CENTRAL FLORIDA COMMUTER RAIL TRANSIT NORTH/SOUTH CORRIDOR PROJECT

ENVIRONMENTAL ASSESSMENT

Prepared by:
U.S. Department of Transportation (US DOT)

Federal Transit Administration (FTA)

And

Florida Department of Transportation

March 2007

In cooperation with
Central Florida Regional Transportation Authority/LYNX
Metroplan Orlando (MPO):
Volusia, Seminole, Orange, and Osceola Counties

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In cooperation with

VOLUSIA, SEMINOLE, ORANGE, AND OSCEOLA COUNTIES
METROPLAN ORLANDO (MPO) and VOLUSIA COUNTY MPO;
CENTRAL FLORIDA REGIONAL TRANSPORATION AUTHORITY/LYNX;

Pursuant to

National Environmental Policy Act of 1969, (42 U.S.C. 4332 (2)(c) and 49 U.S.C. 303; and
In compliance with 23 CFR Part 771

Date: 12-15-06

For FTA: Yvette G. Taylor
Yvette G. Taylor
Administrator, Region IV

Date: 12.15.06

For FDOT: Noranne Downs
Noranne B. Downs, P.E.
Secretary, FDOT District Five

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Abstract
The Florida Department of Transportation in cooperation with the Central Florida Regional Transportation Authority (LYNX), METROPLAN Orlando (MPO), and Volusia, Seminole, Orange, and Osceola Counties is proposing to introduce commuter rail transit service in the four-county corridor that extends north and south of Orlando, Florida. The Federal Transit Administration (FTA) has agreed to serve as the lead federal agency for the project. The Central Florida Commuter Rail Transit (CFCRT) North/South Corridor Project is a 60.8 mile, 16 station project using the existing CSXT "A" line rail corridor from DeLand in Volusia County on the north to Poinciana Industrial Park in Osceola County on the south, which would provide an alternative travel mode that avoids and minimizes additional environmental impact. The Alternatives Analysis completed in 2004 concluded that commuter rail transit is the preferred alternative for addressing the identified transportation needs in the corridor. This Environmental Assessment (EA) updated the CFCRT definition and assessed its environmental impacts.

The passenger service would start in 2009 on a 31 mile, 10 station Initial Operating Segment (IOS) in the North Corridor. Following the IOS, service would be extended to the South Corridor followed by the ultimate extension to DeLand in the North Corridor. The proposed commuter rail station stops would be at DeLand Amtrak, DeBary/Saxon Boulevard Extension, Sanford/SR 46, Lake Mary, Longwood, Altamonte Springs, Winter Park/Park Avenue, Florida Hospital, LYNX Central, Church Street, Orlando Amtrak/ORMC, Sand Lake Road, Meadow Woods, Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park. Maximum operating speeds in the corridor would be 79 mph using Federal Railroad Administration (FRA) compliant Diesel Multiple Unit (DMU) rail passenger cars to operate primarily weekday peak hour service at frequencies up to 4 trips per hour per direction and limited off-peak service. Feeder bus service would be provided through a combination of new and modified existing bus routes. This document describes and summarizes the alternatives considered and their probable environmental consequences. The EA finds that the transportation and land use benefits of the proposed Project are substantial and widely distributed within the corridor, while the number of potentially adverse impacts is small and capable of being reduced or eliminated through mitigation.

Comments
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Comments on this document may be made orally at the public hearings or submitted in writing to Ms. Tawny H. Olore at the above address. A 30-day period has been established for comments on this document. Comments must be received by January 29, 2007.

MARCH 2007

PREFACE

The following document contains an Environmental Assessment (EA), which was prepared to provide more detailed environmental analyses for the proposed commuter rail service between the DeLand Amtrak Station in Volusia County and the Poinciana Industrial Park in Osceola County, Florida. This project has been the subject of several previous analyses, the most recent of which resulted in the designation of a potential commuter rail project. In 2004, the North-South Commuter Corridor Alternatives Analysis (AA) assessed the mobility needs in the corridor and recommended a proposed commuter rail project. Since the proposed project would utilize an existing active freight rail line (the CSXT A-line), the Florida Department of Transportation (FDOT) requested and the Federal Transit Administration (FTA) Regional office concurred, that an EA would be the appropriate next step in the environmental approval process.

In order to fully comprehend the documentation contained in this report, several key assumptions require brief explanation and discussion as a preface to the subsequent environmental assessment.

CSXT Rail Corridor.

While commuter rail transit has been discussed for years, dating back to before the formation of the Central Florida Commuter Rail Authority in 1989, and has been contained in the long range transportation plan, the reality was that CSXT owned and controlled the corridor in which commuter rail would operate. As long as CSXT opposed the concept of passenger rail on the A-line, the commuter rail project would always remain just a concept, a line on a map. However, in December 2004, CSXT officials presented to FDOT executives a Strategic Plan, which voluntarily proposed designating the A-line as primarily for passenger service, and the S-line to the west of central Florida and in the middle of the state, for freight service. CSXT intends to complement this shift with the strategic location of “intermodal rail villages” in south Florida, central Florida (Lakeland/Auburndale), and north Florida (Jacksonville area).

The CSXT proposal is to gradually shift a portion of the freight trains on the A-line over to the S-line, as capacity improvements are made to the S-line and as passenger use increases on the A-line from commuter rail and, in the future, intercity passenger rail. In support of the CSXT Strategic Plan and the Central Florida Commuter Rail Transit (CRT) Project, FDOT and the project sponsors have had regular meetings with CSXT and have been sharing information is support of refining the Build Alternative for the proposed CFCRT Project. During 2005, CSXT allowed FDOT consultants access to their right-of-way to collect environmental field data, and conduct inspections. CSXT supplied existing freight operations data, track charts, railway signal drawings, right-of-way, utilities, bridge plans, etc. and fully participated in the development of an enhanced combined CFCRT and freight operating plan for the corridor. Recently, the two parties have been negotiating freight traffic density and train operating patterns on the A-line. A fundamental component of these negotiations is a Memorandum of Understanding (MOU) that eliminates freight traffic during the proposed CRT service periods, consistent with the proposed CSXT Strategic Plan.

CSXT Negotiations/MOU.

FDOT is currently in negotiation with CSXT for purchase of 60.8 miles of the CSXT A-line in central Florida for passenger rail use, consistent with the CSXT Strategic Plan and the CRT Project. While this negotiation is nearing its conclusion during this EA process, it was not complete at the time of the EA publication. Consistent with FTA's request, Appendix J of this report presents a Memorandum of Understanding (MOU) between CSXT and FDOT regarding the permission to conduct an EA on CSXT owned property, CSXT support of the EA process, CSXT general support of the CRT project, and the current status of negotiations.

Definition of Terms

The Build Alternative for the Environmental Assessment includes the 60.8 mile Full Build project from DeLand Amtrak to Poinciana Industrial Park with 16 stations; a slightly smaller Locally Preferred Alternative (LPA); and an Initial Operating Segment (IOS), which is a subset of the LPA. The LPA for this project is a portion of the Full Build. The key difference is that the LPA stops at DeBary/Saxon Boulevard Extension, and does not have a station in DeLand, nor the segment of tracks between DeBary and DeLand. Furthermore, the LPA is divided into two segments to accommodate a potential phased approach. The North Segment, from DeBary to the Orlando Amtrak/ORMC station is the Initial Operating Segment (IOS), which will be the first part of the Full Build to be constructed and operated. Both the LPA and IOS have been discussed with the local community regarding potential implementation strategies. However, for an assessment of the maximum impact, the Full Build from DeLand Amtrak Station to Poinciana Industrial Park with 16 stations is the Build Alternative that is the subject of this EA analysis.

Maximum Impact for Assessment Purposes

The purpose of the EA is to assess the potential impacts of the Project's Full Build Alternative. This is the maximum project that would be built and operated, given the current limits of the CFCRT Project. In order to assess the maximum impact of the proposed commuter rail project, the service plan for the Full Build Alternative was upgraded from the anticipated 30 minute headways under which the system is anticipated to operate, to 15 minute headways bi-directional service, which is the maximum under which the project could operate. This change was made in order to present the worst case from the point of view of addressing project environmental impacts. This upgrade resulted in additional infrastructure (e.g. 2nd track) and more DMU equipment to support the increase in service. Thus, for environmental clearance purposes, the Full Build in this report is defined as the Full Build alignment with all 16 stations, and a service frequency of 15 minute bi-direction headways.

EXECUTIVE SUMMARY

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S.1 Purpose and Need for Proposed Action

S.1.1 Proposed Action

The Commuter Rail Transit (CRT) Project is proposed to operate on the existing CSX Transportation, Inc. (CSXT) A-line rail corridor from the existing DeLand Amtrak Station in Volusia County, south through downtown Orlando and Kissimmee until its terminus at the Poinciana Industrial Park at the intersection on US 17-92 and the CSXT tracks in Osceola County. This 60.8-mile corridor is the same as the final Build Alternative identified in the 2004 Alternatives Analysis report.

This corridor generally parallels Interstate 4 and US 17-92, and contains some of the area's most intensely and densely developed land use. The width of the study area generally includes the major north-south arterial roadways serving downtown Orlando and other major activity centers, principally Interstate 4, US Route 17-92, and SR 434/Forest City Road in the northern portion of the corridor and State Routes 421, 441, 423, 527, and the Florida Turnpike in the southern portion of the corridor.

The purpose of the Environmental Assessment (EA) is to assess the potential impacts of the Project's Full Build Alternative. This is the maximum project that would be built and operated, given the current limits of the CRT Project. The Full Build is the 60.8-mile line between DeLand Amtrak Station and Poinciana Industrial Park.

The communities potentially impacted by the CRT are DeLand, Orange City, and DeBary, in Volusia County; Sanford, Lake Mary, Longwood, Altamonte Springs, and Casselberry in Seminole County; Maitland, Winter Park, Orlando, and Edgewood in Orange County; and Kissimmee in Osceola County.

For the purpose of this EA Full Build analysis, the CRT service includes sixteen station stops with a bi-directional service (on weekdays only) at 15-minute peak period and 60-minute midday and evening service frequencies. The Locally Preferred Alternative (LPA) includes fifteen stations with 30-minute bi-directional service during weekday peak hours and 120-minute service during the midday. Commuter rail service would be operated with Federal Railroad Administration (FRA) compliant Diesel Multiple Unit (DMU) cars.

The Full Build project capital cost is $632.0 million (2005 dollars) and a LPA cost of $447.0 (2005 dollars) for construction. Capital cost of the project is anticipated to be funded through Federal funding (50%), as well as state and local funds. It is proposed that the FDOT along with county governments will fund the remaining 50% of capital costs. The expected distribution is 25% state and 25% local.

S.1.2 Purpose and Need for Action

The CRT project proposes an alternative mode of transportation to improve the mobility of travelers along Interstate 4 (I-4) and other major roadways within the Orlando Metropolitan Region, including, but not limited to, US 17-92, US 441, Orange Avenue, and SR 434 (Forest City Road). The study corridor, which is the primary travel corridor in the region, is highly congested and experiences poor highway levels of service all during the day, especially in the morning mid-day and afternoon peak hours.

The regional transportation system has not kept pace with the area's growth and travel demands. The regional activity centers and the high intensity land uses in the project corridor are not well connected by the existing transportation network. In addition, the level of public transit services provided within the corridor is insufficient to meet the growing mobility needs of the corridor workforce, visitors, and transit-dependent population. The proposed CRT Project assists in addressing these issues. The project meets the following goals, which were developed with the public as well as regional and local stakeholder input.

CFCRT Purpose and Goals are as follows:

- Provide an alternative mode of transportation between DeLand in Volusia County and Poinciana Industrial Park in Osceola County to the employment and activity centers within the Orlando Metropolitan area.

- Provide high capacity, fast, convenient and reliable commuter rail service in the congested Interstate 4 corridor thereby minimizing travel time and developing an integrated regional transit system.

- Assist in the implementation of regional and local growth management plans through more intense land uses and Transit Oriented Development (TOD) practices at the activity center station locations.

- Implement a financially feasible multi-modal transportation system that includes commuter rail and the corresponding growth management plans with established goals, objectives and policies in the four counties and respective cities.

- Provide an efficient regional transit system that is consistent with local transportation and community based plans and regarded as a good investment.

- Protect and preserve the environment and improve the areas quality of life.

Excessive levels of congestion are being experienced in the study corridor, which is the primary travel corridor in the region. This project connects the region's primary residential communities of Volusia, Seminole, and Osceola Counties, to the urban core in Orange County and the City of Orlando by using an existing active rail corridor (CSXT A-line) that is free flowing and reliable as compared to the peak periods on I-4 and US 17/92 on the north, and US 441, and Orange Avenue on the south.

Background

For many years the opportunity to utilize the CSXT right-of-way in Central Florida for passenger use has been discussed. The CSXT right-of-way is currently used 24 hours per day 7 days per week by freight and Amtrak trains. On average there are 10 through freight, 10 local freight trains and up to 6 Amtrak trains operating on a typical day. Many of these trains operate after 11:00 p.m.

The CRT would serve the major cities and concentrated development areas along the A-line in the region's primary travel corridor. CSXT's right of way purpose and use as an existing transportation corridor make it compatible with CRT.

The development of CRT service along this corridor has been the topic of several studies that suggested the development of commuter rail transit (CRT) service in the corridor is a relatively inexpensive alternative to other transit and highway improvements. The *Project Feasibility Report* (1992) by the Central Florida Commuter rail Authority (CFCRA), and the *Regional Systems Plan* adopted by LYNX in 1994, examined the feasibility of providing transit service via various technologies in several corridors around the Central Florida area. Based on these and other studies, the *Central Florida North-South Commuter Corridor Alternatives Analysis*, completed in 2004, recommended the commuter rail alternative with various end points for the project within the north-south corridor, and evaluated the potential impacts of such a project.

The CRT project was included in the METROPLAN Orlando *Cost Feasible Year 2025 Long Range Transportation Plan* adopted in June 2005 and the Volusia County Metropolitan Planning Organization (MPO) *2025 Cost Feasible LRTP* adopted in November 2005. These major planning studies have provided the basis for the development of the EA for the commuter rail system from DeLand Amtrak Station to Poinciana Industrial Park.

S.2 Alternatives

A wide range of alternatives were identified and analyzed during the Alternatives Analysis completed in 2004 which were modified and further defined after an intensive local government coordination effort and public outreach process. The following is a summary of the No Build, Transportation System Management (TSM), and Full Build Alternatives.

S.2.1 No Build Alternative

The No Build Alternative is a requirement of the NEPA regulations and serves as the future build year baseline for establishing the environmental impacts of the alternatives, the financial condition of implementing and operating agencies, and the cost-effectiveness of the TSM Alternative.

The No Build Alternative includes the current and planned roadway and transit projects that are committed and funded. It provides a baseline for comparison to all of the other alternatives. The No Build Alternative reflects significant future transit service and highway network expansion included in the LYNX Transportation Development Plan for Fiscal Years 2005-2009 (TDP) and selected other projects that are included in the Orlando Urban Area Transportation Study (OUATS) Year 2025 Plan Update. The EA No Build Alternative does not include the proposed 22-mile North-South LRT system (from Altamonte Springs to Sea World).

The highway network includes the cost feasible improvements for the highway network from the OUATS Year 2025 Plan Update, including high-occupancy vehicle (HOV) lanes and access ramps on I-4 from Kirkman Road to Maitland Boulevard.

S.2.2 TSM Alternative

The TSM/Baseline Alternative is defined as “the best that can be done” to address the identified transportation deficiencies in the corridor without constructing a new transit guideway. The TSM/Baseline Alternative includes all transit services provided in the No Build Alternative plus the addition of several express and limited-stop bus routes operating in the CRT north and south corridors. These express and limited-stop bus

routes were designed to satisfy the travel markets in the CRT study area. Additional discussion of these travel markets is provided in Chapter 1, which includes a summary of the Travel Market Analysis conducted in January 2005. The Full/TSM Baseline which corresponds to the 60.8 miles CRT is the Alternative that is subsequently compared to the No Build and Full Build CRT Alternatives for NEPA purposes.

S.2.3 Full Build Alternative

The Build Alternative features all of the transit services and projects included in the No Build Alternative with the addition of commuter rail services along the CSXT A-Line. The Full Build version of the CRT extends from DeLand (in west Volusia County) to Poinciana Industrial Park (in Osceola County). Commuter rail service would be operated with self propelled Diesel Multiple Units (DMU) vehicles which provide commuter rail capacity that combines necessary performance with greater operational flexibility than is generally possible with conventional diesel commuter rail equipment.

Two versions of the Build Alternative are described in the following sections: 1) Full Build, and the 2) Locally Preferred Alternative (LPA).

The LPA and Initial Operating Segment (IOS) are simply shorter segments along the Full Build Alternative alignment. Both the LPA and IOS have been discussed with the local communities regarding potential implementation strategies. However, for an assessment of the maximum impact, the Full Build is the Alternative that is the subject of this EA analysis.

The Full Build Alternative would extend from the DeLand Amtrak station to Poinciana Industrial Park, a distance of 60.8 miles, via the CSXT A-Line. A total of sixteen stations are in the Full Build Alternative and they would be located at: DeLand, Saxon Boulevard Extension (DeBary), Sanford, Lake Mary, Longwood, Altamonte Springs, Winter Park, Florida Hospital, LYNX Central Station, Church Street (in downtown Orlando), Orlando Amtrak/ORMC, Sand Lake, Meadow Woods, Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park.

For the purposes of this EA analysis and in order to assess the maximum impact, the proposed service plan would provide 15-minute bi-directional service during morning and evening peak periods and 60-minute service in the midday, Monday through Friday (approximately 260 days per year). This alternative operates 28 DMU vehicles combined in 1, 2 or 3 car consists to complete 56 trips per day. The primary infrastructure requirements include a new signal system and 42 miles of new 2nd track, 16 platform stations, a Vehicle Storage and Maintenance Facility (VSMF), and two end-of-line midday layover facilities. The Full Build Alternative will be constructed in phases beginning with the IOS in 2009, the LPA in 2013 and the Full Build Alternative at some time in the future.

S.3 Environmental Consequences

The proposed project would improve the 60.8-mile rail route within existing railroad rights-of-way. Table S-1 summarizes impacts to the natural and social environment that would result from the build alternatives. This EA considers impacts in the DeLand Amtrak Station to Poinciana Industrial Park Station project corridor when CRT is fully implemented.

S.3.1 Land Use and Zoning

No administrative changes or amendments are required with any of the affected future land use maps to accommodate the proposed CRT project and stations. Transit oriented development may be encouraged by land use changes by municipalities in the CRT corridor and could provide a policy foundation for stronger transit-oriented development and increased ridership.

The existing zoning is compatible with the following stations: DeLand Amtrak, Winter Park Station, Amtrak Florida Hospital, LYNX Central Station, Church Street, Orlando Amtrak/ORMC and Sand Lake Road, Kissimmee Amtrak, Osceola Parkway, and Poinciana Industrial Park stations. The stations in DeBary/Saxon Boulevard, Lake Mary, Longwood, and Altamonte Springs have mixed zoning which needs to be rezoned to be compatible for use as a CRT station.

The Meadow Woods and Osceola Parkway stations will require amendments to existing planned unit development (PUD) zoning. The PUD zoning allows permitted uses and development standards to be defined for each particular development.

S.3.2 Community Cohesion

The Full Build Alternative does not result in adverse impacts to community cohesion in neighborhoods along the corridor. No permanent impacts to the neighborhoods along the Corridor have been identified. For many neighborhoods without strong activity centers, the rail stations provide an opportunity to focus new development, enhance bicycle and pedestrian access and connectivity, streetscape improvements and other benefits associated with the transit stations and station areas.

S.3.3 Environmental Justice

Considering Environmental Justice (EJ) impacts, the Full Build Alternative does not result in disproportionate impacts to identified populations along the Corridor. Residential and commercial displacements will be concentrated in proposed station locations. Proposed station locations in the Full Build Alternative are located near areas with the greatest concentrations of minority population, low-income population, and transit-dependent population, with a higher percentage of transit-dependent populations within a ½ mile radius of the stations than in the surrounding county populations. The Full Build Alternative would provide benefits to transit-dependent populations along the Corridor by increasing mobility and improving access to employment centers throughout the Corridor.

Unmitigated noise impacts associated with the Full-Build Alternative are estimated to exceed the FTA “severe impact” criteria at 54 locations along the Corridor. Most of the impacted locations are residential locations and many of these exceedances occur within areas that have been identified as Environmental Justice areas. However, these areas are already impacted by noise from the warning horns from the existing CSXT freight trains and Amtrak trains. Presently, up to 26 passenger and freight rail trains a day travel along the CSXT corridor, including 10 through trains and up to 10 local trains (depending on location) that travel various segments of the project corridor.

Details of the noise impacts and mitigation are discussed in Chapter 3.3.4 FDOT has committed to implementation of adequate noise mitigation measures to eliminate these potential noise impacts to EJ populations.

S.3.4 Public Safety, Security and Community Services

The Build Alternative improves the safety and security for pedestrians, bicyclists, and motorists by improving the crossing surfaces and protection devices at existing grade crossings, and by installing fencing along sections of the right-of-way to prevent trespassing and intrusion. The rescheduling of freight train operations away from weekdays in the Build Alternative will improve public safety and security by reducing exposure of the general public to those operations. Additionally, crossing delays associated with the long through freight trains will be eliminated from weekdays when most community service related transportation, including school buses, is in operation. While the frequency of operations in the proposed CRT will be higher than in the No-Build, the delay at grade crossings will be predictable and of durations comparable to traffic signal phases.

S.3.5 Economic Impacts

The Project is expected to result in isolated short-term loss in taxable property where privately owned land is needed for stations, offset by significant economic benefits during construction, operations, and increased economic development. The loss in taxable revenue associated with the Full-Build Alternative is estimated at $672,072.22. (This loss in tax revenue is based on the conversion of land from private, or tax-revenue generating status, to public ownership, which does not generate tax revenues. These estimates were based on the 2005 millage rates for each county. If a city's millage rate was less than the county, the county rate was used to generate a worst-case estimate of revenue lost.)

The positive economic impacts of transit are well documented and can be expected to outweigh the short term reduction in tax base at some station locations. New public transportation-oriented development expands business revenues, leading to new jobs and higher wages and salaries, thus increasing the tax base and revenues flowing to local and state governments. Studies show that, nationwide, residential and commercial property values rise with proximity to rail public transportation systems and stations.

S.3.6 Utilities

The final design of the proposed commuter rail service will be coordinated with the utility owners who have facilities within the project Corridor. Proper coordination during design will minimize relocation adjustments and disruptions of service to the public. Any required utility relocations are anticipated to be minor and will be fully coordinated during construction.

S.3.7 Railroads

The addition of approximately 42 miles of new double track and a new railway signal system along the existing CSXT right-of-way will be required to accommodate the Full Build CRT service from DeLand to Poinciana Boulevard. There will be no double track through Maitland and at the St. Johns River Bridge.

The Full Build Alternative will result in improved rail infrastructure and a proposed operating plan to maintain the ability of CSXT and other rail freight operators to provide service to commercial and industrial rail users, and will accommodate existing Amtrak long-distance intercity passenger services. For freight services, the Full Build Alternative provides capacity to accommodate through trains as well as local switching train

movements by shifting freight operations to times of day that will not interfere with the commuter rail service.

S.3.8 Displacements and Relocations

A total of 130.2 acres of property on 98 separate parcels will be directly affected for the Full Build Alternative along the corridor, which includes parcels in both public and private ownership. Without exception, proposed takings are associated with the construction of the proposed CRT stations, although not all proposed stations will require property takings (e.g., Winter Park/Park Avenue, Florida Hospital, LYNX Central Station and Church Street stations do not include parking facilities and will be constructed entirely within existing CSXT or publicly held ROW).

S.3.9 Archaeological and Historic Resources

Station locations associated with historic resources include: DeLand Amtrak (DeLand ACL Railroad Station); Florida Hospital (Orange Avenue Commercial District); LYNX Central Station (Harry P. Leu, Inc.); Church Street (Downtown Orlando Historic District); Orlando Amtrak/ORMC (Orlando ACL Railroad Station); and Kissimmee Amtrak (Kissimmee ACL Railroad Station, Kissimmee Historic District – National Register of Historic Places (NRHP)-listed).

The Full Build Alternative is not expected to result in adverse impacts to archaeological resources. FDOT, in compliance with Section 106 of the National Historic Preservation Act of 1966 and in consultation with the State Historic Preservation Officer, has determined that the proposed action will have no adverse effect on the DeLand ACL Railroad Station (8VO2653), the Orlando ACL Railroad Station (8OR139), the Old Orlando Railroad Depot (8OR25), and the Downtown Orlando Historic District (8OR422). Refer to Appendix E for a copy of the letter received from SHPO dated March 9, 2007.

The following commitments have been made to ensure that potential adverse effects are avoided or minimized:

1. Provide design plans of the proposed DeLand Amtrak, Orlando Amtrak/ORMC and Church Street stations at the 30, 60, and 90 percent stages of completion for SHPO review and comment. The FDOT will coordinate with the SHPO office so that potential visual and aesthetic effects to the above-mentioned historic properties (8VO2653, 8OR139, 8OR422 and 8OR25) can be avoided or minimized. The plans will show the exact location of platforms and other improvements, including proposed parking areas. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

2. Provide a sensitive design treatment for the three proposed stations and will ensure that the design, materials and locations of station platforms and canopies are architecturally and aesthetically compatible with the design of nearby historic resources.

3. Consult with SHPO office to determine appropriate landscaping treatments designed to reduce the potential visual effects of parking lots and ancillary features at the proposed stations.

4. Make every reasonable effort to maintain the rural character of the DeLand Amtrak Station through the use of environmentally compatible elements, such as vegetative screening, in the design of parking lots and sidewalks.

5. Make every reasonable effort to minimize physical alterations to the historic properties. Where required, alterations will be made in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR Part 68).

6. Should there be any changes to previously reviewed and agreed upon design plans, FDOT will contact SHPO and provide the opportunity for review and comment. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

The proposed action will not require the use of any properties as defined by Section 4(f) of the U.S. Department of Transportation Act. FTA has determined that Section 4(f) does not apply.

S.3.10 Recreation and Parkland Resources

The Full Build Alternative will not result in direct impacts to publicly-owned parks and recreation areas along the corridor. Temporary construction activities will be controlled so they do not affect access to the parks. Construction impacts that would temporarily affect park and recreational experiences include increased noise, dust, and truck traffic. These impacts will be minor and mitigated. The Full Build Alternative will benefit park users by providing improved access to several significant parklands and recreation areas along the corridor.

S.3.11 Pedestrian and Bicycle Facilities/Access

The Full Build Alternative will result in benefits to pedestrian and bicycle facilities and access along the corridor, providing a transit alternative that will encourage commuters to walk and bike to transit as an alternative to driving. The Full Build Alternative also provides an opportunity to maximize the use of existing pedestrian and bicycle facilities and to develop additional pedestrian/bicycle facilities and improvements. Where appropriate, new sidewalks and crosswalks with pedestrian signals will be constructed at the new stations, and pedestrian signage will be provided to clearly mark pedestrian paths to and from parking areas.

In addition, bicycle racks will be provided on CRT trains to accommodate bicycle commuters who may wish to commute to the CRT stations on bicycle. Similar bicycle accommodations are provided on existing LYNX bus routes within the CRT corridor. Bicycle racks will also be provided at each station.

S.3.12 Visual and Aesthetic Resources

No negative visual impacts are anticipated, therefore, no specific mitigation measures are necessary. Impacts to existing visual and aesthetic resources along the corridor are expected to be minor. The smaller size of the CRT DMU train set, when compared to the existing CSXT freight trains, Amtrak passenger trains and the Auto Train, results in a much smaller intrusion into the visual landscape.

S.3.13 Air Quality

The Full Build Alternative will result in minor additional amounts of total annual emissions of Nitrogen Oxides and particulate matter than that of either the No Build or TSM Alternatives. This reflects the use of diesel-powered DMUs for the project, and is not considered to be a significant impact. Emissions of volatile organic compounds are slightly lower than the No Build Alternative, reflecting the lower Vehicles Miles Traveled on regional roadways for the Full Build Alternative. The Full Build Alternative does not result in exceedences of either the 1-hour or 8-hour National Ambient Air Quality Standard for carbon monoxide at any intersection analyzed within the study area.

S.3.14 Noise and Vibration

A detailed noise and vibration assessment was performed along the project Corridor, from DeLand in Volusia County to Poinciana Boulevard in Osceola County.

Noise

In summary, this is an existing freight and passenger corridor with 126 active at-grade crossings, 10 through freight trains, 6 Amtrak trains, and up to 10 local switcher trains traveling and sounding their horns throughout the entire line 24 hours a day, 7 days a week. The CRT represents an increase in the existing type and volume of noise, and will result in trains and warning horns being heard more frequently along the corridor during the week. The total amount of community noise exposure is already at a high level and people already exposed to high levels of noises can be annoyed by even small increases in cumulative noise levels. Should some CSXT through freight trains be redirected off the line in the future the cumulative operational and train horn noise levels along the line for freight that were used in this analysis would be lower.

The number of predicted FTA noise impacts along the project corridor is 163 moderate impacts and 54 severe impacts due to the use of the DMU warning horns at the grade crossings. To further reduce these noise impacts, the DMU warning horns could be modified or re-designed to reduce the sideline noise while still maintaining the FRA's minimum noise requirement of 96 dBA Lmax measured at a distance of 100 feet from the centerline of the horn. The FEIS prepared for the Utah Transit Authority Weber County to Salt Lake City Commuter Rail Project (April 2005), based the results of the noise analysis using a sheet metal shroud packed with 4-inch foam rubber as mitigation. The sideline noise levels from the train horns were estimated to be reduced by up to 22 dBA while maintaining full level of on-axis output and would be consistent with FRA requirements. Applying this mitigation technique or similar redesign of the horn to reduce sideline noise of the DMU warning horns can be expected to eliminate all moderate impacts and severe impacts of the CRT.

FDOT is committed to constructing a commuter rail project that will not have adverse noise impacts on a corridor community with existing high noise exposure. During the start-up period of commuter rail operations, FTA, with the assistance of FDOT, will prepare a detailed noise assessment. This assessment will verify the predicted project noise levels in the EA and test the efficacy of its operational and horn noise analysis and mitigation measures to ensure that there will be minimal community noise impacts from this project. The sheet metal shroud and foam rubber insulation shall be installed on all locomotives as described in the Mitigation section of this EA.

If noise monitoring during the start-up period reveals that the selected mitigation does not adequately control noise, the project sponsor is committed to adopting additional measures to reduce noise. In this case, the goal will be to eliminate all impacts in the "severe" range and to minimize the number of impacts in the "moderate" range. Such an outcome is consistent with FTA's FONSI for the project.

Vibration

FTA criteria are related to ground-borne vibration levels expressed in VdB that are expected to result in human annoyance. These criteria were used to assess annoyance due to ground-borne vibration from the DMU transit operations. The Full Build Alternative will not result in adverse vibration impacts along the corridor, therefore, no mitigation measures are required.

S.3.15 Ecosystems

In accordance with FTA requirements and the NEPA of 1969, as amended, an evaluation regarding important natural features, habitats, and protected species occurrence within the proposed project area was conducted.

In order to determine occurrence and potential occurrence of important natural features, habitats, and state and/or federally protected plant and animal species within the study area, preliminary data were collected and field investigations were conducted. The Endangered Species Biological Assessment Report (ESBAR) provides a detailed description of the methodology used to identify and quantify the type and acreage of each habitat and listed species within the Corridor. The ESBAR is provided separately as a technical support document.

Natural Communities

Natural areas recognized as ecologically viable areas representative of Florida's natural ecosystems occur adjacent to the study area. The proposed project's utilization of existing disturbed railroad corridor, which has existing active freight activity, will result in minimal or no impacts to these areas.

Wetlands as natural communities are addressed in Section 3.3.7 and thoroughly discussed in the CRT Wetlands Evaluation Report, provided as a separate technical support document.

Blue Spring State Park is located immediately west of the northern portion of the project area and contains portions of the existing rail right of way. This park is managed by the Florida Department of Environmental Protection (FDEP). Lake Beresford, managed by Volusia County Government, is adjacent to the project area. Given the location of the proposed project along an existing active rail corridor and within existing CSXT ROW, neither of these managed areas is expected to be significantly affected by the proposed project.

Potential Natural Areas (PNAs) identified along the project area include areas of upland mixed forest and scrub. While upland mixed forest and scrub habitats were observed adjacent to the project area, the existing disturbed nature of the CSXT corridor results in no direct impacts and only limited potential secondary impacts to areas designated as PNAs.

Through compliance with federal, state, and local regulations, as described in the Wetlands and Water Quality Sections of this document, this project and all described alternatives are expected to have no significant adverse impacts on natural communities.

Threatened and Endangered Species

Based on preliminary data collection efforts and field surveys, a number of potentially occurring and documented protected species are recognized for the area of the CRT project.

While the proposed project and alternatives are estimated to, at worst, possibly "affect, but not likely to adversely affect" the species indicated for the study area, protection measures and guidelines as referenced in the ESBA will be followed for all design and construction phases of this project or alternatives. Additional measures and permitting requirements are indicated for the Florida Scrub-Jay, Gopher Tortoise, Bald Eagle and Crested Caracara, Eastern Indigo Snake, and the Florida Black Bear.

Considering the mitigation measures proposed, no significant adverse impacts are anticipated to the regional populations of the federally or state-listed species protected by the Endangered Species Act of 1973, amended (16 U.S.C. 1531 et seq.). Refer to Appendix E for a copy of the letter received by USFWS dated February 21, 2007.

S.3.16 Wetlands

Full-Build Alternative wetland and other surface water feature impacts are estimated at 23.56 acres. Of these impacts, 18.21 acres are directly associated with station locations. In the locations where new parking lots will be required, efforts would be made to avoid direct impacts to any extant wetland resources. Wetland impacts will be mitigated pursuant to S. 373.4137 FS to satisfy all mitigation requirements of Part IV Chapter 373, F.S. and 33 U.S.C.s. 1344.

S.3.17 Water Quality

Point Source Pollution and Stormwater

The most significant water quality issues and regulation for the proposed project involve point source pollution. Water quality impacts, if any, are addressed in urban sections of the project under local MS4 requirements and WMD drainage and stormwater requirements for treatment of runoff from impervious area. As secondary or cumulative impacts, these effects will be negligible through compliance with the appropriate regulatory agency requirements during design and construction.

The proposed stormwater facilities design will include, at a minimum, the water quantity requirements for water quality impacts as required by the South Florida WMD and St. Johns River WMD in Rules 40E-4, Florida Administrative Code (F.A.C.), and 40C-4, F.A.C.

Outstanding Florida Waters

The project coincides with Outstanding Florida Waters near its northern terminus, in Volusia County: Blue Spring State Park and the Wekiva River Aquatic Preserve. Proposed components of the project for this area consist primarily of minor grading and additional track construction to be accommodated entirely within the existing active freight and passenger railroad ROW; there will be no direct impacts to the abutting Blue Spring

State Park or Wekiva River Aquatic Preserve. Therefore, no impacts to these Outstanding Florida Waters are expected.

Wild and Scenic Rivers

There are no Federal Wild and Scenic Rivers located along or adjacent to the project Corridor.

Aquatic Preserves

The Wekiva River Aquatic Preserve is adjacent to the proposed project area. Per the discussion on Outstanding Florida Waters, no impacts to Aquatic Preserves are expected.

Coastal Zone Management (CZM) and Coastal Barrier Resources

The project is consistent and in accordance with the state's CZM Program. There are no anticipated impacts to coastal resources associated with this project. Therefore, no impacts to the Florida coastal zone are expected from implementation of the No Build, TSM or Full Build Alternatives.

Floodplains

The encroachments to the floodplain are not anticipated to have an adverse effect. In summary, any required mitigation measures for floodplain and floodway encroachment will result in no net impact for the Full-Build Alternative.

S.3.18 Contamination

There are no hazardous waste disposal sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) located along the project Corridor, and construction of the Full Build Alternative would not interfere with existing remediation activities at any existing remediation site.

For the Full Build Alternative, all potentially contaminated sites within 300 feet of the 16 proposed stations and the VSMF at Rand Yard were identified. Six station locations were assigned a Low Contamination Risk Potential Rating (CRPR), and 10 station locations and the proposed VSMF facility were assigned either a Medium or High CRPR. Mitigation measures, dependent on the results of additional site specific assessments of soils and groundwater will be developed during project design, as appropriate.

S.3.19 Farmlands

The State of Florida has not established criteria for defining and delineating Additional Farmland of Statewide Importance. Criteria for defining and delineating Additional Farmland of Local Importance are determined by appropriate county agencies. Some counties have established criteria for defining and delineating Additional Farmland of Local Importance.

There will be no impacts to Important Farmlands for the CRT project, including commuter rail station locations. This conclusion is based on the use of the existing rail ROW for the proposed project. For the proposed station locations for the Full Build Alternative, analysis of soil map units revealed that no soils meeting criteria for Prime Farmlands occur within any of the proposed station locations.

S.3.20 Energy

The Full Build Alternative includes the use of an existing rail corridor and the amount of new rail construction is limited along the project Corridor. A limited amount of construction is proposed at new station sites (shelters, kiosks at all sites and rail crossover structures at three stations Sanford, Florida Hospital and Sand Lake Road).

The Full Build Alternative will result in a greater reduction in transportation energy use in the CRT study area for the year 2025, compared to the No Build Alternative. The projected energy use decreases from 733,970 million Vehicle Miles Traveled (VMT) in the No Build to 733,938 million VMT in the Full Build Alternative.

Because the implementation of the Full Build Alternative would result in a reduction in indirect energy usage in the project study area, no mitigation measures are required.

S.3.21 Construction Impacts

Noise and vibrations impacts will be from the heavy equipment movement and construction activities such as pile driving and vibratory compaction of embankments. Noise control measures will include those contained in FDOT's "Standard Specifications for Road and Bridge Construction," in addition to those recommended in the Construction Noise and Vibration Mitigation section of this document. Adherence to local construction noise and/or construction vibration ordinances by the contractor will also be required where applicable.

Cleanup and remediation efforts during construction include removal of contaminated soil and/or groundwater. Contaminated soil typically will be stockpiled in designated areas along the alignment, and then transported from the stockpile area for further treatment or disposal. Contaminated groundwater removed as a result of dewatering may be stored in tanks on the construction site, discharged to a local storm drain or sewer in compliance with discharge permit requirements, or transported from the site for treatment or disposal.

S.4 Transportation Impacts

S.4.1 Forecast Ridership

The Full Build Alternative achieves the highest boardings and passenger miles compared to both the TSM Baseline and No Build Alternatives. Linked transit trips are a good indicator of the mode shift achieved because it counts each trip only once in each direction regardless of whether transfers are involved. The Full Build Alternative would result in the largest gain in systemwide linked transit trips of any alternative. Total annual Full Build CRT ridership is forecast to be 13,760 daily boardings in 2025. Growth in passenger miles is increasing at a rate faster than growth in overall ridership because average trip length is increasing.

S.4.2 Operating Revenues and Costs

For this initial stage of analysis, a $2.50 average fare per boarding (2005 dollars) was applied to the forecasted ridership projections to derive operating revenue. The $2.50 average fare reflects a “deep discount” fare policy utilized by LYNX to keep public transit affordable for its riders, as well as the blended yield of a potentially distance-based pricing structure. Other revenue sources identified are: Ancillary (from advertising); Maintenance of Traffic (MOT) funds for I-4 construction mitigation based on the precedent of Tri-Rail during reconstruction of I-95; Section 5307 Preventive Maintenance formula funds; and

state and local operating assistance within a framework established in 2005 between FDOT and local governments.

The total annual Operating and Maintenance cost in the 2025 Full Build Alternative is estimated to be $180.84 million (2005 dollars) including LYNX, VOTRAN and the CRT Project. The CRT portion is $32.56 million (2005 dollars). The commuter rail capital costs for the LPA and the Full Build commuter rail are $447.0 and $632.0 respectively. Detailed information is provided in Chapter 2.

S.4.3 Freight

Freight

The Full Build Alternatives would add a new signal system and approximately 42 miles of second mainline track. These upgrades will result in a faster and safer operation through the Study Corridor for both passenger rail traffic and freight rail traffic. Only a short section in Maitland and the St. John's River Bridge will not be double tracked.

Trucking

The Full Build Alternative would have no impact on long-distance through truck traffic because all major through routes are currently grade separated. Long-distance truck traffic that originates or terminates in the Corridor and local delivery truck traffic is potentially impacted during the CRT peak hour service. However, the intersection, grade crossing and roadways improvements will mitigate the impact of the Full Build Alternative on all local truck traffic.

Marine

The Build Alternatives would utilize the existing rail bridge across the St. Johns River for commuter rail operations. The commuter rail service would operate frequently during weekdays in the morning and afternoon peak commuting periods. The CRT commuter trains are shorter (1, 2 or 3 cars) than Amtrak passenger trains (10 cars) and would travel at speeds equivalent or faster than the Amtrak trains.

Marine traffic on the St. John's River at this location is relatively light during the weekdays and primarily small recreational boats that can usually cross under the bridge with the lift span closed. There is no commercial barge traffic. CRT commuter operations will not be delayed due to marine traffic.

S.4.4 Traffic and Roadway

Traffic operations were evaluated for study intersections and roadways in the Project Corridor for year 2025 No Build and Build conditions. The project will shift a small amount of traffic away from existing roadways to origin stations. The level of Project-related traffic is low compared with traffic on adjacent roadways. There will be very little Project-related traffic at the four destination stations in Orlando. The project will not adversely impact the major roadway movements at the station driveway locations.

The CRT will not increase traffic delay for the vast majority of at-grade crossings throughout the Study Corridor. No study intersections will deteriorate to deficient conditions as a result of the Project. A total of four study intersections and three at-grade crossings located adjacent to stations may experience increased vehicle delay as a result of additional gate down times. The additional delay at these locations can be reduced by implementing mitigation measures that include additional turn lanes at intersections and

signal optimization at grade crossings, and where possible, shifting platforms further away from the crossing.

The parking supply identified for the CRT would be adequate to accommodate parking demand and the limited locations with potential parking impacts are fully mitigated in the Full Build Alternative.

The Full Build Alternative has no adverse impact on other existing and planned transit service. A limited number of existing bus routes will be slightly modified to serve the new stations. No new buses will be added. Fewer than 4 buses per hour will be added to the streets adjacent to the stations. Amtrak trains run in the off peak and will be scheduled between the CRT operations. The Full Build Alternative would attract substantial new transit ridership and in so doing reduce regional Vehicle Miles Traveled. By operating within an established active rail line with its own right-of-way, the commuter rail service will provide a highly reliable transit service free of the roadway congestion encountered by transit modes that share roadways with general traffic.

The Full Build Alternative has no significant impacts on other freight transportation modes operating in the study area. The infrastructure improvements and operating plan of the Full Build Alternative has been fully coordinated with CSXT, which currently operates freight rail service in the Corridor. A Memorandum of Understanding with CSXT addresses and confirms that there will be no adverse impact on freight rail transportation in the Corridor. As described in the section above, the Full Build Alternative will have no adverse impact on truck or marine traffic.

S.4.5 Station Parking

For station locations where businesses or residences would be impacted (Lake Mary Station, Longwood Station, Altamonte Springs Station, and Sand Lake Road Station), the businesses or residences will be relocated as part of the Project's Relocation Plan. The Kissimmee Amtrak Station parking will be replaced with the new surface parking that is part of the Kissimmee Intermodal project. The Project will not reduce parking for any businesses/residences that will continue to operate adjacent to the Project. In summary, the CRT Project's impact on parking is not significant.

S.4.6 Intersections and Grade Crossing Improvements

A critical component to the Full Build Alternative operation that will greatly reduce at-grade crossing vehicle delay due to CRT and freight trains will be the replacement of the old existing railway "Fixed Start" crossing warning system with new Constant Warning Time (CWT) crossing protection technology for crossing protection activation (i.e., lights and gates). The CWT technology determines, based on a trains speed, when to activate the crossing protection to provide a constant 30 seconds of advance warning for every train (CRT or Freight). In contrast, the existing Fixed Start system uses a fixed location for the at-grade crossing protection activation device that is based on the maximum train speed allowed. Therefore, if a train is traveling significantly slower than the maximum speed allowed, the crossing protection will be active much longer before the train arrives.

The 3 grade crossings with significant adverse impacts are Lake Mary Boulevard, SR 436 (Altamonte Drive), and Poinciana Boulevard. The impact on vehicle delay at these three at-grade crossings can be reduced by optimizing train signals to reduce gate down times.

The CRT Full Build will not increase traffic delay in 2025 for 108 of the at-grade crossings throughout the Study Corridor. Overall daily delay at grade crossings would increase by approximately 8 percent in the CRT Full Build. Vehicle delay at three at-grade crossings located adjacent to stations can be reduced by optimizing signal operations and redirecting some of the long through freight trains to other lines.

CSXT freight trains generate a disproportionate amount of delay due to their length and slow speed. In addition to the specific mitigation measures, several system-wide measures (e.g., CWT) will be implemented as part of the Full Build Alternative that will not only reduce the impact of the CRT, but improve overall operations.

In summary, the CRT will have only a limited impact on intersections and roadways in the Study Corridor. The four intersections within the study area and three at-grade crossings that may be impacted by the CRT can be improved through relatively low-cost mitigation measures. Elements that will be implemented as part of the CRT, such as a new CWT signal system, will reduce grade crossing delays and improve operations and safety throughout the Corridor.

S.5 Summary of Impacts

Table S-1 provides a summary listing of impacts identified in the Environmental Assessment. The largest impacts that must be mitigated are related to noise and potential delays at the at-grade crossing near the three of the 16 stations. Table S-2 through Table S-5 provides a summary of impacts by station location.

Table S-1: Impacts Identified in the Environmental Assessment

Impacts	Measure
Land Use	Development incompatible with local planning
Community Cohesion	Disruption to existing neighborhoods
Environmental Justice	Disproportionate impact to Environmental Justice populations
Public Safety, Security and Community Services	Delays in providing public safety services; impeded access to community services
Economic Impacts	Loss of tax revenue
Utilities	Relocation of major utility systems
Railroad	Impacts to existing rail traffic
Displacements and Relocations	Displacement of residencies and/or businesses
Historic and Archaeological Resources	Adverse effect or effect to eligible historic or archaeological resources
Recreation and Parkland Resources	Conversion of parklands and recreation areas to different use
Pedestrian and Bicycle Facilities/Access	Impacts to pedestrian and bicycle travel patterns and facilities
Visual and Aesthetic Resources	Negative visual impacts
Air Quality	Exceeds NAAQS
Noise	Exceeds FTA Noise Impact Criteria
Vibration	Exceedences of FTA vibration impact criteria
Ecosystems	Impacts to natural areas or T&E species and habitats
Wetlands	Impacts to jurisdictional wetlands
Water Quality	Point source impacts; impacts to floodplains
Contamination	Impacts to known hazardous waste sites
Energy	Increase in energy consumption
Construction	Significant temporary impacts
Station Roadways	Increase in traffic volumes
Intersection LOS	Degradation in Level of Service
At-grade Crossing	Change in peak hour and daily delay
Station Parking	Displacement of existing parking or impacts to neighborhoods
Transit - Systemwide	Impact to other existing or planned bus transit services, and systemwide ridership
Transit - Other	Interference with existing Amtrak service
Freight Rail Traffic	Interference with freight rail services
Trucking	Interference with trucking routes
Marine	Reduction in openings of St. John's River Railroad Bridge

Table S-2: Station Impact Summary - Volusia

Impacts	DeLand Amtrak Station	DeBary/Saxon Blvd. Extension Station
Land Use	Rezoning allowed	Rezoning allowed
Community Cohesion	Vacant land	Vacant land
Environmental Justice	None	None
Public Safety, Security and Community Services	Some improvements	Some improvements
Economic Impacts	Positive impact in Long term	Positive impact in Long term
Utilities	Minor changes	Minor changes
Railroad	Maintain access to existing rail users	Maintain access to existing rail users
Displacements and Relocations	None	None
Historic and Archaeological Resources	Conditional No effect	NA
Recreation and Parkland Resources	NA	NA
Pedestrian and Bicycle Facilities/Access	Improved access	Improved access
Visual and Aesthetic Resources	Minor	Minor
Air Quality	No exceedences	No exceedences
Noise	None	None
Vibration	Less than existing	Less than existing
Ecosystems	None	None
Wetlands	.59 acres	1.61 acres
Water Quality	1.4 acre detention pond	1.7 acre detention pond
Contamination	Medium	Low
Energy	Reduction in indirect energy usage	Reduction in indirect energy usage
Construction	Temporary	Temporary
Station Roadways	154 a.m. peak hour trips added	95 a.m. peak hour trips added
Intersection LOS	Minor change	Minor change
At-grade Crossing	Minor change	Minor change
Station Parking	180 spaces added	275 spaces added
Transit - Systemwide	Improved service	Improved service
Transit - Other	Interface with Amtrak	Interface with Amtrak
Freight Rail Traffic	Safer operation	Safer operation
Trucking	Minor change	Minor change
Marine	No change	No change

Table S-3: Station Impact Summary - Seminole

Impacts	Sanford/SR 46 Station	Lake Mary Station	Longwood Station	Altamonte Springs Station
Land Use	Rezoning allowed	Zoned for High Density Use	Zoned for High Density Use	Rezoning allowed
Community Cohesion	No disruption to neighborhoods	Minor disruption to neighborhoods	Moderate disruption to neighborhoods	Minor disruption to neighborhood
Environmental Justice	None	1 business	None	2 residences, 2 businesses
Public Safety, Security and Community Services	Some improvements	Some improvements	Mitigation identified	Mitigation identified
Economic Impacts	Positive impact in Long term	Positive impact in Long term	Positive impact in Long term	Positive impact in Long term
Utilities	Minor changes	Minor changes	Minor changes	Minor changes
Railroad	Maintain access to existing rail users	Maintain access to existing rail users	Maintain access to existing rail users	Maintain access to existing rail users
Displacements and Relocations	1 Business	7 Residences 1 Business	3 Residences 3 Businesses	2 Residences 13 Businesses 1 parking lot
Historic and Archaeological Resources	NA	NA	NA	NA
Recreation and Parkland Resources	NA	Improved access	NA	NA
Pedestrian and Bicycle Facilities/Access	Improved access	Improved access	Improved access	Improved access
Visual and Aesthetic Resources	Minor	Minor	Minor	Minor
Air Quality	No exceedences	No exceedences	No exceedences	No exceedences
Noise	Impact mitigated	Impact mitigated	None	Impact mitigated
Vibration	Less than existing	Less than existing	Less than existing	Less than existing
Ecosystems	None	None	None	None
Wetlands	3.97 acres	2.98 acres	.90 acres	None
Water Quality	.8 acre detention pond	1.25 acre detention pond	.6 acre detention pond	1.2 acre detention pond
Contamination	High	High	Medium	High
Energy	Reduction in indirect energy usage	Reduction in indirect energy usage	Reduction in indirect energy usage	Reduction in indirect energy usage
Construction	Temporary	Temporary	Temporary	Temporary
Station Roadways	100 a.m. peak hour trips added	256 a.m. peak hour trips added	170 a.m. peak hour trips added	287 a.m. peak hour trips added
Intersection LOS	Minor change	Minor change	Minor change	Minor change
At-grade Crossing	Minor change	Minor change	Slight delay	Slight delay
Station Parking	300 spaces added	650 spaces added	375 spaces added	650 spaces added
Transit - Systemwide	Improved service	Improved service	Improved service	Improved service
Transit - Other	Interface with Amtrak	Interface with Amtrak	Interface with Amtrak	Interface with Amtrak
Freight Rail Traffic	Safer operation	Safer operation	Safer operation	Safer operation
Trucking	Minor change	Minor change	Minor change	Minor change
Marine	No change	No change	No change	No change

Table S-4: Station Impact Summary - Orange

Impacts	Winter Park Station	Florida Hospital Station	LYNX Central Station	Church Street Station
Land Use	Zoned for High Density Use	Zoned for High Density Use	Zoned for High Density Use	Zoned for High Density Use
Community Cohesion	No disruption to neighborhoods	No disruption to neighborhoods	No disruption to neighborhoods	No disruption to neighborhoods
Environmental Justice	None	None	None	None
Public Safety, Security and Community Services	Some improvements	Some improvements	Some improvements	Some improvements
Economic Impacts	Positive impact in Long term	Positive impact in Long term	Positive impact in Long term	Positive impact in Long term
Utilities	Minor changes	Minor changes	Minor changes	Minor changes
Railroad	Maintain access to existing rail users	Maintain access to existing rail users	Maintain access to existing rail users	Maintain access to existing rail users
Displacements and Relocations	None	None	None	None
Historic and Archaeological Resources	NA	No effect	No effect	Conditional No effect
Recreation and Parkland Resources	Improved access	Improved access	Improved access	Improved access
Pedestrian and Bicycle Facilities/Access	Improved access	Improved access	Improved access	Improved access
Visual and Aesthetic Resources	Minor	Minor	Minor	Minor
Air Quality	No exceedences	No exceedences	No exceedences	No exceedences
Noise	Impact mitigated	Impact mitigated	Impact mitigated	None
Vibration	Less than existing	Less than existing	Less than existing	Less than existing
Ecosystems	None	None	None	None
Wetlands	None	None	None	None
Water Quality	No change to existing drainage	No change to existing drainage	No change to existing drainage	No change to existing drainage
Contamination	Low	Low	Low	Medium
Energy	Reduction in indirect energy usage	Reduction in indirect energy usage	Reduction in indirect energy usage	Reduction in indirect energy usage
Construction	Temporary	Temporary	Temporary	Temporary
Station Roadways	193 a.m. peak hour trips added	56 a.m. peak hour trips added	15 a.m. peak hour trips added	17 a.m. peak hour trips added
Intersection LOS	Minor change	Minor change	Minor change	Minor change
At-grade Crossing	Minor change	Minor change	Minor change	Minor change
Station Parking	City of Winter Park to provide	None	None	None
Transit - Systemwide	Improved service	Improved service	Improved service	Improved service
Transit - Other	Interface with Amtrak	Interface with Amtrak	Interface with Amtrak	Interface with Amtrak
Freight Rail Traffic	Safer operation	Safer operation	Safer operation	Safer operation
Trucking	Minor change	Minor change	Minor change	Minor change
Marine	No change	No change	No change	No change

Table S-4: Station Impact Summary – Orange (cont)

Impacts	Orlando Amtrak/ORMC Station	Sand Lake Road Station	Meadow Woods Station
Land Use	Zoned for High Density Use	Rezoning allowed	Amend PUD
Community Cohesion	No disruption to neighborhoods	No disruption to neighborhoods	No disruption to neighborhoods
Environmental Justice	None	None	None
Public Safety, Security and Community Services	Mitigation identified	Some improvements	Some improvements
Economic Impacts	Positive impact in Long term	Positive impact in Long term	Positive impact in Long term
Utilities	Minor changes	Minor changes	Minor changes
Railroad	Maintain access to existing rail users	Maintain access to existing rail users	Maintain access to existing rail users
Displacements and Relocations	None	2 Businesses	None
Historic and Archaeological Resources	Conditional No effect	NA	NA
Recreation and Parkland Resources	NA	NA	NA
Pedestrian and Bicycle Facilities/Access	Improved access	Improved access	Improved access
Visual and Aesthetic Resources	Minor	Minor	Minor
Air Quality	No exceedences	No exceedences	No exceedences
Noise	None	None	Impact Mitigated
Vibration	Less than existing	Less than existing	Less than existing
Ecosystems	None	None	None
Wetlands	None	6.17 acres	.70 acres
Water Quality	No change to existing drainage	1 acre detention pond	4.46 acre detention pond
Contamination	Medium	Medium	High
Energy	Reduction in indirect energy usage	Reduction in indirect energy usage	Reduction in indirect energy usage
Construction	Temporary	Temporary	Temporary
Station Roadways	24 a.m. peak hour trips added	372 a.m. peak hour trips added	416 a.m. peak hour trips added
Intersection LOS	Minor change	Minor change	Minor change
At-grade Crossing	Slight delay	Minor change	Minor change
Station Parking	None	650 spaces added	390 spaces added
Transit - Systemwide	Improved service	Improved service	Improved service
Transit - Other	Interface with Amtrak	Interface with Amtrak	Interface with Amtrak
Freight Rail Traffic	Safer operation	Safer operation	Safer operation
Trucking	Minor change	Minor change	Minor change
Marine	No change	No change	No change

Table S-5: Station Impact Summary – Osceola

Impacts	Osceola Parkway Station	Kissimmee Amtrak Station	Poinciana Industrial Park Station
Land Use	Amend PUD	Zoned for High Density Use	Rezoning allowed
Community Cohesion	No disruption to neighborhoods	No disruption to neighborhoods	No disruption to neighborhoods
Environmental Justice	None	None	None
Public Safety, Security and Community Services	Some improvements	Some improvements	Mitigation identified
Economic Impacts	Positive impact in Long term	Positive impact in Long term	Positive impact in Long term
Utilities	Minor changes	Minor changes	Minor changes
Railroad	Maintain access to existing rail users	Maintain access to existing rail users	Maintain access to existing rail users
Displacements and Relocations	Vacant land	None	Vacant land
Historic and Archaeological Resources	NA	No effect	NA
Recreation and Parkland Resources	NA	Improved access	NA
Pedestrian and Bicycle Facilities/Access	Improved access	Improved access	Improved access
Visual and Aesthetic Resources	Minor	Minor	Minor
Air Quality	No exceedences	No exceedences	No exceedences
Noise	None	Impact mitigated	None
Vibration	Less than existing	Less than existing	Less than existing
Ecosystems	None	None	None
Wetlands	None	None	None
Water Quality	Included Gateway Commons Dev.	No change to existing drainage	.9 acre detention pond
Contamination	Low	High	Low
Energy	Reduction in indirect energy usage	Reduction in indirect energy usage	Reduction in indirect energy usage
Construction	Temporary	Temporary	Temporary
Station Roadways	179 a.m. peak hour trips added	218 a.m. peak hour trips added	157 a.m. peak hour trips added
Intersection LOS	Minor change	Minor change	Minor change
At-grade Crossing	Minor change	Minor change	Slight delay
Station Parking	200 spaces added	390 spaces added	250 spaces added
Transit - Systemwide	Improved service	Improved service	Improved service
Transit - Other	Interface with Amtrak	Interface with Amtrak	Interface with Amtrak
Freight Rail Traffic	Safer operation	Safer operation	Safer operation
Trucking	Minor change	Minor change	Minor change
Marine	No change	No change	No change

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CHAPTER 1

PURPOSE AND NEED FOR PROPOSED ACTION

1 PURPOSE AND NEED FOR PROPOSED ACTION

The Federal Transit Administration (FTA) is serving as the lead agency in the preparation of an Environmental Assessment (EA) for the Central Florida Commuter Rail Transit (CRT) project. The CRT project sponsors include the Florida Department of Transportation (FDOT), in association with the Central Florida Regional Transportation Authority (LYNX), Volusia County Public Transit System (VOTRAN), METROPLAN ORLANDO (MPO), Volusia County Metropolitan Planning Organization, and the counties of Orange, Osceola, Seminole and Volusia. The EA is being prepared to provide more detailed environmental analyses for the proposed commuter rail service between the DeLand Amtrak station in Volusia County and the Poinciana Industrial Park in Osceola County, Florida. A regional map (Figure 1-1) identifies the project study area.

This project has been the subject of several previous analyses, the most recent of which resulted in the designation of a Locally Preferred Alternative (LPA), or the preferred build project selected by local and regional decision makers and adopted by the MPO in its financially constrained metropolitan transportation plan. In 2004, the North-South Commuter Corridor Alternatives Analysis assessed the mobility needs in the corridor and recommended an LPA. As the LPA would utilize an existing active freight rail line, FDOT requested, and the FTA Regional office concurred that an EA would be the appropriate next step in the environmental approval process.

1.1 Purpose

The commuter rail project proposes an alternative mode of transportation to improve the mobility of travelers along Interstate 4 (I-4) and other major roadways within the Orlando Metropolitan Region, including, but not limited to, US 17/92, US 441, Orange Avenue, and SR 434 (Forest City Road), which are parallel facilities to the Interstate. The study corridor, which is the primary travel corridor in the region, is highly congested and experiences poor highway levels of service all during the day, especially in the morning, mid-day and afternoon peak hours. This traffic congestion inhibits travel mobility, causes longer and more frequent delays, emergency response time delays, impairs air quality, wastes fuel and personal time, stifles economic growth and diminishes the overall quality of life. The proposed CRT project would connect the region's primary residential communities of Volusia, Seminole, and Osceola Counties, to the urban core in Orange County and the City of Orlando.

The regional transportation system has not kept pace with the area's growth and travel demands. The regional activity centers and the high intensity land uses in the project corridor are not well connected by the existing transportation network. In addition, the level of public transit services provided within the corridor is insufficient to meet the growing mobility needs of the corridor workforce, visitors, and transit-dependent population. The proposed CRT Project assists in addressing these issues. The project meets the following goals, which were developed with the public as well as regional and local stakeholder input.

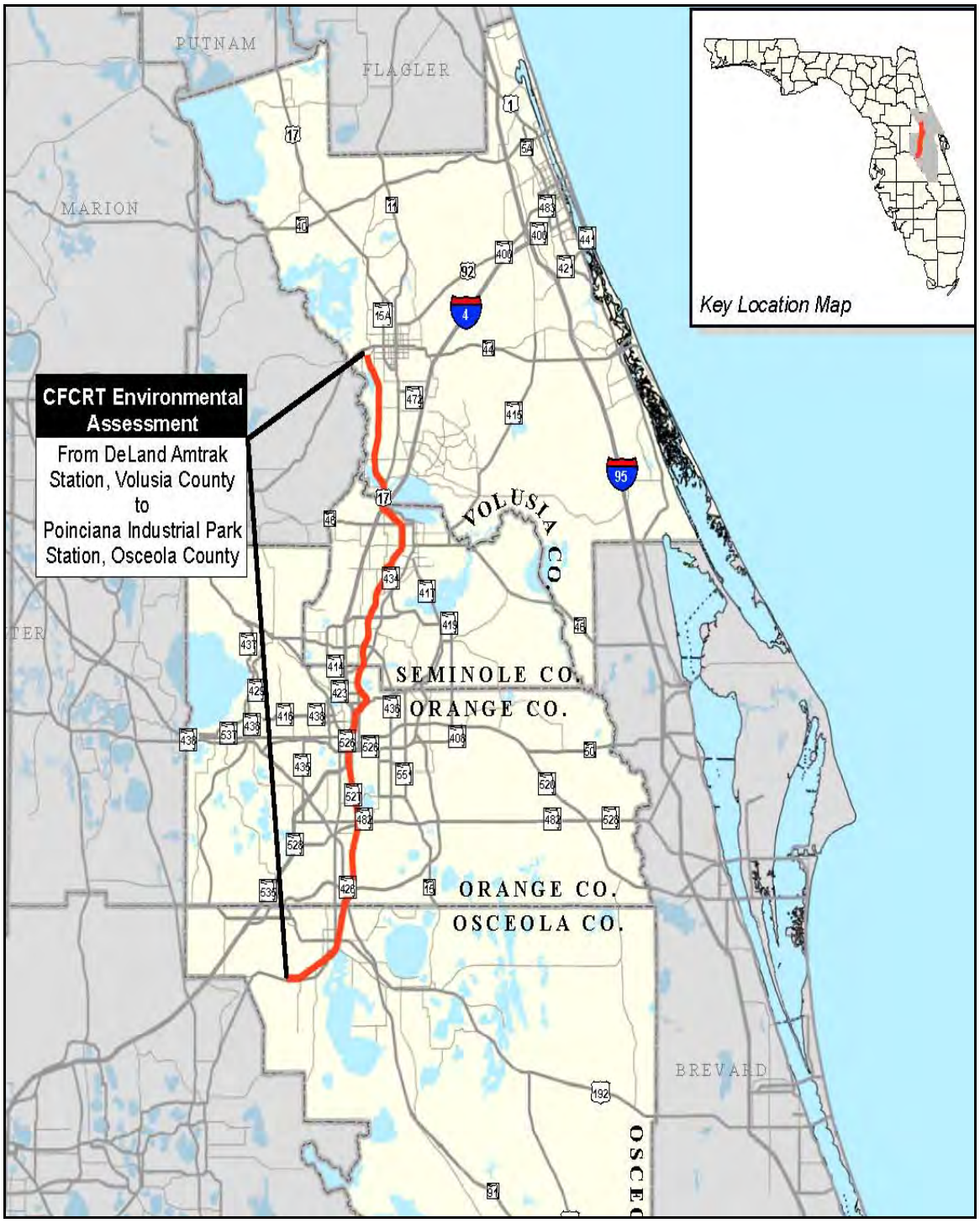


Figure 1-1 Regional Location Map

CFCRT Goals are as follows:

- Provide an alternative mode of transportation between DeLand in Volusia County and Poinciana Industrial Park in Osceola County to the employment and activity centers within the Orlando Metropolitan area.
- Provide high capacity, fast, convenient and reliable commuter rail service in the congested Interstate 4 corridor thereby minimizing travel time and developing an integrated regional transit system.
- Assist in the implementation of regional and local growth management plans through more intense land uses and Transit Oriented Development (TOD) practices at the activity center station locations.
- Implement a financially feasible multi-modal transportation system that includes commuter rail and the corresponding growth management plans with established goals, objectives and policies in the four counties and respective cities.
- Provide an efficient regional transit system that is consistent with local transportation and community based plans and regarded as a good investment.
- Protect and preserve the environment and improve the areas quality of life.

1.2 Description of Project

The CRT Project is proposed to operate on the existing CSX Transportation, Inc. (CSXT) A-line rail corridor from the existing DeLand Amtrak station in Volusia County, south through downtown Orlando and Kissimmee until its terminus approximately 5 miles south of Kissimmee at the Poinciana Industrial Park at the intersection on US 17/92 and the CSXT tracks in Osceola County (See Figure 1-2). This 60.8-mile corridor is the same as the final Build Alternative identified in the 2004 Alternatives Analysis report.

While labeled “Commuter Rail” due to its future utilization of existing freight rail tracks and use of Federal Railroad Administration (FRA) compliant vehicles, the CRT project is truly anticipated to function differently than the traditional US commuter rail experience. The proposed service functions more like “light rail” or “urban rail” than commuter rail because of the multiple stops in the downtown area (four), the frequency of stops (16 in 60.8 miles, 10 in 31 miles), density and intensity of land use adjacent to the corridor and station locations concentrated in recognized activity centers (nine). In fact, much of the alignment was contained in the region’s previous Light Rail Transit proposal. The CRT will serve as commuter rail in the outskirts of the region given the approximately 30 miles from the end stations to the urban core. Then the project will function more like “light rail” at 11 of the 16 proposed stations with 15-minute peak and 30 to 60-minute train headway.

The CRT corridor generally parallels Interstate 4 and US 17/92 and contains some of the area’s most intensely and densely developed land use. The width of the study area generally includes the major north-south arterial roadways serving downtown Orlando and other major activity centers, principally Interstate 4, US Route 17/92, and SR 434/Forest City Road in the northern portion of the corridor and State Routes 421, 441, 423, 527, and the Florida Turnpike in the southern portion of the corridor.

The purpose of the EA is to assess the potential impacts of the Project's Full Build Alternative. This is the maximum project that would be built and operated, given the

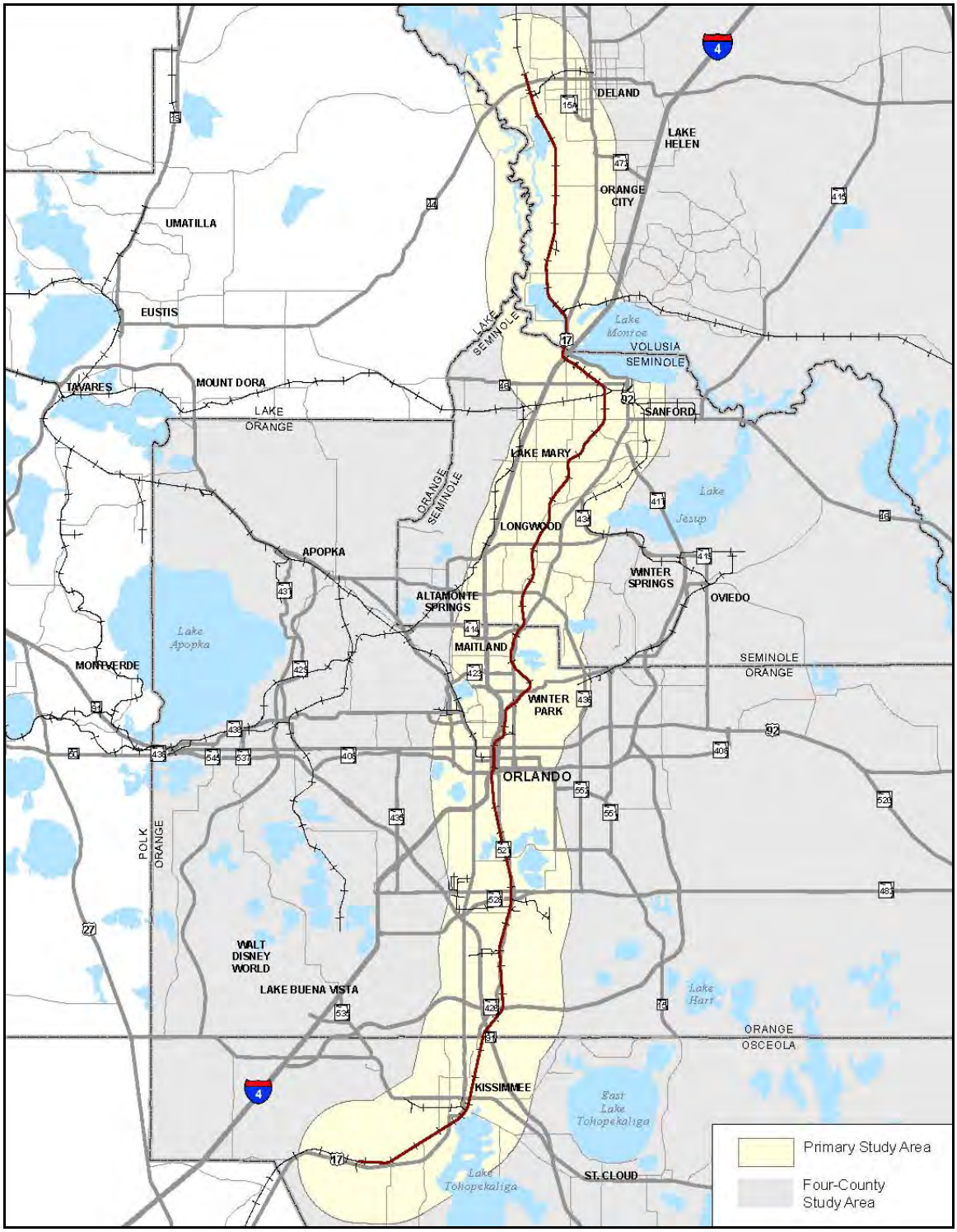


Figure 1-2 Project Study Area

current limits of the CRT Project. The Full Build is the 60.8-mile line between DeLand Amtrak Station and Poinciana Industrial Park.

The communities potentially impacted by the CRT are DeLand, Orange City, and DeBary, in Volusia County; Sanford, Lake Mary, Longwood, Altamonte Springs, and Casselberry in Seminole County; Maitland, Winter Park, Orlando, and Edgewood in Orange County; and Kissimmee in Osceola County.

For the purpose of this EA Full Build analysis, the CRT service includes sixteen station stops with a bi-directional service (on weekdays only) at 15-minute peak period and 60-minute midday and evening service frequencies. The LPA includes fifteen stations with 30-minute bi-directional service during weekday peak hours and 120-minute service during the midday. Commuter rail service would be operated with Federal Railroad Administration (FRA) compliant Diesel Multiple Unit (DMU) cars.

The CRT project proposes 16 stations (see Figure 1-3) at the following locations:

- Existing DeLand Amtrak Station
- DeBary Station - at the Saxon Boulevard Extension
- Sanford/SR 46 Station - near the intersection of SR 46A/Airport Road
- Lake Mary Station - near the Lake Mary Boulevard/ Country Club Road at-grade railway crossing
- Longwood Station - near the intersection of CR 427/Ronald Reagan Boulevard and SR 434
- Altamonte Springs Station - near the intersection of SR 436 and CR 427/ Ronald Reagan Boulevard
- Existing Winter Park Amtrak station
- Florida Hospital Station - near Rollins Street at-grade railway crossing
- LYNX Central Station - between Amelia Street and Livingston Street in downtown Orlando
- Church Street Station – between Church Street and South Street adjacent to the railway tracks
- Existing Orlando Amtrak/ORMC Station
- Sand Lake Road Station - near the intersection of Orange Avenue
- Meadow Woods Station - near the intersection of S. Orange Avenue
- Osceola Parkway Station - near the intersection of John Young Parkway

- Existing Kissimmee Amtrak Station
- Poinciana Industrial Park Station - near the intersection of US 17/92 and Poinciana Boulevard.

1.3 Relevant Corridor Planning Activities

The development of CRT service along this corridor has been the topic of several studies. The *Project Feasibility Report* (1992) by the Central Florida Commuter Rail Authority (CFCRA), and the *Regional Systems Plan* adopted by LYNX in 1994 examined the feasibility of providing transit service via various technologies in several corridors around the Central Florida area. Based on these and other studies, the *Central Florida North-South Commuter Corridor Alternatives Analysis*, completed in 2004, identified the commuter rail alternative and various end points for the project within the north-south corridor, and evaluated the potential impacts of such a project.

Notable measures taken during more than a decade of planning in the corridor include:

- Project Feasibility Report, finalized in March of 1992 by the CFCRA, and the Regional Systems Plan, adopted by LYNX in 1994. The Regional Systems Plan included approximately 52 miles of Light Rail Transit, 105 miles of Commuter Rail Transit, an increase to a bus fleet of 600 vehicles, and implementation of seven activity center circulators.
- Commuter Rail project given Federal authorization in 1998 as a component of the Central Florida Rail System in the Transportation Equity Act for the 21st Century (TEA-21).
- Volusia County Preliminary Rail Feasibility Study in 1999 looked at the potential of CRT service between downtown Orlando and DeLand. Subsequently, LYNX staff prepared a technical assessment on the potential of extending the service south to the Kissimmee and Celebration areas.
- A proposed 14-mile segment of LRT was rejected by the Orange County Commission in January 2000. Work began on the CRT component of the Central Florida Rail Transit System as the CRT project.
- Central Florida North-South Commuter Corridor Alternatives Analysis completed in mid-2004, identified Full Build CRT between DeLand and Poinciana Boulevard and recommended LPA between DeBary in Volusia County and Poinciana Boulevard in Osceola County.
- The CRT project was included in the METROPLAN ORLANDO *Year 2025 LRT Plan* adopted in June 2005.
- Volusia County MPO *2025 Cost Feasible LRTP* includes commuter rail from Saxon Boulevard Extension to Downtown Orlando – November 2005.

These major planning studies have provided the basis to the development of the EA for the commuter rail system from DeLand to Poinciana Industrial Park.

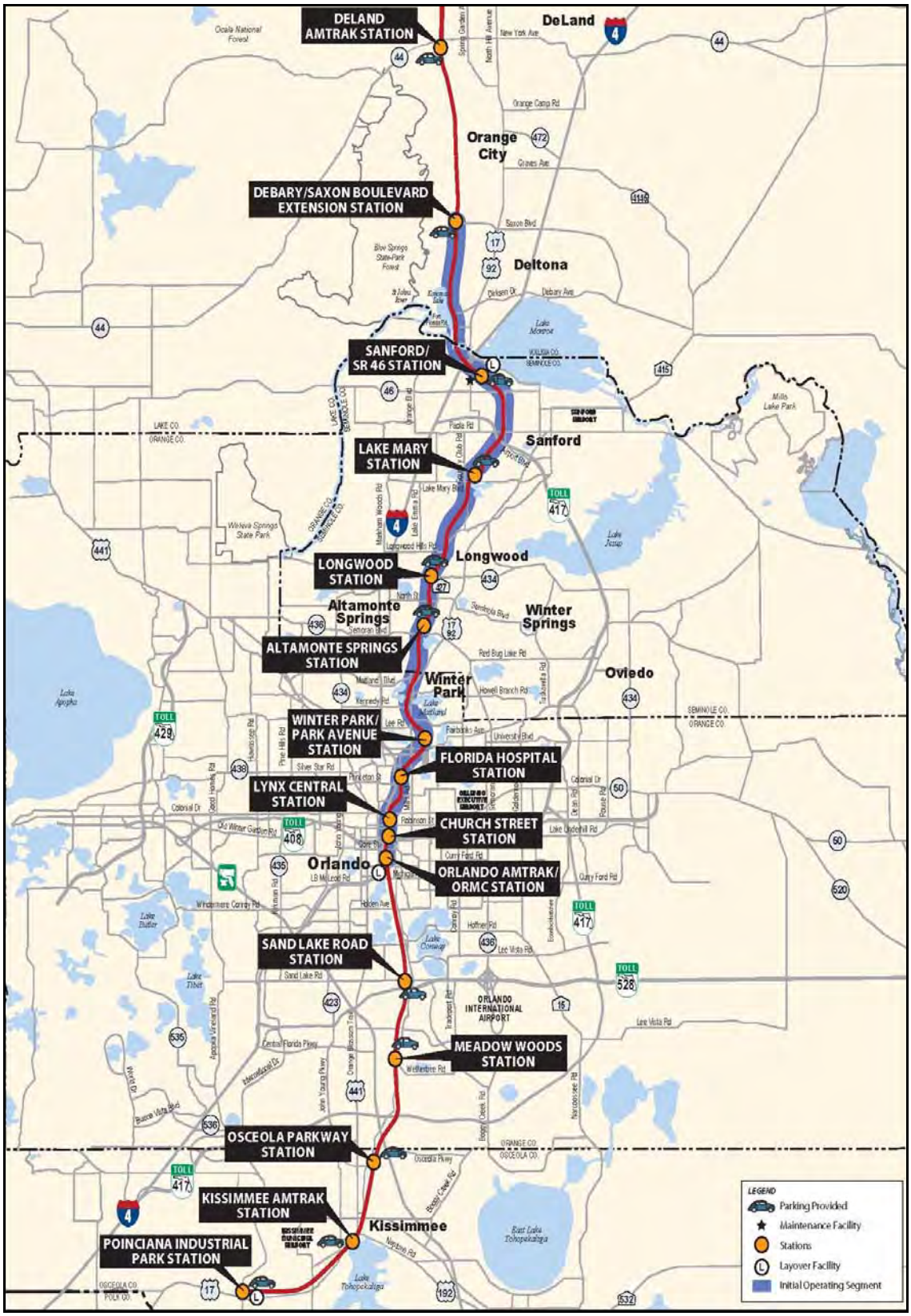


Figure 1-3 CRT Stations

1.4 Need for Transportation Improvements

Non-automotive, alternative transportation modes within the Orlando Metropolitan Region are greatly needed due to a high level of roadway congestion on I-4 and other major roadways in the area. Population and employment growth within the region, combined with increased vehicle trips per capita and longer trip lengths are the cause of the growing traffic congestion. Congestion diminishes travel mobility, results in longer and frequent roadway delays, impairs emergency response times, and wastes fuel and personal time. This can impact economic growth, and the overall quality of life.

The segment of Interstate 4 within the project area carries 238,000 vehicles per day. This is projected to increase to approximately 440,000 vehicles per day in 2025. Even with the proposed I-4 improvements, the projected Level of Service (LOS) for the general use lanes (GUL) remains an LOS F.

1.4.1 Roadways and Traffic

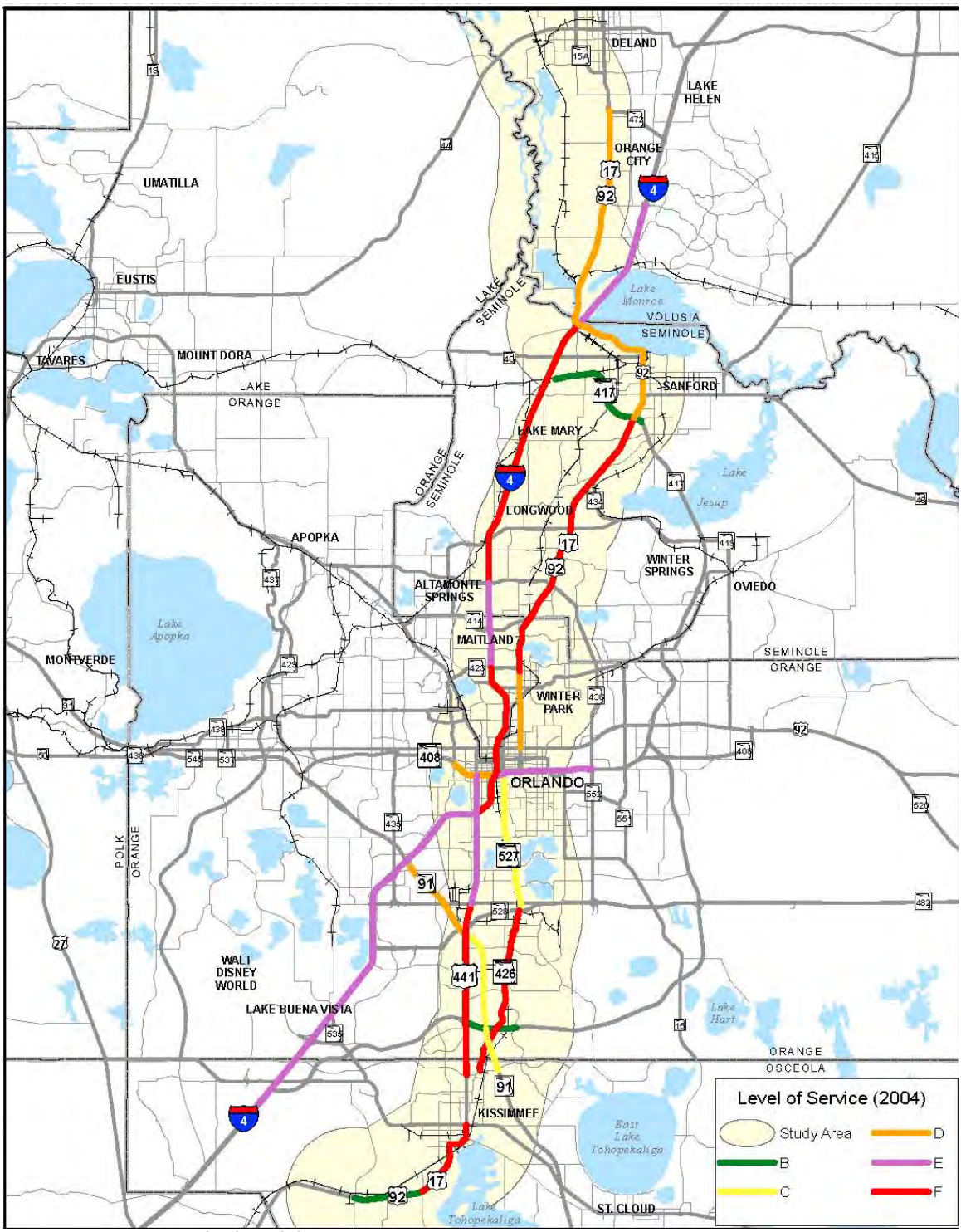
I-4 is the major roadway connector in the study area and runs northeast and southwest in a diagonal direction from the Polk County line through Orlando and Central Florida. Interstate 4 is a limited access freeway with six to eight lanes. Interstate 4 consists of 73 miles of roadway that accommodates an average of 1.53 million trips daily in Osceola, Orange, Seminole, and Volusia counties. Studies have shown that 58 percent of the daily drivers on I-4 are commuters, 12 percent are non-work related drivers and commercial vehicles traveling to the area, and 30 percent are tourists. Over the next 20 years, FDOT will reconstruct 73 miles of I-4 from the Central Florida attractions area (Osceola/Polk County line) to Daytona (I-95).

While these improvements to I-4 are projected to increase capacity and significantly reduce overall delay in the corridor, future increases in population and employment growth in the region will offset these capacity upgrades and result in I-4 only maintaining a LOS F during peak hours of travel. The ability to widen the parallel arterials is extremely limited. Widening of the arterials in the urban core is likely to be either prohibitively expensive, or result in unacceptable levels of impact and displacement. As such, additional modal options are necessary along this corridor to accommodate future growth. Furthermore, north-south travel in the region will be significantly hampered during the construction of the I-4 projects. The proposed LPA will provide one tool for the maintenance of traffic in the Interstate 4 corridor during reconstruction

Existing Conditions

As shown graphically in Figure 1-4, existing traffic volumes are LOS E or LOS F on most major roadway segments throughout the study area. In the northern portion of the study area the West Volusia portion of I-4 is at LOS E; the Seminole County portion of I-4 is at LOS F; and the northern Orange County portion of I-4 is at LOS E. I-4 is LOS F through the center of downtown Orlando to just west of SR 535. Similarly, the northern portions of US 17/92 are congested or above capacity with West Volusia County at LOS D; Seminole County at LOS F, and north Orange County at LOS F.

In the southern portion of the study area US 441 is currently at LOS E in one segment and LOS F in the two other segments shown. SR 527 is at LOS C in one segment, but LOS F between SR 482 and the Osceola Parkway.



Source: CFRT Travel Market Analysis, 2005

Figure 1-4 Existing Level of Service

Future Conditions

As shown graphically in Figure 1-5, future traffic volumes projected to 2025 show significantly higher volumes on the same roadway segments, and far more roadway segments in the corridor operating at LOS F compared to today. In the future, the number of identified roadway segments in the table increases to 25 with the addition of the two HOV lanes on I-4, both of which are projected to operate at LOS D on a daily basis, and worse during the peak. The Seminole County portion of I-4 will continue to operate at LOS F in the future, as will the segments through Orange County until just west of US 192 in Osceola County. The northern portions of US 17/92 will fare much worse in the future with traffic conditions deteriorating further to LOS F in all four segments identified throughout Seminole and Orange Counties. The segment of US 17/92 in north Orange County is projected to have daily traffic volumes greater than 150% above capacity.

In the southern portion of the study area, all three identified segments of US 441 will operate at LOS F, with the segment south of SR 417 operating at 133% of capacity. SR 527 will deteriorate to LOS D in one segment and worsen to LOS F between SR 482 and the Osceola Parkway.

1.4.2 Transit Services

LYNX and VOTRAN

The Central Florida Regional Transportation Authority (CFRTA) is commonly known as LYNX and provides fixed-route bus services and paratransit services in Seminole, Osceola and Orange Counties and limited express service in Volusia County.

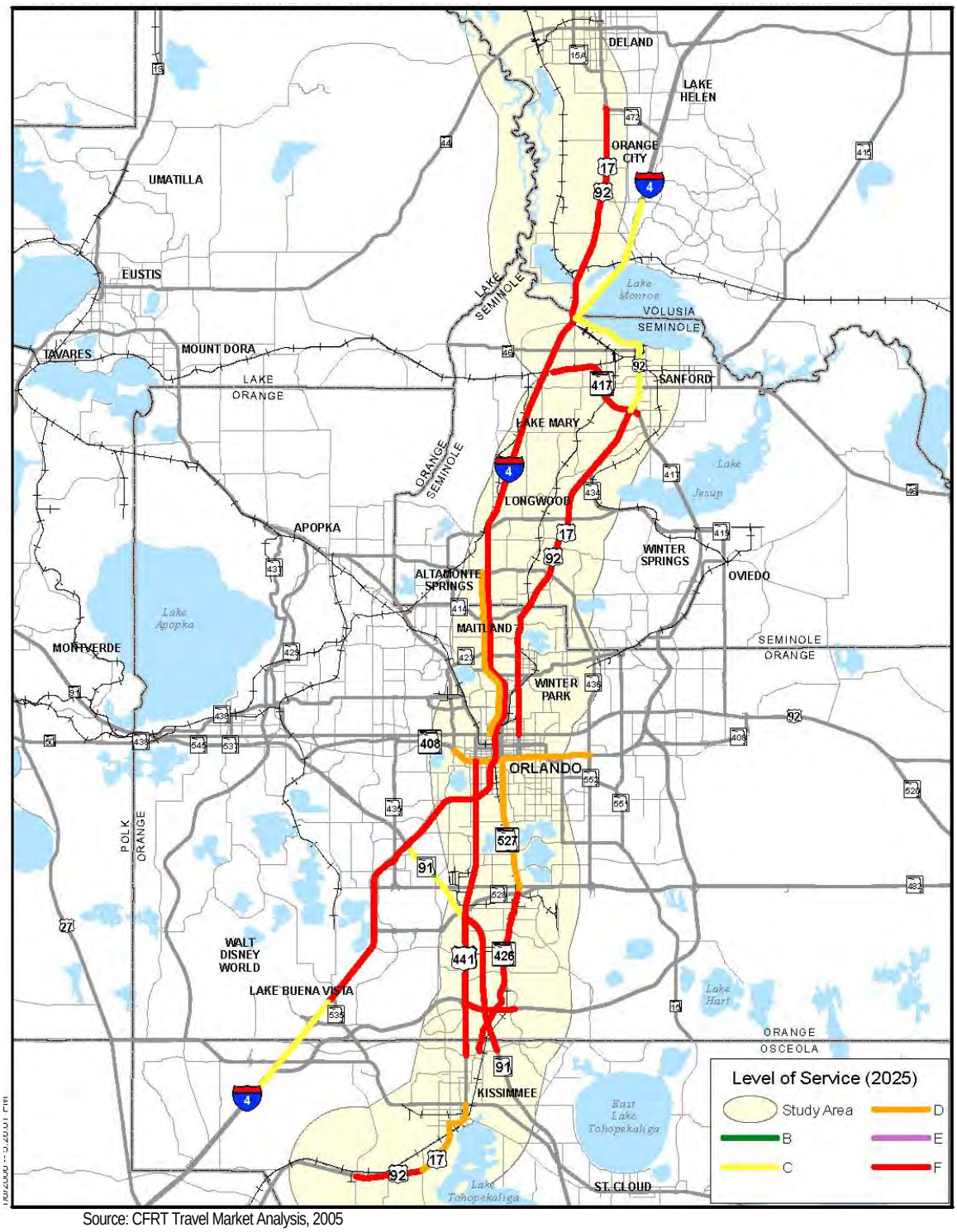
The CFCRT EA includes planned improvements to the LYNX and VOTRAN transit systems that are included in their current transit development plans (e.g., LYNX's Transportation Development Plan for Fiscal Years 2005-2009) plus selected projects and services that are likely to be implemented in the next twenty years. These additional projects include the addition of two express bus routes serving the Orlando International Airport (one to downtown Orlando and the other to International Drive) and Flex Bus routes in Altamonte Springs and Maitland.

The CFCRT Study Area is generally well served by fixed route bus transit operated by LYNX and VOTRAN. The background and feeder bus network for the "Full" Build Alternative would require 376 peak buses for LYNX and 22 peak buses for VOTRAN's West Volusia County service. The bus network would be modified to provide transfer connections to nearby commuter rail stations. In most cases, this involves minor route deviations or short route extensions to serve the proposed stations. The "Full" Build Alternative does not require any new fixed routes above those featured in the No-Build Alternative.

Amtrak

There are three Amtrak routes that operate through Central Florida. Amtrak currently operates along the CSXT freight line within the study corridor, but the schedules, frequency, station locations, and fare structure are intended to serve a long-haul intercity travel market. The service does not serve the access and mobility needs of the corridor.

Moreover, Amtrak service is not capable of being scaled up to meet corridor needs due to significant institutional, infrastructure, rolling stock, and financial constraints



Source: CFRT Travel Market Analysis, 2005

Figure 1-5 Projected Level of Service

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1.5 Population and Employment

The study corridor is vital to the communities in which it is located and the expected increase in population remains concentrated in the corridor. The population in the corridor is projected to be 22% of the total regional growth. Likewise, 68% of employment within the study area is projected to be located within the CSXT corridor. The corridor is a major growth destination with a clearly established need for more mobility options for commuters to reach employment centers.

Data in the Orlando Urbanized Area Transportation Study (OUATS) projects the following:

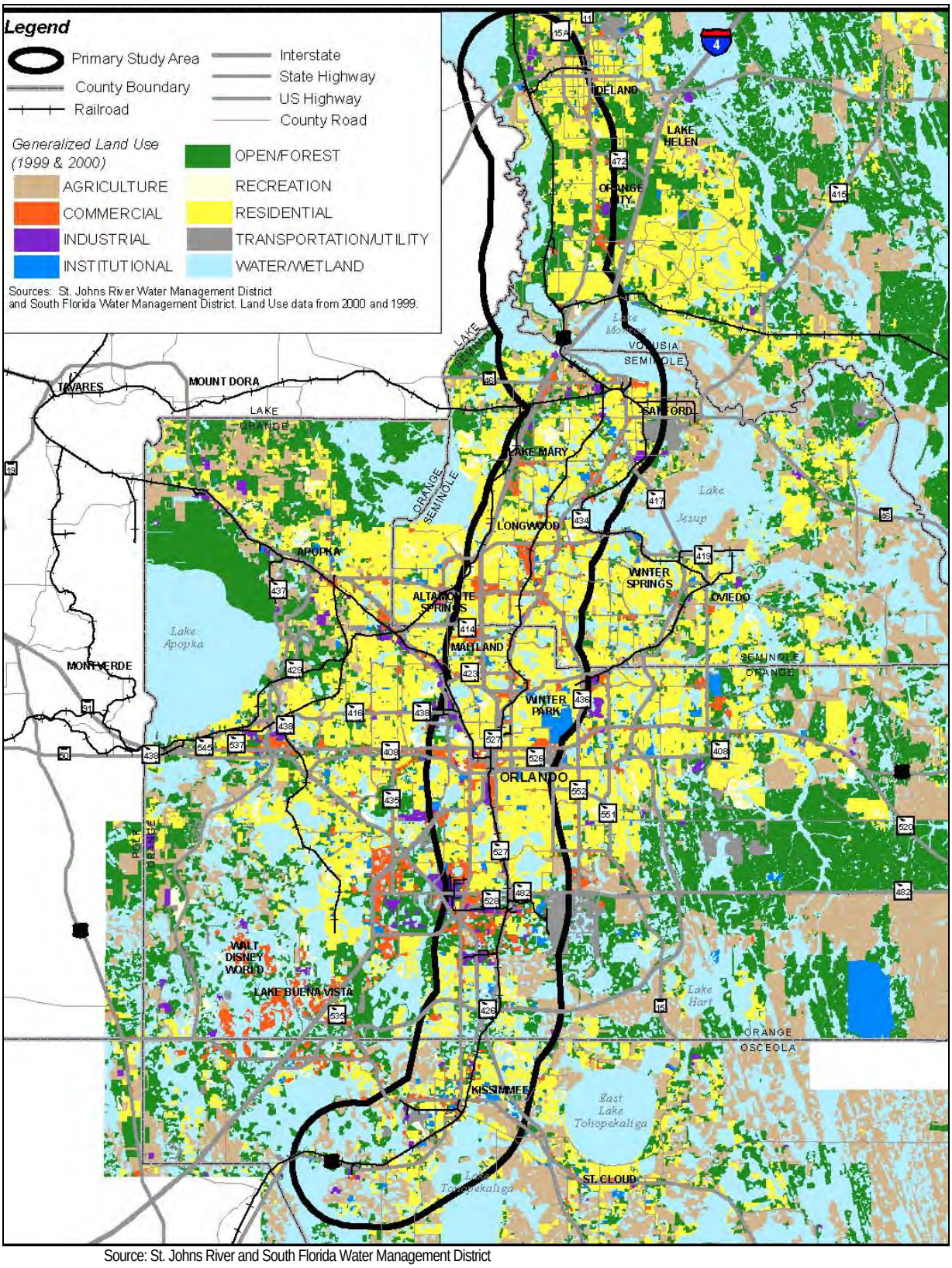
- By 2025, the region's population is projected to increase (56%) to 2,408,170 people.
- By 2025, the region's employment is projected to increase (83%) to 596,656 employees.

