicinity. It shall be obtained from naturally well–drained areas. Topsoil shall be without a mixture of subsoil and free from Johnson grass (Sorghum halepense), Nutgrass (Cyperus rotundas) and objectionable weeds and toxic substances.

2.02 LIME

A. Shall be ground limestone (Dolomite) containing not less that 85% of total carbonates, and shall be ground to such a fineness that 50% will pass a 100–mesh sieve and 90% will pass a 20–mesh sieve.

2.03 FERTILIZER

A. Commercial, fertilizer shall be 8–8–8 formulation, of which 60% of the nitrogen is in the urea–formaldehyde form and shall conform to the applicable State Fertilizer laws. It shall be granulated so that 80% is held on a 16–mesh screen, uniform in composition, dry and free–flowing.

2.04 SOD

A. Sod shall be St. Augustine Floratam or Bahia Argentine, as noted on the plans. Sod shall be fresh, healthy, living stems and attached roots. Sod shall be obtained from approved sources where the sod is heavy and thickly matted and free from ground pearl and fairy ring. The soil depth shall be uniform and 1"– 1–1/2" thick. Sod shall be free of Nutgrass (Cyperus rotundas), Johnson grass (Sorghym halepense), and other objectionable weeds, and shall not contain material which might be detrimental to the development of the turf.

2.05 REQUIREMENTS

A. All areas within the limits of work indicated for sodding and all areas disturbed by the Contractor's operations, shall be grassed (sodded).

PART 3– EXECUTION

3.01 INSTALLATION

A. Grading: Areas to be grassed shall be graded to remove depressions, undulations, and irregularities in the surface before grassing.
B. Tillage: When it is determined by a Landscape Architect that the soil conditions warrant special attention, the area to be grassed shall be thoroughly tilled to a depth of 3" using a plow and disc harrow or rotary tilling machinery until a suitable seed bed has been prepared and no clods or clumps remain larger that 1"– 1–1/2" diameter.
C. Applying Lime: The pH of the soil shall be determined. If the pH is below 5.0, sufficient lime shall be added to provide a pH between 5.5 and 6.5. The lime shall be thoroughly incorporated into the top three or four inches of the soil. Lime and fertilizer may be applied in one operation.
D. Applying Fertilizer: Fertilizer should only be used if required by soil testing. Fertilizer shall be applied at the rate of 10 pounds per 1,000 sq. ft. and shall be broadcast over the surface after the sod has been placed.
E. Sodding: Sod shall be placed within 48 hours of harvesting. In addition sod shall not be left stacked for longer than 24 hours.
F. Placing Sod: The soil shall be soaked just prior to placing sod. Each block or strip of sod shall be butted firmly against the last. Gaps shall be filled with pieces of sod and topsoil. The sod shall not be stretched while placing. Immediately after placing sod, roll to provide firm contact with soil.
G. Watering: Sodding will not be authorized unless the planting soil has a moisture content level sufficient to prevent the immediate drying out of newly placed sod. Water shall be applied prior to sodding operations. At least one–half inch of water shall be applied uniformly to all areas to be sodded. In addition, watering will be required over all areas on which sodding has been completed. This application shall be made not later than 30 minutes after sodding has been completed and shall amount to at least one–half inch of water over the entire area sodded. Watering shall be done in a manner which will prevent erosion due to the application of excessive quantities in a concentrated area. Water source shall be provided by the Owner.
H. Winter Cover: All areas to be grassed shall be protected against erosion at all times. For protection during winter months, Italian Ryegrass shall be planted at the rate of four pounds per 1,000 sq. ft. on all areas which are not protected by permanent grass.
I. Clean–up: All excess soil, excess grass materials, stones, and other waste shall be removed from the site daily and not allowed to accumulate. All paved areas shall be kept clean at all times.
J. Maintenance shall begin immediately following the last operation of sodding and continue until final acceptance. Maintenance shall include watering, mowing, replanting, and all other work necessary to produce a uniform stand of grass. Grassing will be considered for final acceptance when the permanent grass is health and growing on 100% of area to be sodded

3.02 QUALITY CONTROL

A. Contractor quality control shall apply to all work in this Section in accordance with the provisions of Division I, General Requirements. Except where specific testing, and approval shall be performed by the Contractor's quality control representative or a member of his staff. Where it is specified that a submission be made to others for approval, the CQC representative shall check the submission and satisfy himself that it complies with contract requirements prior to submission to others for approval.

3.03 CONTRACTOR'S RECORD OF CERTIFICATION

A. Contractor's records of certification will be required for the following, and three copies each of all documentation shall be furnished the Owner for record purposes:
A.1. Certificate of Conformance will be required for the following
A.1.1. Sod
A.1.2. Fertilizer
A.1.3. Topsoil
A.1.4. Lime
A.2. Test Reports: The results of laboratory tests performed on the topsoil material shall be submitted. The reports shall include the pH level, the amount of organic matter, and available phosphoric acid and potash of the soil intended for use in the work.

3.04 REQUEST FOR FINAL ACCEPTANCE

A. The Contractor shall submit to the Owner or his Representative two copies of a written request for final acceptance of the grassing work. The request shall be submitted at least ten days prior to the anticipated date of acceptance. The condition of the grass will be noted, and the Contractor will be notified if maintenance is to continue

3.05 GUARANTEE AND REPLACEMENT

A. All sod shall be guaranteed for a period of thirty (30) days from the time of job acceptance.
B. Replacement of sod necessary during the maintenance period shall be the responsibility of the Contractor, except for possible replacements of sod due to theft, vandalism, neglect by Owner or acts of negligence of the part of others.
C. At the end of the guaranty period, and at any time during the period, any sod that dies or is not in satisfactory condition, as determined by the Owner and the Landscape Architect, shall be removed and replaced with new, healthy material of the original. The new material shall be guaranteed as outlined above. The Landscape Contractor shall be responsible for the cost of the material and labor.
D. The time limit may be extended by agreement by agreement for any material in questionable condition at the end of the guaranty period.

END OF SECTION 32.92.00

SECTION 32.93.00

PART1– GENERAL WORK

1.01 SCOPE OF WORK

A. This section covers furnishing and installing all landscape plants and not–plant materials covered by the drawings and these specifications. The work shall include materials, labor, equipment and services as described herein and indicated on the drawings. Also, the work shall include the maintenance of all plants and planting areas until acceptance by the Owner, and the fulfillment of all guarantee provisions as herein specified

1.02 PLANTING LAYOUT

A. Before beginning work, the Contractor shall investigate and verify, in the field, the existence and location of all underground utilities and irrigation piping, and take precautions to prevent their disturbance. It shall be the responsibility of the Contractor to obtain all such information as it is made available. Plans and specifications of related work may be obtained from the Owner.
B. The Contractor shall locate all general reference points; take precautions to prevent their disturbance; perform the layout work; be responsible for all lines, elevations and measurements of work executed under the contract; exercise proper precaution to verify figures on drawings before laying out work; and be responsible for any error resulting from failure to exercise such precaution. The Contractor shall make field measurements for his own work and be responsible for its accuracy.
C. Discrepancies between conditions existing on the site and conditions indicated on the drawings shall be called to the attention of the Owner before or at the time plant locations are staked out.
D. In the event of a variation between the plant list and the actual number of plants shown on the plans, the plans shall control.

1.03 HORTICULTURAL STANDARDS

A. Unless otherwise noted, plant material, including collected materials, shall be grade FLORIDA NO. 1 or better as outlined under Grades and Standards for Nursery Plants, Part I and Part II, State Plant Board of Florida; and shall also conform to American Standard for Nursery Stock, ANSI (American National Standards Institute, Inc.) Z60.1–2004 as approved by the American Association of Nurserymen.
B. All plant names shall conform to the names given in Standardized Plant Names, 1942 Edition, prepared by the American Joint Committee on Horticultural Nomenclature. Names of varieties not included therein shall conform generally with names accepted in the nursery trade. All plant materials shall be true to botanical, common and variety name. Botanical name shall have precedence over common name.
C. The Landscape Architect shall have the right, at any stage of the operations,to reject any and all work and materials that, in their opinion, do not meet with the requirements of these Specifications, Such rejected material shall be removed from the site and acceptable material substituted in its place.

1.04 CERTIFICATES OF INSPECTION

A. All plant material shall be inspected by the Florida Department of Agriculture, as required by state law. Plants of a grade less than that specified in the article titled HORTICULTURAL STANDARDS will not be accepted.

PART 2– MATERIALS

2.01 SOIL BACKFILL

A. Soil for backfilling planting areas and plant pits shall be the existing surface soil, free from subsoil, objectionable weeds, litter, sods, stiff clay, stones, stumps, roots, trash, toxic substances, mortar, cement, limerock, asphalt, or any other material that may be harmful to plant growth or hinder planting operations. Poorly drained soils shall not be used.
B. Soil amendments shall be added to the soil in the amount and manner prescribed by soil analysis to obtain a pH of 5.5 to 6.5. Results from soil analysis and a list of the prescribed amendments shall be presented to the Owner and verified by the Landscape Architect prior to being incorporated into the soil.
C. If additional soil is required, it shall be furnished by the contractor and shall be a natural, friable soil representative of productive, well–drained soils in the vicinity. It shall be obtained from well drained areas which have never been stripped before; and shall be free of admixture of subsoil and foreign matter, stones, toxic substances, and any material or substance that may be harmful to plant growth.
D. The Contractor shall provide the following information on imported topsoil:
D.1. Specific location from which topsoil will be (or was) stripped.
D.2. Present Owner of that property.
D.3. Approximate amount of topsoil available
D.4. Test results showing topsoil composition and analysis
E. Soil test shall be performed by a qualified soils laboratory, in accordance with "Methods of Soils Analysis–Agronomy #9" as published by the American Society of Agronomy, and shall be performed at the Contractor's expense.
F. Planting soil backfill for raised architectural planters, if applicable, shall consist of 40% potting soil, 40% coarse washed builders sand and 20% horticultural perlite.
G. Areas designated to be planted with flowering annuals, if applicable, shall be excavated to a depth of 8" and backfilled with a mixture consisting of 40% peat, 40% D.O.T. (coarse) sand, 10% pine bark (decomposed) and 10% cypress chips.
H. Planting soil backfill for tree wells, if applicable, shall be $\frac{1}{3}$ approved topsoil and $\frac{1}{3}$ coarse washed builder's sand