1.6 Land Use

Existing land use information was based on review of current Geographic Information System (GIS) land use data files obtained from the St. Johns River Water Management District (WMD), which includes most of the study area, and the South Florida WMD, which covers the balance. Figure 1-6 presents the generalized existing land uses within the project study area.

A variety of existing land uses occur within the project study area. The northern portion in Volusia County includes the cities of DeLand, DeBary and Orange City. This area includes larger tract residential areas, with some industrial development in the US 17/92 corridor and areas of conservation along the west border of the study area. Through Seminole and Orange Counties, the corridor is characterized by urbanized development with a mix of residential, commercial and industrial land uses in Sanford, Lake Mary, Altamonte Springs, Maitland, and Winter Park. The density of development increases in downtown Orlando, with major commercial office space and institutional uses such as regional hospitals.

The southern portion of the study area in Orange County is distinguished by the industrial uses associated with Orlando International Airport, freight rail related uses around Taft Yard and the residential and commercial districts of the cities of Belle Isle and Edgewood, as well as the larger mixed use developments of Meadow Woods and Hunter's Creek. Osceola County is characterized by the established activity center in Kissimmee and the growing residential area of Poinciana, as well as agricultural uses transitioning to residential and commercial. This development pattern serves to satisfy demand pushed further from the urban core by rising land and housing prices, a trend seen throughout Central Florida.

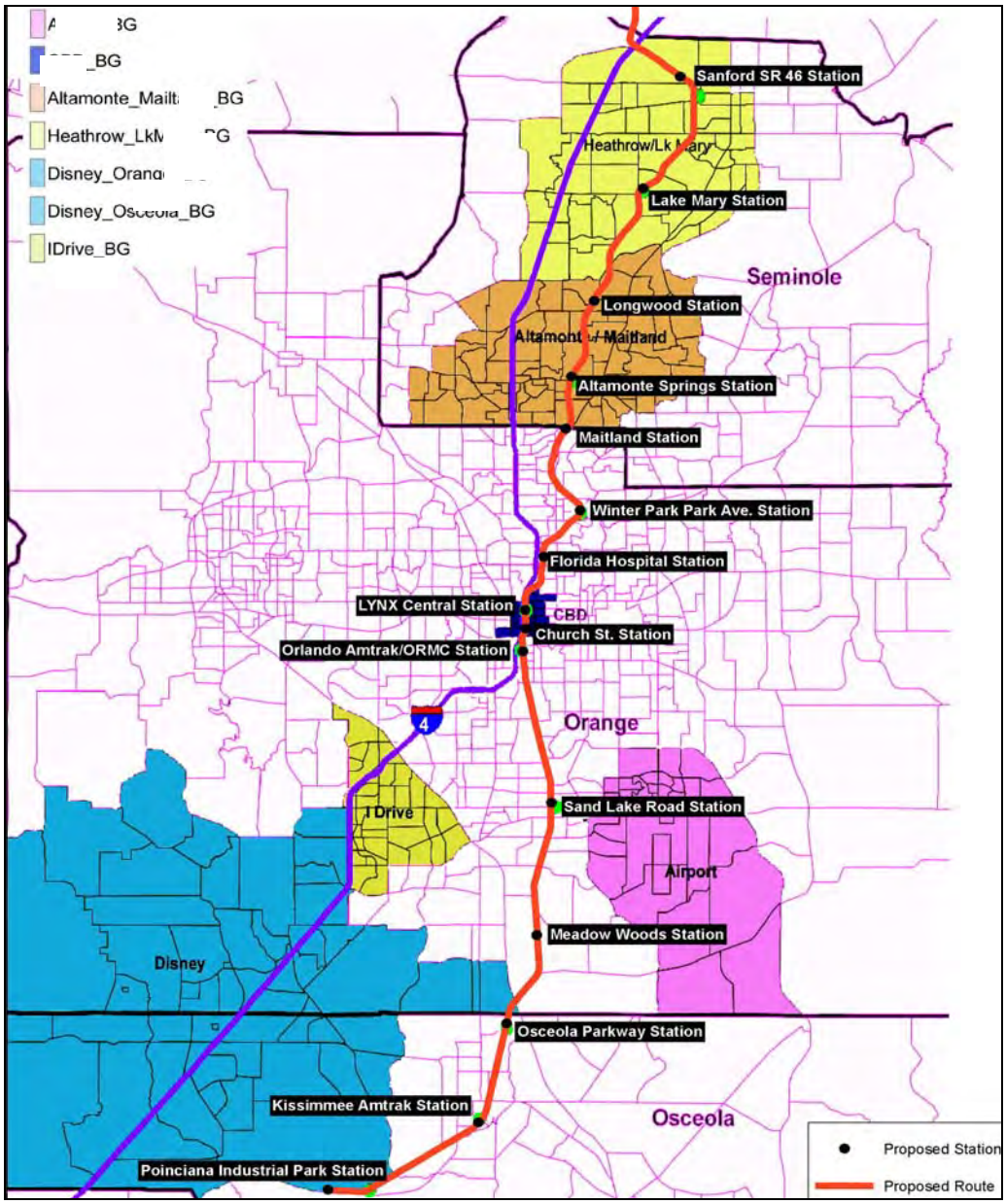


Source: St. Johns River and South Florida Water Management District

Figure 1-6 Generalized Land Use

1.6.1 Activity Centers and Developments of Regional Impacts

Over the past two decades, activity centers have become one of the most dominant land use features in Central Florida. These centers represent a concentration of residential, business, and office/industrial land uses. Under the State Growth Management Act (GMA), all local jurisdictions are required to develop and adopt a comprehensive Growth Management Plan (GMP). Activity centers are one of the tools being used to promote higher density development and transit friendly development in the urban parts of the region in which much of the study area is located (see Figure 1-7). The counties and municipalities in the study area have plans and policies that work to concentrate trip attractions into the centers.



Source: CFCRT Travel Market Analysis, January 2005

Figure 1-7 Major Employment & Activity Centers

1.7 Role of the EA in Project Development

The EA is an important step in the project development process mandated by the National Environmental Policy Act (NEPA) of 1969, as amended, as well as Florida regulations. The EA is a full disclosure document that provides information on the evaluation of reasonable alternatives and the assessment of transportation and environmental impacts for each of the identified alternatives. The required circulation and review procedures assist the public participation process and should result in comments that help guide the decision-making process.

Similarly, the identification, examination, and assessment of alternatives are also required by Federal and state regulations. Assessment of environmental impacts of the alignment alternatives serves to identify the type and severity of environmental consequences leading to or supporting the selection of a Preferred Alignment. Mitigation strategies for unavoidable impacts will be identified in the EA. These are refined in subsequent project phases, together with estimates of the costs and effectiveness of such mitigation measures.

This EA will be circulated to Federal, state, and local agencies and the general public in order to solicit additional comments and recommendations on the alternatives under evaluation to address needed transportation improvements in the study area.

The present study is designed to provide local decision-makers sufficient information to determine the project's feasibility, and to give FTA the information it requires to agree to undertake the next step in the FTA project development process. The desired results of this EA will be a Finding of No Significant Impact (FONSI), a legal finding that justifies the decision not to prepare an Environmental Impact Statement (EIS). Any commitments to mitigate impacts identified in the EA will be documented in the FONSI. At the completion of the EA process the project can move into further stages of design and eventual construction if funding is available.

1.8 Summary

Projections of future population and employment in the region indicate that travel demands will continue to increase in the near and long term. The study area is one of the fastest growing regions in Florida, which is itself one of the fastest growing states in the nation. Currently, the regional transportation system consists of an extensive roadway network that is at capacity, includes railroad lines that support both freight and long-distance Amtrak passenger service, and a system of local public and private transit services.

A high capacity transit system is essential to provide an alternative to the single occupant automobile, assist in relieving traffic congestion, provide the travel mechanism required to support growth management plans, assist in the maintenance of traffic during Interstate reconstruction, provide a faster method to commuters to travel within and between the region's activity centers and to implement the corridor development plan essential to a sustainable growth pattern in the region. Without this investment in a balanced transportation system, the traveling public will lack an attractive alternative to auto travel and have no choice but to face increasing congestion and travel time delay in the future. With the effects of continued sprawl development this decrease in mobility will reduce the quality of life in Central Florida and result in negative long-term environmental consequences.

CHAPTER 2

ALTERNATIVES

2 ALTERNATIVES

This chapter provides a summary description of the alternatives that were developed to address the transportation purpose and need for the project identified in Chapter 1. This chapter summarizes:

- Alternatives Analysis (AA) conducted for this project
- Changes in Alternatives following the AA
- Definition of the Environmental Assessment (EA) Alternatives
- Ridership, Revenues, Costs, and Financial Requirements

A wide range of alternatives were identified and analyzed during the Alternatives Analysis completed in 2004, which provided the starting point of the alternatives definition in this EA. An intensive local government coordination effort and public outreach process during the EA resulted in modification and further definition of the alternatives to improve their ability to address project purpose and need. This chapter summarizes the development of the No-Build, Transportation System Management (TSM), and Build Alternatives. These alternatives are defined in conformance with the requirements of the National Environmental Policy Act (NEPA), and the Federal Transit Administration (FTA) New Starts process.

As outlined in Chapter 1, the Build Alternative includes the Full Build project from DeLand to Poinciana and a slightly smaller Locally Preferred Alternative (LPA). The LPA for this project is a portion of the Full Build, less the station in DeLand, and the segment of track between DeBary and DeLand. The LPA is further divided into two corridors to accommodate a phased approach. The North Corridor, from DeBary to the Orlando Amtrak/ORMC station is the Initial Operating Segment (IOS), which will be the first phase of the Full Build to be constructed and operated.

In order to assess the maximum impact of the proposed commuter rail project, the service plan for the Full Build Alternative was upgraded from 30 minute headways to 15 minute headways to present the “worst case” from the point of view of addressing project environmental impacts. This upgrade resulted in additional infrastructure (e.g. 2nd track) and more Diesel Multiple Units (DMU) equipment to support the increase in service. The “Full Build” in this report is defined as the Full Build alignment from DeLand to Poinciana with all 16 stations, and a service frequency of 15 minute headways. Preliminary Concept Plans for the Full Build Alignment are included in a separately bound Appendix K.

2.1 Alternatives Analysis

The Alternatives Analysis (AA) conducted in the study corridor between 2002 and 2004 resulted in the selection of commuter rail transit (CRT) within the CSXT A-line corridor as the preferred alternative for addressing the identified goals and objectives of the project. This section summarizes the background and results of the AA, which set the basic parameters of the alternatives considered in the EA.

2.1.1 Alternatives Analysis 2004 Report

The Central Florida North/South Commuter Corridor Alternatives Analysis Final Report[1] (AA) was completed in May 2004. The AA was completed in accordance with FTA requirements for program planning and evaluation.

The AA was the first major step in corridor planning in the project development process as defined by the FTA. A project purpose and need statement and the project goals and objectives were created to guide the decision on a potential transportation investment for the corridor. Evaluation Criteria were developed to evaluate alternatives against the purpose and need and the goals and objectives of the project. Previous studies for this corridor, including the 1992 Project Feasibility Report, 1994 LYNX Regional Systems Plan, and various feasibility studies and technical assessment studies conducted through 2000, provided general parameters for the AA alternatives. The AA scoping process conducted in 2002, further defined these parameters through a series of four public and one agency scoping meetings held in conformance with requirements of the National Environmental Policy Act (NEPA). The final result of the AA was a recommended LPA for the corridor consisting of commuter rail transit (CRT) service in the four county corridor extending from DeBary in Volusia County through Seminole and Orange Counties, terminating at Poinciana Boulevard in Osceola County.

The AA evaluated four alternative transportation improvements for the corridor under study for the year 2025. These included improvements to the highway and transit networks. The No-Build, TSM, and Build Alternatives developed for the AA study were evaluated.

The AA No-Build Alternative was defined from adopted highway and transit elements of the Regional Transportation Plans in effect within the corridor at the time, as established by the relevant Metropolitan Planning Organization (MPO). For Seminole, Orange and Osceola Counties, the corridor is within the jurisdiction of the METROPLAN ORLANDO (MPO), while the Volusia County portion of the corridor is in the Volusia County MPO. The AA No-Build included expanded system-wide bus service and the North-South Light Rail Transit project (then part of the METROPLAN ORLANDO 2020 Financially Constrained Network), as well as preferential transit treatments in the study corridor. This included transit service and operations intended to compete favorably with the private automobile for a share of the commuter trips.

The TSM Alternative in the AA included the No-Build plus enhanced bus facilities and services in the Poinciana to DeLand project corridor, except for the proposed commuter rail. The TSM Alternative reflected the addition of limited stop bus service along US 441 in the South Segment and along US 17-92 in the North Segment. It also included new limited stop/express bus service in West Volusia County. Transit stations were proposed at each limited bus stop to provide connections to adjacent land use activities, park-and-ride lots (at select locations), and local transit service. Intelligent Transportation Systems (ITS) measures, (i.e., passenger information systems) and minor physical improvements (i.e., queue jumper lanes) were anticipated to enhance transit travel times on the limited stop services.

[1] "Central Florida North/South Commuter Corridor Alternatives Analysis – Final Report," Central Florida Regional Transportation Authority (LYNX), Florida Department of Transportation, Volusia County MPO, METROPLAN ORLANDO, May 2004.

The AA Build Alternative reflected the addition of CRT service from DeLand to Poinciana Boulevard along the CSXT alignment and associated changes to the feeder bus network. The AA Build Alternative proposed the addition of CRT service within the existing CSXT right-of-way by modifying the existing rail infrastructure to handle the new service while continuing to accommodate existing freight and Amtrak operations that use the line. This option was appealing due to its relatively low initial capital cost and the potential to initiate service promptly. The AA recognized that further engineering and analysis would occur during the environmental phase to define the infrastructure improvements and operating plans necessary to implement the CRT service. A map of the commuter rail alignment and stations proposed in the AA is shown in Figure 2-1.

2.1.2 Alternatives Screening and Selection Process in the AA

An alternatives screening and selection process was used to identify and evaluate a wide range of alternatives for addressing corridor transportation problems, consistent with the project goals and objectives, and to evaluate and compare their costs and benefits. This screening and selection process was applied at progressive levels of detail leading up to and during the AA.

Screening Alternatives Considered in the AA

The three major categories of alternatives considered and screened were:

- TSM Bus
- Light Rail
- Commuter Rail

The TSM bus alternatives consisted of new and improved express and limited stop bus routes, generally in the I-4 north south corridor. The TSM bus alternatives were developed in coordination with the two transit operators in the corridor, which are VOTRAN in Volusia County, and LYNX in Seminole, Orange and Osceola Counties. The TSM route and technology options were narrowed and defined at a conceptual level during the AA and utilized as key inputs to the development of the TSM Alternative in the EA.

Light Rail Transit (LRT) alternative was identified during earlier studies prior to the AA for use in a shorter segment of the corridor, and was determined to be not cost effective for application in the much longer 60.8 mile commuter corridor extending from DeLand in the north to Poinciana Boulevard in the south. Thus, LRT was screened out at an early stage of the evaluation, and was not advanced as an alternative for this project.

Commuter rail alternatives considered and eliminated during the AA screening process included fully electrified commuter rail, diesel push-pull commuter rail, and expansion of existing Amtrak service. As indicated below, the AA concluded that Diesel Multiple Unit (DMU) self propelled commuter rail technology should be used in the corridor for the proposed service.

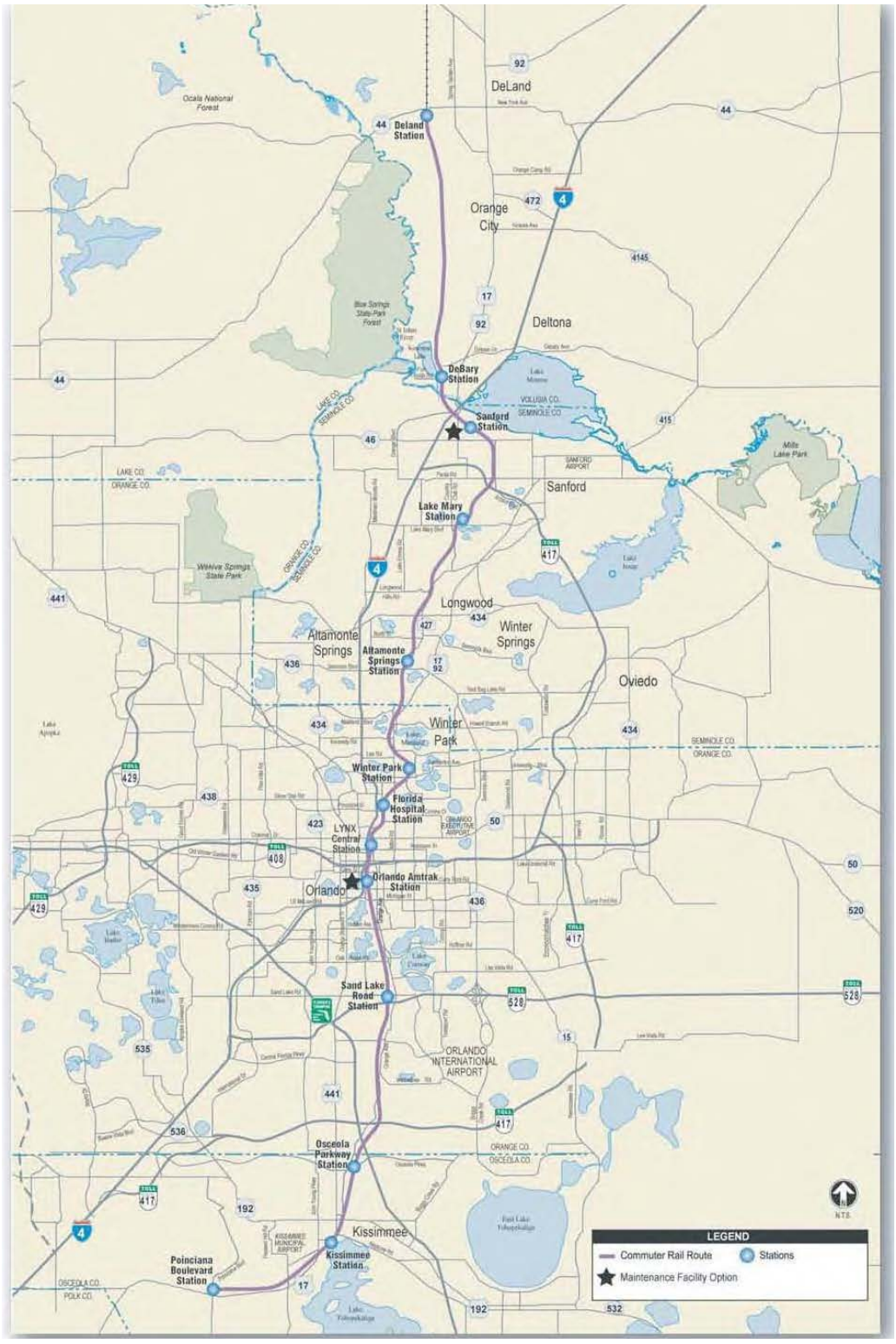


Figure 2-1 CRT Alternative Analysis Alignment and Stations

Screening Results and Recommendations

Preliminary alignment, station location, and operating plan alternatives were screened during the AA and the results are summarized in the AA Final Report (May, 2004) and supporting documentation. The recommended alternatives that emerged from the AA screening process were developed and evaluated against project goals and objectives. The AA recommendations on basic alignment and technology for the CRT Build Alternative were defined largely by the location of the existing CSXT rail corridor and the need to use rail passenger equipment that is compliant with Federal Railroad Administration (FRA) regulations[2]. As a point of clarification, the CRT rail passenger equipment must be FRA compliant because it would be operating on a rail line shared with Amtrak intercity passenger trains and freight trains. The AA identified 13 stations in the CRT Build Alternative (Figure 2-1)**,** with the LPA having one less station. It was recognized that the number and location of stations in the CRT Alternative would need to be examined in greater detail following the AA, along with the CRT operating plan.

The LPA from the AA project was segmented into two phases. The initial phase IOS was defined to be from Benson Junction in DeBary to LYNX Central Station (approximately 25 miles). The second Phase was from LYNX Central Station to Poinciana Boulevard in Osceola County. The Full Build was the extension of the LPA approximately 11.8 miles further north to DeLand Amtrak Station (Figure 2-1).

2.2 Changes in Alternatives Following the AA

In response to comments from the FTA following the AA regarding the development of a new TSM Alternative that meets the New Starts criteria, a Travel Market Analysis[3] was conducted to determine the magnitude, and patterns of trip productions and attractions in the corridor. This analysis was used to re-evaluate the number and location of stations in both the TSM and CRT Build Alternatives, as well as the frequency of service needed to effectively serve the markets identified. In addition to the Travel Market Analysis, preliminary alternatives were screened on the basis of potential ridership, cost, and overall consistency with project goals and objectives.

Government agencies at the federal, state, county, and municipal levels participated extensively in the alternatives development process following the AA and early in the EA. The FDOT continued this proactive approach to agency communication with issuance of the Advance Notification package (Appendix H) in January 2005 and through a series of follow-up meetings and forums. The multi-jurisdictional nature of the project corridor (four counties, multiple municipalities, as well as regional planning agencies are involved) required extensive outreach and information sharing efforts on the part of the FDOT and the project team to ensure adequate agency participation. Chapter 6 contains a summary of the meetings held with municipalities, agencies and the public.

As a result of this analysis and subsequent meetings with project stakeholders, the total number of stations in the Full Build was increased to 16, while the LPA was increased to 15. In addition, some of the station locations were shifted to better reflect the needs of the communities along the alignment. The 60.8 mile overall length of the corridor did not change, but the IOS segment defined originally in the AA recommendations was

[2] FRA 49 CFR Part 238 Structural Safety Requirements.
[3] Travel Market Analysis, January 28, 2005

redefined to extend south from the LYNX Central Station to the Orlando Amtrak/ORMC Station, and from the station at Benson Junction to a new DeBary station location at the Saxon Boulevard Extension. Thus, the IOS was extended from 25 miles to approximately 31 miles.

Due to the activities of the AA, as well as the subsequent activities included as part of the development of the EA materials, the Central Florida Commuter Rail Transit Project has broad based support in the community, as evidenced by:

- Inclusion in the current Florida State Transportation Improvement Program (STIP)
- Inclusion in the Long Range Cost Feasible Networks of both MPO's within the project corridor (METROPLAN ORLANDO 2025 and the Volusia County MPO 2025)
- Endorsement by all four county governments of Volusia, Seminole, Orange, and Osceola counties
- Endorsement at the local level by municipalities all along the corridor.

The above MPO endorsements have enabled the project to move forward in the NEPA process to detailed environmental analysis under an EA process. Since the proposed CRT service would operate within an existing active rail corridor, and the extent of potential impacts identified in the AA were relatively minor, FTA concurred with the Class of Action, which determined that the EA process should be used to address NEPA requirements.

The following sections list the major categories of meetings and activities with agencies that occurred at the federal, state, and municipal levels that further shaped the alternatives following the AA and early in the EA process.

2.2.1 Federal Agency Coordination

Federal agencies with interest or potential jurisdiction over the types of transportation improvements considered by the project were involved through project coordination meetings following completion of the AA, prior to the start of the EA, and throughout development of the EA. FDOT met with members of the FTA regional office and Washington, D.C. head office on a regular basis to discuss program issues and project status. Coordination included review of the project Purpose and Need Statement, and the definition and approval of the TSM (New Starts Baseline) Alternative.

2.2.2 State and Regional Agency Coordination

FDOT met with representatives of a variety of state and regional agencies for project status reports and to resolve site-specific interface issues between their facilities and/or services. In addition to the Advance Notification process, FDOT communicated with other state agencies and the Metropolitan Planning Organizations in the corridor to inform them of project progress and to obtain comments and other input on the definition of the alternatives. The project is included in the current Florida State Transportation Improvement Program (STIP).

2.2.3 County and Municipal Agency Coordination

FDOT met regularly with county and municipal government staffs along the corridor, particularly in regard to station locations, parking, land use coordination, and project funding. In addition, county and municipal agency staff were invited to workshops and public meetings. The project is in the Long Range Cost Feasible Networks of both MPO's, endorsed by all four county governments, and endorsed by every city along the corridor in which stations are located.

Following is a list of the counties and municipalities with which FDOT and the project team coordinated during development of the EA:

- Counties: Volusia, Seminole, Orange, and Osceola
- Municipalities: DeLand, Orange City, DeBary, Sanford, Casselberry, Lake Mary, Longwood, Altamonte Springs, Eatonville, Maitland, Winter Park, Orlando, Edgewood, Belle Isle, and Kissimmee.

2.2.4 CSX Transportation Coordination

At the beginning of the EA Phase, in December 2004, CSXT presented to the FDOT Executive Committee their strategic plan for Florida in which the A-Line was designated as primarily a passenger corridor. The S-line, located to the west of central Florida and in the middle of the state, was designated primarily as a freight line. CSXT intends to complement this shift with the strategic location of "intermodal rail villages" in south Florida, central Florida (Lakeland/Auburndale), and north Florida (Jacksonville area). These were followed by regular meetings and the sharing of information in support of refining the Full Build Alternative for the proposed CRT Project.

During 2005, CSXT allowed FDOT consultants access to the CSXT right-of-way to collect environmental field data, and conduct inspections. They supplied existing freight operations data, track charts, railway signal drawings, right-of-way, utilities, bridge plans, etc. and fully participated in the development of an enhanced combined CRT and freight operating plan for the corridor.

FDOT is currently negotiating with CSXT for perpetual track access rights to a portion of the CSXT A-line in central Florida for passenger rail use, consistent with the CSXT Strategic Plan. While this negotiation is nearing its conclusion during this EA process, it was not complete at the time of the EA publication. Consistent with the FTA's request, Appendix J of this report presents a Memorandum of Understanding (MOU) between CSXT and FDOT regarding the permission to conduct an EA on CSXT owned property, CSXT support of the EA process, CSXT general support of the CRT project, and the current status of negotiations.

2.3 Definition of EA Alternatives

FTA's New Starts Planning and Project Development Guidelines describes the definition of alternatives to be considered in the alternatives analysis process. As described above, the AA process completed in 2004 resulted in the recommendation for the commuter rail service Build Alternative to be advanced through the federal and state environmental processes. The initial activities of the corridor analysis were focused on narrowing the

range of alternatives to a more manageable number that were carried forward into the EA. The FTA specifies that each project must have a No-Build Alternative, TSM Alternative(s), and Build Alternative(s). The FTA Section 5309 New Starts Planning Process was followed through the screening and evaluation of the EA alternatives. This section provides an overview of the alternative technologies considered, and describes each of the three major categories of alternatives developed for the EA.

2.3.1 Technologies Considered

The vehicle technologies in the No-Build Alternative are set by the planned highway and transit networks in the region. The No-Build vehicle technologies include conventional buses, existing and planned BRT routes such as the Orlando LYMMO BRT and the Altamonte Flex Bus project. Due to the Flex Bus project, the No-Build Alternative introduces new technology into the regional transit network.

The TSM Alternative expands upon the transit technology of the No-Build Alternative with use of additional ITS features, express bus transfer stations and special bus-only ramps on I-4.

A variety of rail technologies were considered and eliminated for the CRT Build Alternative during the AA screening process, including electrified equipment, push-pull equipment, and expansion of existing Amtrak service in the corridor. Full electrification of the corridor would significantly increase the cost of the project without a commensurate increase in ridership. Push-pull diesel commuter rail operation, while feasible, would require longer train consists to accommodate separate locomotives and passenger cars, and is better suited to applications where headways are longer and station spacing further apart than what is planned. Use of the existing Amtrak intercity service in the corridor to serve the commuter market was also eliminated.

The Amtrak service in the corridor today is structured around a long-haul interstate rail market with schedules driven by terminus points outside the corridor, and with fare structures and capacity not suited to commuter service. The existing Amtrak service is not capable of being scaled up to meet corridor commuting needs due to institutional, infrastructure, and operating constraints.

Current DMU technology provides the ability to serve the corridor without electrification and provides significantly greater flexibility in matching train capacity to passenger demand. For example, DMUs can be operated as a single unit during off-peak periods with significantly lower fuel costs than conventional diesel locomotive in push-pull operation with conventional rail passenger cars. The CRT Full Build Alternatives in the EA are based upon use of DMU technology.

2.3.2 No-Build Alternative

The No-Build Alternative is a requirement of the NEPA regulations and serves as the future build year baseline for establishing the environmental impacts of the alternatives, the financial condition of implementing and operating agencies, and the cost-effectiveness of the TSM Alternative.

The No-Build Alternative includes the current and planned roadway and transit projects that are committed and funded. It provides a baseline for comparison to all of the other

alternatives. The No-Build Alternative reflects significant future transit service and highway network expansion included in the LYNX Transportation Development Plan for Fiscal Years 2005-2009 (TDP) and selected other projects that are included in the Orlando Urban Area Transportation Study (OUATS) Year 2025 Plan Update. Unlike the No-Build Alternative developed for the AA, the EA No-Build Alternative does not include the proposed 22-mile North-South LRT system (from Altamonte Springs to Sea World). This key difference between the AA and EA No-Build Alternatives reflects the projected phasing of the LRT and CRT projects and policy direction provided by FTA. Furthermore, the LRT is not in the METROPLAN ORLANDO 2025 Financially Constrained Network.

The highway network includes the cost feasible improvements for the highway network from the OUATS Year 2025 Plan Update, including high-occupancy vehicle (HOV) lanes and access ramps on I-4 from Kirkman Road to Maitland Boulevard.

A summary of the major roadway in the No-Build Alternative is contained in Chapter 4, Table 4-1. The 2025 No-Build Alternative is depicted in Figure 2-2.

2.3.3 TSM/Baseline Alternative

The TSM/Baseline Alternative is defined as “the best that can be done” to address the identified transportation deficiencies in the corridor without constructing a new transit guideway. The key factor in designing the TSM/Baseline is that it must serve the same travel markets and provide a comparable level of service as the Build Alternatives under study, absent a corresponding level of capital investment.

The TSM/Baseline Alternative includes all transit services provided in the No-Build Alternative plus the addition of several express and limited stop bus routes operating in the CRT north and south corridors. These express and limited stop bus routes were designed to satisfy the travel markets in the CRT study area. Additional discussion of these travel markets is provided in the Travel Market Analysis conducted in January 2005.

Three versions of the TSM/Baseline Alternative were developed for use in comparison to the corresponding phasing of the CRT Full Build Alternative: 1) an IOS TSM/Baseline corresponding to the proposed 31-mile Initial Operating Segment, 2) an LPA TSM/Baseline corresponding to the 53.5-mile commuter rail project from Saxon Boulevard (DeBary) to Poinciana Boulevard, and 3) a Full TSM/Baseline corresponding to the 60.8-mile commuter rail project from DeLand to Poinciana Boulevard. The LPA TSM/Baseline is described below for informational purposes only, as this EA is based on analysis of the Full Build project from DeLand to Poinciana Boulevard. The Full TSM Baseline is the Alternative that is subsequently compared to the No-Build and Full Build Commuter rail Alternatives for NEPA purposes.

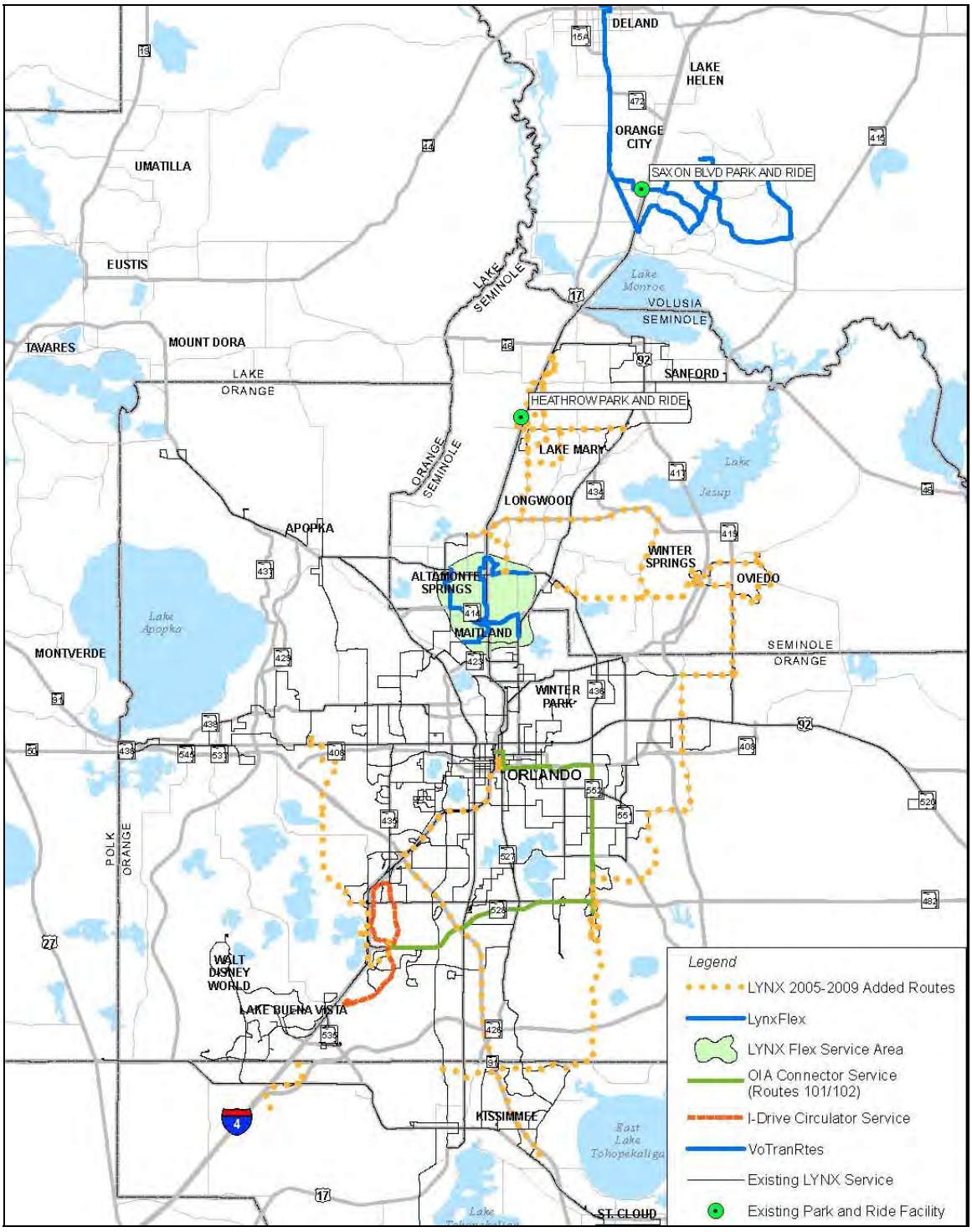


Figure 2-2 2025 EA No-Build Alternative

LPA TSM Baseline Alternative

The LPA TSM/Baseline Alternative includes all transit services provided in the No-Build and IOS TSM/Baseline Alternatives plus a number of express and limited stop bus routes operating in the CRT south corridor. Express buses operating on I-4 (north of Kirkman Road) will use special HOV lanes and special bus-HOV access and egress ramps (e.g. South Street). Limited stop buses running every 30 minutes during peak periods and every 120 minutes in the midday (e.g. U.S. 17/92), South Orange Blossom Trail, and South Orange Avenue) will use bus pull-off lanes and signal priority treatment, where applicable. With these facility and service enhancements, the LPA TSM/Baseline express and limited stop services will have similar functionality as the LPA Build Alternative.

Full TSM Baseline Alternative

The Full TSM/Baseline Alternative includes all transit services provided in the No-Build and IOS TSM/Baseline Alternatives plus a number of express and limited stop bus routes operating in the CRT south corridor. Express buses operating on I-4 (north of Kirkman Road) will use special HOV lanes and special bus-HOV access and egress ramps (e.g., South Street). Limited stop buses running every 15 minutes during peak periods and every 60 minutes during the midday (e.g., operating on U.S. 17/92, South Orange Blossom Trail, and South Orange Avenue) will use bus pull-off lanes and signal priority treatment, where applicable. With these facility and service enhancements, the "Full" TSM/Baseline express and limited stop services will have similar functionality as the Full Build Alternative. The concepts and details developed for this TSM/Baseline have been submitted, discussed and accepted by the FTA HQ.

Each version of the TSM/Baseline Alternative features similar station locations (where practical), parking assumptions, fares, span of service, and service frequency as the comparable Build Alternative. The Full 2025 TSM (New Starts Baseline) Alternative is depicted in Figure 2-3.

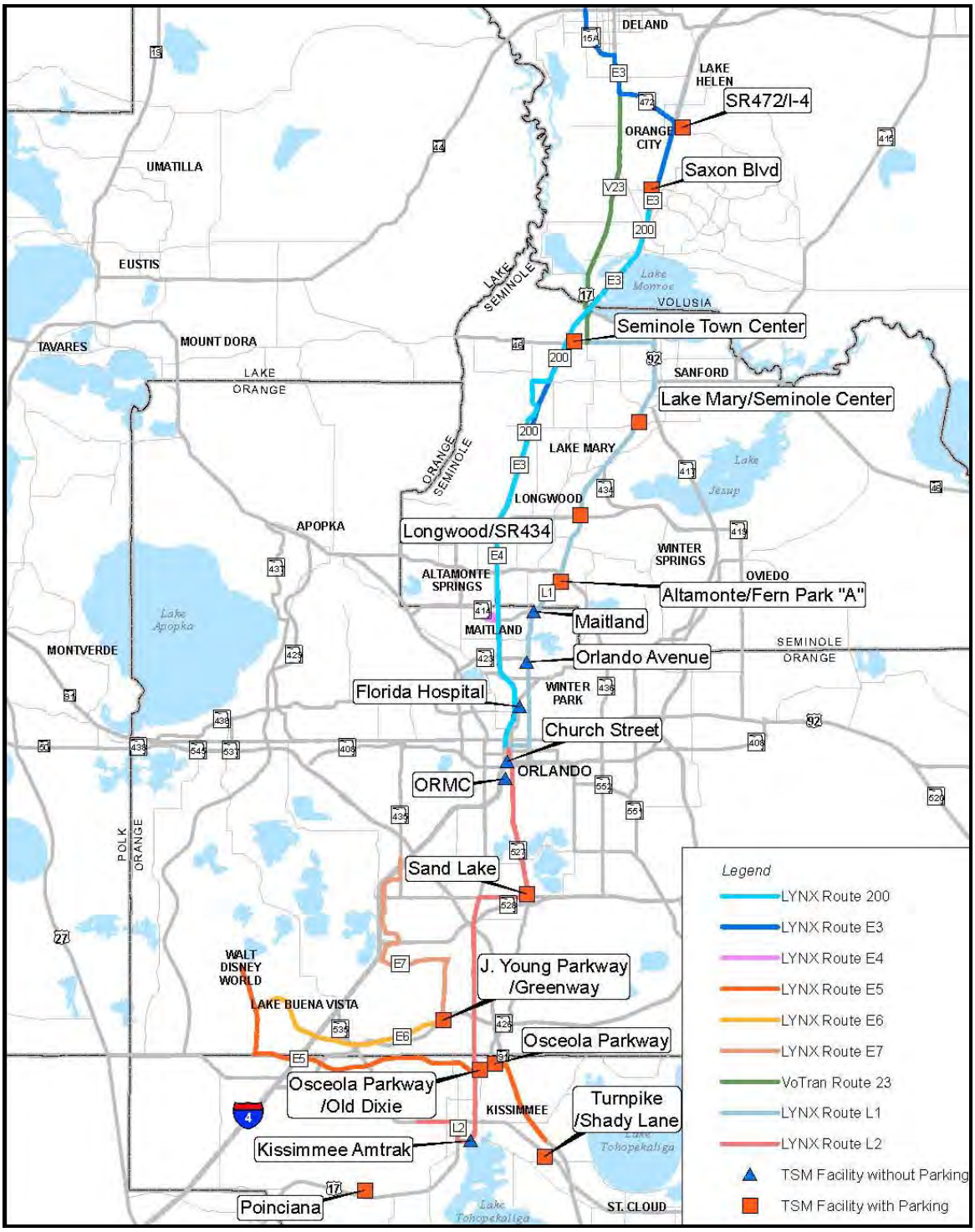


Figure 2-3 2025 EA TSM (New Starts Baseline)

Table 2-1 identifies the station stop locations, facility type, number of parking spaces, bus routes served, and number of bus bays proposed for the TSM/Baseline Alternative.

Table 2-1: TSM/Baseline Stations/Stop Locations and Facilities

STATION/STOP	FACILITY TYPE	PARKING SPACES	BUS ROUTES	BUS BAYS
DeLand Northgate Plaza	P&R/SS	140	V20, V24, V60, E3	4
SR 472 & I-4	P&R	300	E3	2
Saxon Boulevard (DeBary)	P&R/SS	200	V20, 200	3
Seminole Town Center	P&R/TC	400	L1, 46, 65, E4, V23	6
Downtown Sanford	SS	0	L1, 46	(a)
Lake Mary/Seminole Center	P&R/TC	300	33,34,39,45,46, 63, L1	3
Longwood/SR 434	P&R/SS	160	39,61,65, L1	4
Altamonte/Fern Park	P&R/TC	300	39,41,71,F1, L1	6
Maitland Boulevard	SS	0	39, F2, L1	4
Winter Park	SS	0	1,9,39,L1	4
Florida Hospital	SS	0	1,9,14,39,L1	4
LYNX Central Station	TC	0	n/a	(b)
Church Street	SS	0	L2,3,7,11,13,18,51	(a)
ORMC/Orlando Amtrak	SS	0	L2,7,11,18,40	5
South Orange Ave. & Hoffner Avenue	SS	0	L2,7,11,18,52	(a)
South Orange Avenue & Sand Lake Road	P&R/SS	400	L2, 7,11,18,42,E2	5
Florida Mall	TC	0	2,4,18,E2,7,37,42,43,52,64	(b)
South Orange Blossom Trail & Central Florida Parkway	P&R/SS	0	L2,4,43	(a)
Kissimmee Amtrak	SS	0	L2,4	3
Poinciana	P&R	150	26	2
Old Dixie Hwy. & Osceola Parkway	P&R/SS	150	E5,4,70	4
Osceola Square Mall	P&R/TC	100	L2,4,10,18,26,55,56,57,70	(b)
Shady Lane & FL Turnpike	P&R	300	10,12,141	2
J. Young Parkway & Central Florida Greenway	P&R	250	E6,E7	2

Source: Transit Operating Plans Report, December 2005. P&R is Park and Ride; SS is Superstop; and TC is Transit Center. V indicates a VOTRAN Route, while L designates a Limited route and Express route.
(a) TSM and local buses use existing on-street bus stops.
(b) TSM and local buses use existing Transit Center bus bays.

2.3.4 CRT Build Alternative

The Build Alternative features all of the transit services and projects included in the No-Build Alternative with the addition of commuter rail services along the CSXT A-Line. The Full Build version of the CRT, which is the subject of the EA document, extends from DeLand (in west Volusia County) to Poinciana Industrial Park (in Osceola County). A complete set of conceptual engineering drawings of the Full Build Alternative alignment can be found in a separately bound Appendix K.

Commuter rail service would be operated with DMU cars, which provide commuter rail capacity that combines necessary performance with greater operational flexibility than is generally possible with conventional diesel commuter rail equipment. During the course of this EA, a number of commuter rail scenarios were tested by varying the route termini, service frequency, span of service (e.g., with and without midday service), and number/location of passenger stations and park and ride facilities.

For informational purposes only, two versions of the Build Alternative are described in the following sections: 1) Full Build, and the 2) Locally Preferred Alternative (LPA).

The LPA and IOS are simply shorter segments along the Full Build Alternative alignment. Both the LPA and IOS have been discussed with the local communities regarding potential implementation strategies. However, for an assessment of the maximum impact, the Full Build is the Alternative that is the subject of this EA analysis.

Full Build CRT Alternative

The Full Build Alternative would extend from the DeLand Amtrak station to Poinciana Industrial Park, a distance of 60.8 miles, via the CSXT A-Line. A total of sixteen (16) stations are in the Full Build Alternative and they would be located at: DeLand, Saxon Boulevard Extension (DeBary), Sanford, Lake Mary, Longwood, Altamonte Springs, Winter Park, Florida Hospital, LYNX Central Station, Church Street (in downtown Orlando), Orlando Amtrak/ORMC, Sand Lake Road, Meadow Woods, Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park. Figure 2-4 shows the station locations on the existing track alignment and the existing double track sections.

For the purposes of this EA analysis and in order to assess the maximum impact, the proposed service plan would provide 15-minute bi-directional service during morning and evening peak periods and 60-minute service in the midday, Monday through Friday (approximately 260 days per year). The primary infrastructure improvements include a new signal system and 42 miles of new 2nd track bringing the total double track to approximately 59 miles in the 60.8 mile corridor. Please note the 15 minute headway is an upgrade to provide a more conservative case and the focus for the EA analysis which required the increase to 42 new miles of 2nd track and additional DMU vehicles. The 2025 CRT Full Build Double Track Alternative is depicted in Figure 2-5.

LPA CRT Alternative

The LPA would be virtually the same as the “Full” Build Alternative, except the north terminus of the line would be the Saxon Boulevard Extension station (DeBary) instead of DeLand. A total of fifteen (15) stations are in the LPA. The route length would be about 53.5 miles with 28 new miles of 2nd track and a new railway signal system. The proposed service plan would provide 30-minute bi-directional service during the morning and

afternoon peak periods and 120-minute service during the midday, Monday through Friday (approximately 260 days/year). Figure 2-6 depicts the LPA Alternative.

Phasing of LPA

The LPA is proposed to be built in two phases the north corridor (IOS) and the south corridor. The IOS would extend approximately 31 miles from the Saxon Boulevard Extension station (DeBary) to Orlando Amtrak/ORMC station (Figure 2-7). Ten stations would be located at Saxon Boulevard Extension (DeBary), Sanford, Lake Mary, Longwood, Altamonte Springs, Winter Park, Florida Hospital, LYNX Central Station, Church Street (downtown Orlando), and Orlando Amtrak/ORMC. The south corridor would extend the IOS from Orlando Amtrak/ORMC to Poinciana Industrial Park.

Existing and programmed local and circulator bus routes in the CRT north and south corridors have been modified to feed commuter rail stations, with headway and span of service changes that are compatible with the proposed commuter rail service. New local and circulator bus routes have been proposed where appropriate to provide improved connections between the commuter rail line and nearby activity centers and/or residential neighborhoods. Duplicate local and/or express route service has been reduced or eliminated.

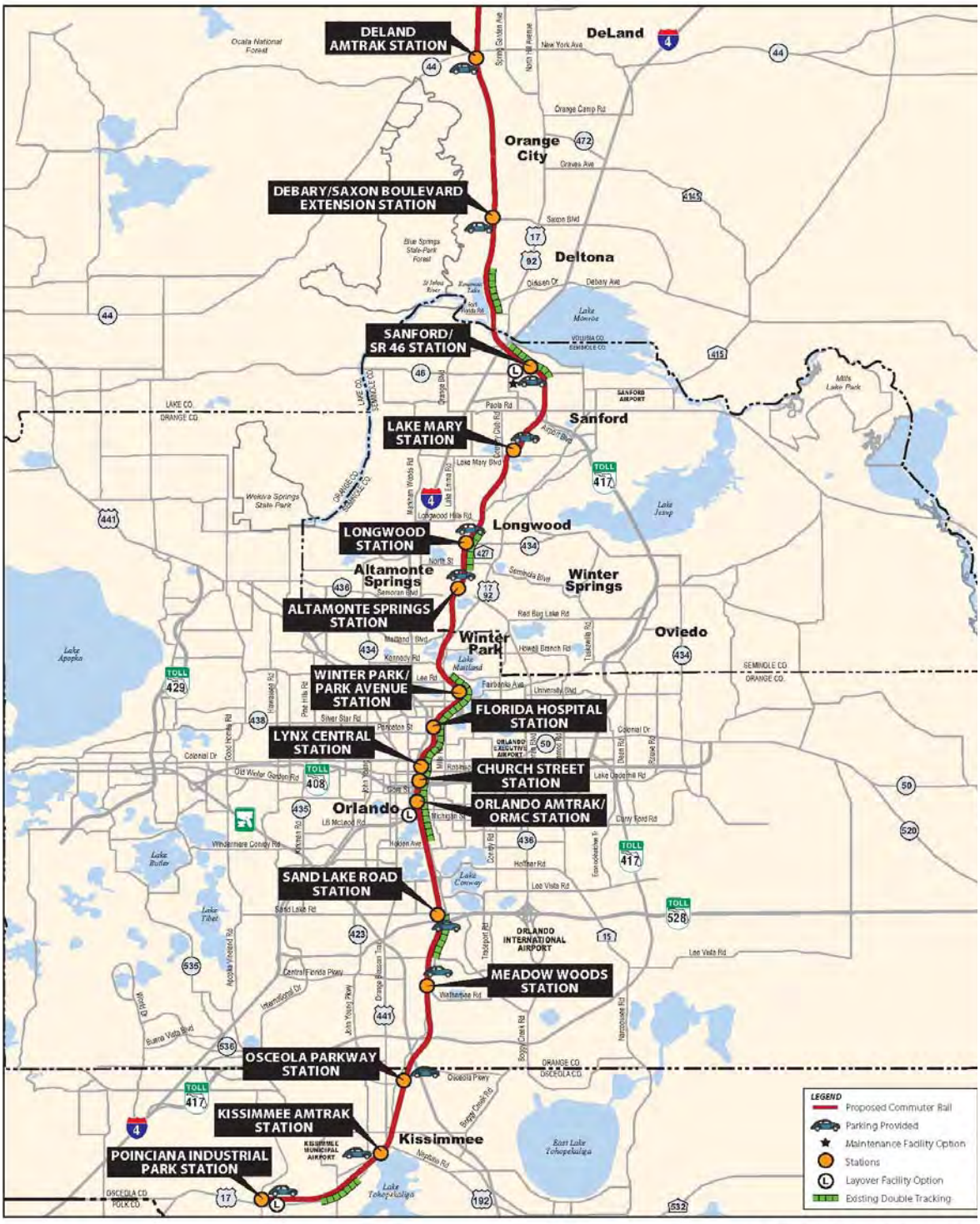


Figure 2-4 Proposed CRT Station and Existing - Double Track Sections

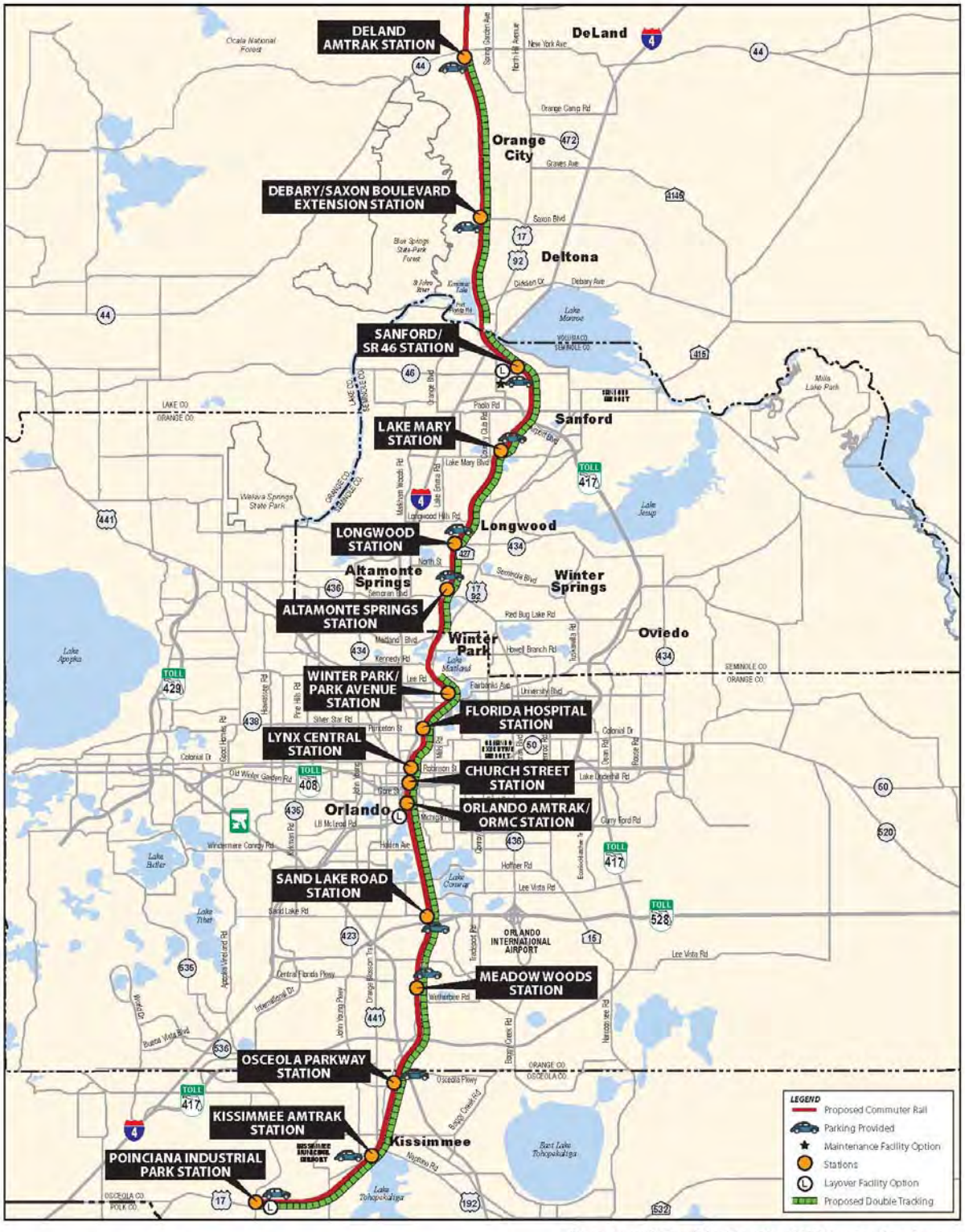


Figure 2-5 2025 CRT Full Build and Proposed Double Track

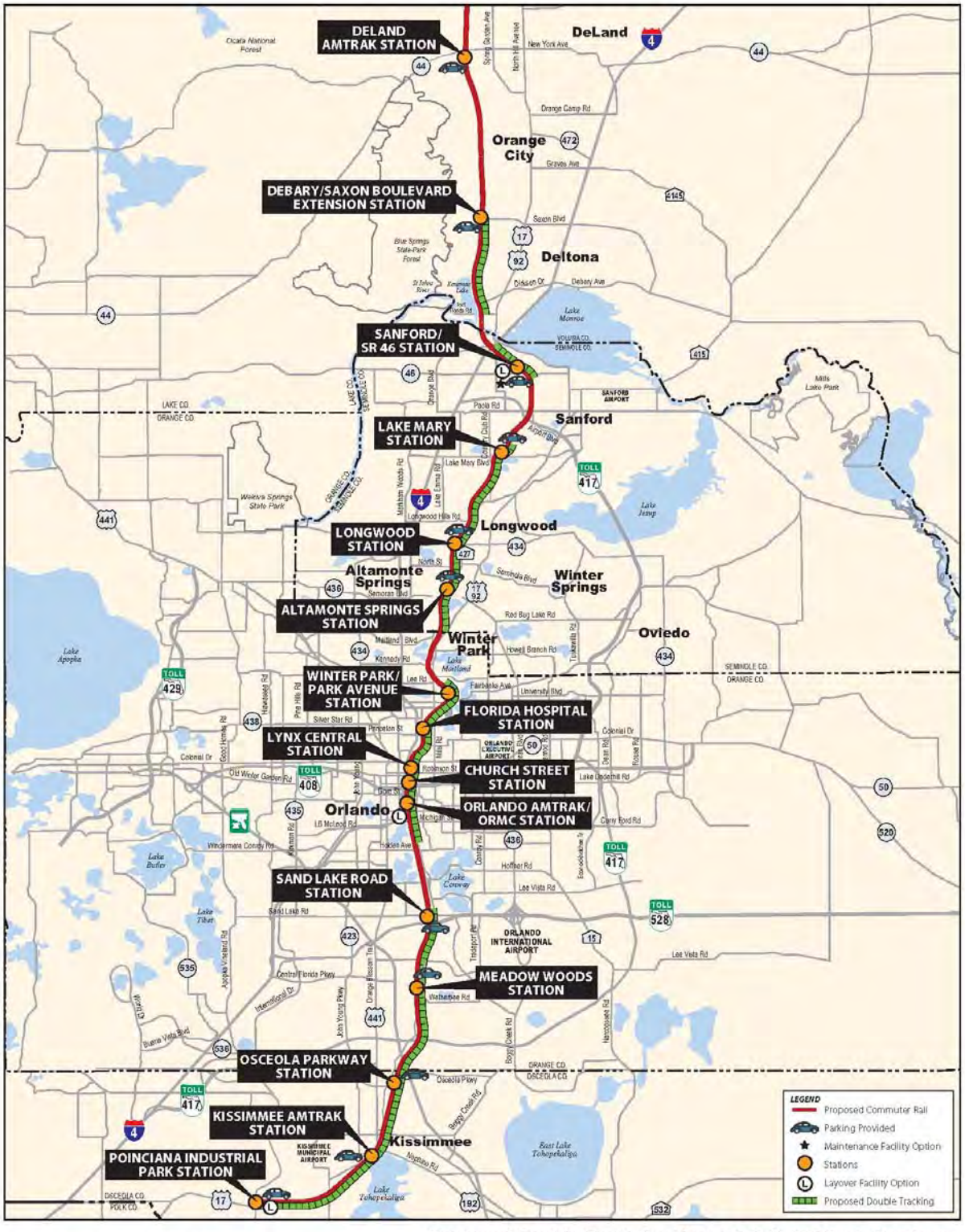


Figure 2-6 Locally Preferred Alternative (LPA) with Proposed Double Track

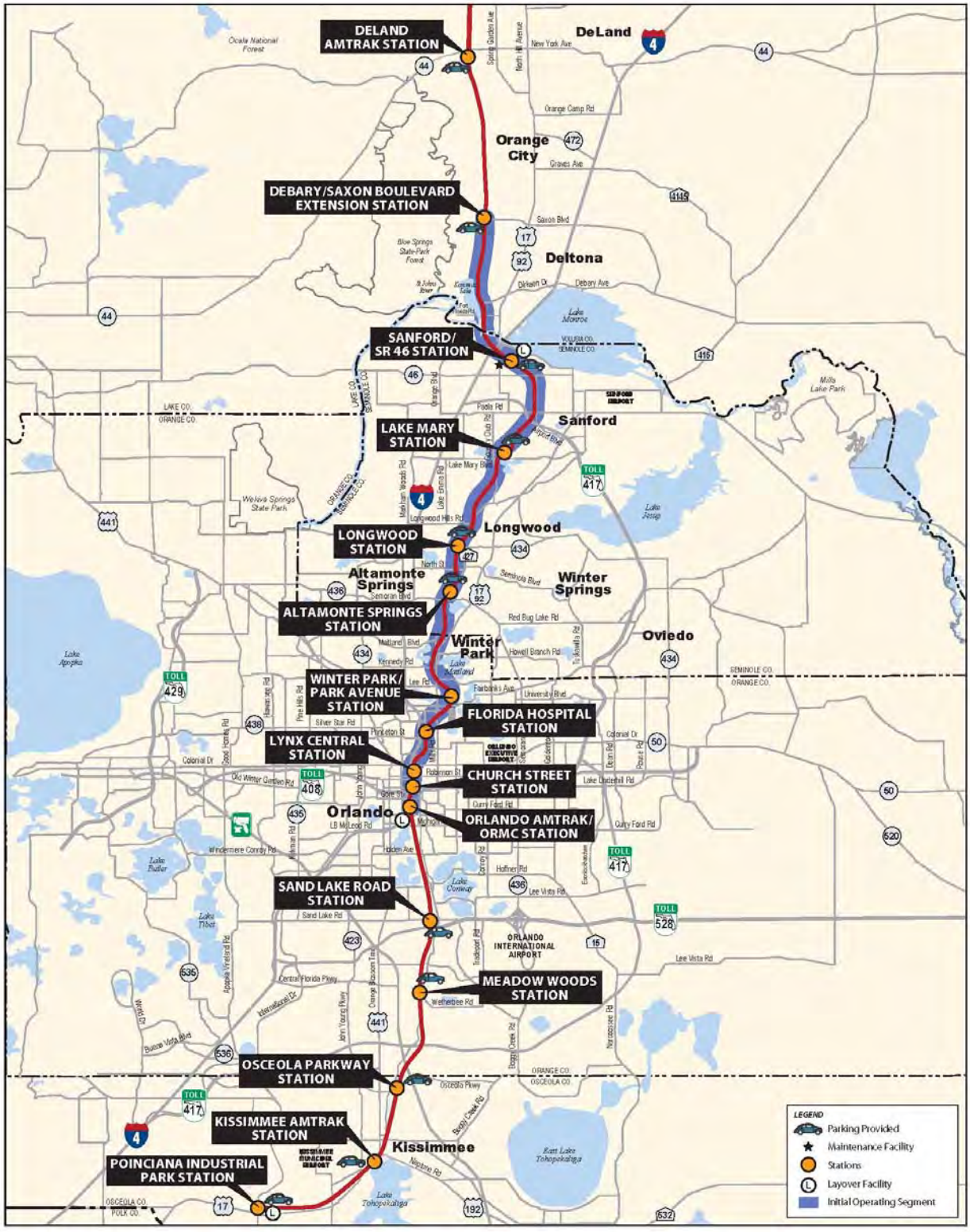


Figure 2-7 LPA Phase 1 – North Corridor Initial Operating Segment (IOS)

Full Build Operating Requirements

Table 2-2 presents preliminary train schedules for the Full Build Alternative. Fourteen (14) trainsets would be required to operate the service plan. All trains would be dispatched from the control center, which would be located along the alignment and possibly at the proposed Vehicle Storage and Maintenance Facility (VSMF) location (defined in section 2.3.7) or the LYNX Central Station in downtown Orlando. Although the majority of the trains would be stored overnight at the VSMF, a few would be stored overnight at the end of line station layover yards. Limited midday train layover would be available at the end-of-line stations. The peak period schedules would require 21 bi-level DMUs and seven single-level DMUs. The total fleet, including maintenance spares, would be 34 DMUs – 26 bi-level and eight single-level DMUs. Operating requirements for the Full Build Alternative are summarized in Table 2-2.

Table 2-2: Operating Requirements for Full Build Alternative

PARAMETER	VALUE
Peak Passenger Cars	28
Peak Trainsets	14
Annual Revenue Train-Hours	25,480
Annual Revenue Car-Hours	50,960
Annual Revenue Train-Miles	880,298
Annual Revenue Car-Miles	1,760,595
Directional Route Miles	120.9
Stations	16
Maintenance Yards	1
Daily Revenue Train Trips	56

Source: Operating Plans Report, December 2005

Full Build Feeder Bus Operations

The CRT Study Area is generally well served by fixed route bus transit operated by LYNX and VOTRAN. The background and feeder bus network for the Full Build Alternative is very similar to the TSM Alternative, except that four express and limited stop routes would be eliminated (e.g., L1, L2, 141, E3) and the bus network would be modified to provide transfer connections to nearby commuter rail stations. In most cases this involved minor route deviations or short route extensions to serve the proposed stations. No new fixed bus routes have been proposed for the Full Build Alternative.

Table 2-3 presents the LYNX and VOTRAN bus routes that would serve the proposed commuter rail stations and the optimum number of bus bays required.

Table 2-3: Feeder Bus Routes for Full Build Alternative

STATION	BUS ROUTES	BUS BAYS
DeLand Amtrak	V20, V24, V60	3
DeBary/Saxon Boulevard Extension	V21, V22, V23	4
Sanford/SR 46	V23, 46	3
Lake Mary	33,34,39,45,63	5
Longwood	39,61,65	4
Altamonte Springs	39,41,71,F1	6
Winter Park/Park Avenue	1,9,23	4
Florida Hospital	1,9,14,39	5
LYNX Central Station	n/a	n/a
Church Street	20,36	3
Orlando Amtrak/ORMC	7,11,18,40	5
Sand Lake Road	11,18,37,42,43,64,102	7
Meadow Woods	18	2
Osceola Parkway	12,70	3
Kissimmee Amtrak	4,10,55,56	5
Poinciana Industrial Park	26	2

Source: Transit Operating Plans Report, December 2005

2.3.5 Operating Plans

This section documents operating plan assumptions for the alternatives applied to each of the CRT Alternatives. These assumptions include: the operating agency, pricing, span of service, vehicle capacity/loading standards, vehicle performance, station dwell times, and bus service design guidelines.

Operating Agency

Existing public transit services are operated in the CRT study area by LYNX, VOTRAN, and a number of private transportation operators. LYNX provides local and express bus public transit services throughout the Orlando metropolitan area, serving Orange, Osceola and Seminole counties. VOTRAN provides local and express bus service in Volusia County, including western Volusia County where the CRT commuter rail service would operate. Private transportation operators provide transit services throughout the Central Florida region, but are principally focused in the tourist corridor encompassing the OIA, International Drive, and Disney World.

LYNX and VOTRAN are assumed to be the operators of any public transit local and express bus services in the CRT study area, within their respective jurisdictions.

The Florida Department of Transportation will be responsible for the construction of the capital portion of the Central Florida Commuter Rail system. For the commuter rail operations, several alternatives are being investigated by FDOT and the local project sponsors. Several of the alternatives include FDOT contracting with a private vendor to operate the CRT system, with varying degrees of local oversight. Other alternatives include adding the contracting and contract management to existing regional agencies. Under all options, the commuter rail system would be operated via contract with a third party contract operator.

Regardless of the management alternative selected, a third party contractor, selected through competitive bid, would supply the bulk of the services required to provide

commuter rail service. This would include, but not be limited to, dispatch, operations, and maintenance.

Passenger Fares

Each of the three transit operators in the CRT study area – LYNX, VOTRAN, and I-Ride Trolley – presently have flat fare, "pay as you board" systems on their fixed route buses. Passenger fares for local and express bus services in the CRT Alternatives are assumed to be identical to current fares, shown in Table 2-4.

Table 2-4: Passenger Fares (FY 2005)

SERVICE	FARE
LYNX Local Bus Adult Cash Fare	$1.25(a)
LYNX Express Bus Adult Cash Fare	$2.00
LYNX Activity Center Circulators	$0.50
LYMMO	Free
LYNX Transfers (Local to Local)	Free
VOTRAN Local Bus Adult Cash Fare	$1.00
VOTRAN Express Bus Adult Cash Fare	$2.00
VOTRAN Transfers (Local to Local)	Free
I-Ride Trolley	$0.75(b)

Source: Transit Operating Plans Report, December 2005
(a) LYNX increased its adult cash fare to $1.50 on March 20, 2005.
(b) I-Ride increased its cash fare to $1.00 on October 1, 2005.

Each system also presently provides discounts for multiple day passes (e.g., weekly or monthly) and for children and senior citizens. Those discounted fares are also assumed for all future alternatives. Fares are assumed to increase in the future at rates consistent with the Consumer Price Index.

All CRT Alternatives assume that no parking charge is levied at public transit stations or park-and-ride lots.

The base commuter rail fare would be $1.25 for trips made wholly within one county. A surcharge of $1.00 would be added for trips made between two counties (total $2.25); a surcharge of $2.00 would be added for trips spanning three counties (total $3.25); and a surcharge of $3.00 would be added for trips spanning four counties (total $4.25). The maximum one-way fare would be $4.25. Travelers could transfer free from the commuter rail system to either the LYNX or VOTRAN local bus system. LYNX or VOTRAN bus riders, however, would have to pay a fare upgrade for travel on the commuter rail system.

Span of Service

Service on transit routes will be provided on weekdays, Saturdays, Sundays and holidays. Table 2-5, below, summarizes the assumed span of service for local and express services included in the CRT Alternatives. Initially, the CRT will only operate on weekdays.

Table 2-5: Span of Service

DAY OF WEEK	TIME PERIOD	HOURS
Weekdays	Early a.m.	5:00-6:30 a.m.
	a.m. Peak Period	6:30-9:00 a.m.
	Midday	9 a.m. – 4 p.m.
	p.m. Peak Period	4:00 – 6:30 p.m.
	Early Evening	6:30 – 9:00 p.m.
	Late Evening	9 p.m. – 1 a.m.
Saturdays	Early a.m.	5 – 9 a.m.
	Midday	9 a.m. – 9 p.m.
	Late Evening	9 p.m. – 1 a.m.
Sundays & Holidays	Early a.m.	5 – 9 a.m.
	Midday	9 a.m. – 9 p.m.
	Late Evening	9 p.m. – 1 a.m.

Source: Transit Operating Plans Report, December 2005
Note: CRT only operates on weekdays initially.

The span of service for local and express bus routes varies depending on demand requirements and service characteristics. For example, the express routes that serve downtown Orlando generally operates on weekdays during the a.m. and p.m. peak periods only. Local bus routes may or may not have early evening or late evening service, depending on demand and the need for connections to other routes. A detailed description of each route is included in the Transit Operating Plans Report, December, 2005.

Service frequency varies by route and time period to reflect demand requirements. Careful consideration was given to span of service assumptions for bus routes that feed Express Bus or Commuter Rail stations. Key feeder bus routes will have a span of service that is consistent with the corresponding CRT service.

Vehicle Capacity & Passenger Loading Standards

Vehicle capacity and passenger loading standards have been established in order to determine the service frequency and fleet requirements for each of the CRT routes. As specified by FTA planning guidelines, passenger loading standards should be comparable for all alternatives. Table 2-6, below, summarizes the assumed vehicle capacity (seats) and passenger loading standards.

Table 2-6: Vehicle Capacity and Peak Hour Passenger Loading Standards

TRANSIT MODE	SEATS	LOAD STANDARD
Circulator Bus	30	150% of seats
Local Bus	40	125% of seats
Express Bus	40	110% of seats
Commuter Rail	98-188	110% of seats

Source: FTA Planning Guidelines

The above load standards were used to determine the appropriate peak hour service frequency for the project alternatives. During off-peak hours, the load standard for all modes will be a maximum of 100 percent (i.e., no standees).

Commuter rail vehicle capacities vary depending on the manufacturer and model of the vehicle. Use of DMU technology for the CRT Build Alternative was determined during the AA process. Typical seating capacities for DMU vehicles are summarized below using data provided by Colorado Railcar, a DMU manufacturer:

- Single-Level Car with Cab = 98 seats
- Double Deck Car with Cab = 188 seats

Vehicle Performance

Commuter rail vehicles (DMUs) are assumed to accelerate at a rate of about 1.5 miles per hour per second (mphps) between 0 and 25 mph. Once the DMU has reached approximately 25 mph, the acceleration rate begins to decrease. Normal service braking is assumed to be a constant 1.5 mphps from 65 mph to 0 mph. The maximum speed allowed in the CRT corridor is limited to 79 mph. However, the operating plan in several segments along the corridor reduces the maximum speed substantially for various reasons such as, horizontal curves, crossover, avoidance of delays due to opposing traffic meets at single track sections (Maitland and St. John's River Bridge), the operating environment (e.g., through residential neighborhoods), and station spacing. Station-to-station CRT time estimates have been developed based on these criteria and applied to the project's rail alignment drawings.

Bus travel times for mixed traffic operations were determined from the travel demand model. The model estimates bus travel speeds on the basis of highway link speeds. Relationships between transit and highway link speeds take into account time for bus stops. Bus travel times for exclusive lanes were based on bus performance characteristics, design speed, roadway geometrics, street crossings (signalized and unsignalized), and posted speed limits.

Station Dwell Times & End-of-Line Layovers

Average station dwell times (i.e., time to allow passengers to board and alight the transit vehicle) for all of the Build Alternatives are assumed to be one minute at LYNX Central Station and 30 seconds at other stations. All CRT trains are assumed to stop at all stations.

Route service plans include time for end-of-line layovers. Layovers provide sufficient time for drivers to take breaks as required by union agreement as well as provide for some schedule recovery (i.e., a late bus or train can "catch up" to its schedule). Bus service plans reflect layovers equal to 5 minutes or 15 percent of the one-way run time at each end-of-line terminal, whichever is greater. Rail service plans reflect longer layovers due to the need to change cab controls at the end-of-line station.

Station Facilities

Station parking and access were determined following the initial travel demand projections. Bus bay requirements at passenger stations, transit centers, and park and ride lots were determined with the following criteria:

- No more than four to five buses per bay, per hour

- No more than two routes assigned to each bay
- One additional unassigned bay shall be assumed at each station to accommodate future bus service growth.

Bus Route Design Guidelines

The definition of new circulator, local, express and feeder bus routes for this project are consistent with bus route design guidelines established in the LYNX FY 2005-2009 TDP. Key bus route design guidelines are:

- Small loops and branches may be included at ends of routes.
- Turn backs should be used when possible to increase the service frequency on trunk portions of routes, when warranted by ridership.
- Direct routing is desired, with transit route mileage between two terminal points not exceeding a 1.2 factor of highway route mileage.
- Minimum peak and base period policy headways for weekday service should be 30 minutes. Minimum evening, Saturday and Sunday policy headways is 60 minutes. Clock headways are to be used at all times.
- Routes should be interlined or connected to better serve trip desires and reduce the need to transfer.
- Pulse scheduling should be provided at peripheral transit centers to accommodate transfer activity.
- Bus stops should be provided every 600 to 900 feet for local routes.
- Passenger shelters should be provided at any location having 15 or more boarding per day.

2.3.6 Stations

The location, function, and capacity of proposed transit stations was a major component of the EA alternatives development process for both the Full Build TSM/Baseline and CRT Full/LPA Build Alternatives.

TSM/Baseline Stations

The TSM/Baseline alternative would provide upgraded bus station stop facilities similar to the established LYNX Superstop or transit center facilities already in place at a growing number of locations in the LYNX system. The TSM/Baseline station stops and features are summarized in Table 2-1 earlier in this chapter.

Full/LPA Build Stations

The stations for the CRT Build Alternative were identified through a comprehensive station siting and sizing process as summarized below.

A total of 29 candidate station locations were identified and screened. Thirteen of the locations were previously identified in the AA; fourteen as a result of field reviews and interviews with local jurisdictions to serve as optional locations for stations identified in the AA; and two due to the request of municipalities whose community wanted a station

within their boundaries. Information from the Travel Market Analysis was also used to identify locations with significant concentrations of trip productions and attractions. The methodology used to screen and evaluate each of the thirty-one stations was based on an integrated site selection process, which assessed and scored various operational and spatial elements such as:

- Access
  - Vehicular
  - Pedestrian
  - Transit
- Engineering
  - Rail requirements
  - Intersecting/adjacent streets
- Land Use
  - Compatibility
  - Transit Oriented Development (TOD) joint development opportunities
- Land Needs Availability
  - Available land
  - Current land use
- Potential Impacts
  - Natural Impacts
  - Community Impacts
- Potential Cost
  - Land
  - Mitigation

Additionally, sensitivity analyses were performed to determine the ridership potential for the station locations. Following completion of the screening and initial evaluation, informational packages for the feasible station locations were prepared and distributed to the municipalities describing and depicting the station locations, and requesting local review, comment, and concurrence. Capital costs were developed for the short-listed stations. Finally, a public alternatives workshop was held at which the alternatives were presented and described, including the stations, and further input and comment solicited. Through this integrated process of technical analysis, local government coordination, and community outreach, the final list of stations for the Full Build CRT Alternative was developed.

The basic station will include kiss n ride, bus drop-off facilities, two 300 foot long parallel platforms with benches, canopies, ticket vending machines and other amenities. The downtown stations are considered primarily destination stations and as such do not have parking. The stations away from downtown will have parking with the number of spaces estimated to accommodate the expected demand. The intermodal stations are located at the junction of two or more fixed route transit facilities. The results of the station siting process are summarized in Table 2-7 and the CRT station prototypes are depicted in Figure 2-8 through Figure 2-12. Conceptual Station Site plans are shown in Figure 2-13 through Figure 2-27

Table 2-7: Full Build Stations and Key Features

Station Name	Station Prototype	Parking Spaces	CRT Alternative
DeLand Amtrak	Park & Ride	180	Full Build
DeBary/ Saxon Boulevard Ext.	Park & Ride	275	Full Build, LPA, IOS
Sanford/SR 46	Park & Ride	300	Full Build, LPA, IOS
Lake Mary	Park & Ride	650	Full Build, LPA, IOS
Longwood	Park & Ride	375	Full Build, LPA, IOS
Altamonte Springs	Park & Ride	650	Full Build, LPA, IOS
Winter Park/Park Avenue	No Parking	0	Full Build, LPA, IOS
Florida Hospital	No Parking	0	Full Build, LPA, IOS
LYNX Central Station	Intermodal	0	Full Build, LPA, IOS
Church Street	No Parking	0	Full Build, LPA, IOS
Orlando Amtrak/ORMC	No Parking	0	Full Build, LPA, IOS
Sand Lake Road	Intermodal	650	Full Build, LPA
Meadow Woods	Park & Ride	390	Full Build, LPA
Osceola Parkway	Park & Ride	200	Full Build, LPA
Kissimmee Amtrak	Park & Ride	390	Full Build, LPA
Poinciana Industrial Park	Park & Ride	250	Full Build, LPA
TOTAL		4,310	