2.02 FERTILIZER

A. Commercial fertilizer shall be Florikan18–6–8 Premium Ornamental formulation, 100 day slow release, available from ESA Corp., Sarasota, Florida USA, www.florikan.com, PH 941.377.8666, or approved equal. Fertilizer shall be uniform in composition, dry and free flowing.
B. Specimen plants– A transplant amendment shall be used which is formulated as a transplant preparation to inoculate landscape trees and/or shrubs with live beneficial mycorrhizal fungi when planting. It contains highly selected endo and ectomycorrhizae fungi that will quickly colonize the roots of new transplants to provide the best possible conditions for the roots to become as effective as possible during the establishment period and beyond. Both endo and ectomycorrhizal inoculants are combined with Trichoderma, humic acids, beneficial bacteria, soluble sea kelp, yucca plant extracts, to promote rapid root development. To reduce transplant stress and watering maintenance, and to slow release all soluble components of the formulation, water management gel is added to complete the package.
C. Specimen Palm plants– shall be treated when planting with an inoculum of live beneficial mycorrhizal fungi to promote new feeder roots and mycorrhizal development on newly planted palms. The inoculum shall contain highly selected endomycorrhizal fungi that will quickly colonize roots of palms to provide the best possible conditions for the roots to grow and extract from the root zone water and nutrients. The mycorrhizal fungi shall be combined with humic acids, biostimulants, beneficial bacteria, soluble sea kelp, yucca plant extracts, fulvic acid, nitrogen, phosphorous, potassium, and chelated magnesium, manganese, iron and zinc, to promote rapid root development.

2.03 DOLOMITIC LIMESTONE

A. Dolomitic limestone shall be a natural limestone, designated for agricultural use, shall contain not less that 85 percent of total carbonates, and shall be ground so that 50 percent will pass a 100 mesh sieve and 90 percent will pass a 20 mesh sieve.

2.04 PRE–EMERGENCE WEED CONTROL

A. Weed control shall be Ronstar 2G as manufactured by Bayer Environmental Science, Canada, PH 888.283.6847, www.bayeres.ca or Pendulum Aqua Cap as manufactured by BASF– The Chemical company, Florida USA. http://bettervm.basf.us/ or an approved equal.

2.05 WATER

A. Water will be available for use on site during landscape installation at no cost to the Contractor. Care shall be exercised to assure that water is kept free of harmful chemicals, acids, alkaline, or any substance that might be harmful chemicals, acids, alkaline, or any substances that might be harmful to plant growth.

2.06 ANTIDESICCANT

A. Anti–desiccant shall be an emulsion type, film–forming agent designed to permit transpiration, but retard excessive loss of moisture from plants, such as Dowax by Dow Chemical Co., or Wilt–Pruf by Nursery Specialty Products, Inc., or an acceptable equal. The anti–desiccant shall be delivered in the manufacturer's fully identified containers and shall be mixed in accordance with manufacturer's instructions.

2.07 BORICIDE

A. Boricide shall be Onyx manufactured by FMC www.fmcprosolutions.com

2.08 MULCH

A. All mulch shall be pine bark mini nuggets, 100% organic, Grade "B", or better. Alternative mulch types, if so identified on the drawings shall be used.

2.09 GUYING AND STAKING MATERIAL

A. Stakes or supporting trees shall be ArborBrace or ArborGuy Tree Guying System as shown per details.

2.10 DRAINAGE GRAVEL

A. Where indicated on the drawings, or where soil conditions deem it necessary, the Contractor shall install gravel subdrains beneath trees and/or planting areas to aid in soil drainage and percolation. The subdrain shall be constructed as detailed on the drawings, or as directed by the Landscape Architect. Drainage gravel shall consist of washed, clean gravel $\frac{1}{2}$ inch to 2 inches in size.

2.11 SOIL SEPARATION MATS/FILTER FABRIC

A. Soil separation mats, if indicated on the drawings, shall be Mirafi 140N as manufactured by TenCate, or approved equal. Mats shall be installed as indicated on the drawings, and edges overlapped a minimum of 4 inches. Care shall be take to prevent tearing or excessive crushing during the installation process.

2.12 QUALITY OF PLANT MATERIAL

B. During inspection, as set forth hereinafter, all plant material will be judged, and rejections shall be based upon these standards. All plants shall comply with federal and state law requiring inspection for plant diseases and infestations. Inspection certificates required by law shall be made available to the Owner or Owner's representative at his/her request
C. In determining the quality of plant material, the following elements will be valued:
C.1. Root condition
C.2. Plant size (above ground)
C.3. Insect and disease free condition
C.4. General appearance (color, shape, pruning)– a deficiency in one or more of these areas will be sufficient reason to reject selectively or by lot.
D. The Landscape Architect shall have the right, at any stage of the operations, to reject any and all work and materials which, in their opinion, do not meet with the requirements of these specification. Such rejected material shall be removed from the site and acceptable material substituted in its place.

2.13 SIZE AND MEASUREMENTS

A. Plants shall be measured when branches are in their normal position. Heights and spread dimensions specified refer to the main body of the plant and not to extreme branch tip to tip. The measurements specified are the minimum size acceptable and where pruning is required, these proper proportion as outlined in Florida Department of Agriculture, Grades and Standards for Nursery Plants Part I and II. Plants that have been headed back to conform to the size specified will not be acceptable. Plants larger than specified may be used if approved the Owner; however, the use of such plants shall not increase the contract price.

2.14 LABEL

A. Plant materials shall have durable, legible labels stating, in weather resistant ink, the correct botanical and common names and size as indicated in the Plant List. Each plant, or sufficient representative samples of each delivered shipment, shall have labels securely attached in a fashion that will interfere with normal plant growth. Plant materials that have (or will have) a seasonal bloom shall be tagged with labels indicating the specific variety of that species' botanical and common name.

2.15 BALLED / BURLAPPED / WIRE BALLED / BURLAPPED PLANTS

A. All ball sizes shall be of a diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant after planting. All balls shall be firm, shall not be broken or cracked, and shall be wrapped and securely tied with heavy twine or wire. All trees shall be root pruned a minimum of 6 weeks before delivery.
B. Plants designated B&B or WB&B in the Plant List shall be adequately balled with firm, natural balls of soil in sizes at least equal to those set forth in ANSI Z60.1–2004. Balls shall be firmly wrapped with jute burlap or equivalent cloth capable of rotting in the ground.
B.1. No balled plant shall be planted if the ball is cracked, mushroomed, or broken either before or during the process of planting. Trees grown in grow bags shall not be acceptable. Synthetic strings, straps, and burlap material shall be properly removed from the rootball. Synthetic burlap is to be totally removed from the rootball
C. Wire baskets should be removed from the top $\frac{1}{3}$ of the rootball.

2.16 COLLECTED PLANTS

A. All plant material (except Wax Myrtles and Sabal Palms) shall be nursery grown. Collected plants shall have been grown under climatic conditions similar to those in the locality of the project. All collected plants shall meet the requirements as specified and shall meet all specified grades and standards, unless otherwise qualified in the Plant List or these specifications. Rootballs shall be increased in size one third greater that nursery grown plants.

2.17 CONTAINERIZED PLANTS

A. All container grown plants shall be well rooted and established in the container in which they are delivered to the site. The plants shall have been in that container sufficiently long for the fibrous roots to hold the soil together when the plant is removed from the container. Container grown plants found to be root–bound during planting will not be acceptable. Containerized trees have a tendency to dry out quickly. The Contractor shall be responsible for hand watering the trees at time of delivery through the time of final acceptance at a rate consistent with the nursery watering schedule to assure that the tree does not go into shock.

2.18 SPECIMEN PLANTS

A. After receiving the Notice to Proceed, the Contractor shall locate all plants specified as specimen. The Contractor shall notify the Owner so they may agree on a time to mutually inspect the selected plants. The Owner will inspect and tag those plants that are acceptable for use. Expenses incurred by the Owner for any subsequent inspection of specimen plants, at any time, in addition to the mutually agreed time, shall be responsibility of the Contractor.

2.19 PALMS (if required)

A. Palms, except cabbage palms and unless otherwise indicated, shall be burlapped. Buds of palms shall be tied and supported in an upright position in accordance with the guidelines of Florida Dept. of Agriculture, Grades and Standards for Nursery Plants, Part II, Palms and Trees.
B. Special care shall be applied to the handling and planting of palms. Unless otherwise indicated, palms shall have heavy straight (unless curved is noted) trunks with full heads. Washingtonia palm rootballs shall be dug with a minimum of 5' diameter ball 3' deep. Where Sabal palms are specified with fronds, the head shall be tied and supported during transport with a 2"x4" tied parallel to the trunk extending up to the foliage. Avoid excessive pressure on the petioles when tying the head. Date Palm heads shall be tied using 4"x4" wood poles.

2.20 FLOWERING ANNUALS

A. Landscape Contractor to submit "Flowering Annuals" selections to Owner's Representative and/or Landscape Architect for approval prior to purchasing. Flowering annual selections to be based on availability, quality, and growing season. Locations and spacing as indicated on drawings.