Source: CRT Station Location Report, December 2005

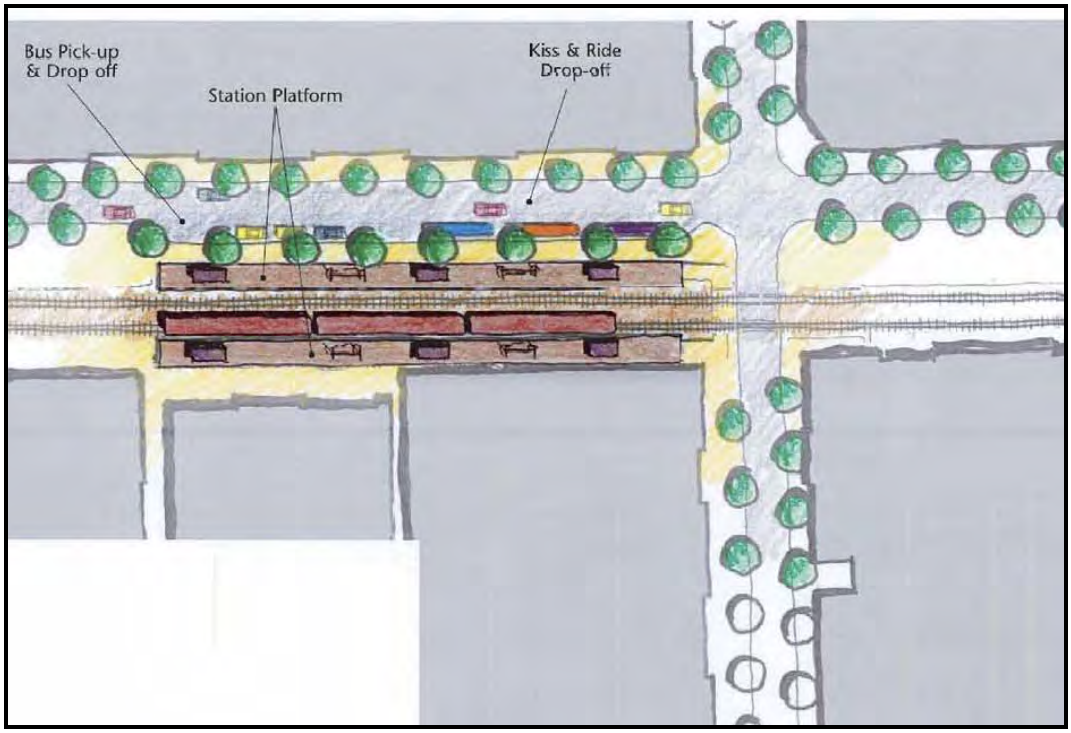


Figure 2-8 Prototypical Station without Parking

Figure 2-9 Prototypical Station with Parking

Figure 2-10 Prototypical Intermodal Station

Figure 2-11 Prototypical Station without Overhead Pedestrian Walkway

Figure 2-12 Prototypical Station with Overhead Pedestrian Walkway

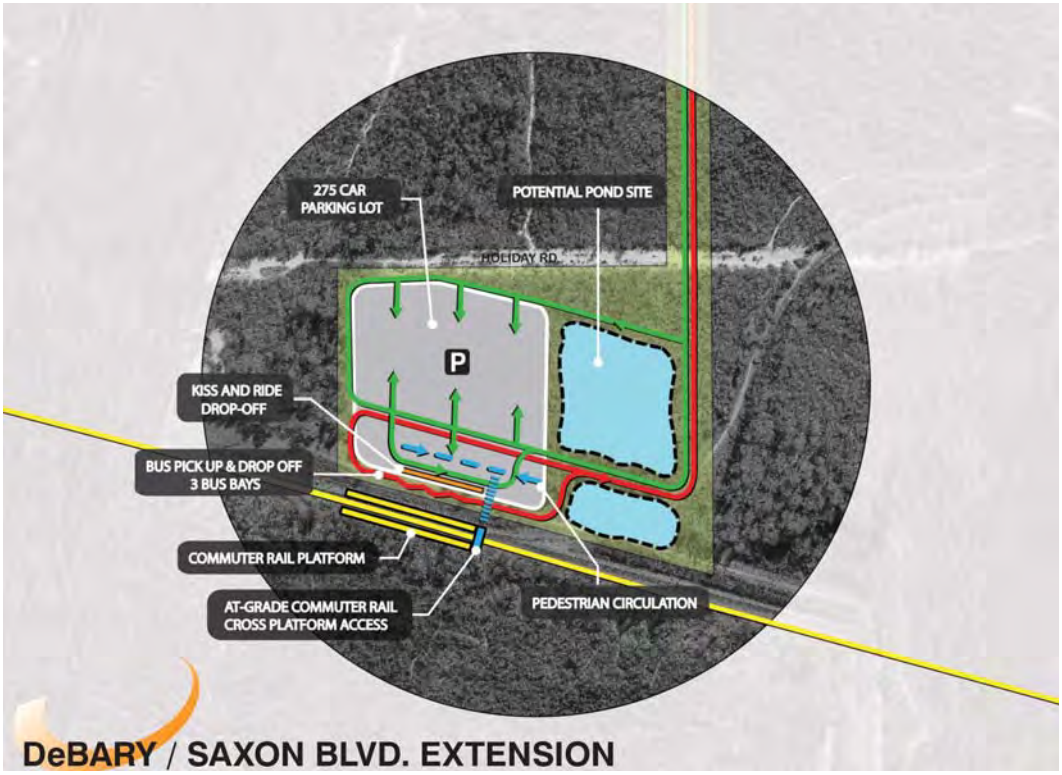


Figure 2-13 Conceptual Station Site Plan – DeBary/Saxon Blvd Extension

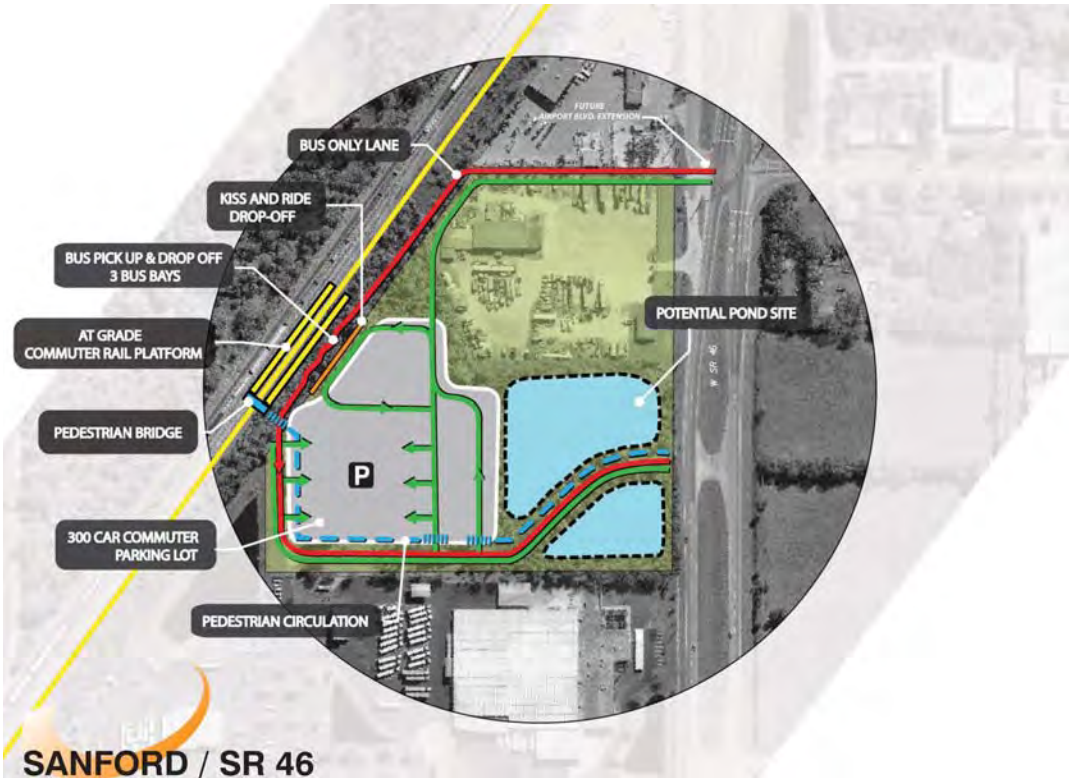


Figure 2-14 Conceptual Station Site Plan – Sanford/SR46

Figure 2-15 Conceptual Station Site Plan – Lake Mary

Figure 2-16 Conceptual Station Site Plan – Longwood

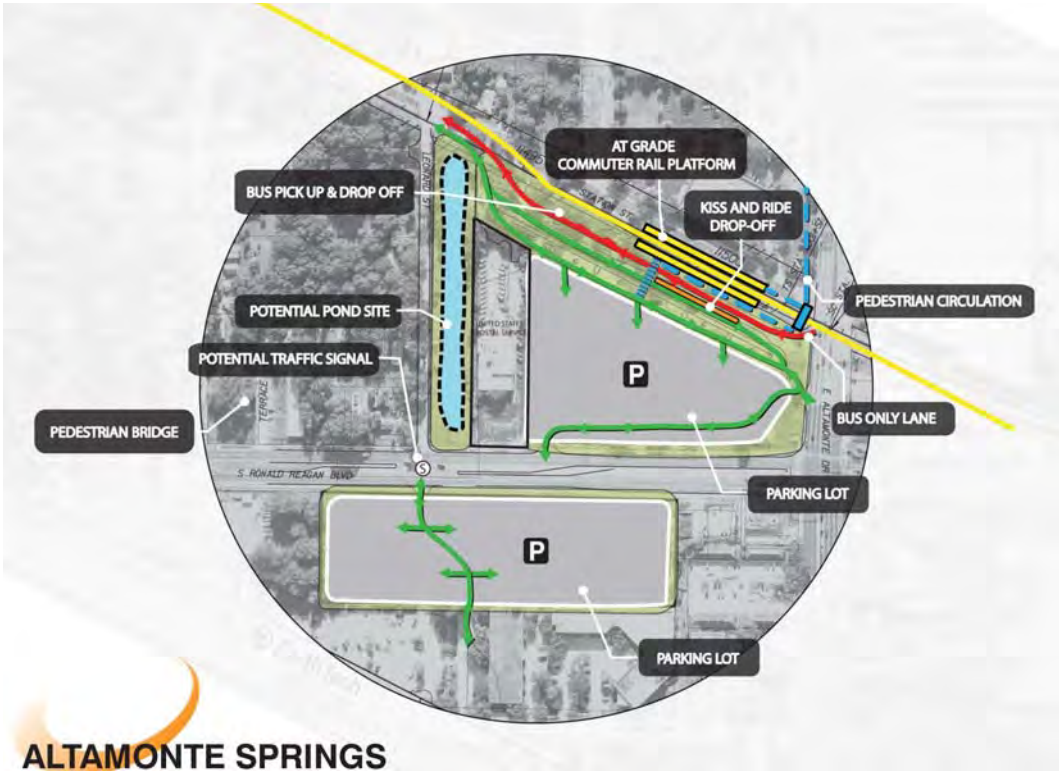


Figure 2-17 Conceptual Station Site Plan – Altamonte Springs

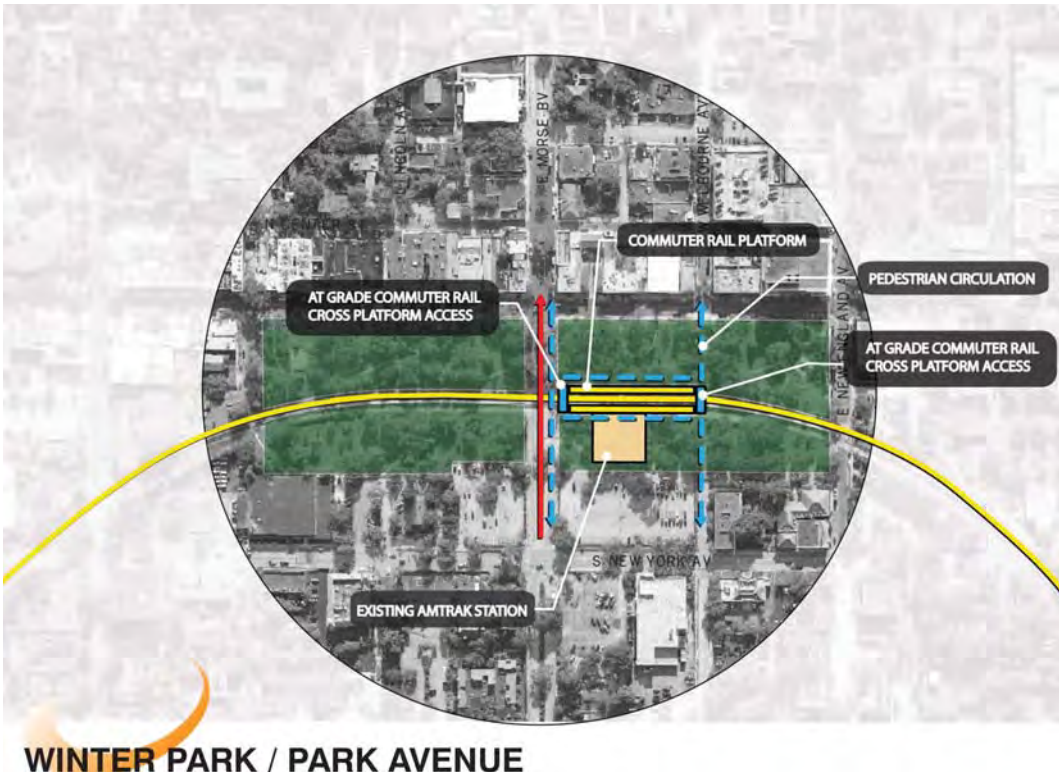


Figure 2-18 Conceptual Station Site Plan – Winter Park/Park Avenue

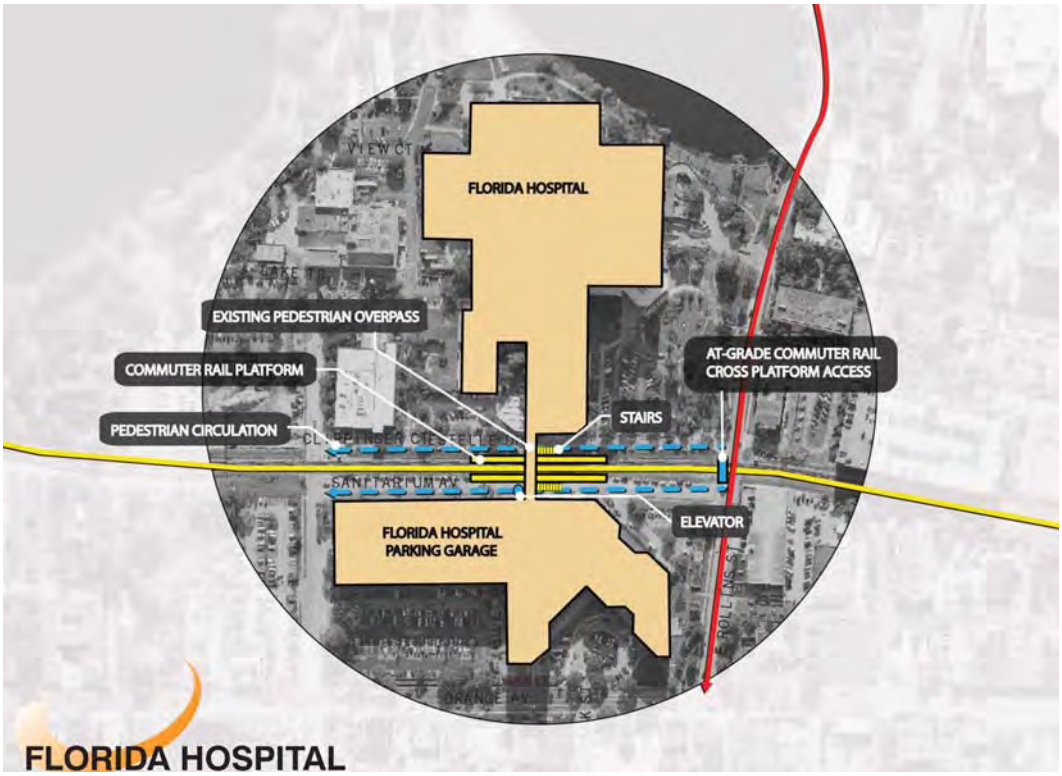


Figure 2-19 Conceptual Station Site Plan – Florida Hospital

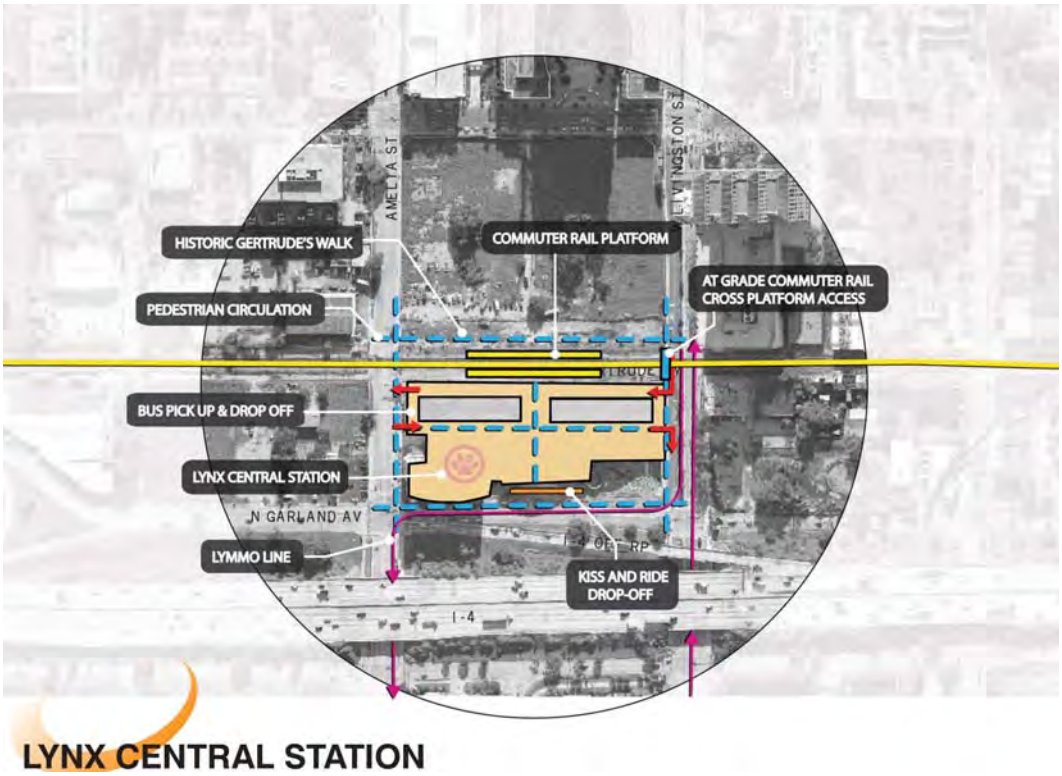


Figure 2-20 Conceptual Station Site Plan – LYNX Central Station

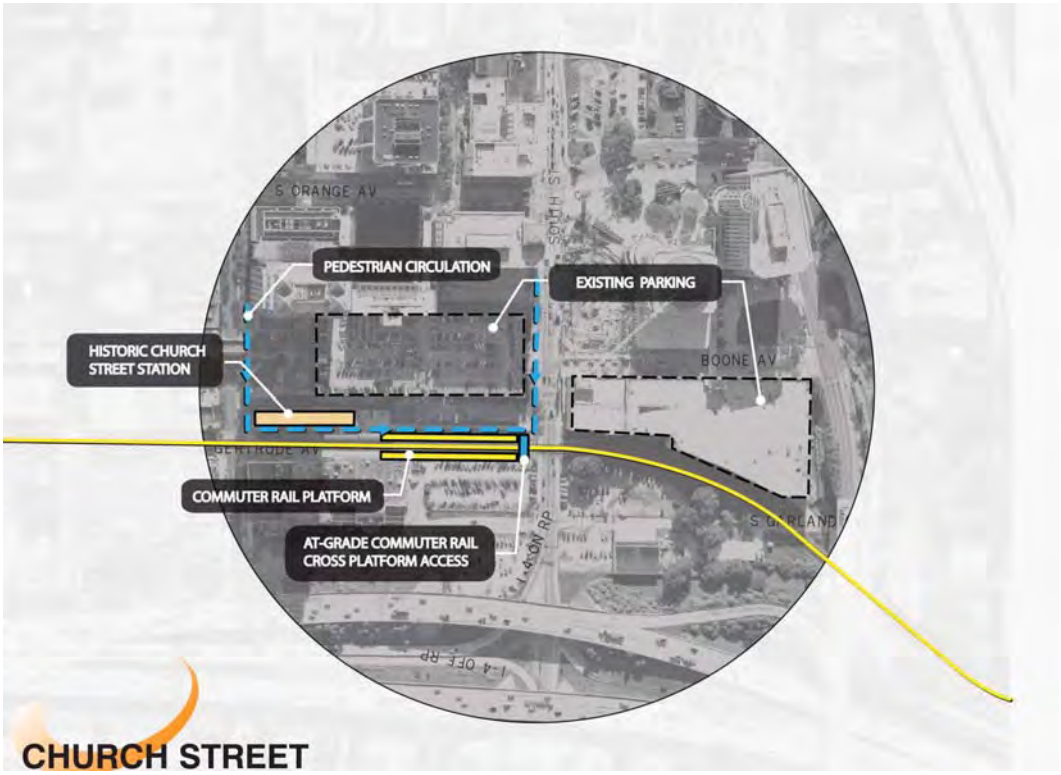


Figure 2-21 Conceptual Station Site Plan – Church Street

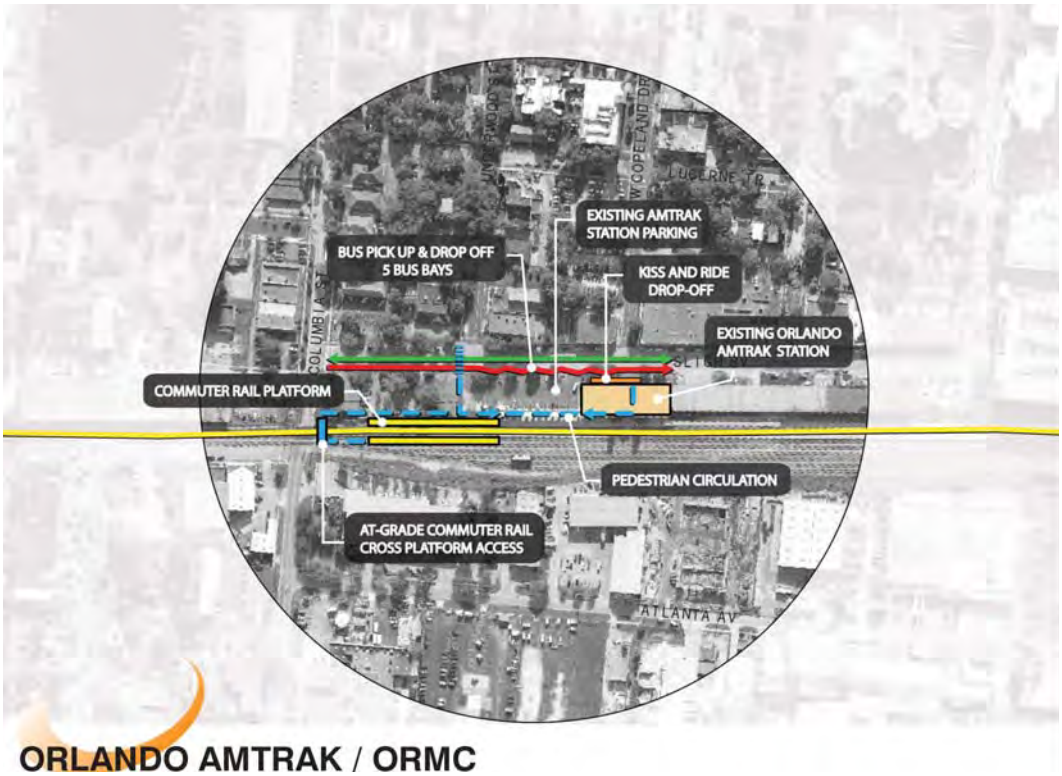


Figure 2-22 Conceptual Station Site Plan – Orlando Amtrak/ORMC

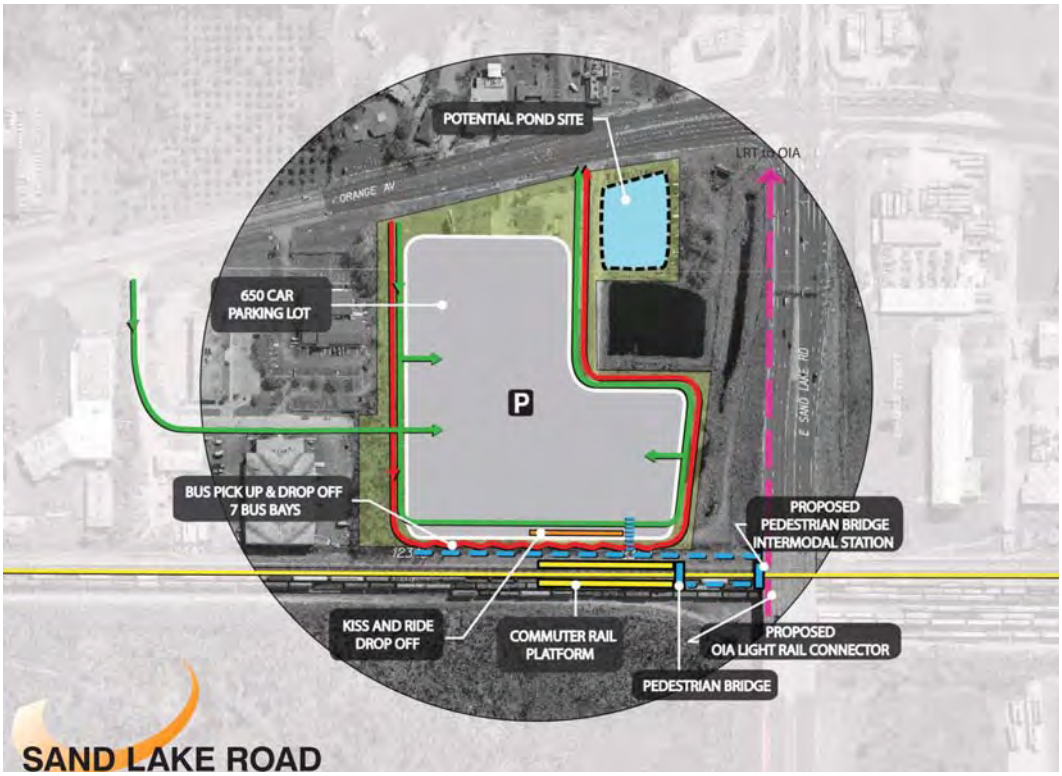


Figure 2-23 Conceptual Station Site Plan – Sand Lake Road

Figure 2-24 Conceptual Station Site Plan – Meadow Woods

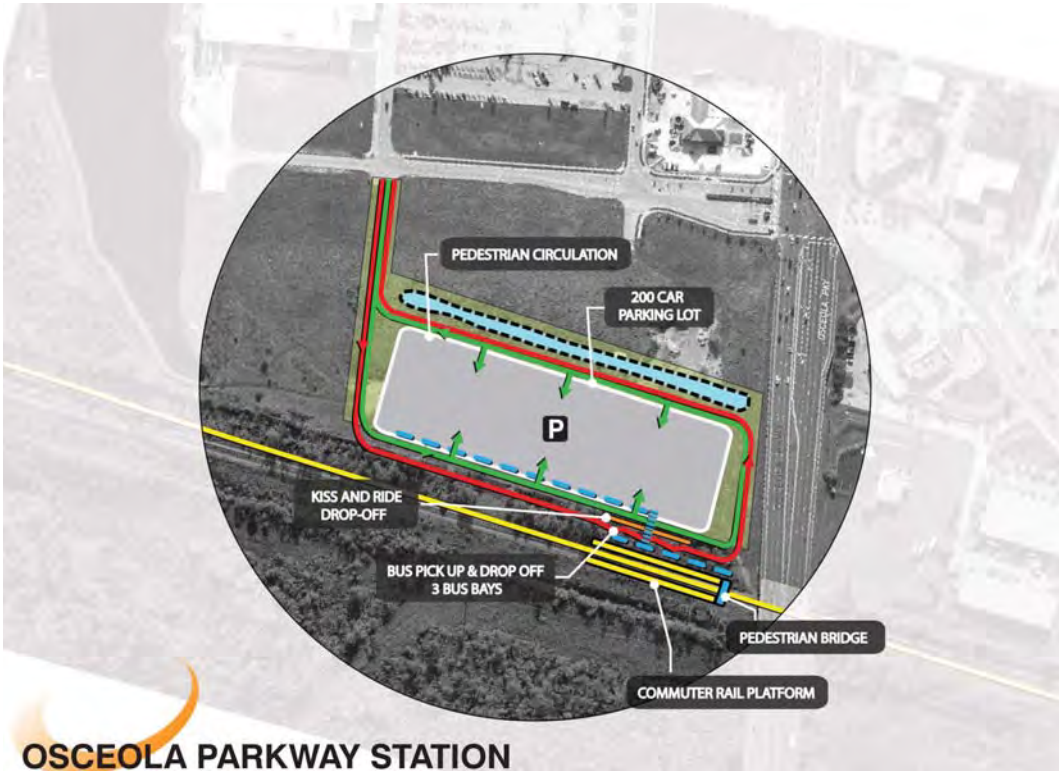


Figure 2-25 Conceptual Station Site Plan – Osceola Parkway

Figure 2-26 Conceptual Station Site Plan – Kissimmee Amtrak

Figure 2-27 Conceptual Station Site Plan – Poinciana Industrial Park

2.3.7 Vehicle Storage and Maintenance and Layover Facilities

The CRT Full Build Alternative would utilize DMU rail technology vehicles that are self propelled rail cars. The DMU fleet needed to operate the CRT service described in the Full Build Alternative would require support facilities to clean, store and maintain the vehicles, as well as facilities to provide short-term layover capability at or near service terminus points. This section provides an overview of the Vehicle Storage and Maintenance Facility (VSMF) functions, sites considered and the recommended footprint. Additionally, the necessary layover facility functions are described and the recommended locations are identified.

VSMF – Prior Studies

The need for a VSMF was identified in the Alternative Analysis (AA) Phase prior to this document. Two existing rail yard sites along the corridor were reviewed, Kaley Yard near the Orlando Amtrak/ORMC Station and at the CSXT Rand Yard in Sanford. The Kaley Yard was determined to be too small and consequently Rand Yard was selected (Figure 2-28). The following VSMF design data was also included as part of the Alternative Analysis report recommendations:

- Maintenance building up to 50,000 square feet
- 40 acre site (full CSXT Rand Yard), network of parallel, tracks, switches, turnouts, signals and storage tracks
- Facilities for overnight storage of train sets
- Facilities for daily service, routine cleaning, fueling, regular maintenance and washing
- Facilities for heavy maintenance, major overhauls
- Sizing of facilities based on LPA utilizing 7 trains during peak service hours and 2 trains during off-peak hours, each train would consist of one single Diesel Multiple Units (DMU) and one Bi-level DMU. A 16 vehicle fleet .
- Yard functions to include staging and support areas for track, structure, right-of-way, and systems (signals & communications) maintenance support Maintenance- of-Way Base of Operations
- Operations Control Center (Central Control Facility)
- Fare Revenue Collection Center
- System Security Center
- Administrative Office Space.

Figure 2-28 Existing CSXT Rand Yard

Two midday layover facilities were recommended, one at the north end of the corridor and the other at the south end of the corridor. No further design requirements were specified as part of the AA.

VSMF – Functional Requirements

General requirements identified in the AA were updated, refined and expanded as necessary based upon the needs of the CRT Full Build Alternative. Additional considerations for the VSMF include housing of on-track equipment, material storage, vehicles and staff facilities for Maintenance of Way (MOW), Track and Roadway (T&R), and Signals and Communications (S&C).

The vehicle maintenance will involve preventative, corrective and rehabilitative tasks encompassing daily service and inspection, scheduled maintenance and un-scheduled maintenance. Prior to entering revenue service all vehicles will be visually inspected by maintenance personnel to ensure there are no obvious defects. Major equipment components will be tested to confirm all are in satisfactory condition.

Yard entrances to the mainline should allow access from both ends of the yard. Trains entering the yard from the mainline will be able to access the maintenance shop, car

wash facility track, refueling track or storage track. Shop, storage, wash and refueling tracks should not conflict with revenue train movements and should require the least number of switching movements. Several shorter storage tracks are preferable to long tracks. Curved storage tracks should be avoided and access from both ends is desirable.

Section 2.3.4 identified 34 DMU vehicles in the Full Build fleet will need to be maintained at the VSMF.

VSMF – Site Alternatives

Based on the proposed operation requirements, a review of other agencies and industry knowledge it was determined that smaller acreage requirement of 20 - 25 acres are required for a new VSMF rather than the 40 acres recommended in the Alternative Analysis. A review of the 60.8 mile corridor revealed several possible locations for the VSMF. The locations considered were:

a) Adjacent to the DeBary/Saxon Blvd Extension Station site using vacant Progress Energy property,
b) CSXT Rand Yard in Sanford,
c) Amtrak Auto Train Yard in Sanford,
d) Taft Yard near Sand Lake Road,
e) Poinciana Industrial Park.

Since the IOS ends north of Taft Yard and Poinciana Industrial Park only options a, b and c were considered feasible. Option a, the DeBary/Saxon Boulevard site was considered slightly less favorable since both options b and c were existing and functioning railway yards.

The existing CSXT Rand Yard is about 43 acres and is approximately 2,400 feet long with about 22,300 feet of existing track in the yard exclusive of the CSXT mainline. There are three active storage tracks and 10 turnouts.

The entrance to the Amtrak Auto Train Storage and Maintenance facility is located immediately south of Rand Yard in Sanford. The property adjacent to this facility is owned by CSXT. The use of the Amtrak VSMF would be limited to providing equipment maintenance and vehicle washing. Therefore, the CRT would need to develop the adjacent land to the south (formerly the Sanford Amtrak Station) for cleaning and storage of the 34 DMU vehicles, offices, MOW, T & R, S & C, parking, etc. as well as access to the CSXT mainline. Although this appears to be a very attractive option (location and economics) it requires further investigation and the development of a memorandum of understanding with Amtrak and CSXT.

This site screening process concluded that Rand Yard is the preferred location based on its large contiguous acreage, absence of major competing uses, and compatibility with surrounding land uses. Figure 2-29 depicts the VSMF proposed at Rand Yard. Rand Yard also requires an MOU with CSXT. Despite this EA Phase recommendation, the Amtrak VSMF should continue to be reviewed in the next phase.

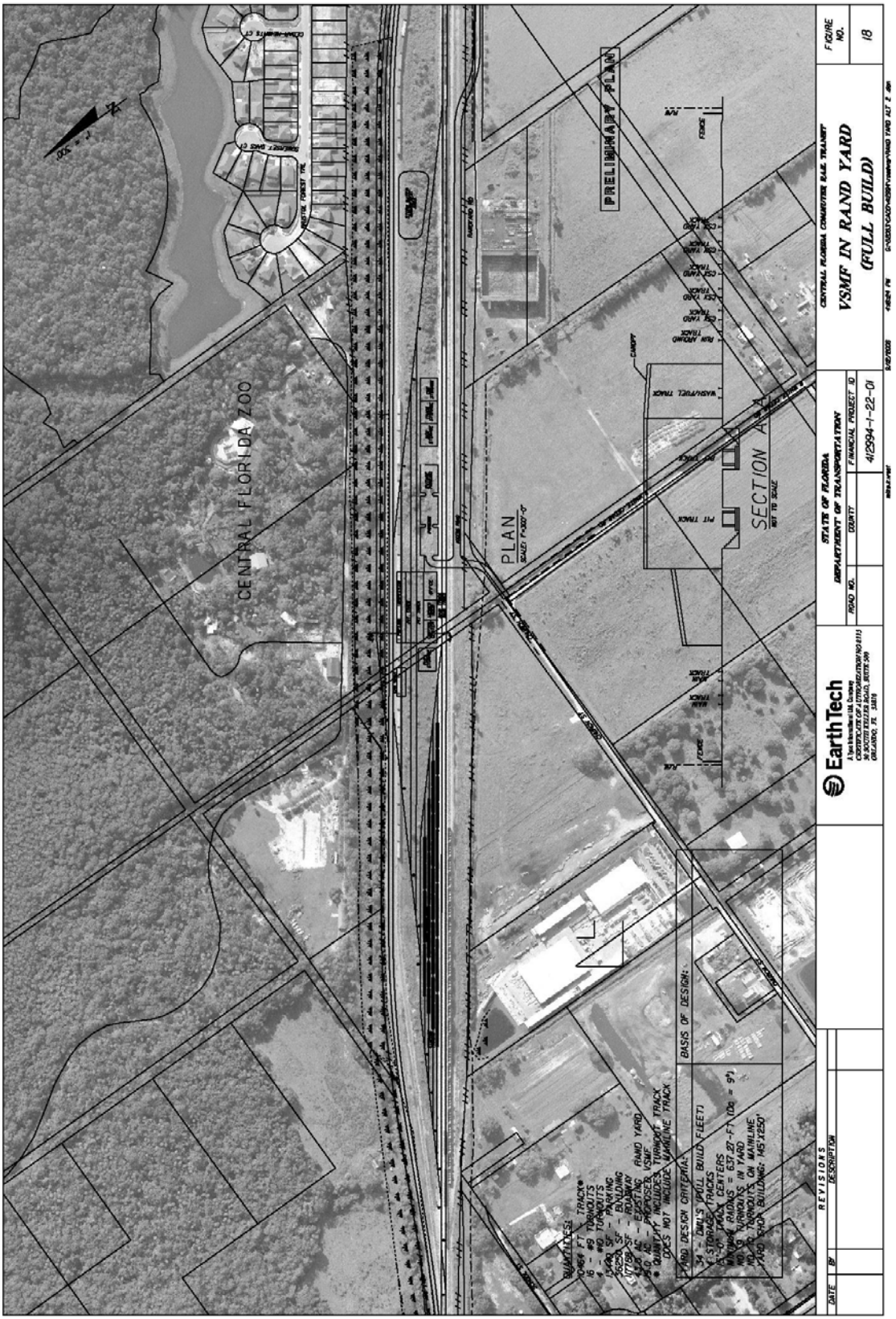


Figure 2-29 VSMF in Rand Yard (Full Build)

Maintenance Building

The shop building should be approximately 35,000 to 40,000 square feet (Figure 2-30) and will be designed to Florida Building Code standards. Requirements that are typical for the railway shop maintenance and repair environment would include:

- Inspection pits
- Cranes, lifts and/or jacks
- Wheel turning (optional)
- Truck, wheel & axle repair
- Paint and body repair
- Shop floor for primary repair
- Electronic repair
- Electro-Mechanical repair
- Traction motor or other drive train repair
- Diesel engine repair
- Maintenance and repair bays for automobiles, trucks and other equipment used for railway purposes.
- Air brake repair
- Scaffolding
- Glazing shop
- Upholstery & trim shop.

The shop would include at least two tracks with two maintenance bays on each track. A third parallel track outside the building would be used for daily inspection, exterior washing and fueling (Figure 2-30 through Figure 2-34).

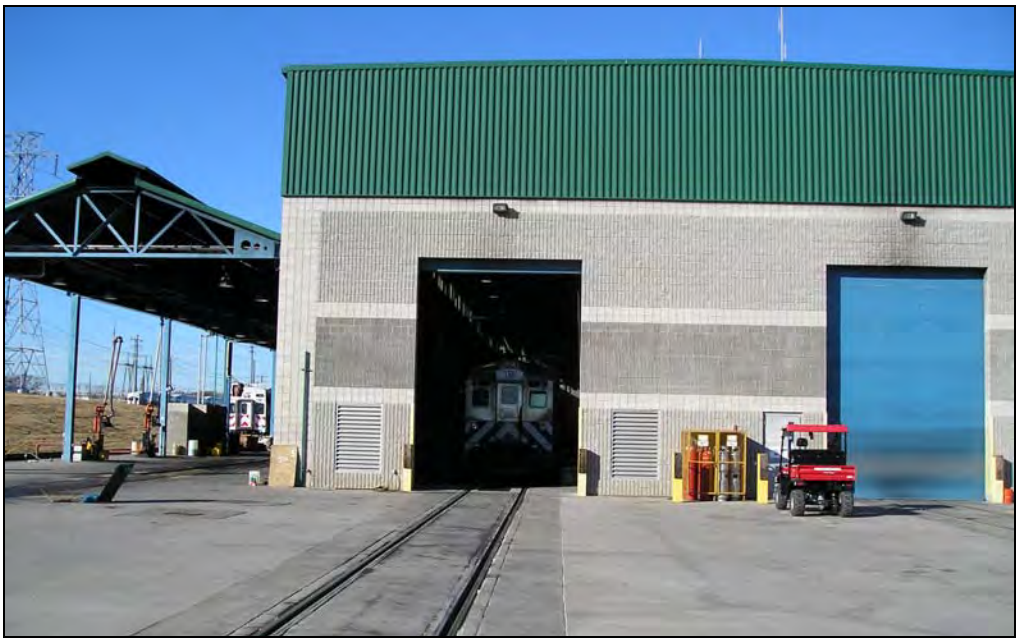


Figure 2-30 Example VSMF Shop Building

Figure 2-31 VSMF Typical Vehicle Wash, Fueling, and Track Inspection Pit

Figure 2-32 VSMF Typical Vehicle Wash

Figure 2-33 View Inside VSMF Shop Building

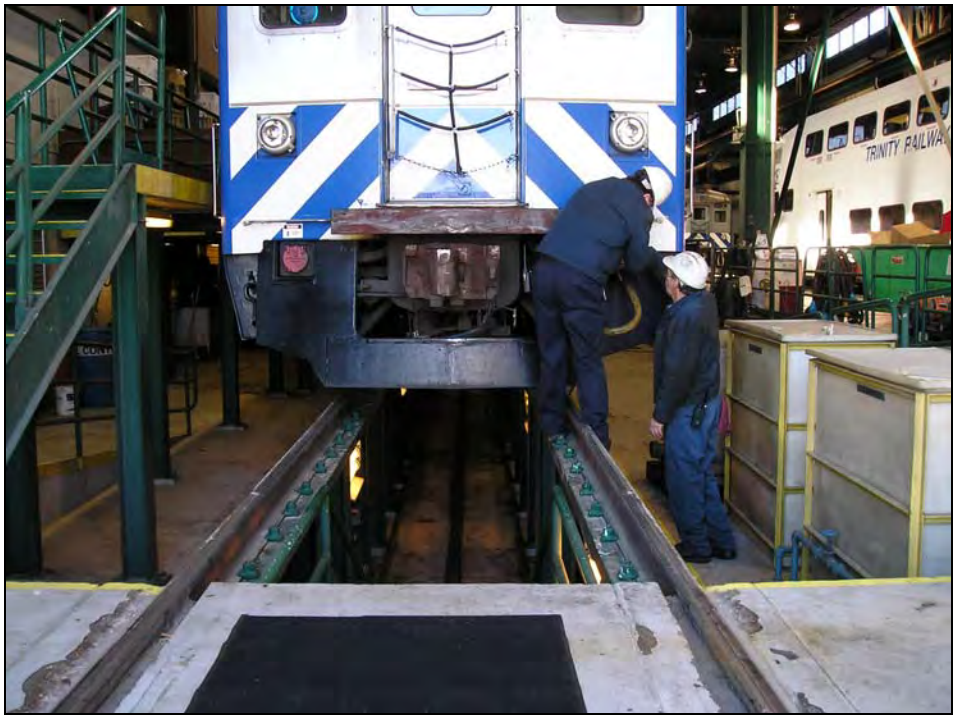


Figure 2-34 View of VSMF Shop Building Maintenance Pit

VSMF – Description of Existing and Proposed Facilities and Operation

This section describes the existing CSXT configuration and operations at Rand Yard. It also describes the proposed VSMF yard tracks and related support facilities, their operation, and why they will not have an impact on surrounding land uses.

Existing Rand Yard

Figure 2-28 is an aerial view of the existing 40 acre Rand Yard. The present CSXT freight yard configuration is shown to include two mainline tracks to the east and three yard storage/switching tracks to the west with a large vacant area between the mainline and yard tracks. Rand Yard currently operates 24 hours per day and 7 days a week. The current operation varies over the corridor with a maximum of up to 26 trains per day (10 through freight trains, 10 local freight trains and up to 6 passenger trains).

The majority of the existing Rand Yard freight activity is the result of the following:

- Two daily merchandise trains, traveling to and from Jacksonville and other points outside the corridor, drop and pick up rail cars on a daily basis in Rand Yard where they are stored while waiting for delivery by local train crews. Local trains distribute the cars to customers between DeLand and to points a few miles south of Rand Yard.

- Short unit trains loaded with rock often layover in Rand Yard temporarily (sometimes up to 1-2 days) waiting for room at Benson Junction where they are off-loaded.

- Rand Yard is the last stretch of existing double track prior to traveling through to Taft Yard. Therefore, the long through freight trains, Amtrak Auto train and passenger trains regularly meet at Rand Yard. This results in long freight trains idling in Rand Yard for 1-2 hours waiting for clearance to Taft Yard. The agreement between FDOT and CSXT to upgrade the track for commuter rail with the addition of 46 miles of double track plus a new signal system will mitigate this current idling situation at Rand Yard.

- Possible relocation of freight trains in the future in accordance to CSTX proposed plans identified in Section 2.24.

- The Contamination Section identifies Rand Yard as a location with “high” potential risk of encountering contaminated soils during construction of the VSMF. Contaminated soils encountered during construction of the VSMF will be addressed in accordance with all applicable regulations resulting in a cleaner site with the proposed project compared to the No-Build or TSM alternatives.

Proposed VSMF Configuration

Figure 2-29 shows the proposed configuration of the VSMF located in the vacant land between the Mainline and Yard tracks.

VSMF Land Use

The proposed project will reconfigure Rand Yard, not expand it, and will change its primary use from freight trains to primarily passenger trains, which are smaller and have

less impact on the environment. Rand Yard is and has been a rail yard for many decades. It will continue to serve CSXT as a rail yard, though with lower volumes of freight than currently. Rand Yard is bordered by I-4 in the west, SR 46 in the east and along a portion of the south side. Along the north side of the CSXT right of way, the border land uses feature wetlands, a zoo, and a small residential area behind a wall, and along the south border, vacant celery fields that are presently home to commercial and industrial facilities like Cox Lumber, Florida Recycling, a beer distribution operation, etc. There are also a few vacant buildings along the south side of the right of way. Immediately to the east of Rand Yard are the Amtrak Maintenance Facility and a Freight Transload facility. Both have switches off the CSX mainline under the SR 46 highway bridge.

Proposed Operations

The VSMF will provide for overnight storage of the DMU vehicles with operations to begin at approximately 5:30 a.m. and the final trains returning at approximately 11:00 p.m. The yard vehicle maintenance operation including car cleaning, fueling, light maintenance would not occur outside of this time frame. The VSMF would also be used for midday storage.

VSMF Noise

Review of the proposed VSMF facility shows no sensitive receptors located within the FTA screening distance. As a result further noise assessment of the facility was not performed. Noise from the proposed DMU vehicle at idle is reported to be half that of a standard diesel locomotive of the type used by freight trains, and while running DMUs emit only 25% of the noise of standard locomotives. DMUs will not be left idling overnight or between peak service periods at the VSMF.

VSMF Emissions

Although DMUs will be new emissions sources at the VSMF facility, due to the removal of existing freight operations at the facility, the overall emissions at the facility are expected to decrease. The DMUs meet EPA's Tier 2 controlled emission rates for NOx, HC, and PM emissions. The existing operations at the facility likely include locomotives manufactured prior to 1972, in which case these locomotives are exempt from even Tier 0 emission standards. In addition, wayside power will be available at the facility to reduce DMU idling emissions. This will be the same practice at the end of line layover facilities.

VSMF Lighting

Rand Yard currently has high mast lighting. Additional lighting may be required at a lower elevation to supplement the existing lighting.

VSMF Fueling

An environmentally compliant fueling facility including storage will be provided with the proposed VSMF facility, in accordance with all federal, state, and local regulatory requirements.

VSMF Transportation

There is only one at-grade crossing in Rand Yard and it is located at the west end of the yard at Monroe Street near I-4. The current operation by CSXT blocks the crossing for several minutes several times daily (e.g. early morning) during switching operations from the mainline to the yard tracks due to the proximity of the lead track to the crossing and the absence of the "constant warning time" (CWT) feature in the crossing protection. With the proposed capital upgrades for CFCRT and in the new yard configuration this problem will be eliminated by upgrading the crossing protection with CWT and moving the CSXT operation to the north as described earlier.

VSMF Summary

In summary, the proposed VSMF at Rand Yard will be located well within the boundaries of an existing CSXT freight rail yard buffered from adjacent land uses, and will result in a site, facilities, and operations that have fewer adverse impacts on the environment and the surrounding community than does the existing operation and future No-Build or TSM.

Layover Facilities

A layover facility is needed at each end of the line, located at the north and south terminus points of the proposed CRT Full Build Alternative from which service begins in the morning, and for mid-day layover of the DMUs to minimize deadheading (empty trips) back to the VSMF mid-day. Facilities and operations for each layover facility would include the following:

- One or two siding tracks totaling less than 500 feet in length
- Site utilities including electric, water, sewer, and telecommunications
- Small multifunction building for employees, administration, storage
- Access road, lighting, and fencing.

The layover facilities would be used primarily weekdays during the mid-day period and then again for overnight storage of 1 or 2 DMU train sets to provide the first inbound service in the morning. Wayside power will be provided for the DMUs to plug into at each facility, thereby eliminating the need for idling during layover.

The DeBary/Saxon Boulevard Extension Station will be the north terminus yard (Figure 2-35) and Poinciana Industrial Park Station will be the south terminus yard for mid-day storage. The Poinciana Industrial Park layover yard should be designed to provide for potential overnight DMU storage (1-2 train consists). Figure 2-36 depicts the layover facility at the south end of the corridor adjacent to the Poinciana Industrial Park facility.

The proposed layover facilities and operations are not anticipated to have an adverse impact because the facilities are small scale, primarily within the existing operating railroad right-of-way, and the operations are limited. Moreover, the sites chosen for the facilities are buffered from surrounding land uses by significant amounts of undeveloped land.

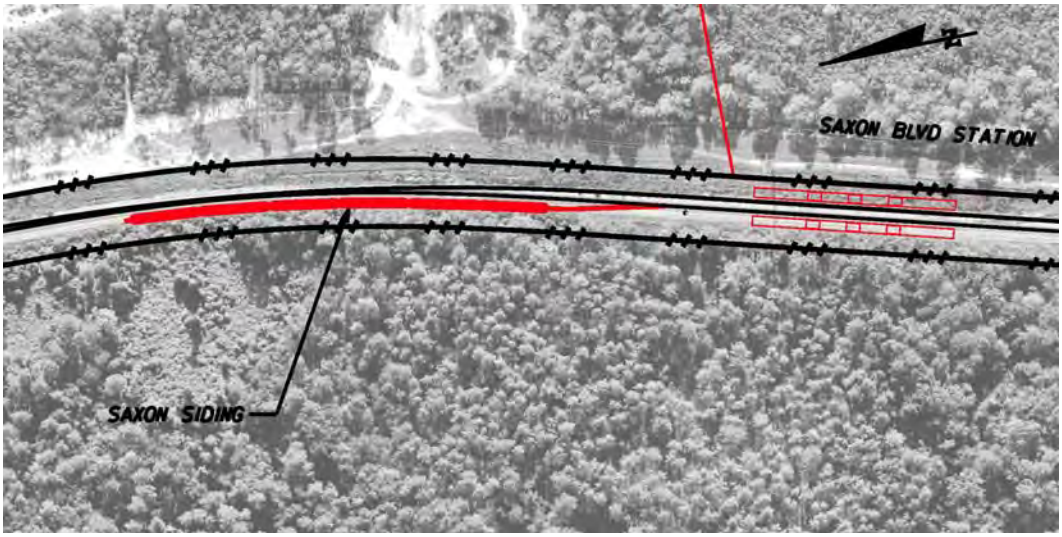


Figure 2-35 DeBary Saxon Extension Station Layover Facility

Figure 2-36 Poinciana Industrial Park Layover Facility

2.3.8 Grade Crossings

Implementation of the new commuter rail service using federal funding sources requires evaluation of at-grade railway crossings to ensure they meet current design and safety standards and to identify areas to enhance safety.

All existing public crossings have functional automatic highway crossing warning devices. Automatic highway crossing warning devices including automatic gates and flashers were present at all public at-grade roadway crossings and at one private crossing. The majority

of pedestrian crossings and private roadway crossings have passive or no warning devices.

The only grade crossing impacts are related to construction for the relocation of grade crossing protection due to the addition of 2nd track. Construction mitigation is covered in Chapter 3, Section 3.3.13 Construction Impacts.

The following summarizes the highway-railroad grade crossings in the 60.8 mile corridor:

- Number of crossings in the FRA Database = 144
- Number of Open Crossings = 126
- Number of Closed Crossings = 18
- Number of Public Roadway Crossings = 120 (113 open/7 closed)
- Number of Public Pedestrian Crossings = 7 (4 open/3 closed)
- Number of Private Crossings = 17 (9 open/8 closed).

2.4 Ridership, Revenues, Costs, and Financial Requirements

Ridership and revenue were projected, capital and O&M costs were estimated, and a financial plan for the project prepared, as summarized below.

2.4.1 Ridership and Revenues

Ridership for the TSM and CRT Build alternatives was forecast using the regional model and land use assumptions in compliance with FTA requirements and consistent with the two MPOs in the study area. Forecast daily boardings are summarized in Table 2-8.

For this initial stage of analysis, a $2.50 average fare per boarding (2005 dollars) was applied to the forecasted ridership projections to derive operating revenue. The $2.50 average fare reflects a “deep discount” fare policy utilized by LYNX to keep public transit affordable for its riders, as well as the blended yield of a potentially distance-based pricing structure. Other revenue sources identified are: Ancillary (from advertising); Maintenance of Traffic (MOT) funds for I-4 construction mitigation based on the precedent of Tri-Rail during reconstruction of I-95; Section 5307 Preventive Maintenance formula funds; and state and local operating assistance within a framework established in 2005 between FDOT and local governments.

Table 2-8: Daily Boardings by Service Type and Alternative (2025)

Service	2025 No-Build	2025 Full TSM	2025 LPA	2025 Full Build
LYNX	120,960	135,160	134,230	135,310
I-Ride	13,330	13,330	13,330	13,320
LYMMO	3,990	4,080	3,880	3,760
VOTRAN	1,380	1,890	1,920	2,450
CRT	0	0	8,334	13,760
Systemwide Boardings	139,660	154,460	161,660	168,600

Source: AECOM September 3, 2005

2.4.2 Capital Costs

Capital cost estimates were developed for the TSM and CRT Full Build Alternatives consistent with FTA Standard Capital Cost (SCC) methodology. The estimates incorporate percentage allowances for contingencies to cover items of work that cannot be identified in detail at this early stage of conceptual design. Contingencies range from 15-50 percent, with higher contingencies assigned to high risk items associated with land acquisition, utilities and intersection modifications. TSM capital cost estimates include both station costs and purchase of buses. A summary of the capital costs for the LPA, and Full Build version of each alternative is presented in Table 2-9. This information is presented in year 2005 dollars.

Table 2-9: CRT Capital Cost Estimates ($million)

Year	LPA TSM	Full TSM	30 min. headway LPA Build	15 min. headway Full Build
Current	$47.1	$47.1	$447.0	$632.0

Source: Draft Capital Cost Report, June, 2006

2.4.3 Operating Costs

Transit bus and commuter rail cost models were used to estimate annual operating and maintenance costs for the study alternatives: No-Build, Transportation System Management (TSM) and Full Build (commuter rail). Three separate models were used to estimate project costs: (1) LYNX bus operations; (2) VOTRAN bus operations; and (3) commuter rail operations. Each model was used to estimate costs based on projected system operating characteristics.

The O&M cost models used are appropriate for the CRT project for the following reasons: (1) the models have been fully tested and validated; (2) O&M cost results are consistent with those developed for the CRT Alternatives Analysis and other transit major investment studies in the Orlando area; and (3) LYNX organization structure and bus unit costs have remained largely unchanged since the calibration year (except for inflation). The O&M cost methodologies for the CRT project were presented in a previous report (Operations and Maintenance Cost Methodology Report, April 2005).

Table 2-10 shows the system characteristics and estimated annual Operations and Maintenance (O&M) costs for commuter rail operations for each phase of the CRT project Build Alternative. Costs were inflated to 2005 dollars with a 3.0 percent annual inflation rate. Detailed CR O&M costs are included in Appendix B of the *CRT Operating & Maintenance Cost Report, December 2005*. Table 2-11 summarizes the estimated annual O&M costs for each of the CRT project alternatives. The total annual O&M cost ranges from $141.6 million (No-Build) to almost $181 million (Full Build). The incremental O&M costs for the TSM/Baseline Alternatives and the Build alternatives are shown below.

Table 2-10: Commuter Rail Annual O&M Cost Estimates (2005 dollars)

Input Measure	LPA Build	Full Build
Annual Passenger Trips	2,161,000	3,578,000
Peak DMUs	14	28
Fleet DMUs	17	34
Annual Revenue Train-Hours	13,650	25,480
Annual Revenue Car-Miles	821,500	1,760,600
Directional Route-Miles	105.3	120.9
Stations	15	16
Daily Revenue Train Trips	30	56
Operating Agency O&M Cost	$4,131,786	$5,879,431
Contract Operator O&M Cost	$11,819,610	$22,718,898
Total CR O&M Cost	$15,269,769	$28,598,329

Source: Operations and Maintenance Cost Report, December 2005

Table 2-11: Total Annual O&M Cost Estimates (2005 dollars)

Input Measure	No-Build	LPA TSM	Full TSM	LPA Build	Full Build
LYNX O&M Cost (million)	$138.04	$147.16	$148.60	$143.40	$143.42
Votran O&M Cost (million)	$3.57	$4.48	$4.48	$4.86	$4.86
CR O&M Cost (million)	$0.00	$0.00	$0.00	$19.40	$32.56
Total Annual O&M Cost (million)	$141.61	$151.64	$153.08	$167.66	$180.84
Incremental Annual O&M Cost (million)	n/a	$10.03	$11.47	$16.02	$27.76

Source: Operations and Maintenance Cost Report, December 2005
Incremental cost of each TSM/Baseline Alternative is relative to the No-Build Alternative.
Incremental cost of each Build Alternative is relative to the corresponding TSM/Baseline Alternative

2.4.4 Anticipated Financial Plan

The CRT financial plan assumes that the North Corridor will enter revenue service in 2009. It is anticipated that construction of the South Corridor will begin shortly thereafter and that operation of the full system will commence in the 2013 timeframe. Federal discretionary grants under the Section 5309 New Starts Program are assumed to provide 50% of the funding required for the capital construction costs while the state and local governments would each contribute 25%.

The financial plan anticipates a federal grant pay-out that extends from 2006 to 2012. This assumption implies that CRT project sponsors will seek support from the Florida State Infrastructure Bank (SIB) to advance any funds that may be required to match construction draws in excess of an assumed $50 million cap on annual New Starts funds. Recent credit structures for grant anticipation financing backed by Full Funding Grant Agreements (FFGA) are secured solely by future federal appropriations and would not affect the financial capacity of the Florida SIB.

The four local counties served by the CRT (Volusia, Seminole, Orange, and Osceola) will fund the 25% local share of the capital construction costs. To facilitate local financial participation, the Florida SIB would advance the local share, and each county requesting

such financing would repay the SIB advances over ten years starting with the initiation of revenue service of the full system.

The operations and maintenance finance plan assumes that after farebox recovery, federal formula funds, and ancillary system revenues, the local funding partners will fund the projected operating deficits. For the first seven years of operations, FDOT/Maintenance of Traffic (MOT) funds will offset the anticipated operating deficit, as the commuter rail program will serve as a MOT strategy for the reconstruction of Interstate 4.

2.5 Summary

The 60.8 mile Full Build Alternative provides 15 minute peak headway bi-directional service and 56 trips per day. This alternative operates 34 DMU Vehicles combined in 1, 2 or 3 car consists, adds 42 miles of new 2nd track within the CSX ROW, provides a new signal system, builds 16 simple platform stations, a VSMF in the existing CSX Rand Yard and end of line layover facilities at three terminus station locations.

The LPA is different from the Full Build Alternative in that it operates over 53.5 miles, offers less trips per day with a 30 minute peak headway bi-directional service, includes 25 miles of new 2nd track, provides a new signal system, builds 15 stations and requires a smaller VSMF.

The Full Build Alternative will be constructed in phases beginning with the IOS (North Corridor) of the LPA in 2009, the South Corridor of the LPA in 2013 and the North Corridor extension to DeLand to complete the Full Build Alternative at some time in the future.

CHAPTER 3

ENVIRONMENTAL CONSEQUENCES

3 ENVIRONMENTAL CONSEQUENCES

This section of the EA describes the potential impacts of the project on social, cultural and historic, natural and physical resources. Included in each subsection is a description of the existing environment along the project Corridor as it relates to each subject area, and an assessment of potential impacts for the project alternatives analyzed. Mitigation measures, to reduce or eliminate potential environmental impacts, are described where necessary.

As outlined in the Preface of this EA and Chapter 2, the "Full Build" in this report is defined as the 60.8 mile Full Build alignment from DeLand Amtrak to Poinciana Industrial Park with all 16 stations, the addition of approximately 42 miles of 2nd track and more DMU equipment to support the increase in service to 15 minute headways. This represents the worst case from the point of view of assessing the project environmental impacts.

The Preface also stated that in support of this CFCRT project, FDOT and the project sponsors have been negotiating freight traffic density and train operating patterns on the "A" line with CSXT. A fundamental component of the negotiation is a Memorandum of Understanding (MOU) that eliminates freight traffic during the time of the proposed CFCRT service through this Study Corridor. Also mentioned was CSXT's intent as part of its Statewide Strategic Plan, to shift freight traffic to the "S" line to the west of central Florida, and to designate the "A" line for passenger traffic.

A key measure in evaluating the environmental impacts resulting from the addition of CFCRT service is the change in delay times that occur at railway grade crossings and noise and vibration impacts along the corridor. As a result of the MOU, this analysis assumed that existing rail freight traffic volumes operating on the CSXT "A" line in the 2025 No-Build will not continue to operate in peak hours on this line in the 2025 Full Build Alternative. There is no reduction to the present overall CSXT freight traffic levels in this EA analysis, only shifting of freight trains to operate outside of the peak period. This EA analysis is consistent with the CSXT initiated operational shift and policy direction.

3.1 Land Use and Related Socio-Economic Characteristics

3.1.1 Land Use

The Central Florida Commuter Rail Corridor includes stations in 12 different municipalities: the cities of DeLand, DeBary, Lake Mary, Longwood, Altamonte Springs, Winter Park, Orlando and Kissimmee, as well as portions of unincorporated Volusia, Seminole, Orange, and Osceola Counties. To facilitate analysis of zoning and land use conditions, information has been generalized to allow basic land uses to be analyzed consistently across jurisdictional boundaries.

Florida's 1985 Growth Management Act requires municipalities to maintain consistency between adopted policies of a comprehensive plan and the regulations that implement them. The zoning and existing land use are determined exclusively by the adopted land use element of the comprehensive plan, which must be developed consistently with other plan elements dealing with such issues as transportation, capital improvements, and

resource protection. In this regard, both zoning and future land use must be considered in a land use analysis, as the Growth Management Act establishes both as official, legally binding series of regulations.

One of the key components of the growth management system in Florida is the requirement that infrastructure and public services such as roads, schools, hospitals, police and fire protection, and several other public resources, have the capacity to support a new development before that development is approved. Due to the interconnections between comprehensive plans and zoning ordinances, the capability of infrastructure and public services to support development can determine how much and what types of development occur.

Methodology

Data for the analysis of existing land use was compiled through interpretation of existing zoning and future land use maps, interviews with municipalities directly impacted by the Corridor, extrapolation from municipal sources and property appraiser records, and from a generalized map of future land use designations throughout the Central Florida region prepared by the East Central Florida Regional Planning Council.

For both the existing and future land use analyses, data were compiled, generalized, and analyzed within a ½-mile radius of the rail alignment and from each proposed station site.

Existing Conditions

Land use patterns vary across the Corridor. The following analysis divides the Corridor by the counties that it serves and briefly discusses each station, with the included stations listed for each county. Detailed existing land use mapping for each of the proposed CRT station areas is included in Appendix B - Land Use and Community Cohesion. Figure 1-7 in Chapter 1 illustrates generalized land use patterns along the entire CRT corridor.

Volusia County: DeLand Amtrak and DeBary/Saxon Boulevard Extension Stations. These stations are in primarily agricultural areas with considerable amounts of undeveloped, vacant land. The DeLand Amtrak station is located west of the city in an area with light industry and lower-intensity uses. The DeBary/Saxon station is located along a planned extension to Saxon Boulevard, allowing access to a larger service area of the city of DeBary along US 17/92.

Seminole County: Sanford/SR46, Lake Mary, Longwood and Altamonte Springs Stations. Due to the existing use of the CSXT "A" line rail alignment for freight service, much of the area along the Corridor in Seminole County is commercial and industrial. The rail line served the historic town centers of Lake Mary, Longwood, and Altamonte Springs and those areas retain a mix of civic, commercial, and industrial uses.

The Sanford station is in an area of largely vacant parcels and any development requires the property to be rezoned to a planned unit development (PUD), in which development standards may be defined to best accommodate a rail station. The Lake Mary station is in a more developed area, although adjacent zoning allows greater flexibility of redevelopment. The station is adjacent to Lake Mary's civic facilities. The Longwood station is near its historic center, which includes its municipal buildings, non-governmental

civic facilities, and a commercial district. The Altamonte Springs station is near its municipal buildings, and has adjacent residential areas and commercial development.

Orange County: Winter Park/Park Avenue, Florida Hospital, LYNX Central Station, Church Street, Orlando Amtrak/ORMC, Sand Lake and Meadow Woods Stations.

Orange County's existing land use varies according to the urban context. In the more densely developed areas of Orlando and Winter Park, corridor land use is largely employment-oriented with offices, commercial establishments, institutional facilities, and industrial uses. In areas south of Orlando, corridor land uses are predominantly industrial and residential.

Winter Park's station is adjacent to its main retail and business district as well as many of its civic and institutional facilities. Zoning currently permits the development of business, retail, office, and residential uses.

The four proposed Orlando stations are located adjacent to high-intensity activity and employment centers: the Florida Hospital and Orlando Amtrak/Orlando Regional Medical Center (ORMC) stations are located near large regional hospitals and concentrations of medical offices. The LYNX Central Station and Church Street stations are within Orlando's central business district, the largest single employment concentration in the region.

The Sand Lake and Meadow Woods stations are near industrial and commercial areas, although development potential around each station is high: agricultural/vacant use account for one-fifth of the Sand Lake Road station area and over one-third of the Meadow Woods area.

Osceola County: Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park Stations.

The stations in Osceola County are all located near employment centers: office and retail areas near the Osceola Parkway; government, civic, and commercial uses around the Kissimmee station; and commercial and industrial uses near the Poinciana Boulevard station. Residential areas lie outside of the immediate station areas for all three stations.

Future Land Use and Development Patterns

Future land uses across the Corridor vary, although the more mature, high-intensity urban environments are generally designated for mixed-use centers combining employment, commerce, and residential areas. Future land use mapping for areas surrounding each of the proposed CRT stations is included in Appendix B – Land Use and Community Cohesion.

Volusia County: DeLand Amtrak and DeBary/Saxon Boulevard Extension Stations.

The majority of the designated future land use in each of these stations is employment-oriented, most of it industrial, with some areas planned for residential development. In the vicinity of the DeBary/Saxon Boulevard Extension Station, over two-thirds of designated residential areas are planned for higher-density development than exists currently.

Seminole County: Sanford/SR 46, Lake Mary, Longwood and Altamonte Springs Stations .

The areas around each of the Seminole stations include areas planned for mixed use activity centers combining residences and businesses. A majority of the area around the Sanford/SR 46 Station calls for this kind of mixed use development, and each of the Lake Mary, Longwood, and Altamonte Springs station areas plan for at least one-third of employment uses to be in activity centers. These activity center plans include street enhancements, the addition of pedestrian amenities, reductions in on-site parking requirements, and encouragement of mixed-use development.

Orange County: Winter Park/Park Avenue, Florida Hospital, LYNX Central Station, Church Street, Orlando Amtrak/ORMC, Sand Lake and Meadow Woods Stations.

Future land use in the Orange County station areas is generally oriented to higher-intensity uses that reflect and enhance the area's current level of urban development. Nearly half of the area around the Winter Park/Park Avenue station designated for residential uses call for higher densities than what presently exists, and nearly half of the station area in general is planned for employment-based uses. The Florida Hospital and Orlando Amtrak /ORMC stations are both in areas near large and expanding hospitals. Future land use around these stations is designated for increased intensity of development, density of housing, and a mix of uses to take advantage of the large employment centers near each station. The LYNX Central Station and the Church Street stations are in Orlando's Central Business District, in which over 3,000 residential units are planned or currently seeking approval in a downtown area with an existing inventory of over 10 million square feet of office space.

The Sand Lake Road and Meadow Woods stations are in areas with greater development potential, with future land use oriented to neighborhood commercial, light manufacturing and other industrial uses.

Osceola County: Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park Stations.

The Osceola Parkway station is designated as a mixed use future land use area with an emphasis on employment. Office, retail, and light industrial uses have been approved for the station site. The Kissimmee Amtrak station is located in an area of downtown mixed use adjacent to future land use designations planned for increased residential density and recreational facilities. The Poinciana Industrial Park Station is surrounded by industrial with some general commercial and low density residential land uses.

Impacts and Benefits

Long-term impacts on existing land use and zoning may seem similar for each of the Alternatives, but it is important to remember that zoning does not guarantee immediate development rights in most cases: development approval must be concurrent with available capacity in public infrastructure to support that development.

No-Build Alternative

The No-Build Alternative will not have direct impacts on existing land use and zoning. Future development will be limited by the ability of local infrastructure to serve its communities efficiently. Various measures of traffic and level of service on roads in the area will continue to worsen as traffic increases with urban growth, and the failure to address transportation alternatives may limit the potential development that is allowed as of right in existing zoning and future land use policies.

Future land use designations according to each government's comprehensive plan are consistent with provisions of the transportation plan. Areas that have been designated for higher-density, transit-supportive development will most likely not have the same development density without the construction of a fixed-route transit system. The No-Build Alternative provides a lower capacity transportation network and is less capable of supporting transit-oriented development (TOD) than the Full-Build Alternative.

TSM Alternative

As the TSM Alternative may place some station facilities (including parking) in the same locations as the proposed rail stations in the Full-Build Alternative, zoning changes would be required, at minimum, in the municipalities of Sanford and Altamonte Springs. The ability of the TSM alternative to support local land use and economic development is limited due, in part, to the lack of permanence of the bus alternative.

Full-Build Alternative

The Full-Build Alternative would utilize the existing CSXT ROW. Impacts on existing land use and zoning are limited to the station sites. In most communities with proposed stations along the Corridor, existing zoning permits the development of transit stations subject to conditional approval.

The Full-Build Alternative would construct a railway system consistent with future land use and transportation elements of local comprehensive plans and thus would have future land use benefits through the realization of the transportation/land use integration plans that are included in many of the local comprehensive plans. The Lake Mary, Longwood, Winter Park/Park Avenue, Florida Hospital, LYNX Central Station, Church Street, Orlando Amtrak/ORMC, and Kissimmee Amtrak stations are all in areas designated for higher-intensity, transit-supportive land use specifically intended to foster mixed use development.

Mitigation

The zoning districts encompassing the Florida Hospital, LYNX Central Station, Church Street, Orlando Amtrak/ORMC and Sand Lake Road stations allow public transit stations as of right, and as such require no mitigation. The stations in Sanford and Altamonte Springs would require land to be rezoned to accommodate the stations, and the Meadow Woods and Osceola Parkway stations will require amendments to existing planned unit development (PUD) zoning. The PUD zoning allows permitted uses and development standards to be defined for each particular development.

Although no administrative changes or amendments are required with any of the affected future land use maps, the effectiveness of the Full-Build Alternative would be increased by coordinating future land use map amendments throughout the Corridor that reflect transit-supportive land uses and development standards. Local governments are required by the Florida Department of Community Affairs to amend their comprehensive plans every 5 years based on the effectiveness of the plans as instruments of growth management. The Evaluation and Appraisal Reports and the recommended amendments are an opportunity for local governments to address major changes to their communities, such as rail development. Construction and operation of a commuter rail system could engender land use changes in the Corridor municipalities and could provide a policy foundation for stronger transit-oriented development and increased ridership.

3.1.2 Community Cohesion

Community impact assessment is a process to evaluate the effects of a transportation action on a community and the quality of life in that community or neighborhood. The purpose of this section is to determine the effect of the alternatives on the quality and cohesion of the established neighborhoods within the Corridor. A community facility is defined as a place or location that provides access to recreation, education, house of worship and/or government services.

Methodology

For this assessment, neighborhoods were identified by County and are often aggregated in small groups of adjacent, similar neighborhoods. Neighborhood demographics are summarized by county and presented in tables included in Appendix B. Maps of the neighborhood locations, community facilities and landmarks are included in Appendix B. The effects to neighborhoods are described for each alternative and include benefits and adverse impacts.

Neighborhoods have been divided so that portions in different Census block groups are associated with the demographic characteristics of that block group only. The identification of each neighborhood included identification of physical barriers, notable landmarks and community services. Physical barriers include: major roadways, bodies of water or structures that may physically separate or split neighborhoods or community facilities, isolate a portion of a neighborhood and/or change the quality of life or character of a neighborhood. Landmarks include buildings, structures and attractions that are associated with a specific area and recognized as contributing to the character of the community. Community services are important to the function and operation of a neighborhood and include schools, libraries, fire stations and parklands.

A neighborhood is considered to be served by the project if there is a station within 1/2 mile radius of the neighborhood, and without major barriers to pedestrian travel. Neighborhood impacts associated with the project alternatives are assessed in terms of the effects on neighborhood integrity and potential changes to quality of life or resident satisfaction. Impacts to neighborhood integrity are based on the potential effects of each of the project alternatives on the following:

- Access to emergency and public services (Section 3.1.4);

- Location of the commuter rail project relative to the neighborhood boundaries, number of relocations and contribution of the relocations to the community character and cohesion (Section 3.1.6);

- Connectivity and circulation patterns including pedestrian and bicycle access, traffic levels and potential changes in existing traffic patterns (Section 3.3.1);

- Noise levels (Section 3.3.4);

- Vibration levels (Section 3.3.6);

- Improved mobility or access to transit service provided to the community activity, business or population center.

Existing Conditions

Volusia County - The project Corridor occurs in the southwest portion of this coastal County and is situated at the western edge of the incorporated cities of DeLand, DeBary, Orange City and Deltona. The Corridor also lies east of regionally significant natural areas that act as physical barriers such as the Lake Beresford Greenway, Blue Springs State Park, Hontoon Island State Park, Lower Wekiva River Preserve State Park and Konomac Lake. At the southern terminus, near Orange City, physical barriers include Gemini Springs County Park just east of the Corridor and the St. Johns River to the west and south. US 17-92 runs parallel along the east side of the corridor.

There are 38 areas designated as neighborhoods along the corridor in Volusia County, from approximately one-half mile north of the DeLand Amtrak Station to the Volusia/Seminole County line at the St. Johns River. Table B-1 in Appendix B illustrates the race and ethnicity, income level, and transit dependency of the households in each neighborhood. Of the 38 neighborhoods in Volusia County, none are classified as minority, low income or transit dependent. A detailed summary of the community facilities with associated maps is included in Table B-1 in Appendix B.

Seminole County - The existing rail corridor traverses four incorporated Cities including Sanford, Lake Mary, Longwood, and Altamonte Springs as well as unincorporated portions of Seminole County. There are 119 areas designated as neighborhoods located within the project area in Seminole County.

Major transportation corridors include Interstate 4, SR 46, CR 46A, Airport Boulevard and the Central Florida Green Way (SR 417),US 17-92, SR 434, SR 436. Interstate 4, SR 46, and SR 417 are elevated corridor crossings while CR 46A and Airport Boulevard are at grade crossings.

Table B-2 in Appendix B illustrates the race and ethnicity, income level, and transit dependency of the households in each neighborhood. Of the 119 neighborhoods in Seminole County, 65 can be classified as minority, 53 can be classified as low income and 54 as transit dependent. All of the transit dependent neighborhoods can also be classified as minority and low income.

Notable landmarks include the Interstate 4 bridge over the St John's River, Lake Monroe, the Hidden Harbour Marina, the Central Florida Zoo, CSXT Rand Yard, Amtrak Auto

Train Station and Maintenance Facility, Orlando Regional South Seminole Hospital and Wicklow Elementary School. A detailed summary of the community facilities and services with associated maps is presented in Table B-2 in Appendix B.

Orange County - Generally, the project Corridor extends through the central portion of the County through four incorporated cities including Maitland, Winter Park, Orlando and Edgewood, as well as unincorporated portions of the county. There are 203 areas designated as neighborhoods located within the project area.

Major transportation corridors include I-4, US 17-92, SR 50 (Colonial Drive), SR 408 (East-West Expressway), SR 528 (Beachline Expressway), Florida's Turnpike, and SR 417 (Central Florida Greenway).

Table B-3 in Appendix B illustrates the race and ethnicity, income level, and transit dependency of the households in each neighborhood. Of the 203 neighborhoods in Orange County, 22 can be classified as minority, 10 as low income and 31 as transit dependent. Several neighborhoods can be classified under two or more demographic indicators: 23 can be classified as low income and transit dependent; 19 as minority, low income and transit dependent; and 1 can be classified as both minority and transit dependent.

Notable landmarks include Lake Lily Park and Fort Maitland Park, the Winter Park Club and Golf Course, the College Quarter District in Winter Park, Orwin Manor Park, Gaston Edwards Park, Orange County Courthouse, Heritage Square, City Commons Plaza, and Orlando City Hall, and the Orlando Regional Medical Center. A detailed summary of the community facilities with associated maps is included in Table B-3 in Appendix B.

Osceola County - The project Corridor extends through the western portion of the county through the City of Kissimmee and unincorporated portions of the County. There are 48 areas designated as neighborhoods located within the project area.

Major transportation corridors include Florida's Turnpike, John Young Parkway, and the Orange Blossom Trail. Florida's Turnpike runs through the northeastern portion of this area while John Young Parkway and Orange Blossom Trail run north and south, generally adjacent to the project Corridor.

Table B-4 in Appendix B illustrates the race and ethnicity, income level, and transit dependency of the households in each neighborhood. Of the 49 neighborhoods in Osceola County, 9 are classified as minority, 1 as low income and 10 as transit dependent. Nine (9) are classified as minority and transit dependent, 5 low income and transit dependent and 5 are low income, minority and transit dependent.

Notable landmarks include the Osceola County Courthouse, the Kissimmee Historic District, the Johnson-Stefee House, the Osceola County Civic Center, the Kissimmee All States Tourist (KAST) Club, Community House Park, Kissimmee Lakefront Park, Yacht Club Park, Lakeshore Recreation Center Park and the Toho Marina. A detailed summary of the community facilities with associated maps is included in Table B-4 in Appendix B.

Impacts and Benefits

No-Build Alternative

The level of traffic increase expected over the next 20 years will have an effect on existing neighborhood quality, community cohesion and the level of service on local roadways. Increasing employment in the existing transportation corridors will cause an increase in the number of cars traveling throughout each County and resulting in increased congestion without an alternative means of travel. Although most of the major congestion will occur on arterial highways that already form major barriers between neighborhoods, increased traffic on major arterials will also result in increased cut-through traffic within the neighborhoods.

Benefits offered by the Full-Build Alternative, such as, improved mobility, affordable transportation and potential redevelopment opportunities would not be realized with the No-Build Alternative.

TSM Alternative

Some of the benefits offered by the Full-Build Alternative would be provided in minor ways with implementation of the TSM Alternative. Redevelopment opportunities, increased mobility and transportation benefits would be much less than those realized by the Full-Build Alternative.

The TSM Alternative would not result in adverse impacts to neighborhood connectivity and circulation patterns as the proposed TSM routes will use existing roadways and will not impose additional barriers to existing circulation patterns. Displacements and relocation impacts are expected to be minor compared to the Full-Build Alternative, and no residential displacements are anticipated. No adverse noise and vibration impacts are expected for the TSM Alternative as the minimal amount of additional bus traffic on roadways will be offset by a reduction in the total number of vehicles on the regional roadway network.

Benefits offered by the Full Build Alternative, such as increased mobility, would not be fully realized with the TSM Alternative since TSM routes will use existing roadways and will be subjected to traffic delays and congestion.

Full-Build Alternative

With the exception of the proposed commuter rail stations, the Full-Build Alternative will be constructed within the existing CSXT ROW; therefore, the project can be constructed with little disruption to the cohesion and circulation patterns of the neighborhoods along the corridor. Chapter 4, section 4.1 describes traffic and roadway analyses leading to these conclusions. The impacts associated with the Full-Build Alternative are described by County below. Any community facilities that may be impacted are specifically named.

Volusia County - There are no intersections in Volusia County that will experience increased delay times as a result of the Full-Build Alternative.

Of the 38 areas designated as neighborhoods in the Volusia County portion of the corridor, 13 of these are within walking distance of a proposed station location.

The introduction of a new station site at both the DeLand Amtrak and DeBary Saxon stations will not create a physical barrier that will lead to community isolation/exclusion/separation. Each of the 6 parcels identified for acquisition in Volusia County are currently vacant and will not adversely impact existing community cohesion and/or character.

Seminole County - As described in Chapter 4, the Full-Build Alternative will result in traffic delay for two at-grade crossings: Lake Mary Boulevard and Altamonte Drive, without mitigation. Adequate mitigation is described in Chapter 4 for these impacts.

Of the 119 areas designated as neighborhoods in the Seminole County portion of the Corridor, 40 of these are within walking distance of a proposed station location. Of these 40 neighborhoods, 22 are designated as low income, 16 are designated as transit dependent, and 19 are designated as minority.

The Full-Build Alternative will require 13 residential relocations in Seminole County, including: Lake Mary Station (7 occupied residences); Longwood Station (3 occupied residences); and Altamonte Springs Station (2 occupied residences). In addition, relocation of seventeen businesses will be required: Sanford/SR 46 (1 business); Lake Mary (1 warehouse); Longwood (3 occupied businesses); and Altamonte Springs (13 occupied businesses and 1 business parking lot).

Seven residential acquisitions are proposed for the west side of Palmetto Street at the Lake Mary Station. This will result in a low to moderately negative impact to community cohesion and character. Input received from the City of Lake Mary to design the station to reflect architectural elements from the downtown master plan will be considered to ensure a seamless fit between the station, downtown Lake Mary to the west and the residential community to the east. The Longwood Station site requires the purchase of 3 occupied residences and 3 active businesses. Although this may result in a moderately negative effect to community cohesion and character, this station will have a positive effect on the surrounding communities by providing better access and mobility choices. The City of Longwood indicated support of the station and proposes joint-use developments: the city envisions the station will supply parking to the historic downtown area and during special events.

The Altamonte Springs station will result in the acquisition of 27 parcels: 2 occupied residences, 13 active businesses and 1 business parking lot. This station, located within the predominately low-income, minority and transit-dependent community of East Altamonte, will result in a negative effect to the community cohesion and character. However, the introduction of the proposed station would have a positive effect on the community through increased access and mobility choices.

Orange County - There are no intersections in Orange County that will experience increased delay times as a result of the Full-Build Alternative.

Of the 203 areas designated as neighborhoods in the Orange County portion of the Corridor, 58 of these are within walking distance of a proposed station location. Of these 58 neighborhoods, 23 are designated as low income, 22 are designated as transit dependent, and 23 are designated as minority.

The Full-Build Alternative will not require any residential relocations but does require two commercial relocations in Orange County, including two fast food restaurants at the proposed Sand Lake Road Station site.

Two active businesses will need to be relocated within the boundaries of Orange County at the Sand Lake Road station. This station site is located within an active industrial/commercial district; therefore there will be no negative effect to community character and cohesion. Positive impacts at this location would be realized through increased mobility.

Osceola County - The Full-Build Alternative will increase traffic delay at one of the at-grade crossings without mitigation: Poinciana Boulevard. Adequate mitigation is described in Chapter 4 for this impact.

Of the 38 areas designated as neighborhoods in the Osceola County portion of the corridor, 13 of these are within walking distance of a proposed station location. Of these 13 neighborhoods, 4 are designated as low income, 9 are designated as transit dependent, and 6 are designated as minority.

The Full-Build Alternative will not result in residential relocations, nor does it result in commercial relocations in Osceola County. Vacant commercial and industrial land will be acquired at both the Osceola Parkway and Poinciana Industrial Park stations.

Mitigation

No permanent impacts to the neighborhoods along the Corridor have been identified, therefore no mitigation is required. Temporary impacts would result during construction of new rail facilities, but there would also be long-term benefits. For many neighborhoods without strong activity centers, the rail stations provide opportunities to: focus new development; enhance bicycle and pedestrian access and connectivity; and institute streetscape improvements and other benefits associated with the transit stations and station areas. The Full Build Alternative would benefit the region by increasing mobility choices and improve access to employment centers, education facilities, activity centers and shopping.

3.1.3 Environmental Justice

This section identifies how areas protected under the Environmental Justice Executive Order (EO) 12898 were defined and the extent to which areas of low-income and minority population would be affected by the alternatives under evaluation in this EA.

Legal and Regulatory Requirements

EO 12898 on Environmental Justice (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994) requires that federal agencies consider and address disproportionate adverse environmental effects of proposed federal projects on minority and low-income communities.

The intent of the Department of Transportation (DOT) Final Order on Environmental Justice (DOT Order 5680.1, “Environmental Justice,” February 15, 1997) is to integrate the goals of Executive Order 12898 into DOT operations including: NEPA, Title VI,

SAFETEA-LU and other DOT-applicable statutes; regulations and guidance that concern planning; social, economic, or environmental matters; public health or welfare; and public involvement.

To meet the requirements of NEPA and EO 12898, this section addresses the characteristics of the affected communities, potential effects on minority and low-income populations, and potential mitigation measures.

Methodology

Year 2000 Census block group data were used to define areas of minority, low-income, or transit-dependent populations adjacent to the proposed CRT Corridor. The impact assessment area for the alternatives under evaluation is defined as any census block group within one-half mile of the rail alignment.

Minority Populations are defined as those populations that are:

- Black (having origins in any of the black racial groups of Africa);
- Hispanic (Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);
- Asian American (having origins in any of the original people of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands); or
- American Indian and Alaska Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

As the 2000 Census discontinued the practice of defining Hispanic origin as an exclusive category and now defines Hispanic individuals as being of any race, minority areas were identified by subtracting the number of white, non-Hispanic individuals from the total population for whom race is determined (the "minority rate"). If the minority rate for a block group was greater than the minority rate for the entire county in which that block group is located, the block group was classified as having greater than average minority population.

Low-income areas are defined as those block groups for which 1999 median household income is at or below 80 percent of median household income for the entire county.

Transit-dependent areas are defined by calculating the number of households with no access to a vehicle as a percentage of the total number of households (the "transit-dependent rate"). This calculation is made for each block group and for the entire county. If the transit-dependent rate for a block group exceeds the rate for the entire county, the block group is classified as having greater than average transit dependency.

Neighborhood designations are the same as described in Section 3.1.2 above and as illustrated on the figures included in Appendix B - Land Use and Community Cohesion. The locations of minority, low-income, or transit-dependent populations along the Corridor are illustrated for each of the four counties in Figure 3-1 through Figure 3-4.

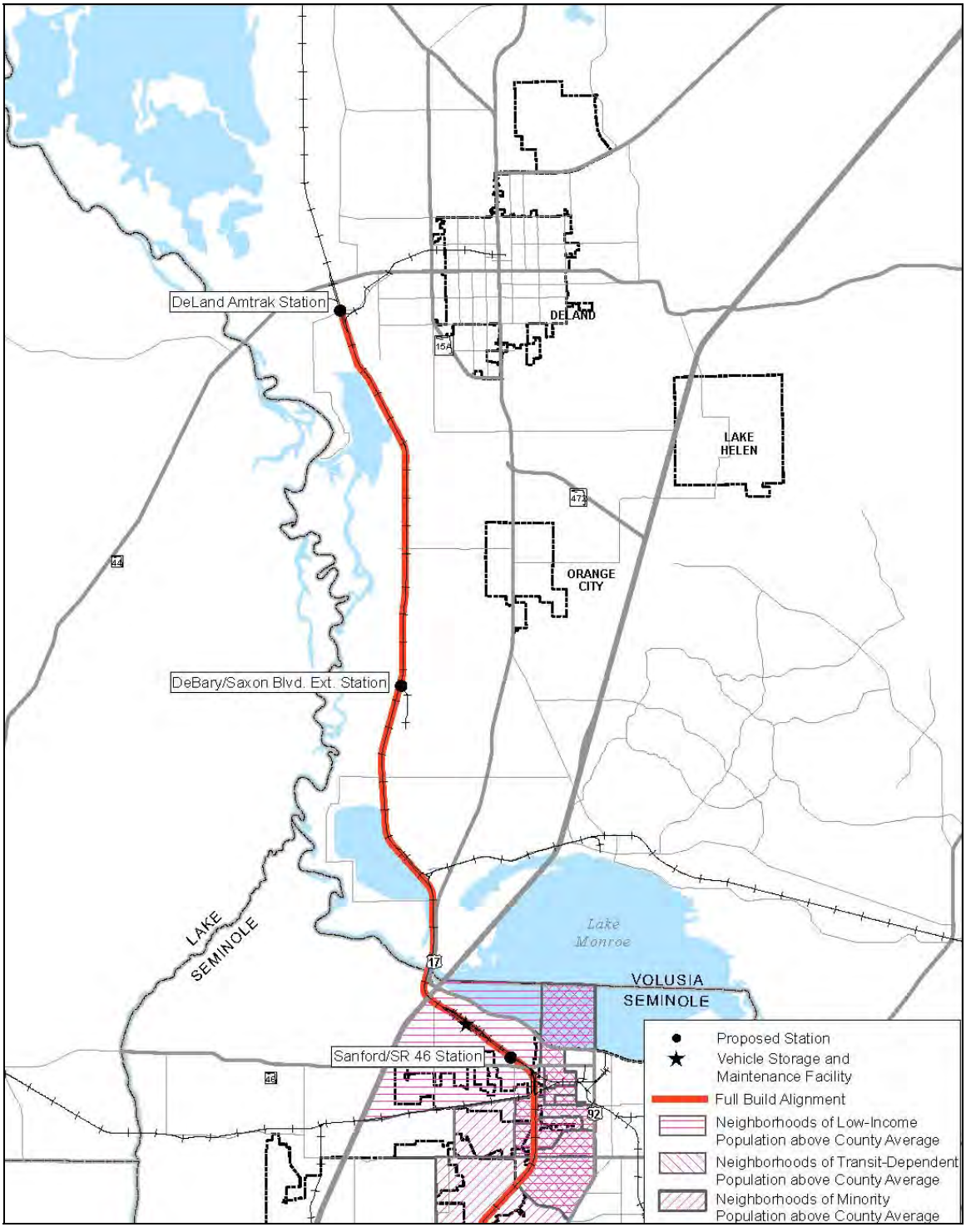


Figure 3-1 Demographic Indicators – Volusia

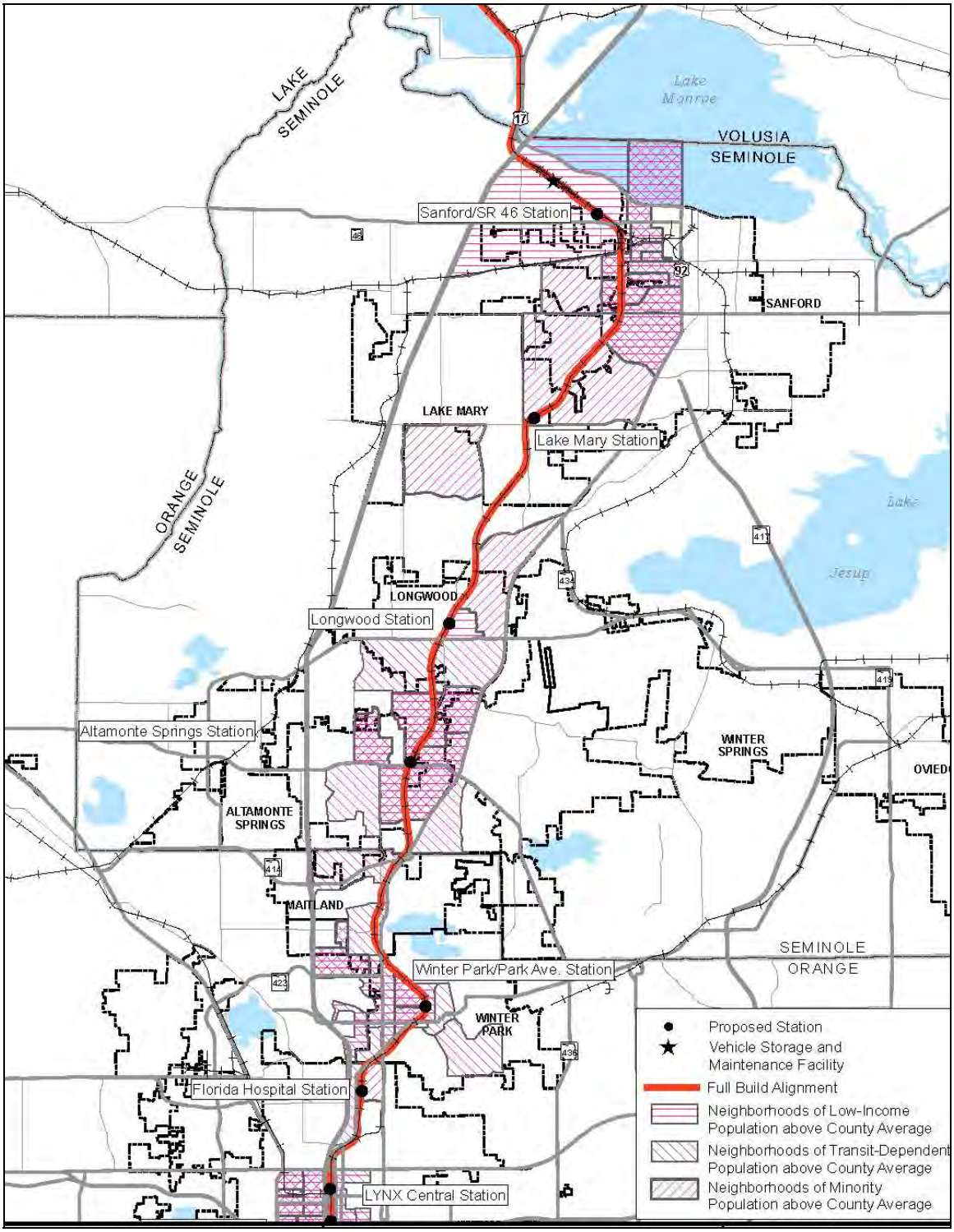


Figure 3-2 Demographic Indicators – Seminole

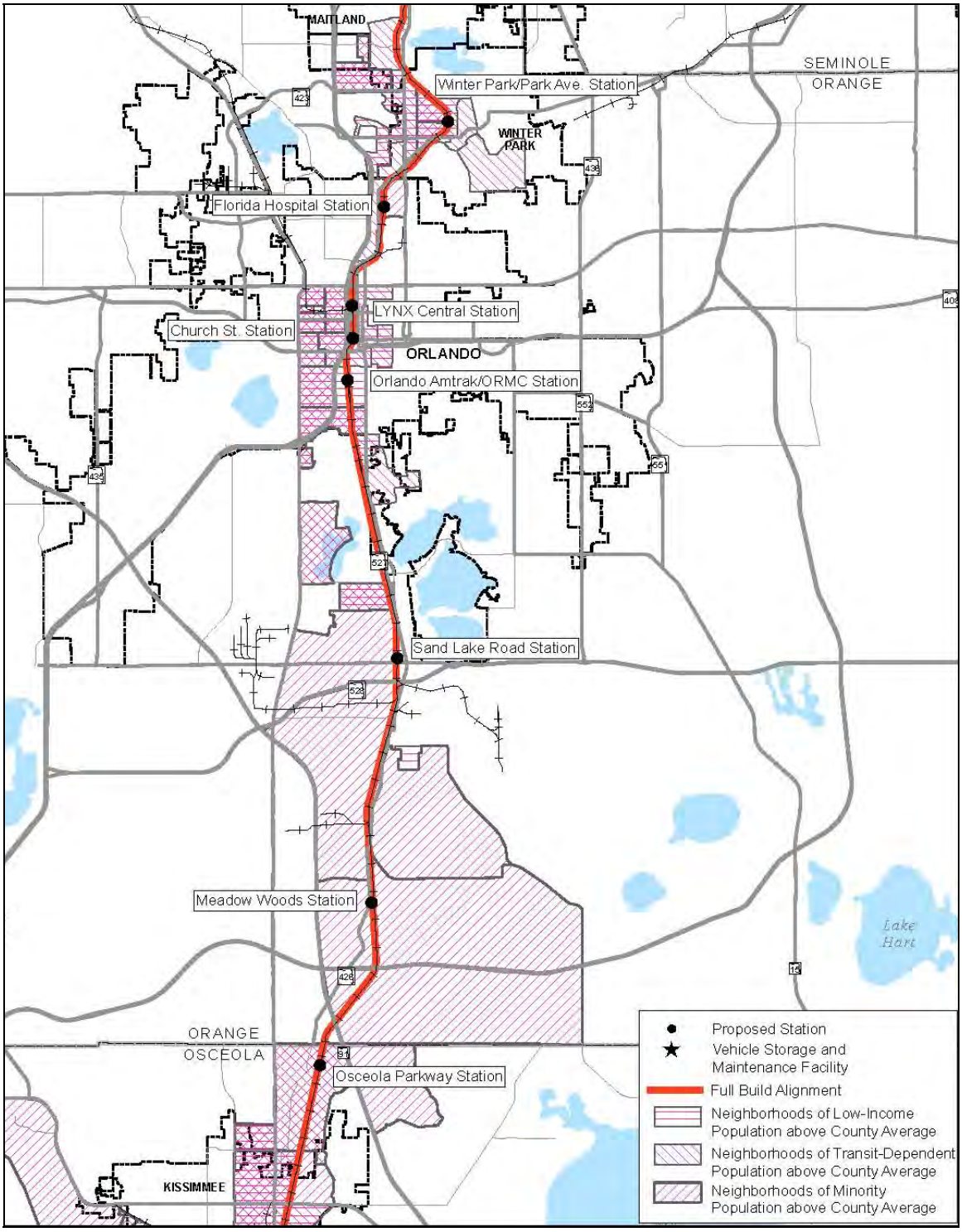


Figure 3-3 Demographic Indicators - Orange

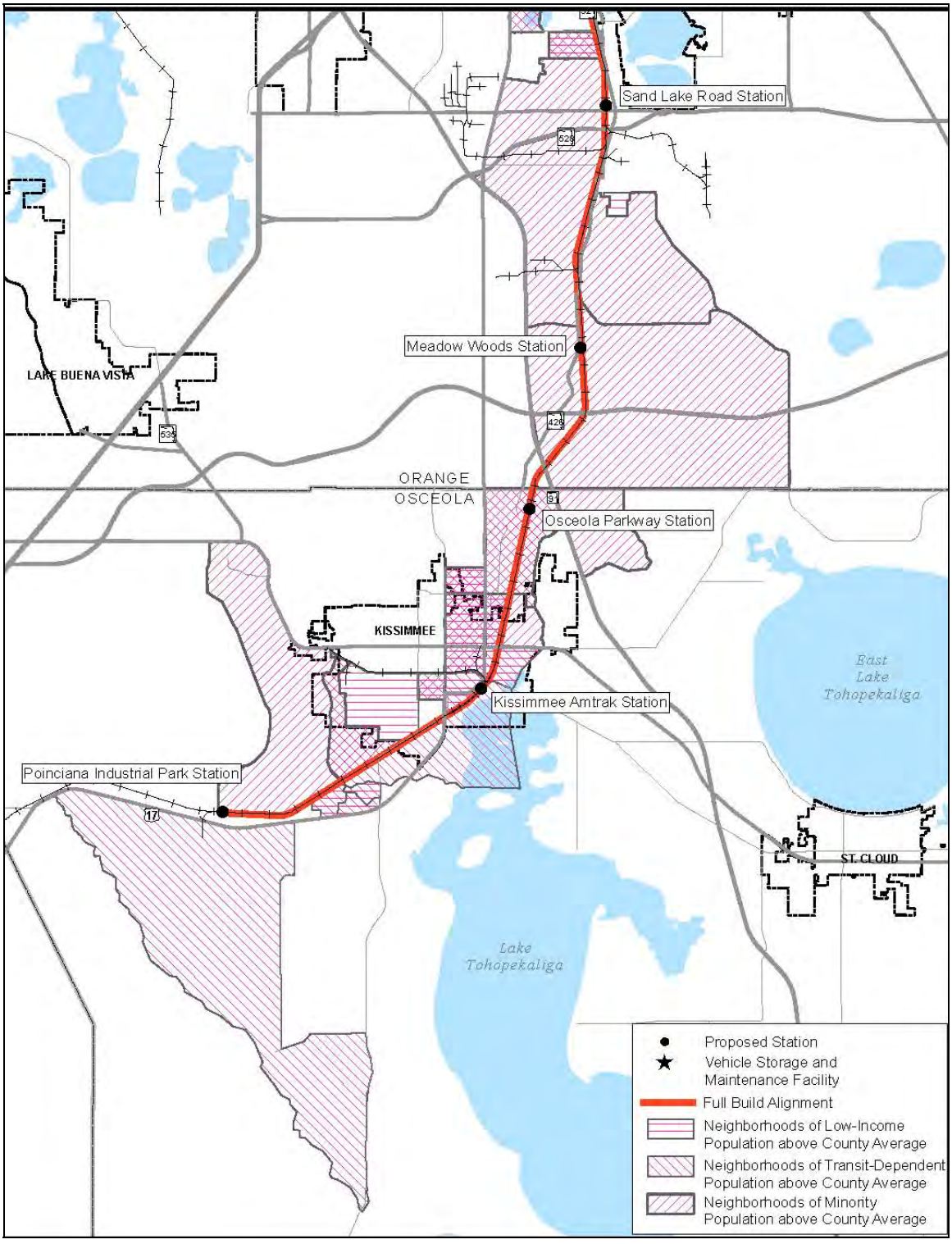


Figure 3-4 Demographic Indicators - Osceola

Existing Conditions

Income characteristics throughout the Corridor are summarized in Table 3-1. Table 3-2 lists all neighborhood areas within the low-income block groups. No block groups in Volusia County were classified as low-income.

Table 3-1 Low Income Population by County: Corridor-wide

County	Block Groups in Corridor with Low Median Household Income (MHI)	Number of Block Groups where MHI is Low Income (≤ 80%)	Number of Block Groups in the Corridor Area
Volusia	No	0	11
Seminole	Yes	16	36
Orange	Yes	31	80
Osceola	Yes	12	27

Table 3-2 Total Number of Low-Income Neighborhoods by County

Volusia	Seminole	Orange	Osceola
0	40	47	17

Areas of minority population are summarized in Table 3-3 and Table 3-4 No block groups in Volusia County were classified as minority areas.

Table 3-3 Minority Population by County

Corridor County	Block Groups in Corridor with Primarily Minority Population	Total Population in Corridor	Minority Population in Corridor	Percent Minority Population	Countywide Minority Average
Volusia	No	20,504	1,626	7.9%	18.1%
Seminole	Yes	90,346	27,320	30.2%	24.8%
Orange	Yes	116,693	43,877	37.6%	42.5%
Osceola	Yes	58,647	23,413	39.9%	40.4%
ALL	**Yes**	**286,190**	**96,236**	**35.1%**	**N/A**

Table 3-4 Total Number of Minority Neighborhoods by County

Volusia	Seminole	Orange	Osceola
0	67	49	17

In assessing the impacts on minority and low-income populations, it is important to account for impacts on transit-dependent populations as well. The four counties are summarized in terms of their transit dependency in Table 3-5 and Table 3-6. In Seminole, Orange, and Osceola Counties, the percentage of transit-dependent households in the project Corridor area is higher than the countywide average. Neighborhoods with a greater amount of transit dependency than in the county at-large are shown in Table 3-6 for Seminole, Orange, and Osceola Counties. No neighborhoods

had a greater amount of transit dependency than the countywide average in Volusia County.

Table 3-5 Transit-Dependent Population by County

Corridor County	Total Households in County	Transit-Dependent Households in Corridor	Percentage of Transit-Dependent Households in Corridor	Countywide percentage transit-dependent
Volusia	8,498	309	0.4%	7.1%
Seminole	34,574	2,151	6.2%	4.5%
Orange	46,645	5,070	10.9%	7.3%
Osceola	20,948	1,539	7.3%	5.7%
ALL	**110,665**	**9,069**	**8.2%**	

Table 3-6 Total Number of Neighborhoods with a Primarily Transit-Dependent Population by County

Volusia	Seminole	Orange	Osceola
0	55	85	33

Impacts and Benefits

No-Build

The No-Build Alternative will have no impact on the Corridor area in terms of land acquisition or facility construction. It will indirectly affect areas of greater minority population and low-income population through limited transit options, foregone street and pedestrian amenity improvements associated with the Full-Build Alternative, and a greater dependence on existing transit service and road infrastructure. If existing transit service levels must accommodate population growth and increased travel demand, the transit-dependent population of the study area will be impacted through reduced transit capacity and service availability.

TSM Alternative

The TSM Alternative increases bus service throughout the study area and will modestly benefit areas with higher concentrations of transit-dependent population. It does not offer the same level of benefits as the Full-Build Alternative and will result in negative impacts in limited transit options and foregone street and pedestrian amenity improvements envisioned for the Full-Build Alternative.

Full-Build Alternative

According to U.S. census data, by the year 2025, 18 percent of the U.S. population will be 65 and older and many will be unable to drive. One-fifth of today's seniors 65 years and older do not drive. A 2004 AARP/Surface Transportation Policy Project report found that 50% of non-drivers age 65 and older stay home on any given day partially because they lack transportation options, making 15% fewer trips to doctors, and 65% fewer trips for social, family and religious activities. By 2025 the percentage of total population over age 65 in Florida is expected to rise to 25-30%, the highest percentage in the nation.

In general, residential and commercial displacements under the Full-Build Alternative will be concentrated in proposed station locations. Proposed station locations in the Full-Build Alternative are located near areas with the greatest concentrations of minority population, low-income population, and transit-dependent population, with transit-dependent populations within a ½ mile radius of the proposed stations being a higher percentage than their corresponding countywide proportions, given the methodology employed.

The Full-Build Alternative would provide benefits to transit-dependent populations along the Corridor by increasing mobility and improving access to employment centers throughout the Corridor. As noted, the percentage of transit-dependent populations along the Corridor is higher than the corresponding countywide proportions and the transit-dependent population within the Corridor area is better served by the transit provided by the Full-Build Alternative.

Unmitigated noise impacts associated with the Full-Build Alternative are estimated to exceed the FTA "severe impact" criteria at 54 locations along the Corridor. Most of the impacted locations are residential locations and many of these exceedances occur within areas that have been identified as Environmental Justice areas. However, these areas are already impacted by noise from the warning horns from the existing CSXT freight trains and Amtrak trains. Presently, up to 26 passenger and freight rail trains a day travel along the CSXT corridor, including 10 through trains and up to 10 local trains (depending on location) that travel various segments of the project corridor. From an Environmental Justice standpoint, a noise sensitive site is considered to be negatively or disproportionately impacted if the area is located within a block group that has been identified as either, or with any combination of minority, low-income, or transit dependent populations and is not located within reasonable walking or driving distance to a commuter rail station. Of the identified locations for severe noise impacts, four locations were determined to be negatively impacted (without mitigation) by the Full-Build Alternative, including one location in Lake Mary, one location in Altamonte Springs and two locations in the vicinity of Florida Hospital.

The potential impacts of the Full Build Alternative are summarized in Table 3-7 below.

Mitigation

To avoid disproportionate impacts to low-income, minority or transit-dependent populations, noise abatement/mitigation measures are required. To lower the noise level throughout the corridor to acceptable levels (resulting in no "severe" noise impacts), FDOT is committed to outfitting the CRT DMU trains with a specially designed horn that will be shrouded and muffled so as to reduce noise impacts to noise receptors along the CSXT corridor in the vicinity of grade crossings. With the inclusion of the shrouded and muffled train horn there are no severe noise impacts anywhere along the corridor. FDOT is committed to additional noise mitigation if additional analysis of the effectiveness of the shrouded and muffled train horn shows that mitigation is required. FDOT will install sound insulation as required at any remaining impacted noise receptors to mitigate the potential noise impacts of the CFCRT project. Specific locations and applications of these mitigation measures will be identified and evaluated as the project design progresses.