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BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
PLANTING SPECIFICATIONS

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 2021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1 City Comments 07-26-2024
2 City Comments 09-09-2024
3 City Comments 10-28-2024
4 City Comments 03-07-2025

This item has been electronically signed and sealed by Todd W. Bonnett, RLA FLA1718 using a Digital Signature and date.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Todd W. Bonnett, RLA # FLA0001718

Originally signed by Todd W Bonnett
Date: 2025.06.17 16:57:27-04'00'

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2.21 SUBSTITUTIONS

A. All substitutions must be submitted in writing to the City Forester for approval.
B. The use of materials differing in kind, quality or size from those specified will be allowed only after the Owner is convinced that all means of obtaining the specified materials have been exhausted.
C. Where it is indicated that the Contractor may furnish or use a substitute that is equal to the material or equipment specified and if the Contractor is to furnish or use a proposed substitute, they shall, after the award of the contract, make written application to the Owner for acceptance of such a substitute. The substituted product or method shall be equal or superior in all respects to the specified product or method, shall perform adequately the duties imposed by the general design, shall be compatible with all other elements of the job, and shall be sufficient to complete the job. The substitution shall not add cost to the contract. Should it be necessary to accept a substitute of a quality less than specified, the unit price shall be used to adjust the contract price downward accordingly. No substitution shall be ordered or installed without the written permission of the Owner.

PART 3– EXECUTION

D. The Contractor shall exercise care in handling, loading and unloading, storage and transporting all plant material and allied materials to prevent damage. The Contractor shall assume full responsibility for protection and safekeeping of products stored on the job.
E. The Contractor shall dig and prepare B&B and WB&B plant material for shipment in a manner that will not damage roots, branches, shape and future development after planting.
F. Trees indicated on the plans as WB&B and those where size, soil conditions and distance of transport to the site would warrant, shall be wireballed, Bottom wired baskets manufactured specifically for use in tree handling may be used.
G. The Contractor shall handle all plants so that roots and branches are protected at all times from drying out, heating and from other injury. All plants shall be handled by the ball or container.
H. Before moving plants from the nursery or storage area to the site, they shall be thoroughly sprayed with a solution of anti–desiccant. Anti–desiccant shall be applied to all collected pines, oaks and myrtles. Two weeks after planting, or as specified by the product manufacturer, the material shall be sprayed again with the anti–desiccant. The anti–desiccant shall be applied using power spray to provide an adequate film over trunks, branches, stems, twigs and foliage.
I. When transporting plants to and at the site, the Contractor shall make provisions to protect plants from wind damage by avoiding high–speed highways, transporting in enclosed or partially enclosed vehicles, or covering the plants with burlap or other suitable material. Plants severely damaged by wind will be rejected
J. Any plant with signs of insects, their eggs or larvae, or disease will be rejected and shall be removed from the project site.
K. Only the nursery stock intended for planting on a particular day shall be delivered and stored on the site during the day unless otherwise acceptable to the Owner. All plans shall be stored in one location as designated by the Owner, protected from wind and kept moist. The roots of all plants that cannot be planted immediately in soil shall be covered with mulch and other suitable material. No plants shall be taken from the temporary storage area for planting on the project until after the tree pits or holes for the plants in the section to be planted have been properly excavated and prepared ready to receive the tree and shrubs.
L. Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling, or other bark slippage by means of burlap, wood battens or other acceptable method.

3.02 NON–PLANT MATERIALS

M. Fertilizer shall be delivered to the site in original, unopened containers bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark and conformance to state law. In lieu of containers and provided that it is to be applied at the time of delivery, fertilizer may be furnished in bulk, and a certificate indicating the above information shall accompany each delivery.
N. Pesticide and herbicide materials shall be delivered to the site in the original, unopened containers. Containers that do not have a legible label that identifies the Environmental Protection Agency registration number and manufacturer's registered uses will be rejected.
O. Storage of materials shall be in the area designated for use by the Owner. All materials shall be kept in dry storage and away from contaminants.

P. 3.03 PREPARATION BEFORE PLANTING

Q. The Contractor shall verify that final grades have been established prior to beginning planting operations. All unsatisfactory grading shall be reported to the Owner, and the Contractor shall not proceed with the work until the unsatisfactory conditions have been corrected. When conditions detrimental to plant growth are encountered, such as rubble, fill or adverse drainage conditions, the Contractor shall notify the Owner for directions.
R. Should undesirable existing vegetation be present on the site at the time of installation, the Contractor shall prepare the site for planting by use of chemicals, when used as recommended by the manufacturer, and/or mechanical means acceptable to the Owner.
R.A. Care shall be exercised to avoid any misuse of chemicals that would create detrimental residual conditions. Care must also be used not to alter final grades that have been established or cause damage to previously established turf areas.

3.04 SITE PREPARATION

A. If so called for by the Owner, all plant locations and the areas of all planting beds shall be staked out on the ground, for acceptance by the Owner, before planting operations begin. The Contractor shall stake the location of the center of each tree and paint the outline of each shrub and groundcover bed. The stakes shall be oriented in a vertical manner so that they can be viewed and read from one direction. The Contractor shall give the Owner notice 24 hours prior to the completion of staking described herein.
B. The Contractor shall verify the location of underground utilities, and irrigation heads and valves, and provide markers or other suitable protection, where necessary, to prevent damage.

3.05 EXCAVATION OF PLANTING AREAS

A. No tree or shrub pit shall be dug or prepared until their location is acceptable to the Owner. Reasonable care shall be exercised to have pits dug and soil prepared prior to moving plants to their respective locations for planting to ensure that they will not be unnecessarily exposed to drying elements or to physical damage.
B. Circular pits with vertical side shall be excavated for all plants. The depth of all plant pits shall be enough to accommodate the ball or roots and the prepared soil in the bottom of the pit. Diameter of pits for trees shall be at least 1 foot greater that the diameter of the rootball.
C. Plant beds and pits shall be tested for proper drainage by filling with water twice in succession. Conditions permitting the retention of more that 6 inches of water in 1 hour shall be brought to the attention of the Owner. A written proposal and cost estimate for correction of such conditions shall be submitted to the Owner for acceptance, before proceeding with the work.
D. All tree pits in curbed planting islands, tree wells, or in areas in which the soil has been compacted to an undesirable density, shall be excavated to a depth at least two feet greater than the measure depth & diameter of the ball. The minimum depth & diameter of an excavation shall be four feet. Soil backfill in areas of densely compacted soil must meet specification 2.01.C
E. In shrub and groundcover beds where soils have been compacted to a density that is detrimental to plant growth, the Contractor shall loosen soils to a depth of 18" minimum to allow root penetration beyond the planting pit.
F. If acceptable for use, existing topsoil in shrub and groundcover beds shall be treated with the specified soil amendments, at rates determined by soil tests. Amendments shall be incorporated into the soil to a depth of 12 inches. Where soil is not acceptable as determined by soils tests, the soil in the entire area shall be removed to a depth of 8 inches and replaced with the specified planting soil.

3.06 PLANTING

A. All plants, except as otherwise specified, shall be centered in their pits, faced for best effect and set plumb for backfilling.
B. Burlap on B&B and WB&B plants shall be removed from top one third of the ball. Burlap shall not be removed from under balls. If the ball is cracked or broken before or during planting process, the plant shall not be planted and shall be removed from the site. All synthetic strings, straps, and wire cages shall be removed from the top third of the rootball. Synthetic burlap shall be removed completely.
C. Plants shall be removed from cans by cutting two sides of a container with an acceptable can cutter. Sides shall not be cut with a spade. Sides of knockout cans shall not be cut. Plastic containers with slanted sides shall not require cutting. Plants shall be removed from the container carefully, without injury or damage to the plant and root system.
D. Bottom of plant boxes shall be removed before planting. Sides of the box shall be removed, without damage to the rootball, after positioning the plant and partially backfilling around it. The Contractor shall hand water containerized trees from the time of delivery until the time of final acceptance at a rate consistent with the nursery conditions from which the trees were obtained. Trees which go into shock due to insufficient water may be rejected.
E. Plants shall be set in the center of pits and shall be plumb and straight and at such a level that after settlement the root crown will be level with the surrounding grade.
F. Plant holes shall be backfilled with the specified planting mixture placed in layers around the roots or ball. Each layer shall be carefully tamped in place in a manner to avoid injury to the roots or ball or disturbing the position of the plant. When approximately two thirds of the plant holes has been backfilled, the holes shall be filled with water and the soil allowed to settle around the roots. Balled and burlapped plants shall have the burlap cut away or folded back from the top of the ball before applying the water. After the water has been absorbed, the plant hole shall be filled and tamped lightly to grade. Any subsequent settlement shall be brought to grade.
G. Immediately after each tree pit is backfilled, a shallow basin slightly larger than the pit shall be formed with a ridge of topsoil to facilitate watering. This soil saucer shall be formed in a circle and tamped around each tree so that the saucer will retain water. Where curbing occurs around plant pits, the saucer shall be omitted.
H. The Contractor shall include adding a water retentive additive Terra–Sorb AG for all shrubs, groundcovers, annuals, and trees at the manufacturers suggested rates.
I. The Contractor shall include amendments to specimen trees and palms that meet specification 2.02.B and 2.02.C respectively at rates specified by the manufacturer.

3.07 FERTILIZING

A. If required by soil testing, each tree and shrub shall be fertilized by placing the manufacturer's recommended amount around the base of the ball before backfilling.

3.08 STAKING, GUYING AND WRAPPING

A. Staking or guying and wrapping of trees shall be done immediately after they are planted. Each plant shall stand plumb after staking or guying has been completed. It shall be the Contractor's responsibility to ensure that all trees are plumb and secure after planting. Staking of trees of a 10 foot height or less shall be at the discretion of the Owner. All other trees shall be staked.
B. Immediately after planting, trees shall be staked and guyed for support with ArborBrace or ArborGuy Tree Guying System per manufacturer's instructions.
B.A. ATG–R for up to 4" caliper trees: (3) Polypropylene guylines $\frac{3}{4}$"x12'=800 lb test, olive drab, UV resistant; (3) nickel plated spring cam–lock tension clips; (3) arrowhead nylon anchors (4"x3–3/4").
B.B. ATG–J for up to 6" caliper trees: (3) Polypropylene guylines 1"x12'=1000 lb test, olive drab, UV resistant; (3) 1–1/4" nickel plated, non–rusting, spring cam–lock tensioning clips (1500 lb break strength); (3) arrowhead nylon anchors (5–1/2"x4–1/2").
B.C. Care shall be taken when driving anchors to avoid damaging the tree roots.
C. If planted while void of foliage, the trunks of all deciduous trees shall be wrapped spirally from bottom to top, and shall be securely tied with cord at top and bottom and at 2 foot intervals along the trunk. The wrapping shall overlap and entirely cover the trunk from the ground to the height of the second branches and shall be neat and snug. Overlap of wrapping material shall be approximately 2 inches. Trees shall be inspected for injury to trunks, evidence of insect infestation and improper pruning before wrapping.