Table 3-7 Summary of Impacts to Low-Income, Minority and/or Transit-Dependent Populations

County	Station Name	Noise Impacts (mitigated)		Displacement / Relocation		Parkland Impacts		SUMMARY		
		Total Impacted	Minority, Low Income and/or Transit-Dependent	Total Impacted	Minority, Low Income and/or Transit-Dependent	Total Impacted	Minority, Low Income and/or Transit-Dependent	Impacts to Low-Income, Minority and/or Transit-Dependent Populations	Transit Access Benefit Provided to Low-Income, Minority and/or Transit-Dependent Populations (located within 1/2 mile)	Disproportionate Impacts to Low-Income, Minority and/or Transit-Dependent Populations
Volusia	DeLand Amtrak	0	-	0	-	0	-	-	-	-
	DeBary / Saxon Boulevard Extension	0	-	0	-	0	-	-	-	-
Seminole	Sanford / SR 46	0	0	1 business	1 business	0	0	1 business	Yes	No
	Lake Mary	1	1	7 occupied residences and 1 warehouse	0	0	0	1 noise receptor	Yes	No
	Longwood	0	0	3 occupied residences and 3 active businesses	0	0	0	0	Yes	No
	Altamonte Springs	1	1	2 occupied residences, 13 active businesses and 1 business parking lot	2 occupied residences, 2 active businesses	0	0	1 noise receptor 2 occupied residences, 2 active businesses	Yes	Yes (Moderate)
Orange	Winter Park / Park Avenue	0	0	0	0	0	0	0	Yes	No
	Florida Hospital	2	2	0	0	0	0	2 noise receptors	Yes – 1 noise receptor No – 1 noise receptor	No
	LYNX Central Station	0	0	0	0	0	0	0	Yes	No
	Church Street	0	0	0	0	0	0	0	Yes	No
	Orlando Amtrak / ORMC	0	0	0	0	0	0	0	Yes	No
	Sand Lake Road	0	0	2 active businesses	0	0	0	0	Yes	No
	Meadow Woods	0	0	0	0	0	0	0	Yes	No
Osceola	Osceola Parkway	0	0	0	0	0	0	0	Yes	No
	Kissimmee Amtrak	0	0	0	0	0	0	0	Yes	No

County	Station Name	Noise Impacts (mitigated)		Displacement / Relocation		Parkland Impacts		SUMMARY		
		Total Impacted	Minority, Low Income and/or Transit-Dependent	Total Impacted	Minority, Low Income and/or Transit-Dependent	Total Impacted	Minority, Low Income and/or Transit-Dependent	Impacts to Low-Income, Minority and/or Transit-Dependent Populations	Transit Access Benefit Provided to Low-Income, Minority and/or Transit-Dependent Populations (located within 1/2 mile)	Disproportionate Impacts to Low-Income, Minority and/or Transit-Dependent Populations
	Poinciana Industrial Park	1	0	0	0	0	0	0	Yes	No
Corridor Summary		5	3	12 residences 19 businesses 1 business parking lot	2 residences 3 businesses	0	0	3 noise receptors 2 residences 3 businesses	Yes	**No**

Notes: 1. Assessment area for each station includes to mid-point between adjacent stations.
2. "-" Indicates no defined EJ population within station assessment area.
3. This analysis was based on Census Tract designations for low income, minority and transit-dependent populations. Status of specific impacted property and business owners relative to being minority, low-income, or transit dependent has been verified by field survey at Altamonte Springs Station only.

3.1.4 Public Safety, Security and Community Services

This section discusses the potential impact the project may have on public safety, security and community services along the project study corridor. The impact of the proposed project on the safety and security of pedestrians, bicyclists, and motorists was assessed. Community services considered include emergency vehicles and travel to/from schools and hospitals. This assessment utilized traffic information summarized in Chapter 4 No-Build Alternative.

The No-Build Alternative will result in no direct impacts to public safety, security, and community services along the corridor. Upgrades to existing grade crossing surfaces, protection devices, and other infrastructure planned as part of the proposed project would not occur. Absent implementation of the proposed commuter rail operation during weekdays, the existing freight train operations which include long freights that block grade crossings for extended periods of time would continue with freight train volumes likely to increase over time. Crossing gate down time associated with long freight trains is significantly longer and less predictable than gate down times associated with the proposed commuter rail operation. The length of the freight trains results in numerous grade crossings being blocked concurrently along long segments of the corridor. As a result, each incident of crossing delay is lengthy and unpredictable, and the ability of emergency responders to use alternative crossing points is limited.

TSM Alternative

The TSM Alternative would not change the infrastructure or operation of the rail line. Therefore, the impacts of the TSM Alternative on public safety, security, and community services along the corridor would be similar to the No-Build Alternative.

Full-Build Alternative

When CRTs travel through an at-grade roadway crossing, emergency and community services (as well as general traffic) may experience a slight additional delay when travel is required from one side of the railroad tracks to the other. Vehicle delay may be experienced at both at-grade crossings and at adjacent intersections. Vehicle delay will only occur when a train is present. It should be noted that this delay is not of the magnitude currently experienced with regard to CSXT freight trains and AMTRAK passenger trains.

In Chapter 4 section 4.1.4 (Roadways) the results of vehicle delay are summarized. Throughout the Corridor the vehicle delay created by the CRT operations through grade crossings will be minor except for some locations where grade crossings are located immediately adjacent to proposed CRT stations.

The Build Alternative improves the safety and security for pedestrians, bicyclists, and motorists by improving the crossing surfaces and protection devices at existing grade crossings, and by installing fencing along sections of the railroad right-of-way to prevent trespassing and intrusion. The rescheduling of freight train operations away from weekdays in the Build Alternative will improve public safety and security by reducing exposure of the general public to those operations. Additionally, crossing delays associated with the long through freight trains will be eliminated from weekdays when most community service related transportation, including school buses, is in operation. While the frequency of operations in the proposed CRT will be higher than in the No-Build, the delay at grade crossings will be predictable and of durations comparable to traffic signal phases.

Delays at at-grade crossings adjacent to stations will be reduced or eliminated through mitigation and routing measures such as:

- Identification of alternative routes, where practical, to avoid the most congested areas.
- Identification of areas where capacity and signal improvements can reduce delays at grade crossings and intersections.
- Provision of signal pre-emption where applicable to reduce delay at intersections.
- Coordination of Intelligent Transportation Systems (ITS) technology so emergency responders can adjust routes to avoid congested areas.

3.1.5 Economic Impacts

The social and economic impacts and benefits of the project are summarized in this section. A brief overview is provided, with an emphasis on the initial loss of revenue that will be experienced by cities and counties served by the project due to conversion of land from private to public ownership. Since the majority of the project is located within an existing railroad ROW, only minor amounts of land will be purchased for the proposed project to accommodate stations, parking and stormwater management facilities.

Methodology

Data collected for the community impact assessment and property acquisition estimates for each proposed station are the basis for this analysis. Taxable value per acre and millage rates for each county were used to calculate the amount of land that is currently taxable and will be converted to non-tax revenue generating lands if the Full-Build Alternative is implemented. The taxable value per acre was based on tax assessments that occurred by the municipality or unincorporated area between 2003 and 2005. Taxable value per acre was identified for representative parcels in each of the station areas; an average value was used for stations with multiple parcels with different taxable value.

Existing Conditions

The various municipalities and counties in the study area collect tax revenue on land within their jurisdiction. If this land is converted from private to public ownership, the municipality will lose the tax revenue that was previously generated for that particular parcel of land. The 2005 millage rates for the municipalities within the project study area range from 19.95 in Seminole County to 22.6 in Volusia County.

Impacts and Benefits

No-Build Alternative

No additional land would be acquired for the No-Build Alternative, therefore, no land will be converted from tax revenue generating to non-revenue generating. Therefore, no loss in tax revenues is anticipated with the No-Build Alternative.

TSM Alternative

Only minor amounts of land are anticipated to be acquired for the TSM Alternative. As specific parcels have not been identified, no analysis of the lost property tax revenues is currently available. It is expected that the amount of land takings, and thus the amount of taxable land converted to public ownership, would be less than the Full-Build Alternative. Consequently, the direct economic impact of the TSM Alternative is less than the Full-Build Alternative.

Full-Build Alternative

The CRT is expected to result in isolated short-term loss in taxable property where privately owned land is needed for stations, offset by significant economic benefits during construction, operations, and increased economic development. The loss in taxable revenue associated with the Full-Build Alternative is estimated at $672,072.22. (This loss in tax revenue is based on the conversion of land from private, or tax-revenue generating status, to public ownership, which does not generate tax revenues. These estimates were based on the 2005 millage rates for each county. If a city's millage rate was less than the county, the county rate was used to generate a worst-case estimate of revenue lost.) The tax revenue lost by the counties range from $416 in Volusia County to $429,814 in Orange County (and the associated cities).

The Full Build Alternative would result in a $473.5 million capitol investment in the region. Materials and labor for the construction would be purchased within the four county region. The revenue from local purchases of material and labor would far outweigh the taxable revenue lost.

The positive economic impacts of transit are well documented and can be expected to outweigh the short term reduction in tax base at some station locations. New public transportation-oriented development expands business revenues, leading to new jobs and higher wages and salaries, thus increasing the tax base and revenues flowing to local and state governments. Studies show that, nationwide, residential and commercial property values rise with proximity to rail public transportation systems and stations.[1]

The Washington Metrorail system is expected to generate $2.1 billion in tax revenues for the Commonwealth of Virginia between 1977, when the first station opened in Virginia, and 2010.[2] In addition, the increase in taxable value of properties located near Dallas' DART transit stations between 1994 and 1998 was 25 percent higher than elsewhere in the metropolitan area.

3.1.6 Utilities

Existing Conditions

The existing rail corridor to be modified and used by the commuter rail Full-Build Alternative crosses the service areas of many public and private utility owners. The proposed improvements necessary to implement commuter rail service in the Corridor may affect the locations of existing utilities. Existing utilities have been installed along and crossing the ROW in both aerial and buried configurations. The general locations of the existing facilities were identified using information provided by some utility owners, using available GIS databases, reviewing aerial photography, reviewing CSXT valuation maps indicating known utility easements, and field visits. The known utilities in the rail corridor were grouped into the following categories.

- Cable television;
- Power;
- Telecommunications;
- Sewer;
- Water;
- Gas;
- Municipalities; and
- Counties.

[1] Porter, Douglas R., Synthesis of Transit Practice 20: Transit-Focused Development, Transit Cooperative Research Program, Transportation

[2] KPMG Peat Marwick, Fiscal Impact of Metrorail on the Commonwealth of Virginia, November 1994

Impacts and Benefits

The No-Build Alternative would make no change to any utilities, and the TSM Alternative would have only minor utility coordination issues at proposed park and ride facilities. The utility relocations associated with the Full-Build Alternative are feasible. The exact locations of the utility systems in the rail corridor will be determined during subsequent design phases of this project, and conflicts with these systems will be further identified and addressed at that time. The final design of the proposed commuter rail service will be coordinated with the utility owners who have facilities within the project Corridor. Proper coordination during design will minimize relocation adjustments and disruptions of service to the public. Contact information for each utility category is provided in Appendix C.

3.1.7 Railroads

Existing Conditions

The study corridor is traversed by a primary railroad track, referred to as the "A" line, which is owned, operated, and maintained by CSX Transportation. The CSXT "A" line begins in Jacksonville, Florida, passes through the study corridor, and ends in Auburndale, Florida. Track charts indicate that the "A" line is primarily a single track with some segments that are double tracked. The "A" line provides access for commercial, industrial, and passenger rail services. Rail yards within the study area exist at Rand Yard in Sanford, Kaley Yard in Orlando, and Taft Yard south of Sand Lake Road in Orange County. Many commercial and industrial sidings exist throughout the study area. A major spur track intersects the "A" line in downtown Orlando. The spur line is owned by CSXT, but leased and operated by the Florida Central Railroad and provides access to areas near Mount Dora in west Orange County. A second major spur line intersects the "A" line south of Taft Yard in Orange County. This spur line is owned and operated by Orlando Utilities Commission (OUC) and allows coal supplies to access the OUC power plant located east of Orlando International Airport.

The National Railroad Passenger Corporation, operating under the service mark Amtrak, provides long-distance intercity rail passenger service over the CSXT-owned "A" line. As of October 31, 2005 Amtrak operates two trains (the Silver Meteor and Silver Star) daily in each direction serving passenger stations in DeLand, Winter Park, Orlando, and Kissimmee. A third train, the transcontinental Sunset Limited, normally provides service 3 days per week to DeLand, Winter Park and terminating at Orlando, but was suspended due to hurricane damage along the Gulf Coast. Additionally, the Amtrak Auto Train uses the northern portion of the "A" line, terminating at Sanford.

Impacts and Benefits

The No-Build and TSM Alternatives do not utilize the existing rail line and therefore have no potential impact on either the railroads or the utilities that share the rail corridor. The commuter rail Full-Build Alternative would upgrade the rail track and signal infrastructure along the "A" line between DeLand and Poinciana Boulevard in tandem with implementation of an operating plan enabling the line to provide the proposed commuter rail service.

The addition of approximately 42 miles of new double track along the existing CSXT right-of-way (ROW) will be required to accommodate the Full Build CRT service from

DeLand to Poinciana Boulevard. There will be no double track through Maitland (1.5 miles) and at the St Johns River Bridge. The location of additional track for the Full Build Alternative is illustrated on Figure 2-5.

The improved rail infrastructure and proposed operating plan will maintain the ability of CSXT and other rail freight operators to provide service to commercial and industrial rail users, and will continue to accommodate Amtrak long-distance intercity passenger services. For freight services, the Full-Build Alternative provides capacity to accommodate through trains as well as local switching train movements by shifting freight operations to times of day that do not interfere with the commuter rail service, which is focused on the morning and evening peak commuting periods. The few existing Amtrak trains that operate through the corridor do so during off-peak time periods and are accommodated in the plan.

Passenger platforms at each of the 16 proposed stations in the commuter rail Full-Build Alternative will be designed to be compliant with applicable FRA regulations pertaining to rail lines with freight and passenger operations. Where proposed, the overhead pedestrian bridges at stations will meet applicable horizontal and vertical clearance requirements consistent with continued operation of freight and Amtrak service on the line. See Section 2.3.6 for additional details on the proposed CRT station details.

3.1.8 Displacements and Relocations

Acquisition of property for the CRT project is governed by the procedures established by the Uniform Relocation and Real Property Acquisition Act of 1970, as amended and regulations promulgated at 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.

The acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and relocation resources will be available to all relocated business and residents without discrimination.

The Florida Department of Transportation Real Estate Acquisition Process (effective April 1, 2006) is implemented by Department Right of Way Specialists assigned to work with the business and property owners and guide them through what can be a tramatic ordeal. These representatives provide documentation and explain the procedures to be followed as well as the benefits the Department offers to reduce the detrimental impacts on their businesses and/or home relocation. The details outline the approach that will be followed in negotiating the purchase of property, definition of eligible business damages resulting from the acquisition and benefits available throughout the transition that begin prior to the property purchase price negotiation and ending with a mutually satisfactory re-location.

No-Build Alternative

Implementation of the No-Build Alternative would not require property takings or relocations.

TSM Alternative

Parking will not be provided at all TSM locations, primarily downtown Orlando stops and at proposed stops in Winter Park and downtown Kissimmee. These TSM stops with no parking will not require land takings. Three locations associated with the TSM Alternative are located at identical locations as CRT stations for the Full-Build Alternative, including Sand Lake Road, Osceola Parkway and Poinciana Industrial Park and are assumed to have similar land taking requirements to the proposed CRT stations at these locations.

For the three CRT/TSM locations and the remaining additional eleven TSM stop locations where parking will be provided, the total area required to construct the TSM stops is estimated at approximately 80.4 acres.

Full-Build Alternative

A total of 130.2 acres of property on 98 separate parcels will be directly affected for the Full-Build Alternative along the corridor, which includes parcels in both public and private ownership. Table 3-8 summarizes the proposed takings for the Full-Build Alternative along the Corridor. The table does not include the VMSF which is entirely within CSXT property. Appendix L contains a listing of impacted parcels and potential relocations.

Without exception, proposed takings are associated with the construction of the proposed CRT stations, although not all proposed stations will require property takings (e.g., Winter Park/Park Avenue, Florida Hospital, LYNX Central Station Church Street and Orlando Amtrak/ORMC stations do not include parking facilities and will be constructed entirely within existing CSXT or publicly held ROW.)

Table 3-8 Summary of Property Takings for Full-Build Alternative

County	Station	Parcel Area (AC)	Take Area (ac)	Relocations Required?
Volusia County	DeLand Amtrak	86.19	5.77	No
	DeBary/ Saxon Boulevard Extension	179.44	16.30	No
Seminole County	Sanford/ SR-46	15.52	15.52	Yes – 1 business
	Lake Mary	10.82	10.82	Yes – 7 occupied residences and 1 warehouse
	Longwood	6.43	4.38	Yes – 3 occupied residences and 3 active businesses
	Altamonte Springs	26.22	13.24	Yes - 2 occupied residences and 13 active businesses plus one business parking lot
Orange County	Winter Park/ Park Avenue	0.00	0.00	No
	Florida Hospital	0.00	0.00	No
	LYNX Central Station	0.00	0.00	No
	Church Street	0.00	0.00	No
	Orlando Amtrak/ ORMC	3.31	1.52	No
	Sand Lake Road	12.45	12.45	Yes – 2 active businesses
	Meadow Woods	35.49	34.77	No
Osceola County	Osceola Parkway	22.80	7.82	No
	Kissimmee Amtrak	4.82	3.89	No
	Poinciana Industrial Park	14.77	3.26	No
	TOTALS	**455.95**	**130.23**	**------**

3.2 Cultural and Historical Resources

3.2.1 Archaeological and Historic Resources

This section summarizes the findings of separate aboveground historic property and archaeological reconnaissance surveys conducted for the CRT Corridor. The results and recommendations of these surveys are intended to provide information that will facilitate consultation between the project sponsors and the responsible review agencies to determine whether the construction of the project has the potential to adversely affect any of the properties judged to be potentially eligible for the National Register of Historic Places (NRHP). The purpose of the archaeological and historical/architectural surveys was to provide information to assist in the avoidance of National Historic Landmark properties and archaeological sites and historic resources which are listed, determined eligible, or considered potentially eligible for listing in the NRHP.

Legal and Regulatory Requirements

A Cultural Resource Assessment Survey (CRAS) was completed to assist in complying with the NEPA of 1969; Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-655, as amended), as implemented by 36 CFR 800 (Protection of Historic Properties, revised January 2001); and Section 4(f) of the DOT Act of 1966 (Public Law 89-670, as amended). This study was conducted in accordance with Chapters 253, 267, and 872 of the Florida Statutes, and Part 2, Chapter 12 (Archaeological and Historic Resources) of the FDOT Project Development and Environment Manual (revised). The NHPA, as amended, was enacted by Congress in 1966 to preserve and protect the Nation's historic buildings, neighborhoods, landscapes, and archaeological sites. The NHPA established the NRHP and created the Advisory Council on Historic Preservation (ACHP). Under Section 106 of the NHPA, Federal agencies are responsible for identifying National Register listed or eligible resources and assessing the effects of the their actions on them. The procedures prescribed in Section 106 are referred to as the "Section 106 process" and are set forth, in regulations issued by the ACHP, "Protection of Historic Properties" (36 CFR 800).

Section 4(f) of the DOT Act of 1966 (49 USC 303) and implementing regulations (23 CFR 771.135) (Section 4(f) as it is commonly known) provides that the Secretary of Transportation may not approve a project that involves use of land from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless: (1) there is no feasible and prudent alternative to the use of the land; and (2) the proposed action includes all possible planning to minimize harm to the property from such use.

Methodology

The historical/architectural and archaeological field surveys, conducted between April and July 2005, were conducted within the project Area of Potential Effect (APE), defined as the zone within approximately 100 feet from the edge of each side of the existing CSXT ROW and the footprint and immediately adjacent property of each proposed station and other ancillary facility. The APE and survey methodology were approved by the State Historic Preservation Officer (SHPO) in April 2005.

Once the APE and methodology were approved, all archaeological and historical resources within the APE were identified through background research and field survey. The resulting Cultural Resource Assessment Survey Report[3], reviewed by the FDOT and the SHPO, has been prepared as a stand alone technical report.

Existing Conditions and Survey Results

Archaeological Resources

Archaeological background research, including a review of the Florida Master Site File (FMSF) and the NRHP, indicated that seven previously recorded prehistoric and historic period archaeological sites are located within or proximate to the project APE. These include a single artifact site (8VO4715), a sand mound (8VO52), and five historic period resources (8VO2594, 8SE1720, 8OR4308, 8OR9620 and 8OR9622). Site 8OR4308, the Winter Park Golf Course, is NRHP-listed as a contributing resource within the Winter Park Country Club and Golf Course Historic District (8OR4307/4308).

Of the other six sites, 8VO4715 was evaluated as ineligible for listing in the NRHP by the SHPO; the remaining sites were not evaluated. As a result of field survey, one new historic period archaeological site, the Old Monroe Road Site (8SE1934), was identified within the project APE, and three of the previously recorded sites (8OR4308, 8OR9620, and 8OR9622) were located and assessed. The Old Monroe Road Site, a historic roadway segment, is considered ineligible for listing in the NRHP. Sites 8OR9620 and 8OR9622, segments of a historic trail and railroad, respectively, have insufficient information to determine potential NRHP eligibility. As located within the project APE, they do not appear to meet the NRHP eligibility criteria.

Historic Resources

A total of 157 historic resources were previously identified within the project APE, including 27 which are no longer extant, and 29 which were never officially entered into the FMSF. Of these recorded sites, 11 historic resources are NRHP-listed or determined eligible. These include historic districts in Kissimmee (8OS1724), Downtown Orlando (8OR422), and Longwood (8SE585); the Old Orlando Railroad Depot (8OR25); three commercial structures in Orlando (8OR20, 8OR183, and 8OR3447); residences in Orange County (8OR177 and 8OR469) and Volusia County (8VO5162); plus the Winter Park Country Club and Golf Course (8OR4307 and 8OR4308).

Background research and historical/architectural field survey resulted in the recording of 229 newly identified historic resources, and the updating of 79 previously identified historic resources. Of these, 16 historic resources are considered potentially NRHP-eligible. These include:

- Three potential historic districts: the Orange Avenue Commercial District (8OR6075) in Orlando; Orwin Manor Historic District (8OR6074) at the boundary of Orlando and Winter Park; and; the College Quarter Historic District (8OR6073) in Winter Park.

[3] Archaeological Consultants, Inc., *Cultural Resources Assessment Survey Report,* [date of final report]

- Five railroad stations/depots [Kissimmee ACL Railroad Station (8OS415), Orlando ACL Railroad Station (8OR139), Winter Park ACL Freight Depot (8OR9358), Sanford Railroad Station (8SE2079), and the DeLand Railroad Station (8VO2653)];

- Four residences including the Johnson-Steffe House (8OS42), W.B. Makinson House (8OS501), Pine Crest Villa (8OR2263), and the Wise-Taliaferro Residence (8OR2265);

- One religious structure, the Episcopal Church of the Good Shepherd (8OR250);

- One industrial resource, the Orlando Water and Light Company (Dr. Phillips Center for the Performing Arts; 8OR182; and

- The Lake Monroe School (8SE1192), also appear to meet the eligibility criteria for listing in the NRHP. Expanded FMSF forms for these 16 properties were prepared to request a determination of NRHP eligibility.

The Orlando ACL Railroad Station (8OR139) and the Orlando Water and Light Company (8OR182) were previously identified as potentially NRHP-eligible during the CRAS of the Central Florida Light Rail Transit System (Janus Research 1998). However, the documentation was never submitted to the SHPO and the buildings were not officially determined NRHP-eligible by the SHPO.

The total 26 NRHP-listed, determined eligible, and potentially eligible historic resources are listed in Table 3-9 and shown on Figure 3-5 and Figure 3-6.

Detailed corridor mapping is included in the *Cultural Resources Assessment Survey Report*.

Table 3-9 NRHP Listed, Determined Eligible and Potentially Eligible Historic Resources

FMSF No.	Name	Location	NRHP Status
8VO2653	DeLand ACL Railroad Station	2491 Old New York Avenue, DeLand	Potentially Eligible
8VO5162	Louis P. Thursby House	Blue Spring State Park, Volusia County	NRHP-Listed in 2000
8SE1192	Lake Monroe School	4009 School Street, Lake Monroe	Potentially Eligible
8SE2079	Sanford Railroad Station	2195 West 8th Street, Sanford	Potentially Eligible
8SE585	Longwood Historic District	Longwood	NRHP-Listed in 1990
8OR2265	Wise-Taliaferro Residence	230 West Ventris Avenue, Maitland	Potentially Eligible
8OR2263	Pine Crest Villa	720 South Central Avenue, Maitland	Potentially Eligible
8OR469	William H. Waterhouse Residence	820 South Lake Lily Drive (South Orlando Avenue), Maitland	NRHP-Listed in 1983
8OR250	Episcopal Church of the Good Shepherd	331 Lake Avenue, Maitland	Potentially Eligible
8OR4307, 8OR4308	Winter Park Country Club and Golf Course	761 Old England Avenue, Winter Park	NRHP-Listed in 1999 (Locally Listed)
8OR9358	Winter Park ACL Freight Depot	200 West New England Avenue, Winter Park	Potentially Eligible (Locally Listed)
8OR6073	College Quarter Historic District	Winter Park	Potentially Eligible (Locally Listed)
8OR6074	Orwin Manor Historic District	Orlando	Potentially Eligible
8OR6075	Orange Avenue Commercial District	Orlando	Potentially Eligible
8OR182	Orlando Water & Light Company Building (Dr. Phillips Center)	1111 North Orange Avenue, Orlando	Potentially Eligible (Locally Listed)
8OR177	Judge Cheney House	715 N. Garland Avenue (105 West Colonial Drive), Orlando	Determined NRHP-Eligible in 1998 (Locally Listed)
8OR3447	Colonial Garage	62-70 West Colonial Drive, Orlando	Determined NRHP-Eligible in 1998
8OR183	Harry P. Leu, Inc.	100 West Livingston Street, Orlando	Determined NRHP-Eligible in 1998
8OR20	Bumby Hardware	100-102 West Church Street, Orlando	Determined NRHP-Eligible in 1999, Contributing Resource within the Downtown Orlando Historic District; (Locally Listed)
8OR25	Old Orlando Railroad Depot	76 West Church Street, Orlando	NRHP-Listed in 1976, Contributing Resource within the Downtown Orlando Historic District; (Locally Listed)
8OR422	Downtown Orlando Historic District	Orlando	NPS-certified in 1982, (Determined Eligible)
8OR139	Orlando ACL Railroad Station	1400 Sligh Boulevard, Orlando	Potentially Eligible (Locally Listed)
8OS501	W.B. Makinson House	407 East Lake Street, Kissimmee	Potentially Eligible
8OS415	Kissimmee ACL Train Depot	111 East Dakin Avenue, Kissimmee	Potentially Eligible
8OS42	Johnson-Steffe House	404 South Vernon Avenue Kissimmee	Potentially Eligible
8OS1724	Kissimmee Historic District	Kissimmee	NRHP-Listed in 1994

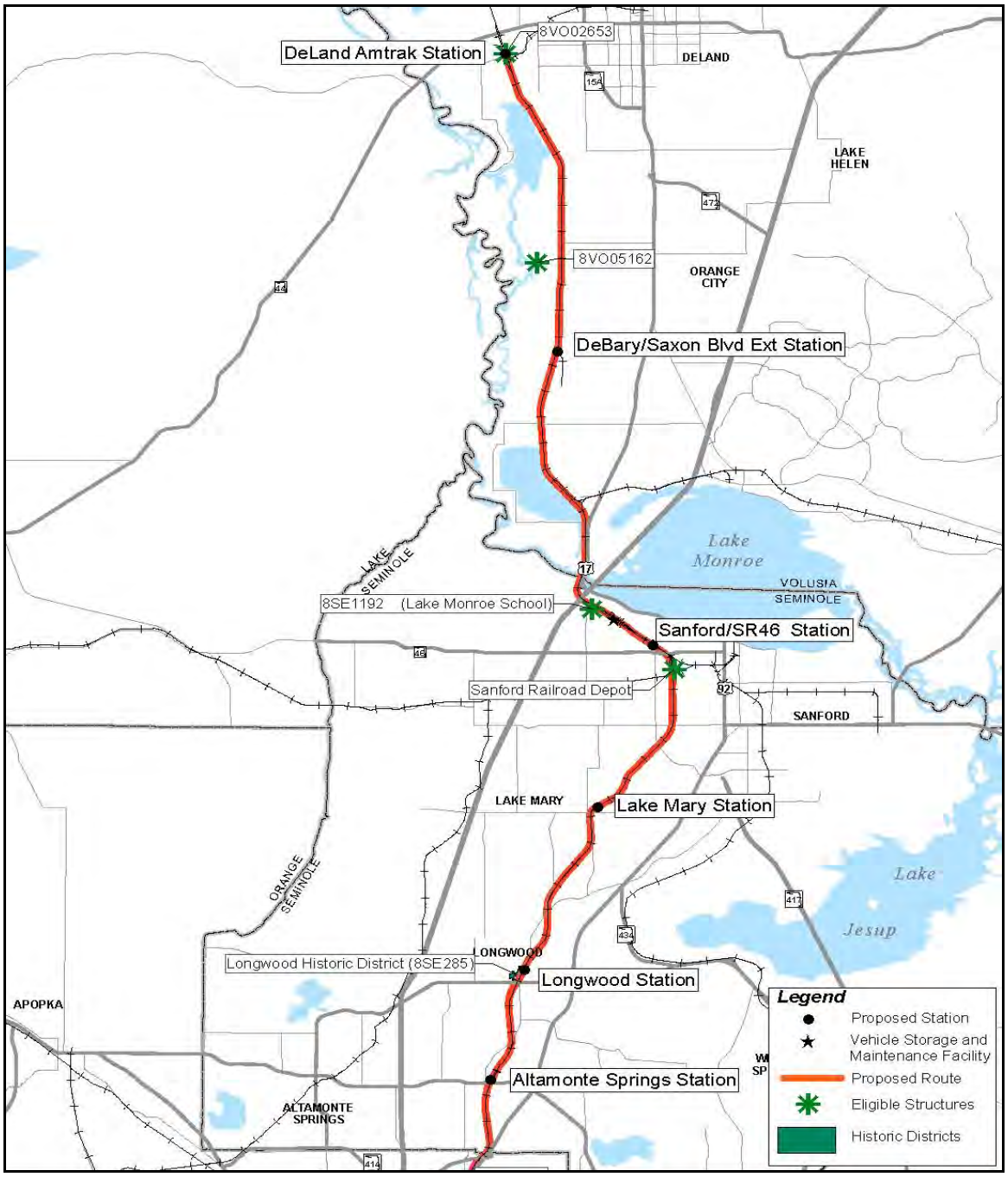


Figure 3-5 Historic Resources – Sheet 1 of 2

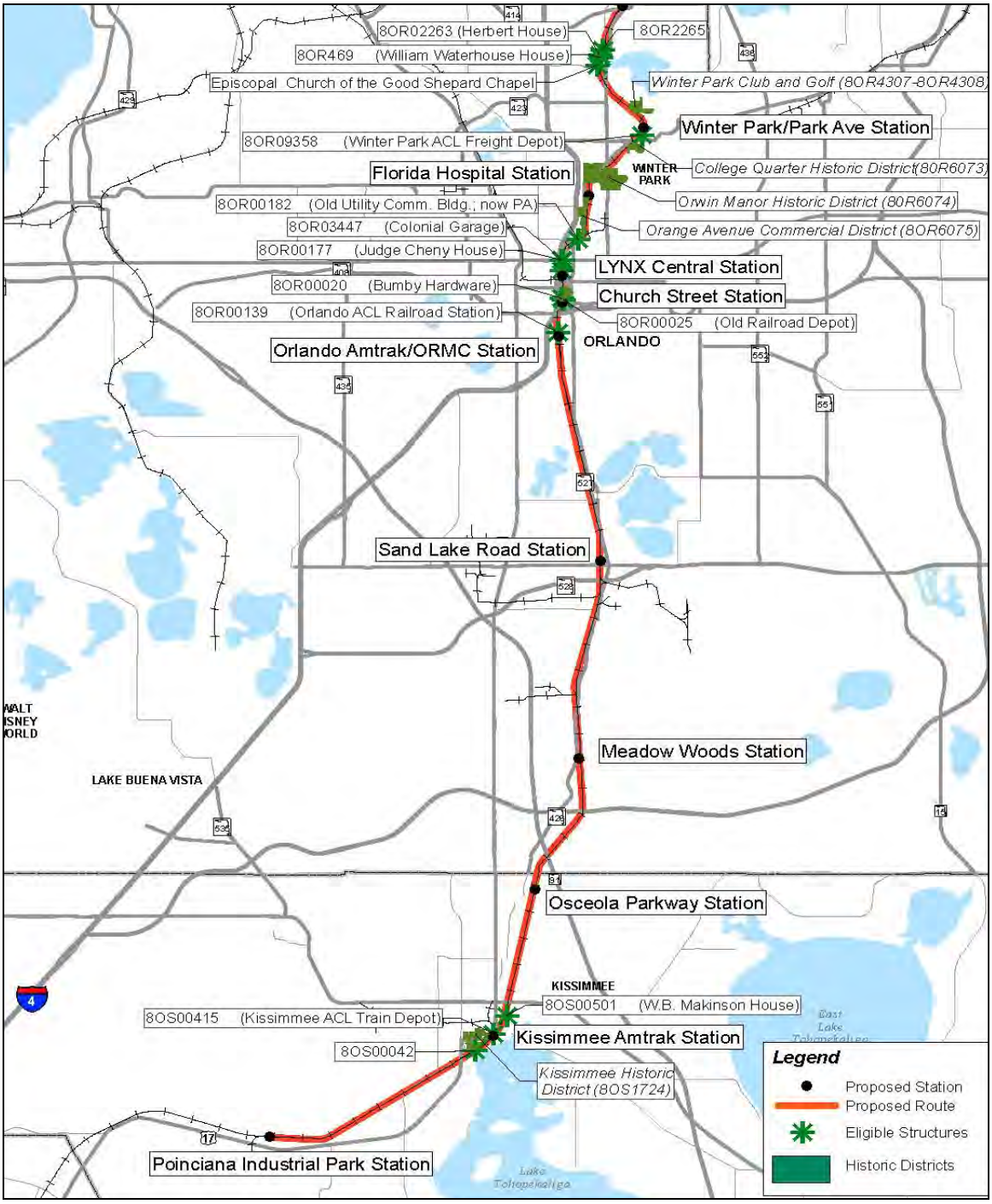


Figure 3-6 Historic Resources – Sheet 2 of 2

Impacts and Benefits

No-Build Alternative

No direct or indirect impacts to historic structures will result from implementation of the No-Build Alternative.

TSM Alternative

No detailed analysis of the potential historic and archaeological impacts of the TSM sites was conducted. It is assumed that, because of the limited amount of construction required to implement the TSM Alternative, that there is little potential for impacts to extant historic structures throughout the project area. TSM stops, including larger Park-n-Ride stops, can be located to avoid direct impacts to standing historic structures. No significant excavation is required, and the TSM stops are generally located in existing commercial areas along major regional arterial highways, the potential for impacts to archeological sites is considered very minimal.

Full-Build Alternative

Based on conceptual design plans no direct physical impacts to structures are identified. Indirect physical impacts to standing structures may occur through noise and through vibration, although it is extremely rare for vibration from transit operations to cause any type of building damage, even minor cosmetic damage.

A corridor site visit was conducted with the SHPO staff on January 5, 2006 to review the potential effects of station construction on nearby significant historic properties at six locations. Locations visited and the associated historic resources included: DeLand Amtrak Station (DeLand ACL Railroad Station); Florida Hospital Station (Orange Avenue Commercial District); LYNX Central Station (Harry P. Leu, Inc.); Church Street Station (Downtown Orlando Historic District); Orlando Amtrak/ORMC Station (Orlando ACL Railroad Station); and Kissimmee Amtrak Station (Kissimmee ACL Railroad Station, Kissimmee Historic District – NRHP-listed).

The SHPO concurred, on a preliminary basis, that the CRT Project would have "No Effect" on historic properties in the vicinity of several CRT station sites, including the Florida Hospital, LYNX Central Station, Orlando Amtrak/ORMC, and Kissimmee Amtrak stations. The SHPO suggested that careful station design including use of compatible elements and materials would minimize any potential visual impacts.

The FDOT will continue to coordinate the design of the proposed improvements (e.g., stations) with the SHPO staff so that potential visual and aesthetic effects can be avoided or minimized, and to ensure that historic integrity at nearby historic properties and districts is maintained.

The FDOT is committed to provide a high level of design treatment for proposed improvements. Such treatments may include ensuring that the design of station platforms and canopies are architecturally and aesthetically compatible with the design of nearby historic resources; as well as using landscaping to reduce the potential visual effects of parking lots.

FDOT, in compliance with Section 106 of the National Historic Preservation Act of 1966 and in consultation with the State Historic Preservation Officer, has determined that the proposed action will have no adverse effect on the DeLand ACL Railroad Station (8VO2653), the Orlando ACL Railroad Station (8OR139), the Old Orlando Railroad Depot (8OR25), and the Downtown Orlando Historic District (8OR422). Refer to Appendix E for a copy of the letter received from SHPO dated March 9, 2007.

Mitigation

The following commitments have been made to ensure that potential adverse effects are avoided or minimized:

1. Provide design plans of the proposed DeLand Amtrak, Orlando Amtrak/ORMC and Church Street stations at the 30, 60, and 90 percent stages of completion for SHPO review and comment. The FDOT will coordinate with the SHPO office so that potential visual and aesthetic effects to the above-mentioned historic properties (8VO2653, 8OR139, 8OR422 and 8OR25) can be avoided or minimized. The plans will show the exact location of platforms and other improvements, including proposed parking areas. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

2. Provide a sensitive design treatment for the three proposed stations and will ensure that the design, materials and locations of station platforms and canopies are architecturally and aesthetically compatible with the design of nearby historic resources.

3. Consult with SHPO office to determine appropriate landscaping treatments designed to reduce the potential visual effects of parking lots and ancillary features at the proposed stations.

4. Make every reasonable effort to maintain the rural character of the DeLand Amtrak Station through the use of environmentally compatible elements, such as vegetative screening, in the design of parking lots and sidewalks.

5. Make every reasonable effort to minimize physical alterations to the historic properties. Where required, alterations will be made in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR Part 68).

6. Should there be any changes to previously reviewed and agreed upon design plans, FDOT will contact SHPO and provide the opportunity for review and comment. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

3.2.2 Recreation and Parkland Resources

This section summarizes the potential impacts of the project on existing recreation and parkland resources along the project Corridor.

Legal and Regulatory Requirements

Since the mid-1960s, federal transportation policy has required that transportation agencies make a concerted effort to preserve the beauty and integrity of publicly owned public parks and recreation areas, waterfowl and wildlife refuges, and historic sites considered to have national, state or local significance.

The United States Department of Transportation Act of 1966, Section 4(f) as amended (49 USC 303), protects public parks, and recreation lands, wildlife habitat and historic sites of national, state and local significance from acquisition and conversion to transportation use. Within the guidelines of Section 4(f), the use of publicly owned lands for transportation purposes would receive approval only if:

- There is no feasible or prudent alternative to the use of the land; and
- The proposed action includes all possible planning to minimize harm to the land resulting from such use.

The FTA regulations implementing Section 4(f) are codified at 23 Code of Federal Regulations 771.135.

Methodology

Existing parklands mapping and site investigations along the CRT corridor were used to identify existing public parks, recreation areas and wildlife refuges. Information on park size, ownership, existing facilities and use, and any future plans or improvements was gathered. All of the parks and recreation areas identified lie in close proximity to the project Corridor and generally are visible from the rail ROW or afford park users views of the rail ROW.

Existing Conditions

Table 3-10 lists the 34 parks and recreation areas identified along the CRT Corridor. The location of the parks is noted on Figure 3-7 and Figure 3-8. There are no publicly-owned wildlife refuges located along the corridor.

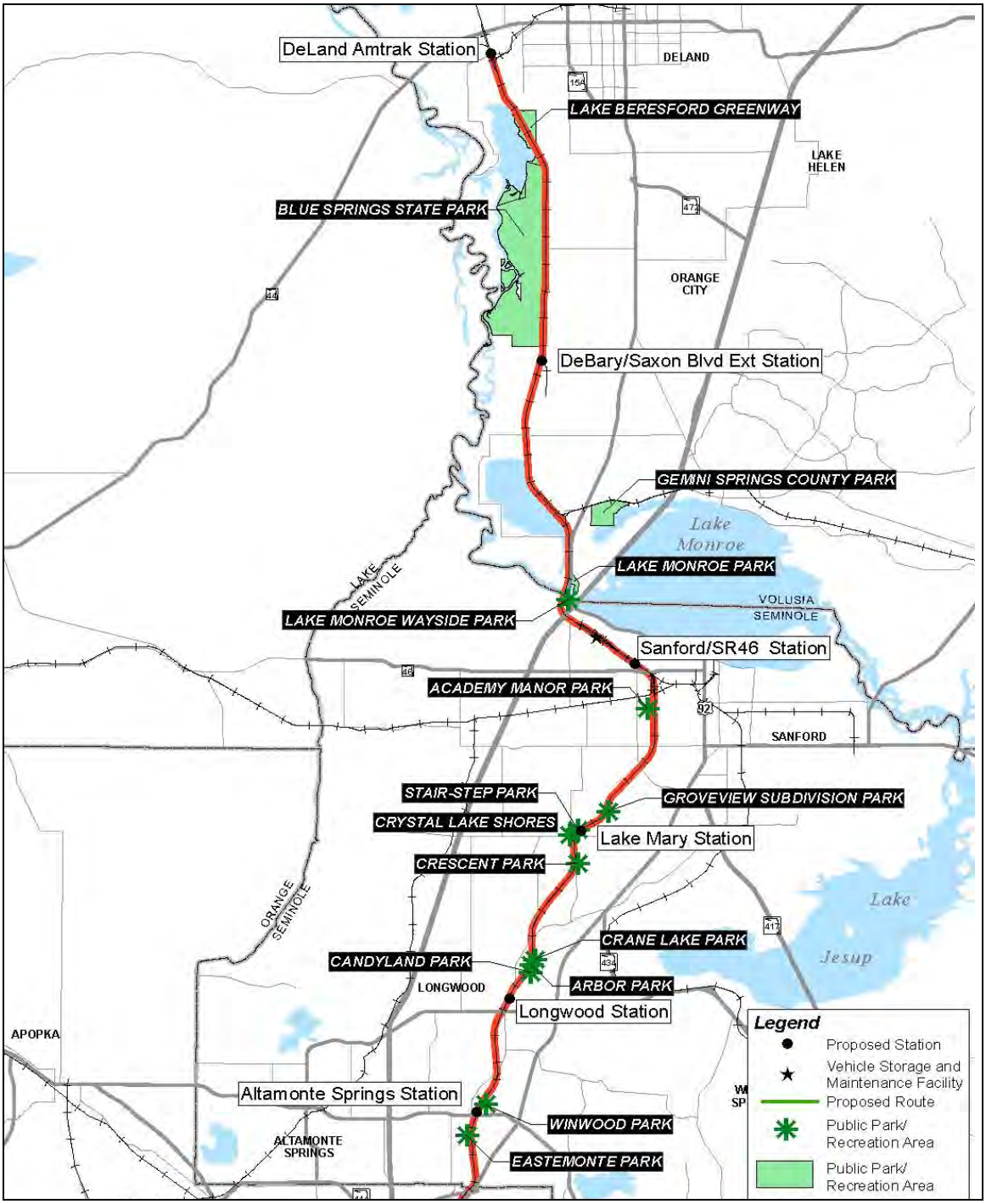


Figure 3-7 Publicly-Owned Parks & Recreation Areas – Sheet 1 of 2

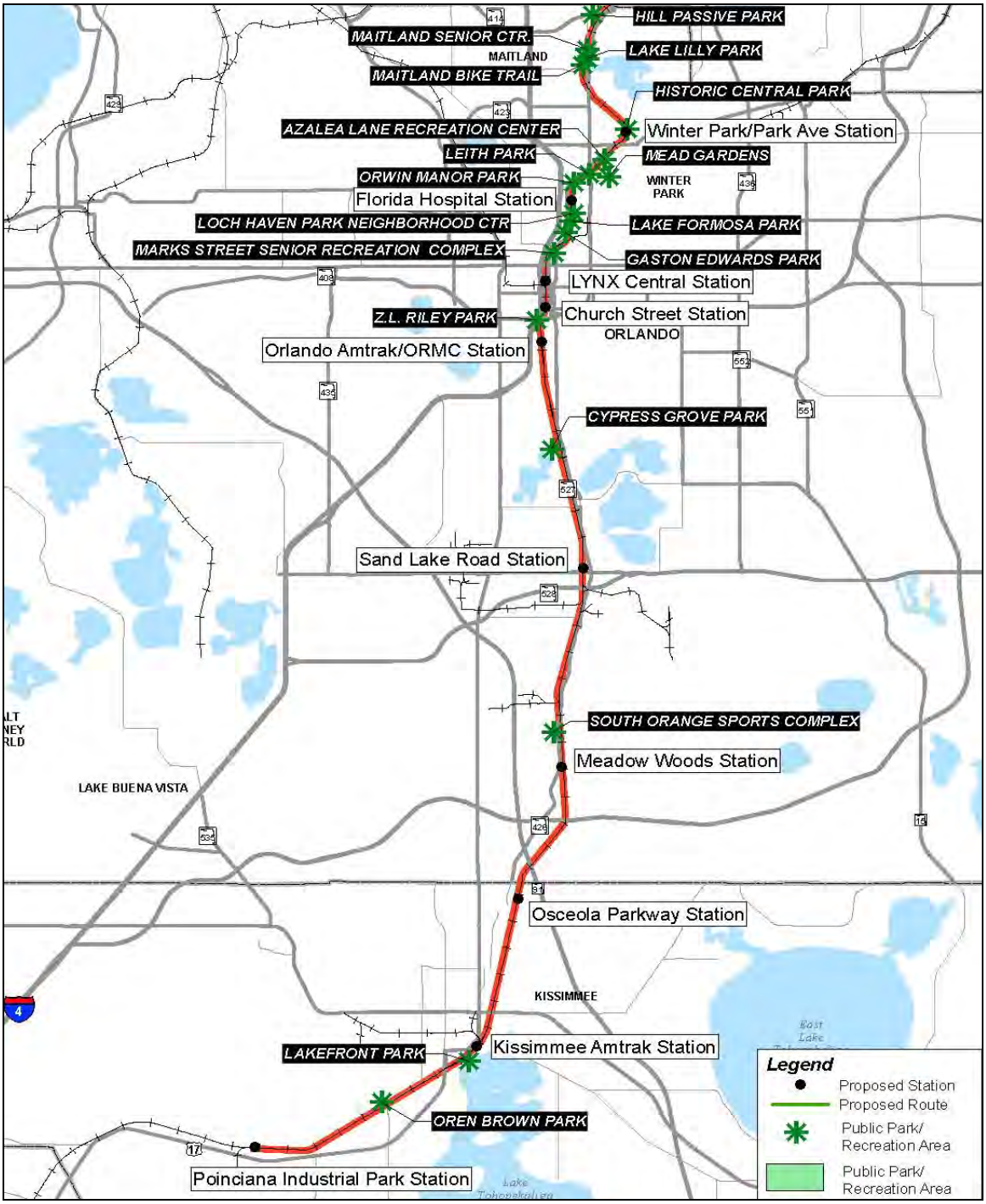


Figure 3-8 Publicly-Owned Parks & Recreation Areas – Sheet 2 of 2

Table 3-10 Parks and Recreation Areas Located Along the CRT Corridor

Name	Location	Jurisdiction	Activities
Lake Beresford Greenway	DeLand	Volusia County	Nature park
Blue Springs State Park	DeLand	Florida Park Service	Camping, boating, swimming, nature observation
Gemini Springs County Park	DeBary	Volusia County	Camping, picnicking, swimming, scuba diving, canoeing and educational programs
Lake Monroe Park	DeBary	Volusia County	Camping, fishing, boat ramp, picnic tables, playground, volleyball
Lake Monroe Wayside Park	Sanford	Seminole County	Fishing, boat ramp, picnic tables
Academy Manor Park	Sanford	City of Sanford	Neighborhood park, playground
Groveview Subdivision Park	Sanford	City of Sanford	Neighborhood park, playground
Stair step Park	Lake Mary	City of Lake Mary	Open space
Crystal Lake Shores	Lake Mary	City of Lake Mary	Neighborhood park, playground
Crescent Park	Lake Mary	City of Lake Mary	Neighborhood park, playground
Crane Lake Park	Longwood	City of Longwood	Neighborhood park, playground
Arbor Park	Longwood	City of Longwood	Neighborhood park, playground
Candyland Park	Longwood	City of Longwood	Baseball, tennis, playground, playing field, picnic tables
Winwood Park	Altamonte Springs	Seminole County	Baseball, basketball, playground, rec. center
Eastmonte Civic Rec. Center	Altamonte Springs	City of Altamonte Springs	Baseball, racquetball, tennis, basketball, racquetball, playground, picnic area, rec. center
Hill Passive Park	Maitland	City of Maitland	Undeveloped parcel that, by deed restrictions, must remain in its natural state
Maitland Senior Center	Maitland	City of Maitland	Shuffleboard, horseshoes, picnic area, passive recreation (Quinn Strong parcel)
Lake Lily Park	Maitland	City of Maitland	Playground, boardwalk, bicycle trail, wedding gazebo
Maitland Bike Trail	Maitland	City of Maitland	"Blue Line" trail parallels CSXT ROW south of Lake Lily Park
Winter Park Country Club	Winter Park	City of Winter Park	Golf course
Central Park	Winter Park	City of Winter Park	Open space
Azalea Lane Rec. Center	Winter Park	City of Winter Park	Playground, tennis, rec. center
Mead Gardens	Winter Park	City of Winter Park	Amphitheatre, butterfly garden, boardwalk, bike trail, greenhouse, picnic tables
Leith Park	Winter Park	City of Winter Park	Open Space
Orwin Manor Park	Orlando	City of Orlando	Open space
Loch Haven Park	Orlando	City of Orlando	Open space, museums, walking trails
Lake Formosa Park	Orlando	City of Orlando	Scenic area, open space
Gaston Edwards (Lake Ivanhoe) Park	Orlando	City of Orlando	Waterfront, boating, water skiing, jet skiing, volleyball, picnic area
Marks Street Senior Rec. Complex	Orlando	City of Orlando	Rec. center
Z. L. Riley Park	Orlando	City of Orlando	Open Space
Cypress Grove Park	Orlando	Orange County Parks and Recreation	Open space, weddings
South Orange Sports Complex	Orlando	Orange County	Baseball
Lakefront Park	Kissimmee	City of Kissimmee	Basketball, picnic area, boating, fishing, horseshoes, playground, volleyball, walking
Oren Brown Park	Kissimmee	Osceola County	Baseball

Impacts and Benefits

No-Build and TSM Alternatives

There will be no direct impacts to any identified publicly-owned park or recreation area from the No-Build or TSM Alternatives for the CRT project. Construction activities for the TSM Alternative will also not directly impact any park or recreation area. No TSM facility construction is planned on any parcel identified as a public park or recreation area.

Full-Build Alternative

The Full-Build Alternative alignment directly abuts several identified parks, including: Blue Spring State Park and Lake Beresford Park in Volusia County; Lake Monroe Wayside Park and Academy Manor Park in Sanford; Candyland Park in Longwood; Hill Passive Park, the Maitland Civic Center and Lake Lily Park in Maitland; Central Park and Leith Park in Winter Park; and Cypress Grove Park in Orlando. No project construction activities for the Full-Build Alternative will directly affect any of the identified parks and recreation areas. Rail construction activities will be contained within the existing CSXT right-of-way limits. Proposed station construction along the corridor, including the Winter Park/Park Avenue station which is located within Central Park, will not directly impact any identified park or recreation area.

Temporary construction activities will be controlled so they do not affect access to the parks adjacent to the CSXT right of way along the corridor. Construction activities would be limited to the side of the park adjacent to the CSXT right of way. Construction impacts that could temporarily affect park and recreational experiences include increased noise, dust, and truck traffic.

Full-Build Alternative CRT service is not planned for weekend or holiday periods when the parks and recreation areas along the corridor are most heavily used with the exception of the rare occasion of special events when limited duration weekend service may be provided.

The Full-Build Alternative also has the potential to provide improved access to several parks and recreation areas along the project corridor through construction of commuter rail stations:

- Lake Mary station would provide direct access to Stairstep Park, directly adjacent to the station site to the east. Crystal Lake Shores neighborhood park would be within walking distance of the station site.
- The Winter Park/Park Avenue station is located within the boundaries of Central Park in downtown Winter Park. The Winter Park Golf Course is located within walking distance of the station site.
- Florida Hospital Station would provide easy walking access to Loch Haven Park in Orlando as well as the museums located within the park.
- LYNX Central Station and Church Street Stations would provide easy walking access to downtown parks including Lake Eola and the parks and civic attractions located to the west of I-4.

- Kissimmee Amtrak Station would also provide easy walking access to Lakefront Park on Lake Tohopekaliga.

Section 4(f) and Constructive Use

A constructive use only occurs in those situations where, including mitigation, the proximity impacts of a project on the Section 4(f) property are so severe that the activities, features or attributes that qualify the property or resource for protection under Section 4(f) are substantially impaired.

Since no significant indirect impacts to any identified publicly-owned park or recreation area are anticipated from the operation of the Full-Build or TSM Alternatives, no "constructive use," as defined at 23 CFR 771.135(p) will result. No appreciable noise or vibration impacts will occur at any of the identified parks and recreation areas from the operation of the Full-Build Alternative. Visual impacts are also not anticipated at any of the parks and recreation areas.

The proposed action will not require the use of any properties as defined by Section 4(f) of the U.S. Department of Transportation Act. FTA has determined that Section 4(f) does not apply.

Section 6(f) – Land and Water Conservation Fund

Two parks identified along the project corridor were purchased, in part, with Federal Land and Water Conservation funds: Lake Monroe Park on the St. Johns River in Volusia County (located to the east of the corridor across Routes 17/92) and Lakefront Park in Kissimmee in Osceola County (located to the southeast of the corridor). None of the alternatives for the CRT project will impact either of these parks therefore, Section 6(f) of the Land and Water Conservation Act of 1965 does not apply to this project.

Mitigation

No adverse impacts from operation of the Full-Build Alternative are anticipated, therefore, no mitigation measures are required. Potential temporary construction period impacts (noise, dust, access restrictions) will be minimized to the greatest extent possible.

3.3 Natural and Physical Impacts

3.3.1 Pedestrian and Bicycle Facilities/Access

Several stations will be located in residential or activity areas where pedestrian and bicycle facilities are already provided. The CRT project will take advantage of existing facilities as well as provide additional pedestrian/bicycle facilities and improvements.

Existing Conditions

In the vicinity of stations located within close proximity to Downtown Orlando, such as the LYNX Central Station, Church Street, and Orlando Amtrak/ORMC stations, surrounding areas will likely experience increased pedestrian and bicycle activity, particularly during peak commuter hours. Automobile traffic generated by the proposed CRT stations at

these downtown stations is minimal and would not be expected to contribute to pedestrian or bicycle impacts.

Winter Park and Kissimmee also provide excellent existing pedestrian facilities which the project can utilize. The residential area of Meadow Woods has the potential to encourage non-automobile travel to/from the station by developing safe and efficient pedestrian and bicycle facilities.

The more remote stations, such as DeLand, Sanford SR 46, and Poinciana Industrial Park stations will likely be accessed primarily by automobile, and therefore impacts to pedestrian/bicycle facilities in surrounding areas will be minimal. Existing local policies can be used to plan, promote and develop pedestrian and bicycle facilities that can improve safety and encourage non-automotive travel.

Within the study area, several pedestrian and bicycle improvements are planned by the CRT project and others. These projects are anticipated to improve "travel conditions" for pedestrians and bicyclists, and are described below.

- Saxon Boulevard Extension - Volusia County is developing plans to construct a bicycle and recreation path as part of the proposed multi-use "Spring to Spring" trail along the proposed Saxon Boulevard Extension.
- Florida Hospital – The *Year 2025 Long Range Transportation Plan* describes a funded shared-use path along Route US 17/92. A vertical access to the overhead walkway is expected to be completed at start-up of the CRT project. An overhead walkway above the CSXT tracks will connect to the existing overhead walkway and connect two parking garages.
- LYNX Central Station – A 10-foot wide pathway to be called "Gertrude's Walk" will be developed next to the surface parking at LYNX Central Station and parallel to the right-of-way for the CSXT tracks. This project is being examined by the city of Orlando as part of a Downtown Transportation Study, and may result in restrictions/impacts on the LYNX Central station site.

In addition to planned pedestrian and bicycle projects in the project study area, several communities have policies that promote and foster the development of pedestrian and bicycle facilities. These include:

- The City of Sanford through various elements of their Comprehensive Plan;
- The City of Lake Mary identifies a pedestrian trail as part of their plan for the redevelopment of the downtown area to the west and north of the proposed station site;
- The City of Longwood Comprehensive Plan specifies the city's intent to identify and implement pedestrian connections between neighborhoods and shopping areas, schools and parks;
- The City of Altamonte Springs City Plan 2020 specifies several methods for implementation of a sidewalk program with priority given to linking neighborhoods to schools, regional bicycle trails, transit stops and Activity Centers; to eliminate

physical impediments to walking and bicycling along transportation corridors; and to mandate site designs that accommodate pedestrian, bicycle and transit use.

- The City of Orlando Growth Management Plan Transportation Element includes objectives intended to encourage wide accessibility to new transit systems.

Impacts and Benefits

No-Build Alternative

The No-Build Alternative will not affect existing pedestrian or bicycle paths and trails in the study area. The No-Build Alternative will also not result in the improvements to pedestrian and bicycle facilities that would result from the Full-Build Alternative.

TSM Alternative

Implementation of the TSM Alternative would also not affect pedestrian or bicycle paths and trails in the study area. As with the No-Build Alternative, implementation of the TSM Alternative would not result in improvements to pedestrian and bicycle facilities.

Full-Build Alternative

The CRT project will benefit pedestrian and bicycle facilities and access. The obvious advantage of the project is providing a transit alternative that will encourage commuters to walk and bike to transit as an alternative to driving. However, the CRT project also provides a unique opportunity to maximize the use of existing pedestrian and bicycle facilities. Many of the proposed CRT stations are located within existing activity areas where pedestrian and bike facilities are already provided. The proposed station sites, with the exception of the DeBary/Saxon Boulevard Extension, Sanford SR 46, and Poinciana Industrial Park stations, generally have existing pedestrian infrastructure such as sidewalks, crosswalks, and pedestrian signals. The extent of Americans with Disabilities Act (ADA) compliance at existing facilities varies depending on location.

This project also provides opportunities to develop additional pedestrian/bicycle facilities and improvements. Where appropriate, new sidewalks and crosswalks with pedestrian signals will be constructed at the new stations, and pedestrian signage will be provided to clearly mark pedestrian paths to and from parking areas. Bicycle racks will also be provided at each station. Additionally, improved pedestrian crossings will be installed at appropriate at-grade crossings as they are upgraded. Sidewalks would continue across the tracks and no longer stop at the CSXT ROW. Pedestrians would no longer be required to cross rail ballast or walk in the roadway to cross the tracks. Thus, for most locations, pedestrian facilities will improve with construction of the project and no mitigation is needed.

In addition, bicycle racks will be provided on CRT trains to accommodate bicycle commuters who may wish to commute to the CRT stations on bicycle. Similar bicycle accommodations are provided on existing LYNX bus routes within the CRT corridor.

Impacts and benefits to pedestrian and bicycle facilities for specific CRT stations are discussed below.

DeLand Amtrak Station – The existing DeLand Amtrak station and train platforms are handicap accessible. While some sidewalks are provided in the area, it is expected that most commuters would drive to this station.

DeBary/Saxon Boulevard Extension Station – This site is located in an undeveloped area with no existing pedestrian access. It is anticipated that planned extension of Saxon Boulevard will include construction of a section of the Volusia County "Spring to Spring" multi-use trail. Access to the proposed Saxon Boulevard Extension Station will be designed to avoid impacting the proposed trail and pedestrian/bicycle facilities will be provided where appropriate at the station.

Sanford/SR 46 Station – This station is located in an industrial area adjacent to the north side of SR 46 with no existing sidewalks or other pedestrian access. Although most commuters will likely drive to this station, pedestrian and bicycle facilities will be provided where appropriate.

Lake Mary Station – This station site is located adjacent to residential and commercial areas. Sidewalks are provided along existing local streets with handicap ramps at intersections along Lake Mary Boulevard to the south of the station site. Lake Mary Boulevard is a designated school route. Pedestrians accessing the new CRT station will have the benefit of existing sidewalks, and pedestrian and bicycle activity may increase in areas surrounding the station.

Longwood Station – In the vicinity of this station, sidewalks are currently provided along existing streets with handicap ramps at intersections. Existing sidewalks would be available for pedestrians accessing the site.

Altamonte Springs Station – Sidewalks are provided along existing streets with handicap ramps at intersections. Pedestrian signals and crosswalks are provided at the intersection of Altamonte Parkway and Reagan Boulevard. Pedestrians accessing this site will utilize existing sidewalks and pedestrian signals to access the station. Pedestrian and bicycle activity will likely increase in the vicinity of the station.

Winter Park/Park Avenue Station – This location provides a pedestrian-friendly atmosphere with a grid street pattern that discourages high vehicle speeds. Sidewalks are provided along local streets with handicap ramps at intersections. The existing Winter Park Amtrak station and train platforms are handicap accessible. Unimpeded wheelchair access is provided from the adjoining municipal parking lot. Pedestrians accessing the new CRT station will have the benefit of the existing pedestrian facilities provided for the Amtrak station and the surrounding area may experience increased pedestrian and bicycle activity.

Florida Hospital Station – Sidewalks are currently provided along Lake Estelle Drive to the east of the station site (although hospital construction at the time of this writing has temporarily eliminated the sidewalk). There is no sidewalk along Sanitarium Avenue to the west of the station site. Other local streets providing access to the station site provide sidewalks with handicap ramps at intersections. Pedestrians accessing the new CRT station will have the benefit of the existing pedestrian facilities provided for the Hospital. Additional pedestrian and bicycle facilities will be provided to improve access between the hospital and the new station site.

LYNX Central Station – Sidewalks are provided along local streets with handicap ramps at intersections. LYNX Central Station multi-modal terminal is fully compliant with ADA requirements and is fully handicapped accessible. Pull-outs are provided at the station for passenger drop-off/pick-up. Since this station is located in an active area, the project will likely result in additional pedestrians and bicycles using existing facilities.

Church Street Station - Sidewalks are provided along local streets with handicap ramps at intersections. Because this station is located within an activity area, the project will result in additional pedestrians (and bicycles) using existing facilities.

Orlando Amtrak/ORMC Station – Sidewalks are provided along local streets with handicap ramps at intersections. The existing Orlando Amtrak station and train platforms are handicap accessible. Provisions for bus and taxi transfers are provided on-site. Pedestrians accessing the new CRT station will have the benefit of the existing pedestrian facilities provided for the Amtrak station, and the surrounding area will likely experience increased pedestrian and/or bicycle activity.

Sand Lake Road Station – The station site is located in a commercial area adjacent to Sand Lake Road and Orange Avenue. While sidewalks are provided on roadways in the vicinity of the station site, most commuters will most likely drive to this station. New sidewalks will be constructed as part of the project to provide a safe pedestrian facility connecting to Orange Avenue.

Meadow Woods Station – This station is located in a dense residential area that provides excellent potential to encourage pedestrian and bicycle travel. Sidewalks are located on many of the local roadways in the area.

Osceola Parkway Station – This station is located in a commercial area that is continuing to develop. While there are some existing sidewalks and crosswalks in the area, there is the potential to develop future pedestrian facilities linking with Osceola Parkway.

Kissimmee Amtrak Station – Sidewalks are provided along local streets and handicap ramps at intersections in a pedestrian environment surrounding the Amtrak station. Pedestrians will have the benefit of using the existing pedestrian facilities provided in the area and for the Amtrak station.

Poinciana Industrial Park Station – There are generally limited pedestrian and bicycle facilities provided in the vicinity of the Poinciana station. The station is located in a developing industrial area that is likely to generate most of its trips via automobile. Nonetheless, there are opportunities to provide safe pedestrian connections and crossings at adjacent roadways and intersections.

3.3.2 Visual and Aesthetic Resources

Existing Environment

The CRT corridor runs through a varied landscape of natural areas and suburban and urban environments. Increasing suburban development in the northern and southern ends of the corridor is resulting in changes to the existing landscape, but there remain

areas of protected natural lands and important aesthetic resources throughout the corridor.

Volusia County - Beginning in DeLand, the corridor runs south through undeveloped land throughout western Volusia County. Significant natural landscapes in this section of the corridor include:

- Lake Beresford;
- Blue Springs State Park; and
- The St. Johns River.

Commuter rail passengers would be subject largely to views of undeveloped and wooded lands in this section of the corridor. There is little residential development along the corridor in western Volusia County, although residential development is increasing as the corridor approaches the St. Johns River in the city of DeBary. Views of the rail corridor from adjacent areas in this section of the corridor are limited to the few grade crossings and areas immediately adjacent to the St. Johns River.

Seminole County - Crossing the St. Johns River into Seminole County, the corridor immediately passes through the Lake Monroe Wayside Park, but views to and from the rail corridor to the park are dominated by the US 17/92 St. Johns River Bridge that passes to the immediate east of the Corridor. Crossing under Route 17/92, the Corridor passes through the existing Rand railroad yard before entering an area of largely suburban residential, scale commercial and light industrial development throughout Sanford.

Traveling south through the remainder of Seminole County, the corridor passes through largely residential areas. Befitting the denser development of this portion of the Corridor, views of the rail alignment are frequent for abutters. Through Lake Mary, the Corridor passes through a stretch of undeveloped and wooded lands south of Lake Mary Boulevard. Residential and commercial uses then predominate along the Corridor through Longwood and Altamonte Springs.

Orange County - Entering Orange County at Maitland, the Corridor passes through increasingly dense residential and commercial development. Views from the Corridor are of generally restricted to the immediate vicinity of the Corridor due to the density of land development, and likewise, views from abutting areas to the Corridor are generally restricted to immediately adjacent areas and parcels. The rail corridor does pass in close proximity to several public parks and recreation areas in Orange County, including Lake Lilly Park in Maitland, Central Park in Winter Park, and Cypress Grove Park in Orlando. Brief views of several additional visual resources and parks in Orlando are visible from the Corridor, including Lake Formosa Park near the proposed Florida Hospital station.

Leaving downtown Orlando the Corridor parallels South Orange Avenue and passes through light industrial and commercial areas. One important visual resource in this area is Cypress Grove Park on the shores of Lake Jessamine, which borders the ROW south of West Holden Avenue. Passing into southern Orange County, the Corridor again traverses largely industrial and commercial areas including the Taft railroad yard south of Sand Lake Road. At Meadow Woods, the Corridor passes adjacent to residential development and then along vacant land into Osceola County.

Osceola County - Entering Osceola County, the Corridor passes into Kissimmee where residential development predominates into commercial downtown Kissimmee. Kissimmee Lakefront Park is visible from the Corridor to the east, and park users have views of the Corridor from several areas of the park.

South of downtown Kissimmee, the Corridor passes Osceola Park and Oren Brown Park, southwest of Pleasant Hill Road. Both parks are clearly visible from the Corridor, and users of the parks have clear views of the Corridor.

The final portion of the Corridor in Osceola County parallels Old Tampa Highway and passes through largely rural residential and undeveloped natural areas. The Corridor crosses Shingle Creek, the second largest water crossing along the Corridor after the St. Johns River. The Corridor ends at Poinciana Boulevard, an industrial area.

Impacts and Benefits

No-Build Alternative

Under the No-Build Alternative, no new structures would be constructed and no changes to the existing visual character of the corridor would occur.

TSM Alternative

For the TSM Alternative, a minimal amount of new construction would occur; several proposed TSM Park & Ride stations would require construction of new parking lots and bus shelters on undeveloped lots. With one exception, all TSM Park & Ride locations are located in developed commercial areas and no visual impact is expected.

The one exception is the proposed TSM park-n-ride at the interchange of SR 42 (Howland Boulevard) and I-4 in Orange City in Volusia County. At this location, a currently vacant and wooded parcel would be cleared and a new parking lot constructed. As this location is located directly adjacent to an existing interstate highway, the visual impact is expected to be minor at this location.

Overall, construction and implementation of the TSM Alternative is expected to result in no visual impact in the project area.

Full-Build Alternative

To assess the potential visual impact of the Full-Build Alternative, visual impact analyses were completed at selected locations along the project Corridor where new structures would be constructed or where important visual or historic resources exist. Photographs of these locations were taken, and the relevant elements of the proposed commuter rail project were superimposed on the photograph. These locations include:

- The St. Johns River drawbridge as seen from Lake Monroe Wayside park in Sanford;
- The Winter Park Golf Course in Winter Park;
- The Orlando Amtrak Station; and
- The Kissimmee Amtrak Station.

Figure 3-9 through Figure 3-12 illustrate before and after representations of the visual environment and potential visual impacts for the Full-Build Alternative at each of the selected locations.

At the existing St. Johns River drawbridge, the presence of CRT trains is not expected to result in additional visual impacts beyond the existing impacts posed by the Amtrak and freight trains that currently travel over the bridge.

The Winter Park Golf Club is listed on the NRHP, and the project Corridor passes directly to the west of the club. The visual impact analysis shows that the CRT trains will be visible along the rail corridor from portions of the golf course.

At the Orlando Amtrak station, the proposed Full-Build Alternative station will be constructed to the north of the existing station and will not directly impact the view of the historic station buildings. The number and size of new station elements (shelters, benches, lighting, etc.) will be minimal and designed to include the use of compatible elements and materials to complement the existing historic character of the station.

At Kissimmee, the proposed Full-Build Alternative station will be located adjacent to the existing Amtrak station. Absent the proposed CRT trains, the visual impact of the new station elements at this location is minimal.

The proposed CRT train consists of up to three diesel-multiple units (DMUs) and is much shorter in length than Amtrak passenger trains and CSXT freight trains that currently use the Corridor. Because of the shorter train length, the total amount of time that the CRT trains will be visible from any visual vantage point along the corridor is comparatively minor compared to the Amtrak and CSXT trains, minimizing the potential visual impact of the proposed project. Train dwell time at stations will also be minimal and is not expected to result in a measurable visual impact.

Mitigation

No negative visual impacts are anticipated; therefore, no specific mitigation measures are necessary.

Existing

Proposed

Figure 3-9 St. Johns River Drawbridge

Existing

Proposed

Figure 3-10 Winter Park Country Club

Existing

Proposed

Figure 3-11 Orlando Amtrak Station

Existing

Proposed

Figure 3-12 Kissimmee Amtrak Station

3.3.3 Air Quality

This section summarizes the air quality study performed on the project alternatives. The air quality study consisted of two main components: an emissions inventory (or mesoscale) analysis for the project study area, and a dispersion modeling (ambient concentrations or microscale) "hot spot" analysis to estimate ambient carbon monoxide (CO) concentrations at key roadway intersections in the study area. The study included the existing conditions and the three future alternatives: the No-Build, TSM, and the Full-Build Alternative.

Methodology

Emissions Inventory Analysis

The emissions inventory was prepared in order to compare the relative impacts of the project alternatives for purposes of disclosure and public information as mandated under the NEPA. As the project region is not in a nonattainment area for any criteria air pollutant, the EPA Transportation Conformity Rule does not apply and the emission inventory is not required for conformity purposes.

The emissions inventory was developed for motor vehicles, including transit buses, on affected roadways and for DMU railcars in the Project Corridor. The roadway network for the analysis was defined based on the project traffic studies. The emission inventory was prepared in accordance with guidance issued by EPA, FDOT, and the Florida DEP.

Emissions were calculated for CO, volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur dioxide (SO_2), and particulate matter less than 10 microns or 2.5 microns diameter (PM_{10}/$PM_{2.5}$). The emission factors used to estimate the vehicle emissions were calculated using the most recent approved version of the EPA MOBILE program (currently MOBILE6.2). The specific MOBILE6.2 input values were developed from DOT and DEP guidance. Emission factors for DMUs were calculated from engine and emissions data provided by Colorado Railcar Manufacturing, LLC, a potential supplier of the CRT DMU.

Regional summary level emissions were calculated by multiplying the ADT volumes by vehicle type as supplied from regional model outputs.

Ambient Concentrations Analysis

The intersections modeled in the ambient concentrations analysis are listed in Table 3-11 below. The dispersion modeling analysis demonstrates the air quality impacts of the project in the vicinity of selected roadway intersections included in the transportation analysis (Chapter 4), for the same project alternatives as the emission inventory. A three-step screening and analysis process was used.

In the initial step of the process, local air pollutant levels associated with the Project were evaluated in terms of potential CO concentrations. Motor vehicles emit CO at high rates when they are operating at low speeds or idling in queues. For this reason, the potential for adverse air quality impacts is greatest at intersections where traffic is most congested. EPA has specified criteria based on traffic level of service (LOS) and volume for screening the intersections in the study area and selecting locations for detailed air quality analysis. This initial or "worst-case" EPA screening criterion is the first step of the analysis process and is accepted by FDOT.

Level of service is a measure of the performance of the intersection in processing the volume of vehicles attempting to pass through it. Level of service is expressed as a letter rating based largely on the overall average delay during the highest volume hour at the intersection, where LOS A is best and LOS F worst. The EPA's criteria state that intersections that currently operate at LOS D or worse, or would operate at LOS D or worse under future conditions, should be considered for air quality analysis. Adverse air quality impacts are extremely unlikely at locations that operate at LOS C or better, and EPA and FDOT do not require air quality analysis of such locations.

In applying the EPA/FDOT screening procedure to the project, the intersections in the traffic study area that were ranked LOS D or worse were selected for further air quality analysis. Table 3-11 lists the locations that were ranked LOS D or worse in this step. These intersections were selected for modeling in the second step of the ambient concentrations analysis.

Table 3-11 Intersections Selected for Air Quality Screening Modeling

Location/ ***Station Name***	**Intersection Description**	**Municipality/County**
Sanford	SR46/Airport Blvd	Sanford/Seminole
Lake Mary	Lake Mary Blvd/Country Club Rd	Lake Mary/Seminole
Longwood	Reagan Blvd/Church Ave	Longwood/Seminole
Altamonte Springs	Longwood/Reagan Blvd (427)/Altamonte Dr (436)	Altamont Springs/ Seminole
Lynx Central Station	Garland/Amelia	Orlando/Orange
Lynx Central Station	Orange/Livingston	Orlando/Orange
Lynx Central Station	Garland/Robinson	Orlando/Orange
Sand Lake Road	Sand Lake Rd (SR 525)/Orange Ave	Orange/Orange
Sand Lake Road	Jetport/Orange Ave	Orange/Orange
Osceola Pkwy	Osceola Pkwy/Michigan Ave	Kissimmee/Osceola
Kissimmee	Broadway/Drury	Kissimmee/Osceola
Kissimmee	Monument/Central/Broadway	Kissimmee/Osceola
Poinciana Blvd	Poinciana Blvd/17-92 (S. Orange Blossom Trail)	Poinciana/Osceola
Non-Station Locations		
Longwood	Sanlando Springs (SR 434)/Reagan Blvd (CR 427)	Longwood/Seminole
At-Grade Crossing #3 (CR 427)	Reagan Blvd (CR 427)/Longwood Lake Mary Rd	Longwood/Seminole
At-Grade Crossing #4/ Lynx	N. Orange/Colonial 50	Orlando/Orange

The second step is the use of COSCREEN, FDOT's official screening model, to estimate maximum CO concentrations at the intersections identified in the initial screening. The most recently approved version of COSCREEN (currently CO Florida 2004) was used to evaluate each intersection. The CO Florida 2004 default input values for the Central Florida region were used for meteorology inputs, MOBILE6.2 parameters, persistence factors, and background CO concentrations. The screening modeling was applied for the same alternatives and analysis years as described above for the emission inventory. The output of this step is the predicted maximum CO concentration at each intersection. Predicted concentrations were compared to the NAAQS and the Florida Ambient Air Quality Standards for CO. The National and Florida standards are the same for CO.

The third step is detailed dispersion modeling. If predicted concentrations at any of the intersections had exceeded the NAAQS, detailed site-specific analysis for those intersections would have been conducted using the EPA CAL3QHC and MOBILE6.2 models in accordance with EPA, FDOT, and DEP guidance. However, since none of the intersections that were analyzed in the screening analysis exceeded the NAAQS, the detailed analysis was not necessary

The results of the emission inventory analysis consist of the total emissions in tons per year of CO, VOCs, NO_x, SO_2, PM_{10}, and $PM_{2.5}$ for motor vehicles and DMUs in the study area. The results of the dispersion modeling analysis consist of maximum one-hour and eight-hour CO concentrations at each intersection analyzed.

Air Quality Assessment Results

Emissions Inventory

Year 2025 Emissions of VOCs, NO_x, SO_2, PM_{10}, and $PM_{2.5}$ with the No-Build Alternative are compared to emissions from the TSM Alternative and the Full-Build Alternative in Table 3-12, which identifies and assesses the relative emissions impacts of the project alternatives.

For the No-Build Alternative, VOC emissions are higher than for either the TSM or Full-Build Alternatives, reflecting the higher VMT on regional roadways for this alternative. NOx emissions are slightly higher than the TSM Alternative, but slightly lower than the Full-Build Alternative. This reflects the higher NOx emissions estimated for the Full-Build Alternative DMUs. For other pollutants, the No-Build Alternative is virtually identical (although minimally higher) than the TSM Alternative, and slightly lower than the Full-Build Alternative for particulate matter emissions (again reflecting the impact of the diesel powered DMUs).

For the TSM Alternative, total annual emissions are similar for VOC emissions and SO_2 emissions, and slightly lower for NOx and particulate matter emissions than the Full-Build Alternative.

For the Full-Build Alternative, the total annual emissions of NOx and particulate matter are slightly higher than that of either the No-Build or TSM Alternatives. As noted, this reflects the use of diesel-powered DMUs in the analysis. VOC emissions are slightly lower than the No-Build Alternative, reflecting the lower VMT projected on regional roadways for the Full-Build Alternative.

Ambient Concentrations Analysis

Modeled 1-hour and 8-hour CO concentrations are compared to the NAAQS in and Table 3-14. The results show there are no CO concentrations above the standards. The area is designated as attainment for all pollutants; therefore the conformity rules do not apply.

Table 3-12 CRT Emissions Analysis

Pollutant	Total Emissions (tons/year) - 2025		
	No-Build	TSM	Full-Build
VOC	17,256	17,249	17,248
NOx	12,947	12,945	13,119
SO_2	351	351	351
PM_{10}	1,009	1,008	1,015
$PM_{2.5}$	1,009	1,008	1,015

Table 3-13 Maximum Predicted 1-Hour CO Concentrations

Location/ Station	Intersection Description	Municipality/County	No-Build	TSM	Full-Build
Sanford	SR46/Airport Blvd	Sanford/Seminole	7.7	6.7	6.7
Lake Mary	Lake Mary Blvd/Country Club Rd	Lake Mary/Seminole	8.8	8.8	8.8
Longwood	Reagan Blvd/Church Ave	Longwood/Seminole	7.3	7.3	7.3
Altamonte Springs	Longwood/Reagan Blvd (427)/Altamonte Dr (436)	Altamont Springs/ Seminole	9.9	10.0	10.0
Lynx Central Station	Garland/Amelia	Orlando/Orange	9.5	9.5	9.5
Lynx Central Station	Orange/Livingston	Orlando/Orange	9.2	9.2	9.2
Lynx Central Station	Garland/Robinson	Orlando/Orange	9.6	9.7	9.7
Sand Lake Road	Sand Lake Rd (SR 525)/Orange Ave	Orange/Orange	10.0	10.0	10.0
Sand Lake Road	Jetport/Orange Ave	Orange/Orange	6.9	7.0	7.0
Osceola Pkwy	Osceola Pkwy/Michigan Ave	Kissimmee/Osceola	8.7	8.8	8.8
Kissimmee	Broadway/Drury	Kissimmee/Osceola	7.2	7.3	7.3
Kissimmee	Monument/Central/Broadway	Kissimmee/Osceola	7.3	7.4	7.4
Poinciana Blvd	Poinciana Blvd/17-92 (S. Orange Blossom Trail)	Poinciana/Osceola	7.2	7.3	7.3
Non-Station Locations					
Longwood	Sanlando Springs (SR 434)/Reagan Blvd (CR 427)	Longwood/Seminole	8.4	8.4	8.4
At-Grade Crossing #3 (CR 427)	Reagan Blvd (CR 427)/Longwood Lake Mary Rd	Longwood/Seminole	6.7	6.7	6.7
At-Grade Crossing #4/ Lynx	N. Orange/Colonial 50	Orlando/Orange	9.1	9.1	9.1
National and Florida Ambient Air Quality Standard			35.0	35.0	35.0

Table 3-14 Maximum Predicted 8-Hour CO Concentrations

Location/ Station	Intersection Description	Municipality/County	No-Build	TSM	Full-Build
Sanford	SR46/Airport Blvd	Sanford/Seminole	4.6	4.0	4.0
Lake Mary	Lake Mary Blvd/Country Club Rd	Lake Mary/Seminole	5.3	5.3	5.3
Longwood	Reagan Blvd/Church Ave	Longwood/Seminole	4.4	4.4	4.4
Altamonte Springs	Longwood/Reagan Blvd (427)/Altamonte Dr (436)	Altamont Springs/ Seminole	6.0	6.0	6.0
Lynx Central Station	Garland/Amelia	Orlando/Orange	5.7	5.7	5.7
Lynx Central Station	Orange/Livingston	Orlando/Orange	5.5	5.5	5.5
Lynx Central Station	Garland/Robinson	Orlando/Orange	5.8	5.8	5.8
Sand Lake Road	Sand Lake Rd (SR 525)/Orange Ave	Orange/Orange	6.0	6.0	6.0
Sand Lake Road	Jetport/Orange Ave	Orange/Orange	4.2	4.2	4.2
Osceola Pkwy	Osceola Pkwy/Michigan Ave	Kissimmee/Osceola	5.3	5.3	5.3
Kissimmee	Broadway/Drury	Kissimmee/Osceola	4.3	4.4	4.4
Kissimmee	Monument/Central/Broadway	Kissimmee/Osceola	4.4	4.5	4.5
Poinciana Blvd	Poinciana Blvd/17-92 (S. Orange Blossom Trail)	Poinciana/Osceola	4.3	4.4	4.4
Non-Station Locations					
Longwood	Sanlando Springs (SR 434)/Reagan Blvd (CR 427)	Longwood/Seminole	5.1	5.1	5.1
At-Grade Crossing #3 (CR 427)	Reagan Blvd (CR 427)/Longwood Lake Mary Rd	Longwood/Seminole	4.0	4.0	4.0
At-Grade Crossing #4/ Lynx	N. Orange/Colonial 50	Orlando/Orange	5.5	5.5	5.5
National and Florida Ambient Air Quality Standard			9.0	9.0	9.0

Mitigation

No exceedences of the either the 1-hour or 8-hour CO standards are projected, therefore the analysis results show no air quality mitigation is needed for any of the alternatives considered.

This project is in an area which has been designated as attainment for all the air quality standards under the criteria provided in the Clean Air Act Amendments of 1990, therefore conformity does not apply.

3.3.4 Noise

A detailed noise and vibration assessment was performed along the project Corridor, from DeLand in Volusia County to Poinciana Boulevard in Osceola County. This section assesses the existing noise environment along the project corridor, evaluates the potential noise impact that would be generated by the project, and identifies potential mitigation measures that can be implemented to eliminate or minimize identified potential noise impacts.

Methodology/Criteria

The noise and vibration analyses were performed in accordance with the methodology contained in the FTA Transit Noise and Vibration Impact Assessment[4] guidelines and in the FDOT Project Development & Environmental Manual (PD&E) and Rail Noise Standards at 40 CFR Part 201[5]. However, the FTA guidelines are more stringent and relevant to transit projects. As a result, the noise and vibration analyses for this project were performed in accordance with the more stringent FTA guidelines to ensure that the analysis meets or exceeds the requirements of all applicable criteria. Additionally, the Federal Railroad Administration (FRA) horn noise model was used to calculate the noise levels from the use of warning horns at grade crossings.

The FTA guidance manual sets forth the basic concepts, methods, and procedures for documenting the extent and severity of noise and vibration impacts from transit projects. In general, FTA noise criteria are based on the existing background noise levels. As a result, noise measurements were obtained at a number of representative noise-sensitive receptor locations along the project Corridor to determine the existing noise environment.

The existing noise environment was described for the various land-use categories defined by the FTA. FTA characterizes noise sensitive uses in three categories: Category 1 receptors are tracts of land where quiet is an essential element in their intended use (such as outdoor amphitheaters); Category 2 receptors include residences and buildings where people normally sleep and where nighttime sensitivity to noise is assumed to be of utmost importance; and Category 3 includes institutional receptors (such as schools, churches, and parklands) with primarily daytime and evening use.

Table 3-15 summarizes the FTA noise impact criteria applicable to the three categories of land use.

Table 3-15 FTA Land Use Categories and Noise Metrics

Land-use Category	Noise Metric	Description
1	$L_{eq}(h)$	Tracts of land set aside for serenity and quiet, such as outdoor amphitheaters, concert pavilions, and historic landmarks.
2	L_{dn}	Buildings used for sleeping such as residences, hospitals, hotels, and other areas where nighttime sensitivity to noise is of utmost importance.
3	$L_{eq}(h)$	Institutional land-uses with primarily daytime and evening uses including schools, libraries, churches, museums, cemeteries, historic sites, and parks, and certain recreational facilities used for study or meditation.
Source: Transit Noise and Vibration Impact Assessment - Final Report, FTA, Washington, D.C., April 1995		

The FTA noise criteria are based on the existing background level as well as the land-use category of the noise receptor. Following the FTA methodology, 24-hour day-night

[4] "Transit Noise and Vibration Impact Assessment", Federal Transit Administration, (DOT-T-95-16), April 1995.

[5] FDOT 40 CFR 201 Rail Noise Standards, Updated July 1 2001.

noise levels are used to characterize the existing background at Category 2 residential receptors while peak-hour noise levels are used for Category 1 and Category 3 receptors. These time intervals are representative of the periods of the day that impact a given category of receptor the most.

Because residential receptors are most noise sensitive during the nighttime hours, the day-night noise level is used to describe impact to account for sleep disturbances. At non-residential or institutional receptors such as schools, libraries, and churches, adverse noise impacts are assessed during the daytime when these receptors or facilities are occupied. In general, the FTA noise criteria are established so that when the overall project noise levels are added to the existing background, the total noise level will not lead to an annoyance condition. It is the increase in *cumulative* noise (when project generated noise is added to existing noise) that is the basis of the impact assessment. Since the L_{eq} and L_{dn} metrics are measures of total noise, any new noise source will cause an increase in cumulative noise, and that new cumulative noise level is then compared to the impact thresholds for each land use category.

As shown in Figure 3-13 the FTA noise impact criteria are defined by two curves that allow increasing project noise levels as existing noise increases up to a point, beyond which impact is determined based on project noise alone. The FTA noise criteria are delineated into two categories: *moderate impact* and *severe impact*. The *moderate impact* threshold defines areas where the change in noise is noticeable but may not be sufficient to cause a strong, adverse community reaction. The *severe impact* threshold defines the noise limits above which a significant percentage of the population would be highly annoyed by new noise.

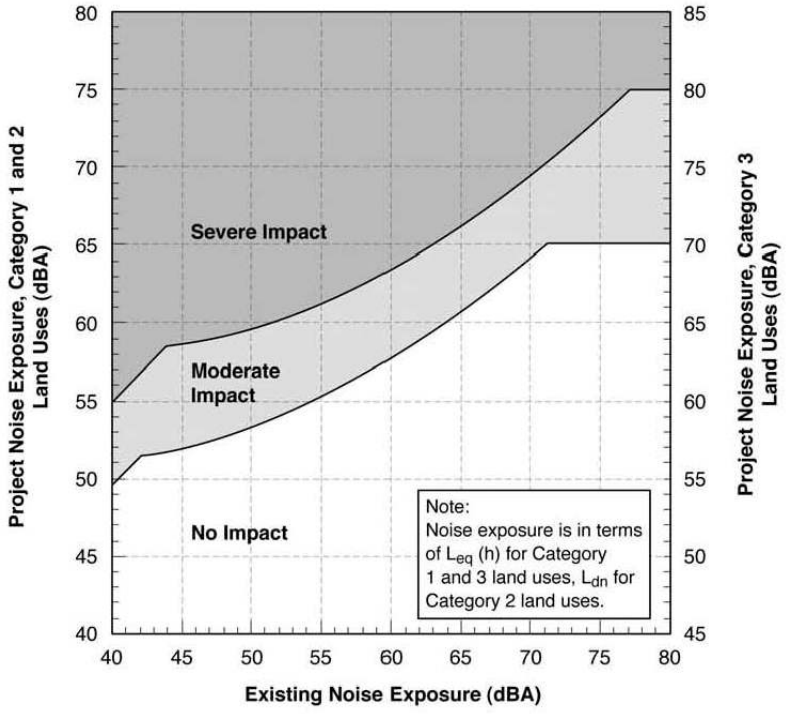


Figure 3-13 FTA Noise Impact Criteria for Transit Projects

Existing Conditions

Existing noise levels along the project Corridor are currently dominated by CSXT freight rail and Amtrak intercity passenger rail operations, and traffic noise from nearby highways and along local streets. In addition, the noise measurements also include noise from train horns for locations within approximately a ¼ mile of grade crossings.

A total of 12 receptor locations were selected to be representative of typical land-use types found along the project Corridor. Noise measurement locations were selected based on several criteria including land-use type, a receptor's location relative to other noise sources such as highway traffic that could affect the receptor's existing noise environment, distribution along the project Corridor, and municipality. A description of measurement locations is given in Table 3-16 with general locations shown in Figure 3-14.

Table 3-16 Predicted CRT Train Operational Noise Levels at Receptor Locations in the CRT Project Corridor

No.	Measurement Locations Receptor Description	Town	FTA Category	Date	Start Time	Duration	Measured Ambient Noise Level (dBA)	FTA Moderate Impact** Criterion (dBA)	FTA Severe Impact** Criterion (dBA)
1	25 Jason Drive*	DeBary	2	5/10/05	0715 hrs	24-hours	68 L_{dn}	63 L_{dn}	68 L_{dn}
2	121 Yale Drive	Sanford	2	5/11/05	1500 hrs	24-hours	70 L_{dn}	65 L_{dn}	69L_{dn}
3	202 Melissa Court	Sanford	2	5/9/05	1830 hrs	24-hours	70 L_{dn}	65 L_{dn}	69L_{dn}
4	115 West Pine Avenue	Longwood	2	5/6/05	1800 hrs	24-hours	74 L_{dn}	66 L_{dn}	72 L_{dn}
5	425 Lake Seminary Circle	Maitland	2	5/6/05	1700 hrs	24-hours	68 L_{dn}	63 L_{dn}	68 L_{dn}
5B	Lake Lily Park	Maitland	3	5/9/05	1400 hrs	1-hour	56 $L_{eq}(h)$	56 Leq(h)	62 Leq(h)
6	719 Nottingham Street	Orlando	2	5/9/05	1700 hrs	24-hours	70 L_{dn}	65 L_{dn}	69L_{dn}
7	Near Orlando Amtrak Station	Orlando	2	5/6/05	1530 hrs	24-hours	74 L_{dn}	66 L_{dn}	72 L_{dn}
7B	Cypress Grove Park	Orlando	3	5/7/05	1230 hrs	1-hour	66 $L_{eq}(h)$	62 $L_{eq}(h)$	67 $L_{eq}(h)$
8	12165 Sandal Creek	Orlando	2	5/5/05	1230 hrs	24-hours	69 L_{dn}	64 L_{dn}	69 L_{dn}
9	42 Neptune Road	Kissimmee	2	5/4/05	1630 hrs	24-hours	66 L_{dn}	62 L_{dn}	67 L_{dn}
10	4894 Old Tampa Highway	Kissimmee	2	5/4/05	1540 hrs	24-hours	68 L_{dn}	63 L_{dn}	68 L_{dn}

** Total Noise Level = Logarithmic sum of Measured + Predicted CRT train operational noise level without warning horns.
Source: KM Chng Environmental Inc.

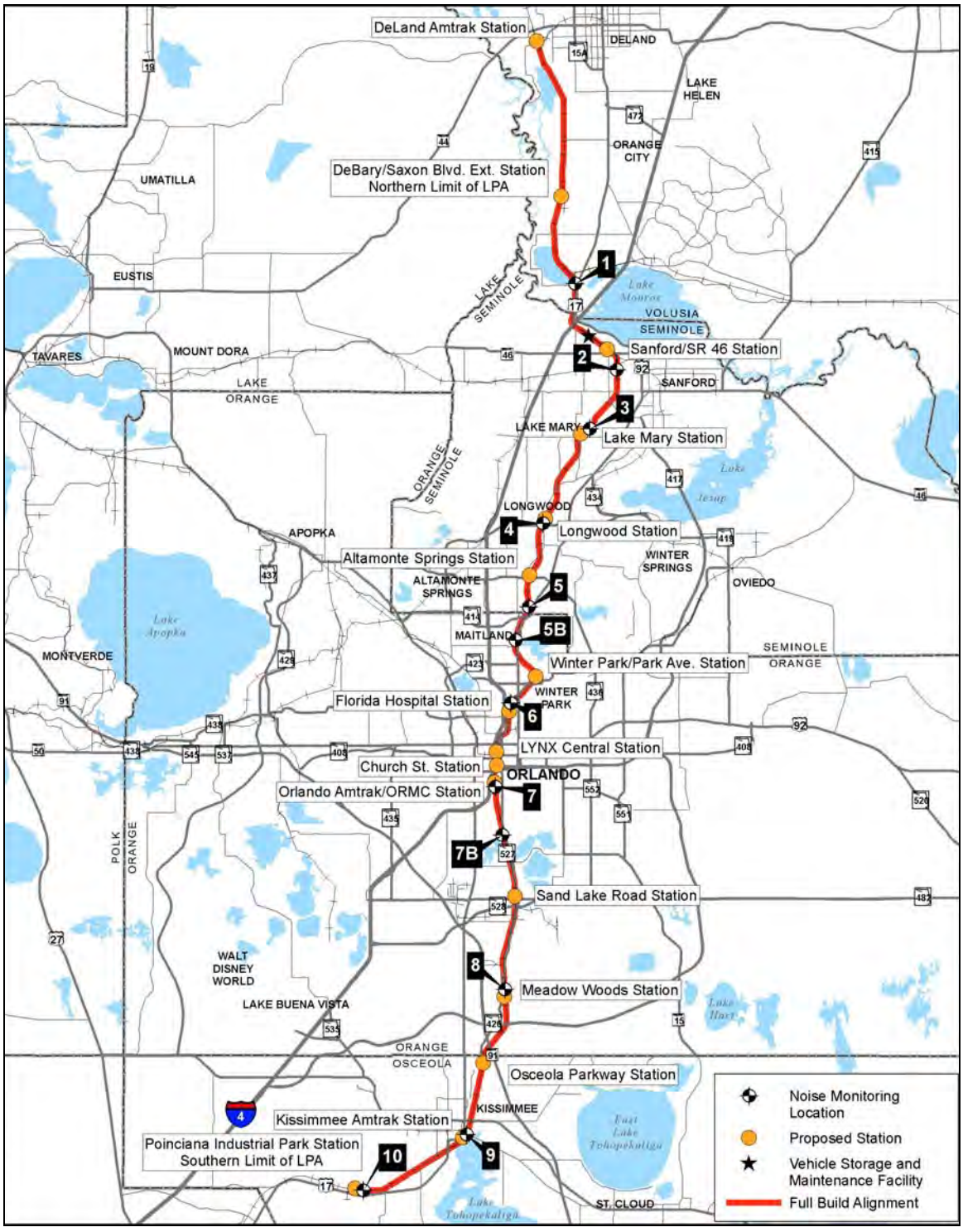


Figure 3-14 Noise & Vibration Monitoring Locations

Most of the locations are residential, for which the FTA land-use category for each location is Category 2. Continuous 24 hour noise levels were measured at each of these residential receptor locations. In addition, two park locations (FTA land-use Category 3 receptors) were also selected for which hourly Leq measurements were obtained.

Residential (or FTA Category 2) receptors that were selected include single-family dwellings, and multi-family housing. Although the project Corridor is lined with numerous commercial buildings, the FTA does not consider them to be noise-sensitive receptors. Several of the measurement locations are close to proposed commuter rail stations, and six of the measurement locations are within ¼ mile of a grade crossing and therefore, are also subject to noise from train horns. The analysis showed that no land uses in Category 1 and Category 3 would be adversely affected due to the introduction of the transit project.

Impacts

The two categories of potential noise impact assessed were train operational noise and train warning horn noise when trains approach grade crossings. Together, these two categories are referred to as the combined operational noise impacts.

No-Build Alternative

Under the No Build Alternative, no CRT train trips would be added to the Corridor and there would be no CRT noise impacts.

TSM Alternative

Implementation of the TSM Alternative would result in additional bus traffic on local highways and roadways. Because the increase in bus traffic would be a negligible increase compared to existing highway and roadway traffic, no perceptible increase in existing noise levels along the TSM Alternative routes or in the vicinity of TSM Alternative station locations is expected. As with the No-Build, no CRT train trips would be added to the Corridor in the TSM Alternative and there would be no CRT noise impacts.

Full-Build Alternative

The FTA noise prediction guidelines contain mathematical algorithms that allow for the computation of project generated noise levels at receptor locations along the project Corridor.

The model requires inputs such as the reference noise level at a distance of 50 feet for each of the noise sources used in the modeling analysis. These noise sources included the DMU rail cars (80 dBA L_{max} during a train passby at 50 mph; and 72 dBA when idling at the station), and grade crossing signals (73 dBA L_{max}). In accordance with the Federal Rail Administration's Final Rule on the *Use of Locomotive Horns at Highway-Rail Grade Crossings* (49 CFR Parts 222 and 229; April 2005), the minimum allowable warning horn L_{max} level of 96 dBA at a distance of 100 feet was used for the DMUs in the noise modeling analysis.

Transit noise impacts include noise resulting from train operations (the noise generated by the trains as they travel along the tracks) as well as the noise resulting from the sounding of train warning horns as trains approach grade crossings.

Combined Operational Noise Impacts

Train noise during operation includes a combination of propulsion noise, horn noise and wheel and vibration noise. The combined noise level is what is used to determine the magnitude of the impact from the FTA impact criteria curves.

Table 3-17 indicates that the predicted CRT project combined operational noise levels are generally below the measured existing noise levels. However, based on the FTA moderate impact and severe impact criteria curves shown in Figure 3-13, the predicted noise levels at receptor locations 1, 2, and 6 are predicted to exceed the FTA moderate impact criterion, while receptor location 7 is predicted to exceed the FTA severe impact criterion. The predicted project CRT Ldn noise levels in Table 3-17 range from 48 dBA at receptor location 10 to 74 dBA at receptor location 7. This range in noise level is primarily due to the receptor's proximity to a grade crossing where the noise from the warning horns result in the higher predicted CRT project noise levels.

Table 3-17 also indicates that when the predicted CRT project combined operational noise levels are logarithmically added to the measured existing ambient noise levels, the total corridor noise level is expected to increase by one to three dBA at four of the 12 test sites. A 3 dBA Ldn increase in the cumulative noise level is generally considered to be a minor change in noise level at low ambient levels. However, this is a transportation corridor where ambient noise exposure is high and people already exposed to high levels of noise can be annoyed by even small increases in cumulative noise levels. Therefore, it is not reasonable to expect the community to tolerate the annoying cumulative effect of low project noise increases. The intermittent DMU passbys and train horns will be audible above the existing noise levels along the project corridor.

Table 3-17 Predicted CRT Combined Operational Noise Levels at Receptor Locations in the CRT Project Corridor

No.	Receptor Description	Town	FTA Category	Measured Noise Level (dBA)	Predicted CRT Noise Level (dBA)***	Total Noise Level (dBA)****
1	25 Jason Drive	DeBary	2	68 L_{dn}	**66 L_{dn}**	70 L_{dn}
2	121 Yale Drive*	Sanford	2	70 L_{dn}	**68 L_{dn}**	72 L_{dn}
3	202 Melissa Court*	Sanford	2	70 L_{dn}	50 L_{dn}	70 L_{dn}
4	115 West Pine Avenue	Longwood	2	74 L_{dn}	63 L_{dn}	74 L_{dn}
5	425 Lake Seminary Circle*	Maitland	2	68 L_{dn}	56 L_{dn}	68 L_{dn}
5B	Lake Lily Park**	Maitland	3	56 $L_{eq}(h)$	68 Leq(h)	68 Leq(h)
6	719 Nottingham Street*	Orlando	2	70 L_{dn}	**67 L_{dn}**	72 L_{dn}
7	Near Orlando Amtrak Station	Orlando	2	74 L_{dn}	***74* L_{dn}**	77 L_{dn}
7B	Cypress Grove Park*,**	Orlando	3	66 $L_{eq}(h)$	57 $L_{eq}(h)$	66 $L_{eq}(h)$
8	12165 Sandal Creek**	Orlando	2	69 L_{dn}	50 L_{dn}	69 L_{dn}
9	42 Neptune Road*	Kissimmee	2	66 L_{dn}	62 L_{dn}	67 L_{dn}
10	4894 Old Tampa Highway	Kissimmee	2	68 L_{dn}	48 L_{dn}	68 L_{dn}

* Predicted CRT Project Noise Levels: **Bold** = FTA Moderate Impact; ***Bold Italic*** = FTA Severe Impact.
** Total Noise Level = Logarithmic sum of Measured + Predicted CRT noise level with horns.
Source: KM Chng Environmental Inc.

Note that the measured Leq(h) noise level at Lake Lily Park in Maitland represents the noise level during a one-hour period when no rail activity occurred. Lake Lily Park directly borders the CSXT right-of-way and noise levels from existing CSXT and Amtrak trains currently impact park users.

With train activity, the measured Leq(h) noise level would have been similar to the noise level measured at Cypress Grove Park (Leq(h)=66dBA). Hence, the predicted CRT operational noise level would fall in the range from zero to three dBA The analysis showed that no land uses in categories 1 and 3 would be adversely affected due to the introduction of the CRT project. The following sub-sections compares the two separate components (train operations noise and train warning horn noise) of the combined operational noise impacts.

Train Operational Noise

Procedures outlined in FTA's Transit Noise and Vibration Assessment (USDOT, 1995) were used to predict train pass-by noise levels at noise sensitive locations along the proposed alignment. Noise sensitive land uses that might be impacted by the operation of the proposed project include single family residences, multifamily residences, mobile homes, and parks.

CRT intends to use Federal Railroad Administration (FRA) compliant self-propelled commuter railcars combining a commuter railcar and a diesel locomotive unit (DMU). A baseline sound emission level of 84 dBA (80 dBA L_{max}) was used in the operational noise analysis.

Train operational noise typically comes from the train engine, steel wheels, vibrations and track imperfections. Train pass-by noise levels at the sensitive locations were calculated using the operational schedule, speed, consist size, topographic information and distance to the centerline of the proposed track alignment that was available at the time of study. Train operations include 1, 2, or 3 DMU train consists with an average of 56 scheduled trains per 24-hour period. The calculated noise levels were then compared to the "moderate impact" and "severe impact" criteria established according to the ambient noise conditions.

Table 3-18 Predicted CRT Train Operational Noise Levels provides results of the calculations at the sensitive receptors and the degree of impact. According to results of the noise modeling there would be no moderate or severe noise impacts on residential or commercial structures as a result of train operational noise.

Train Warning Horn Noise

The Project Corridor was divided into 16 segments that correspond to the areas of the Corridor containing each of the station locations. Because of the additional sounding of the DMU train horns at each of the grade crossings all project related noise impacts are within ¼-mile of the grade crossings. Table 3-19 shows the number of receptors within each of the 16 segments of the rail corridor that exceed the FTA's moderate or severe impact criteria.

Table 3-18 Predicted CRT Train Operational Noise Levels at Receptor Locations in the CRT Project Corridor

No.	Receptor Description	Town	FTA Category	Distance to Center Line (feet)	Operational Speed (mph)	Measured Ambient Noise Level (dBA)	Predicted CRT Train Operational Noise Level (dBA)	Total Noise Level (dBA)**	FTA Moderate Impact** Criterion (dBA)	FTA Severe Impact** Criterion (dBA)	Degree of Impact From Train Operational Noise***
1	25 Jason Drive	DeBary	2	55	40	68 L_{dn}	55 L_{dn}	68 L_{dn}	63 L_{dn}	68 L_{dn}	None
2	121 Yale Drive	Sanford	2	89	20	70 L_{dn}	54 L_{dn}	70 L_{dn}	65 L_{dn}	69L_{dn}	None
3	202 Melissa Court	Sanford	2	76	50	70 L_{dn}	50 L_{dn}	70 L_{dn}	65 L_{dn}	69L_{dn}	None
4	115 West Pine Avenue	Longwood	2	102	50	74 L_{dn}	55 L_{dn}	74 L_{dn}	66 L_{dn}	72 L_{dn}	None
5	425 Lake Seminary Circle	Maitland	2	55	50	68 L_{dn}	56 L_{dn}	68 L_{dn}	63 L_{dn}	68 L_{dn}	None
5B	Lake Lily Park	Maitland	3	80	40	56 $L_{eq}(h)$	68 Leq(h)	68 Leq(h)	56 Leq(h)	62 Leq(h)	None
6	719 Nottingham Street	Orlando	2	67	20	70 L_{dn}	57 L_{dn}	70 L_{dn}	65 L_{dn}	69L_{dn}	None
7	Near Orlando Amtrak Station	Orlando	2	49	20	74 L_{dn}	66 L_{dn}	74 L_{dn}	66 L_{dn}	72 L_{dn}	None
7B	Cypress Grove Park	Orlando	3	100	40	66 $L_{eq}(h)$	57 $L_{eq}(h)$	66 $L_{eq}(h)$	62 $L_{eq}(h)$	67 $L_{eq}(h)$	None
8	12165 Sandal Creek	Orlando	2	72	50	69 L_{dn}	50 L_{dn}	69 L_{dn}	64 L_{dn}	69 L_{dn}	None
9	42 Neptune Road	Kissimmee	2	101	40	66 L_{dn}	55 L_{dn}	66 L_{dn}	62 L_{dn}	67 L_{dn}	None
10	4894 Old Tampa Highway	Kissimmee	2	202	50	68 L_{dn}	48 L_{dn}	68 L_{dn}	63 L_{dn}	68 L_{dn}	None

** Total Noise Level = Logarithmic sum of Measured + Predicted CRT train operational noise level without warning horns.
*** Degree of Impact is determined by comparing the Predicted CRT Train Operational Noise Level with the FTA impact criteria.

Source: KM Chng Environmental Inc.

Although the addition of the CRT project will cause some shift in the freight rail operations along the Project Corridor, no additional freight operations will occur during the nighttime hours (10 p.m. to 7 a.m.). As a result, the existing L_{dn} noise levels along the project Corridor from both the CSXT freight rail and Amtrak trains will remain essentially unchanged. The typical noise levels from the diesel locomotives (92 dBA L_{max}) and rail cars (82 dBA L_{max}) at a distance of 50 feet and traveling at a speed of 50 mph, are higher than the DMU rail car noise level of 80 dBA L_{max}. In the vicinity of the grade crossings where the DMU warning horns and CSXT and Amtrak locomotive warning horns will be sounded, the additional noise from the DMU warning horns will result in impacts at receptors along the rail corridor located within a ¼-mile of the grade crossings.

As shown in Table 3-19, the number of predicted unmitigated FTA noise impacts along the project corridor is 163 moderate and 54 severe *impacts*.

Because of the additional sounding of the DMU warning horns at the grade crossings, almost all the project related noise impacts are along the project corridor and located within ¼-mile of the grade crossings. However, these areas are already impacted by noise from the warning horns from the existing CSXT freight trains and Amtrak trains. Presently, up to 26 passenger and freight rail trains a day travel along the CSXT corridor, including 10 through trains and up to 10 local trains (varies depending on location along corridor and day of week) that travel various segments of the project corridor. The model conservatively assumed 20 passenger and freight trains per day.

Table 3-19 FTA Noise Impacts from the CRT Project due to Warning Horns without Mitigation

Region	Description/Station Area	Number of Moderate Impacts	Number of Severe Impacts
1	DeLand	2	0
2	DeBary/Saxon	0	0
3	Sanford	18	3
4	Lake Mary	16	2
5	Longwood	6	0
6	Altamonte Springs	20	20
7	Winter Park	19	8
8	Florida Hospital	16	7
9	Orlando LCS	20	5
10	Church Street	0	0
11	ORMC/Amtrak	1	0
12	Sand Lake	0	0
13	Meadow Woods	12	2
14	Osceola	0	0
15	Kissimmee	26	7
16	Poinciana	7	0
Totals		**163**	**54**

The addition of the DMU warning horns will increase the total noise levels at the grade crossings by approximately 2-3 dBA. In general, this degree of change in the existing noise level would be considered a moderate noise increase. However, many of these locations are already experiencing existing horn noise levels of 75 dBA or higher, and no additional noise exposure from CRT DMU horns can be tolerated before being considered as an impact.

It is important to note that the DMUs will utilize warning horns with lower volume horns (96 dBA L_{max} 100 feet in front of train) as allowed under 2005 FRA rulemaking. Thus, the horn noise produced by the DMU will be lower than the warning horns currently in use by the CSXT and Amtrak locomotives (102 dBA L_{max} at 100 feet).

In summary, this is an existing freight and passenger corridor with 126 active at-grade crossings, 10 through freight trains, 6 Amtrak trains, and up to 10 local switcher trains traveling and sounding their horns throughout the entire line 24 hours a day, 7 days a week. The CRT represents an increase in the existing type and volume of noise, and will

result in trains and warning horns being heard more frequently along the corridor during the week. The total amount of community noise exposure is already at a high level and people already exposed to high levels of noises can be annoyed by even small increases in cumulative noise levels. Should some CSXT through freight trains be redirected off the line in the future the cumulative operational and train horn noise levels along the line for freight that were used in this analysis would be lower.

Mitigation

As shown in Table 3-19, the number of predicted FTA noise impacts along the project corridor is 163 moderate impacts and 54 severe impacts due to the use of the DMU warning horns at the grade crossings. To further reduce these noise impacts, the DMU warning horns could be modified or re-designed to reduce the sideline noise while still maintaining the FRA's minimum noise requirement of 96 dBA Lmax measured at a distance of 100 feet from the centerline of the horn. The FEIS prepared for the Utah Transit Authority Weber County to Salt Lake City Commuter Rail Project (April 2005), based the results of the noise analysis using a sheet metal shroud packed with 4-inch foam rubber as mitigation. The sideline noise levels from the train horns were estimated to be reduced by up to 22 dBA while maintaining full level of on-axis output and would be consistent with FRA requirements. Applying this mitigation technique or similar redesign of the horn to reduce sideline noise of the DMU warning horns can be expected to eliminate all moderate impacts and severe impacts of the CRT. Table 3-20 presents the recommended mitigation plan to eliminate all noise impacts along the project corridor through the use of custom modified train horns on the proposed DMU fleet.

Table 3-20 FTA Severe Noise Impacts from the CRT Project with Proposed Mitigation

Region	Description/ Station Area	Number of Severe Impacts Before Mitigation	Proposed Mitigation	Number of Severe Impacts After Mitigation
1	DeLand	0	Modify train horn	0
2	DeBary/Saxon	0	Modify train horn	0
3	Sanford	3	Modify train horn	0
4	Lake Mary	2	Modify train horn	0
5	Longwood	0	Modify train horn	0
6	Altamonte Springs	20	Modify train horn	0
7	Winter Park	8	Modify train horn	0
8	Florida Hospital	7	Modify train horn	0
9	Orlando LCS	5	Modify train horn	0
10	Church Street	0	Modify train horn	0
11	ORMC/Amtrak	0	Modify train horn	0
12	Sand Lake	0	Modify train horn	0
13	Meadow Woods	2	Modify train horn	0
14	Osceola	0	Modify train horn	0
15	Kissimmee	7	Modify train horn	0
16	Poinciana	0	Modify train horn	0
Totals		**54**		**0**

3.3.5 Project Start-up Noise Monitoring

FDOT is committed to constructing a commuter rail project that will not have adverse noise impacts on a corridor community with existing high noise exposure. During the start-up period of commuter rail operations, FTA, with the assistance of FDOT, will prepare a detailed noise assessment. This assessment will verify the predicted project noise levels in the EA and test the efficacy of its operational and horn noise analysis and mitigation measures to ensure that there will be minimal community noise impacts from this project. The sheet metal shroud and foam rubber insulation shall be installed on all locomotives as described in the Mitigation section of this EA.

Prior to project start-up, all on-board horns will be calibrated to sound at the FRA minimum noise requirement of 96 dBA L_{max} measured at a distance of 100 feet. As a part of the project start-up noise testing, corridor noise monitoring will be carried out that replicates the monitoring conducted in May 2005, using the same 12 noise sensitive receptors at the train speeds indicated.

A written technical evaluation of the start-up operational noise monitoring will be prepared for FTA. If the detailed noise analysis determines that the presence of the CRT project has no impact on project noise, the FTA and FDOT will be satisfied that all noise mitigation measures have been successful.

If noise monitoring during the start-up period reveals that the selected mitigation does not adequately control noise, the project sponsor is committed to adopting additional measures to reduce noise. In this case, the goal will be to eliminate all impacts in the "severe" range and to minimize the number of impacts in the "moderate" range. Such an outcome is consistent with FTA's FONSI for the project.

The cost of this testing will be included in the CRT project budget.

3.3.6 Vibration

The following section describes the results of the vibration assessment that was performed for the CRT project.

Criteria

The FTA criteria were used to assess annoyance due to ground-borne vibration from the DMU transit operations. The FTA criteria are related to ground-borne vibration levels expressed in VdB that are expected to result in human annoyance. The FTA vibration criteria levels are defined in terms of human annoyance for different land-use categories such as high sensitivity receptors (Category 1 – buildings where low ambient vibration is essential for interior operations) where the FTA impact criterion level is 65 VdB; residential receptors (Category 2 – which includes buildings where people normally sleep) where the FTA impact criterion is 80 VdB, and institutional receptors (Category 3 – schools, libraries, and churches with primarily daytime and evening use) where the FTA impact criterion is 83 dBA. In general, the threshold of human perceptibility of vibration is 65 VdB. These vibration levels are well below the damage criteria levels of 95 to 100 VdB for sensitive historic buildings. It is extremely rare for vibration from transit operations to cause any type of building damage, even minor cosmetic damage, especially in an existing, active freight rail corridor.

Vibration Measurements

In addition to the background noise measurements, ground-borne vibration levels were also measured along the project corridor at six locations during an existing train pass-by (either a freight or Amtrak passenger train). These six measurement locations and the maximum VdB vibration levels measured at each location are described in Table 3-21. The measured vibration levels ranged from 74 to 83 VdB depending on train speed and the distance from the measurement location to the rail corridor.

Impact Assessment

As with noise, the FTA guidelines were used to predict vibration levels from the proposed CRT project. The FTA vibration model uses various algorithms to estimate transit vibration levels along average soil conditions. The FTA's typical surface vibration curves were used to predict ground-borne vibration levels from the DMU rail car passbys at sensitive receptor locations along the project corridor. For each segment along the project corridor, the input data to the vibration model included vehicle speed, and the distance from the receptor to the rail corridor. The model then computes root mean square (RMS) vibration levels at each identified receptor location for a single-event train passby. These computed vibration levels are then compared with the FTA ground-borne vibration impact criteria to determine the onset of impact. Typical vibration levels from the DMU rail cars traveling at a speed of 50 mph is 73 VdB at a distance of 50 feet from the rail corridor. Using the FTA vibration curves, for an impact condition to occur at a residential receptor (80 VdB), the receptor would have to be located within 20 feet of the rail corridor. Since no residential receptors are located within this distance, no vibration impacts are expected from the DMU operations along the project corridor.

However, in areas where special track work such as switches and crossovers are located, vibration levels will increase by approximately 10 VdB. As a result, any new switches and crossovers should not be located near residential receptors.

Table 3-21 Description of Vibration Measurement Locations Along the CRT Corridor

No.	Receptor Description	City	FTA Category	Measured Vibration Level (VdB)	Predicted CRT Vibration Level (VdB)
2	121 Yale Drive	Sanford	2	74.3	69.0
3	202 Melissa Court	Sanford	2	82.3	74.0
5	425 Lake Seminary Circle	Maitland	2	80.8	79.0
6	719 Nottingham Street	Orlando	2	75.3	69.0
7B	Cypress Grove Park	Orlando	3	78.5	73.0
9	42 Neptune Road	Kissimmee	2	83.4	72.0

In addition, the existing vibration levels generated by the freight and Amtrak trains along the project corridor are approximately 10 to 12 VdB higher than the vibration levels generated by the DMU vehicles due to the much heavier weight of the locomotives. For example, a freight or Amtrak locomotive traveling at a speed of 50 mph will generate a vibration level of 84 VdB at a distance of 50 feet from the rail corridor, while the DMU vehicle traveling at the same speed will generate a vibration level of 73 VdB at a distance

of 50 feet. Since the freight and Amtrak train operations will remain unchanged, these train operations will continue to generate the same vibration levels that are currently experienced at receptor locations along the project corridor. Depending on the speed of the freight and Amtrak trains along each section of the project corridor, these vibration levels will be significantly higher than the vibration levels generated by the DMU vehicle passbys.

Mitigation

No vibration impacts are anticipated as a result of CRT operations, therefore no mitigation measures are required.

3.3.7 Ecosystems

In accordance with FTA requirements and the NEPA of 1969, as amended, an evaluation regarding important natural features, habitats, and protected species occurrence within the proposed project area was conducted.

In order to determine occurrence and potential occurrence of important natural features, habitats, and state and/or federally protected plant and animal species within the study area, preliminary data were collected and field investigations were conducted. The CRT Endangered Species Biological Assessment Report (ESBAR)[6] provides a detailed description of the methodology used to identify and quantify the type and acreage of each habitat and listed species within the Corridor. The ESBAR is provided separately as a technical support document.

Natural Communities

Natural areas recognized as ecologically viable areas representative of Florida's natural ecosystems occur adjacent to the study area. The proposed project's utilization of existing disturbed railroad corridor, which has existing active freight activity will result in minimal or no impacts to these areas.

Wetlands as natural communities are addressed in Section 3.3.8 and thoroughly discussed in the CRT Wetlands Evaluation Report, provided as a separate technical support document.

Blue Spring State Park is located immediately west of the northern portion of the project area and contains portions of the existing rail right of way. This park is managed by the Florida Department of Environmental Protection (FDEP). Lake Beresford, managed by Volusia County Government, is adjacent to the project area. Given the location of the proposed project along an existing active rail corridor and within existing CSXT ROW, neither of these managed areas is expected to be significantly affected by the proposed project.

Potential Natural Areas (PNAs) identified along the project area include areas of upland mixed forest and scrub. While upland mixed forest and scrub habitats were observed adjacent to the project area, the existing disturbed nature of the CSXT corridor results in

[6] Vanasse Hangen Brustlin, Inc. *Draft Endangered Species Biological Assessment Report for the Central Florida Commuter Rail Transit.* (January 2006).

no direct impacts and only limited potential secondary impacts to areas designated as PNAs.

Through compliance with federal, state, and local regulations as described in the Wetlands and Water Quality Sections of this document, this project and all described alternatives are expected to have no significant adverse impacts on natural communities.

Threatened and Endangered Species

Based on preliminary data collection efforts and field surveys, a number of potentially occurring and documented protected species are recognized for the area of the CRT project. Table 3-22 presents a list of potentially occurring or recorded protected species for the study area, based on field observations and Florida Natural Areas Inventory (FNAI) results regarding element occurrence within 1 mile of the existing corridor, as well as impact findings for the proposed project as presented in the ESBAR.

In addition to the above, protected wading bird colonies were considered for the project area. While no colonies were observed for the study area, various wading birds were observed foraging within the study area. Transient groups of wading birds may include various protected species (Species of Special Concern), and as such, potential impacts to wading bird foraging areas were evaluated. While some impact to seasonal wading bird foraging areas are expected as a result of the wetland impacts, appropriate wetland mitigation is expected to offset these impacts.

While the proposed project and alternatives are estimated to, at worst, possibly "affect, but not likely to adversely affect" the species indicated for the study area, protection measures and guidelines as referenced in the ESBAR will be followed for all design and construction phases of this project or alternatives. Additionally, the following measures and permitting requirements are indicated in the ESBAR.

In order to assure that adverse impacts to the protected species within the vicinity of the project will not occur, the FDOT will abide by the following commitments:

- Florida scrub-jay (Aphelocoma coerulescens) - Comprehensive scrub jay surveys will be carried out near the confirmed location (S. of Konomac Lake, near DeBary) based on U.S. Fish and Wildlife Service (USFWS) guidelines as adopted from Fitzpatrick, et.al., (1991). These surveys will determine the extent and quality of habitat and occupied territory within the project area. Based on the results of these surveys, the FTA will contact USFWS to coordinate appropriate mitigation measures, including timing of construction, if necessary, outside of nesting season.

- Eastern indigo snake (Drymarchon corais cooperi) - To assure the protection of the eastern indigo snake during construction, all design and construction will follow the established guideline "Standard Protection Measures for the Eastern Indigo Snake" in the CFCRT ESBAR Appendix D.

Table 3-22 Summary of Potential Impact for Protected Species for the CRT Study Area

Scientific Name	Common Name	Report Finding of Impact
Ammodramaus savannarum floridanus	Florida grasshopper sparrow	No effect
*Aphelocoma coerulescens**	Florida scrub jay	May affect, not likely adverse
Aramus guarauna	Limpkin	May affect, not likely adverse
*Egretta rufescens**	Reddish egret	May affect, not likely adverse
Egretta thula	Snowy egret	May affect, not likely adverse
*Egretta caerulea**	Little blue heron	May affect, not likely adverse
*Egretta tricolor**	Tricolored heron	May affect, not likely adverse
*Eudocimus albus**	White Ibis	May affect, not likely adverse
Grus canadensis pratensis	Florida sandhill crane	May affect, not likely adverse
Haliaeetus leucocephalus	Bald eagle	No effect
Mycteria americana	Wood stork	May affect, not likely adverse
Pandion haliaetus ♦*	Osprey	No effect
Picoides borealis	Red cockaded woodpecker	No effect
Platalea ajaja	Roseate spoonbill	May affect, not likely adverse
Polyborus plancus audubonii	Crested caracara	May affect, not likely adverse
Rostrhamus sociabilis coerulescens	Snail kite	No effect
Sterna antillarium	Least tern	Not likely to affect
Alligator mississippiensis	American alligator	No effect
Eumeces egregious lividus	Bluetail mole skink	May affect, not likely adverse
*Gopherus polyphemus**	Gopher tortoise	May affect, not likely adverse
Drymarchon corais cooperi	Eastern indigo snake	May affect, not likely adverse
Neoseps reynoldsi	Sand skink	May affect, not likely adverse
*Ursus americanus floridanus**	Florida black bear	May affect, not likely adverse
Trichechus manatus latirostris	Manatee	May affect, not likely adverse
Bonamia grandiflora	Florida bonamia	No effect
Deeringothamnus pulchellus	Beautiful pawpaw	No effect
Nemastylis floridana	Celestial lily	No effect
Nolina brittoniana	Britton's beargrass	No effect

♦ = non-listed for project area but protected under Migratory Bird Treaty Act, * = observed during field evaluations,
T = Threatened, E = Endangered, SSC = Species of Special Concern

- Gopher tortoise (Gopherus polyphemus) - The FDOT will resurvey the project corridor for gopher tortoises and their burrows immediately prior to construction and coordinate permitting and mitigation with the Florida Fish and Wildlife Conservation Commission (FFWCC). As detailed in the CFCRT ESBAR, this may include incidental take permits or relocation.

- Bald eagle (Haliaeetus leucocephalus) and Crested caracara (Polyborus plancus audubonii) - The FDOT will resurvey the project corridor for the presence of bald eagle and caracara nests during the final design and permitting phases of this project. The results of these surveys will provide a basis for modification of construction activities, if necessary. The FDOT will coordinate with USFWS throughout this process to establish adequate protection measures.

- Florida black bear (*Ursus americanus floridanus*) - As data from ongoing studies of the Ocala population of the Florida black bear become available, the FDOT will continue to review project involvement with the Florida lack bear. If the need arises

following construction, FDOT may initiate studies to assess potential effects of the increased rail trips.

Nearly all potential effects described for this project are associated with habitat and known occurrence throughout the corridor. Because the TSM alternative relies on many of the same station sites for park and ride locations, the effect determination for the TSM alternative are the same as those described for the CFCRT Build Alternative.

Considering the mitigation measures proposed, no significant adverse impacts are anticipated to the regional populations of the federally or state-listed species protected by the Endangered Species Act of 1973, amended (16 U.S.C. 1531 et seq.). Refer to Appendix E for a copy of the letter received by USFWS dated February 21, 2007. This finding fulfills the requirements of the Act.

3.3.8 Wetlands

Pursuant to Presidential Executive Order 11990 entitled "Protection of Wetlands," the United States Department of Transportation (USDOT) has developed a policy (USDOT Order 5660.1A, Preservation of the Nation's Wetlands, dated August 24, 1978), which requires all federally funded highway and railroad projects to protect wetlands to the fullest extent possible. In accordance with this policy, the CRT corridor was evaluated for any wetlands that have potential involvement with the proposed improvements. This assessment documents the extent of wetlands within the Corridor, potential impacts of the Project Alternatives studied, and efforts to avoid, minimize, or mitigate those impacts to the greatest extent practicable. The Wetland Evaluation Report (WER)[7] for the CRT provides backup documentation regarding the wetland and open water features associated with the study area. The WER is provided separately as a technical support document.

To assess potential impacts to existing wetland systems, wetland identification and evaluations were extended to a 250-foot wide corridor along the length of the existing Corridor. The WER provides a detailed description of the methodology used to identify and quantify the type and acreage of each wetland within the Corridor.

Wetland Communities

Where the Corridor passes through natural systems, the existing active freight and passenger rail generally represents a disturbed fringe environment, with changes in vegetative community composition and structure. The existing wetland systems include a range of wetlands typical of Central Florida; emergent, scrub shrub, forested, and open water. In many portions of the study area, the historic hydrologic conditions have been altered by previous ditching, dredge and fill activities, as well as the construction of the existing rail. Most of the wetland systems encountered exhibit some degree of pre-existing alteration and/or fragmentation, and subsequent encroachment of non-native and nuisance plant species. Up to 85 percent of the wetlands recorded in the study area may be described, to some degree, as disturbed wetland fringe.

[7] Vanasse Hangen Brustlin, Inc. *Draft Wetland Evaluation Report for the Central Florida Commuter Rail Transit.* (January 2006).

Field investigations revealed 15 Florida Land Use Cover and Forms Classification System (FLUCFCS) codes representing a total of 458 wetland and open water features totaling of 218.16 acres. Table 3-20 lists the classification codes and descriptive title of all types of wetland habitats recorded for the study area cross-referenced between the United States Fish & Wildlife Service (USFWS) and FLUCFCS classification systems. Location and approximate wetland boundaries within the study area are presented in the WER. A description of the characteristics and dominant vegetative species for each classification of the project wetland and open water features by FLUCFCS codes are provided in the attached WER.

Table 3-20 USFWS Codes/Classifications and Corresponding FLUCFCS Codes/Categories for Wetlands and Surface Waters Identified in the CRT Study Area

USFWS Code	USFWS Description	FLUCFCS Code	FLUCFCS Description
PEM1	Palustrine, emergent vegetation, persistent	640 641	Vegetated Non-forested Wetlands Freshwater Marshes
PFO	Palustrine, forested	630	Wetland Forest Mixed
PFO1	Palustrine, forested, broad leaved deciduous	613	Gum Swamp
		617	Mixed Hardwoods
		619	Exotic Hardwoods
PFO2	Palustrine, forested, needle leaved deciduous	621	Cypress
PFO3	Palustrine, broad leaved, evergreen	611	Bay Swamp
PFO4	Palustrine, forested, needle leaved evergreen	622	Pond Pine
		625	Hydric Pine Flatwoods
		627	Slash Pine Swamp Forest
PSS1	Palustrine, scrub-shrub, broad leaved deciduous	618	Willow and Elderberry
POW	Palustrine, open water	510	Streams and Waterways
		523	Lakes > 10 acres
		534	Reservoirs < 10 acres

Impact Assessment

Proposed impacts for the Full-Build Alternative were estimated based on preliminary 'limits of grading' for the proposed 60.8 mile project and proposed station locations. The limits of grading include sections of new track installation. All wetland and water features within this 'limits of grading' and station locations were assumed as direct impacts.

The maximum (worst case) direct impacts to wetlands and other surface waters by the proposed project are estimated at 23.56 acres based on the limits of grading and station boundaries. These impacts are proposed to highly disturbed wetland fringes within the existing railroad corridor and station locations.

Other potential impacts by the proposed project to the study area may include secondary and cumulative impacts as well as temporary impacts associated with construction activities. Temporary impacts are negligible and would likely be limited to impacts to vegetation. Secondary and cumulative impacts to protected species and their habitats, as relates to the wetlands recorded for this report, are negligible and are addressed in Section 3.3.6 and the ESBAR. Other secondary and cumulative impacts relating to other wetland functions are generally considered by the state to be offset or fully mitigated if mitigation for direct impacts is carried out in the same drainage basin. Secondary and

cumulative impacts are expected to be minimal or non-existent given the condition of the existing rail corridor and the proposed limits of grading.

Impacts

Alternatives considered for this study included a No-Build Alternative, TSM Alternative, and the Full-Build Alternative.

As no construction will occur for the No-Build Alternative, there will be no impacts to wetlands. The TSM Alternative is estimated to impact 15.10 acres of wetlands and other surface water. No new road construction will be required to implement the TSM Alternative. Some TSM park and ride station locations are proposed for existing parking areas that will not require additional construction. In the locations where new parking lots will be required, efforts would be made to avoid direct impacts to any extant wetland resources.

Full-Build Alternative wetland and other surface water feature impacts are estimated at 23.56 acres. Of these impacts, 18.21 acres are directly associated with station locations. In the locations where new parking lots will be required, efforts would be made to avoid direct impacts to any extant wetland resources. Table 3-24 summarizes wetland acreage and potential impacts for the proposed alternatives.

Table 3-24 Alternatives Matrix for Wetland Impacts by FLUCFCS Code in Acres

FLUCFCS Code	Existing Wetlands Within Corridor	No-Build Impacts	TSM Impacts	Full-Build Impacts
510	16.99	0	0	3.12
523	3.16	0	0	0
534	22.42	0	0	0.81
611	26.61	0	0	1.39
613	0.44	0	0	<0.1
617	33.61	0	8.48	8.50
618	35.72	0	0	1.47
619	0.48	0	0	0
621	53.42	0	4.44	4.78
622	0.68	0	0	0
625	<0.1	0	0	0
627	5.91	0	0	0.55
630	2.49	0	0	<0.1
640	0.13	0	0.45	<0.1
641	16.09	0	1.73	2.9
Total	**218.18**	**0**	**15.10**	**23.56**

Avoidance and Minimization

Avoidance and minimization of impacts to wetlands is a requirement of Section 404 of the Clean Water Act as jointly administered by the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACOE). Within the State of Florida, the six districts of the FDEP and five Water Management Districts

(WMDs) have similar avoidance and minimization requirements. For the CRT project, the selection of the highly developed and disturbed existing active freight and passenger rail CSXT Corridor constitutes initial avoidance of wetland impacts. Further, the design of areas for double tracking was based to a large degree on avoidance of wetlands identified.

For all project alternatives involving construction on, over, or adjacent to wetlands, avoidance and minimization will be accomplished to some degree through careful design and implementation of best management practices during construction. Specifically, the wetland impacts for the Full-Build Alternative station locations conservatively estimate that 100% of the wetlands identified are impacted and can be considered as a worst case analysis. As the station development advances through the design phases, emphasis will be placed on avoiding impacts to wetlands.

Mitigation

The FDOT mitigation program was established by the Florida Legislature in 1996 (Florida Statutes (FS) 373.4137) to replace mitigation on a project-by-project basis with a broader approach to mitigation to offset the impacts to wetlands by transportation projects. The goal of the FDOT mitigation program is "to offset wetland impacts of FDOT transportation projects by implementing regional, combined-project mitigation." The WMDs develop annual mitigation plans for projects that FDOT or a transportation authority (established pursuant to Chapter 348 or 349, FS) expect to implement in the coming fiscal year. Mitigation plans must receive preliminary approval by the WMD's Governing Board and are then submitted to FDEP for review and final approval. Upon approval by FDEP, the plan is deemed to satisfy the legislative mitigation requirements and any other mitigation requirements imposed by local, regional, and state agencies. Changes may be made to the approved plans in order to achieve compliance with federal permitting requirements.

Wetland impacts, which will result from the construction of this project, will be mitigated pursuant to S. 373.4137 FS to satisfy all mitigation requirements of Part IV Chapter 373, F.S. and 33 U.S.C.s. 1344. Under S. 373.4137 F.S., mitigation of FDOT wetland impacts will be implemented by the appropriate WMD where the impacts occur. Each WMD will develop a regional wetland mitigation plan on an annual basis to be approved by the Florida State Legislature which addresses the estimated mitigation needs of FDOT. The WMD will then provide wetland mitigation for specific FDOT project impacts through a corresponding mitigation project within the overall approved regional mitigation plan. FDOT will provide funding to the WMD for implementation of such mitigation projects.

Based upon the above considerations, it is determined that there is no practicable alternative to the proposed new construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

3.3.9 Water Quality

Outstanding Florida Waters

The project coincides with Outstanding Florida Waters near its northern terminus, in Volusia County: Blue Spring State Park and the Wekiva River Aquatic Preserve. Proposed components of the project for this area consist primarily of minor grading and

additional track construction to be accommodated entirely within the existing active freight and passenger railroad ROW; there will be no direct impacts to the abutting Blue Spring State Park or Wekiva River Aquatic Preserve. Therefore, there will be no impacts to these Outstanding Florida Waters.

Wild and Scenic Rivers

There are no Federal Wild and Scenic Rivers located along or adjacent to the project Corridor.

Aquatic Preserves

The Wekiva River Aquatic Preserve is adjacent to the proposed project area. As noted in the discussion on Outstanding Florida Waters, no impacts to Aquatic Preserves are expected.

Coastal Zone Management (CZM) and Coastal Barrier Resources

The Advance Notification response from Volusia County, the only coastal county containing portions of the proposed project, indicates that "…The project is consistent and in accordance with the state's CZM Program." No response was received from the Department of Community Affairs on the Advanced Notification for the project.

There are no impacts to coastal resources associated with this project; therefore, there will be no impacts to the Florida coastal zone from implementation of the No-Build, TSM or Full-Build Alternatives.

The Project will be implemented in a manner consistent with the Florida CZM program. All required environmental permits and approvals will be obtained for the Project, and the Project will be operated in compliance with all regulatory requirements.

The Florida Department of Environmental Protection, through the Florida State Clearinghouse, has determined that this project is consistent with the Florida Coastal Zone Management Plan (refer to Appendix E for a copy of the advance notification response letter dated March 30, 2005). In addition, the Volusia County Growth and Resource Management Department, indicates that the proposed project is consistent and in accordance with the state's Coastal Zone Management Program (refer to Appendix E for a copy of the advance notification response letter dated March 20, 2005).

Point Source Pollution and Stormwater

The most significant water quality issues and regulation for the proposed project involve point source pollution. These include EPA powers as established under the Clean Water Act, subsequent partial delegation to the FDEP, and local agreements relating to the National Pollutant Discharge Elimination System (NPDES) permitting. Water quality impacts, if any, are addressed in urban sections of the project under local MS4 requirements and WMD drainage and stormwater requirements for treatment of runoff from impervious area. As secondary or cumulative impacts, these effects will be negligible through compliance with the appropriate regulatory agency requirements during design and construction.

The proposed stormwater facilities design will include, at a minimum, the water quantity requirements for water quality impacts as required by the South Florida WMD and

St. Johns River WMD in Rules 40E-4, Florida Administrative Code (F.A.C.), and 40C-4, F.A.C. The Water Quality Impact Evaluation (WQIE) checklist and references are provided in Appendix D for consistency with EA requirements.

No significant degradation of water quality is anticipated. The proposed stormwater facilities design will include, at a minimum, the water quantity requirements for water quality impacts as required by the South Florida Water Management District and the St. Johns River Water Management District in Rules 40E-4, Florida Administrative Code (F.A.C.), and 40C-4, F.A.C.

Floodplains

In support of the environmental analysis, the 100-year floodplain was analyzed along the entire rail corridor. The track crosses the 100-year floodplain in relatively few locations, none of which are within a regulatory floodway. In these locations, the area of the encroachment was estimated using geographical information system mapping. A summary of the estimated floodplain encroachments is given below in Table 3-25. Zone A is defined as areas inundated by the 100-year flood with no base flood elevation determined. Zone AE is defined as areas inundated by the 100-year flood with base flood elevations determined.

Table 3-25 Summary of Estimated Floodplain Encroachment by County for the Full-Build Alternative

CENTRAL FLORIDA COMMUTER RAIL TRANSIT		
FLOODPLAIN IMPACT SUMMARY		
	Zone	
County	A	AE
Orange	0.19 acres	0.73 acres
Osceola	0.20 acres	1.74 acres
Seminole	0.08 acres	1.29 acres
Volusia	0.80 acres	0.62 acres
Total	*1.27 acres*	*4.38 acres*
	Combined Total	
	5.65 acres	

Figure 3-15 and Figure 3-16 show the CRT project corridor and the associated 100-year floodplain.

Based upon the estimated impacts identified above, the following discussion is provided.

- Flood Risks Associated with, or Resulting from, the Proposed Action: Flood risks associated with the proposed action are minimal to none. The floodplain will be encroached upon in relatively few areas and in those areas compensatory storage will be provided at a 1:1 ratio.

- Impacts on Natural and Beneficial Floodplain Values: The impacts on the natural and beneficial values of the floodplain will be negligible because the floodplain encroachments are minimal and will be compensated for in facilities that mimic

the natural floodplain behavior, such as the stormwater detention ponds on the station sites.

- Degree to which the Action Provides Direct or Indirect Support for Incompatible Development in the Base Floodplain: Since the project is a modification to an existing active freight and passenger railroad line, it does not provide any additional incompatible development support (direct or indirect) than the existing line.

- The Potential for Significant Interruption or Termination of Community's Only Evacuation Route or Facility for Emergency Vehicles: The potential for significant interruption or termination of the communities' evacuation routes is minimal to none because the floodplain is affected in relatively few areas. Measures, such as 1:1 compensating storage, will be in place to ensure that the floodplain adjacent to such routes will be unaffected.

- Measures to Minimize Floodplain Impacts Associated with Each Alternative: In areas where the project is near floodplains, shifts in track alignment and steeper tie-in grading slopes were used to minimize the area of the floodplain encroachment. Also compensating storage will be provided at a 1:1 ratio where impacts were unavoidable even with said measures.

- Measures to Restore and Preserve the Natural and Beneficial Floodplain Values that are Impacted: In areas adjacent to wetlands, track alignment and grade shifts were implemented to avoid wetland and associated floodplain impacts. Floodplains that are impacted will receive 1:1 compensation as close as possible to the impacted areas. This will ensure that the floodplain behaves the same in the pre-development and post-development condition. At the station sites where the floodplain is impacted, the floodplain compensation will be provided in the stations' stormwater detention pond in order to preserve the natural and beneficial floodplain values in those areas

Based on the preliminary evaluation, the encroachments to the floodplain are not anticipated to have an adverse effect. A more detailed analysis will be conducted during the preliminary design phase of the project. Mitigation will be required for impacts to the 100-year floodplain on a 1:1 ratio for compensatory storage. Typically, any encroachments proposed within a regulatory floodway, such as Shingle Creek, will require an analysis to show a no "net rise" in the base (100-year) flood elevation for the creek. In summary, any required mitigation measures for floodplain and floodway encroachment will result in no net impact for the Full-Build Alternative.

Pursuant to Executive Order 11988, "Floodplain Management", the proposed action was determined to be within the base floodplain associated with low areas. Impacts associated with the encroachment have been evaluated and determined to be minimal. Therefore, the proposed action does not constitute a significant encroachment.

No-Build and TSM Alternatives

The No-Build Alternative will not result in encroachments in the floodplain. The TSM Alternative will result in only minimal floodplain impacts. The need for the construction of new facilities for the TSM Alternative will result in very minor encroachment in association

with a single park and ride location and this impact would be mitigated as described above.

Figure 3-15 Floodplains Sheet 1 of 2

Figure 3-16 Floodplains Sheet 2 of 2

3.3.10 Contamination

There is a substantial potential liability associated with acquisition of property that is contaminated. Additionally, contamination can have a substantial impact on construction, particularly dewatering, since any contaminated groundwater that may be encountered would require treatment and special permitting. Contaminated soil would require special treatment and disposal and could not likely be used as fill.

A Contamination Screening Evaluation Report (CSER) was prepared for the 16 station sites and the maintenance facility site that will be acquired for the construction of the Full Build Alternative. The CSER or Level I Contamination Assessment was conducted in general accordance with Chapter 22 of the FDOT PD&E Manual. The CSER is provided as a separate technical report.

The purpose of this contamination screening evaluation was to evaluate the risk of encountering petroleum or hazardous substance contamination of soil, groundwater, surface water, or sediment in the vicinity of the station and maintenance facility locations that could adversely affect property acquisition, permitting, and construction of this project. The evaluation of the railroad operations was not included within the scope of this study.

There are no hazardous waste disposal sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) located along the project Corridor, and construction of the Full-Build Alternative would not interfere with existing remediation activities at any existing remediation site.

Impacts and Benefits

No-Build Alternative

Under the No-Build Alternative, there would be no rail line or station construction activities at discrete locations along the project Corridor, thus there would be no potential impacts to contaminated soils and/or groundwater from identified oil and hazardous materials sites. At locations where rail or station construction for the Full-Build Alternative would be expected to result in remediation of contaminated soils and/or groundwater, no such remediation activities would result and the contamination would remain.

TSM Alternative

Specific analysis of proposed TSM station locations was not performed. However, several TSM stations are identical to Full-Build Alternative commuter rail stations, including:

- Florida Hospital, Orlando
- LYNX Central Station, Orlando
- Church Street, Orlando
- Orlando Amtrak, Orlando

- South Orange Avenue/Sand Lake Road, Orlando
- Kissimmee Amtrak, and
- Poinciana Industrial Park.

No parking will be provided for the four Downtown Orlando and Kissimmee TSM stops, it is assumed that no construction will be required and therefore no possibility to encounter soil and/or groundwater contamination exists at these locations. Four other TSM stops will also have no parking: Downtown Sanford; South Orange Avenue; and Florida Mall.

At the South Orange Avenue/Sand Lake Road and Poinciana Industrial Park locations, parking will be provided. It is assumed that the footprint of the proposed TSM stop is similar to that of the proposed commuter rail stations at these locations; therefore the possibility of encountering contamination at these locations is identical to that of the Full-Build Alternative.

Full-Build Alternative

In general accordance with the applicable definitions provided in the FDOT PD&E Manual, the proposed station and maintenance facility locations were assigned Low-, Medium-, and High-contamination risk potential ratings. The CSER data collection activities included a review of publicly available regulatory files, a review of available historical data sources, and site reconnaissance of the project study area.

The following presents the contamination risk potential ratings assigned to each proposed facility at this time.

- DeLand Amtrak Station – Medium;
- DeBary Saxon Boulevard Extension Station – Low;
- Rand Yard Maintenance Facility – High;
- Sanford/SR 46 Station – High;
- Lake Mary Station – High;
- Longwood Station – Medium;
- Altamonte Springs Station – High;
- Winter Park/Park Avenue Station – Low;
- Florida Hospital Station – Low;
- LYNX Central Station – Low;
- Church Street Station – Medium;
- Orlando Amtrak/ORMC Station – Medium;
- Sand Lake Road Station – Medium;
- Meadow Woods Station – High;
- Osceola Parkway Station – Low;
- Kissimmee Amtrak Station – High; and

- Poinciana Industrial Park Station – Low.

Figure 3-17 shows the locations of the stations and presents the contamination risk potential ratings assigned to each station.

For locations classified as having a low contamination risk potential, it is recommended that an updated review should be conducted for those sites prior to ROW acquisition and construction. The update should include a re-review of the public record to determine if any significant changes in status have occurred since this report was prepared.

For locations classified as having a medium or high contamination risk, a further review into the Public Record with regard to any contamination assessment or remedial action plans which were generated in the interim period between the date of this report and the date of property acquisition and construction, should be performed. A preliminary soils screening evaluation including auger borings and Organic Vapor Analyzer (OVA) screening of soils, as well as soil and groundwater sampling and testing, should be performed to detect the presence of contaminants in soil or groundwater prior to acquisition of property, or initiation of construction activities.

If contaminated media are encountered, additional investigations may be necessary to implement mitigation activities required to support construction.

Such activities may include design and operation of on-site groundwater treatment equipment, implementing special handling, characterization, and disposal procedures for contaminated soils or implementation of engineering controls (slurry walls, infiltration trenches, etc.) to prevent affecting natural fate and transport parameters of existing groundwater contaminant plumes. Additionally, the results of the contamination assessment activities would be utilized to assess the need for performance of a Level III contamination assessment or Remedial Action Plan for the potential contamination sites. Depending of the nature and extent of contamination impacts as determined by the Level II and/or Level II contamination assessment activities, risk analysis for impacts to the project and the general public could be performed, cost estimates for remediation could be developed, and a communication plan with applicable regulatory agencies could be devised.

Specific general recommendations for each Medium- and High- ranked station locations are provided below.

DeLand Amtrak Station (Medium) Conduct soil and groundwater investigations near the southwest portion of the site to assess the potential for petroleum contamination impacts from an off-site historic gasoline station.

Rand Yard Maintenance Facility (High) Conduct soil and groundwater investigations at the area of miscellaneous surface debris including stained poles located west of the former Ice House. Conduct soil and groundwater investigations at the area of buried paper and wood products and at the area of 5-gallon buckets labeled hazardous materials located to the east of the former Ice House. All asphalt and railroad ties should be properly characterized and disposed of properly. Subsurface investigations are recommended in the central portion of the site, where former tracks were located to assess the potential for buried items that could impact construction.

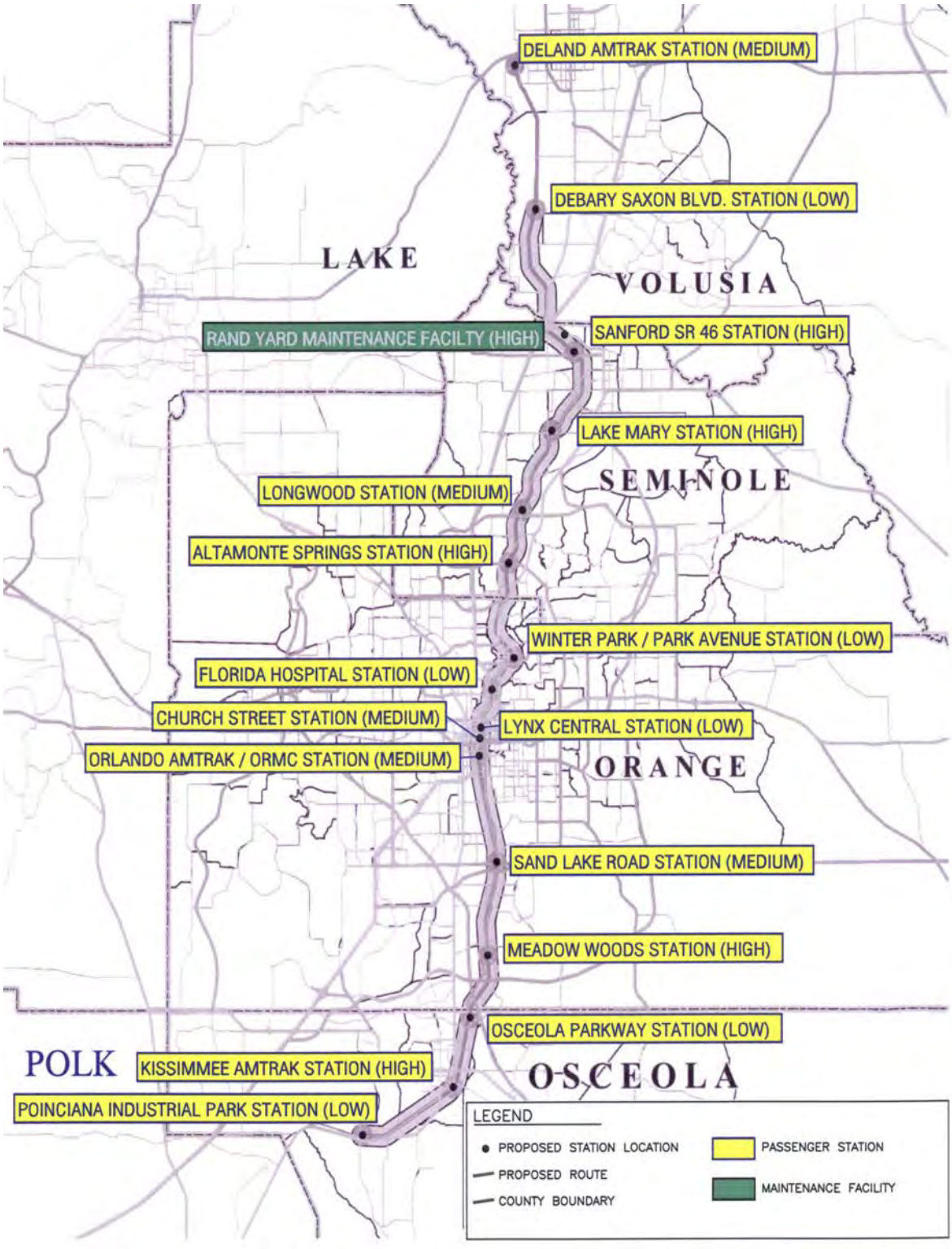


Figure 3-17 Station Contamination Risk Potential Ratings

Sanford/SR 46 Station (High) Conduct soil and groundwater investigations near maintenance areas of the active commercial businesses located on-site.

Conduct soil and groundwater testing in the south-central portion of the site to assess the potential for petroleum contamination impacts associated with a historic gasoline station that may have been at this location. Subsurface geophysical investigations could also be conducted in this area to assess the potential for buried tanks and foundations.

Lake Mary Station (High). Conduct soil and groundwater investigations near the western portion of the site to assess the potential for petroleum contamination impacts from the 7-Eleven Gas Station.

Longwood Station (Medium). Conduct soil and groundwater investigations on the auto/trailer maintenance property located at the intersection of Church Street and Longwood Avenue, specifically around the maintenance bays and surrounding equipment staging areas. Conduct soil and groundwater investigations at Blue OX Services Repair facilities.

Altamonte Springs Station (High). Conduct soil and groundwater investigations at Auto Body Service, Driver Tire, and Courtesy Towing. Conduct soil and groundwater investigations at the Altamonte Springs Public Works Building around the underground storage tanks (USTs) to assess the potential for petroleum contamination.

Orlando Amtrak/ORMC Station (Medium). Conduct soil and groundwater investigations near the east portion of the subject site across from the former Culligan Water Conditioning Facility to assess the potential for petroleum and solvent contamination.

Church Street Station (Medium). Conduct soil and groundwater investigations near the northwestern portion of the subject site, nearest the historic off-site commercial facilities, to access the potential for petroleum and/or solvent contamination.

Sand Lake Road Station (Medium). Conduct soil and groundwater investigations in the northwest corner of the subject property to assess the potential for contamination from discarded 55-gallon drums.

Meadow Woods Station (High). Conduct soil and groundwater investigations along the northeastern portion of the property to assess the potential for petroleum contamination from the Speedy Market Gas Station.

Kissimmee Station (High). Conduct soil and groundwater investigations in the area of the historical dry cleaners (intersection of Dakin Avenue and Pleasant Street) and the historical auto repair shop (western end of the subject property.)

3.3.11 Farmlands

The Farmland Protection Policy Act (FPPA), codified at 7 USC §§ 4201 et. seq., requires a federal agency that is expending funds (for technical or financial assistance, but not planning assistance) on a project that will convert farmland to a non agricultural use to determine the impact of the conversion to the resource base.

"Important Farmlands" include prime farmland and unique farmland as well as additional important farmlands as identified by state or local governments. The components of Important Farmlands are: Prime Farmland, Unique Farmland, Additional Farmland of Statewide Importance, and Additional Farmland of Local Importance.

Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water). It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime Farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Unique Farmland is the second component of Important Farmland. Unique Farmland is land other than Prime Farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, fruit, and vegetables.

Additional Farmlands of statewide and local importance are the remaining components of Important Farmland. This is land, in addition to prime and unique farmland, that is of statewide or local importance for the production of food, feed, fiber, forage, and oilseed crops. Criteria for defining and delineating Additional Farmland of Statewide Importance are determined by appropriate state agencies.

Impacts and Benefits

The state of Florida has not established criteria for defining and delineating Additional Farmland of Statewide Importance; therefore, Additional Farmland of Statewide Importance does not exist in the state. Criteria for defining and delineating Additional Farmland of Local Importance are determined by appropriate county agencies. Some counties have established criteria for defining and delineating Additional Farmland of Local Importance.

There will be no impacts to Important Farmlands for the Full-Build Alternative, including commuter rail station locations. This conclusion is based on the use of the existing rail ROW for the proposed project. For the proposed station locations for the Full-Build Alternative, analysis of soil map units revealed that no soils meeting criteria for Prime Farmlands occur within any of the proposed station locations.

Through coordination with the Natural Resources Conservation Service (NRCS), it has been determined that the project study area, which passes through the urbanized areas of Deltona, Orlando, and Kissimmee, does not meet the definition of farmland as defined in 7 CFR 658. Therefore, the provisions of the Farmland Protection Policy Act of 1984 do not apply to this project.

No-Build and TSM Alternatives

There will be no impacts to Important Farmlands for either the No-Build Alternative or the TSM Alternative. As no construction will occur for the No-Build Alternative, there will be no impacts to Important Farmlands. For the proposed park and ride locations for the TSM Alternative which are not already parking lots, analysis of soil map units revealed that no soils meeting criteria for Prime Farmlands occur within any of the proposed park and ride locations.

3.3.12 Energy

Transportation is Florida's second largest energy use sector with 36 percent of the total. Automobile and truck use make up the vast majority of the transportation energy use total.

Transportation energy use is further broken down by fuel type to include individual data sets for aviation fuel and motor gasoline. Motor gasoline and diesel fuel make up more than 87 percent of Florida's transportation energy costs, with aviation fuel accounting for less than 10 percent. (Florida Solar Energy Center 2004).

Impacts and Benefits

The CRT project will result in both direct and indirect impacts to the regional energy system. Direct impacts are characterized by the energy that would be used for the construction and operation of the rail system. Indirect impacts include changes in energy use by the regional transportation system (including automobiles, buses, trucks and motorcycles) that would be caused by operation of the CRT project.

Direct impacts include the energy consumed by operation of the CRT DMUs, lighting for stations and parking lots, and lighting and HVAC energy for the proposed Rand Yard maintenance facility. Because of the relatively minor size of the CRT project in comparison to the Central Florida regional economy, and the conceptual status of project design, no detailed estimation of direct energy impacts has been performed for the project.

The direct energy impacts of the CRT project were judged to be minor and the difference between the Full-Build and TSM Alternatives is inconsequential. The Full-Build Alternative is likely to consume more energy during construction as the Full-Build Alternative will require more physical construction (e.g., additional rail and more physical station construction) over a longer period (up to 2 years) than the TSM Alternative, but the additional energy consumed is assumed to be a very small percentage of the total regional annual energy consumption. Because of the dynamic nature of the Central Florida economy, it is likely that the construction energy use assumed for the CRT Full-Build or TSM Alternatives would be consumed on other regional construction projects in the No-Build Alternative.

Indirect energy impacts can be estimated for the study area based on the estimated changes in Vehicle Miles Traveled (VMT) for the project study area. Table 3-26 presents a comparison between project annual transportation energy usage (in British thermal units [BTUs]) for the Full-Build Alternative compared to the No-Build and TSM Alternatives in the year 2025 for the CRT study area. Changes in VMT in the study area between the alternatives are calculated in accordance with the methodology used for estimation of environmental benefits for the Section 5309 New Starts Criteria.

Change in regional energy consumption in the forecast year is measured in BTUs, comparing the Full-Build Alternative to the TSM Alternative. This measure reflects the net impact on energy savings as a result of changes in automobile and commercial travel in the region, offset in part by the energy requirements for operation of the proposed transit investment. Note that this measure reports BTU consumption for transportation operations (transit, auto, and commercial) only, and does not consider energy consumed for construction, equipment manufacturing, and heavy maintenance activities.

The Full-Build Alternative includes the use of an existing rail corridor and the amount of new rail construction is limited along the project Corridor, and a limited amount of construction is proposed at new station sites (shelters, kiosks at all sites and rail crossover structures at three stations (Sanford, Florida Hospital and Sand Lake Road).

The results presented in Table 3-26 indicate that the Full-Build Alternative will result in a greater reduction in transportation energy use in the CRT study area for the year 2025 compared to the No-Build Alternative and the TSM Alternative. This is a result of a greater projected decrease in VMT in the study area for the Full-Build Alternative.

Table 3-26 Indirect Energy Impacts of CRT Project Alternatives – Year 2025

Alternative	Regional VMT/Year (millions) – 2025	Change in BTU/year (millions) – Full-Build versus No-Build or TSM
No-Build	733,970	- 59,451.26
TSM	733,955	- 68,526.57
Full-Build	733,938	–

Source: Earth Tech, Inc.

Mitigation

Because the implementation of the Full-Build Alternative would result in a reduction in indirect energy usage in the project study area, no mitigation measures are required.

3.3.13 Construction Impacts

This section presents an evaluation of the impacts of construction of the CRT project along the project Corridor. Impacts evaluated include: Air Quality; Noise and Vibration; Water Quality; and Contamination.

Air Quality

Direct emissions from construction equipment would not be expected to produce adverse effects on local air quality, provided that all equipment is properly operated and maintained. Appropriate mitigation requirements, if warranted by local conditions, could consist of assurance of proper operation and maintenance, specification of low-emissions

equipment (EPA Tier 2 or Tier 3 compliant, alternative-fueled, or retrofit with emissions controls), and prohibition of excessive idling of engines. Compared with emissions from other motor vehicle sources in the study area, emissions from construction equipment and trucks are generally insignificant with respect to compliance with the National Ambient Air Quality Standards.

Implementing appropriate traffic management techniques during the construction period can mitigate increased emissions from traffic congestion due to lane closures, detours, and construction vehicles accessing the sites. Examples of these techniques include development of site-specific traffic management plans; temporary signage and other traffic controls; designated staging areas, worker parking lots (with shuttle bus service if necessary), and truck routes; and prohibition of construction vehicle travel during peak traffic periods.

Fugitive dust impacts can be mitigated through good "housekeeping" practices such as water sprays during demolition; wetting, paving, landscaping, or chemically treating exposed earth areas; covering dust-producing materials during transport; limiting dust-producing construction activities during high wind conditions; and providing street sweeping and tire washes for trucks leaving the site. Construction and earth-moving activities can result in short-term impacts on ambient air quality. These potential impacts include fugitive dust emissions, increased emissions from motor vehicles on the streets due to traffic disruption, and direct emissions from construction equipment and trucks. These impacts will be temporary and will affect only the immediate vicinity of the construction site, its access routes, and any detour routes.

Noise and Vibration

Noise

Noise levels from construction activities along the Project Corridor, although temporary, may create a nuisance condition at nearby sensitive receptors. Exposure to excessive noise levels varies depending on the types of construction activity and the types of equipment used for each stage of work. Potential activities include railway construction and CRT station construction.

The distances at which an exceedance of the FTA daytime noise limits are predicted during construction activities ranges from 15 feet at commercial receptors to less than 50 feet at residential receptors.

Vibration

Vibration levels from construction activities along the Project Corridor, although temporary, may create a nuisance condition at nearby sensitive receptors. Exposure to excessive vibration levels varies depending on the types of construction activity and the types of equipment used for each stage of work.

The distances at which ground-borne vibration levels are predicted to exceed the FTA annoyance criteria ranges from less than 133 feet at FTA Category 3 receptors (such as schools and churches) to 187 feet at FTA Category 2 receptors (such as residences).

Mitigation

Noise and vibrations impacts will be from the heavy equipment movement and construction activities such as pile driving and vibratory compaction of embankments. Noise control measures will include those contained in FDOT's "Standard Specifications for Road and Bridge Construction" in addition to those recommended in the Noise (Section 3.3.4) and Vibration (Section 3.3.6) impact sections of this document. Adherence to local construction noise and/or construction vibration ordinances by the contractor will also be required where applicable.

Water Quality

Construction of the Full-Build Alternative will directly impact surface water resources, including jurisdictional wetlands, along the project Corridor. A Stormwater Pollution Prevention Plan, including an Erosion and Sedimentation Control Plan, will be prepared and implemented during construction. The plan will specify measures to be implemented to minimize sedimentation impacts to surface waters and municipal drainage systems that are ultimately tributary to surface waters. The plan will be legally binding through the NPDES construction stormwater General Permit to be obtained for the project.

Water quality impacts resulting from erosion and sedimentation will be controlled in accordance with FDOT's "Standard Specifications for Road and Bridge Construction" and through the use of Best Management Practices.

Contamination

As detailed in Section 3.3.9, there is potential for encountering contaminated soils and/or groundwater at proposed TSM or Full-Build Alternatives station sites. Discovery of potentially hazardous materials may be beneficial because an existing contaminated site may be cleaned up during project construction. Adverse impacts may occur if cleanup activities create an opportunity for public exposure or contact with contaminated soils and groundwater, and if dewatering during construction causes migration of contaminated groundwater.

Cleanup and remediation efforts during construction include removal of contaminated soil and/or groundwater. Contaminated soil typically will be stockpiled in designated areas along the alignment, then transported from the stockpile area for further treatment or disposal. Contaminated groundwater removed as a result of dewatering may be stored in tanks on the construction site, discharged to a local storm drain or sewer in compliance with discharge permit requirements, or transported from the site for treatment or disposal.

3.4 Summary

This section summarizes the potential environmental consequences of the Full-Build Alternative for the CRT project. In brief, the Full-Build Alternative, when compared to the No-Build and TSM Alternatives, does not result in adverse impacts for most of the issue areas analyzed in this chapter.

The Full-Build Alternative does not cause adverse impacts to existing or future land use in the vicinity of the proposed station sites. Most community comprehensive plans include provisions to encourage commuter rail development and to focus transit-oriented

development around station sites. The stations in Sanford and Altamonte Springs would require land to be rezoned to accommodate the stations and the Meadow Woods and Osceola Parkway stations will require amendments to existing planned unit development (PUD) zoning. Construction and operation of a commuter rail system could result in land use changes in the Corridor municipalities and could provide a policy foundation to encourage additional transit-oriented development and increased ridership.

The Full-Build Alternative does not result in adverse impacts to community cohesion in neighborhoods along the corridor. No permanent impacts to the neighborhoods along the Corridor have been identified; therefore no mitigation is required. Temporary impacts would result during construction of new rail facilities, but there would also be long-term benefits. For many neighborhoods without strong activity centers, the rail stations provide an opportunity to focus new development, enhance bicycle and pedestrian access and connectivity, streetscape improvements and encourage other benefits associated with the transit stations and station areas.

The Full-Build Alternative results in no disproportionate Environmental Justice (EJ) impacts for both noise impacts and displacements in minority, low-income and/or transit-dependent areas. Proposed station locations in the Full-Build Alternative are located near areas with the greatest concentrations of minority population, low-income population, and transit-dependent population, with a higher percentage of transit-dependent populations within a ½ mile radius of the stations than in the surrounding county populations. Most of these areas would also benefit by increased mobility and improved access to employment and other activity centers throughout the Corridor. With respect to Public Safety, Security and Community Services, vehicle delay created by the CRT operations through grade crossings will be minor except for some locations where grade crossings are located immediately adjacent to proposed CRT stations. Adequate mitigation measures, as described in Chapter 4, have been proposed to minimize these impacts.

Utility and railroad impacts are expected to be minor from the Full-Build Alternative. Any required utility relocations are anticipated to be minor and will be fully coordinated during construction. The Full-Build Alternative will result in improved rail infrastructure and a proposed operating plan to maintain the ability of CSXT and other rail freight operators to provide service to commercial and industrial rail users, and will accommodate existing Amtrak long-distance intercity passenger services. For freight services, the Full-Build Alternative provides capacity to accommodate through trains as well as local switching train movements by shifting freight operations to times of day that will not interfere with the commuter rail service.

The Full-Build Alternative is not expected to result in adverse impacts to archaeological resources. Coordination is ongoing with the Florida State Historic Preservation Officer (SHPO). FDOT determined and the SHPO concurred, on a preliminary basis, that the Full-Build Alternative would have “No Effect” on historic properties in the vicinity of several CRT station sites, including the Florida Hospital, LYNX Central Station, Orlando Amtrak/ORMC, and Kissimmee Amtrak stations. The SHPO suggested that careful station design, including use of compatible elements and materials, would minimize any potential visual impacts at these locations. For the DeLand Amtrak, Orlando Amtrak/ORMC and Church Street stations, FDOT

concluded and the SHPO concurred that there is No Adverse Effect from the CRT Project. Careful station design, including use of compatible elements and materials to the historic DeLand Amtrak station and the Downtown Orlando historic district are part of the commitments by FDOT and the SHPO.

The Full-Build Alternative will not result in direct impacts to publicly-owned parks and recreation areas along the corridor. Temporary construction activities will be controlled so they do not affect access to the parks. Construction impacts that would temporarily affect park and recreational experiences include increased noise, dust, and truck traffic. These impacts will be minor and mitigated. The Full-Build Alternative will benefit park users by providing improved access to several significant parklands and recreation areas along the corridor.

The Full-Build Alternative will result in benefits to pedestrian and bicycle facilities and access along the corridor providing a transit alternative that will encourage commuters to walk and bike to transit as an alternative to driving. The Full-Build Alternative also provides an opportunity to maximize the use of existing pedestrian and bicycle facilities and to develop additional pedestrian/bicycle facilities and improvements. Where appropriate, new sidewalks and crosswalks with pedestrian signals will be constructed at the new stations, and pedestrian signage will be provided to clearly mark pedestrian paths to and from parking areas. Bicycle racks will also be provided at each station.

Impacts to existing visual and aesthetic resources along the corridor are expected to be minor. The smaller size of the CFCRT DMU train set, when compared to the existing CSXT freight trains and the Amtrak passenger trains and the Auto Train, results in a much smaller intrusion into the visual landscape.

The Full-Build Alternative will result in minor additional amounts of total annual emissions of nitrogen oxides and particulate matter than that of either the No-Build or TSM Alternatives. This reflects the use of diesel-powered DMUs for the project, and is not considered to be a significant impact. Emissions of volatile organic compounds are slightly lower than the No-Build Alternative, reflecting the lower Vehicles Miles Traveled on regional roadways for the Full-Build Alternative. The Full-Build Alternative does not result in exceedences of either the 1-hour or 8-hour National Ambient Air Quality Standard for carbon monoxide at any intersection analyzed within the study area.

Without mitigation, the Full-Build Alternative would result in significant noise impacts to sensitive receptors according to the FTA criteria - 163 *impacts* and 54 *severe impacts.* The addition of the CRT project trains will cause the noise levels along the corridor to increase by less than 1 dBA, which is essentially an imperceptible change in noise level. However, in the vicinity of the grade crossings, the additional noise from the DMU warning horns will result in impacts at receptors along the rail corridor located within a ¼-mile of the grade crossings. FDOT has committed to installation of DMU warning horns modified with the installation of a sheet metal shroud packed with foam insulation to reduce sideline noise impacts. This mitigation measure is expected to eliminate all *severe impacts.* Additional reductions in horn noise levels to eliminate all but two *impact* locations in the vicinity of Florida Hospital may also be possible with the installation of the shrouded and muffled DMU warning horn. FDOT has committed to additional noise mitigation, such as installation of sound installation at remaining noise *impact* locations, if necessary.

The Full-Build Alternative will not result in adverse vibration impacts along the corridor.

As the Full-Build Alternative will be constructed along the existing CSX right of way, an existing active freight and passenger rail corridor, it is expected to have no significant adverse impacts on natural communities. Without mitigation, the Full-Build Alternative is estimated to, at worst, possibly "affect, but not likely to adversely affect" several threatened and endangered species known to occur along the corridor. Additional protective measures and permitting requirements are indicated for the Florida Scrub-Jay, the Gopher Tortoise, the Bald Eagle and Crested Caracara, and the Florida Black Bear. FDOT commits to conduct comprehensive Florida Scrub Jay surveys near the confirmed location near DeBary and the Saxon Boulevard Extension Station site. Based on the results of these surveys, and if required, FDOT will coordinate with USFWS to determine appropriate mitigation measures, such as conducting project construction activities outside of the active breeding season. FDOT will also follow established guidelines as specified in "Standard Protection Measures for the Eastern Indigo Snake" to ensure protection of the eastern indigo snake habitat in the project corridor. FDOT will also survey appropriate areas of the project corridor for the presence of Bald Eagle and Caracara nests during the final design phase. If necessary as a result of this survey, FDOT will coordinate with the USFWS to determine appropriate mitigation. Finally, FDOT will continue to review potential impacts from project activities as data from ongoing studies of the Ocala population of the Florida Black Bear becomes available.

Full-Build Alternative wetland and other surface water feature impacts are estimated at 23.56 acres. Of these impacts, 18.21 acres are directly associated with station locations. In these locations, efforts will be made through final design of the stations to avoid direct impacts to wetland resources. Unavoidable wetland impacts will be mitigated pursuant to S. 373.4137 FS to satisfy all mitigation requirements of Part IV Chapter 373, F.S. and 33 U.S.C. s. 1344.

A total of 5.65 acres of encroachment to the 100-year floodplain is expected for the Full-Build Alternative. The encroachments to the floodplain are not anticipated to have an adverse effect. Compensatory flood storage at a 1:1 ratio of mitigation to impacts will be provided where necessary.

For the Full-Build Alternative, all potentially contaminated sites within 300 feet of the 16 proposed stations and the VSMF at Rand Yard were identified. Six station locations were assigned a Low Contamination Risk Potential Rating (CRPR), and 11 station locations and the proposed VSMF facility were assigned either a Medium or High CRPR. Appropriate Mitigation measures, dependent on the results of additional site specific assessments of soils and groundwater, will be developed during project design and implemented prior to construction.

Benefits of the Full Build Alternative

Implementation of the Full Build Alternative for the CRT project will result in numerous environmental benefits as detailed in previous sections of this Chapter. In brief, the benefits include:

- Construction of a commuter railway system that is consistent with future land use and transportation elements of the local comprehensive plans required under Florida law. Specifically, future land use benefits would accrue through the

CHAPTER 4

TRANSPORTATION IMPACTS

4 TRANSPORTATION IMPACTS

This chapter begins by summarizing the existing and future baseline conditions of the transportation system and services in the CRT Study Corridor without the proposed CRT Full Build. It then describes and evaluates the impact of the CRT Full Build on the following components of this baseline; traffic and roadways, parking at and near the station sites, public transportation, freight transportation patterns and the St. John's River marine traffic. The analysis leads to the identification of locations with significant potential negative impacts for which solutions are proposed to eliminate or mitigate these impacts.

As indicated in the preface to this EA, in support of this CRT project, FDOT and the project sponsors have been negotiating freight traffic density and train operating patterns on the A-line with CSXT. A fundamental component of the negotiation is a Memorandum of Understanding (MOU) that eliminates freight traffic during the time of day when the proposed CRT service would operate through this Study Corridor.

A key measure in evaluating the addition of CRT service is the change in delay that occurs at railway grade crossings. As a result of the MOU, this analysis assumed that existing rail freight traffic volumes operating on the CSXT A-line in the 2025 No-Build will not continue to operate in the peak commuting hours on the line in the 2025 CRT Full Build. As previously stated, the CSXT has decided, as part of its Statewide Strategic Plan, to shift freight traffic to the S-line to the west of central Florida, and to designate the A-line for passenger traffic. This EA analysis is consistent with the CSXT initiated operational shift and policy direction.

4.1 Traffic and Roadways

This section summarizes the potential impacts the proposed project would have on traffic in the vicinity of project stations and at-grade crossings. The following elements are evaluated and summarized in this section:

- Station Areas and Intersections; and
- Roadway Impacts.

The project will have only limited impact on traffic operations at study roadways and intersections. The small number of locations that may be impacted by the project can be mitigated as discussed in Section 4.1.6.

4.1.1 Existing Traffic Conditions

Existing physical, operating, and safety conditions for the traffic roadway system in the CRT Study Corridor were evaluated, addressing the following elements:

- Roadway physical features
- Pedestrian and bicycle facilities
- Traffic data
- Crash history
- Intersection capacity analysis
- At-Grade crossing analysis

- Parking conditions

The results of the existing conditions evaluation were used to identify current problems and trends in the Study Corridor and as a basis for which to compare future conditions.

The following is a summary of the existing traffic, pedestrian, and bicycle facilities in the study area:

- A total of 30 at-grade crossings were evaluated among the 111 at-grade crossing along the rail line within the limits of the Study Corridor. The study roadways were selected for evaluation based on a ranking system to prioritize roadway locations according to the number of lanes and year 2000 Average Daily Traffic volume. The locations that experienced the highest traffic volumes in the Study Corridor were identified for study. Twenty-two of the grade crossings are classified as principal or minor arterials and eight are classified as collector roadways. Over 75 percent of the study at-grade rail crossings have four or more lanes with posted speed limits between 30 and 40 miles per hour.

- Sidewalks are provided at most grade crossings (22 of 30). No sidewalks were observed at the following rail crossing locations:

    - Gore Street
    - Amelia Street
    - SR 46A/25th Street
    - Carroll Street
    - Kaley Street
    - Poinciana Boulevard
    - Airport Road
    - Landstreet Road

- Only Horatio Street and North Orange Avenue in Orange County have designated bicycle lanes.

- LYNX and/or VOTRAN bus routes operate on most of the major roadways in the study corridor. These roadways include Interstate 4, SR 46, SR 436, SR 17/92, SR 441, Lake Mary Boulevard, Fairbanks Avenue, Amelia Street, Livingston Street, Columbia Street, Orange Avenue, US 192 and Main Street. Six of the 30 at-grade crossings were identified as locations where school buses have regular routes that cross the railroad tracks.

- Average annual daily traffic (AADT) data was collected on 30 roadway segments in the vicinity of the proposed CRT stations. AADT volumes ranged between 5,700 vehicles at Amelia Street in Orlando to nearly 55,000 vehicles at SR 436 in Seminole County. The average daily traffic volume for all study roadways is approximately 23,500 vehicles. Critical peak hours generally occur between 7:45 and 8:45 a.m. and 4:45 and 5:45 p.m.

- The 39 intersections at key locations along roadways providing access to the proposed CRT stations were evaluated. An accident data analysis was conducted at these 39 intersections and the 30 at-grade crossings. One third of the study intersections experienced at least five accidents per year for 3 consecutive years (15

total accidents) between 2002 and 2004. For the 646 crashes reported at 39 study intersections, 352 personal injuries were reported, and a total of four fatalities occurred within the 3-year period. Fourteen accidents were reported at study grade crossing locations with five involving fatalities.

- Vehicular delays and queuing were analyzed at study area grade crossings. Over 70 percent of the 30 locations studied currently experience peak hour queues of 20 or more vehicles during at least one peak period, due to existing freight and AMTRAK operations.

- All but nine of the 39 study intersections are located adjacent to roadways that cross existing rail lines. Twenty-one of the 39 intersections currently operate at Level of Service (LOS) D or better. The remaining 18 intersections currently experience LOS E/F conditions during peak hours. Most of the intersections with poor LOS are located in the vicinity of one or more at-grade rail crossings. Long freight trains that currently operate in the corridor contribute significantly to cumulative daily delay, which can be expected to decline if the number of through freight trains declines in the future.

The summary of existing conditions shows that there are several areas that currently operate deficiently and/or experience safety issues. Further information is provided in the Existing Roadway and Traffic Conditions Report, December 2005.

4.1.2 Traffic and Roadway Impact Analysis Approach and Methodology

This section summarizes the development of daily and peak hour traffic volumes that were used to analyze study roadways and intersections. Traffic volumes at project stations will be minimal as compared with traffic on adjacent roadways. It should be noted that the stations do not generate any new trips per se; instead, the transit improvements divert traffic that is already on the adjacent roadway network to the station parking to utilize the alternative mode of transportation.

The following train operating characteristics were used for the analysis of future 2025 No-Build and CRT Full Build peak hour conditions:

- One freight train in the a.m. and p.m. peak hours (No-Build);
- One Amtrak train in the a.m. and p.m. peak hours (No-Build and Build); and
- Four CRTs per direction (15-minute headways) in the a.m. and p.m. peak hours with stops at all stations (Full Build).

It should be noted that this is a worse case scenario. This is the maximum impact of the proposed system. These conditions were developed for the purpose of the EA.

The major roadway improvements assumed at the study grade crossings and study intersections for both the No-Build conditions traffic LOS analyses are summarized in Table 4-1. The development of future roadway and intersection turning movement volumes is discussed below.

This section describes the approach/methodology used to estimate future traffic volumes for the 2025 No-Build and CRT Full Build Alternative and presents the resulting roadway and intersection traffic volumes in the vicinity of the CRT route and stations.

Table 4-1: Future Roadway Improvements – No-Build

Location	Roadway(s)	Improvement
Grade Crossings		
Crossing #622060C	SR 46A/25th Street	SR 46A will widen to 4 lanes west of Old Lake Mary Road
Crossing #622061J	Airport Boulevard	Airport Boulevard widens to 4 lanes
Crossing #622072W	CR 427/Ronald Reagan Blvd (North)	CR 427 widens to 6 lanes
Crossing #622073D	SR 434/Sanlando Springs Blvd	SR 434 widens to 6 lanes
Crossing #622169T	Orlando Avenue	Orlando Avenue widens to 6 lanes
Crossing #622169T	Landstreet Road	Landstreet Road widens to 4 lanes west of Orange Avenue
Crossing #622412F	Oak Street	Oak Street Widens to 4 lanes
Intersections		
Church/Monroe	Monroe Road SR 46 to US 17/92	Widen to 5 lanes
School/Monroe	Monroe Road SR 46 to US 17/92	Widen to 5 lanes
Orange Blvd/Monroe	Monroe Road SR 46 to US 17/92	Widen to 5 lanes
Airport Blvd/SR 46A	Airport Boulevard US 17/92 to SR 46A	Widen to 4 lanes
Reagan Blvd/SR434 Sanlando	Ronald Reagan Boulevard	Widen to 6 lanes NB, SB, EB, WB
Reagan Blvd/Orange Ave	Ronald Reagan Boulevard	Widen to 6 lanes
Reagan Blvd/Palmetto Ave	Ronald Reagan Boulevard	Widen to 6 lanes
Regan Blvd/Church Ave	Ronald Reagan Boulevard	Widen to 6 lanes
Orange Ave/Wetherbee Rd	Orange Avenue	Widen to 6 lanes
Orange Ave/Fairway Woods B.	Orange Avenue	Widen to 6 lanes
Osceola Prkwy/Michigan Ave	Michigan Avenue	Widen to 5 lanes

Source: METROPLAN ORLANDO Community Connections: A Transportation Vision for the Next 25 Years, Tech Report No. 3, Approved March 28, 2003.

4.1.3 Roadway and Intersection Turning Movement Analysis

The future traffic volumes were developed from the regional model.[1] Station traffic volumes were separated into auto-park trips, auto kiss-and-ride trips, bus, and walk modes for daily and a.m. peak hour trips. The following steps were used to adjust the raw model daily forecasts and develop peak hour volumes:

- Adjust trips at Altamonte and Winter Park Stations to reflect removal of intermediate station location;
- Adjust trips at Meadow Woods Station and adjacent Osceola Station due to high projected walk trips;
- Add bus trips;
- Develop p.m. peak hour station trips by reversing a.m. peak hour auto-park and kiss-and-ride station trips; and
- Assign a.m. and p.m. peak hour vehicle trips from the study roadway network and station trips (Build condition only) to proposed station access points.

[1] Regional model outputs used in traffic impact analysis provided by AECOM Consulting.

Table 4-2 summarizes the vehicle trips at each station during peak hours. Vehicle trips at stations would already be on the future roadway network and are not generated by the project. Rather, these vehicle trips, with implementation of a new alternative mode of transportation, would be redirected from the adjacent roadway network to the stations.

The proposed stations are generally classified as either "origin" or "destination" (or "walk access") stations. Origin stations are those locations where most CRT riders would originate their daily trip from, typically a commute trip. These are stations that are located outside the urban core of Orlando where riders would either walk, drive or use a feeder bus from their home to the CRT station to board a train for travel to work. Destination stations (Florida Hospital Station, LYNX Central Station, Church Street Station, ORMC/Amtrak Station, and to some extent, the Winter Park Station) are locations where CRT riders will alight to walk or connect with a bus to reach their place of employment or other destination. As shown in Table 4-2, station trips are generally higher for origin stations than for destination stations.

The Year 2025 CRT Full Build traffic volumes and turning movements at study intersections and stations are shown in Figure 4-1 through Figure 4-8. Added traffic as a result of the CRT Full Build ranges from a low of 15 trips in the p.m. peak hour at LYNX Central Station and a high of 416 p.m. trip at the Mead Woods Station.

In summary, the project will shift a small amount of traffic away from the future roadway network to "origin" commuter rail stations that provide parking. The level of project-related traffic is low compared with traffic on adjacent roadways. There will be very little project-related traffic at the four destination/walk access stations in the urban core of Orlando.

Table 4-2: 2025 Vehicle Trips at Stations in Peak Hours

	a.m. Peak Hour			p.m. Peak Hour		
Station	Ins	Outs	Total	Ins	Outs	Total
DeLand Amtrak Station	106	48	154	48	106	154
DeBary/Saxon Blvd. Extension Station	64	31	95	31	64	95
Sanford/SR 46 Station	65	35	100	35	65	100
Lake Mary Station	173	83	256	83	173	256
Longwood Station	116	54	170	54	116	170
Altamonte Springs Station	210	77	287	77	210	287
Winter Park/Park Avenue Station	138	55	193	55	138	193
Florida Hospital Station	38	18	56	18	38	56
LYNX Central Station	9	6	15	9	6	15
Church Street Station	10	7	17	10	7	17
Orlando Amtrak/ORMC Station	18	6	24	6	18	24
Sand Lake Road Station	275	97	372	97	275	372
Meadow Woods Station	154	262	416	262	154	416
Osceola Parkway Station	124	55	179	55	124	179
Kissimmee Amtrak Station	150	68	218	68	150	218
Poinciana Industrial Park Station	106	51	157	51	106	157

Source: Earth Tech Inc. and AECOM Consulting.