3.09 MULCHING

A. Immediately after planting operations are completed, all tree the and shrub saucers, and shrubs and groundcover beds shall be covered with a 3 inch layer of pine bark mini nuggets. Limits of the mulch shall be as indicated on the drawings.

3.10 PRUNING

A. Each tree and shrub shall be pruned in accordance with standard horticultural practices to preserve the natural character of the plant and in the manner fitting its use in the landscape design. Pruning shall be done with clean, sharp tools and as indicated on the drawings.
B. No more than one third of the growth of large deciduous trees (those with 2 inch caliper or larger) shall be pruned by removal of superfluous branches. Main leaders of trees shall not be cut back. Remove any crossing or damaged branches. Long side branches may be shortened. Shrubbery with extremely heavy tops may have one fourth to one third of the weaker growth removed by thinning.

3.11 CLEAN–UP

A. During the course of planting, excess and waste materials shall be continuously and promptly removed daily, lawns kept clear, and all reasonable precautions taken to avoid damage to existing structures, plants and grass. After completion of the work, the entire site shall be cleared of excess soils, waste material, debris and all objects that may hinder maintenance and affect the visual appearance of the site.
A.A. The Contractor shall clean all roads and walks of dirt film and soil clods. The Contractor shall also pressure clean and broom sweep all asphalt pavement prior to the final lift of asphalt to be laid.

3.12 DISTURBED AREAS

A. All areas outside of the limit of work that are disturbed by the Contractor's construction activities shall be repaired and replanted to it original condition.

3.13 GUARANTEED PROVING PERIOD

A. There shall be a guarantee period of 1 year for trees and specimen material and 3 months for shrubs. This guarantee period shall start at the final acceptance date. Contractor shall replace any and all plant material that die during this guarantee proving period. Replacement of plants necessary during the guarantee period shall be the responsibility of the Contractor, except for possible replacements of plants resulting from removal, vandalism, acts of neglect on the part of others, or acts of God. All replacement material shall have the same guarantee time (1 year from installation of replacement for trees and specimen material and 3 months of shrubs).
B. Planting maintenance shall include all necessary watering, cultivation, weeding, pruning and spraying; wrapping and mulching; straightening of plants which lean or sag and which develop more that a normal amount of settlement; such adjustments to include excavating around and leveling or raising the ball when so directed; and all other incidental work necessary for proper maintenance as directed by the Owner until substantial completion and written release.
C. Transplanted material (if applicable) shall not be guaranteed, however, good horticultural practices should be used before, during and after the material is transplanted. Good horticultural practices should include but not be limited to, all necessary watering, pruning and spraying; wrapping and mulching; fertilizing; moving; maintaining the same orientation and grade level from the original location; and all other incidental work necessary for proper transplanting.

3.14 FINAL INSPECTION AND ACCEPTANCE

A. The Contractor shall notify the Owner in writing when the work has been completed in accordance with this Contract and request an inspection. The Owner will make the inspection of the work and report findings as to acceptability and completeness. Any work remaining to be done shall be subject to re–inspection before final acceptance. The Contractor will be notified in writing by the Owner of the final acceptance of the work.

3.15 CONTRACTOR'S RESPONSIBILITY AFTER ACCEPTANCE

A. The Owner may elect to assume maintenance of all work, at the time of acceptance, or may elect to contract for maintenance by others for a specified period. Should maintenance after final acceptance be the responsibility of those other than the Contractor, the Contractor shall monitor all work for which he is responsible by guarantee, to assure that maintenance being performed will not jeopardize the condition and quality of the work and materials guaranteed by the Contractor. Any inadequate or damaging maintenance practices shall be reported immediately in writing to the Owner so that appropriate measures may be taken to correct the condition. Failure to so notify the Owner will invalidate any later claim of negligence or malpractice in maintenance.

3.16 ACCEPTANCE AND REPLACEMENT OF PLANT MATERIAL

A. At the expiration of the proving period, an inspection of the plantings will be made by the Owner. Only those plants that are alive and normally healthy will be accepted. Unaccepted material shall be removed and replaced by the Contractor at their own expense, during the next planting season. Material and method of replacement planting shall be the same as specified for the original planting unless otherwise directed. The Contractor shall continue to make replacements until a plant shows vigorous and healthy growth for a period of 1 year from the date of acceptance by the Owner. All such replacements at the end of the proving period by the Owner.

END OF SECTION 32.93.00

BONNETT design group, llc
landscape architecture
community planning
FL #LA0001718

400 South Orlando Ave. Suite 201
Maitland, FL. 32751
407.622.1588

Taylor Ridge
Landscape Architecture
Hanover Land Company, LLC
Deland, Florida
PLANTING SPECIFICATIONS

DATE: April 12, 2024
DRAWN BY: BRL
CHECKED BY: TWB
JOB NUMBER: 2021.188
FILE NAME: 021.188_HANOVER-TAYLOR RIDGE_LSBASE

REVISIONS:
1 City Comments 07-26-2024
2 City Comments 09-09-2024
3 City Comments 10-28-2024
4 City Comments 03-07-2025

SIGNER HEREIN EXPRESSLY RESERVES HIS COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS AND DRAWINGS. THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF BONNETT DESIGN GROUP, LLC AND THEN ONLY TO THE EXTENT SPECIFICALLY STIPULATED BY SAID CONSENT.

FLORIDA LANDSCAPE ARCHITECT TODD W. BONNETT LA#0001718 STATE OF FLORIDA

This item has been electronically signed and sealed by Todd W. Bonnett, RLA FLA#LA1718 using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Todd W. Bonnett, RLA # FL0001718

Digitally signed by Todd W Bonnett
Date: 2025.06.17 16:57:27-04'00'

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WORK MAY BE WITHOUT PRIOR CONSENT

L433

DRAWING PLOTTED: 4/18/2025 2:16:01 PM
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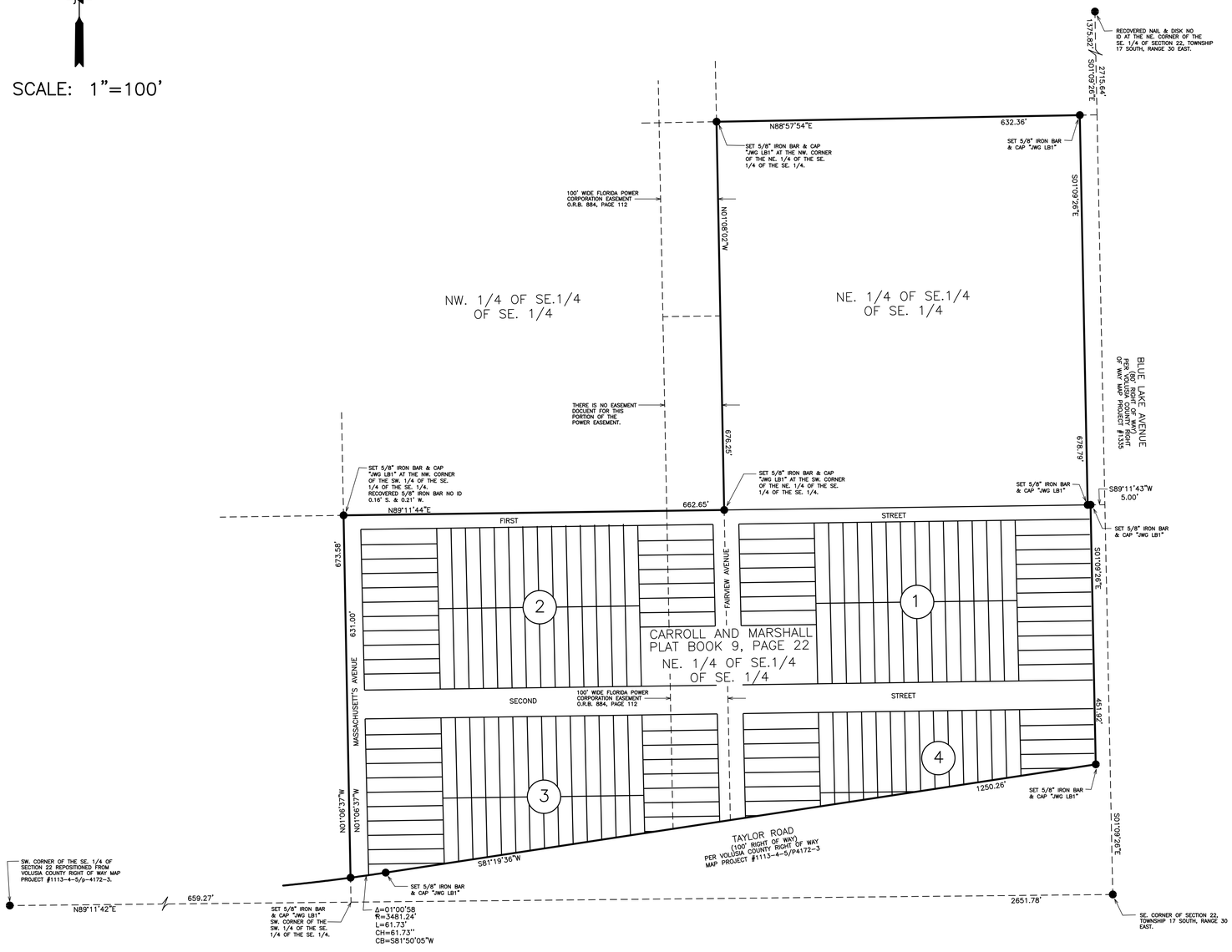
BOUNDARY & TOPOGRAPHIC SURVEY

SEE SHEETS 2–X FOR TOPOGRAPHIC DETAIL SHEETS

SECTION 22, TOWNSHIP 17 SOUTH. RANGE 30 EAST

VOLUSIA COUNTY, FLORIDA

SCALE: 1"=100'



DESCRIPTION

Parcel 1:
The South 1/2 of the Southeast 1/4 of the Southeast 1/4, lying North of Taylor Road, Section 22, Township 17 South, Range 30 East, Volusia County, Florida, Less and Except Road Right of Ways.

also described as:

All of Blocks 1 and 2, and that portion of Blocks 3 and 4, lying North of Taylor Road, Carroll and Marshall Addition to Deland, according to the map thereof as recorded in Map Book 9, Page 22, Public Records of Volusia County, Florida, Less and Except Road Right of Ways.