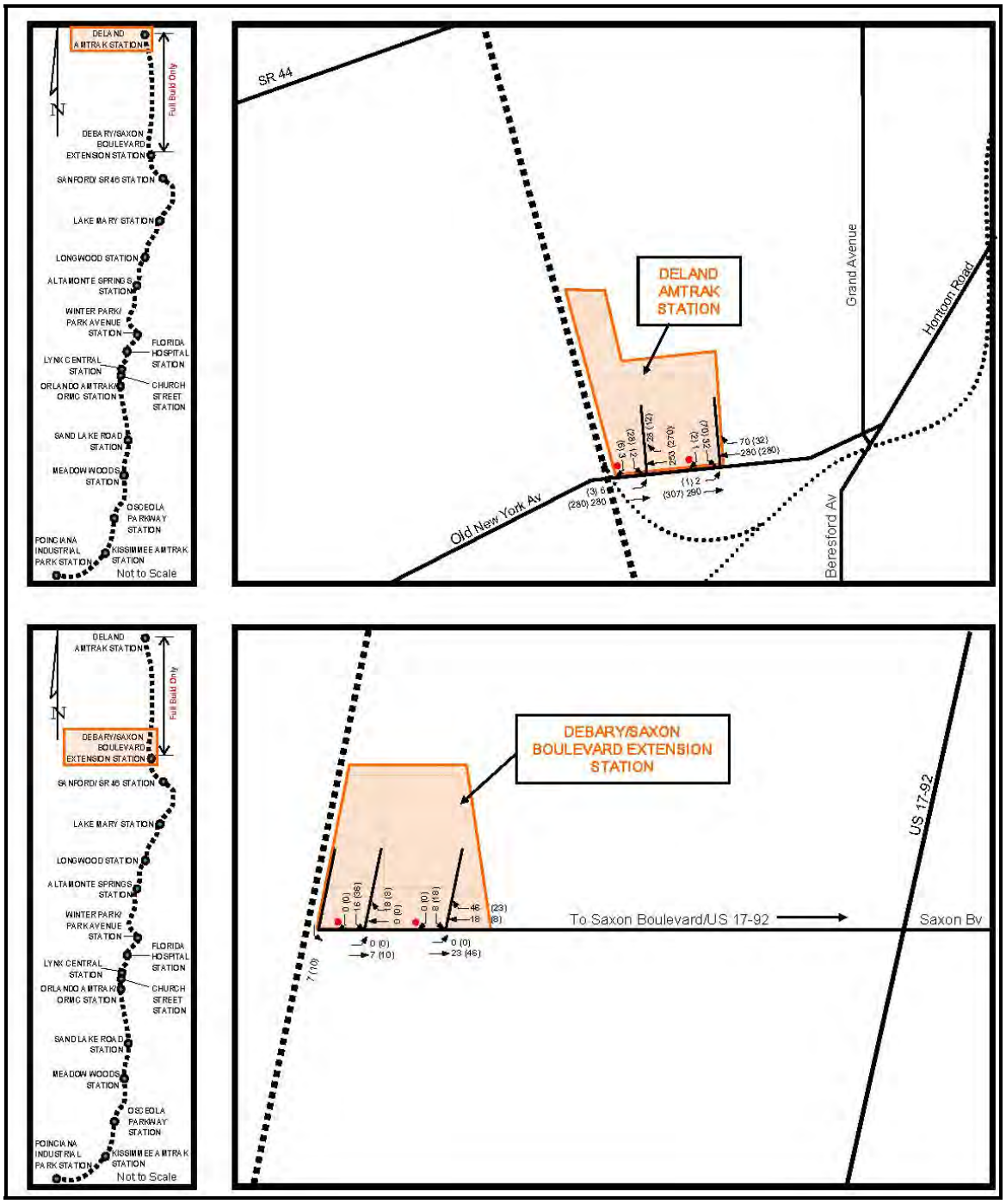


Figure 4-1 Station Turning Movement Volumes I – 2025 Full Build

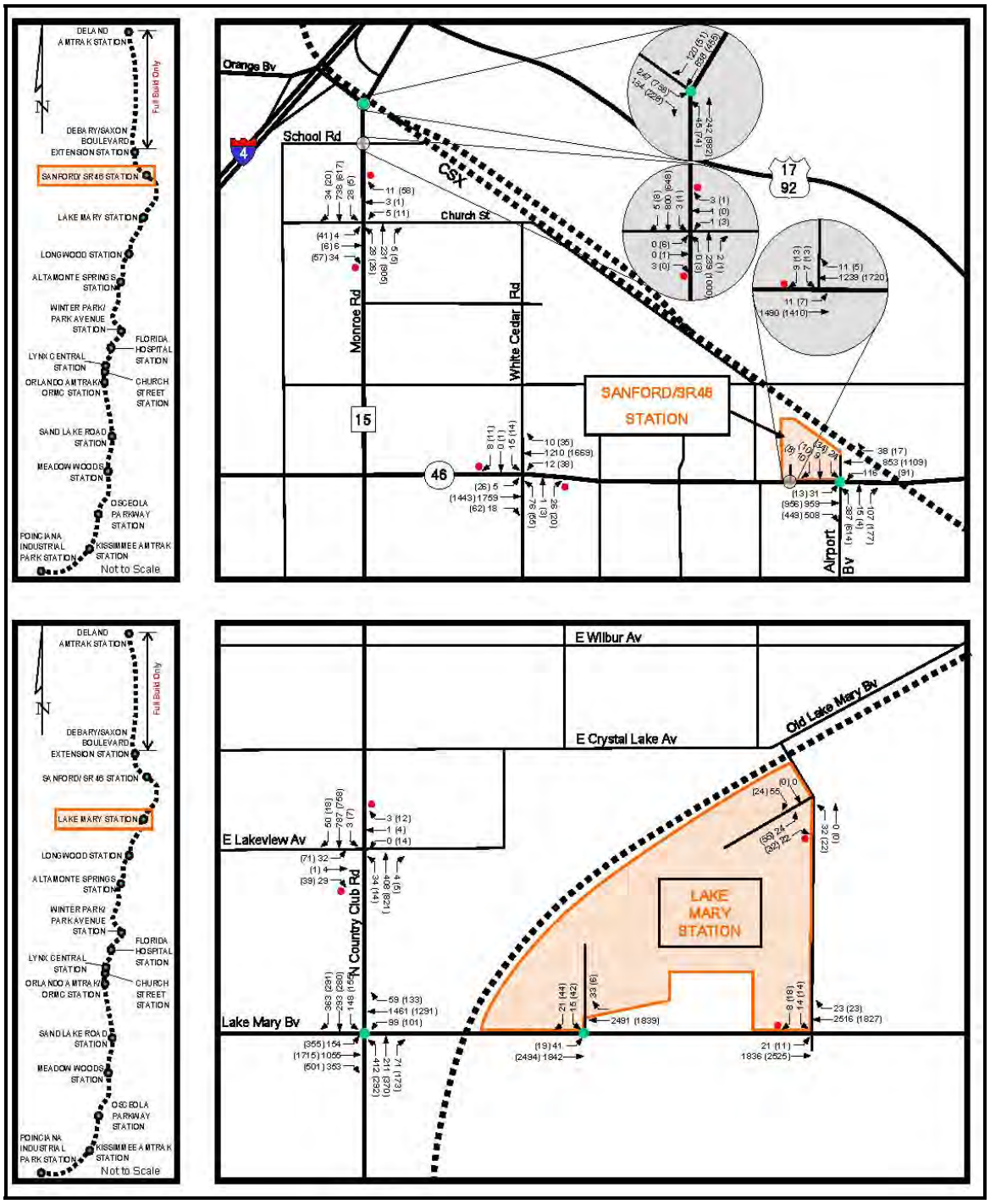


Figure 4-2 Station Turning Movement Volumes II – 2025 Full Build

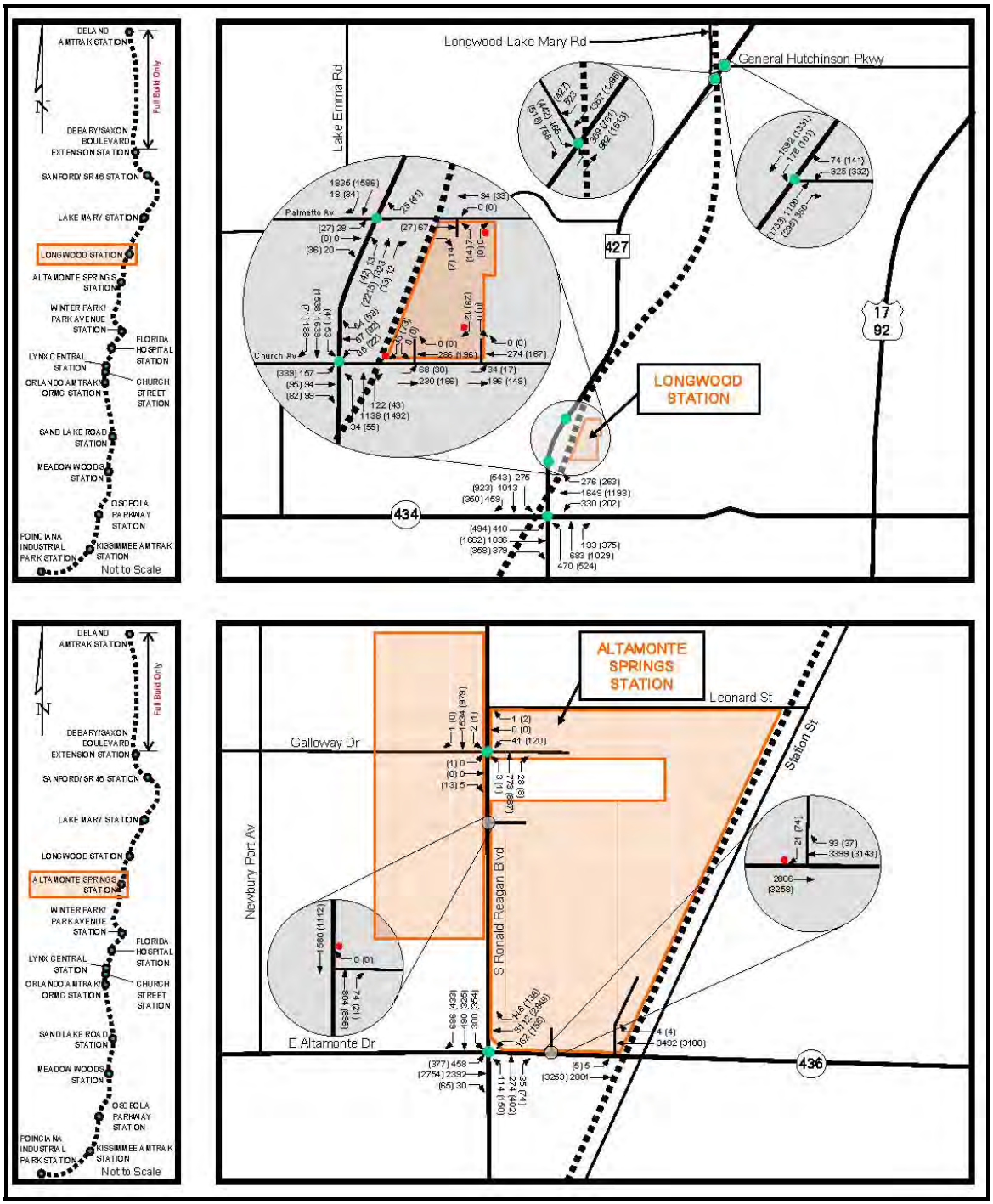


Figure 4-3 Station Turning Movement Volumes III – 2025 Full Build

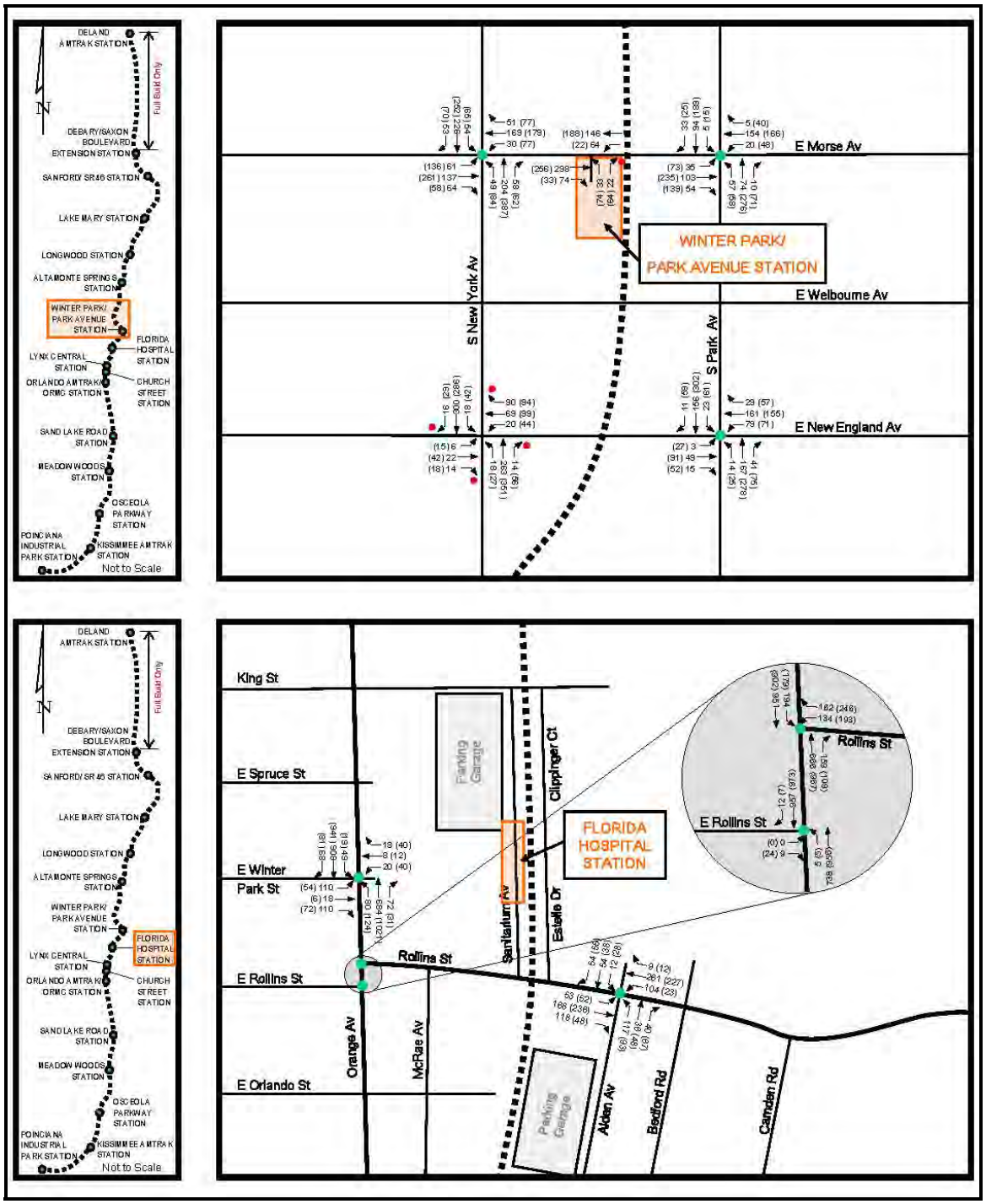


Figure 4-4 Station Turning Movement Volumes IV – 2025 Full Build

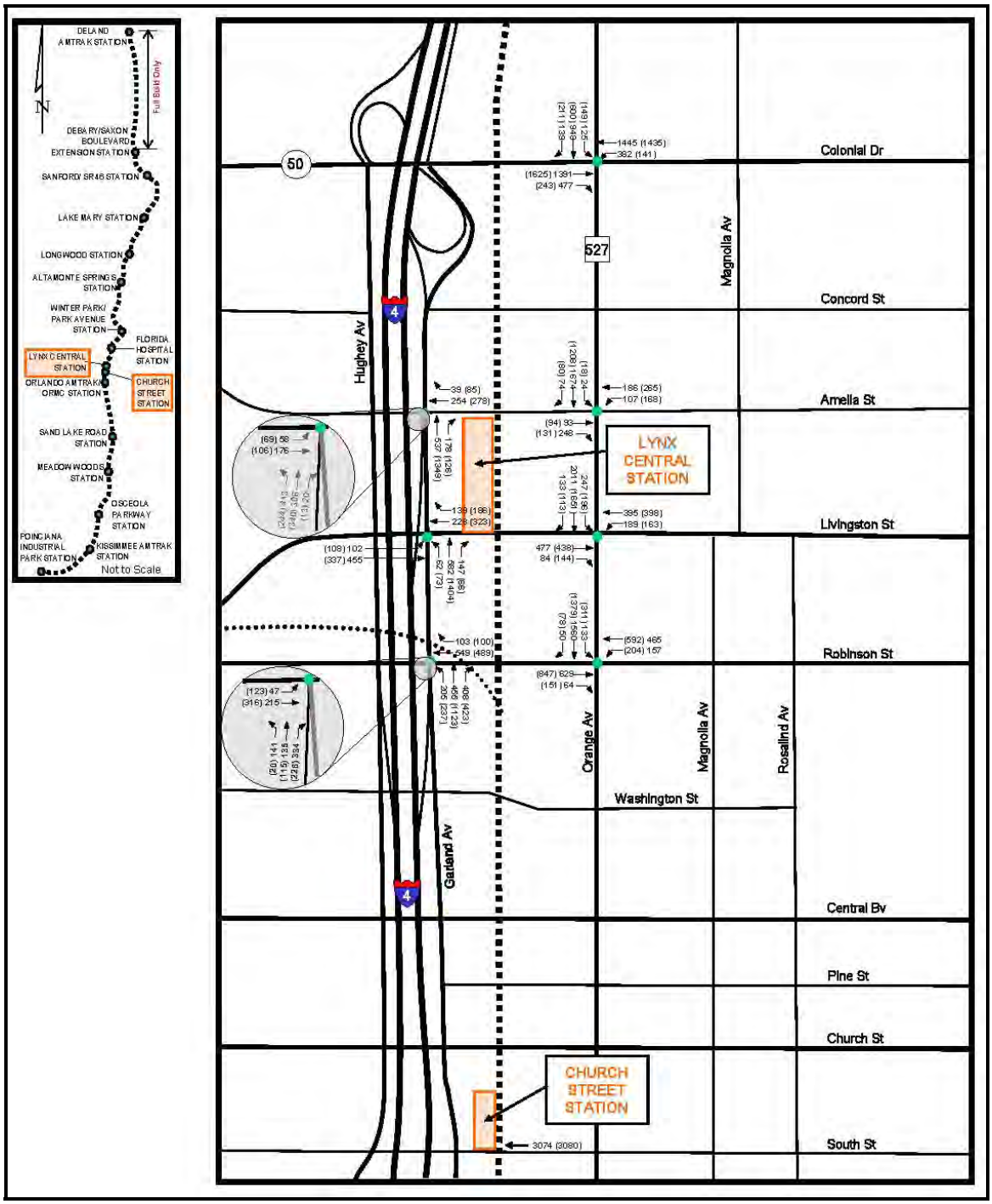


Figure 4-5 Station Turning Movement Volumes V – 2025 Full Build

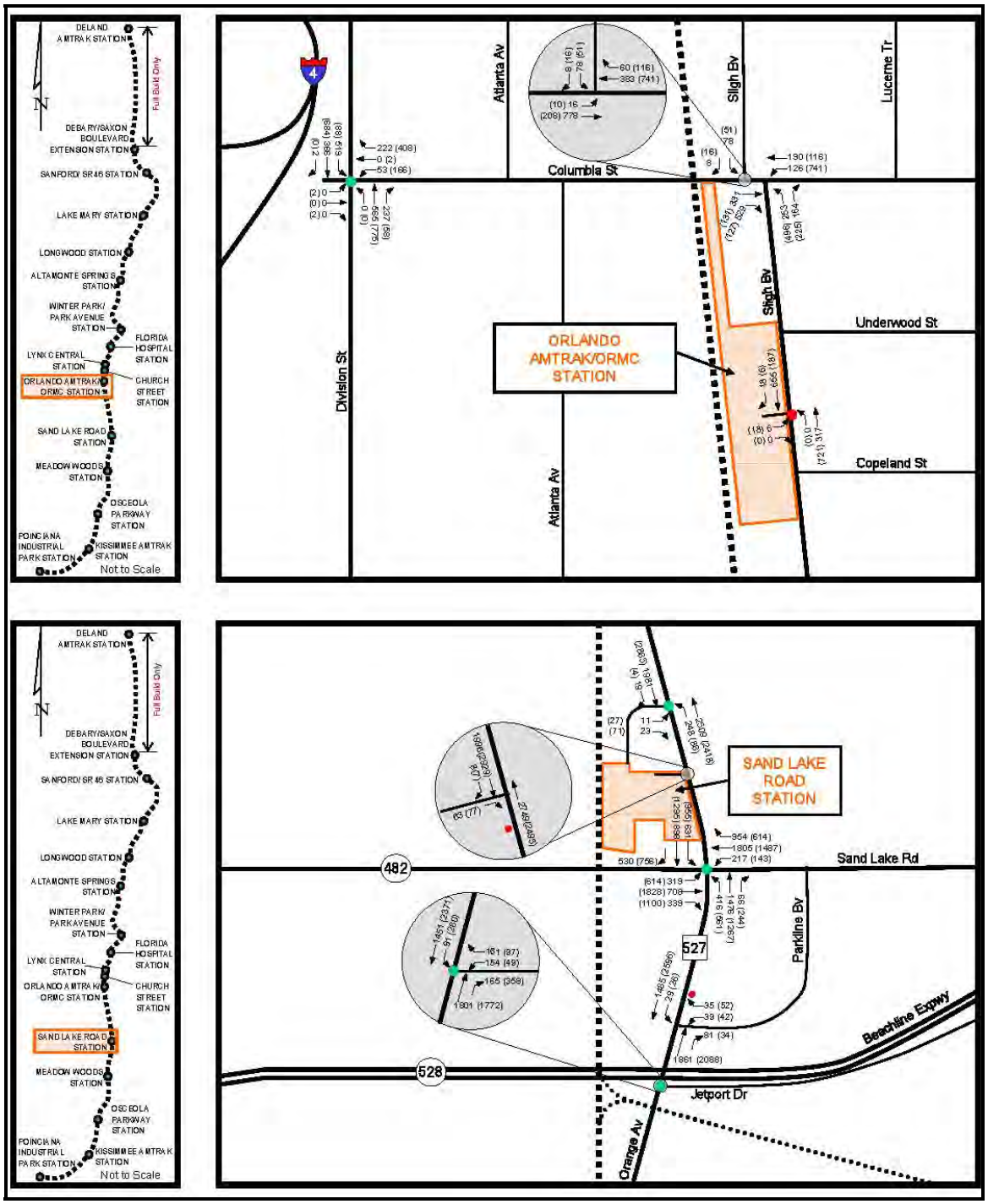


Figure 4-6 Station Turning Movement Volumes VI – 2025 Full Build

Figure 4-7 Station Turning Movement Volumes VII – 2025 Full Build

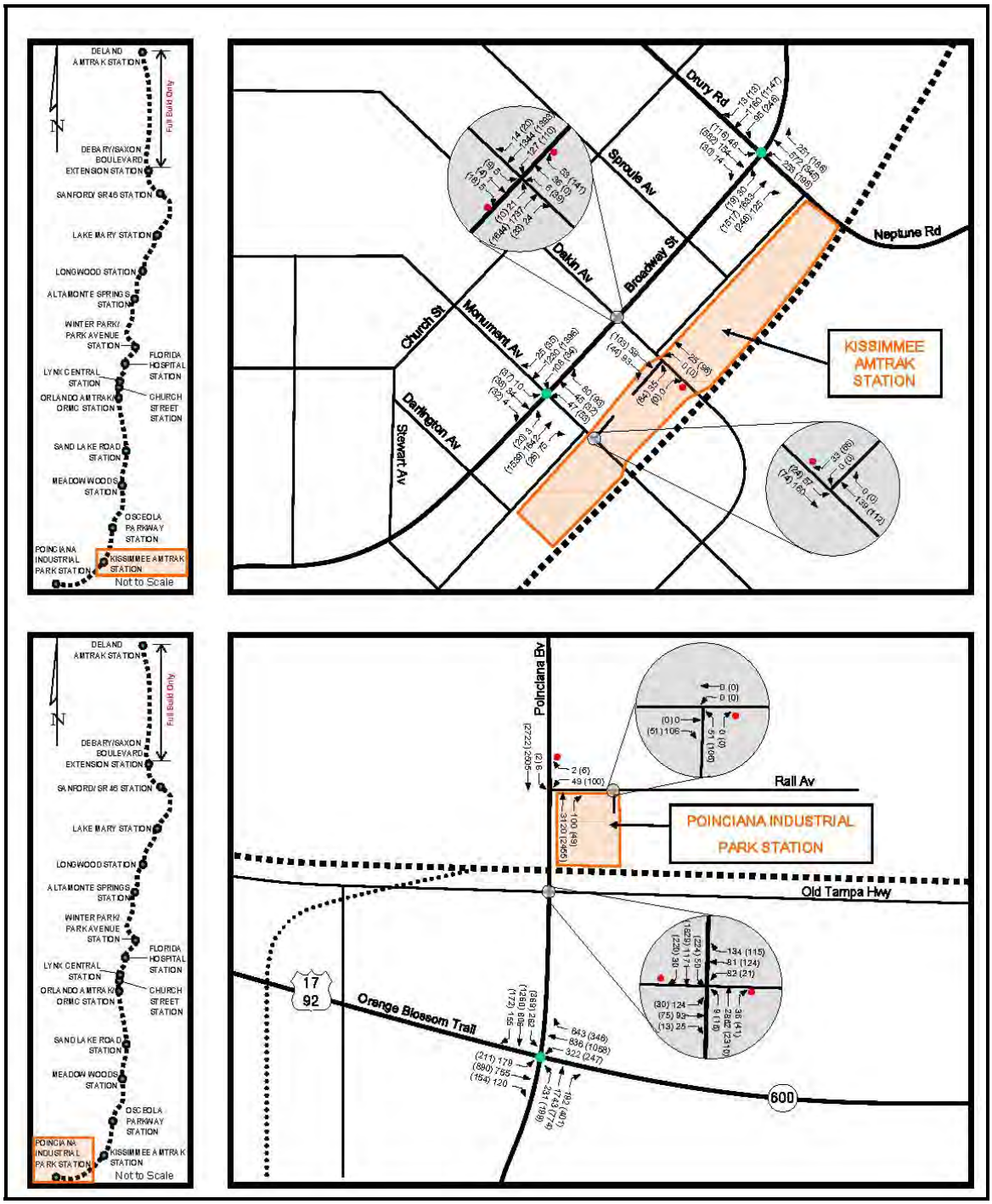


Figure 4-8 Station Turning Movement Volumes VIII – 2025 Full Build

4.1.4 Station Areas and Intersections

Potential traffic impacts were evaluated in the vicinity of park-n-ride lots for the TSM alternative and proposed station locations for the No Build and CRT Full Build. Since the level of project-related traffic at stations is low (See Section 4.1.3.) the project has little or no impact on traffic operations on the adjacent roadways and study intersections. The evaluation results are described in detail below. Hundreds of intersections located adjacent to the rail corridor will not be affected by the CRT project.

Station Areas

Traffic and parking was evaluated fore each of the 13 TSM park-and-ride lot locations. Seven of the park-and-ride lot locations will use existing surface parking lot facilities. Buses will use existing access and egress driveways. Since adequate access and infrastructure is currently provided at these seven existing facilities, the TSM Alternative will have little or no impact at these facilities. Vehicle trip generation and parking demand for all the park-and-ride locations is expected to be low to moderate. Therefore, the TSM Alternative traffic will have little or no impact on park-and-ride lot access and egress. Minor timing adjustments to adjacent signals may be needed to optimize traffic operations.

Traffic access/egress and circulation was evaluated for each of the CRT Full Build 12 origin stations where parking and kiss-and-ride will be provided. Vehicle trip generation and parking demand associated with the destination/walk access CRT stations is expected to be low. Since destination stations only generate negligible demand for parking, traffic operations were not evaluated for these stations and no adverse impacts from the Project are anticipated. Added peak hour traffic ranges from 15 at LYNX Central Station to 56 vehicles per peak hour at Florida Hospital. Parking demand and supply are discussed below.

From Table 4-2 above, the average total traffic at each of the 12 origin stations (not including the four destination stations) is approximately 150 vehicles during both the a.m. and p.m. peak hours (2.5 vehicles per minute). At most locations the station vehicle trips represent only a small percentage of the traffic on the adjacent roadways. For example at Meadow Woods Station, 416 trips would be generated, which represents 21% of the 2025 traffic on South Orange Avenue near the station. An example of the best case is the Sanford/SR 46 Station, which generates 100 trips, is only 4% of the 2025 traffic on SR 46, east of the station access.

Table 4-3 summarizes the station roadway traffic analysis results. Traffic volumes on roadways adjacent to the stations were screened for analysis based on the traffic volume screening criteria outlined in USDOT, Urban Mass Transportation Administration (UMTA, now FTA), Circular C 5620.01, Guidelines for Preparing Environmental Assessments, October 16, 1979. The impacts are deemed to be generally not significant if the proposed project would result in total traffic volumes of less than 600 vehicles per hour per lane (vphpl) on principal arterials and 500 vphpl on minor arterials or collectors.

The traffic volume screening analysis shows that the roadways adjacent to station at DeLand Amtrak Station, Debary/Saxon Boulevard Extension Station, Winter Park/Park

Avenue Station, Florida Hospital Station, LYNX Central Station, Church Street Station, and Orlando Amtrak/ORMC Station are below threshold criteria and do not require further analysis. The destination stations in the City of Orlando will generate negligible traffic volumes, and would not impact adjacent roadways.

Table 4-3: Station Traffic Screening Analysis Results

Station	Full Build 2025 Exceeds FTA Roadway Volume Threshold[1]	Full Build 2025 Impacts Public Roadway
DeLand Amtrak Station	**No**	**N/A**
DeBary/Saxon Blvd. Extension Station	**No**	**N/A**
Sanford/SR 46 Station	**Yes**	**No**
Lake Mary Station	**Yes**	**No**
Longwood Station	**Yes**	**No**
Altamonte Springs Station	**Yes**	**No**
Winter Park/Park Avenue Station	**No**	**N/A**
Florida Hospital Station	**No**	**N/A**
LYNX Central Station	**No**	**N/A**
Church Street Station	**No**	**N/A**
Orlando Amtrak/ORMC Station	**No**	**N/A**
Sand Lake Road Station	**Yes**	**No**
Osceola Parkway Station	**Yes**	**No**
Meadow Woods Station	**Yes**	**No**
Kissimmee Amtrak Station	**Yes**	**No**
Poinciana Industrial Park Station	**Yes**	**No**

[1]UMTA C 5620.1, Table K

The nine stations-Sanford/SR 46 Station, Lake Mary Station, Longwood Station, Altamonte Springs Station, Sand Lake Road Station, Meadow Woods Station, Osceola Parkway Station, Kissimmee Amtrak Station, and Poinciana Industrial Park Station-exceed the FTA criteria for an EA and need a Level of Service analysis. The Level of Service analysis results indicate that none of the added traffic on roadways adjacent to the stations will significantly impact traffic operations. In addition, no stations will divert traffic to sensitive areas such as residential neighborhoods, historic districts, or hospital zones

In summary, none of the station will have an adverse impact on the adjacent roadway system or sensitive areas.

Intersections

The TSM Alternative will result in lower traffic generation than the Full Build Alternative and will not impact gate down times at grade crossings. As a result, the TSM Alternative will have little or no impact to intersections.

A total of 45 intersections (30 are signalized and 15 are unsignalized) in the study area were selected for analysis for the CRT Full Build Alternative. Most of the study intersections (41) were selected based on their proximity to the proposed stations and represent the locations that project-related traffic would utilize. The intersections at SR 434/Ronald/Reagan Boulevard, CR 427/General Hutchinson Parkway, Ronald Reagan Boulevard/Longwood-Lake Mary Road, and North Orange Avenue/Colonial Drive were

selected for analysis because they carry high traffic volumes and are located adjacent to at-grade crossings.

LOS, delay, and queuing were evaluated for each of the study intersections according to methodologies outlined in the *Highway Capacity Manual (2003)*, an industry standard method of assessment. Analysis was performed for the a.m. and p.m. peak hours for the future 2025 No-Build and Build conditions using traffic volumes discussed above. Because several of the study intersections are located nearby at-grade crossings, the intersections and grade crossings were evaluated simultaneously. Simulations were created using Synchro/SimTraffic model software to evaluate the traffic and queuing operations at at-grade crossings and adjacent intersections.

For the No-Build condition, one freight train and one Amtrak train crossing in each peak hour were assumed. This is consistent with data that was used for the Existing Conditions analysis.

The Build condition was analyzed in the same way as the No-Build, with the exception that the freight service in the peak hour was eliminated and CRT trains were added. In the Build condition, four peak hour CRT trains were assumed in each direction, which is assumed to be the maximum frequency of the CRT operation.

The Project will not degrade any study intersection to a deficient LOS E or F condition. The project will increase delay slightly at most study intersections due to increased gate down times at the nearby grade crossing(s). However, other locations will experience reduced delay due to the removal of freight train service from the peak hours. Table 4-4 shows the four study intersections operating at LOS F in the No-Build that are expected to experience the greatest increased delay in one or both peak hours as a result of the Project. It should be noted that these intersections are projected to operate at LOS F without the proposed commuter rail project.

Measures that would improve operations at these locations can be implemented, including optimizing train signal equipment, adding turn lanes at the signalized intersections, and signalizing the intersection of Sligh Boulevard/Columbia Street.

In summary, the project will not cause any study intersection to deteriorate to deficient conditions. While the LOS will remain at F, increased delay from 165 to 460 seconds may be considered “deficient”. Measures will be implemented at four intersections to improve operating conditions.

Table 4-4: Intersection LOS Summary – Significant Potential Impact Locations

			No-Build				Build			
			a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
	County	Jurisdiction	Delay[1]	LOS[2]	Delay	LOS	Delay	LOS	Delay	LOS
Signalized Locations										
CR 427/Longwood Lake Mary	Seminole	Longwood	109	F	165	F	115	F	460	F
Reagan Boulevard/ Altamonte Drive	Seminole	Altamonte Springs	232	F	245	F	280	F	304	F
Poinciana Boulevard/ US 17/92	Osceola	Poinciana	453	F	374	F	514	F	460	F
Unsignalized Location										
Sligh Boulevard/Columbia Street	Orange	Orlando	323	F	317	F	*	F	492	F

[1] For signalized intersections, delay shown in seconds per vehicle for overall intersection. For the unsignalized intersection, delay is shown for worst minor street movement. All figures shown are without mitigation.

[2] LOS = Level Of Service

Note: * Results cannot be calculated in some instances due to conditions resulting from high volumes exceed capacity limits.

Source: Earth Tech, Inc.

4.1.5 Roadway At-Grade Crossings Delays

A critical component to the Full Build Alternative operation that will greatly reduce at-grade crossing delay (for CRT and Freight) will be the replacement of the old existing railway "Fixed Start" crossing warning system with new Constant Warning Time (CWT) crossing protection technology for crossing protection activation (i.e., lights and gates). The CWT technology determines, based on set trains speed, when to activate the crossing protection to provide a constant 30 seconds of advance warning for every train (CRT or Freight). In contrast, the existing Fixed Start system uses a fixed location for the at-grade crossing protection activation device that is based on the maximum train speed allowed. Therefore, if a train is traveling significantly slower than the maximum speed allowed, the crossing protection will be active much longer before the train arrives.

Table 4-5 shows the 30 at-grade crossing roadways that were evaluated for the 2025 No-Build and Build conditions to determine potential impacts. The highest vehicle delays occurred at a limited number of grade crossings immediately adjacent to stations. For these locations, the crossing delay is greatest when a train is decelerating for the station stop near, but prior to passing the at-grade crossing. The following is a list of these at-grade crossings:

- Lake Mary Boulevard
- CR 427 (Ronald Reagan Boulevard) at Longwood
- SR 436 (Altamonte Drive)
- Amelia Street
- Robinson Street
- Poinciana Boulevard

Peak Hour Delay Results

The calculation of vehicle delay and queuing at at-grade crossings was performed based on the future traffic volumes and methodology explained above. Using the standard Constant Warning Time (CWT) durations, the analysis results show that of the 30 study at-grade crossings, 27 will operate with average hourly vehicle delays of less than 80 seconds during the peak hours. The Transportation Research Board identifies 80 seconds as the threshold for LOS F.

Table 4-5: At-Grade Crossing Study Locations

Mile Post	Roadway (including any adjacent study intersection)	Classification
767.61	CR 46A	Urban Arterial
771.1	Airport Road	Minor Collector
773.35	Lake Mary Boulevard	Urban Arterial
776.12	CR 427/Reagan	Urban Arterial
777.81	CR 427(N)/Reagan	Urban Arterial
777.91	SR 434/Sanlando Springs	Principal Arterial
779.39	SR 427(S)/Rea/Longwood	Principal Arterial
780.55	SR 436/Altamonte Drive	Principal Arterial
783.21	Horatio Avenue	Minor Arterial
783.37	Maitland Avenue/427	Minor Arterial
786.06	Fairbanks Avenue/426	Principal Arterial
786.9	Orlando Avenue/17-92	Principal Arterial
787.98	Princeton Street	Minor Arterial
788.97	Magnolia Avenue	Arterial
789.14	Orange Avenue	Principal Arterial
789.48	Colonial Drive	Principal Arterial
789.73	Amelia Street	Collector
789.99	Robinson Street	Minor Arterial
790.23	Central Boulevard	Collector
790.49	South Street	Minor Arterial
791.02	Gore Street	Minor Arterial
791.77	Kaley Street	Collector
792.29	Michigan Street	Minor Arterial
794.98	Oak Ridge Road	Collector
797.5	Landstreet Road	Minor Arterial
805.7	Carroll Street	Minor Arterial
807.23	West Vine Street	Principal Arterial
807.55	Oak Street	Urban Collector
807.94	Drury Street	Collector
813.77	Poincianna Boulevard	Principal Arterial

The 3 grade crossings with significant adverse impacts are Lake Mary Boulevard, SR 436 (Altamonte Drive), and Poinciana Boulevard. All three are characterized as very high volume multi-lane roadways with capacity and peak hour delay predictions well above the

LOS F threshold. Most of the predicted delay at these crossings is associated with the deficiency in the roadway system in the No-Build Alternative. With the No-Build predicted to be such a severe LOS F delay at these locations, the added increment of delay caused by the Full Build is relatively low. Any additional delay at these grade crossings above the No-Build would be due to gate down times, not the insignificant additional traffic associated with the nearby CRT station itself. Mitigation of these impacts is described in Section 4.1.6.

Daily Delay Results

Daily delay at at-grade crossings was estimated to evaluate the total impact on vehicle delay project-wide. Daily vehicle delay was calculated for 111 grade crossings along the rail line within the limits of the proposed project. The No-Build cumulative daily delay at these grade crossings is a combined 34,069 minutes.

The CRT Full Build would only cause short gate down times (35-40 seconds) at most grade crossings and only a small portion of daily traffic would be potentially impacted. The CRT Full Build, without assuming any freight relocation or mitigation, is estimated to increase daily vehicle delay project-wide at the grade crossings by less than 8 percent or a combined 2,595 minutes. The Memorandum of Understanding with CSXT indicates that most of the through-movement freight trains (non-local) will be removed from the A-Line during peak periods.

Most of the increase in daily delay is at the three at-grade crossings listed in Table 4-4. The additional daily delay created by the CRT Full Build can be further reduced or eliminated by redirecting some of the current CSXT freight trains off the project corridor. Due to their great length and relatively slow speed, freight trains have a disproportionate impact on delay at grade crossings. Redirecting some of the long through freight trains would significantly reduce daily delay along the Corridor.

In summary, the CRT Full Build will not increase traffic delay for 108 of the at-grade crossings throughout the Study Corridor. Overall daily delay at grade crossings would increase by approximately 8 percent in the CRT Full Build. Vehicle delay at three at-grade crossings located adjacent to stations can be reduced by optimizing signal operations, (See Section 4.1.6 below) and redirecting some of the long through freight trains to other lines.

4.1.6 Mitigation

This section discusses measures that will be used to mitigate adverse effects at the limited number of identified locations. Table 4-6 summarizes the measures to mitigate project impacts at study intersections and grade crossings. The impact on vehicle delay at the at-grade crossings will be reduced by optimizing train signals to reduce gate down times at the major grade crossings adjacent to the Lake Mary Station, Altamonte Springs Station, and Poinciana Industrial Park Station. Other measures that will be implemented include: 1) slightly increase dwell time for trains approaching grade crossing to allow more time for traffic to clear, 2) reduce service frequency of trains, and 3) shift platforms further away from grade crossings.

Table 4-6: Mitigation Summary

Intersection	Proposed Measure		Result
CR 427/Longwood Lake Mary	Re-stripe eastbound left-turn lane as shared left-right lane. Shift Longwood platforms 300' north away from grade crossing		Improves peak hour delay to better than No-Build conditions.
Reagan Boulevard/ Altamonte Drive	Add 2nd eastbound left-turn lane		Improves peak hour delay to better than No-Build conditions.
Poinciana Boulevard/ US 17-92	Add northbound and southbound left-turn lanes		Improves peak hour delay to better than No-Build conditions.
Sligh Boulevard/ Columbia Street	Signalize Intersection		Improves operation and safety to acceptable conditions.
At-Grade Crossing Location	**FRA Gate ID #**	**Proposed Measure**	**Result**
Lake Mary Boulevard	6220656	Optimize train signal timings to reduce gate down times	Reduces Build delay by 40% at grade crossing in peak periods, below No-Build conditions.
Altamonte (SR 436)	622080N	Optimize train signal timings to reduce gate down times	Reduces Build delay by 40% at grade crossing in peak periods.
Poinciana Boulevard	622408S	Optimize train signal timings to reduce gate down times	Reduces Build delay by 25% to 40% at grade crossing in peak periods.

Source: Earth Tech, Inc.

Operations at the three signalized intersections shown in Table 4-6 will be mitigated by adding or modifying turn lanes for some approaches. The un-signalized intersection of Sligh Boulevard/Columbia Street will be improved by providing a new traffic signal. The locations of intersections and grade crossings where mitigation is recommended in the northern and southern portions of the Corridor are shown in Figure 4-9 and Figure 4-10, respectively.

CSXT freight trains generate a disproportionate amount of delay due to their length and slow speed. In addition to the specific mitigation measures, removal of through freight trains will be implemented as part of the CRT Full Build that will not only reduce the impact of the CRT Full Build but improve overall operations. These include removing most of the CSXT through-movement freight trains from the A-line during peak periods and a new Constant Warning Time signal system.

In summary, the CRT Full Build will have only a limited impact on intersections and roadways in the Study Corridor. The four study intersections and three at-grade crossings that may be impacted by the CRT Full Build can be improved through relatively low-cost mitigation measures. Elements that will be implemented as part of the CRT Full Build, such as a new Constant Warning Time signal system, will reduce grade crossing delays and improve operations and safety throughout the Corridor.

4.1.7 Traffic and Roadway Summary

Traffic operations were evaluated for study intersections and roadways in the Project Corridor for year 2025 No-Build and Build conditions. The project will shift a small amount of traffic away from existing roadways to origin stations. The level of Project-related traffic is low compared with traffic on adjacent roadways. There will be very little Project-related

traffic at the four destination stations in Orlando. The project will not adversely impact the major roadway movements at the station driveway locations.

The Project will not increase traffic delay for the vast majority of at-grade crossings throughout the Study Corridor. No study intersections will deteriorate to deficient conditions as a result of the Project. A total of four study intersections and three at-grade crossings located adjacent to stations may experience increased vehicle delay as a result of additional gate down times. The additional delay at these locations can be reduced by implementing mitigation measures that include additional turn lanes at intersections and signal optimization at grade crossings, and where possible, shifting platforms further away from the crossing.

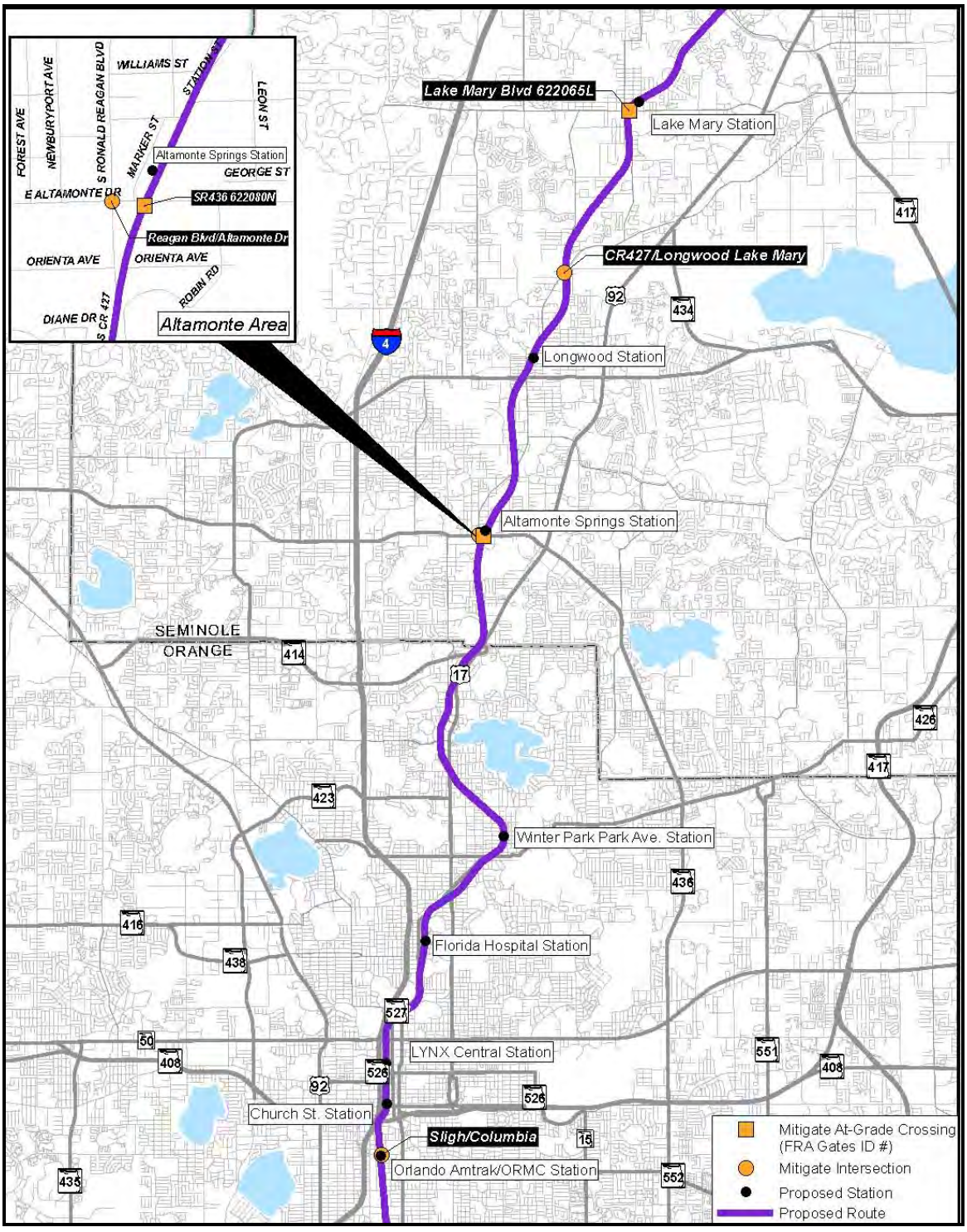


Figure 4-9 Intersection and Grade Crossing Mitigation – North Corridor

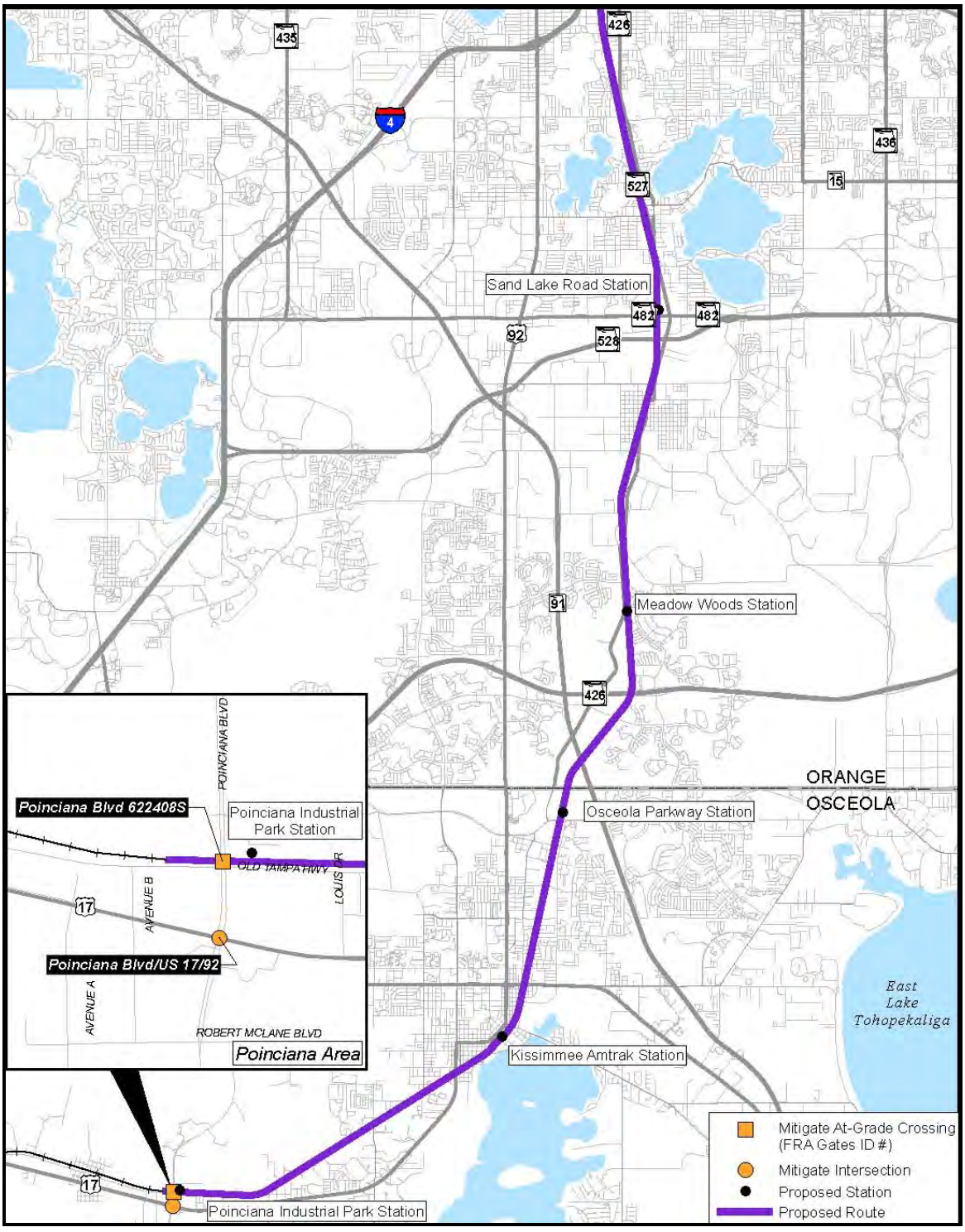


Figure 4-10 Intersection and Grade Crossing Mitigation – South Corridor

4.2 Parking

Parking was evaluated for the Full Build and TSM alternatives. Review of existing parking areas for the TSM Alternative was based on recent aerial photographs of the TSM park-and-ride lot locations.

Parking requirements for each of the CRT Full Build stations was determined using a combination of locally estimated demand and outputs from the regional demand model. All CRT stations will provide on-site parking facilities, with the exception of the five destination, or "walk access" stations. These destination stations are those located near activity areas, where CRT riders typically access by non-auto modes such as bus, walk, or bicycle. Vehicle trip generation and parking demand associated with these stations is low.

An inventory of both public and private off-street parking for the area within ½ miles radius of the CRT Full Build stations was completed. Also, on-street parking was inventoried on those streets immediately adjacent to the stations.

4.2.1 On-Street Parking

Parking at the proposed 13 TSM Alternative park-and-ride lot locations was reviewed. The following parking spaces are currently located at the proposed TSM station park-and-ride lot locations:

- Saxon Boulevard – 153 spaces
- SR 472/I-4 – 0
- North Gate Plaza – 90 spaces
- Seminole Town Center – 0
- Lake Mary/Seminole Center – 609 spaces
- Longwood/SR 434 – 277 spaces
- Altamonte/Fern Park "A" – 60 spaces
- Sand Lake – 73 spaces
- J. Young Parkway/Greenway – 0
- Osceola Parkway – 0
- Osceola Parkway/Old Dixie – 0
- Turnpike/Shady lane – 99 spaces
- Poinciana – 0

The above list indicates that there are 1,361 parking spaces in 7 existing lots that are proposed to be used for park-and-ride lots for the TSM Alternative. Most of the identified parking spaces were observed to be unoccupied. Six locations are currently undeveloped and do not have existing parking.

Existing public on-street parking supply and peak demand were evaluated for a two-block radius around the proposed "walk" stations - Winter Park, Florida Hospital, LYNX Central Station, Church Street, and Orlando Amtrak/ORMC. In the vicinity of the Winter Park Station there are 607 on-street spaces. Florida Hospital has 128 spaces on the adjacent

streets and LYNX Central Station has 91 on-street parking spaces. There are 32 on-street parking spaces in the vicinity of the proposed Church Street Station. At Orlando Amtrak, there are 96 on-street parking spaces. None of these spaces will be eliminated by the CRT Project and adequate on-site parking will be provided.

4.2.2 Station Parking

The following is a description of the existing conditions at the proposed CRT stations and the amount of parking that will be provided as part of the Full Build project.

- **DeLand Amtrak Station** There are 70 existing public parking spaces available at the Amtrak Station. An additional 180 spaces will be added on-site through the purchase of adjacent vacant land to accommodate the CRT requirements.
- **DeBary/Saxon Boulevard Extension Station** The station design includes 275 spaces in the vacant land parcel acquired for the station.
- **Sanford/SR 46 Station** The station design includes 370 spaces in the land parcel acquired for the station.
- **Lake Mary Station** The station design includes 650 spaces in the land parcel acquired for the station.
- **Longwood Station** The station design includes 375 spaces in the land parcel acquired for the station.
- **Altamonte Springs Station** The station design includes 650 spaces in the land parcel acquired for the station.
- **Winter Park/Park Avenue Station** There are 33 existing public parking spaces available at the Amtrak Station. Since this is, to some extent, a CRT destination station, it will not require on-site parking. For the Winter Park Station, the City of Winter Park has coordinated with FDOT to identify options to provide new parking facilities that will accommodate the parking demand for both downtown Winter Park and the proposed CRT station.
- **Florida Hospital Station** is a destination station and will not require on-site parking.
- **LYNX Central Station** is a destination station and will not require on-site parking.
- **Church Street Station** is a destination station and will not require on-site parking.
- **Orlando Amtrak/ORMC Station** There are 44 existing public parking spaces. The CRT station will be adjacent to the Amtrak Station and is a destination station and will not require on-site parking.
- **Sand Lake Road Station** The station design includes 650 spaces in the land parcel acquired for the station.
- **Meadow Woods Station** The station design includes 390 spaces in the land parcel acquired for the station. No public parking currently exists on this site.
- **Osceola Parkway Station** The station design includes 200 spaces in the land parcel acquired for the station. No public parking currently exists on this site.
- **Kissimmee Amtrak Station** There are 26 existing public parking spaces that will be eliminated. The CRT station will be constructed as part of the planned

Intermodal Center. Existing parking spaces will be used to supply the 390 required CRT parking spaces for this project.

- **Poinciana Industrial Park Station** The station design includes 250 spaces in the land parcel acquired for the station. No public parking currently exists on this site.

Table 4-7 shows the proposed parking supply for each station. The proposed project will provide a total of 4,410 system-wide parking spaces.

According to requirements originally in FTA (UMTA) Circular 5920.1 project impacts that fall into one of the following categories will not require additional analysis of impacts on parking:

1) The transit improvement provides parking for on-site activities (e.g., parking for maintenance or administrative employees).

2) Fewer than ten parking spaces are eliminated.

3) Fewer than 50 spaces are eliminated and replacement parking is provided, either through new parking facilities or the use of underutilized parking facilities (surplus parking in the project area).

4) Over 50 parking spaces are eliminated and comparable replacement spaces are part of the proposed action. Comparable parking is that space located no more than an additional 200 foot walk (approximately one-half block) from the parker's destination.

For station locations where businesses or residences would be impacted (Lake Mary Station, Longwood Station, Altamonte Springs Station, and Sand Lake Road Station), the businesses or residences will be relocated as part of the Project's Relocation Plan. The Kissimmee Amtrak Station parking will be replaced with the new parking that is part of the Kissimmee Intermodal project. The Project will not reduce parking for any businesses/residences that will continue to operate adjacent to the Project. In summary, the CRT Project's impact on parking is not significant.

Table 4-7: Station Parking Supply and Impact Summary

Station	Proposed Station Parking Supply (spaces)	Adequate Parking Provided By Project	Existing Parking Spaces Impacted[1]	Replacement Parking Provided?	Parking Impacts? (based on FTA C 5620.1)[2]
DeLand Amtrak Station	180	Yes	0	N/A	No
DeBary/Saxon Blvd. Extension Station	275	Yes	0	N/A[3]	No
Sanford/SR 46 Station	300	Yes	0	N/A	No
Lake Mary Station	650	Yes	20[5]	Yes	No
Longwood Station	375	Yes	40[5]	Yes	No
Altamonte Springs Station	650	Yes	365[5]	Yes	No
Winter Park Station	City[4]	Yes		N/A	No
Florida Hospital Station	None	Yes	0	N/A	No
LYNX Central Station	None	Yes	0	N/A	No
Church Street Station	None	Yes	0	N/A	No
Orlando Amtrak/ORMC Station	None	Yes	0	N/A	No
Sand Lake Road Station	650	Yes	85[5]	Yes	No
Meadow Woods Station	390	Yes	0	N/A	No
Osceola Parkway Station	200	Yes	0	N/A	No
Kissimmee Amtrak Station	390	Yes	235[6]	Yes	No
Poinciana Industrial Park Station	250	Yes	0	N/A	No
TOTAL	4,310	Yes	765		

[1] Numbers are based on aerial photographs and are approximate.

[2] Parking impacts determined based on guidelines in UMTA C 5620.1 requirements, October 16, 1979.

[3] N/A = Not Applicable

[4] The City of Winter Park will provide new facilities to accommodate CBD and CRT station parking.

[5] Project to reconstruct existing surface parking

4.3 Transit

This section addresses the potential impacts of the CRT Full Build Alternative on transit and related services in the study area, and the ability of the CRT Full Build Alternative to address the goals and objectives, as developed in the AA study and refined during the EA process, related to access and mobility compared to the No-Build and TSM Alternatives. Categories addressed include:

- Existing Transit and Related Services
- Geographic areas of service
- Travel times and reliability
- Frequency and hours of service
- Transit demand, patronage, and mode share
- Integration of regional transit services

4.3.1 Existing Transit and Related Services

A detailed description of the existing transit network and related services in the Study Corridor is contained in the *CRT Transit Existing Conditions Report, December 2005*. Existing Corridor transit service consists of bus routes operated by two regional transit authorities serving the four-county study area. The regional transit bus services within the Study Corridor are provided by the CFRTA, known as LYNX, and the Volusia County Public Transit System, known as VOTRAN. Amtrak intercity rail passenger service utilizes the CSXT A-line tracks. Additionally, there are private intercity bus services and a variety of public and private shuttle bus operators.

All public transit services in the study area today are buses operating in mixed traffic, with the exception of the existing downtown bus circulator. The CRT Full Build Alternative would add commuter rail service to the existing network of transit and related services within the study area, would not eliminate or reduce any of those services, and therefore, would have no adverse impact on them. The benefit would be to provide greater access and potential transfers to the bus system, especially at LYNX Central Station and DeBary/Saxon. Each existing service and impact screening result is summarized below.

LYNX Fixed Route Service

LYNX serves Orange, Seminole and Osceola Counties. The tri-county area covers approximately 2,500 square miles with a resident population of more than 1.8 million people. LYNX recorded 21.9 million riders during FY 2003. There are currently 62 routes in the total fixed route system, of which 24 are operating within the Study Corridor. The Full Build Alternative would operate commuter rail in its own ROW and would not compete for capacity on roadways and at terminals with existing LYNX fixed route services. LYNX does not currently operate any rail transit. The Full Build Alternative does not require any new fixed bus routes above those featured in the No-Build Alternative. Some LYNX fixed bus routes would be modified to provide improved transfer connections where proposed commuter rail stations are near existing bus routes. The bus route modifications associated with the Full Build Alternative will not adversely impact riders using existing LYNX fixed route services, and are outlined in the *CRT Transit Operating Plan, December 2005* Report.

LYNX Central Station

LYNX Central Station (LCS), which opened in November 2004, is Orlando's major transit intermodal facility located near the center of the Study Corridor along North Garland Avenue, between Amelia Street on the north and Livingston Street on the south. There are 33 existing LYNX bus routes serving the LCS, which has capacity for 23 buses at a time and provides a modern indoor terminal with fully sheltered bus bays for transit passengers. Accommodation of future commuter rail platforms is included in the layout of the LCS, and the CRT Full Build Alternative is fully consistent with it. The platforms would be located along the east side of the LCS facility at the existing CSXT double-track railroad where construction and operation will not adversely impact existing bus operations. Commuter rail will provide an additional intermodal transfer option at the LCS, increase the overall capacity of the facility, and do so without adding additional bus traffic to the streets.

VOTRAN Fixed Route Service

VOTRAN provides local service throughout Volusia County within the 1,207 square mile service area. VOTRAN operates 24 fixed routes, one commuter express route and Beach Trolleys. VOTRAN recorded 3.3 million riders during FY 2003. There are currently five VOTRAN routes operating within the Study Corridor. The CRT Full Build Alternative does not require any new fixed bus routes above those featured in the No-Build Alternative. Some VOTRAN fixed bus routes would be modified to provide improved transfer connections where proposed commuter rail stations are near existing bus routes. The bus route modifications associated with the CRT Full Build Alternative will not adversely impact riders using existing VOTRAN fixed route services.

Amtrak

Existing Amtrak service in the Study Corridor serves a long distance intercity travel market, not the commuter travel market. The Silver Star and Silver Meteor are the two Amtrak routes between New York and Miami that operate through the entire Study Corridor and make stops at the existing Amtrak stations in DeLand, Winter Park, Orlando, and Kissimmee. The existing Sanford Amtrak station closed in 2005 and is no longer in use. Southbound, both Amtrak routes operate during the late morning, and northbound they operate during the early afternoon. Both times are outside the peak for commuter rail operations. A third Amtrak train, the transcontinental Sunset Limited, operated only in the northern portion of the Study Corridor with Orlando as its Florida terminal point. This route operated three times per week prior to service being suspended east of Texas due to Hurricane Katrina.

The CRT Full Build Alternative will modify portions of passenger platforms at the four existing Amtrak stations to accommodate the relatively short commuter rail DMU trains, which are expected to be 2-3 cars long compared to the existing Amtrak trains that are typically 10 cars long. Amtrak trains will be able to continue to serve these four existing stations during construction and operation of the commuter rail service. Ongoing coordination between the CRT sponsors, FTA, Amtrak, and the local jurisdictions during subsequent design phases will resolve any remaining issues specific to each station location. Amtrak passengers will benefit from the improvements in station access and transfer options which the CRT Full Build Alternative will bring. In addition to these four Amtrak locations, the CRT Full Build Alternative will construct twelve new commuter rail stations at other locations along the rail line, none of which will adversely impact Amtrak.

Finally, the Amtrak Auto Train route that operates daily between Virginia and Florida, has its southern terminal in Sanford and does not operate south of that facility. The Auto Train makes no intermediate stops within the Study Corridor, shares no stations with the proposed commuter rail, and its current operations are outside the peak period of proposed commuter rail operation. In summary, the CRT Full Build Alternative will not adversely impact any of the existing Amtrak operations in the Study Corridor.

Private Transportation Services in Corridor

The Corridor is within the Central Florida region, which has one of the largest private sector transportation markets in the country. A variety of private bus operators provide transit service in the Corridor; however, most of these are charter service companies or

small carriers and do not serve the commuter market identified in the travel market analysis.

- *Greyhound Lines Inc.*: Intercity bus service is provided by Greyhound Lines Inc. Their scheduled service is between DeLand, Orlando, and Kissimmee. Between DeLand and Orlando there are three southbound trips and four northbound trips. Between Orlando and Kissimmee, there are six southbound trips and seven northbound trips. The 2005 schedules do not serve the commuter market and the fares range from $9.50 to $16.50 one-way. The CRT Full Build Alternative is not expected to have any adverse impact on Greyhound Lines, Inc. because the commuter rail service is focused on early morning and late afternoon with intermediate stops, while the intercity bus service is generally mid-day.

- Motor Coaches/Vans/Limousines(Major Carriers): In 2005, there were approximately 191 private transportation providers operating in the metropolitan Orlando area. These operators vary in service type and area, users, hours of operation, employees, annual vehicle miles, fares and number of vehicles operated. The private transportation providers primarily serve the tourist and business travel markets with door-to-door service, not the commuter market. The CRT Full Build Alternative is not expected to have any adverse impact on private transportation providers in the Corridor because of the very different markets served.

4.3.2 Geographic Areas of Service

The geographic location of transit services in the Corridor, and in particular, the location of station stops, is an important measure of how well travel markets are served and how accessible the services are to the traveling public. This section describes the geographic coverage of the existing transit system in the Corridor, and how it would change with the TSM/Baseline and CRT Full Build Alternatives. The analysis shows that the CRT Full Build Alternative would have no adverse impact on the geographic area of transit service in the study area, and would increase the service area compared to both the No-Build and TSM Alternatives.

The existing commuter transit service in the Corridor consists of fixed route bus service provided by LYNX and VOTRAN operating in mixed traffic. The geographic area of service is limited to existing developed areas utilizing the existing roadway network. The geographic areas of service provided by the existing Amtrak operations and private bus companies in the Corridor are large, but their fare structures and schedules do not serve the identified travel market demand.

The No-Build Alternative expands the geographic area of service of the LYNX and VOTRAN systems by extending existing routes and adding new routes to serve new and growing markets, some of which are in the Study Corridor. Additionally, the No-Build Alternative includes the Flex Bus service in the Altamonte Springs area, which expands the geographic reach of transit service, though not in the north/south I-4 travel market. The TSM Baseline Alternative consists of new and improved LYNX and VOTRAN bus routes operating in the Corridor beyond what is provided in the No Build Alternative, and includes a number of new and expanded Park n' Ride facilities. The TSM Baseline geographic area of service was developed specifically to address the travel markets as identified in the travel market analysis conducted in early 2005.

Full Build Alternative

The CRT Full Build Alternative, as described in Chapter 2, consists of commuter rail service operating within the existing CSXT A-Line Corridor. The CRT Full Build Alternative would provide commuter rail service connecting the counties of Volusia, Seminole, Orange, and Osceola, with end points in DeLand on the north and Poinciana Boulevard on the south. The CRT Full Build Alternative includes those TSM Baseline bus routes that are not redundant to the commuter rail service.

The geographic area of service of the CRT Full Build Alternative is greater than that of the TSM Baseline because it incorporates many of the new TSM Baseline routes, and in addition, is able to utilize an existing rail line located within a densely developed Corridor between I-4 and Route 17/92 that buses cannot readily access with high capacity service. Moreover, the commuter rail service is able to directly connect with high density destination stations such as Florida Hospital Station, Church Street Station, and Orlando Amtrak/ORMC Station, not easily reached by bus service due to constrained local roadway networks.

4.3.3 Travel Times and Reliability

Travel time and service reliability are key measures of transit service quality and the ability to attract and retain ridership, particularly for trip makers that have a choice between driving or taking transit. The analysis shows that the Full Build Alternative would significantly improve travel times in the Study Corridor compared to both the No-Build and TSM Alternatives. The Full Build Alternative would have no adverse impact on travel times and reliability in the study area.

Existing travel times by automobile in the Corridor during the morning and afternoon peak commuting periods are slowed by significant traffic congestion on I-4 and on parallel routes such as 17/92 in the northern portion of the Corridor, and Orange Avenue and Route 441 in the southern portion of the Corridor. Travel times on LYNX and VOTRAN buses, particularly the commuter buses, using these routes are directly impacted by existing traffic congestion because all existing bus routes operate in mixed traffic, other than the downtown circulator.

The No-Build Alternative will result in little improvement in transit travel times and service reliability in the Corridor, and in many areas the travel times and service reliability will deteriorate compared to today. The additional bus routes provided as part of the TSM Baseline Alternative will operate over a roadway network that includes all the elements of the No-Build described above, plus the addition of exclusive bus-only ramps to facilitate access to and from I-4. Additionally, the TSM Baseline Alternative provides new and improved Park n' Ride facilities and other passenger conveniences. The result is a modest improvement in travel time and schedule reliability compared to the No-Build, but the fundamental capacity constraints in the regional highway network described in the No-Build Alternative would continue to adversely impact transit in the TSM Alternative. For example, in the northern portion of the Corridor, the peak highway travel time between the proposed DeBary/Saxon Boulevard Extension Station site and downtown Orlando via automobile is 73 minutes. The TSM Baseline bus route travel time for the same trip is approximately 90 minutes, counting intermediate stops. The high growth rate in population and employment in the Corridor is expected to result in worsening traffic

congestion and delay in the region even with construction of all highway improvements contained in the LRTP.

Full Build Alternative

The CRT Full Build Alternative adds a high capacity, congestion free passenger corridor roughly parallel with I-4 and SR 17/92, which for many trip origins and destinations is also the shortest travel distance. This combination of exclusive ROW and direct routing, which is available only in the CRT Full Build Alternative, results in significantly reduced travel times and improved schedule reliability for many trips compared to the TSM Baseline and No-Build Alternatives. For example, the travel time for the trip between DeBary/Saxon Boulevard Extension Station and downtown Orlando using the proposed commuter rail service in the CRT Full Build Alternative would take 54 minutes, as compared to 73 minutes for the automobile and 90 minutes for the TSM bus service.

Additional travel time savings would be achieved by the CRT Full Build Alternative during the planned reconstruction of I-4 between 2009 and 2014. During this period of construction the commuter rail service will provide travelers with the choice of a convenient, comfortable, and reliable alternative to driving. Attracting some auto trips to use commuter rail instead of driving on I-4 will help reduce demand on I-4 and assist in maintenance of traffic during construction.

4.3.4 Frequency and Hours of Service

Frequency and hours of service are key factors when travelers decide whether to choose transit. The analysis shows that the CRT Full Build Alternative would have no adverse impact on the frequency and hours of transit service available to the public in the study area, and would actually increase service frequency in many markets compared to the No-Build Alternative. The frequency and hours of service of the CRT Full Build and TSM Alternatives are comparable.

Existing transit in the Corridor operates at relatively low service frequencies. As summarized in Chapter 2 and described in detail within the *CRT Transit Operating Plans Report, September 2005*, existing bus routes in the LYNX system typically operate at frequencies of 60 minutes, with some buses operating every 30 minutes during the peak period. Buses in the VOTRAN system within the Corridor are typically operating at 120 minute frequency with 60 minute frequency during the peak period. Because of the long wait time between buses, existing service frequencies make it difficult to attract travelers that have a choice of modes.

Service frequencies on some routes are increased in the No-Build compared to the existing condition, resulting in shorter average waiting time before the bus arrives. The No-Build Alternative would increase the number of routes that have a 30 minute peak period frequency in the LYNX system, and would increase the frequency on selected VOTRAN routes from a bus every 120 minutes to a bus every 60 minutes. The hours of operation in the No-Build would increase with the addition of weekend service on selected routes.

The TSM Baseline Alternative features implementation of eight new express and limited stop bus routes in the Corridor. By adding new routes and significantly increasing frequency on existing routes in the Corridor, the TSM Baseline Alternative significantly

increases the frequency of transit service in the Corridor compared to the No-Build. The days and hours of service do not significantly change in the TSM Baseline Alternative compared to the No-Build.

Full Build Alternative

The Full Build Alternative provides commuter rail service in the Corridor operating at service frequencies of 15 minutes peak, 60 minutes mid-day, and 120 minutes evenings. This CRT Full Build Alternative this EA report, is considered to be the maximum system upon which to assess potential impact. As noted in the Preface of this report, the LPA Alternative service frequency would be every 30 minutes in the peak and 120 minutes in the off-peak. Regardless of the sub alternative, the hours of service for the commuter rail service in the CRT Full Build condition would be weekdays only starting at approximately 5:30 a.m. to 10:30 p.m. As with the TSM Baseline Alternative, there would be no weekend or late evening commuter rail service in the CRT Full Build Alternative.

One measure of the transit Level of Service provided is the number of buses and/or commuter rail trains per hour serving major activity centers. Table 4-8 compares the alternatives using this measure at four major employment activity centers and confirms that the CRT Full Build and TSM Alternatives would provide comparable frequency of service, as required by FTA.

Table 4-8: Level of Transit Service to Major Activity Centers (buses/trains per hour)

	Heathrow/ Lake Mary		Altamonte/ Maitland		Downtown Orlando		Disney	
Alternative	Base	Peak	Base	Peak	Base	Peak	Base	Peak
No-Build	7	8	9	10	61	65	16	16
Full TSM	10	20	11	17	64	76	19	23
Full Build	10	20	11	17	61	68	19	23
LPA TSM	9	18	10	15	63	74	18	21
LPA Build	9	18	10	15	60	68	18	21

Note: Base is service frequency per hour mid-day. Peak is service frequency per hour during a.m. and p.m. peak periods.
Numbers shown are in each direction. Major activity centers shown represent the four biggest employment "super districts" with boundaries identified in the Travel Market Analysis, January 2005.

4.3.5 Integration of Regional Transit Services

Regional transit services are integrated today primarily through the LCS in downtown Orlando which opened in November 2004. This state-of-the-art bus facility ties together local, express, and downtown circulator bus services and includes the provision for commuter rail service along the east side of the facility with cross platform integration to the bus facility.

The No-Build Alternative includes a number of other regional transit services, such as the Altamonte Springs Flex Bus service. Additionally, there are plans for smaller scale intermodal centers at locations in the Corridor, such as in DeLand and Kissimmee. The No-Build Alternative lacks a transit service that can reliably connect these new regional transit services and facilities into a coherent system.

The TSM Baseline Alternative would add bus routes and include a number of new Park n' Ride and LYNX Superstop locations. Many of these routes would serve the

existing LCS and would connect with the other planned services and facilities contained in the No-Build. However, except for the connection with LYMMO in downtown Orlando, the bus network the TSM would create lacks transit mode choices at intermodal centers other than buses in mixed traffic.

Full Build Alternative

The CRT Full Build Alternative would provide a strong connection to all the existing and planned transit services in the region. As mentioned above, the LCS was designed specifically to accommodate commuter rail along its east side. The location of the LCS between I-4 and the rail line and adjacent to the downtown circulator system is the ideal focal point for this new service. As travel demand grows and the number and frequency of bus service into the LCS increases over time, the addition of commuter rail to provide line haul north-south service would enable LCS capacity to be used for routes that serve other markets. Additionally, the commuter rail service would directly connect with the planned Flex Bus service in Altamonte Springs and a number of new intermodal centers being planned along the Corridor by counties and municipalities.

The CRT Full Build Alternative provides the strongest system identity and highest capacity for connecting the existing and planned transit services in the region long-term.

4.3.7 Transit Impacts Summary

The CRT Full Build Alternative will have a strong positive impact on the quantity and quality of transit services provided within the study area compared to the No-Build and TSM Alternatives. Existing transit services in the study area are generally limited to fixed route bus services provided by LYNX and VOTRAN operating in mixed traffic. Travel demand in the Corridor is projected to grow significantly in the future. The No-Build and TSM transit network improvements, while adding some routes and increasing frequency, would continue to operate largely in mixed traffic that is severely congested today and expected to worsen in the future.

The CRT Full Build Alternative adds a high capacity, congestion-free passenger corridor roughly parallel with I-4 and SR 17/92, which for many trip origins and destinations, is also the shortest travel distance. This combination of exclusive ROW and direct routing, which is available only in the CRT Full Build Alternative, results in significantly reduced travel times and improved schedule reliability. The CRT Full Build provides a mix of transit services that best serve projected travel demand as evidenced by the highest systemwide transit patronage and mode share compared to the No-Build and TSM Alternatives.

4.4 Travel Demand Forecasting Model

Travel demand forecasting for the CRT EA was initiated using the version of model developed earlier and used by METROPLAN ORLANDO and FDOT for various travel forecasting purposes. The model was developed as part of the FSUTMS modeling system, promoted by FDOT, and used throughout the state. Data developed by METROPLAN ORLANDO reflecting their 2025 regional plan was used as the starting point for the analysis.

The model system covers the three counties making up the METROPLAN ORLANDO MPO, plus the entirety of Lake County, western Volusia County, and a small corner of Polk County. The model includes nearly 2,000 traffic analysis zones, ranging in size from a couple blocks in downtown Orlando to several square miles in the outer portions of the region. External stations are established at the boundary of the region and trip tables are developed for external-to-internal and external-to-external (through) trips.

Typical of other FSUTMS model systems, the Orlando models focus on three main trip purposes, home based work (HBW), home based other (HBO), and non-home based. However, because of the critical importance of tourism to the Orlando area, separate trip purposes were developed for trips to the main tourist centers (Disney, Sea World, and Universal Studios), plus additional special purposes for trips to Orlando Airport and to the Orange County Convention Center. Trips to these special attractions are divided between those originating from households in the Orlando area, those made by visitors to the area residing in hotels and other tourist facilities, and trips destined to these areas from outside Orlando.

The Orlando transportation model is designed to operate in the conventional manner of trip generation, trip distribution, modal choice, and assignment. The modal choice model used in the transportation model was developed in several steps over the years, and has been used in recent studies of light rail transit and other transit-related projects in the area. The model is based on the differences between automobile travel by auto occupancy group and by travel by transit, with both walk and auto access. Separate factors are included in the transit elements of the model to differentiate between in-vehicle and out-of-vehicle time, but not generally by sub-mode of transit service.

4.4.1 Modeling Modifications

During the CRT EA, a number of issues were raised with the Federal Transit Administration (FTA) concerning the best way to model transit behavior, particularly in cities (like Orlando) with little or no experience with developing fixed-guideway transit services. Additional research by FTA during this period also indicated that some of the practices including within the Florida State Urban Transportation Modeling System (FSUTMS) model system, may not have been adequate to measure the impact of transit system performance. Therefore, a number of modifications were made to the mode choice model and other associated portions of the modeling system. An extensive series of discussions were held with FTA to coordinate the development of improved modeling component Transit Demand, Patronage, and Mode Share

Regional model results for the CRT Full Build Alternative show that the walk mode of access/egress is strongest at the destination stations of Florida Hospital, LYNX Central Station, Church Street, and Orlando Amtrak/ORMC. Meadow Woods Station, with a large residential neighborhood nearby, also shows a strong walk access mode. The bus mode of access/egress is important at the suburban station locations, as well as at LYNX Central Station, where concentration of convenient local bus connections and the LYMMO downtown circulator are attractive to users. Suburban stations provide bus bays to handle the planned feeder bus routes. Local Park n' Ride and Kiss-and-Ride access/egress mode is expected to be strongest at the suburban stations where the planned parking and curbside areas will have capacity to handle the anticipated demand. The Full Build Alternative would increase systemwide transit demand, patronage, and mode share compared to the No-Build and TSM Alternatives.

Ridership growth on the LYNX and VOTRAN transit systems has been modest over the past several years, though recently increasing due to economic growth and increasing gas prices. The TSM Baseline Alternative would increase overall transit system boardings and passenger miles by 10.6% and 14.0%, respectively, compared to the No-Build Alternative. The increases are attributable to a combination of increased geographic area of service and increased frequency of service compared to the No-Build.

Full Build Alternative

The Full Build Alternative achieves the highest boardings and passenger miles compared to both the TSM Baseline and No-Build Alternatives. Linked transit trips are a good indicator of the mode shift achieved because it counts each trip only once in each direction regardless of whether transfers are involved. As shown in Table 4-9, the CRT Full Build Alternative would result in the largest gain in systemwide linked transit trips of any alternative.

Table 4-9: 2025 Daily Transit Trips (Linked Trips)

Alternative	Daily Transit Trips	Change from No-Build Alternative	Change from TSM Alternative
No-Build	102,900	-	-
TSM	113,500	10,600	-
Full Build	120,940	18,040	7,440
LPA	118,250	15,350	4,750

Table 4-10, shows total transit system boardings, which includes transfer boardings and compares them among the alternatives. The table also shows passenger miles in the Study Corridor. Growth in passenger miles is increasing at a rate faster than growth in overall ridership because average trip length is increasing. Table 4-10 shows the transit system boardings for the LPA, and CRT Full Build Alternatives. The increase in systemwide boardings in the region for the CRT Full Build Alternative ranges from 28,940 (+20.1%) for the CRT Full Build compared to the No-Build Alternative, and from 7,200 (+4.7%) for the LPA to 14,140 (+9.2%) for the CRT Full Build new riders compared to the TSM Alternative.

Table 4-10: 2025 Transit Ridership Statistics

	No-Build	Full TSM	LPA	Full Build
LYNX	120,960	135,160	134,230	135,310
I-Ride	13,330	13,330	13,320	13,320
LYMMO	3,990	4,080	3,880	3,760
CRT	0	0	8,310	13,760
VOTRAN	1,380	1,890	1,920	2,450
CRT Work	0	0	8,190	13,100
CRT Peak	0	0	2,048	3,275
Annual	0	0	2,110,740	3,495,040
Total	139,660	154,460	161,660	168,600
LYNX	645,050	741,040	707,200	699,350
I-Ride	45,580	45,850	45,870	45,870
LYMMO	2,810	2,880	2,710	2,610
CRT	0	0	113,670	181,950

	No-Build	Full TSM	LPA	Full Build
VOTRAN	5,730	7,080	7,630	10,460
Total	699,170	796,850	877,080	940,240
Annual	213,946,000	243,836,000	268,386,000	287,713,000

4.4.2 Analysis

The analysis of alternatives for the commuter rail project included several steps. First, a regional No-Build alternative was established, reflecting planned improvements to LYNX transit services included in their current transit development plan, but very limited further increases beyond that time point.

The second step was the development of a Transportation Systems Management (TSM) or baseline system reflecting what would be done in the commuter rail corridor if the system were not implemented. This system included some additional services outside the corridor, derived from an analysis of travel patterns requested the FTA. Within the commuter rail corridor, limited stop buses were developed to run along US 17/92 (primarily) with formal stations roughly in locations similar to those in the commuter rail system. This TSM was accepted by the FTA for this project.

The commuter rail system was initially defined as the "Full Build" system from DeLand to Poinciana, running at half-hour headways during the peak periods and two-hour headways during the base day. Later, a more aggressive service plan featuring 15-minute peak headways and hourly base day service was adopted to obtain maximum impacts as stated previously. Also, during the analysis, alternative station locations were identified, including an additional stop in downtown Orlando near Church Street and additional stations in the south corridor. In addition to these changes, further analysis was conducted for a locally preferred alternative (LPA) system that did not include the extension northward to DeLand and an "initial operating segment" (IOS). Travel forecasts were made for each of these options, and the results are shown in Table 4-10 Details on the travel demand forecasting methodology and results are contained in a separate technical report listed in the Appendix D.

4.5 Freight

Trucking and Freight Rail are the primary modes for existing freight movements in the Corridor. The impact of the project on freight transportation is summarized below. The St. Johns River is a navigable waterway at the north end of the Corridor. The Project's impact on Marine traffic is also reviewed.

4.5.1 Freight Rail

Freight Rail freight service in the Corridor is primarily along the CSXT A-line that begins in Jacksonville, Florida, passes through the Study Corridor roughly parallel to I-4 and ends in Auburndale, Florida, where it connects with the S-line. The 60.8 mile CRT Study segment has approximately 42 miles of single track and 18.5 miles of double track. Railway yards within the study area exist at Rand Yard in Sanford, Kaley Yard in Orlando, and Taft Yard, located south of Sand Lake Road in Orange County. Many commercial and industrial sidings exist throughout the study area. A major spur track intersects the A-

line in downtown Orlando. The spur line is owned by CSXT, but leased and operated by the Florida Central Railroad, which provides access to areas near Mount Dora in west Orange County. A second major spur line intersects the A-line south of Taft Yard. This spur line is owned and operated by Orlando Utilities Commission (OUC) and provides access to the OUC power plant located east of Orlando International Airport.

The concentration of freight rail traffic varies along the 60.8 mile Corridor by county, by day of the week and by time of day. Freight train operations on the line are a mixture of through and local freight trains. Many of the through freight trains are long "unit" trains regularly transporting more than 100 carloads per train while winding slowly through the Corridor. On average, there are approximately ten through freight trains every day. Delays observed at some crossings regularly result in gate down times of 4 minutes or more depending on the location. The local freight trains are typically shorter and are concentrated closer to the yards with the largest volume being approximately 10 trains per day operating over a 5 mile segment between Taft Yard and Kaley Yard in Orange County.

As stated in the preface of this report, in December 2004, CSXT officials presented to FDOT executives a Strategic Plan, which voluntarily proposed designating the A- line as primarily for passenger service, and the S-line for freight service. Thus, the CSXT proposal was to gradually shift the freight trains on the A-line over to the S-line, as capacity improvements are made to the S-line and as passenger use increases on the A-line from commuter rail and, in the future, intercity passenger rail.

In support of the Strategic Plan and the CRT Project, FDOT and the project sponsors have been negotiating freight traffic density and train operating patterns on the A-line with the CSXT. A fundamental component of these negotiations is a MOU that eliminates freight traffic during the proposed CRT service periods, consistent with the CSXT Strategic Plan.

The No-Build and TSM/Baseline Alternatives would not change the existing rail line infrastructure or add passenger service, and therefore, would have no impact on rail freight operations in the Corridor. The CRT Full Build Alternatives would add a new signal system and approximately 42 miles of second mainline track. These upgrades will result in a faster and safer operation through the Study Corridor for both passenger rail traffic and freight rail traffic. Only a short section in Maitland and the St John's River Bridge will not be double tracked. The LPA will add 25 new miles of double track.

The commuter rail passenger trains will be one, two and three unit DMU vehicle train sets with the ability to accelerate and decelerate like transit buses, but on the railway line. The amount of time each CRT train will occupy a grade crossing is extremely short (30 to 60 seconds) compared to a slow moving long unit type freight train. The preceding intersection analysis (Section 4.1.4) indicates adding commuter rail will slightly increase delay at and near three at-grade crossings due to gate down time in the peak hour time periods as previously discussed. It should be noted that the CSXT plan to direct through freight trains away from the A-line will represent a vast reduction in the amount of time a train would be blocking a crossing. The length of a single CSXT 100 car unit train equals 33 CRT (3-DMU consist) trains. Furthermore, there is a dramatic increase in traffic congestion that results from queuing due to a long slow train blocking the crossing for several minutes, verses the commuter rail train for 30 to 60 seconds.

4.5.2 Trucking

The 60.8 mile CRT A-line Corridor has 126 active at-grade crossings, nine arterial road bridges crossing over the A-line and one CSXT railway bridge over SR 17/92 in Maitland. Truck movements within this Corridor can generally be categorized as long-distance and local. Long distance truck traffic passing through Orlando either north-south or east-west typically utilizes I-4, the Florida Turnpike, or one of the other toll roads, including State Routes 408, 417, or 528, all of which are currently 100 percent grade separated from the proposed CRT commuter rail line. Local truck traffic and long-distance truck traffic that originates or terminates in the Corridor utilizes other arterial and collector roadways and as a result, may need to cross the A-line at-grade.

In the No-Build Alternative there are numerous roadway improvement projects that increase the capacity of the regional highway network and its ability to handle truck traffic, including the planned reconstruction of I-4.

The TSM Baseline Alternative would add new bus routes and increase service frequency of existing bus routes in the Study Corridor. On I-4 these buses would utilize planned HOV lanes and bus ramps and would have little impact on either the long-distance or local truck traffic that use I-4. On other arterial and collector roads in the Corridor, the additional bus service will slightly increase volume on certain streets compared to the No-Build, though the difference is unlikely to have any impact on local truck traffic.

During the CRT peak hour service period, the commuter rail CRT Full Build Alternative will increase intersection delay slightly near grade crossings compared to the No-Build and TSM/Baseline Alternatives. Outside of the CRT peak hour, the relocation of the long slow freight trains will reduce delay at these crossings and have a significant benefit to truck traffic.

The CRT Full Build Alternative would have no impact on long-distance through truck traffic because all major through routes are currently grade separated. Long-distance truck traffic that originates or terminates in the Corridor and local delivery truck traffic is potentially impacted during the CRT peak hour service. However, the measures presented previously in this section of the EA regarding intersection, grade crossing and roadways will mitigate the impact of the CRT Full Build Alternative on all truck traffic mentioned above.

4.5.3 Marine Transportation

At the north end of the Corridor, the St. Johns River forms the border between Seminole and Volusia Counties. The CSXT Railway A-line crosses the St. Johns River on a single track bridge at this location with moveable 113’ (bascule) span operated by a CSXT Railway Bridge Tender 24 hours a day. The bridge opens to an angle of 60 degrees maximum to the horizontal. The lateral clearance is 90’. The vertical clearance when the lift span is closed is approximately 7’- 8’ and when the span is open, to the maximum angle, it is 40’. The river is a very shallow (less 10’ deep) with a draft of approximately 14’ – 17’ measured in the navigation channel (January 2006).

Generally, this river is only a navigable waterway to flat bottom and small recreational boats. In the vicinity of the CRT Corridor, marine traffic is primarily small recreational boats that can usually cross under the bridge with the lift span closed. In addition, there is

a periodic dinner cruise boat originating at the Sanford Marina that does require the lift bridge to open for it to travel to points north. The recreational boat traffic is heaviest on the weekends. The only barge traffic near the CSXT A-line lift bridge services the existing Florida Power and Light generating plant located on the north shore of the river adjacent to the west side of the A-line. It does not travel east of the A-line.

Figure 4-11 Existing CSXT Lift Bridge at St. Johns River

The number of times the lift span is opened varies each day. During the week in the morning, the span is rarely required to be opened for marine traffic. In the late afternoon, recreational boat activity levels are higher. Weekday marine traffic requiring the lift span to be opened in the proposed peak operating windows (6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.) was observed to be 0 and 5 recreational boats respectively (January 2006). The entire day was estimated to have 10 cycles of the bridge span lifting. Water level fluctuations due to heavy rainfall can influence the clearance available and result in more lift span cycles being required.

The No-Build and TSM/Baseline Alternatives only provide bus service in the Corridor and would utilize existing roadway bridges across the St. Johns River.

The CRT Full Build Alternative would utilize the existing rail bridge across the St. Johns River for commuter rail operations. The CRT service would operate frequently during weekdays in the morning and afternoon peak commuting periods. The CRT commuter trains are shorter (1, 2 or 3 cars) than Amtrak passenger trains (10 cars) and would travel at speeds equivalent or faster than the Amtrak trains. Because marine traffic on the St. John's River at this location is recreational and relatively light during the weekdays, CRT commuter operations will not be delayed due to marine traffic.

4.6 Summary

As described in the above sections, the CRT Full Build Alternative provides substantial transportation benefits and better addresses the purpose and need for the Project as identified in Chapter 1 than does either the No-Build or TSM Baseline Alternative. The CRT Full Build Alternative provides these substantial transportation benefits with no significant adverse transportation impacts. The CRT Full Build Alternative addresses the Project goals and objectives related to transportation, in particular, the mobility goal and its objectives to maximize transit ridership, maximize transit reliability, minimize travel time, and integrate with regional transit service.

No study intersections will deteriorate to deficient conditions as a result of the CRT Full Build. The CRT will not increase traffic delay for the vast majority of at-grade crossings throughout the Study Corridor. A total of six study intersections and three grade crossings located adjacent to stations may experience increased vehicle delay as a result of additional project gate down times. The delay at these locations can be mitigated by implementing measures to improve operations, such as additional turn lanes at intersections and railroad and traffic signal optimization at grade crossings.

The parking supply identified for the Project would be adequate to accommodate parking demand and the limited locations with potential parking impacts are fully mitigated in the CRT Full Build Alternative.

The CRT Full Build Alternative has no adverse impact on other existing and planned transit service. A limited number of existing bus routes will be slightly modified to serve the new stations. No new buses will be added in comparison to the No-Build. Fewer than 4 buses per hour will be added to the streets adjacent to the stations. Amtrak trains run in the off peak and will be scheduled between the CRT operations. The CRT Full Build Alternative would attract substantial new transit ridership and in so doing reduces regional Vehicle Miles Traveled. By operating within an established active rail line with its own right-of-way, the commuter rail service will provide a highly reliable transit service free of the roadway congestion encountered by transit modes that share roadways with general traffic.

The CRT Full Build Alternative has no significant impacts on other freight transportation modes operating in the study area. The infrastructure improvements and operating plan of the Full Build Alternative has been fully coordinated with CSXT, which currently operates freight rail service in the Corridor. A MOU with CSXT addresses and confirms that there will be no adverse impact on freight rail transportation in the Corridor. As described in the section above, the Full Build Alternative will have no adverse impact on truck or marine traffic.

CHAPTER 5

EVALUATION OF ALTERNATIVES AND IMPLEMENTATION

5 EVALUATION OF ALTERNATIVES AND IMPLEMENTATION

This chapter summarizes results of the evaluation conducted for the Environmental Assessment (EA) alternatives. Relevant information regarding the impacts of each alternative are presented and compared against the established goals and objectives for the Project. Where potential adverse impacts associated with an alternative are possible, the level of their significance, if any, is indicated. This chapter also provides a summary implementation plan describing the key next steps and general phasing from Initial Operating Segment (IOS), to Locally Preferred Alternative (LPA), and ultimately the Full Build, for which this EA was prepared.

5.1 Approach to the Evaluation

The project purpose and need statement developed and approved during the Alternatives Analysis (AA) was updated during the EA. The update process confirmed the need for the project and verified its established goals and objectives, while further shaping the definition of the alternatives that were originally evaluated in the EA.

The approach to the evaluation addresses local goals and objectives as well as FTA criteria prescribed for major transit capital investment projects. The evaluation addresses the No-Build, TSM (New Starts Baseline), and Build Alternatives. The Commuter Rail Build Alternative is consistent with recommendations in the AA to provide a new transit service on the existing CSXT A-Line by making selected infrastructure improvements and utilizing DMU passenger train equipment.

The Build Alternative defined in the EA is referred to as the Full Build. It extends from DeLand to Poinciana with 16 stations. As a subset of the Full Build Alternative, and as mentioned in the preface of this document, the EA also examined the LPA, which does not contain the link from DeBary/Saxon Boulevard Extension Station to DeLand Amtrak Station, and has 15 stations with a different operating plan. Finally, the EA also identifies DeBary/Saxon Boulevard Extension Station to the Orlando Amtrak/ORMC Station as the recommended North Corridor starter line, referred to in the documentation as the Initial Operating Segment (IOS). The IOS is 31 miles long, has 10 stations, and an operating plan that focuses on weekday peak direction service. The phased implementation strategy of starting with the IOS and phasing into the LPA and ultimately the Full Build has been discussed and coordinated with municipal and county governments in the corridor.

5.2 Summary of Results

A review of the evaluation results confirms there are substantial benefits to both the users and to the general public by implementing the Full Build Alternative and there is limited environmental risk in its implementation. The value of the investment is positive for the region and, more importantly, it provides additional person carrying capacity in the region's critical and primary north-south travel corridor. The largest advantage to the Full Build Alternative over the No-Build and TSM Alternatives is the ability of commuters to use an existing, active rail corridor (CSXT A-Line) that is free flowing and reliable as compared to the peak periods on I-4 and US 17/92 on the north; and US 441, and Orange Avenue on the south. This is especially true because any bus service under the

TSM Alternative would be faced with virtually the same lack of roadway capacity as the auto users in the corridor.

The northern portion of the CRT corridor is severely constricted in terms of available surface transportation capacity. It is generally limited to the I-4 facility with very few alternatives, all of which are either congested or too distant from the corridor to be useful. For example, US17/92 that generally parallels I-4 is also severely congested and expected to worsen in the future. Moreover, any significant traffic incident along I-4 during the peak commute leaves the traveling public to deal with significant added travel time delays. Congestion and incident-induced delays adversely impact travel time and reliability of express buses. By comparison, commuter rail provides the traveling public with the choice of a travel option that is faster and more reliable than in the No-Build or TSM Alternatives.

The southern portion of the project is faced with similar congestion and is the focus of significant residential and industrial development - particularly between Kissimmee and Poinciana. In the future congestion is projected to be severe in the south portion of the corridor on segments of I-4, US 441, Orange Avenue, and the Florida Turnpike. Providing additional transportation capacity will afford the traveling public with mobility options not available in the No-Build or TSM Alternatives.

The CSXT right of way and existing rail infrastructure is attractive as an established foundation for high quality commuter rail transit. From an environmental standpoint, the corridor is already disturbed, and is active with passenger and freight rail traffic. The development of a CRT service in the corridor is relatively inexpensive and the facility is well positioned to serve major activity centers along and within the corridor. Its purpose and use as an existing transportation corridor makes it compatible with the purposes of the CRT project. The evaluation finds that the transportation and land use benefits of the proposed CRT are substantial and widely distributed within the corridors. The number of potentially adverse impacts is both small and capable of being reduced to an acceptable level or eliminated through mitigation.

Measures considered appropriate for addressing project goals, objectives, and specific concerns were evaluated under the criterion of effectiveness. These measures address the major goal categories of:

- Mobility;
- Land Use and Development;
- Environment;
- Investment; and
- Community.

Table 5-1 summarizes the results of the evaluation against the criteria and measures used to determine effectiveness at satisfying the Project's local goals and objectives. The Full Build and LPA alternatives are evaluated through comparisons with both the No-Build and TSM Alternatives.