Parcel 2:
The Northeast 1/4 of the Southeast 1/4 of the Southeast 1/4, Section 22, Township 17 South, Range 30 East, Volusia County, Florida, Less Road Right of Way.

CONTAINING: 26.011 acres, more or less.

LEGEND

R	=	RADIUS
Δ	=	DELTA
L	=	LENGTH
CH	=	CHORD LENGTH
CB	=	CHORD BEARING
ASPH	=	ASPHALT
BC	=	BACK OF CURB
BNDY	=	BOUNDARY
C&G	=	CURB & GUTTER
CM	=	CONCRETE MONUMENT
CONC.	=	CONCRETE
CSL	=	CONCRETE SLAB
D	=	DESCRIPTION
DOC.	=	DOCUMENT
EL.	=	ELEVATION
EP	=	EDGE OF PAVEMENT
F	=	FIELD
FL	=	FLOWLINE OF CURB
IBC	=	IRON BAR & CAP
ID	=	IDENTIFICATION
INV	=	PIPE INVERT
MES	=	MITERED END SECTION
N&D	=	NAIL & DISK
OHE	=	OVERHEAD ELECTRIC WIRES
ORB	=	OFFICIAL RECORDS BOOK
P	=	PLAT
PB	=	PLAT BOOK
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POC	=	POINT OF COMMENCEMENT
RCP	=	REINFORCED CONCRETE PIPE
REC	=	RECOVERED
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W/	=	WITH
	=	CABLE RISER
	=	ELECTRIC SERVICE BOX
---->	=	GUY ANCHOR
	=	MAILBOX
	=	MANHOLE–SANITARY
	=	PEDESTRIAN CROSSING SIGN
	=	POWER POLE–CONCRETE
	=	POWER POLE–METAL
	=	POWER POLE–WOOD
	=	SIGN
	=	TELEPHONE PEDESTAL
	=	WELL PUMP
■	=	4"X4" CONCRETE MONUMENT
●	=	5/8" IRON BAR & CAP, UNLESS NOTED OTHERWISE

NOTES
1. This Plat represents a Boundary Survey of the Description provided by client to Jones, Wood & Gentry, Inc. and does not indicate ownership.

2. Bearings shown hereon are based on the East Boundary of the Southeast 1/4 of Section 22 as bearing S01°09'26"E, per Florida State Plane coordinates Zone East.

3. A Commitment for Title Insurance was prepared by Chicago Title Insurance Company, Commitment No. RTG2121201 with a commitment date of July 12, 2021 at 5:00 P.M. and was provided to Jones, Wood & Gentry, Inc. for use in preparing this survey. Research of the public records was not a part of the Scope of Surveying Services contract. Items listed in Schedule B Section II of the title commitment, to the extent they affect and can be shown graphically on the survey, relative to the subject property, are listed below:
ITEM 6. Restrictions, covenants, conditions, easements and other matters as contained on the Plat of CARROLL AND MARSHALL ADDITION TO DELAND, recorded in Map Book 9, Page 22, of the Public Records of Volusia County, Florida.
ITEM 7. Easement in favor of Florida Power Corporation recorded November 1, 1966 in Official Records Book 884, Page 112; Subordination of Utility Interests recorded March 19, 1991 in Official Records Book 3603, Page 829. O.R.B. 884, Page 112 describes a 100' wide Power easement. But does not describe that part of the property known as "The S. 1/2 of the NW. 1/4 of the SE. 1/4 of the SE. 1/4 of SECTION 22" as shown hereon. O.R.B. 3603, Page 829 does not affect the property. That description described the a portion of the powerline easement where the Taylor Road widening occured and no longer affects the property.

4. Elevations shown hereon are based on Volusia County 1988 datum Vertical Control Points:
BLA#4 X–Cut in Concrete Published Elevation 84.343.

MEMBERS F.S.M.S.
JONES, WOOD & GENTRY, INC.
PROFESSIONAL SURVEYORS AND MAPPERS – LB1
9645 EAST COLONIAL DRIVE
SUITE 114
ORLANDO, FLORIDA 32817
407–898–7780

FOR:
HANOVER LAND COMPANY, LLC

BY: DG3
DATE: 10–XX–2021
DRAWING: 29293–COV.DWG
JOB: 29293
SHEET: 1 OF XX SHEETS

BOUNDARY & TOPOGRAPHIC SURVEY

SEE SHEET 1 FOR DESCRIPTION
SECTION 22, TOWNSHIP 17 SOUTH. RANGE 30 EAST
VOLUSIA COUNTY, FLORIDA

LEGEND

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= PEDESTRIAN CROSSING SIGN
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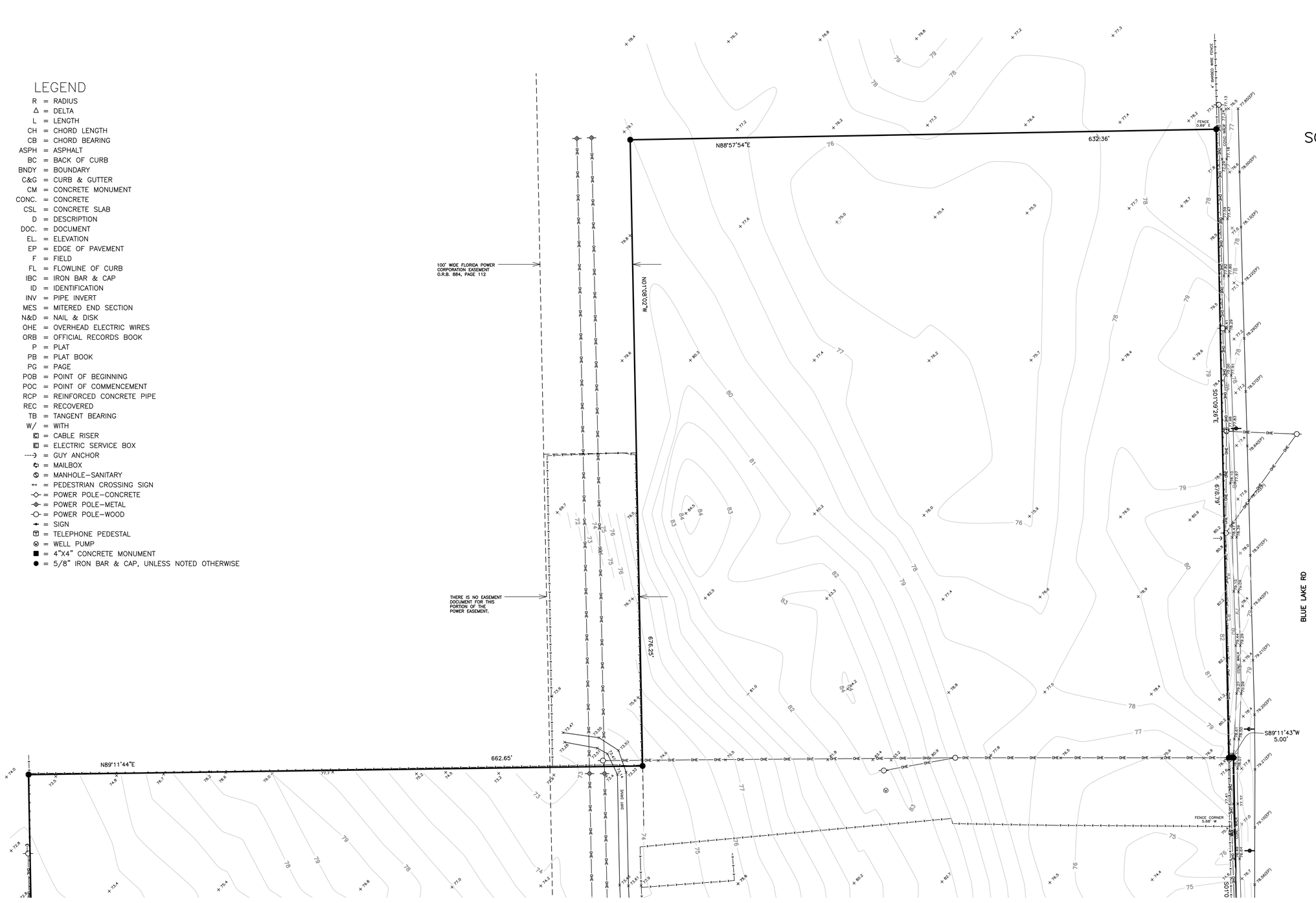

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PROFESSIONAL SURVEYORS AND MAPPERS – LB1
9645 EAST COLONIAL DRIVE
SUITE 114
ORLANDO, FLORIDA 32817
407–898–7780

FOR:

BY: DG3
DATE:
DRAWING: 29293–BDY.dwg
JOB: 29293
SHEET: 2 OF 3

BOUNDARY & TOPOGRAPHIC SURVEY

SEE SHEET 1 FOR DESCRIPTION
SECTION 22, TOWNSHIP 17 SOUTH. RANGE 30 EAST
ORANGE COUNTY, FLORIDA

LEGEND

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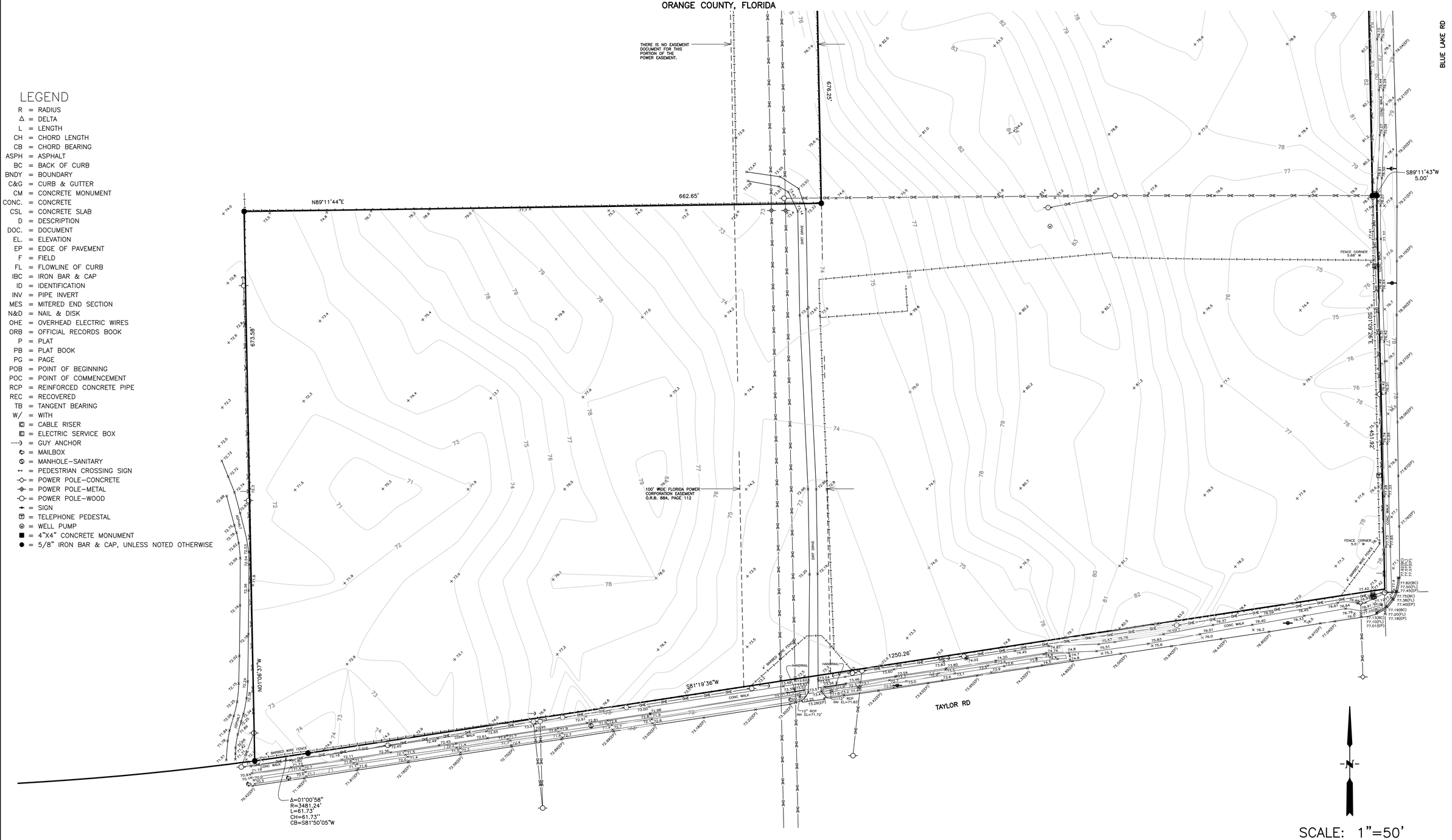


SCALE: 1"=50'

JONES, WOOD & GENTRY, INC.
PROFESSIONAL SURVEYORS AND MAPPERS – LB1
9645 EAST COLONIAL DRIVE
SUITE 114
ORLANDO, FLORIDA 32817
407–898–7780

FOR:

BY: DG3
DATE:
DRAWING: 29293–BDY.dwg
JOB: 29293
SHEET: 3 OF 3

PLANNING STAFF REPORT
To
PLANNING BOARD

August 14, 2024

APPLICATION: PSB24-090

SUBJECT: Preliminary Plat for Taylor Ridge Planned Development

1. Location: Northwest corner of S. Blue Lake Ave. & E. Taylor Rd.

2. Applicant: Sean Fortier, KCG Engineering

3. Size: ± 26.01 acres, Parcel ID 702200000191 & 702200000090

4. Existing Zoning & Land Use:

Land Use: Transitional Residential Development (TRD)
Zoning: Taylor Ridge PD

5. Surrounding Conditions:

	SURROUNDING USE:	**SURROUNDING ZONING:**
North:	VC: Rural; LDR	VC: A-2; Saddlebrook PD
South:	VC: Rural; New Community Development	Bridle Oaks PD; Victoria Park PD
East:	VC: Rural	VC: A-3
West:	VC: Urban Low Intensity	VC: RA; VC: A-4

6. Applicable Regulations:

Sec. 33-146.05. *Subdivision of Land.*
Taylor Ridge Planned Development Agreement

7. Physical Characteristics:

The subject property is located On the northwest corner of S. Blue Lake Ave. and E. Taylor Rd. The property is entirely wooded, lying outside of the 100-year floodplain, and no wetlands are indicated.

There is a 100’ wide power line easement that runs north to south at the center of the property which will remain clear. There is also an access easement for the abutting property to the west which provides the property owner of 1275 E. Taylor Rd. to reach the right-of-way. The applicant will continue to provide access for the abutting property via a 25’ wide easement running to the west of the powerline easement. Access to Taylor Ridge will be from S. Blue Lake Ave. and E. Taylor Rd.

8. Public Utilities and Service:
Water: The proposed development will be served by City potable water facilities.
Sewer: The proposed development will be served by City sanitary sewer facilities.

9. Type of Development:
The applicant seeks to develop the subject property into a 65-lot single-family residential subdivision. The adopted PD agreement allows for single-family homes, and the development standards comply with the standards outlined in the PD. Taylor Ridge is the first development that was approved under the Transitional Residential Development land use designation.



The TRD land use designation is intended for areas with lower density development to provide a transition between existing low density residential and agricultural uses within unincorporated Volusia County and low density suburban residential uses within the city. In some circumstances, a density bonus may be granted that increases the maximum of 2.0 dwelling units per acre, to as much as 3.25 dwelling units per acre, if specific criteria outlined in the TRD are met. These criteria include enhanced amenities and open space. Specifically, the TRD designation stipulates all the following must be provided for a development to be eligible for the density bonus and the applicant is meeting said standards.

A. Internal trail and bike lanes with connection to adjacent trails and natural areas are constructed throughout the development area.
B. Sidewalks and bike lanes are provided throughout the development area.
C. The project must be located within a mile of an arterial, interstate or the SunRail stations.
D. A least three enhanced on-site amenities such as a recreation center, pool, clubhouse, fitness center, dog park, etc. are constructed to serve the residents. Community enhancements are being provided in the Taylor Ridge PD. These enhancements include:
    - Mulched pathways running from a centralized amenity parcel to Taylor Rd.
    - An 8’ wide multi-use sidewalk that connects natural areas throughout the development
    - And 3 enhanced on-site amenities which will include:
        1. A fenced-in dog park
        2. A playground for children in the neighborhood.

3. A community gathering area with a large pavilion that offers picnic tables, grills for the residents to use and outdoor games such as “horseshoes”.

The development is consistent with the Comprehensive Plan, in that the underlying land use of Transitional Residential Development designation allows a density bonus up to 2.5 dwelling units per acre provided specific performance standards have been met. This project proses a density of 2.5 dwelling units per acres and provided the enhanced amenities internal sidewalks and bike lanes and is within a mile of an arterial roadway.

10. Analysis:
The proposed subdivision is located at the northwest corner of S. Blue Lake Ave. & E. Taylor Rd. Access will be provided on both Blue Lake Ave. and E. Taylor Rd. The applicant will need to apply for a Use Permit from Volusia County.

An environmental report dated August 27, 2021 was submitted as part of the application. Per the report, no wetlands were found on the property. A permit through FWC will be required for relocation of gopher tortoises.

City Commission approved the request for rezoning of the subject property to Taylor Ridge Planned Development on February 5, 2024.