Table 5-1: Alternatives Evaluation Matrix

Criteria	Measure	No-Build Alternative	TSM Alternative	Full Build – Commuter Rail Alternative	Locally Preferred Alternative (LPA)
MOBILITY					
Transit Ridership (year 2025)	Regional Daily Transit Riders	139,660	154,460	168,600	161,660
	Estimated New Daily Transit Riders - Unlinked	N/A	14,800	28,940	22,000
	Estimated New Daily Transit Trips - Linked	N/A	10,600	18,040	15,350
	Daily Rail Boardings	N/A	N/A	13,760	8,310
Travel Time Savings	Transit travel Times Between Major Activity Centers With and Without Commuter Rail	N/A	Minor improvement	Significant improvement plus greater reliability	Significant improvement plus greater reliability.
	Forecast Travel Time Savings in Region	N/A	Minor improvement	Minor improvement	Minor improvement
Congestion Reduction	Forecast Daily VMT	100,388,726	100,347,740	100,298,530	100,317,229
	Forecast Daily VHT	3,598,000	3,596,941	3,595,150	3,595,850
Regional Transit Service Integration	Connections to Amtrak (number of stations within ¼ mile of Amtrak station	N/A	2	4	3
	Connections to Transit Centers (number of stations within ¼ mile of transit centers)	N/A	6	6	6
LAND USE AND DEVELOPMENT					
Transit-related Development	Number and Location of Existing Transit-related Developments	1 LCS	1 LCS	6 Altamonte Springs; Winter Park; Florida Hospital; LCS; Church Street, Kissimmee	6 Altamonte Springs; Winter Park; Florida Hospital; LCS; Church Street, Kissimmee
	Likelihood of and Market for Transit-related Developments	Low	Low	Higher	Higher
Conforms to Local, Regional, and Comprehensive Plans	Consistent with Local Land Use and Transportation Plans	Fully Consistent	Partially Consistent	Consistent	Consistent
Transit a catalyst for future economic (re)development	Proximity to Area with Significant Redevelopment Goals	None	None	Medium-High	Medium-High

Criteria	Measure	No-Build Alternative	TSM Alternative	Full Build – Commuter Rail Alternative	Locally Preferred Alternative (LPA)
ENVIRONMENT					
Transit, Street, and Highway Impacts	Number of Intersections at LOS E or F (year 2025)	18	18	18	18
	Travel Delay Time at Rail Crossings	The No-Build cumulative daily delay at these grade crossings is a combined 34,069 minutes.	No Change	Increase total daily vehicle delay project-wide and corridor wide at the grade crossings by less than 8 percent	Lower total daily delay than Full Build due to fewer CRT operations per day.
Neighborhoods	Noise Impacts	N/A	Low	Limited number of noise impacts due to increased frequency of train horn soundings. All impact locations to be mitigated.	Fewer train horn soundings per day than Full Build due to fewer CRT operations per day.
	Potential Impacts to Visual and Aesthetic Qualities	None	None	No adverse impacts. Utilizes existing active rail corridor and rail yard areas. Stations would provide an opportunity for positive impacts associated with transit-related design.	Same as Full Build except for DeLand Amtrak Station which is not included in LPA.
	Potential Impacts to Air Quality	Low	Low	Low	Low
	Safety Around Station Areas	N/A	No Change	Station area design will incorporate safety measures.	Station area design will incorporate safety measures.

Criteria	Measure	No-Build Alternative	TSM Alternative	Full Build – Commuter Rail Alternative	Locally Preferred Alternative (LPA)
Parklands/Open Space and Recreation Areas	Number and Location of Parklands/Open Space Potentially Impacted	None	None	No direct or indirect impacts on any parks or open space. Temporary construction phase indirect impacts on park access will be mitigated.	Same or less than Full Build because no construction or operations north of DeBary/Saxon Blvd Extension Station, and less construction of double track.
ENVIRONMENT					
Ecosystems	Changes to Habitat and Removal or Damage to Unique Vegetation	None	None	Project is located in an existing railroad ROW. No impact on vegetation. Habitat addressed in ESBAR	Same or less than Full Build for reasons described above.
	Floodplain Encroachment	None	Minor No adverse effect	Minor (5.65 acres) No adverse effect. To be further analyzed in PE.	Same or less than Full Build for reasons described above.
	Wetlands Impacted by New Construction	None	Minor (Where TSM Park and Ride is at same location as Full Build stations)	Minor (23.56 acres) 18.21 acres of the total is at stations. Impacts to be mitigated pursuant S. 373.4137 FS	Same or less than Full Build for reasons described above.
Water Quality	Number of Stream Crossings with New Construction	None	None	No adverse impact. All track improvements over streams use existing or improved structures.	Same or less than Full Build for reasons described above.
Environmental Justice	Population of Minority, Low Income, and Transit Dependent Households Potentially Impacted	N/A	Low	No disproportionate adverse effects on minority and low-income households. Access and mobility benefits are high.	Same as Full Build. No disproportionate adverse effects on minority and low income households

Criteria	Measure	No-Build Alternative	TSM Alternative	Full Build – Commuter Rail Alternative	Locally Preferred Alternative (LPA)
				Potential noise impacts from horn soundings to be mitigated.	
ENVIRONMENT					
Historical, Cultural, Community, Archaeological Resources	Number of Historic and Archaeological Resources Potentially Adversely Impacted	None	None	No Adverse Effect finding at 4 of the properties NRHP-Listed. FDOT commitment to provided specific design conditions regarding architecture and materials selection of station elements and site buffering are in final design.	Less potential effect than the Full Build because the LPA does not serve the DeLand Amtrak Station.
Threatened and Endangered Species	Impact to Wildlife Within the Corridor	None	None	ESBAR shows either no effect or effect not likely adverse for all identified species. Protection measures and guidelines will be followed for design and construction.	Same or less than Full Build due to no construction north of DeBary/Saxon Blvd Extension Station and less double tracking.
Hazardous Materials	Number of Leaking Underground Storage Tanks (LUST) and Hazardous Waste Sites Impacted	None	None	No Superfund sites, proposed Superfund sites, or state-equivalent sites are in the study area. 11 locations with medium or high risk of existing contamination require further investigation in PE.	Same as Full Build relative to Superfund sites. 10 station or facility locations with medium or high risk compared to 11 in the Full Build. Lower risk along right of way due to less double track.

Criteria	Measure	No-Build Alternative	TSM Alternative	Full Build – Commuter Rail Alternative	Locally Preferred Alternative (LPA)
Relocations and Property Impacts	Residential and Non-residential Properties Impacted. Takings in Acres.	None	80.4 acres	130.2 acres	124.4
INVESTMENT					
Project Capital Costs		N/A	$47.1	$632.0	$447.0
Operating Efficiency	Entire Bus and Rail System Annual Operating and Maintenance Costs (2005 millions)	$141.6	$153.1	$180.8	$167.7
COMMUNITY					
Accessibility	Existing Population (2000) within ½ mile of Proposed Rail Stations	N/A	N/A	23,110	22,918
	Existing Employment (2000) within ½ mile of Proposed Rail Stations	N/A	N/A	97,573	97,648
	Forecast Population (2025) within ½ mile of Proposed Rail Stations	N/A	N/A	33,260	32,865
	Forecast Employment (2025) within ½ mile of Proposed Rail Stations	N/A	N/A	141,156	141,016
Equitable Access	ADA Accessibility (existing sidewalks in proposed transit station areas)	N/A	N/A	Stations and vehicles will be ADA compliant	Same as Full Build
	Low Income Population Served Within 1 Mile of Proposed Transit Stations	N/A	N/A	1,711	1,704
	Pedestrian Access	N/A	N/A	Station area design will include sidewalks for convenient and safe pedestrian access.	Same as Full Build

The Full Build Alternative would have commuter rail ridership of 13,760 per day in the year 2025. Compared to the No-Build Alternative overall transit ridership (unlinked) in the region would increase by 28,940 daily riders with the Full Build Alternative, while the TSM Alternative would achieve an increase of 14,800 daily riders – about half the impact of the Full Build Alternative. The increase in regional linked transit trips compared to the No-Build Alternative is 18,040 daily riders with the Full Build Alternative compared to the 10,600 riders with the TSM Alternative. The increase in linked transit trips is a better measure of the ability of the Full Build Alternative to divert automobile trips to transit.

The Full Build Alternative is superior to the No-Build and TSM Alternatives across most evaluation measures, particularly in the categories of transportation and land use benefits. In the small number of environmental categories where a potential for adverse impact was identified, mitigation will eliminate or reduce the impact to below significant levels.

The Full Build Alternative will provide opportunities for investment in the community particularly around the CRT stations. This Transit Oriented Development (TOD) would not exist in these specific areas in the other alternatives. The Full Build Alternative would be compatible with the existing land use and zoning in the corridor where existing stations would be utilized. Where new stations would be constructed, they would be planned with the communities allowing for the desired TOD land use in the future.

In order to achieve the significant benefits of the Full Build Alternative at lower cost the project sponsor worked closely with local governments and other project stakeholders to define the Locally Preferred Alternative (LPA). As described in Chapter 2, the LPA alignment and stations between DeBary/Saxon Boulevard Extension on the north and Poinciana Industrial Park on the south is identical to the Full Build, except there are fewer trips per day, less double track, longer headways, and no direct commuter rail service to DeLand. These differences amount to Capital cost savings of approximately $185 million and Operations and Maintenance cost savings of over $13 million per year. As shown in Table 5-1, the LPA achieves benefits comparable to the Full Build at significantly lower cost.

5.3 Implementation Plan

To best meet the needs of the community, a plan has been developed for implementing the CRT in a time efficient and cost effective manner. This plan has been divided into the short-term and long-term activities required for full implementation of the CRT. Due to the physical arrangements coordinated with CSXT and the availability of funding, project phasing has been proposed to provide early implementation of a segment of the Full Build. The phasing section separates the Full Build into three segments: 1) the North Segment between DeBary/Saxon Boulevard Extension Station and Orlando Amtrak/ORMC Station; and, 2) the South Segment between Orlando Amtrak/ORMC Station and Poinciana Station; and 3) The north extension to the DeLand Amtrak Station.

5.3.1 Short Term-Plan

The short-term plan involves completing a series of activities prior to the implementation of the CRT. The following short term activities pertaining to adoption of the project within local, regional, and state plans have already been completed. These activities are listed below.

- Included CRT Project in the current Florida State Transportation Improvement Program (STIP);
- Included CRT Project in the Long Range Cost Feasible 2025 Networks of both MPOs within the project corridor (METROPLAN ORLANDO and the Volusia County MPO);
- CRT Project endorsed by all four county governments of Volusia, Seminole, Orange, and Osceola counties; and
- CRT Project endorsed at the local level by municipalities with proposed stations along the corridor.

Environmental clearance under Federal NEPA and Florida PD&E requirements has proceeded with preparation of this Environmental Assessment within the framework of a major public outreach and agency coordination program. Input received during this coordination process shaped the alternatives to maximize project benefits while avoiding or mitigating the limited number of adverse impacts the EA will be completed following the public hearing and will address any remaining issues that may emerge at that time. Environmental issues identified during this EA process will be resolved following the EA public hearing and prior to issuance of a Finding of No Significant Impact (FONSI).Preliminary Engineering (PE) during this time will be sufficient to resolve these issues and define all proposed mitigation. The Initial Operating Segment (IOS) will be the first segment of the Full Build CRT to be implemented and consequently will be addressed first during PE and final design.

5.3.2 Long-Term Plan

The long-term plan is to implement the entire DeBary/Saxon Boulevard Extension to Poinciana Industrial Park 54 mile corridor, with the ability to extend to 7 miles to DeLand as the market for that service develops in the future. Development of detailed engineering design plans and construction documents for the LPA, and possibly the Full Build Alternative is the centerpiece of the long-term plan for project implementation.

5.4 Project Phasing

The alternatives are being evaluated based on year 2025 characteristics. However, additional analyses have been performed for intermediate years in order to assess project viability as well as potential project phasing. The transportation system variability, particularly for the I-4 corridor, is significant between now and 2025, and alternative transportation modes in the corridor are needed because traffic conditions will worsen despite the planned roadway improvements. In 2025 most of the extensive I-4 improvements will be completed, yet as shown in Chapter 1, the number of roadway segments with traffic Level of Service F will increase. During the interim years, while work is being performed on I-4, travel will be significantly impacted by the roadway construction projects.

From a utility point of view, the LYNX Central Station (LCS) is critical to all phases of the commuter rail project because it provides critical connectivity with the regional bus system to permit travel to destinations throughout the Central Florida area. Additionally, a mid-day layover facility is needed for the commuter rail equipment in the vicinity of

downtown Orlando. Finally, this is one of the prime locations where Commuter rail transit will interface with the proposed State of Florida Intercity Rail system.

5.4.1 North Corridor - Initial Operating Segment (IOS)

Analysis conducted during the EA confirmed the North Corridor as the preferred segment for the IOS, and based on operations analysis concluded that the IOS mid-day layover facility would need to be located south of downtown Orlando at Kaley Yard. By terminating the IOS at Orlando Amtrak/ORMC Station rather than the LCS, a substantial increase in ridership is achieved for relatively low additional cost because the rail line is already double tracked in this area, the station spacing is relatively close, and the destination station requires no parking. In the north Corridor, the IOS terminates at DeBary/Saxon Boulevard Extension, which is a few miles north of the DeBary station identified in the AA. This new proposed location has better access, a greater opportunity for TOD land use, and expansion potential long-term. As a result, the IOS defined in the EA is 31 miles long and has 10 stations.

In summary, based on the objective of early implementation of CRT service in the corridor, it was determined that greater initial benefit to the traveling public would be realized through initial implementation of the North Corridor. Three key factors identified in the AA supporting selection of the North Corridor for the IOS remain valid:

- The traveling public would benefit from an alternative travel mode, especially during the reconstruction projects on I-4, as maintenance of traffic measure.
- Development in much of the North Corridor is relatively mature and the longer term ridership expectations would occur in the near term.
- The physical modifications to the CSXT facilities would be easier to achieve, in the near-term in the North Corridor.

5.5 Identification of Key Milestones

The following is an updated list of key milestones that must be addressed in order to implement the project.

- *CSXT Agreement:* The majority of property that would be used for the CRT service, but not the stations, is owned by CSXT. Prior to completion of the EA process sufficient information should be known to allow for the formal agreement to be executed between the FDOT and the Project Sponsors and CSXT on use and control of the rail corridor.
- *Engineering Documentation:* The work required would most likely be a combination of work that will be performed by private contractors and suppliers with involvement by CSXT. The definition of how the work will be performed will be defined as a part of the CSXT agreement. Once the contract packaging approach is determined, the detailing of the designs and packages will be completed.
- *Establishing the Operator:* The presumption, to date, is there will be a contract operator that provides the service. Contracting will be done via a comprehensive

procurement package to allow for a competitive opportunity. Concurrent with the preparation of the procurement package, the state, regional and local entities will need to determine the local organization for overseeing the contract operation. Approximately 9 to 12 months is required to advertise, select, award, hire and train personnel necessary to implement the Contract Operation.

- *Construction:* This phase will be dependent upon the agreement with the CSXT and the division of responsibilities.

- *Start-Up Operations:* For the IOS, the start of operations could be achieved by the end of 2009. In 2013, the addition of the second segment would complete the LPA. Further extension north to DeLand Amtrak Station will be dependent on local decisions that will be made later in the process.

- *Procurement Lead Time:* The DMU equipment some of the railway materials/equipment (e.g. signals and systems) will have long lead times and may need to be pre-ordered to ensure an on-schedule delivery**.**

5.6 Compliance and Consistency with Environmental Laws, Regulations and Programs

This section briefly outlines the consistency of the CFCRT project with various Federal and State of Florida environmental laws, regulations and programs. For brevity, the information is presented in matrix format in the following tables. Table 5-2 presents relevant federal statutes, regulations and policies, while Table 5-2 presents Florida statutes, regulations and policies.

Table 5-2: Compliance with Federal Laws, Regulations and Programs

Law, Regulation or Program	Brief Description of Compliance
National Environmental Policy Act (NEPA)	Completion of this Environmental Assessment and FONSI signifies compliance with NEPA
Clean Water Act of 1977 (Federal Water Pollution Control Act Amendments of 1972)	Under Section 401 of the Clean Water Act, any Federal activity that will result in a discharge to waters or wetlands subject to Federal jurisdiction is required to obtain a State Water Quality Certification (WQC) to ensure compliance with State water quality standards. Section 404 of the Clean Water Act governs the disposal of fill into waters of the United States. Build alternative will result in estimated 18.66 acres of wetlands impact in South Florida Water Management District (WMD) and 4.9 acres of impact in St. Johns River WMD. Mitigation of CFCRT wetland impacts will be implemented by the appropriate Water Management District where the impacts occur. FDOT will contribute to mitigation bank program of each affected WMD.

Law, Regulation or Program	Brief Description of Compliance
National Historic Preservation Act of 1966	FDOT, in compliance with Section 106 of the National Historic Preservation Act of 1966 and in consultation with the State Historic Preservation Officer, has determined that the proposed action will have no adverse effect on the DeLand ACL Railroad Station (8VO2653), the Orlando ACL Railroad Station (8OR139), the Old Orlando Railroad Depot (8OR25), and the Downtown Orlando Historic District (8OR422). Refer to Appendix E for a copy of the letter received from SHPO dated March 9, 2007.
Fish and Wildlife Coordination Act	Correspondence with USFWS – no Federal listed Threatened and Endangered (T&E) Species are likely to be affected by the project.
Section 4(f) of the Department of Transportation Act	No direct impacts to publicly-owned parklands identified. Minor indirect and temporary construction period impacts possible to adjacent parks, appropriate mitigation will be provided. There are no noise impacts to publicly owned parks. No impacts to Section 4(f) have been identified.
Section 6(f) of the Department of Transportation Act	No parklands or recreation areas funded with Land and Water Conservation Fund dollars identified along the CFCRT corridor – not applicable.
Uniform Relocation and Real Property Acquisition Act of 1970	Takings estimated at 130.2 acres of property on 98 separate parcels are needed for the Build Alternative. A total of 12 occupied residences,19 active businesses, and a business parking lot will require relocation due to station construction in Sanford, Lake Mary, Longwood, and Altamonte Springs and at Sand Lake Road in Orlando. Affected property owners will receive just compensation in compliance with the FTA procedures established under the Act.
Safe Drinking Water Act: 42 U.S.C. 300F-300J-6 (P.L. 93-523) (P.L. 99-339)	The project is not located over a Sole Source Aquifer – not applicable.
Executive Order 12898: Environmental Justice DOT Final Order on Environmental Justice (DOT Order 5680.1, "Environmental Justice," February 15, 1997)	The Project does not disproportionately impact EJ populations within the Project corridor. The project provides for improved transit access and provides increased mobility and access to regional employment and activity centers for transit-dependent populations throughout the corridor. Potential noise impacts from CFCRT operations to identified EJ populations will be fully mitigated by FDOT.
Executive Order 11900: Protection of Wetlands	Build alternative will result in estimated 18.66 acres of wetlands impact in South Florida (Water Management District) WMD and 4.9 acres of impact in St. Johns River WMD. Mitigation of wetland impacts will be implemented by the appropriate WMD where the impacts occur. FDOT will contribute to mitigation bank program of each affected WMD.
Executive Order 11988: Floodplain Management, as amended by Executive Order 12148	Project will impact an estimated 5.65 acres of floodplains. Based on the preliminary evaluation, the encroachments to the floodplain are not anticipated to have an adverse effect. A more detailed analysis will be conducted during the final design phase of the project.

Law, Regulation or Program	Brief Description of Compliance
CZMA of 1972: 16 U.S.C. 145 et seq. (P.L. 92-583) (P.L. 94-310) (P.L. 96-464) and CZMA Reauthorization Amendments of 1990: 6217(g)	Project is unlikely to affect coastal resources and is considered consistent with the approved Florida CZM program – no determination from Florida Division of Community Resources has been made.
Clean Air Act (as amended), Transportation Conformity Rule: 23 U.S.C. 109(j), 42 U.S.C 7521 (a), (P.L. 101-549)	The project is included in the current Florida State Transportation Improvement Program (STIP). The project is not located in a non-attainment area. The Transportation Conformity Rule and its air quality requirements do not apply to the project.
Preservation of Historic and Archeological Data Act of 1974, as amended, 16 U.S.C. 469 et seq.	Not applicable; project will not require mitigation of direct impacts to historic or archaeological resources. FDOT commitment to design, landscaping and visual impacts.
Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.	Coordination with the U.S. Fish and Wildlife Service (FWS) has yielded no formal consultation requirements pursuant to Section 7 of the Endangered Species Act. CFCRT project is unlikely to adversely affect Federally-listed threatened and endangered species.
Executive Order 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971.	Coordination with the State Historic Preservation Officer signifies compliance.
Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, 21 April 1997	Not Applicable; the project would not create a disproportionate environmental health or safety risk for children.
Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, 6 November 2000	Consultation with Indian Tribal Governments, where applicable, and consistent with executive memoranda, DoD Indian policy, and Corps Tribal Policy Principals signifies compliance. Distribution of CFCRT project Advanced Notification (AN) package.
Farmland Protection Policy Act (FPPA), 7 USC §§ 4201 et. seq. Executive Memorandum - Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA, 11 August 1980	Not Applicable; project does not involve or impact prime or unique agricultural lands
White House Memorandum, Government-to-Government Relations with Indian Tribes, 29 April 1994	Consultation with Federally Recognized Indian Tribes, where appropriate, signifies compliance. Distribution of CFCRT project Advanced Notification (AN) package included Federally Recognized Indian Tribes.

Table 5-3: State of Florida Environmental Laws and Policies

Law, Regulation or Program	Brief Description of Compliance
Chapters 253, 267, and 872 of the Florida Statutes – Historic Preservation	Florida SHPO has determined, that the Project would have "No Effect" on historic properties in the vicinity of the Florida Hospital, LYNX Central Station, and Kissimmee Amtrak stations. FDOT in consultation with the State Historic Preservation Officer, has determined that the proposed action will have no adverse effect on the DeLand ACL Railroad Station, the Orlando ACL Railroad Station, the Old Orlando Railroad Depot, and the Downtown Orlando Historic District . SHPO consultation will continue into the preliminary engineering phase.
Florida Department of Transportation (FDOT) mitigation program - Florida Statutes 373.4137, 1996	Project will result in estimated 18.66 acres of wetlands impact in South Florida WMD and 4.9 acres of impact in St. Johns River WMD. Mitigation of CFCRT wetland impacts will be implemented by the appropriate WMD where the impacts occur. FDOT will contribute to mitigation bank program of each affected WMD.
Water Resources Act, Chapter 373, F.S.	FDOT will obtain authorization for project wetlands impacts by obtaining an Environmental Resource Permit/Authorization to Use State Owned Submerged Lands/Federal Dredge and Fill Permit, as established under a 1998 Operating Agreement between the USACOE, FL DEP, and four Water Management Districts (WMDs). FDOT will also obtain coverage under the NPDES Florida Construction Stormwater General Permit for construction activities.
Rules 40E-4, Florida Administrative Code (F.A.C.), and 40C-4, F.A.C. – Stormwater	The proposed stormwater facilities design will include, at a minimum, the water quantity requirements for water quality impacts as required by the South Florida WMD and St. Johns River WMD.
Florida Department of Transportation Environmental Policy, September 15, 2005	The project will be designed and operated in compliance with the relevant principles and requirements of the Environmental Policy.

CHAPTER 6

COMMENTS, CONSULTATION AND COORDINATION

6 COMMENTS, CONSULTATION AND COORDINATION

The NEPA encourages public involvement activities early and throughout the process of alternatives development and environmental impact analysis. This section of the Environmental Assessment (EA) describes the public and government agency coordination efforts that have been conducted to date for the Central Florida Commuter Rail Transit (CRT) Project, as well as a description of activities throughout the conclusion of the EA process. The public involvement program for this Project has included extensive outreach to citizens, municipalities and counties along the Project corridor, regulatory agencies, major institutions and other affected groups.

Any public involvement process should ensure that important community concerns and technical issues are identified early in the Project development stage and addressed in the planning, engineering, environmental, economic, and financial analyses. In addition, one of the major reasons for the public involvement process is to transmit data to the public, and inform the public about the Project. An interactive community involvement process is used to develop and refine the alternatives carried forward in the EA process in order to respond effectively to community needs and preferences, and to satisfy local, state, and Federal environmental regulatory requirements, as well as to allow the public to ascertain as much information as they desire.

A Public Involvement Program (PIP) was developed and implemented as an integral part of the CRT EA process. The purpose of the program is to establish and maintain communications with the public, individuals and agencies concerned with the EA process and any potential Project impacts.

In an effort to identify and resolve issues associated with the proposed Project, FDOT conducted an extensive interagency coordination and consultation effort as well as the public participation program. This chapter of the EA details the Florida Department of Transportation's (FDOT) program to fully identify, address and resolve Project-related issues identified through the Public Involvement Program.

6.1 Public Involvement Program

FDOT Central Florida Commuter Rail Public Involvement Programs

The public involvement effort for the CRT Project during this EA phase of the Project development process is a continuation of previous FDOT public involvement efforts for all I-4 corridor mobility improvements, including but not limited to the Central Florida Light Rail Transit System North/South Corridor Project, begun in 1996 and extending through the publication of the Final Environmental Impact Statement in 1998.

Subsequently, the development of the *Central Florida North/South Commuter Corridor Alternatives Analysis*[1]*(AA)* in 2002 and 2003 instituted a separate public involvement program for the analysis of alternatives for a potential commuter rail corridor in the Orlando metropolitan area. The AA is the first phase of the multi-step FTA Project development process. Conclusion of the AA leads to the Preliminary Engineering phase

[1] *Central Florida North/South Commuter Corridor Alternatives Analysis - Final Report*, May 2004

where estimates of Project costs, benefits and impacts are developed to a level of detail necessary to complete the NEPA process.

The AA PIP included three rounds of public meetings and workshops consisting of four meetings (two additional meetings were conducted in the second round along with a one day "information fair"), held at key Project milestones. Meetings were held in each of the affected counties (Volusia, Seminole, Orange and Osceola). The first round of meetings was conducted in October and November 2002 as the public scoping meetings for the AA phase. The first round of workshops was held concurrent with these scoping meetings. A subsequent second round of workshops was held in March and April 2003. In addition to the meetings listed above, a public outreach event was held at the downtown Orlando LYNX Central Station in April 2003 to distribute Project information during peak travel periods. The third and final round of AA public workshops was conducted in February 2004 to present the LPA that was developed based on input from previous public workshops and coordination with local agencies.

Additionally, the AA PIP included an extensive agency coordination effort, including the formation of a Community Rail Projects Communications Group or Project Advisory Group (PAG), which consisted of consultant and agency members representing the Commuter Rail, Light Rail, Bus Rapid Transit, and Florida High Speed Rail Projects. The purpose of the PAG was to organize a series of combined community outreach events to educate the public on the various rail Projects. These outreach events were held at five separate locations in November 2002.

Other agency coordination activities included the institution of monthly Transit Project Stakeholder Meetings for Commuter Rail, the Light Rail Transit and Bus Rapid Transit Projects. Agency members of the stakeholders' group included representatives from Osceola, Orange, Seminole, and Volusia Counties; area municipalities; METROPLAN ORLANDO; Volusia MPO, FDOT, LYNX and VOTRAN.

Station coordination meetings were held with representatives of several area municipalities to discuss potential station locations, including Orlando, Sanford, Altamonte Springs, Kissimmee, Winter Park, Orange County, and Osceola County. A separate round of technical presentations was conducted for representative of corridor counties, municipalities, Board members and several committees (Technical Advisory Committee and Citizen Advisory Committee) of METROPLAN Orlando prior to the public meetings and workshops.

Commuter Rail Transit Environmental Assessment PIP

The PIP for the CRT Project during the EA included the following aspects:

- Identification of the Affected Public;
- Advanced Notification(AN);
- Public Outreach activities; and
- Agency Coordination.

Identification of the Affected Public and the Public Outreach Activities are discussed in more detail below. The AN and Agency Coordination activities are described in Section 6.4.

Identification of the Affected Public

The CRT PIP includes a detailed listing of public agencies and local officials throughout the Project area who have been contacted, briefed about the Project and/or supplied with a package containing an overview of the CRT Project. This package consisted of the AN package described in Section 6.4 below. The mailing list for the AN package is included in Appendix H. As other potentially affected public agencies have been identified during the EA process, they were added to the Project mailing list.

Additionally, business and economic development agencies have been identified and targeted with outreach activities, including meetings. These include local business development centers, Chambers of Commerce, small and large community gatherings, public fairs and expos, community groups, neighborhood associations, social clubs, and business associations.

Public Outreach Activities

A significant effort for the CRT PIP has included a series of ongoing public outreach activities. These include:

- Focused community and institutional meetings and briefings throughout the Project Corridor;
- Preparation and distribution of a CRT "Briefing Booklet" Project flyer;
- Preparation and distribution of a 3-minute and 9-minute Project video;
- Preparation of Power Point presentations about the Project for community meetings and Public Hearings;
- Preparation and distribution of brochures in Spanish and English, as well as additional informational material and tri-fold flyers;
- "Quality Time" buttons, balloons and "squeegee" trains for public outreach events;
- Launch of an interactive website -- www.cfrail.com – for information, questions and feedback from the public about the Project;
- Establishment of a Project Advisory Group;
- A series of public "Alternatives Workshops" along the Project Corridor;
- Four Public Hearings, one in each affected county, held in January 16 and 18, 2007;
- Press conference attended by FTA, Governor, U.S. Representatives, Local elected officials, LYNX, VoTran, Metroplan Orlando, community stakeholders, media and the public to announce Agreement in Principle to buy CSXT tracks;
- Additional agency and community meetings; and
- Media outreach and publicity.

Focused Community and Institutional Meetings

One of the earliest activities in the PIP was an initial series of meetings scheduled by FDOT in January and February 2005 with officials of the CRT Corridor communities, counties and major institutions and landowners along the Corridor. At these meetings, FDOT and the Project engineering consultant presented the concept plan for the Project

and discussed the specific comments and concerns of the meeting participants. A complete listing of the meetings held is included in Table 6-1 below.

Table 6-1: Initial CRT Local Government and Institutional Meetings

Date	Community/Organization	Meeting Attendees
January 5, 2005	Sanford	City Manager, Director Of Planning
January 10, 2005	Orlando	Chief Planner, Transportation Planner, City Architect
January 11, 2005	DeBary	City Manager, Planning Administrator
January 12, 2005	Lake Mary	City Manager, Community Development Director
January 12, 2005	Orange City	City Manager, Development Services Director
January 14, 2005	Winter Park	City Manager, Asst. City Manager, Director of Parks and Recreation
January 18, 2005	Progress Energy	Community Relations Manager, Sr. Economic Development Executive, Plant Manager, Orange City representative
January 20, 2005	DeLand	City Manager, Community Development Director
January 20, 2005	Maitland	City Manager, Community Development Director, Transportation Engineer
January 21, 2005	Belle Isle	City Manager
January 21, 2005	Kissimmee	City Manager, Deputy City Manager, Director of Development Services
January 24, 2005	Florida Hospital	Florida Hospital Architect, Orlando Transportation Planner, Orlando City Architect, Business Development Manager for Orlando Business Development Board
January 24, 2005	ORMC	ORMC representative, Orlando Transportation Planner, Orlando City Architect, Business Development Manager for Orlando Business Development Board
January 25, 2005	Longwood	City Administrator
January 26, 2005	Edgewood	City Clerk, City Engineer, Police Chief
January 27, 2005	Casselberry	City Manager, Community Development Director
January 27, 2005	Eatonville	Chief Administrative Officer, Public Works Director
February 9, 2005	Deltona	City Manager
February 11, 2005	Volusia County	County Traffic Engineer
February 15, 2005	Osceola County	Deputy County Manager, Senior Transportation Planner
February 22, 2005	Winter Springs	City Manager
February 23, 2005	Orange County	Manager of Public Works
March 2, 2005	Seminole County	County Engineer, Transportation Specialist

Preparation and Distribution of a CRT Project "Briefing Booklet"

A Project flyer, known as the "Briefing Booklet" was prepared for wide distribution in May 2005. A copy of the Briefing Booklet is included in Appendix D. The Briefing Booklet presented a four page summary of the CRT Project, including a brief introduction, the background and history of the Project, brief descriptions of the No Build, TSM and Build Project Alternatives, concept illustrations of commuter rail station prototypes and an EA Schedule.

The Briefing Booklet was distributed to the Project mailing list and posted on the Project website in advance of the public "Alternatives Workshops" in June 2005.

Establishment of a Project Advisory Group (PAG)

The Project Advisory Group (PAG), similar in concept to the PAGs established for the previous I-4 Multi-Modal Master Plan and Central Florida Light Rail Transit System

Projects, was revived for the CRT Project. The primary role of the PAG is to review Project information at key steps and to advise the Project team on the presentation of Project technical information to the public. The following parties were invited to participate on the PAG:

- City of Altamonte Springs
- City of Belle Isle
- City of Casselberry
- City of DeBary
- City of DeLand
- City of Edgewood
- City of Kissimmee
- City of Lake Mary
- City of Maitland
- City of Orange City
- City of Orlando
- City of Sanford
- City of Winter Park
- City of Winter Springs
- Davis & Associates (representing Florida Hospital)
- Downtown Development Board
- East Central Florida Regional Planning Council
- Greater Orlando Aviation Authority
- International Drive Resort Area Chamber of Commerce
- Kissimmee/Osceola County Chamber of Commerce
- LYNX
- METROPLAN Orlando
- Office of Congressman John Mica
- Orange County
- Orange County Public Schools
- Orlando International Airport
- Orlando-Orange County Expressway Authority
- Osceola County
- Seminole County
- Seminole County Public Schools
- South Florida Water Management District

- St. Johns River Water Management District
- Volusia County
- Volusia County Schools
- VOTRAN
- West Orange Chamber of Commerce
- Winter Park Chamber of Commerce
- City of Longwood
- City of Deltona
- Chamber of Commerce of West Volusia County
- Sierra Club, Central Florida Group.

A PAG meeting was held on May 25, 2005 in advance of the Public Alternatives Workshops in June 2005. Thirteen (13) PAG representatives attended this meeting. A presentation of the Project was given to the attendees. Discussion at the meeting focused on issues related to station locations, Project funding, Project implementation and the Project Schedule.

6.2 Alternatives Workshops

Four public workshops were held during June 2005. The meeting schedule and locations are listed in Table 6-2 below.

Table 6-2: CFCRT Alternatives Workshops

Date	Location
June 7, 2005	Seminole County Lyman High School Auditorium Longwood
June 9, 2005	Orange County William R. Boone High School Orlando
June 14, 2005	Volusia County DeLand High School Auditorium DeLand
June 16, 2005	Osceola County The Osceola Performing Arts Center Kissimmee

The Alternatives Workshops format included a preliminary open house where FDOT and Project consultant team representatives were available to answer questions from the public in advance of the formal presentation of the Project in the public meeting. Detailed presentation boards and printed material were available for public review during the open house portion of the workshop. These materials included large scale aerial photographs of the entire Project Corridor with the Project alignment, proposed station locations and major community facilities identified. Large scale renderings of the prototypical station designs were also available for review.

Project Website

Throughout the EA process at key milestones, Project material has been posted for public review on the Central Florida Rail website: http://www.cfrail.com. The website was thoroughly revamped in August, 2006 to coincide with a formal announcement of an Agreement in Principle between FDOT and CSX Transportation. Information posted on the website includes, but is not limited to, the Project briefing booklet, commuter rail station prototype plans, aerial photographs of the proposed CRT stations, study area maps, a copy of the Alternatives Workshops presentation, a Question and Answer section; video materials about the Project; informational brochures and flyers in Spanish and English; transit-oriented development information; individual station information, locator maps, station renderings and video clips of track scenery between stations; Public Hearing information and news releases; media coverage of the Project; and upcoming announcements.

Additional Agency and Community Meetings

In addition to the meetings previously listed, a series of additional meetings have been held throughout the EA process with a wide variety of public groups, government agencies, and major commercial and institutional stakeholders along the Project Corridor. Table 6-3 lists these meetings.

Table 6-3: Agency and Community CRT Informational Meetings

Date	Community/Organization	Regarding/Action
Jan 31, 2005	FTA – HQ	Discuss Project with staff
February 28, 2005	VOTRAN	Presented Information on Project
March 8, 2005	Volusia County MPO	Presented Information on Project
March 11, 2005	LYNX	Presented Information on Project
March 14,15, 2005	FTA HQ	Field visit by FTA HQ to CFCRT
April 15, 2005	Orange County Transportation Planning Group	Presented Information on Project
April 22, 2005	METROPLAN TTC	Presented Information on Project
April 27, 2005	City of Maitland	Discuss Project with staff
May 4, 2005	FES Luncheon	Presented Information on Project
May 11, 2005	City of Maitland	Discuss Project with staff
June 1, 2005	Osceola County	Discuss resolution with staff
June 6, 2005	Volusia County	Discuss resolution with staff
June 8, 2005	METROPLAN Orlando Commuter	**Rail adopted in LRTP**
June 8, 2005	Orange County	Discuss resolution with staff
June 9, 2005	Seminole County	Discuss resolution with staff
June 14, 2005	Osceola County Commissioner	Transportation Workshop
June 22, 2005	METROPLAN CAC and BPAC	Presented Information on Project
June 24, 2005	METROPLAN TTC	Presented Information on Project
July 6, 2005	Orlando Realtor's Group	Presented Information on Project
July 6, 2005	City or Orlando	Discuss Project with staff
July 7, 2005	Volusia County Council	**Adopted resolution for funding of CRT**
July 11, 2005	Winter Park Commission	Presented information on Project

Date	Community/Organization	Regarding/Action
July 12, 2005	Orange County Commission	Presented information on Project
July 13, 2005	METROPLAN Board	Presented information on Project
July 13, 2005	City of Orlando Commission Budget Workshop	Presented information on Project
July 14, 2005	Envision Seminole – Seminole County	Presented information on Project
July 15, 2005	Winter Park Chamber of Commerce	Presented Information on Project
July 18, 2005	Osceola County Commission	**Adopted resolution for funding of CRT**
July 25, 2005	City of Orlando Commission	**Adopted resolution for funding of CRT**
July 26, 2005	Seminole County	**Adopted resolution for funding of CRT**
August 4, 2005	METROPLAN MAC	Presented information on Project
August 4, 2005	Orlando Regional Realtor's Association	Presented information on Project
August 8, 2005	Winter Park Rotary	Presented information on Project
August 8, 2005	Winter Park Council	Presented information on Project, Adopted resolution
August 9, 2005	Maitland Rotary Club	Presented information on Project
August 9, 2005	Orange County	**Adopted resolution on Project**
August 9, 2005	City of Kissimmee Commission	Presented Information on Project
August 11, 2005	LYNX	Discuss Project with staff
August 11, 2005	VOTRAN	Discuss Project with staff
August 15, 2005	McCree Industries	Discuss Project
August 16, 2005	FTA – Regional	Field visit over CFCRT corridor
August 18, 2005	City of Maitland	Presented Information on Project
August 22, 2005	City of Maitland Council	Presented Information on Project
August 23, 2005	Women League of Voters	Presented Information on Project
August 25, 2005	ASCE	Presented Information on Project
September 12, 2005	Maitland City Council	Presented Information on Project
September 15, 2005	LYNX	Discuss Project with staff
September 21, 2005	Maitland Chamber of Commerce	Presented Information on Project
October 5, 2005	FTA HQ	Discuss Project with staff
October 8, 2005	University of Women Association	Presented Information on Project
October 10, 2005	Orlando Young Professionals	Presented Information on Project
October 15, 2005	Florida Coalition of Rail Passengers	Presented information on Project
October 25, 2005	FTA – Regional Headquarters	Discuss Project with staff
October 28, 2005	City of Orlando	Discuss Project with staff
October 31, 2005	Progress Energy	Discuss Project
November 1, 2005	Rotary for East Orange County	Presented information on Project
November 1, 2005	Edgewood Commission	Discuss Project
November 2, 2005	Utility Coordination	Discuss Project
November 15, 2005	FTA – Regional Headquarters	Discuss Project with staff
November 18, 2005	FTA Representative	Field review of CFCRT corridor land use

Date	Community/Organization	Regarding/Action
December 1, 2005	International Round Table	Presented information on Project
December 14, 2005	Florida Hospital	Discuss Project
December 16, 2005	ORHC	Presented information on Project
December 19, 2005	Volusia, Seminole, Orange, Osceola joint meeting	Presented information on Project
January 5, 2006	SHPO meeting	Discuss Project with staff
January 11, 2006	MetroPlan Orlando	Presented Information on Project
January 13, 2006	Altamonte Springs	Project update
January 19, 2006	Seminole County	Project update
January 19, 2006	LYNX Board	Project update
January 20, 2006	Seminole, Osceola, Orange, Volusia, Orlando stakeholders meeting	Project update and discussion
January 24, 2006	Volusia Count y MPO	Project update
February 1, 2006	FES	Information presentation
February 7, 2006	Orlando Utilities Commission	Presented Information on Project
February 9, 2006	Winter Garden	Presented Information on Project
February 10, 2006	LYNX Regional Working Group	Presented Information on Project
February 27, 2006	Volusia County	Staff discussion
March 8, 2006	MetroPlan Orlando	Project update and presentation
March 29, 2006	FTA – Atlanta	Project update and discussion
April 10, 2006	LYNX	Project update and discussion
April 13, 2006	Florida Transportation Commissioner Marcos Marchena	Project briefing
April 18, 2006	Orange County Focus Group	Project presentation
April 18, 2006	Ocala Focus Group	Project presentation
April 27, 2006	Florida Transportation Commissioner Marcos Marchena	Project update
May 4, 2006	College Park Rotary	Presented Information on Project
May 8, 2006	Maitland City Council	Presented Information on Project
May 11, 2006	Maitland City Staff	Discuss Project with staff
May 15, 2006	Maitland Mayor	Project presentation and discussion
May 18, 2006	Winter Park Mayor and staff	Project presentation and discussion
May 22, 2006	Maitland City Council	Presented information on Project
May 22, 2006	Orlando Business Journal	Presented information on Project
June 2, 2006	LYNX	Project update and discussion
June 5, 2006	FTA	Project update and discussion
June 9, 2006	MPO Alliance	Project update and discussion
June 12, 2006	Maitland City Council	Attended and answered questions
June 14, 2006	MetroPlan	Presentation and discussion
June 26, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
July 10, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
July 26, 2006	Met with Marcos Marchena	Project Update
July 26, 2006	Met with LYNX	Project Update
July 31, 2006	Winter Park Commuter Rail	Attended and answered questions

Date	Community/Organization	Regarding/Action
	Task Force	
July 31, 2006	Point of Contact group (reps. From Orange, Osceola, Seminole and Volusia Counties, Metroplan Orlando, Volusia County MPO, LYNX and VoTran)	Project update and discussion
August 2, 2006	Public announcement of Agreement in Principle with CSXT	Informational announcement
August 2, 2006	Point of Contact Group	Project update and discussion of pending announcement
August 2, 2006	FTA – Orlando	Project update, discussion and field tour
August 2, 2006	Orlando Sentinel	Project presentation and discussion
August 3, 2006	Orlando Mayor Buddy Dyer	Project presentation and discussion
August 8, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
August 9, 2006	Commissioner Paul Owen, Osceola	Project presentation and discussion
August 9, 2006	Orange Commissioner Mildred Fernandez	Project presentation and discussion
August 11, 2006	Seminole County staff	Project update and discussion
August 14, 2006	Winter Park Commuter Rail Task Force	Attended and provided information
August 14, 2006	Seminole Commissioner Carlton Henley	Project presentation and discussion
August 14, 2006	Seminole Commissioner Brenda Carey	Project presentation and discussion
August 15, 2006	Orange Mayor Richard Crotty	Project presentation and discussion
August 15, 2006	Seminole County Television	Project presentation and discussion
August 15, 2006	Orange Commissioner Bob Sindler	Project presentation and discussion
August 16, 2006	Volusia Commissioner Frank Bruno and city staff	Project presentation and discussion
August 16, 2006	Seminole Commissioner Randy Morris	Project presentation and discussion
August 17, 2006	Seminole Commissioner Dick Van der Wiede	Project presentation and discussion
August 18, 2006	Orlando Commissioner Robert Stuart	Project presentation and discussion
August 18, 2006	Orlando Commissioner Patti Sheehan	Project presentation and discussion
August 18, 2006	Orlando Commissioner Betty Wyman	Project presentation and discussion
August 18, 2006	Orlando Commissioner Phil Diamond	Project presentation and discussion
August 18, 2006	Maitland City Council and CRT Task Force	Project presentation and discussion
August 18, 2006	Winter Park Business Journal	Project presentation
August 18, 2006	Winter Park Chamber Update	Project presentation and discussion

Date	Community/Organization	Regarding/Action
	Luncheon	
August 21, 2006	Orange Commissioner Teresa Jacobs	Project presentation and discussion
August 21, 2006	Orange Commissioner Bill Segal	Project presentation and discussion
August 21, 2006	Orange Commissioner Linda Stewart	Project presentation and discussion
August 21, 2006	Orlando Commissioner Sam Ings	Project presentation and discussion
August 23, 2006	FTA – Atlanta	Discuss Project
August 28, 2006	Volusia Commissioner Joie Alexander	Project presentation and discussion
August 28, 2006	Volusia Commissioner Jack Hayman	Project presentation and discussion
August 28, 2006	Volusia Commissioner Art Giles	Project presentation and discussion
August 28, 2006	Volusia Commissioner Carl Persis	Project presentation and discussion
August 29, 2006	Seminole Commissioner Bob Dallari	Project presentation and discussion
August 31, 2006	Osceola Commissioner Tom Franklin	Project presentation and discussion
August 31, 2006	Osceola Commissioner Ken Smith	Project presentation and discussion
August 31, 2006	Osceola Commissioner Bill Lane	Project presentation and discussion
August 31, 2006	Osceola Commissioner Ken Shipley	Project presentation and discussion
September 5, 2006	Winter Park Commuter Rail Task Force	Attended and provided information
September 11, 2006	Orange Commissioner Homer Hartage	Project presentation and discussion
September 11, 2006	Orange City Mayor and City Manager	Project presentation and discussion
September 11, 2006	Longwood Mayor and City Manager	Project presentation and discussion
September 11, 2006	Seminole County Manager	Project presentation and discussion
September 12, 2006	FTA – Orlando	Project update and discussion
September 13, 2006	Winter Park Mayor and Manager	Project presentation and discussion
September 14, 2006	Point of Contact Group	Project update discussion
September 15, 2006	Kissimmee Mayor and Manager	Project presentation and discussion
September 18, 2006	City of Sanford Mayor and Manager	Project presentation and discussion
September 19, 2006	Altamonte Springs Mayor and Manager	Presented Information on Project
September 19, 2006	Volusia Commissioner Dwight Lewis	Project presentation and discussion
September 19, 2006	Volusia Commissioner Bill Long	Project presentation and discussion
September 19, 2006	City of DeBary Mayor and Manager	Project presentation and discussion
September 21, 2006	FTA – Orlando	Project update and negotiations
September 21, 2006	Maitland Chamber of Commerce	Attended and answered questions
September 25, 2006	Maitland Mayor and City officials	Presented information on Project

Date	Community/Organization	Regarding/Action
September 25, 2006	Lake Mary Mayor and City Manager	Presented information on Project
September 27, 2006	Metro Orlando Economic Development Commission	Presented information on Project
September 27, 2006	Orlando-Orange County Expressway Authority	Presented information on Project
September 27, 2006	Point of Contact Group	Project update and discussion
September 29, 2006	Winter Park Merchants Association	Presented information on Project
October 2, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
October 3, 2006	Lake Mary Mayor and Manager	Project presentation and discussion
October 4, 2006	Point of Contact Group	Project update and discussion
October 5, 2006	Central Florida Chapter of the American Public Works Assoc.	Presented information on Project
October 5, 2006	City of Orlando	Project update and discussion
October 6, 2006	Volusia County	Project update and discussion
October 9, 2006	Maitland City Council	Presented information on Project
October 10, 2006	Winter Park Towers Retirement Community	Presented information on Project
October 11, 2006	MetroPlan Orlando	Presented information/Project update
October 11, 2006	Point of Contact Group	Project update and discussion
October 12, 2006	Orange County Staff	Project update and discussion
October 17, 2006	Longwood staff	Project update and discussion
October 23, 2006	Orange County staff	Project update and discussion
October 24, 2006	Seminole County Commission	Project update
October 25, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
October 25, 2006	Maitland Task Force	Attended and answered questions
October 26, 2006	Orlando Regional Chamber of Commerce	Senior staff briefing
October 31, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
November 1, 2006	Utility Users Group	Presented Information on Project
November 2, 2006	Point of Contact Group	Project update and discussion
November 2, 2006	Winter Park representatives	Project update and discussion
November 2, 2006	City of Maitland	Project update and discussion
November 3, 2006	Leadership Seminole	Project presentation and discussion
November 6, 2006	Florida Association of Public Transit	Presented Information on Project
November 8, 2006	Point of Contact Group	Project update and discussion
November 8, 2006	Seminole Regional Chamber of Commerce	Presented information on Project
November 9, 2006	DeLand Chamber of Commerce	Project presentation
November 9, 2006	Orange County representatives	Project update and discussion
November 10, 2006	Winter Park Chamber of Commerce	Project presentation
November 10, 2006	Volusia County representatives	Presented information on Project
November 14, 2006	West Volusia Chamber of Commerce	Project presentation

Date	Community/Organization	Regarding/Action
November 15, 2006	Maitland Task Force	Attended and answered questions
November 16, 2006	Winter Park Task Force	Attended and answered questions
November 17, 2006	Osceola Chamber of Commerce	Project presentation and discussion
November 28, 2006	Volusia County MPO	Project update and discussion
November 28, 2006	West Central Florida Regional Planning Council	Project presentation and discussion
November 29, 2006	Maitland representatives	Project update and discussion
November 30, 2006	Winter Park Task Force	Attended and answered questions
December 4, 2006	Winter Park Public Workshop	Presented and answered questions
December 5, 2006	Orange County Commission Workshop	Attended and answered questions
December 6, 2006	Winter Park Public Workshop	Presented and answered questions
December 8, 2006	Pinellas County Chairman Coordinating Group	Project presentation and discussion
December 11, 2006	Volusia County representatives	Project update and discussion
December 12, 2006	Transit-Oriented Development Workshop with city and county representatives	Presented options for discussion
December 13, 2006	Seminole Business Group	Project presentation
December 13, 2006	Leadership Orlando	Project presentation
December 14, 2006	Winter Park Commuter Rail Task Force	Attended and answered questions
December 15 2006	FTA	Project update and discussion
December 18, 2006	Orange Commissioner Fred Brummer	Project presentation and discussion
December 18, 2006	Orange Commissioner Tiffany Moore	Project presentation and discussion
December 19, 2006	Volusia Commissioner Andy Kelly	Project presentation and discussion
December 19, 2006	Seminole Commissioner Mike McLean	Project presentation and discussion
December 20, 2006	FTA	Project update and discussion
January 3, 2007	Winter Park Economic Development Board	Project update and discussion
January 7, 2007	Winter Park Coffee Klatsch	Project presentation and discussion
January 8, 2007	Hillsborough MPO	Project presentation
January 9, 2007	Winter Park Task Force meeting	Attended and answered questions
January 10, 2007	Myregion.org	Presented and answered questions
January 12, 2007	Winter Park Chamber	Presentation and panel discussion
January 16, 2007	Public Hearing on Commuter Rail in Volusia and Seminole Counties	Presented project information and received comments
January 18, 2007	Public Hearing on Commuter Rail in Orange and Osceola Counties	Presented project information and received comments
January 22, 2007	Volusia Commissioner Pat Northey	Project presentation and discuss
January 24, 2007	Winter Park meeting	Discussed potential station site with mayoral appointees
January 25, 2007	West Orlando Rotary Club	Project presentation and discussion

Date	Community/Organization	Regarding/Action
January 31, 2007	Maitland Task Force meeting	Attended and answered questions
January 31, 2007	Osceola County and City of Kissimmee	Project update and discussion
January 31, 2007	Volusia County Manager James Dinneen	Project update and discussion
February 5-7, 2007	FTA/PMOC Workshops	Project presentation, update, discussion and field tour
February 6, 2007	Longwood Rotary Club	Project presentation and discussion
February 8, 2007	Leadership Winter Park	Project presentation and discussion
February 12, 2007	Winter Park Rotary Club	Project presentation and discussion
February 12, 2007	Maitland City Council	Voted in support of a station stop pending resolution of Orange County funding issues
February 12, 2007	Transit-Oriented Development workshop - Orlando	TOD workshops with host counties and cities along planned route
February 12, 2007	Transit-Oriented Development workshop - Maitland	TOD workshops with host counties and cities along planned route
February 12, 2007	Transit-Oriented Development workshop-Winter Park	TOD workshops with host counties and cities along planned route
February 13, 2007	Transit-Oriented Development workshop - Orlando	TOD workshops with host counties and cities along planned route
February 13, 2007	Transit-Oriented Development workshop – Volusia	TOD workshops with host counties and cities along planned route
February 13, 2007	Transit-Oriented Development workshop - Osceola	TOD workshops with host counties and cities along planned route
February 14, 2007	Transit-Oriented Development workshop - Osceola	TOD workshops with host counties and cities along planned route
February 14, 2007	Transit-Oriented Development workshop - Sanford	TOD workshops with host counties and cities along planned route
February 14, 2007	Transit-Oriented Development workshop – Lake Mary	TOD workshops with host counties and cities along planned route
February 14, 2007	Orlando Regional Chamber of Commerce Leadership Alumni Board	Project presentation and discussion
February 14, 2007	MetroPlan Orlando	Project update and discussion
February 15, 2007	Tri-County League of Cities	Project presentation and discussion
February 15, 2007	Transit-Oriented Development workshop – Longwood	TOD workshops with host counties and cities along planned route
February 15, 2007	Transit-Oriented Development workshop – Altamonte Springs	TOD workshops with host counties and cities along planned route
February 15, 2007	Transit-Oriented Development workshop – Orange County	TOD workshops with host counties and cities along planned route
February 19, 2007	Environmental Community briefing	Project presentation and discussion
February 19, 2007	LYNX	Project briefing
February 20, 2007	Deltona Mayor Dennis Mulder	Project presentation and discussion
February 21, 2007	Point of Contact Group	Project update and discussion
February 22, 2007	Orlando Chamber Small Business Board	Project presentation and discussion
February 22, 2007	Tampa Bay Planners	Project presentation and discussion
February 23, 2007	Maitland Men's Club	Project presentation and discussion

Date	Community/Organization	Regarding/Action
February 25, 2007	Orange County Kite Festival	Manned booth; distributed information
February 26, 2007	Winter Park Breakfast Rotary Club	Project presentation and discussion

Note: Bold text identifies Governmental Agency's adoption of resolutions supporting the Project.

Media Outreach and Publicity

Project information also was disseminated through the local media. The information was in the form of news releases, informational packets, video clips, brochures, fliers and stories. Dozens of news stories have been aired and printed about the Project, including 19 print media stories currently posted on the Project website. Media contacts preceded important public meetings and at key milestones. Project staff conducted numerous media interviews for television, radio and Internet broadcast, as well as newspaper and magazine publication. Project staff maintained an e-mail list of about 50 Central Florida media contacts in print, television and radio. The following media were notified about public notices, news releases, news items and/or offered interview availability:

Table 6.4: Media Distribution List

Media advisories	
Publication/station	E-mail
Daytona Beach News Journal	Bob.koslow@news-jrnl.com
Osceola News Gazette	borben@osceolanewsgazette.com
Observer Newspapers	carole@observernewspapers.com
Orlando Business Journal	cbarth@bizjournals.com
Orlando Sentinel/Volusia	Dcollins@orlandosentinel.com
WESH-TV	desk@wesh.com
WKMG-TV	desk@wkmg.com
Seminole Chronicle	editor@seminolechronicle.com
UCF News	editor@ucfnews.com
WLOQ – radio	efoster@wloq.com
CBS – radio	Erica.lee@cbsradio.com
East Orange Sun	graphics@eosun.com
Ocala Magazine	heather@ocalamagazine.com
WIND – radio	Hunter@windfm.com
Orlando Sentinel/Seminole	jbabinchak@orlandosentinel.com
Entravision	jdieppa@entravision.com
Orlando Sentinel/Lake	jfallstrom@orlandosentinel.com
Orlando Sentinel/transportation	jhamburg@orlandosentinel.com
Orlando Business Journal	jkrueger@bizjournals.com
Ocala Star Banner	Joe.bynes@starbanner.com
93.7 – K Radio	Kathy@937Kcountry.com
Orlando Weekly	letters@orlandoweekly.com
Kearney Publishing	Lisa@kearneypublishing.com
DeLand Beacon	margi@delandbeacon.com
Cox Radio	marsha@coxradio.com
98.1 – Radio	megan@98.1.com

CBS Radio	Mel.taylor@cbsradio.com
Daytona Beach News Journal	metro@news-jrnl.com
540 – WFLA Radio	news@540wfla.com
Apopka Chief	news@apopkachief.fdn.com
Fox – WOFL	news@foxwofl.com
SCT News	news@sctnews.com
WDBO – Radio	news@wdbo.com
WFTV – TV	news@wftv.com
CFNews 13	news@cfnews13.com
East Orange Sun	newsdesk@eosun.com
Daytona Beach News Journal	News-tribune@news-jrnl.com
Leesburg Daily Commercial	patmccarthy@dailycommercial.com
WMFE – Radio	pduggins@wmfe.org
Daytona Beach News Journal	Peggy.ellis@news-jrnl.com
Clear Channel	Signe.huff@clearchannel.com
Seminole Herald	sparadis@seminoleherald.com
Orlando Sentinel/Seminole	spedicini@orlandosentinel.com
Star News	Starnews@aol.com
102 Jamz – Radio	taina@102jamzorlando.com
News Leader	Thenewsleader@cfl.rr.com
Ocala Star Banner	Tom.mcniff@starbanner.com
West Orange Times	wotimes@aol.com

- Newspapers – Display advertisements were placed in local community and metropolitan newspapers with the largest daily circulation in the area. The newspapers included: Orlando Sentinel, El Sentinel; Osceola News Gazette; Daytona Beach News Journal; DeLand Beacon, and La Prensa.

- Radio and Television Stations – In addition to the local area newspapers, local radio and television stations were sent Project news releases. The radio and television stations identified include:

RADIO			
Call Letters	Station Frequency	Call Letters	Station Frequency
WCFB	94.5 FM	WMFE	90.7 FM
WDBQ	580 AM	MNGF	107.7 FM
WHTQ	96.5 FM	WMMO	98.9 FM
WJHM	101.9 FM	WPYO	95.3 FM
WLOQ	103.1 FM	WQTM	740 AM
WRLZ	1270 AM	WSHE	100.3 FM
WTKS	104.1 FM	WWBF	1130 AM
WWKA	92.3 FM	WXXL	106.7 FM
WUCF	89.9 FM	WKRO	93.1 FM
WLRQ	99.3 FM	WJRR	101.1 FM
WOMX	105.1 FM	WOCL	101.1 FM
WCIF	106.3 FM	WAOA	107.1 FM
WGNE FM Country	98.1 FM	WQIO	1240 AM
WTLN	1520 AM		

TELEVISION			
Call Letters	Station Number	Call Letters	Station Number
Orange TV	----	WESH - NBC	2
ABC - WFTV	9	WOFL – FOX	35
Telemundo	40	WKMG- CBS	6
WKCF – WB	18	WMFE – PBS	24
WRBW – UPN	65	WACX TV 55	55
WTGL – IND	52	NEWS 13 – CFN	13

6.3 CFCRT Public Hearings

Public hearings on the EA were held January 16, 2007 in Volusia and Seminole Counties and January 18, 2007 in Orange and Osceola Counties to give the public an opportunity to express views concerning the location, conceptual design, and social, economic and environmental effects of the proposed Project. The public hearings were held at the following locations:

Table 6.5: CFCRT Public Hearings

Date/Time	Location
Jan. 16, 2007 6 p.m.	Volusia County City of DeBary Florence K. Little Town Hall 12 Colomba Road DeBary FL 32713
Jan. 16, 2007 6 p.m.	Seminole County Eastmonte Civic Center 830 Magnolia Drive Altamonte Springs, FL 32701
Jan. 18, 2007 6 p.m.	Orange County Sheraton Orlando-Downtown Hotel 60 South Ivanhoe Blvd. Orlando, FL 32804
Jan. 18, 2007 6 p.m.	Osceola County Kissimmee Civic Center 201 East Dakin Avenue Kissimmee, FL 34741

Public hearing notifications were sent to all those on the Project mailing list, as well as to the media. The www.cfrail.com website was updated to include scrolling banner notification on the website's home page about the upcoming public hearings. A Public Hearings page was added to the website, where the EA was posted for public inspection. Public comment also was solicited on the Public Hearings page, and public hearing locations were prominently displayed.

A legal advertisement for the public hearings was published in the *Florida Administrative Weekly* and display advertisements were published twice each in the following publications: The DeLand *Beacon*, the Daytona Beach *News Journal*, the Orlando *Sentinel, El Sentinel, La Prensa* and the Osceola *News Gazette*.

A total of 526 people signed attendance sheets at the four public hearings – 159 in Volusia County; 73 in Osceola County; 110 in Orange County; and 184 in Seminole County. The public hearings included a description of the Project Corridor, proposed station locations and potential environmental impacts as documented in the EA. Participants had more than an hour to review Project boards that included large scale aerial photographs of the entire Project Corridor with the Project alignment, proposed station locations and major community facilities identified. Project team members were available at all locations to answer questions and assist the public, as were FDOT right-of-way acquisition professionals. The formal portion of the Public Hearing included a 9-minute video about the Project; a Power Point presentation that included maps and graphical illustrations; as well as the aforementioned Project boards. Large scale renderings of the prototypical station designs were also available for review.

Project flyers also were made available. As stated earlier, those flyers included proposed route maps, station locations, parking and maintenance facilities, phased implementation of the Project, detailed information about proposed train technology and key facts about the benefits of freight traffic reduction, grade-separate crossings, and mobility enhancements included in the Agreement in Principle with CSXT.

Two court stenographers were available to take public comment and record the proceedings; comments forms were distributed and collected at all Public Hearings, as well as by mail and e-mail; and the public was given an opportunity to speak orally about the Project at each Public Hearing. Public comments were received through January 29, 2007.

In general, the comments received through the public hearing process were favorable, though some expressed concern about cost, route location and the potential relocation of private property owners, among other issues.

A total of 25 people provide statements during the public comment portion of the Public hearings. Eighteen people spoke in support for the commuter rail, four were against and three were noncommittal. Comments received in support of the project focused on how the commuter rail would assist in reducing traffic, it should be extended to other major employers like Disney and the Airport, and it is just the starting point. The comments received against the project centered on noise and cost.

Following the public hearing, 50 written comment forms were filled-out and submitted via mail. Approximately 35 were in favor of the commuter rail, 10 against, and 5 were noncommittal. An additional 142 comments or questions were submitted via the website. Approximately 40 of these comments were in favor and 6 were against. The vast majority of the comments (58) were requests for additional information. A total of 21 were property owners requesting information on the potential for land sales or purchase.

The court transcripts, comments cards and website comments from each of the four public hearings are included in the Comments and Coordination Report.

6.4 Agency Coordination

This section provides a summary of the coordination with local, state, and federal agencies during the course of the EA phase of development for the CRT Project. These

coordination activities focused on the Advance Notification process and the coordination during the study process.

6.4.1 Advance Notification

To ensure open communication and agency input, FDOT provided an Advance Notification (AN) package to state and Federal agencies and interested parties in January 2005. The AN package provided a summary definition of the Project and described the anticipated issues and impacts in general terms.

On January 28, 2005, FDOT formally transmitted the AN, for the CRT Project through Osceola, Orange, and Seminole Counties in accordance with Executive Order 83-150. The purpose of the AN, is to inform Federal, state, and local agencies of the proposed action by FDOT. The AN process provides the initial opportunity for Federal, state, and local agencies to become involved early in the Project development phase and share information with FDOT concerning a proposed action and the geographic area potentially impacted. A copy of the AN is on file with the FDOT District 5 office. The AN letter and mailing list is contained in Appendix H.

Responses to the AN letter were received from the following parties

- Volusia County Traffic Engineering
- Volusia County Director of Fire Services
- Seminole County Engineer
- Volusia County Schools Intergovernmental Coordination Director
- Kissimmee Director of Aviation
- METROPLAN Orlando Executive Director
- NOAA Southeast Regional Office Assistant Regional Administrator of Habitat Conservation Division
- City of Maitland Transportation Engineer
- City of Sanford Chief of Police
- Miccosukee Tribe NAGPRA and Section 106 representative
- Volusia County Director of Growth and Resource Management
- US Coast Guard Seventh Coast Guard District Associate Bridge Management Specialist
- City of Kissimmee City Manager
- Federal Aviation Administration Orlando Airports District Office – Program Manager
- Department of Health and Human Services, US Public Health Service
- City of Orlando City Planning Director
- Kissimmee Neighborhood Planner/City Preservation Planner
- US Fish and Wildlife Service South Florida Ecological Services Office – Filed Supervisor

- City of Lake Mary City Manager
- Florida Department of Environmental Protection Office of Intergovernmental Programs

Responses to the comment letters received were prepared by FDOT and sent to the individuals who commented on April 18, 2005. Copies of the comments and responses are on file with the FDOT District 5 office.

6.4.2 Florida Department of State, Division of Historical Resources

Correspondence detailing a cultural resource assessment methodology and area of potential affect (APE) for the CRT Project was prepared for the Project in February 2005 and reviewed with the Florida State Historic Preservation Officer (SHPO). The SHPO determined in a subsequent telephone conference with FDOT and the consultant team that the proposed methodology adequately defined the areas of potential impact (APE) for the Project.

A Draft Cultural Resources Assessment Survey Report[2] (CRAS) was prepared for the CRT corridor and submitted to the SHPO in October 2005. SHPO review of the Draft CRAS concluded that there are four properties identified in the Draft CRAS that are potentially eligible for listing on the National Register of Historic Places (NRHP), and additionally, a portion of the CRT rail corridor is also potentially eligible for listing on the NRHP.

A corridor site visit was conducted with the SHPO staff on January 5, 2006 to review the potential effects of station construction on nearby significant historic properties at six locations. Locations visited and the associated historic resources included: DeLand Amtrak (DeLand ACL Railroad Station); Florida Hospital (Orange Avenue Commercial District); LYNX Central Station (Harry P. Leu, Inc.); Church Street (Downtown Orlando Historic District); Orlando Amtrak/ORMC (Orlando ACL Railroad Station); and Kissimmee Amtrak (Kissimmee ACL Railroad Station, Kissimmee Historic District – NRHP-listed).

In a letter sent to FDOT by Florida Division of Historical Resources dated March 23, 2006 (Appendix E), SHPO commented:

"The improvements proposed at the DeLand Amtrak, Church Street, and Orlando Amtrak/ORMC sites do have the potential to adversely affect the surrounding historic properties. It is our understanding that your office will continue to consult with our staff regarding sensitive design solutions that will avoid and/or minimize impacts to these significant resources. Of specific concern are the design, materials, and locations of the canopied platforms at these three sites as well as the addition of parking lots and ancillary features at the DeLand Amtrak station. "

"We look forward to further consultation with your office throughout the design phase of this Project and appreciate your willingness to discuss avoidance and/or minimization in order to prevent any adverse effects to these properties."

[2] *Draft Cultural Resources Assessment Survey Report for the Central Florida Commuter Rail Transit Environmental Assessment*, September 2005.

FDOT, in compliance with Section 106 of the National Historic Preservation Act of 1966 and in consultation with the SHPO, has determined that the proposed action will have no adverse effect on the DeLand ACL Railroad Station (8VO2653), the Orlando ACL Railroad Station (8OR139), the Old Orlando Railroad Depot (8OR25), and the Downtown Orlando Historic District (8OR422). Refer to Appendix E for a copy of the letter received from SHPO dated March 9, 2007.

The following commitments have been made to ensure that potential adverse effects are avoided or minimized:

1. Provide design plans of the proposed DeLand Amtrak, Orlando Amtrak/ORMC and Church Street stations at the 30, 60, and 90 percent stages of completion for SHPO review and comment. The FDOT will coordinate with the SHPO office so that potential visual and aesthetic effects to the above-mentioned historic properties (8VO2653, 8OR139, 8OR422 and 8OR25) can be avoided or minimized. The plans will show the exact location of platforms and other improvements, including proposed parking areas. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

2. Provide a sensitive design treatment for the three proposed stations and will ensure that the design, materials and locations of station platforms and canopies are architecturally and aesthetically compatible with the design of nearby historic resources.

3. Consult with SHPO office to determine appropriate landscaping treatments designed to reduce the potential visual effects of parking lots and ancillary features at the proposed stations.

4. Make every reasonable effort to maintain the rural character of the DeLand Amtrak Station through the use of environmentally compatible elements, such as vegetative screening, in the design of parking lots and sidewalks.

5. Make every reasonable effort to minimize physical alterations to the historic properties. Where required, alterations will be made in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR Part 68).

6. Should there be any changes to previously reviewed and agreed upon design plans, FDOT will contact SHPO and provide the opportunity for review and comment. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

FDOT will continue to coordinate with SHPO to avoid and/or minimize impacts to surrounding historic resources at the above mentioned stations. FDOT has a long lasting relationship with SHPO and will continue to work with the agency during the design phase to ensure that all concerns raised by the agency are addressed.

APPENDIX A

LIST OF PREPARERS

APPENDIX A - LIST OF PREPARERS

Federal Transit Administration (FTA) – Region IV

Florida Department of Transportation (FDOT) – District 5

Earth Tech Consulting, Inc.

AECOM Consulting, Inc.

Vanasse Hangen Brustlin, Inc.

SYSTRA Consulting, Inc.

Keville Enterprises, Inc.

KM Chng Environmental Inc.

Helman Hurley Charvat Peacock Architects, Inc.

Dovetail Consulting, Inc.

Glatting Jackson Kercher Anglin Lopez Rinehart, Inc.

Nick Serianni Transportation Consulting and Government Relations

Jeffrey A. Parker & Associates, Inc.

Luke Transportation Engineering Consultants, Inc.

Buchheit Associates, Inc.

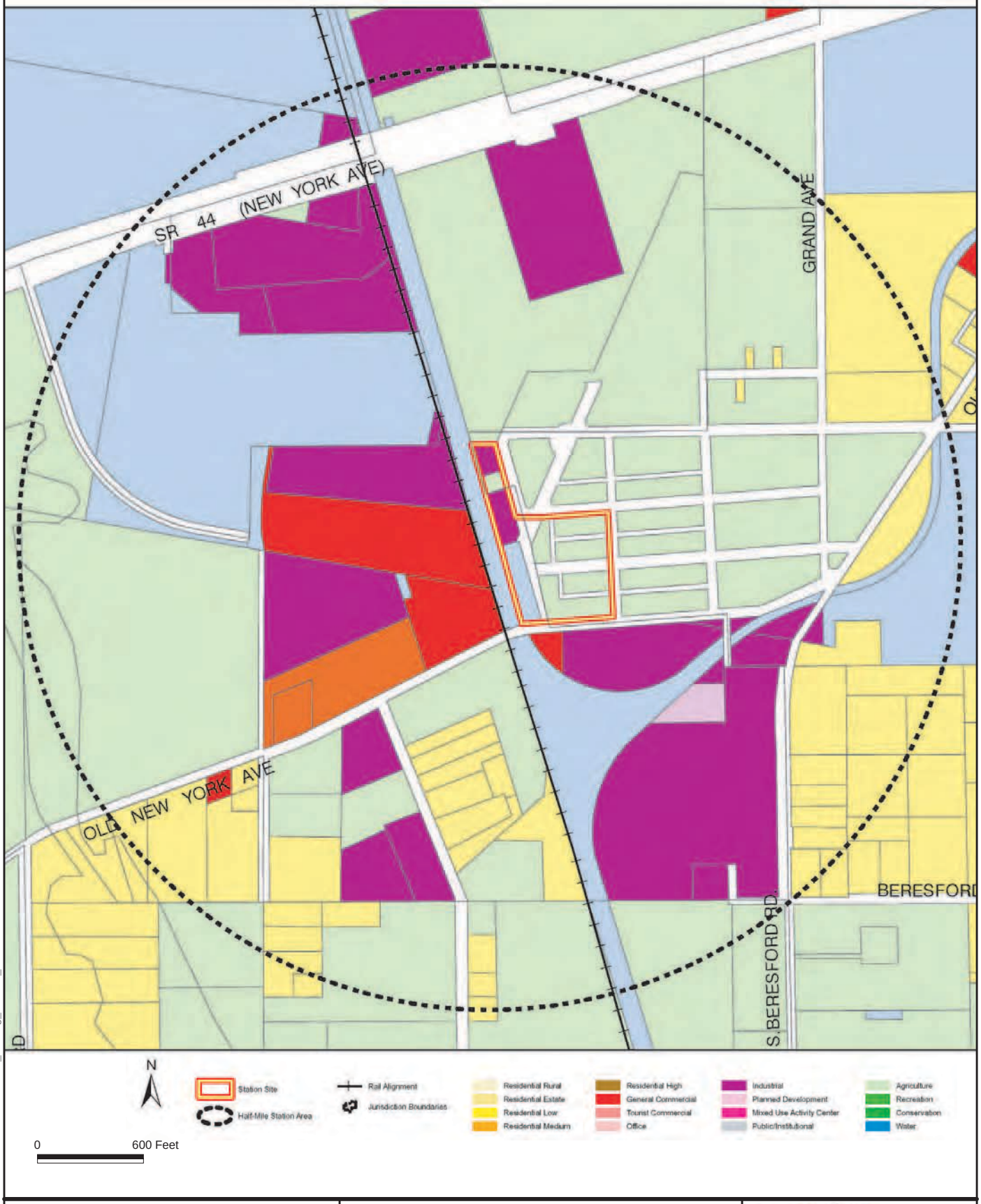
Archaeological Consultants, Inc.

Geotechnical & Environmental Consultants, Inc.

Magsolutions

APPENDIX B

LAND USE AND COMMUNITY COHESION MAPS

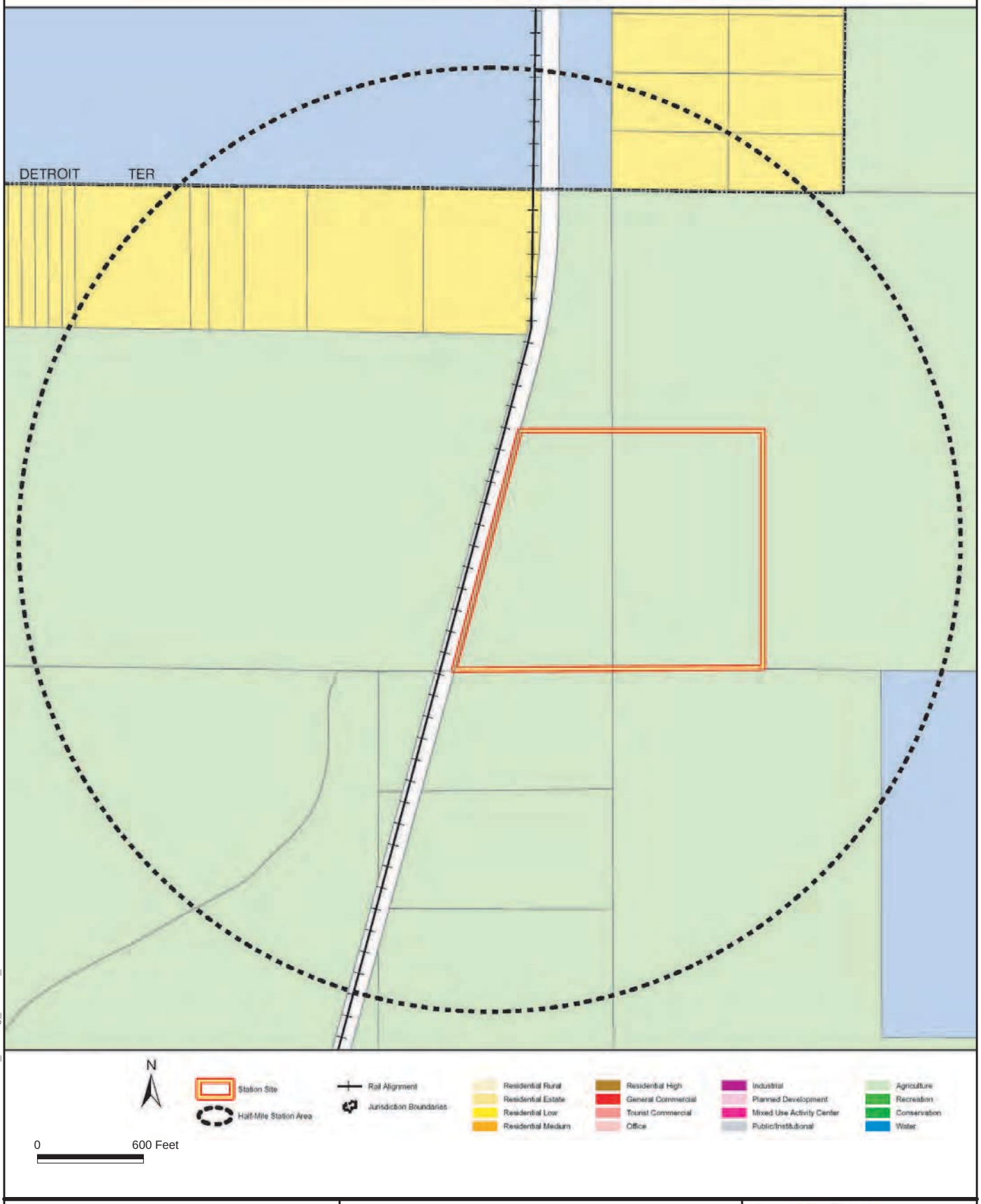


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Volusia County Property Appraiser

Figure B-1

DeLand Amtrak Station
Generalized Existing Land Use



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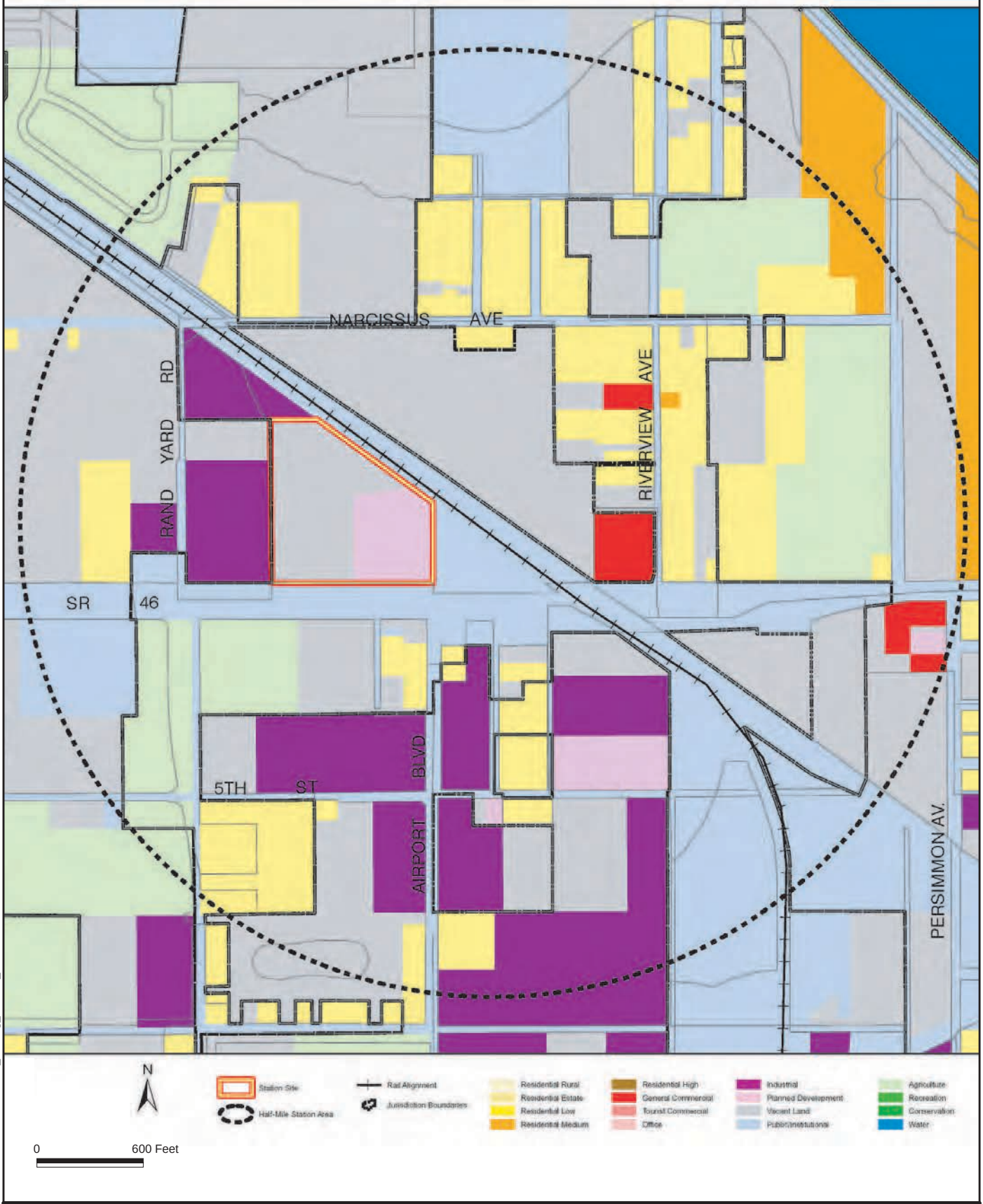
Source: Volusia County Property Appraiser

Figure B-2

DeBary Saxon Boulevard Station
Generalized Existing Land Use

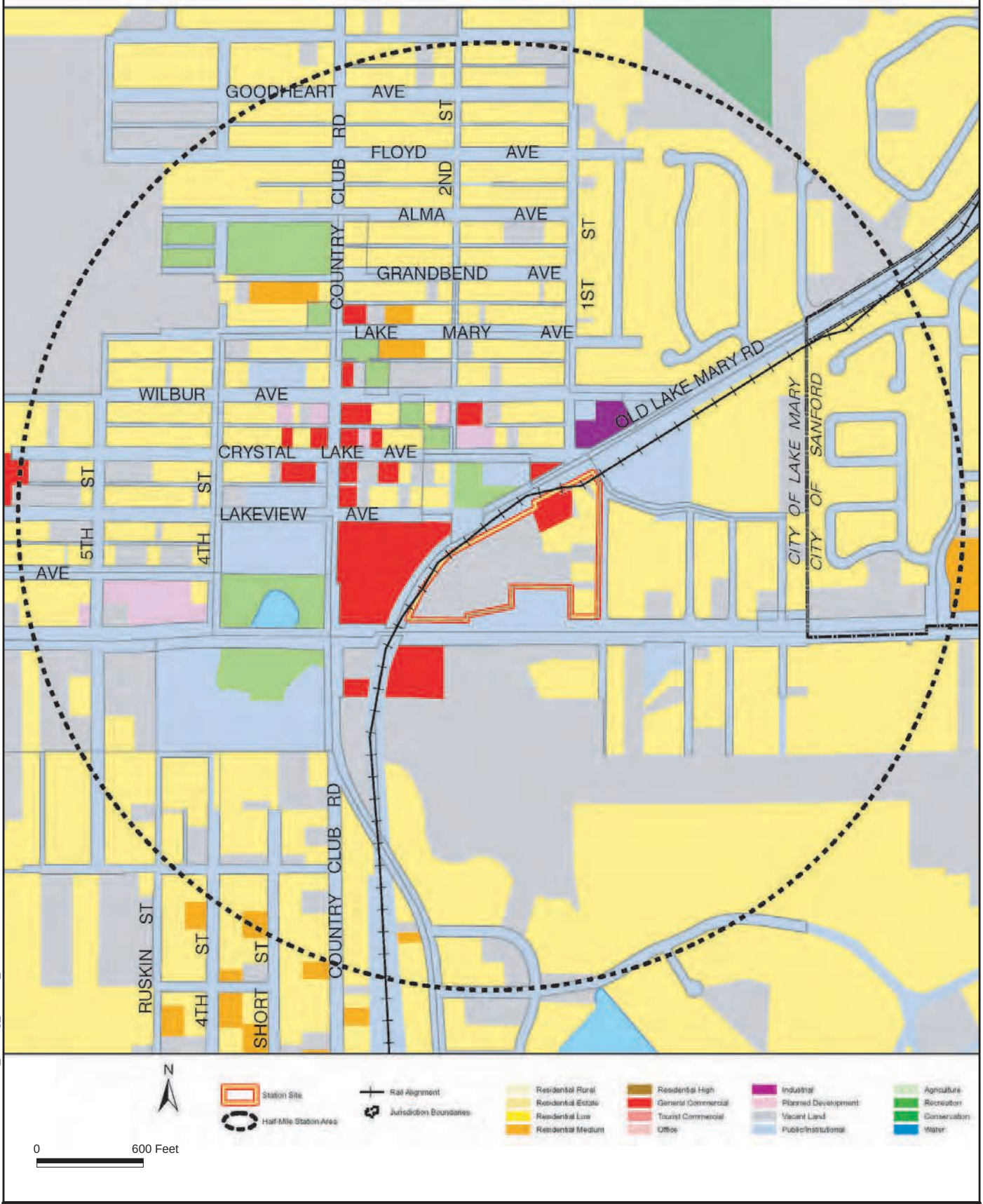


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Seminole County GIS

Figure B-3

Sanford Station
Generalized Existing Land Use

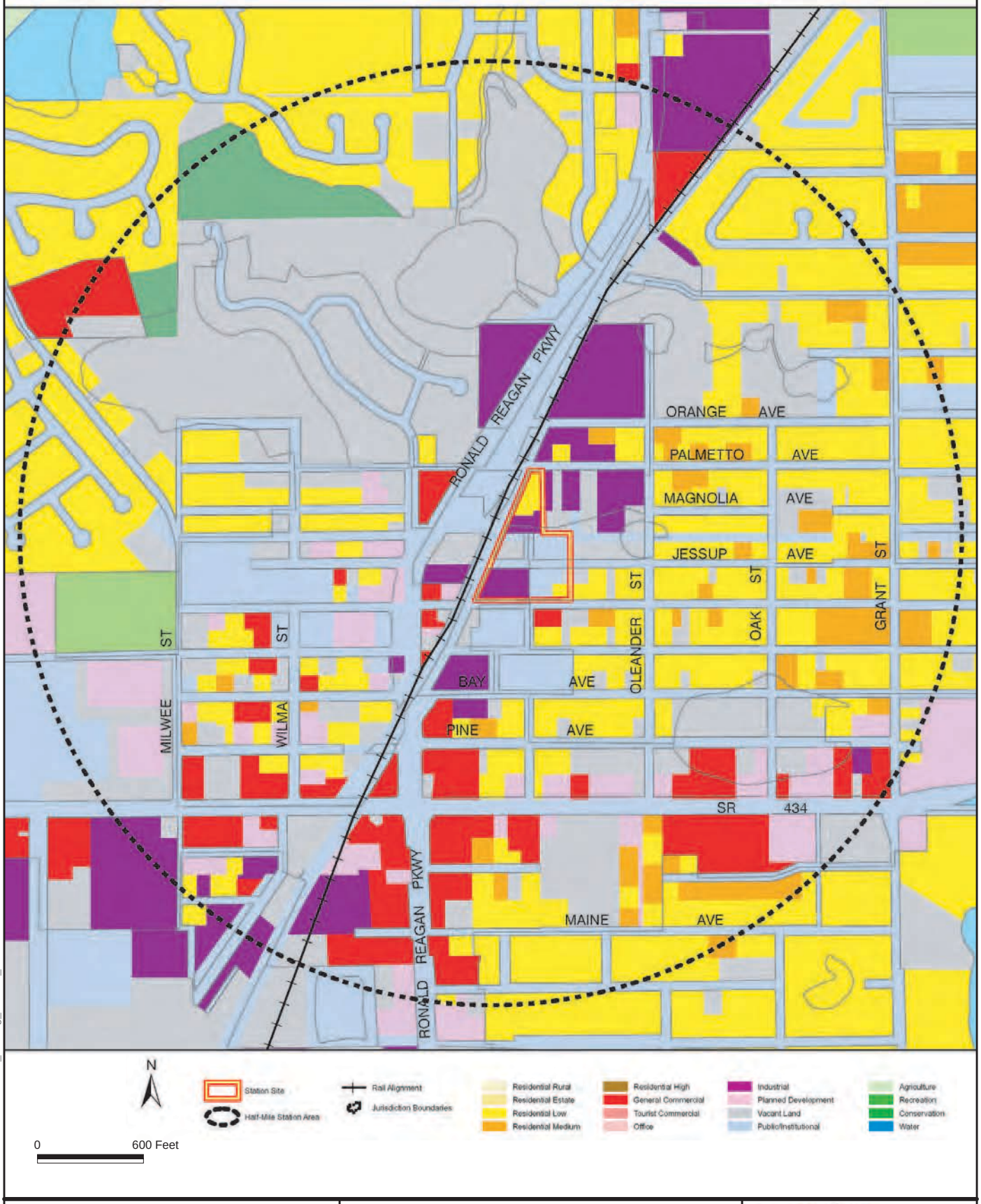


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Seminole County GIS

Figure B-4

Lake Mary Station
Generalized Existing Land Use

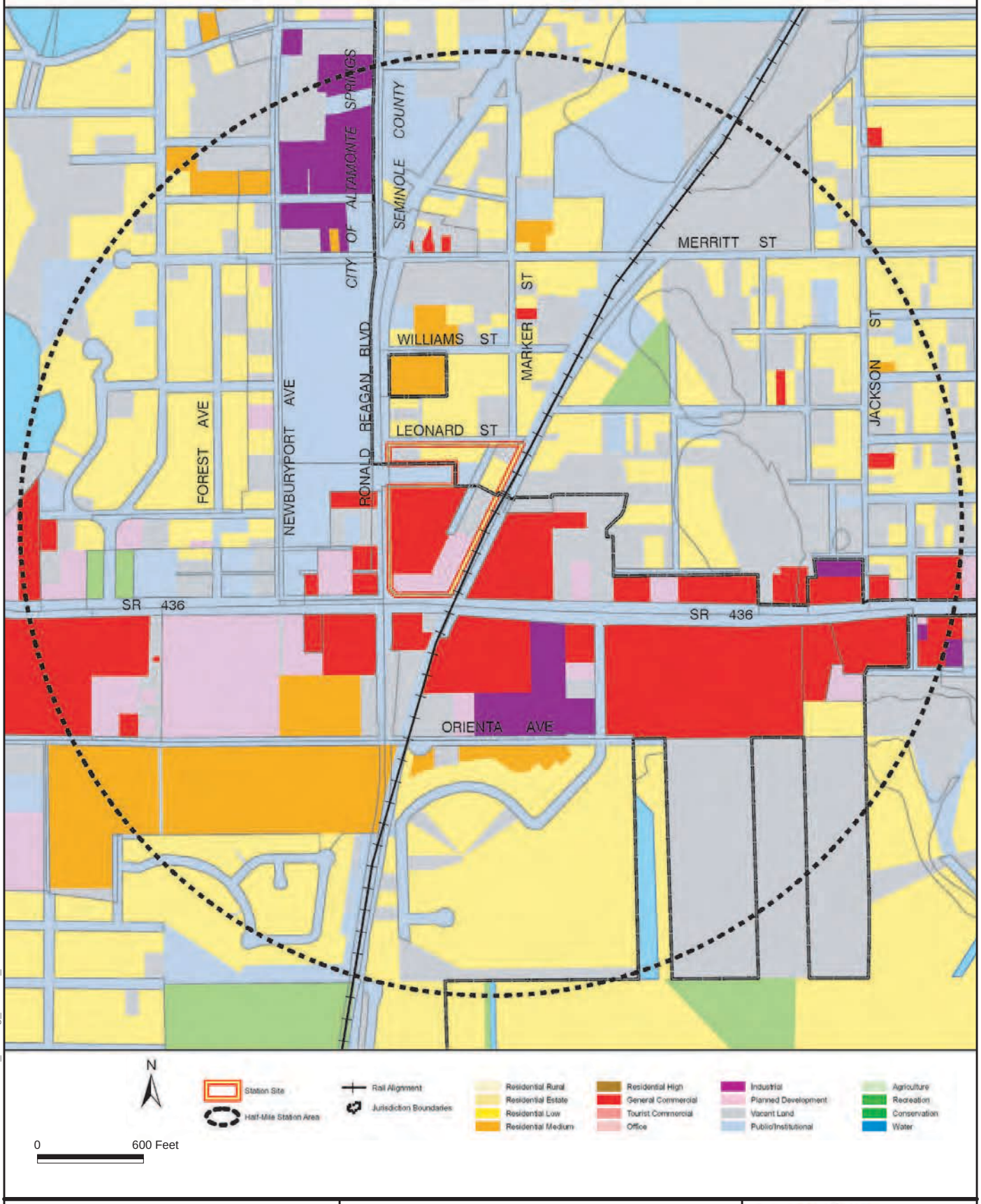


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Seminole County GIS

Figure B-5

Longwood Station
Generalized Existing Land Use

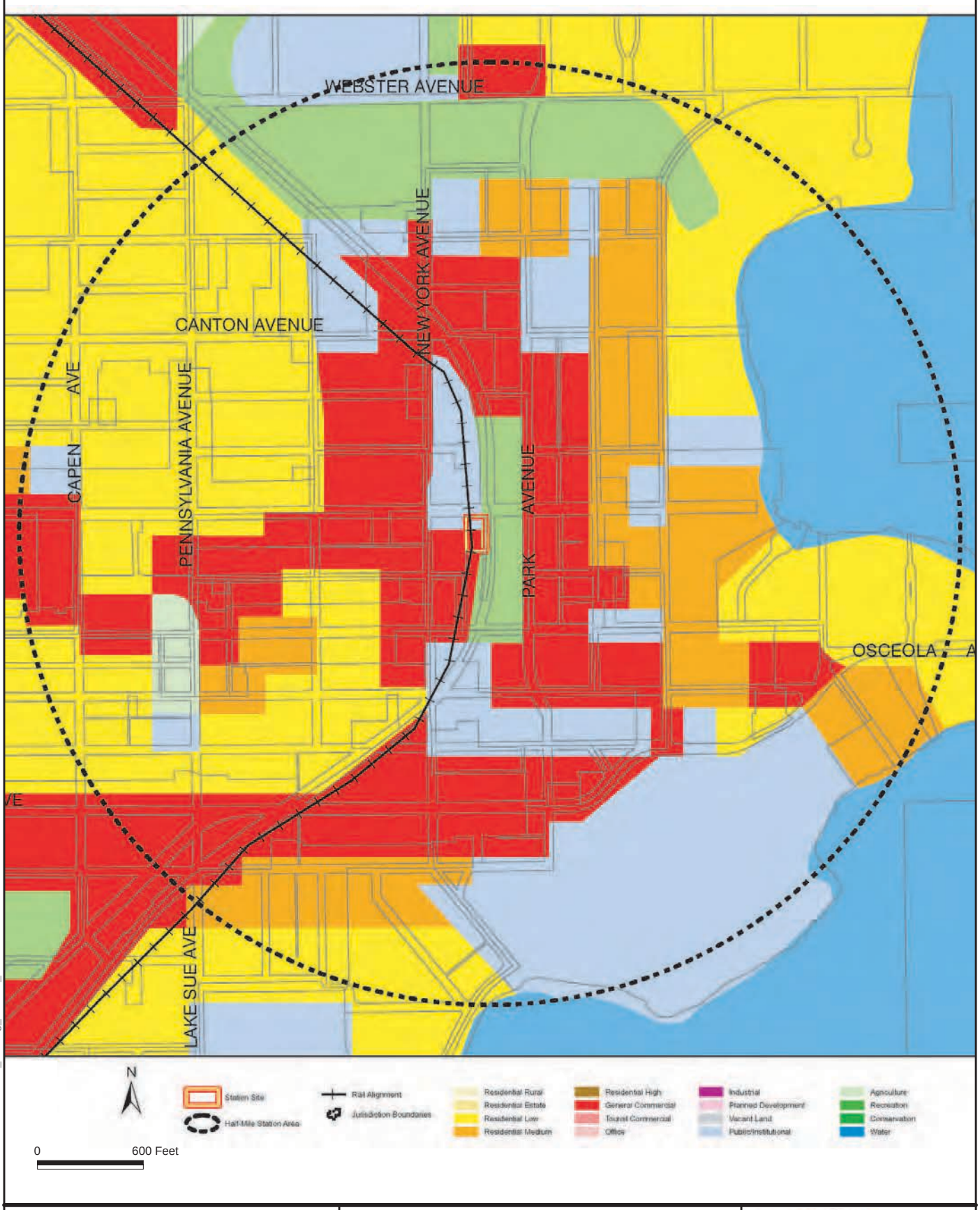


G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Seminole County GIS

Figure B-6

Altamonte Springs Station
Generalized Existing Land Use

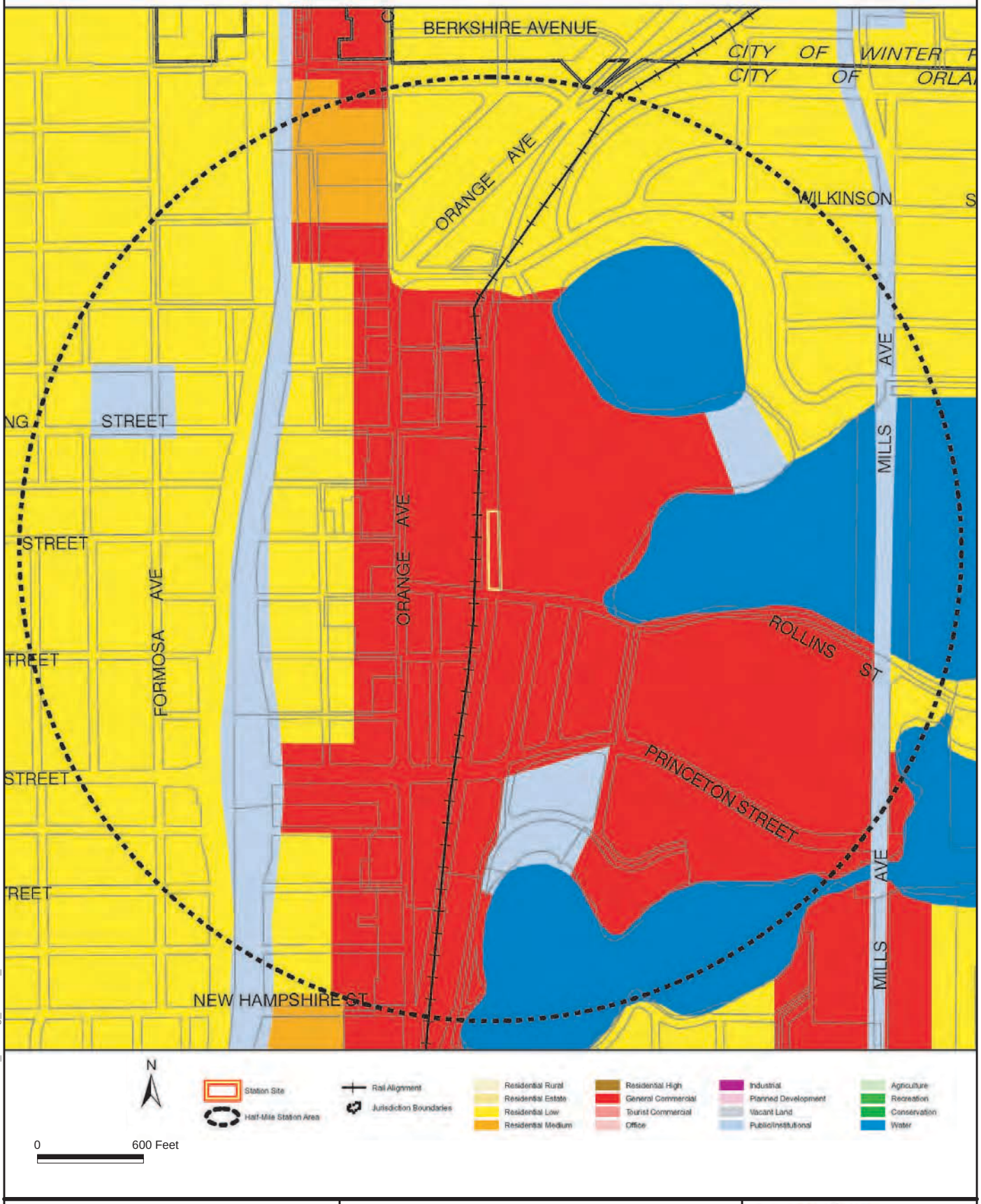


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-7

Winter Park Station
Generalized Existing Land Use



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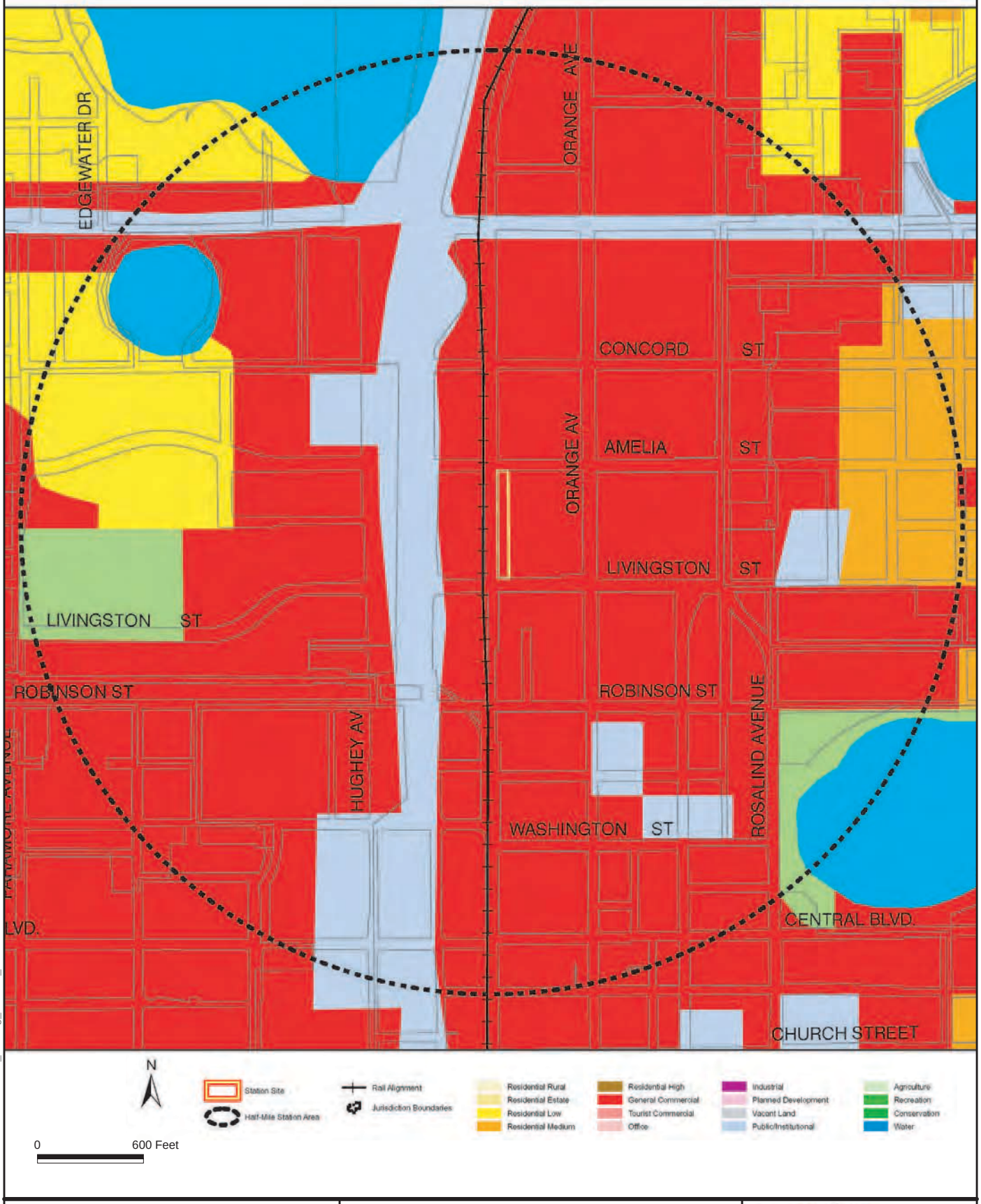
Source: Orange County GIS