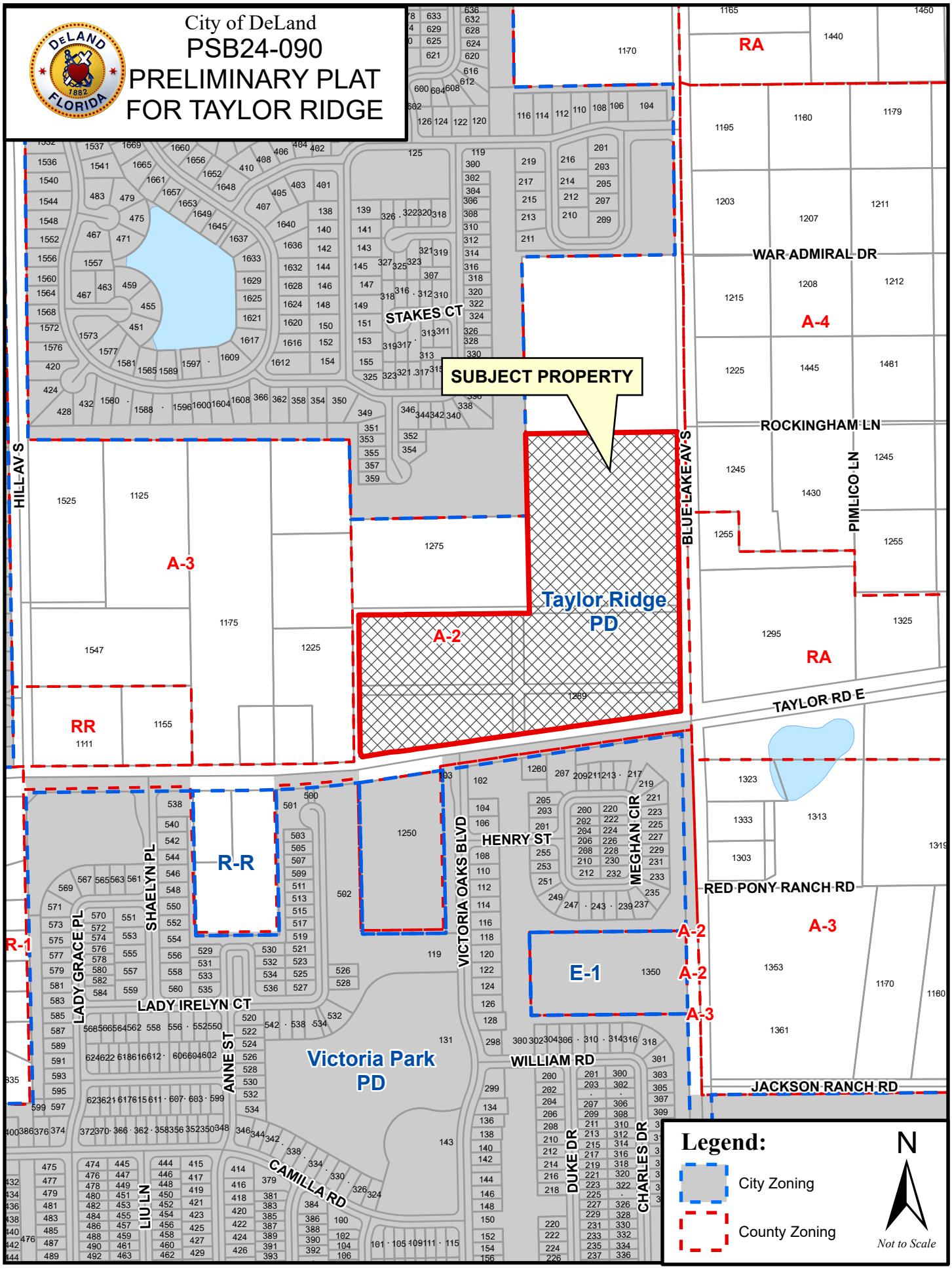
A School Concurrency Determination Letter dated May 29, 2024, reserving “stations” (student space) for the 65-lot residential subdivision.

The proposed preliminary plat includes the approved civil contruction plans and is consistent with the adopted PD agreement, concept plan, and applicable land development regulations. Prior to construction, a separate site plan must be submitted for any model homes or temporary offices being permitted.

At the May 16, 2024, the Technical Review Committee members recommended the Preliminary Plat be forwarded on to the Planning Board.

11. Recommendation:
Staff recommends that the Planning Board forward the preliminary plat to the City Commission recommending approval of the development.


City of DeLand
PSB24-090
PRELIMINARY PLAT
FOR TAYLOR RIDGE
SUBJECT PROPERTY
PD
A-4
A-3
A-2
RA
RR
R-R
R-1
E-1
WAR ADMIRAL DR
ROCKINGHAM LN
BLUE LAKE AVS
HILL AV S
PIMLICO LN
TAYLOR RD E
RED PONY RANCH RD
JACKSON RANCH RD
VICTORIA OAKS BLVD
MEGHAN CIR
SHAELYN PL
LADY IRELYN CT
AUTUMN BREEZE ST
LADY GRACE PL
LIU LN
ANNE ST
LADY BELLA PL
CAMILLA RD
DUCHESS RD
DUKE DR
CHARLES DR
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
PSB24-090
PRELIMINARY PLAT
FOR TAYLOR RIDGE
SUBJECT PROPERTY
Taylor Ridge
PD
Victoria Park
PD
A-2
A-3
A-4
RA
RR
R-R
R-1
E-1
HILL AV S
BLUE LAKE AV S
WAR ADMIRAL DR
ROCKINGHAM LN
PIMLICO LN
TAYLOR RD E
RED PONY RANCH RD
JACKSON RANCH RD
STAKES CT
HENRY ST
VICTORIA OAKS BLVD
MEGHAN CIR
SHAELYN PL
LADY GRACE PL
LADY IRELYN CT
ANNE ST
WILLIAM RD
DUKE DR
CHARLES DR
CAMILLA RD
LIU LN
Legend:
City Zoning
County Zoning
N
Not to Scale

VOLUSIA COUNTY SCHOOLS

Carmen J. Balgobin, Ed.D
Superintendent of Schools

School Board of Volusia County

Ms. Jamie M. Haynes, Chairman
Mrs. Anita Burnette, Vice Chairman
Mr. Ruben Colón
Mr. Carl Persis
Mrs. Jessie Thompson

School Concurrency Determination
Concurrency Letter

May 29, 2024

Mr. Michael J. Woods, Esq
Cobb Cole
231 N Woodland Blvd
DeLand, FL 32720

RE : Taylor Ridge PD – City of DeLand
School Concurrency Case # 24-04-26-001-R

Dear Mr. Woods:

District staff reviewed the information regarding the residential project known as Taylor Ridge PD associated with 26.01 +/- acres of property. The property is located at or near the intersection of E Taylor Rd and S Blue Lake Ave within DeLand city limits. Information provided in the school concurrency application indicates the development activity will consist of sixty-five (65) single family homes.

The district uses a county wide Student Generation Rate (SGR) of (0.258) per single family dwelling unit to calculate projected students. By applying the SGR to the use types in Table 1 below, the project could generate seventeen (17) full time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	0.258	65	17
Multi Family Dwelling Unit	0.137	0	0
Mobile/ Manufactured Home Dwelling Unit	0.052	0	0
	Total	**65**	**17**

The Concurrency Analysis (Table 2, next page) adjusts for impacts to the Concurrency Service Areas (CSAs) by accounting for current school year enrollments, existing reservations at the impacted schools, and the projected students generated by the applicant. These factors give an associated utilization or Level of Service (LOS) percentage for each CSA.

The schools impacted by this development are Freedom Elementary School, DeLand Middle School, and DeLand High School.

FACILITIES SERVICES
3750 OLSON DRIVE • DAYTONA BEACH, FL 32124
PHONE: (386) 947-8786 • FAX (386) 506-5056

An Equal Opportunity Employer

Concurrency Analysis

Table 2

Schools	Adopted LOS	SY 2023/24 Enrollment	Active Reservations	Existing LOS w/ Res	Students Generated by Request	Result LOS
Freedom Elementary	115%	752	14	107%	6	108%
DeLand Middle	115%	1,090	77	101%	3	102%
West CSA (DeLand High)	120%	2,874	238	113%	6	113%
Other					2	

The adopted LOS standard for elementary and middle school is (115%) of permanent student stations, and (120%) for high school CSAs. This projected increase in students **will not** exceed the adopted LOS at any school level; therefore, the school district does not have an objection to the proposed site plan. Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering.

Please note that the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Therefore, students generated from this project may not attend the current assigned schools.

Should you need additional information, please contact me at (386) 947-8786, ext. 50806.

Sincerely,

Leineriza V. Divina
Coordinator, Planning

CC: Carmen J. Balgobin, Ed.D, Superintendent of Schools
Ron Young, Director of Planning & Construction
Kendal Story, Senior Planner, City of DeLand
James F. Roberts, VCSB Planning Services Project File

VOLUSIA COUNTY SCHOOLS

Certificate of School Concurrency

VOLUSIA COUNTY SCHOOL BOARD

Project Information	
Project Name	Taylor Ridge PD
VCSB Project #	**24-04-26-001-R**
Jurisdiction Project #	
Parcel ID Numbers	7022-00-00-0090; 7022-00-00-0191
Project Location	E Taylor Rd and S Blue Lake Ave
# of Residential Units	65
Residential Unit Type	Single Family Homes
Property Owners	TLC Blue Lake, LLC
Applicant/Agent Name	Michael J. Woods, Esq – Cobb Cole

This School Concurrency Certificate shall reserve student stations for the above referenced project and shall confirm that said project meets the School Concurrency requirements of the adopted Interlocal Agreement for Public School Facility Planning.

School Concurrency Analysis					
School Levels	Elementary	Middle	High	Other	Total Student Stations Reserved
Students Generated	6	3	6	2	**17**
Comments: This certificate is required to be included with the building permit submittal(s) as proof of school concurrency.					

This concurrency reservation shall expire two (2) years from the date of issuance of this certificate.

Leineriza V. Divina
Coordinator, Planning

May 29, 2024
Issue Date

Created: 9/2007
Rev: 1/2018
Owner: Facilities Services

2008-072-VCS
Print Locally

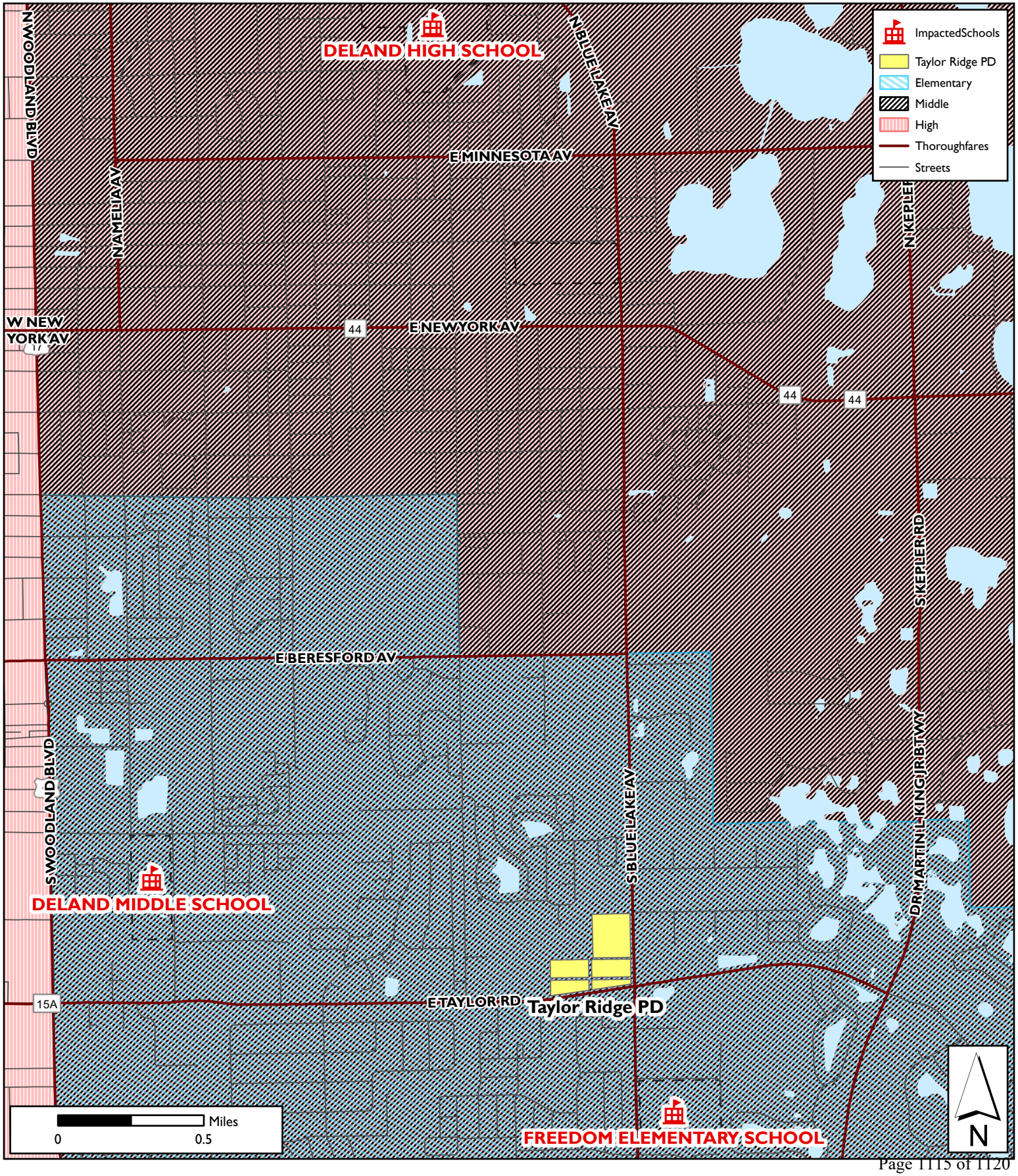
VCSB Schools Impacted by Development

School Concurrency Review - Taylor Ridge PD

VOLUSIA COUNTY SCHOOLS

Created by Facilities Services

May 2024



CITY OF DELAND
Request for Commission Action
October 6, 2025

SUBJECT: Request to Continue Resolution Approving a Special Exception for a Bed and Breakfast Homestay, Located at 302 South Hayden Avenue.

DEPARTMENT: Planning

PREPARED BY: Sam Nelson, Planner 1

ATTACHMENTS: SE25-107 Continuation Memo, SE25-107 Aerial , SE25-107 Zoning

APPROVED BY: Michael Pleus, City Manager, October 1, 2025

SUMMARY/HIGHLIGHT:

The subject property is located within the R-1 Single-Family residential zoning district and has a future land use designation of Medium Density Residential, and is located within the Historic Garden District. The property is owned by the applicant, Michael Arth and is currently developed with a single-family residence and accessory dwelling unit. The applicant is requesting a special exception approval to permit a bed and breakfast homestay on their property.

On September 10, 2025 the Planning Board voted to recommend approval to the City Commission, subject to the applicant obtaining variance approval to reduce the required landscape buffers.

This is a request for continuance to the October 20, 2025 City Commission meeting to accommodate the accompanying variance application.

STRATEGIC PLAN FOCUS AREA/ACTION STEP:

Institute Smart Growth Principles - The redevelopment of a single-family residence into a bed and breakfast homestay will help to extend the downtown area.

SUSTAINABILITY:

The addition of a bed and breakfast homestay to a single-family residence may contribute to revitalizing a single-family neighborhood.

FISCAL IMPACT:

The addition of a bed and breakfast homestay to a single-family residence may increase the taxable valuation of the property.

RECOMMENDATION:

Requested to continue the hearing to the October 20, 2025, City Commission meeting.

BACKGROUND/DISCUSSION:

The subject property is located within the R-1 Single-Family residential zoning district and has a future land use designation of Medium Density Residential. The surrounding area consists of single-family, multiple-family, and commercial uses. The property is also located within the Historic Garden District, which consists of

numerous historic buildings southeast of downtown. The subject property is developed with a single-family residence and an accessory dwelling unit, and also contains a parking area previously constructed for an off-site commercial use, which has since been abandoned. The applicant received approval for several variance requests to reduce the required setbacks and buffers.

On September 10, 2025, the Planning Board voted to recommend approval of special exception SE25-107 subject to the applicant obtaining variance approval to reduce the required landscape buffers.

Planning Department

Memorandum

TO: City Commission

DATE: October 6, 2025

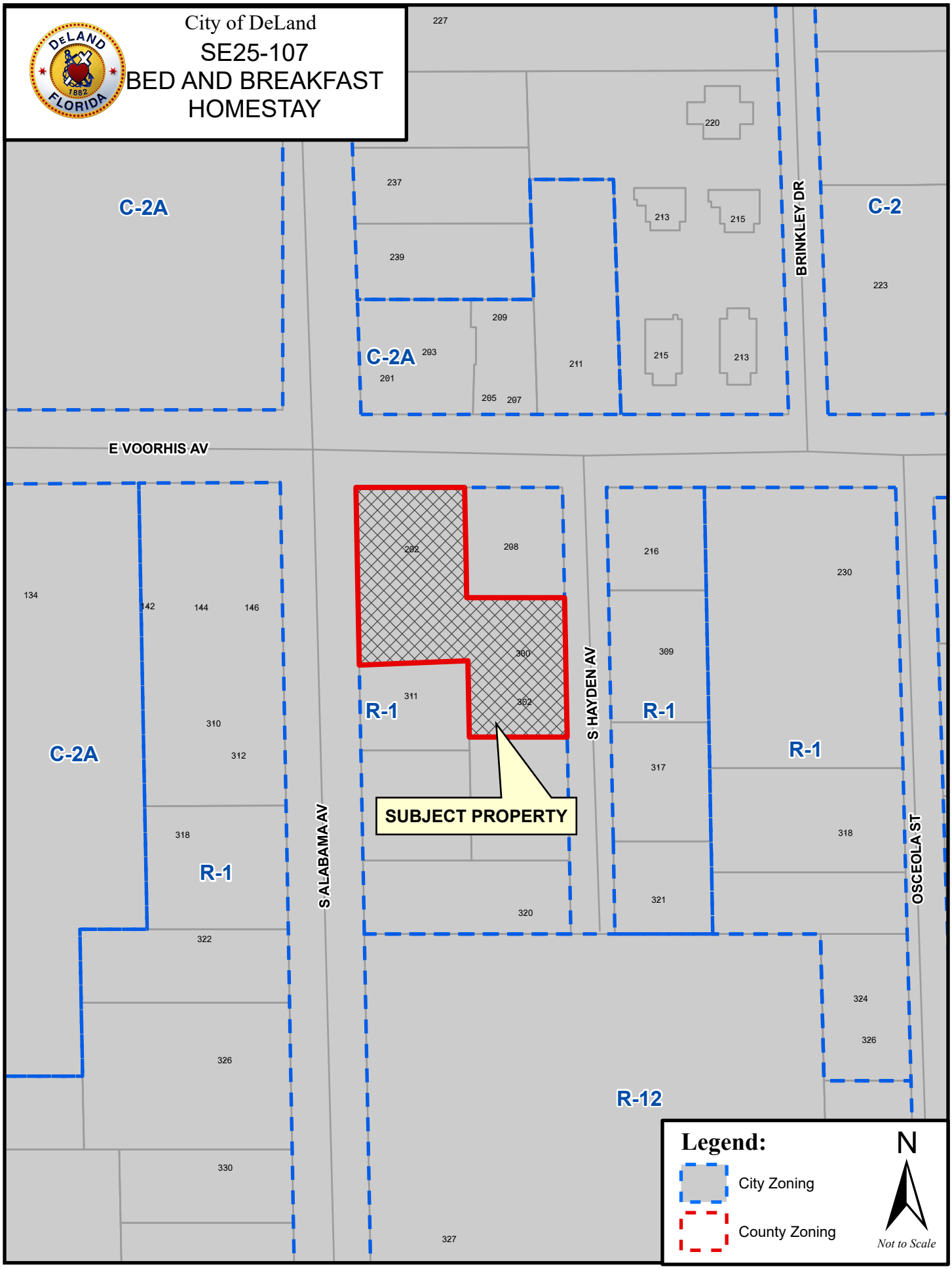
FROM: Sam Nelson, Planner I

SUBJECT: Request to Continue a Resolution Approving a Special Exception for a Bed and Breakfast Homestay, Located at 302 S Hayden Ave.

==========

The applicant, Michael Arth, requested to continue the above-referenced application from the October 6, 2025, City Commission meeting to the October 20, 2025, City Commission meeting to allow additional time to submit a companion variance application to the Planning Board.


City of DeLand
SE25-107
BED AND BREAKFAST
HOMESTAY
C-2
C-2A
C-2A
C-2
BRINKLEY DR
E VOORHIS AV
C-2A
R-1
S HAYDEN AV
R-1
R-1
SUBJECT PROPERTY
S ALABAMA AV
OSCEOLA ST
R-1
R-1
R-12
S CLAKE ST
Legend:
City Zoning
County Zoning
N
Not to Scale


City of DeLand
SE25-107
BED AND BREAKFAST
HOMESTAY
C-2A
C-2
C-2A
R-1
R-1
R-1
R-1
R-12
E VOORHIS AV
BRINKLEY DR
S ALABAMA AV
S HAYDEN AV
OSCEOLA ST
SUBJECT PROPERTY
227
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205
207
134
142
144
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Legend:
City Zoning
County Zoning
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