Figure B-8

Florida Hospital Station
Generalized Existing Land Use



G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-9

LYNX Central Station
Generalized Existing Land Use

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Source: Orange County GIS

Figure B-10

Church Street Station
Generalized Existing Land Use

G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Orange County GIS

Figure B-11

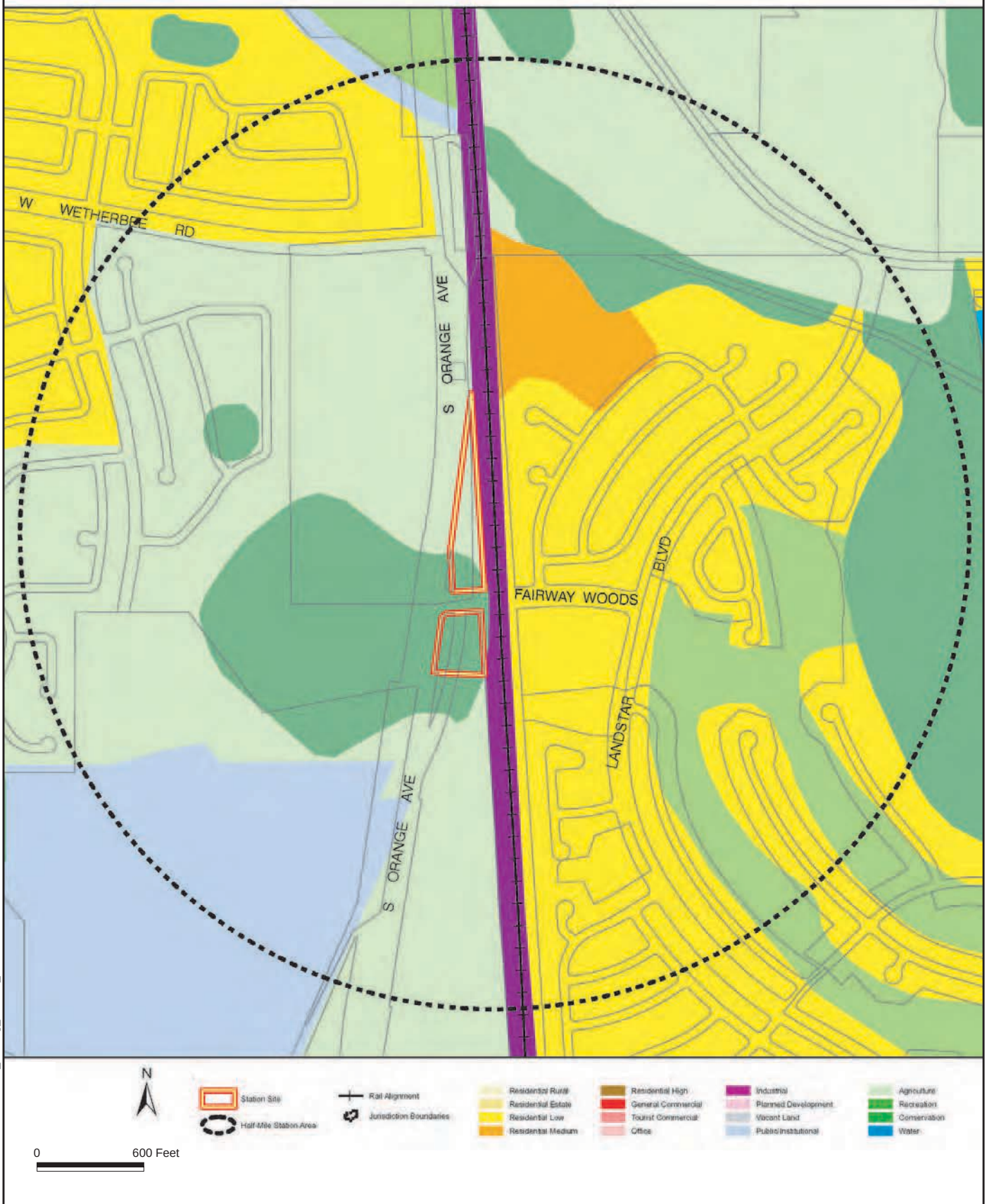
Orlando Amtrak/ORMC Station
Generalized Existing Land Use

G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-12

Sand Lake Road Station
Generalized Existing Land Use

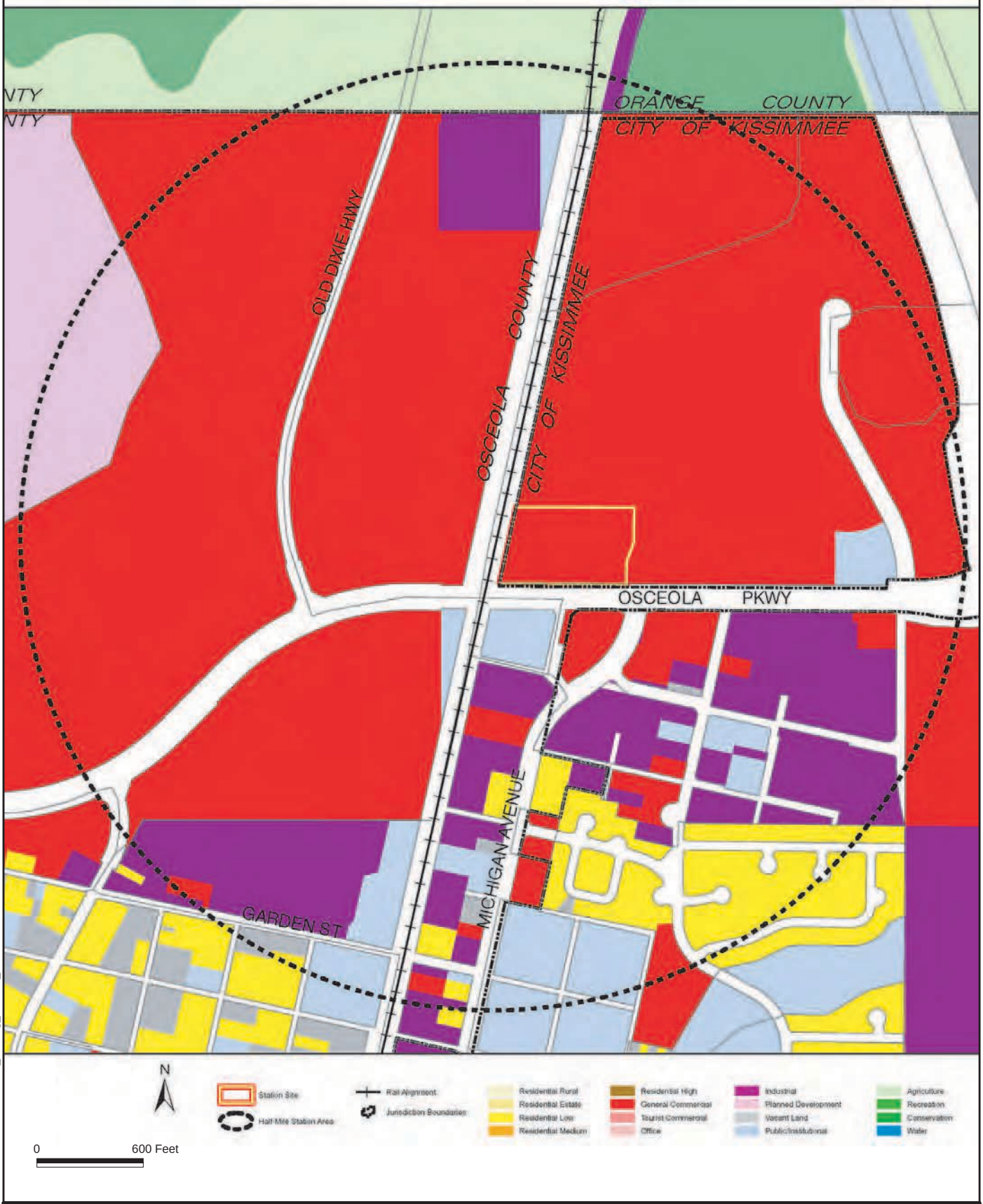


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-13

Meadow Woods Station
Generalized Existing Land Use



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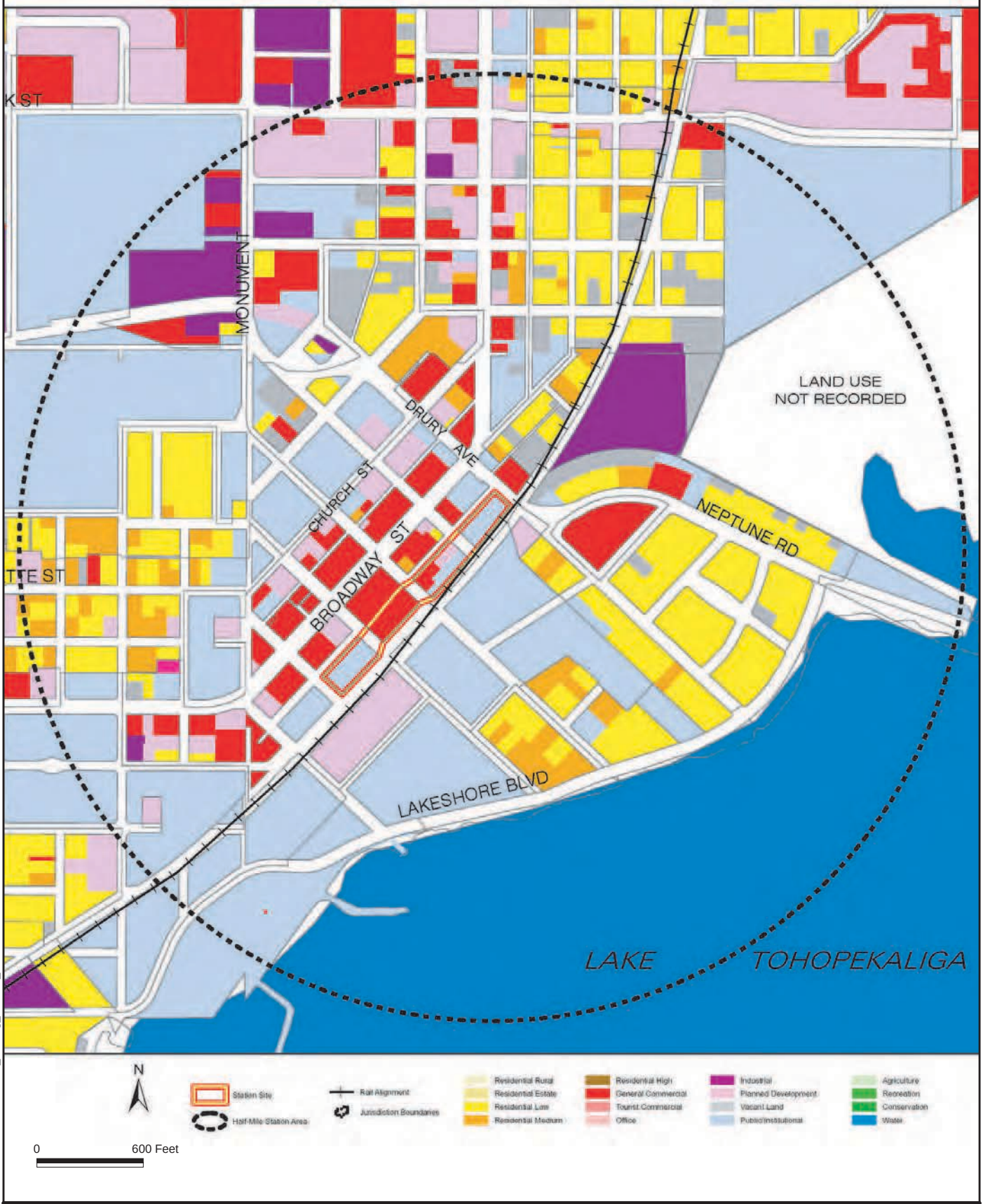
Source: Orange County GIS, Osceola County Property Appraiser

Figure B-14

Osceola Parkway Station
Generalized Existing Land Use



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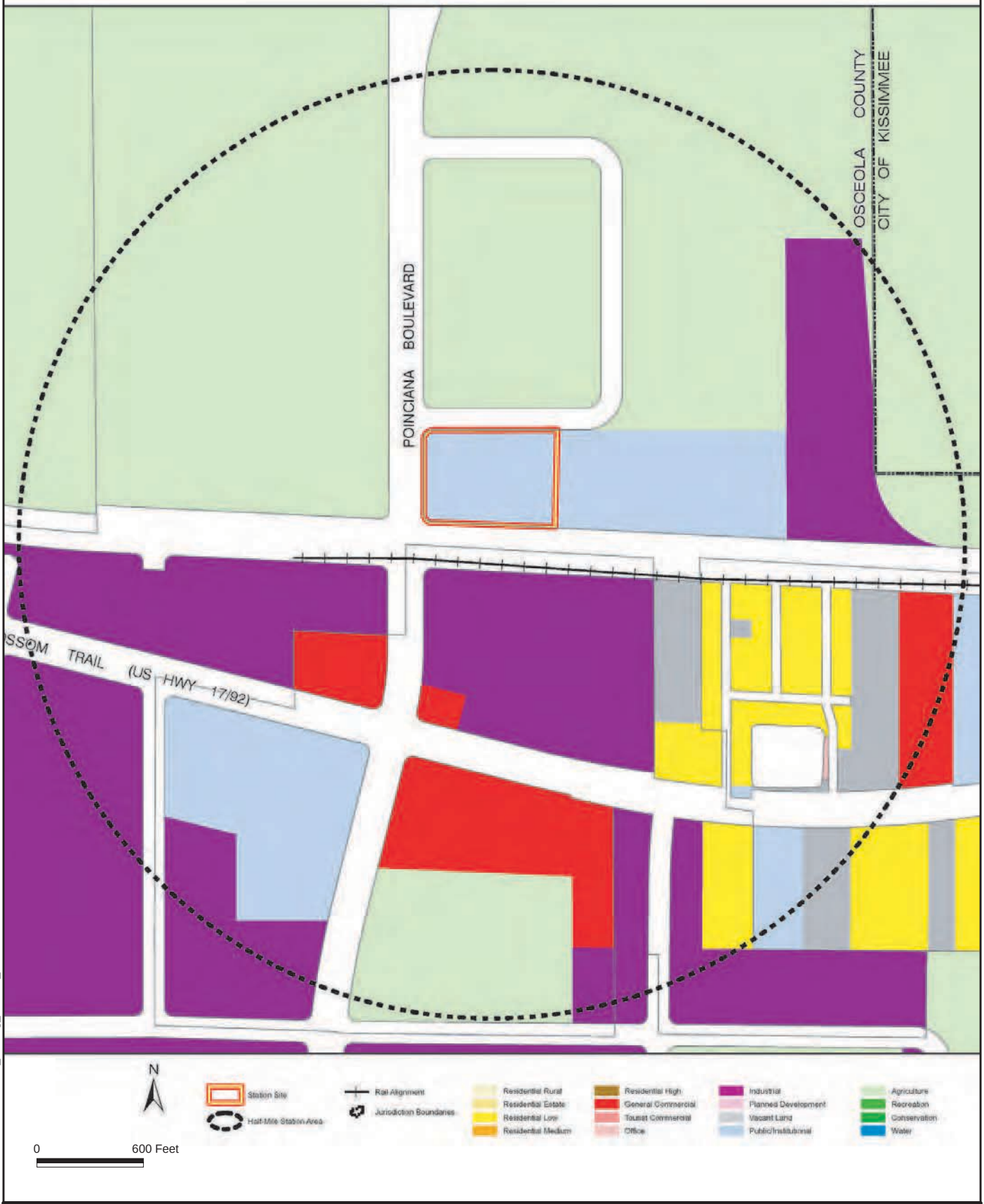
Source: Osceola County Property Appraiser

Figure B-15

Kissimmee Station
Generalized Existing Land Use

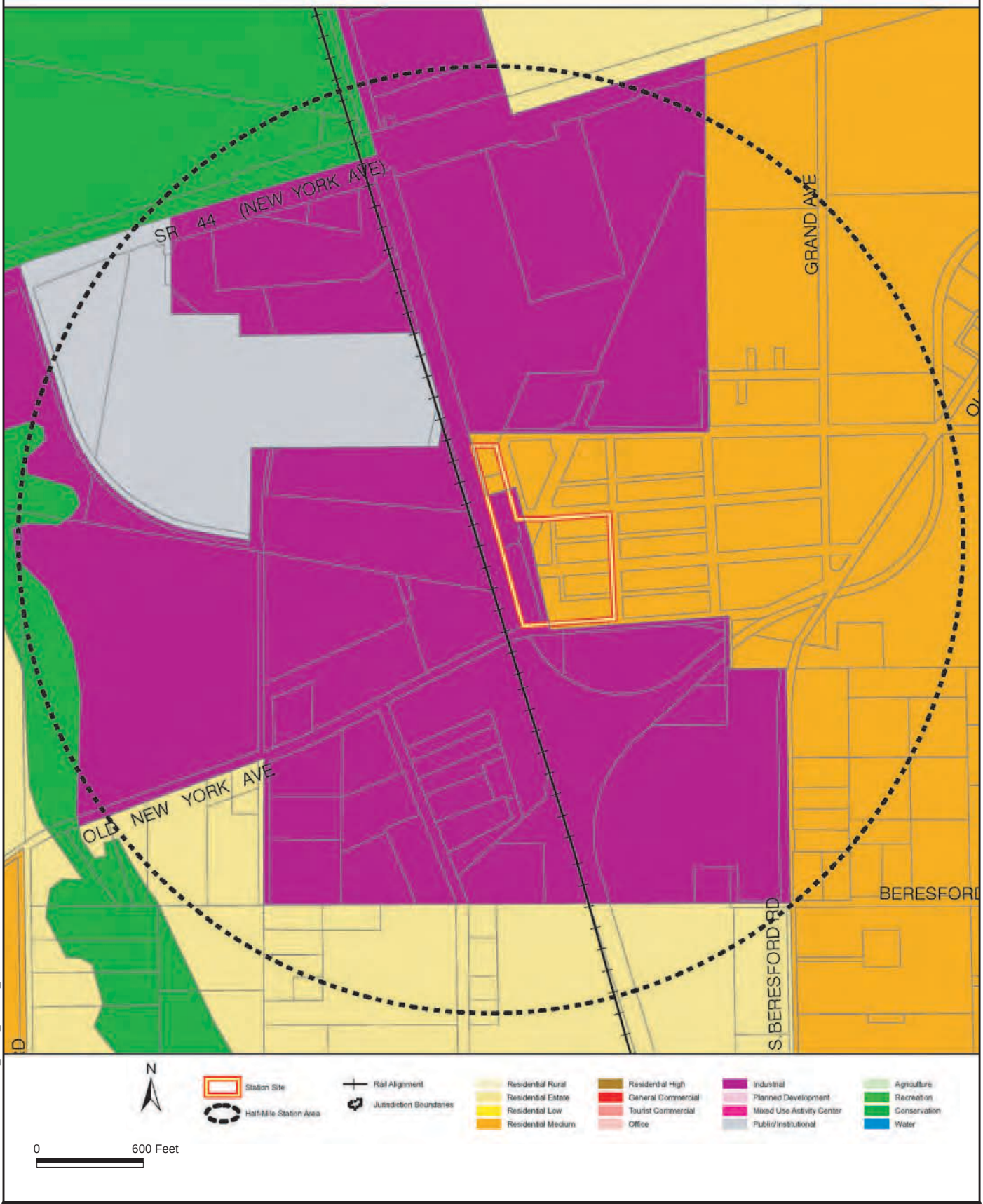


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Osceola County Property Appraiser

Figure B-16

Poinciana Boulevard Station Generalized Existing Land Use

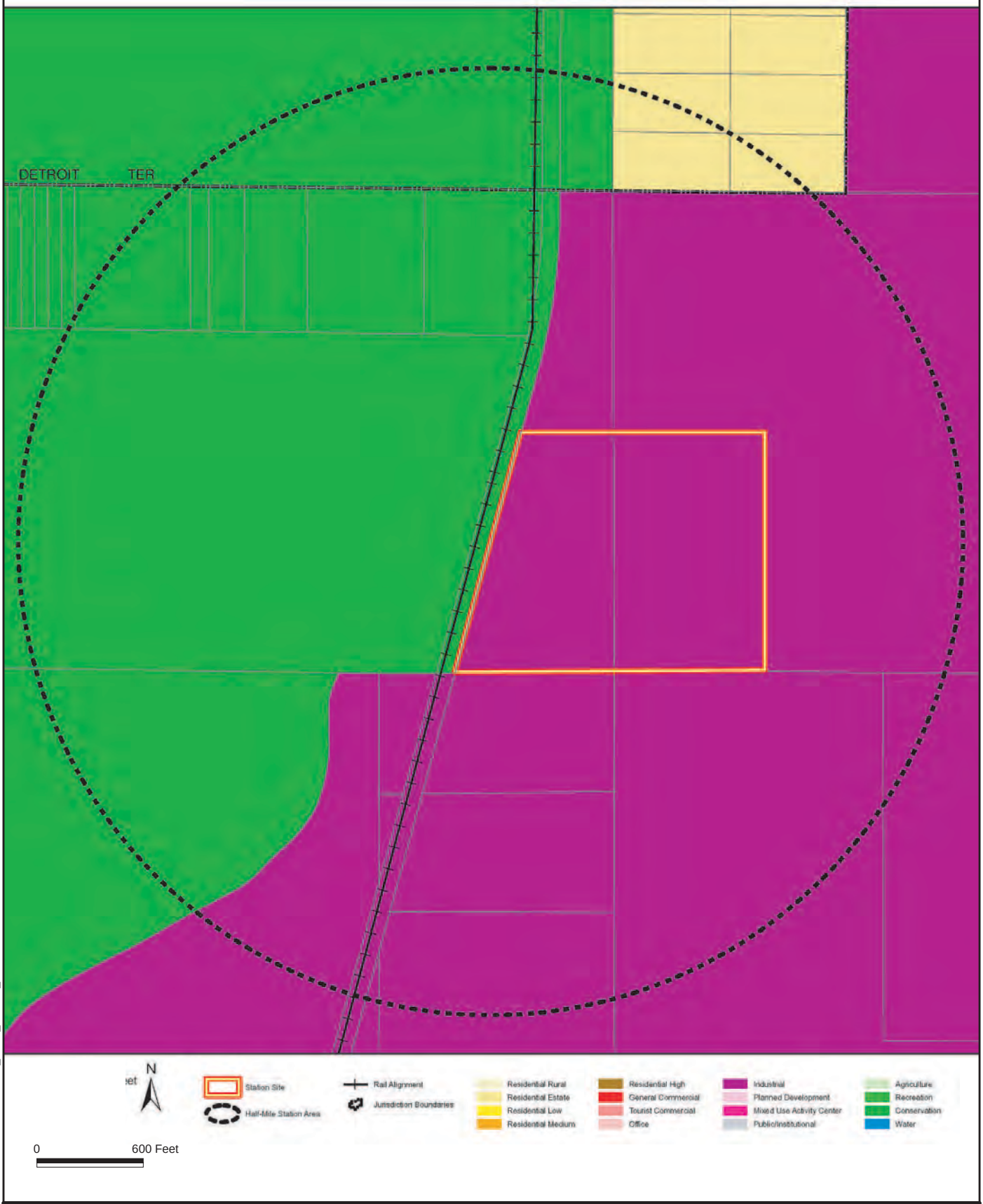


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-17

DeLand Amtrak Station
Generalized Future Land Use

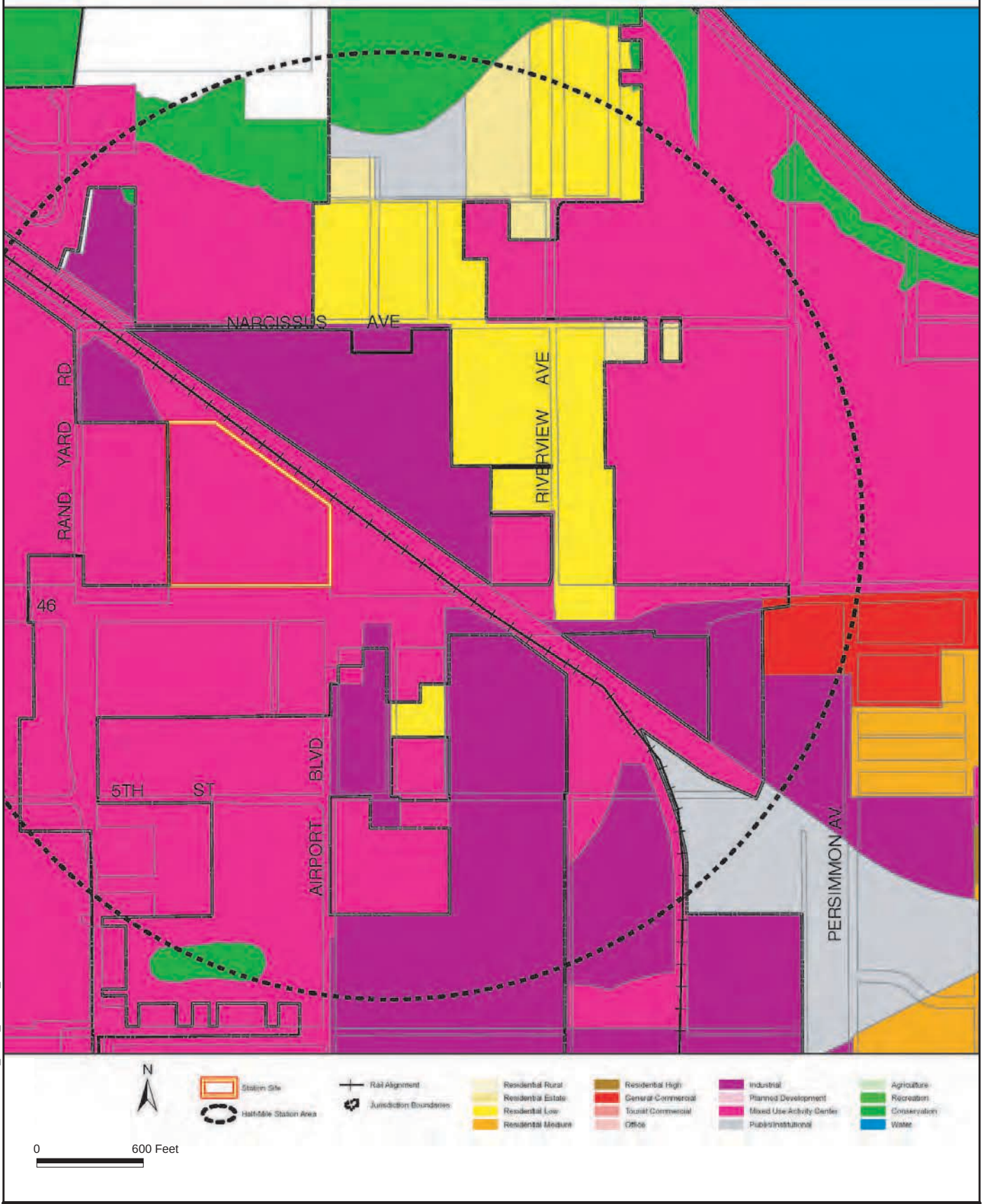


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-18

DeBary Saxon Boulevard Station Generalized Future Land Use



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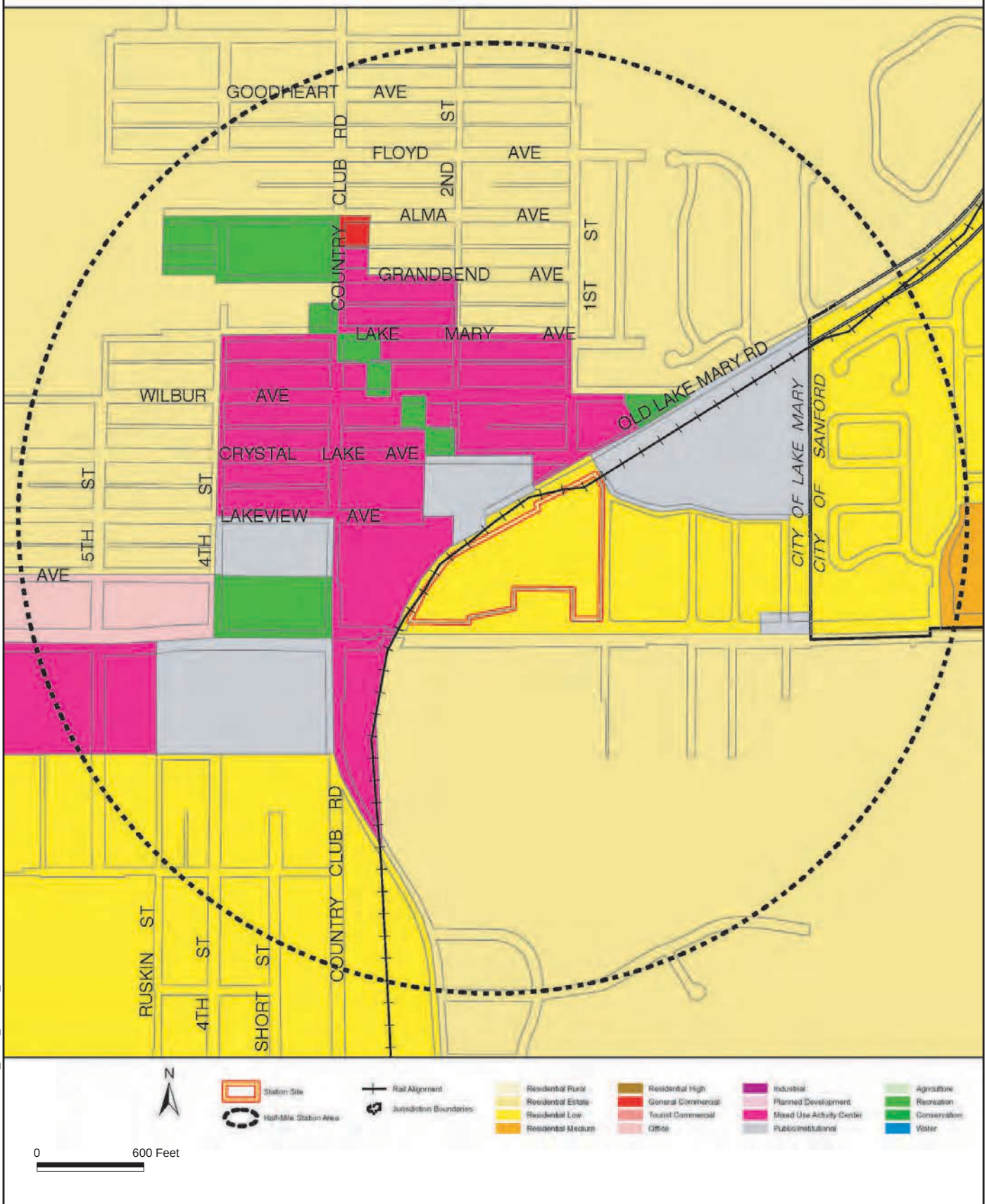
Source: East Central Florida Regional Planning Council

Figure B-19

Sanford Station
Generalized Future Land Use

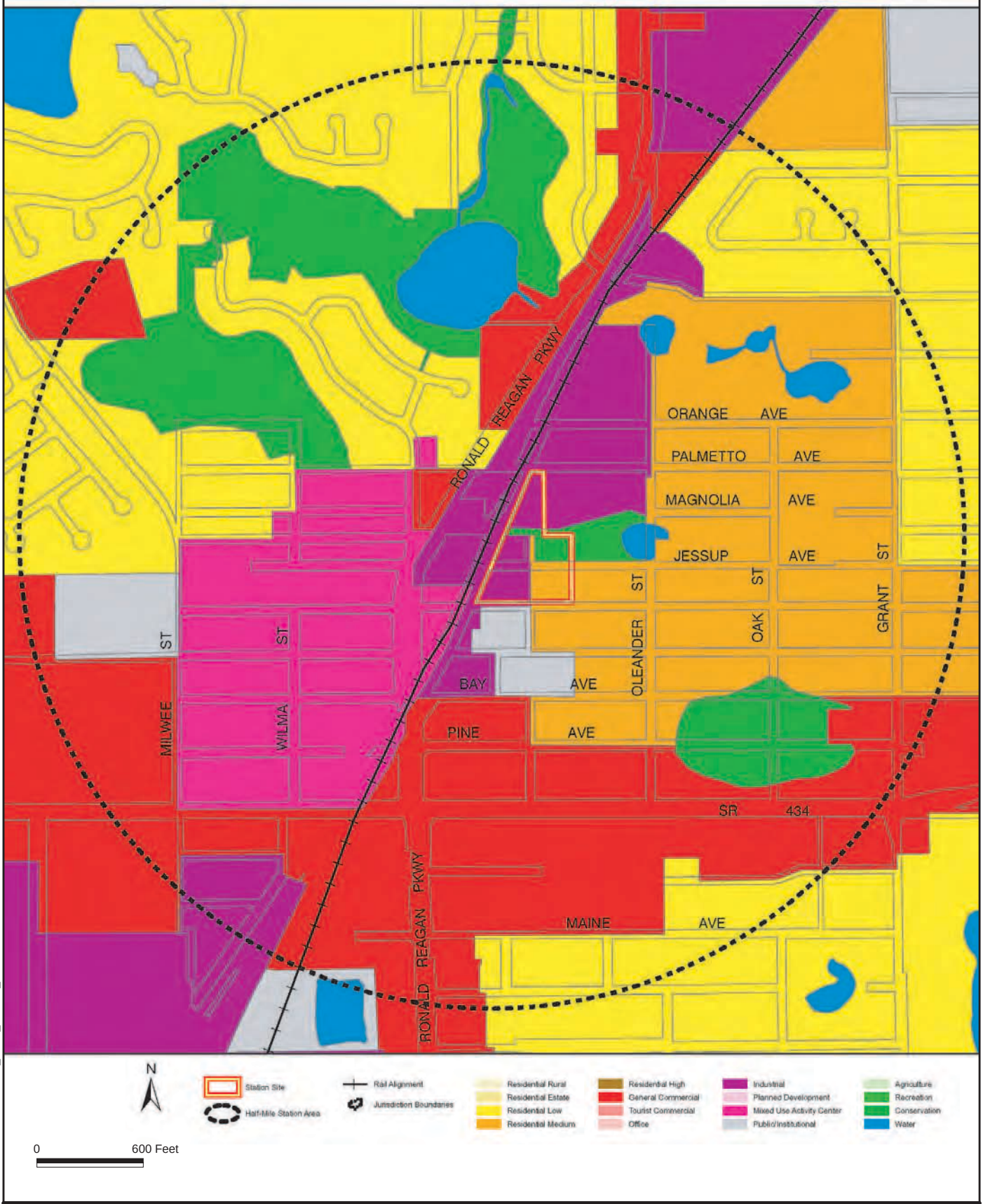


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-20

Lake Mary Station
Generalized Future Land Use

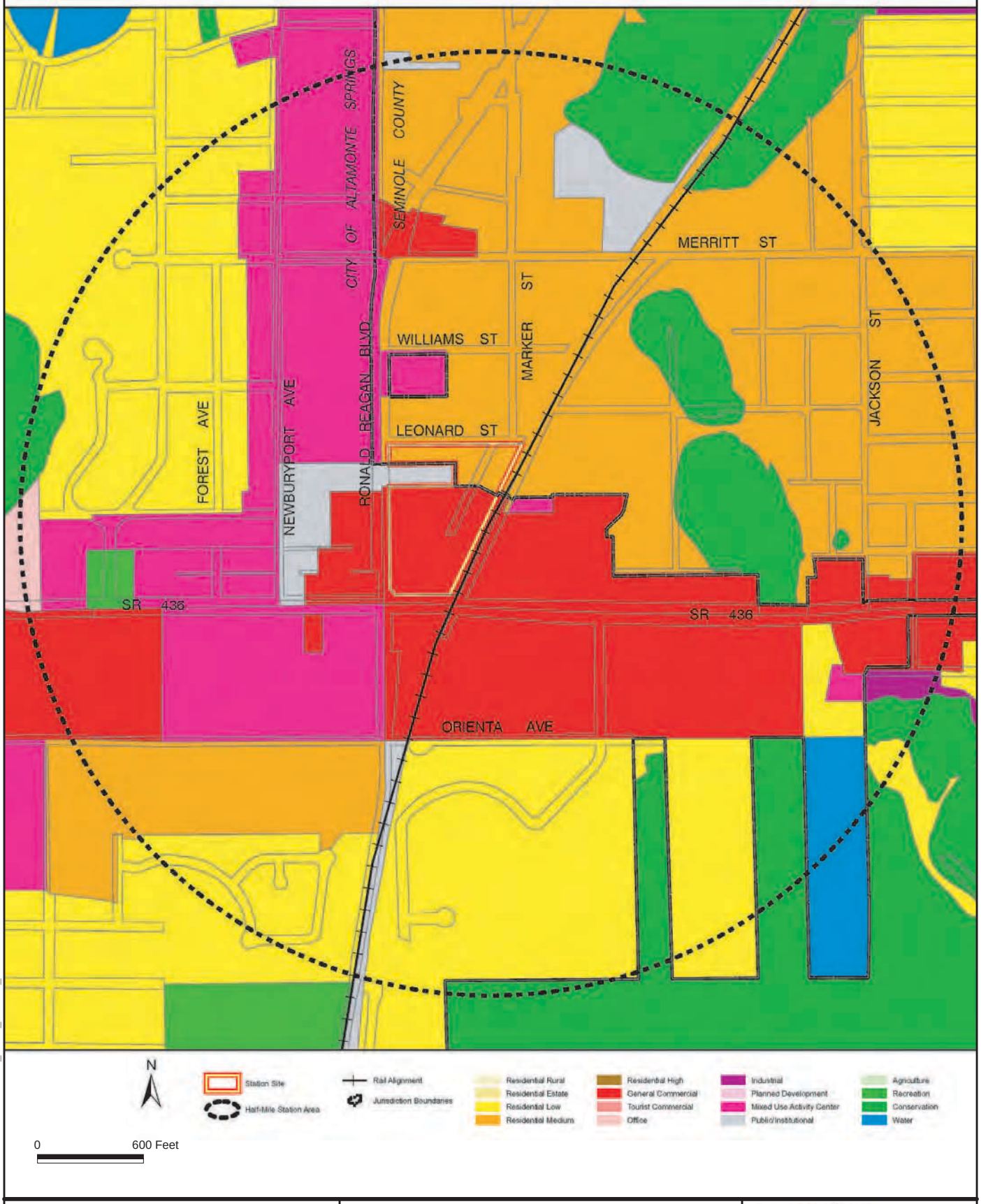


G:\18713 Commuter Rail\zz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-21

Longwood Station
Generalized Future Land Use

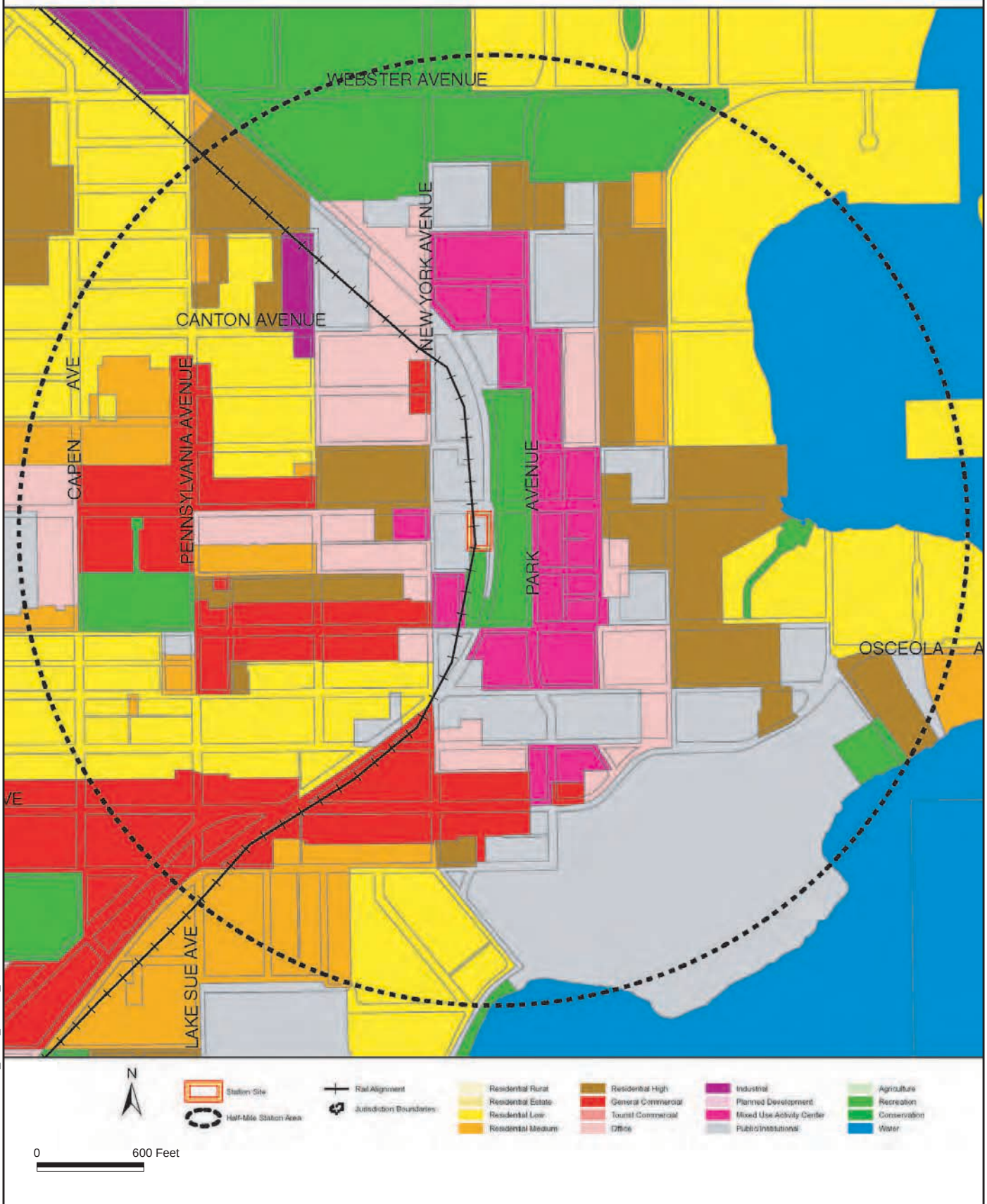


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-22

Altamonte Springs Station Generalized Future Land Use

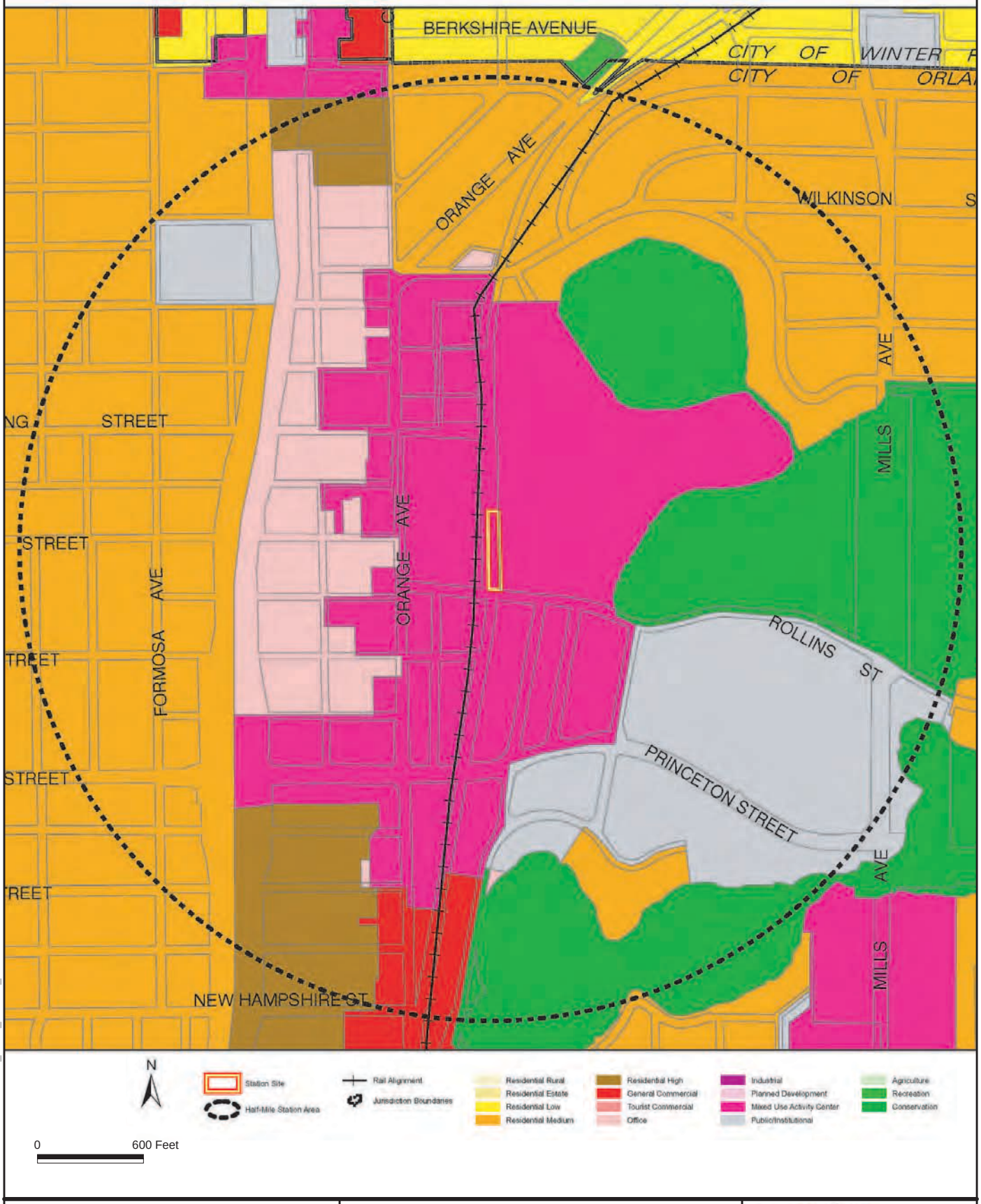


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-23

Winter Park Station
Generalized Future Land Use

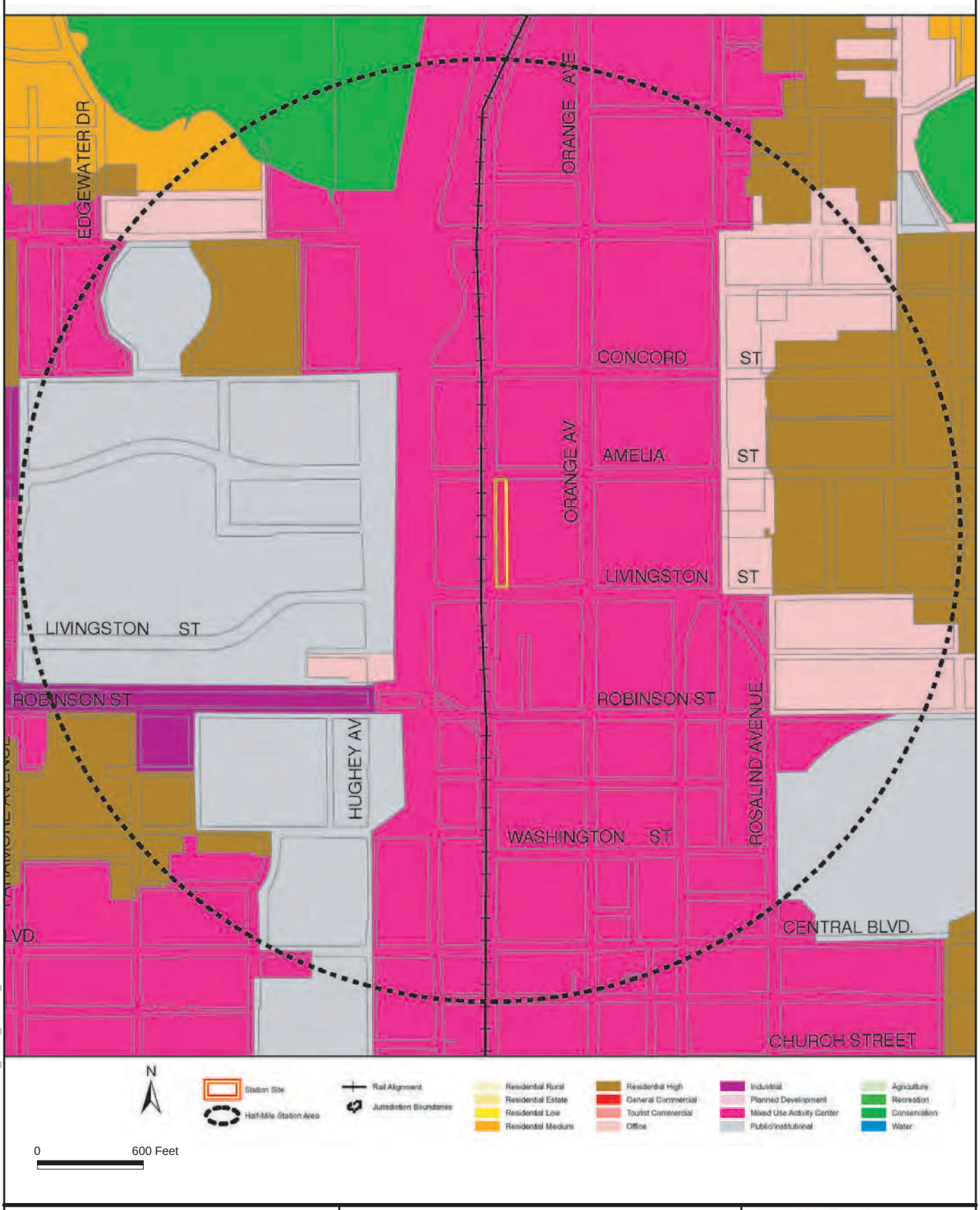


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-24

Florida Hospital Station
Generalized Future Land Use



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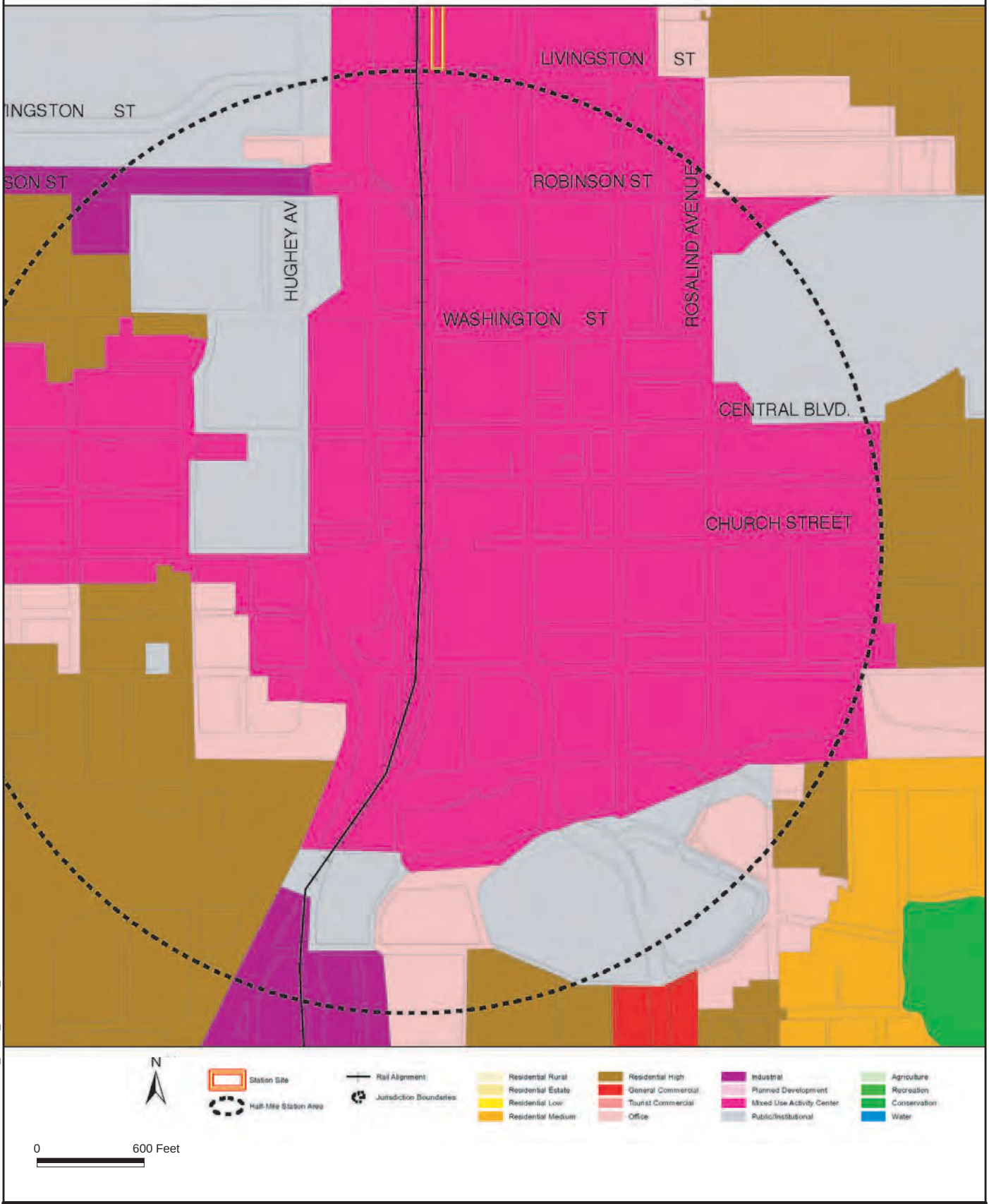
Source: East Central Florida Regional Planning Council

Figure B-25

LYNX Central Station Generalized Future Land Use

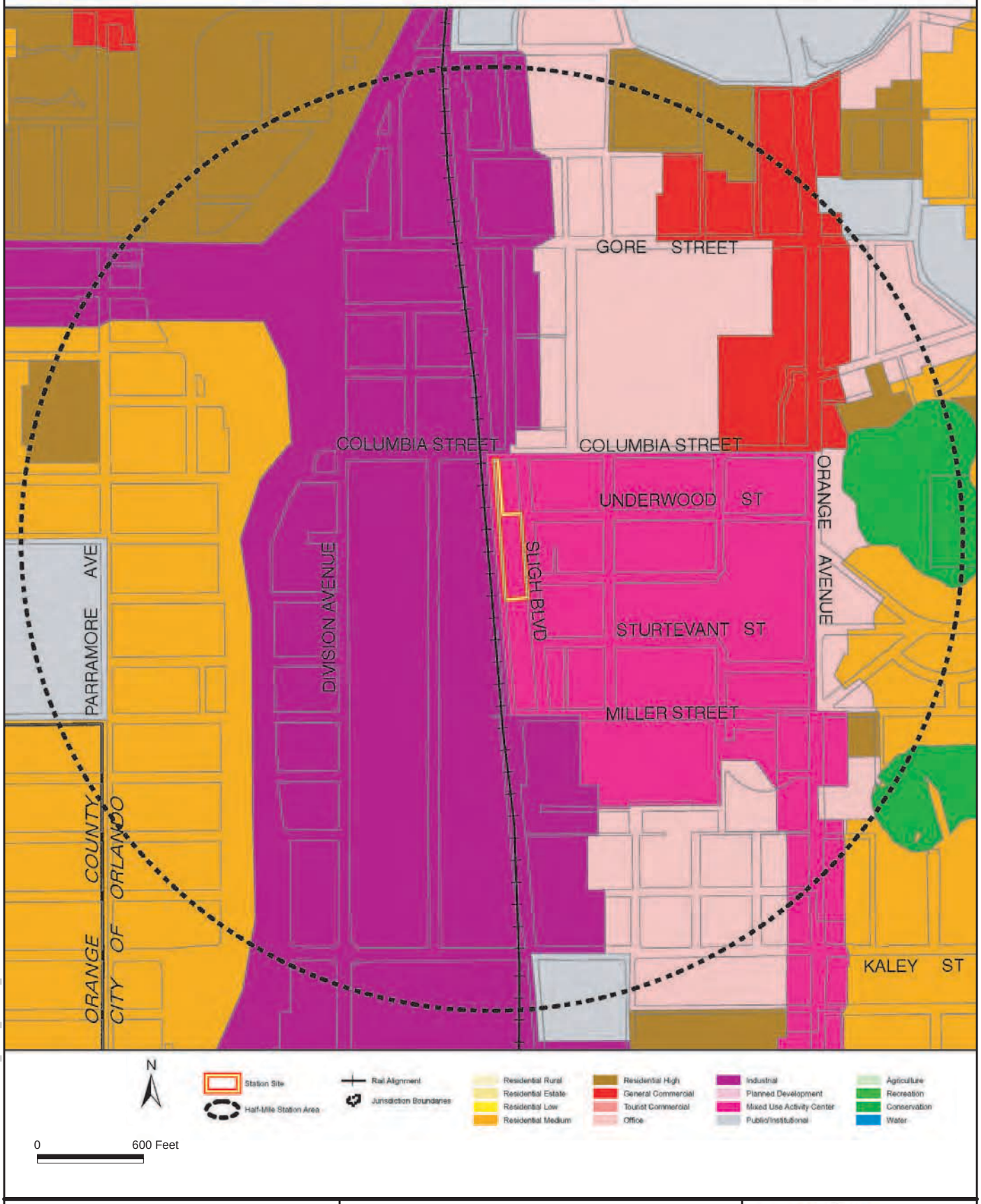


G:\18713 Commuter Rail\zz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-26

Church Street Station
Generalized Future Land Use



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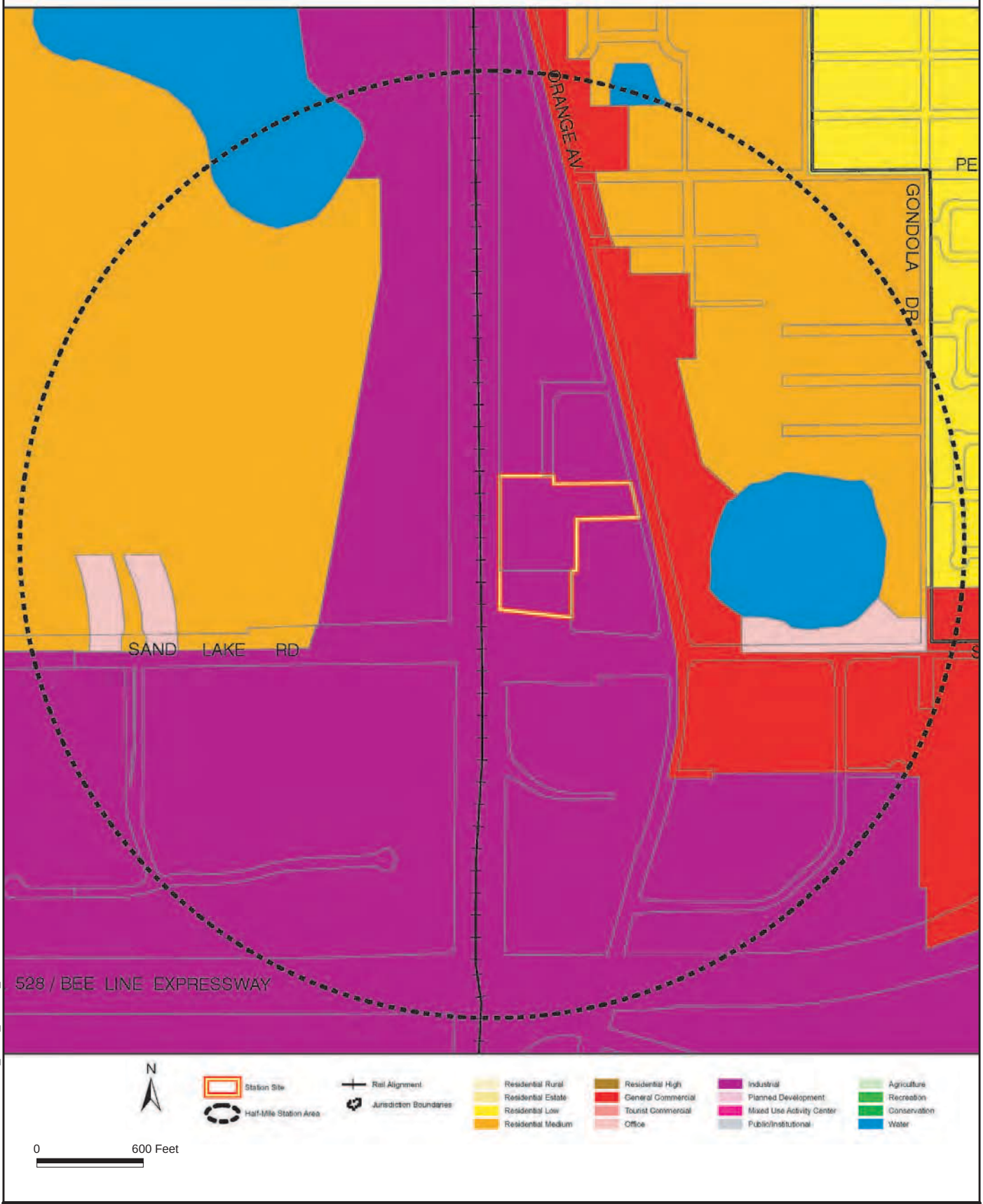
Source: East Central Florida Regional Planning Council

Figure B-27

Orlando Amtrak/ORMC Station Generalized Future Land Use

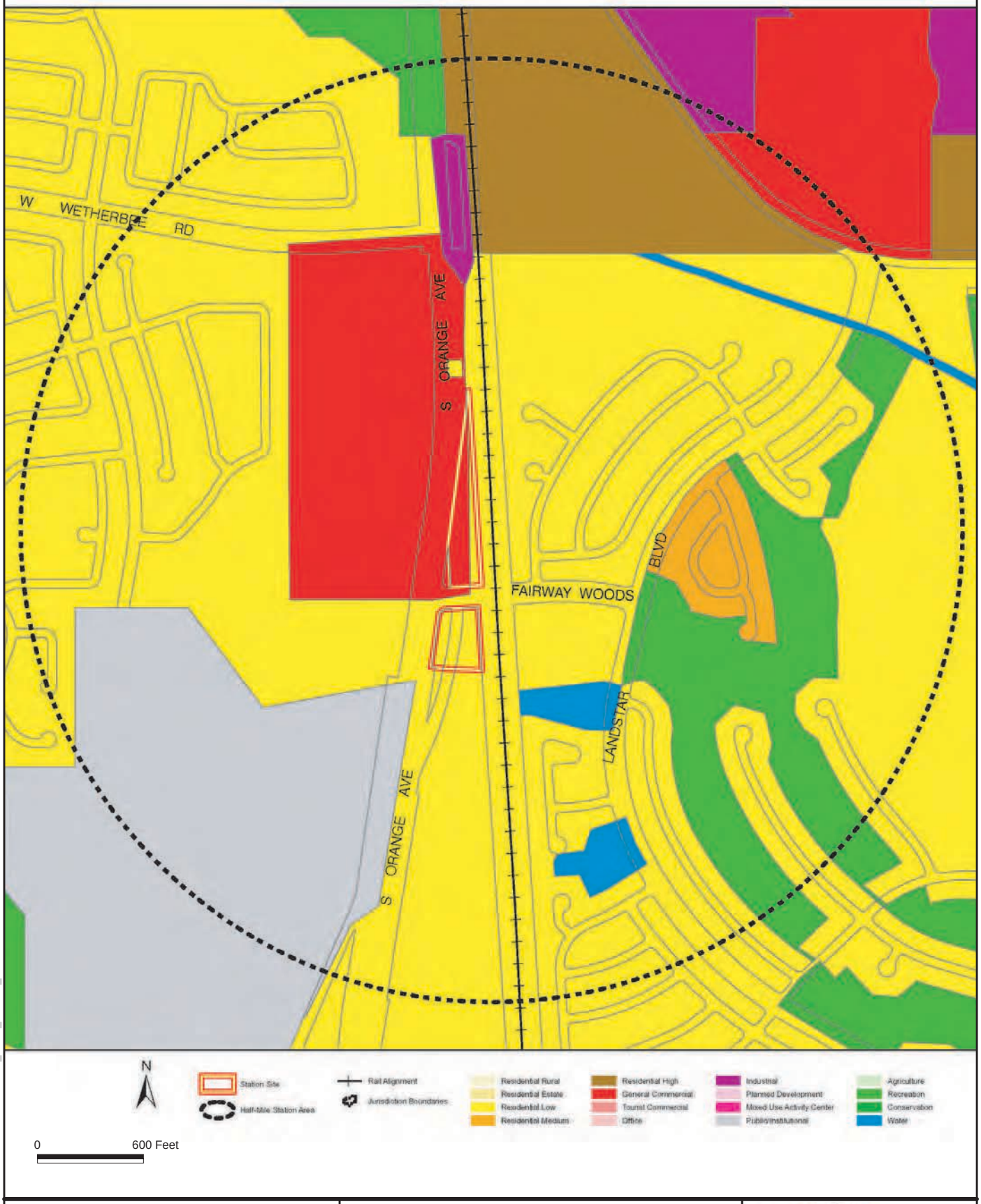


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-28

Sand Lake Road Station Generalized Future Land Use



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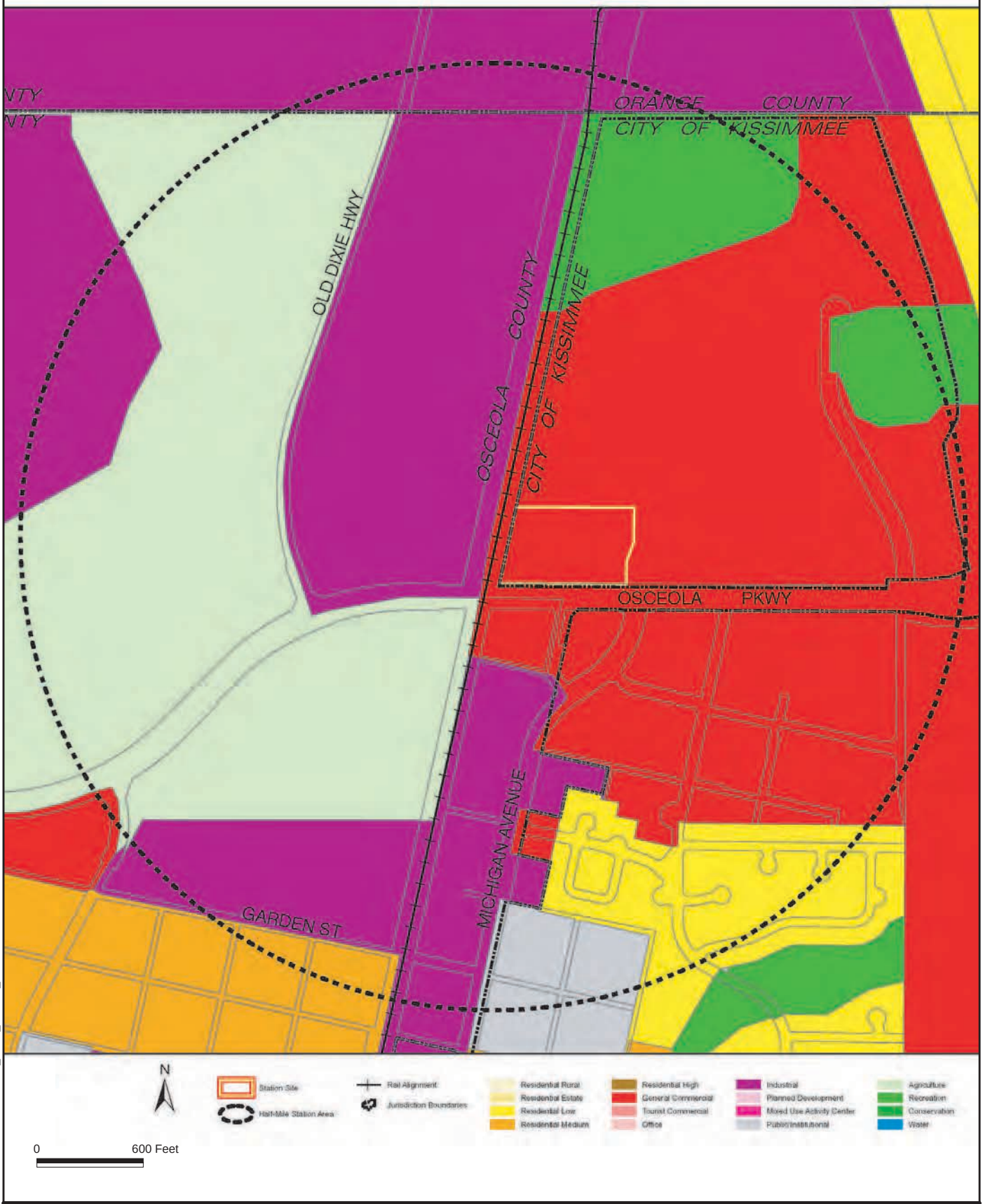
Source: East Central Florida Regional Planning Council

Figure B-29

Meadow Woods Station Generalized Future Land Use



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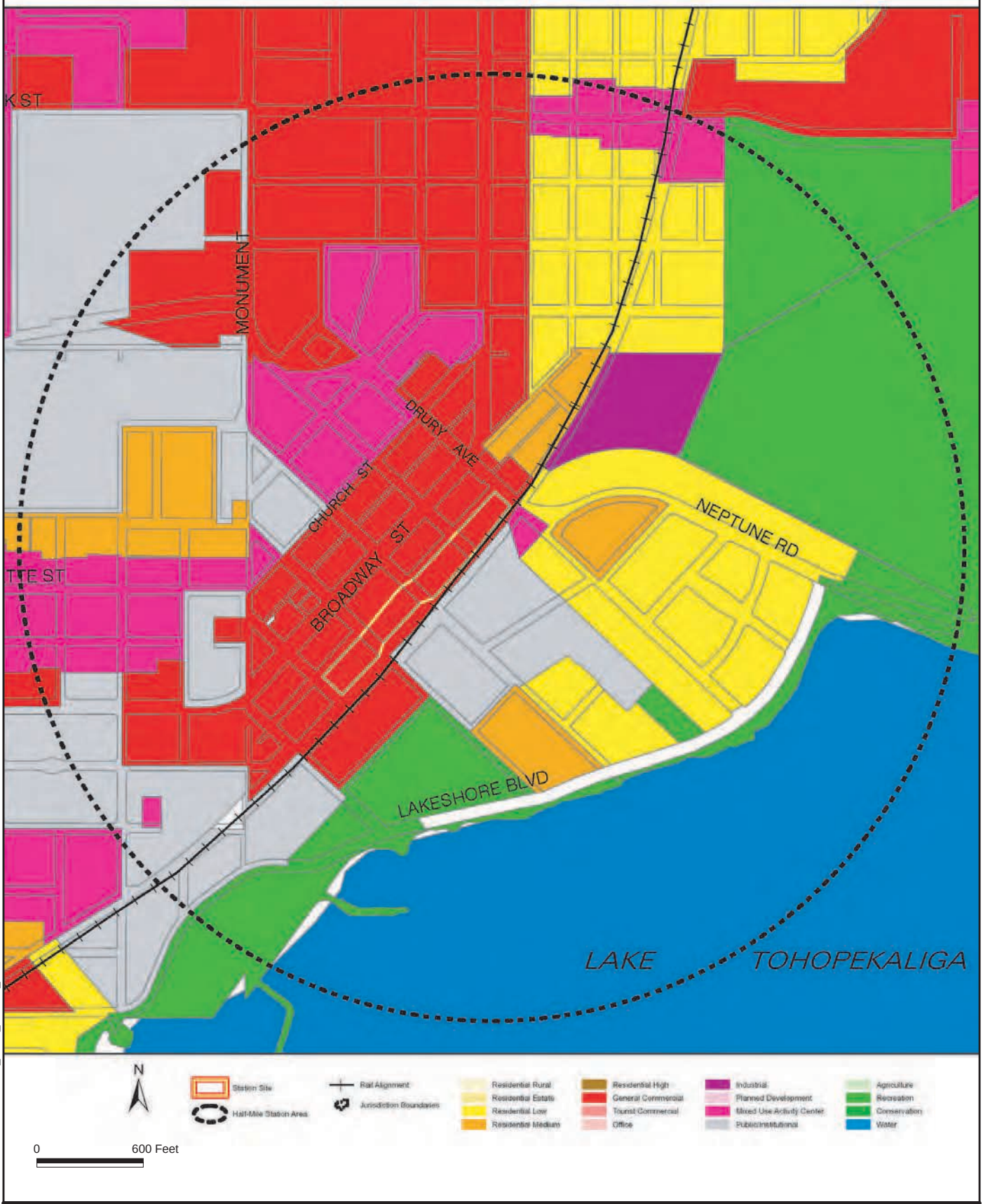
Source: East Central Florida Regional Planning Council

Figure B-30

Osceola Parkway Station Generalized Future Land Use

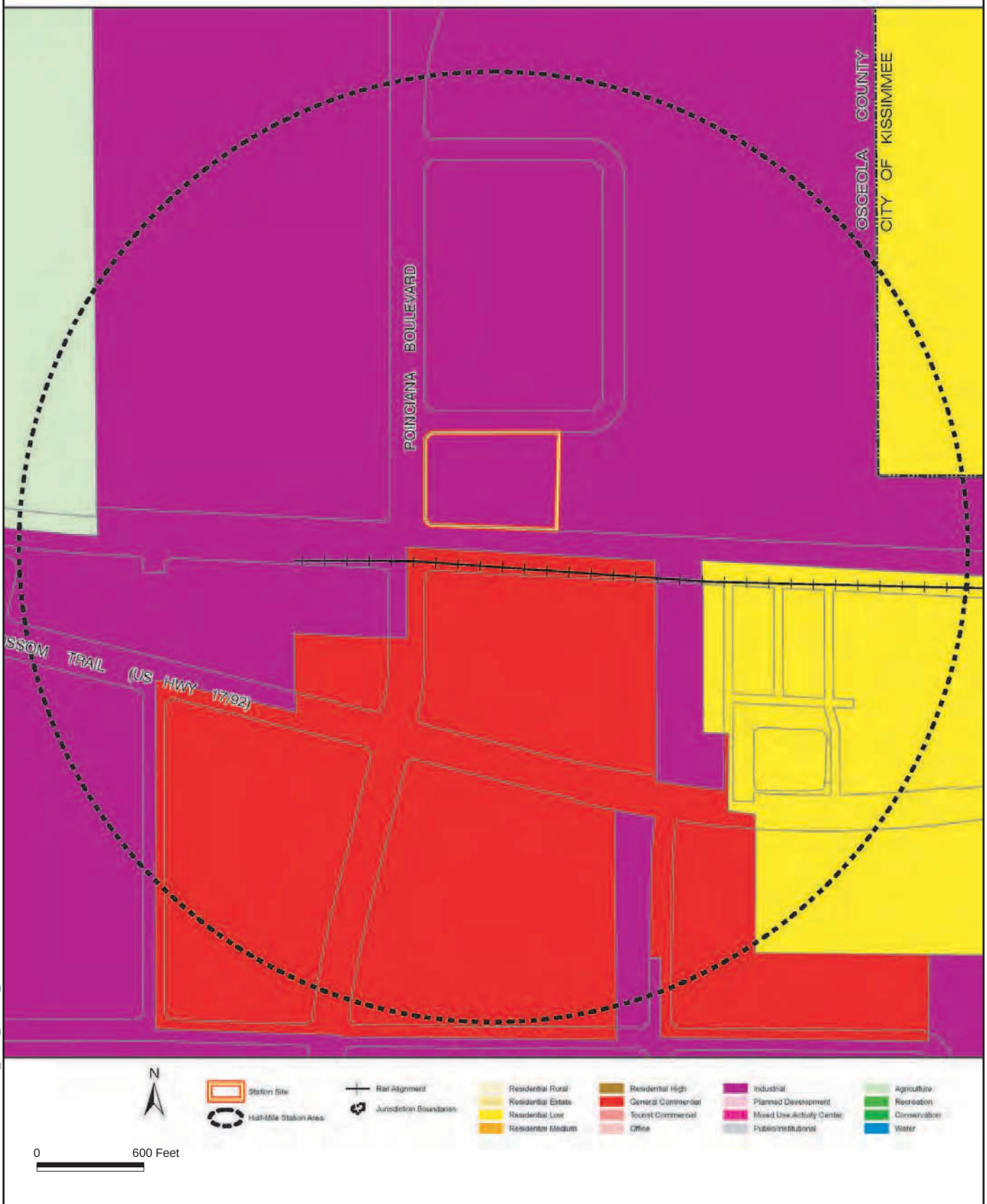


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-31

Kissimmee Station
Generalized Future Land Use

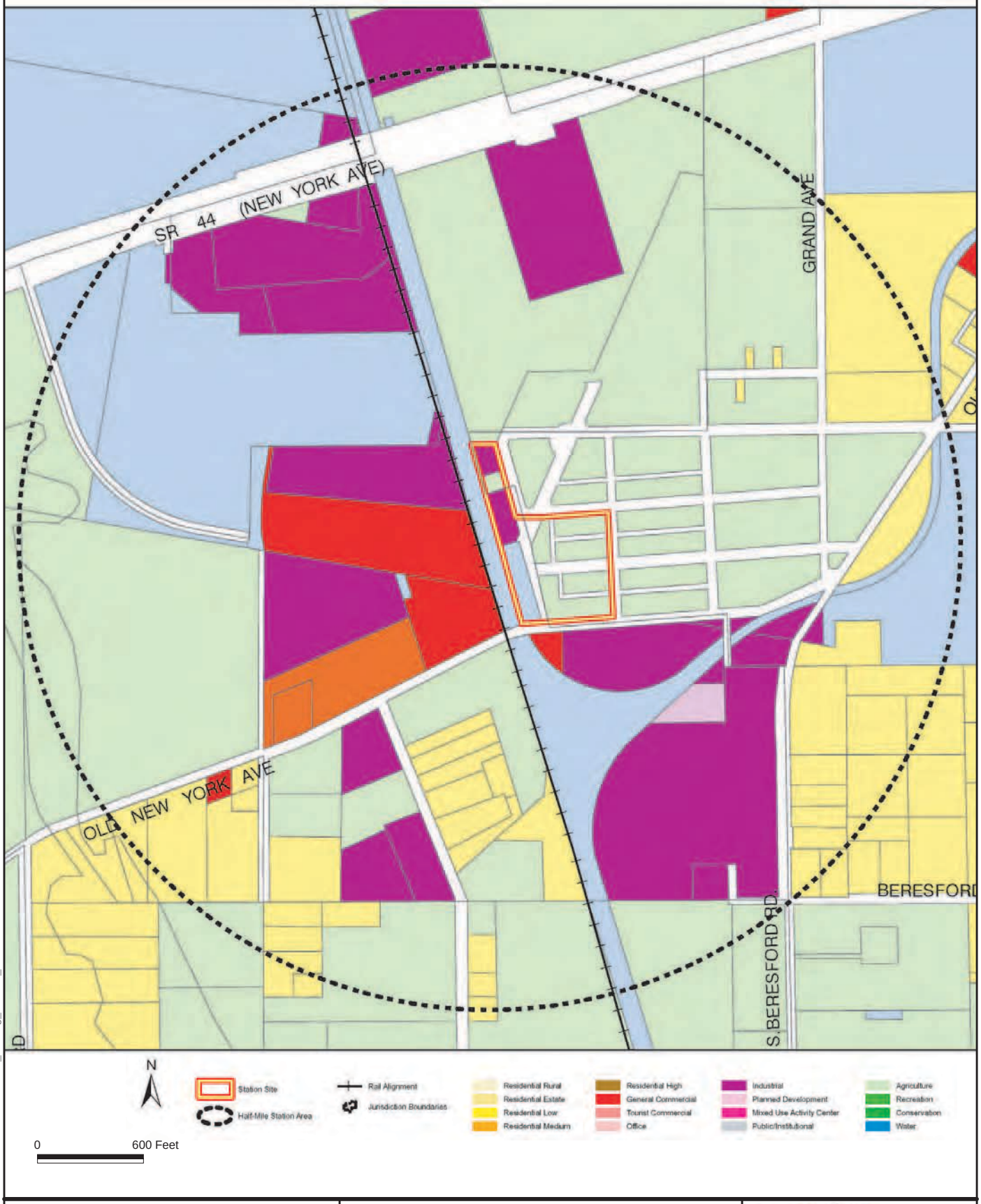


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-32

Poinciana Boulevard Station Generalized Future Land Use

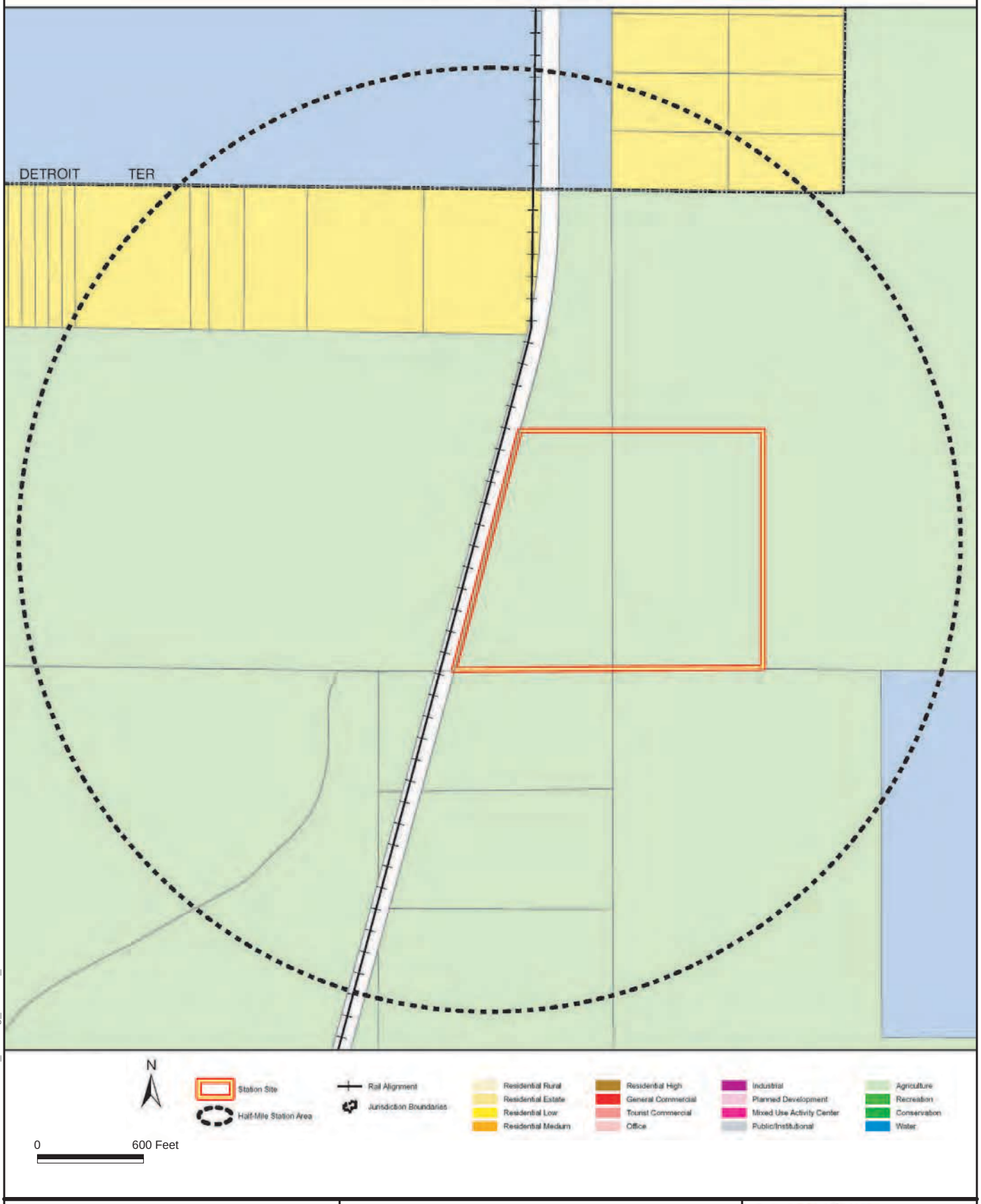


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Volusia County Property Appraiser

Figure B-1

DeLand Amtrak Station
Generalized Existing Land Use

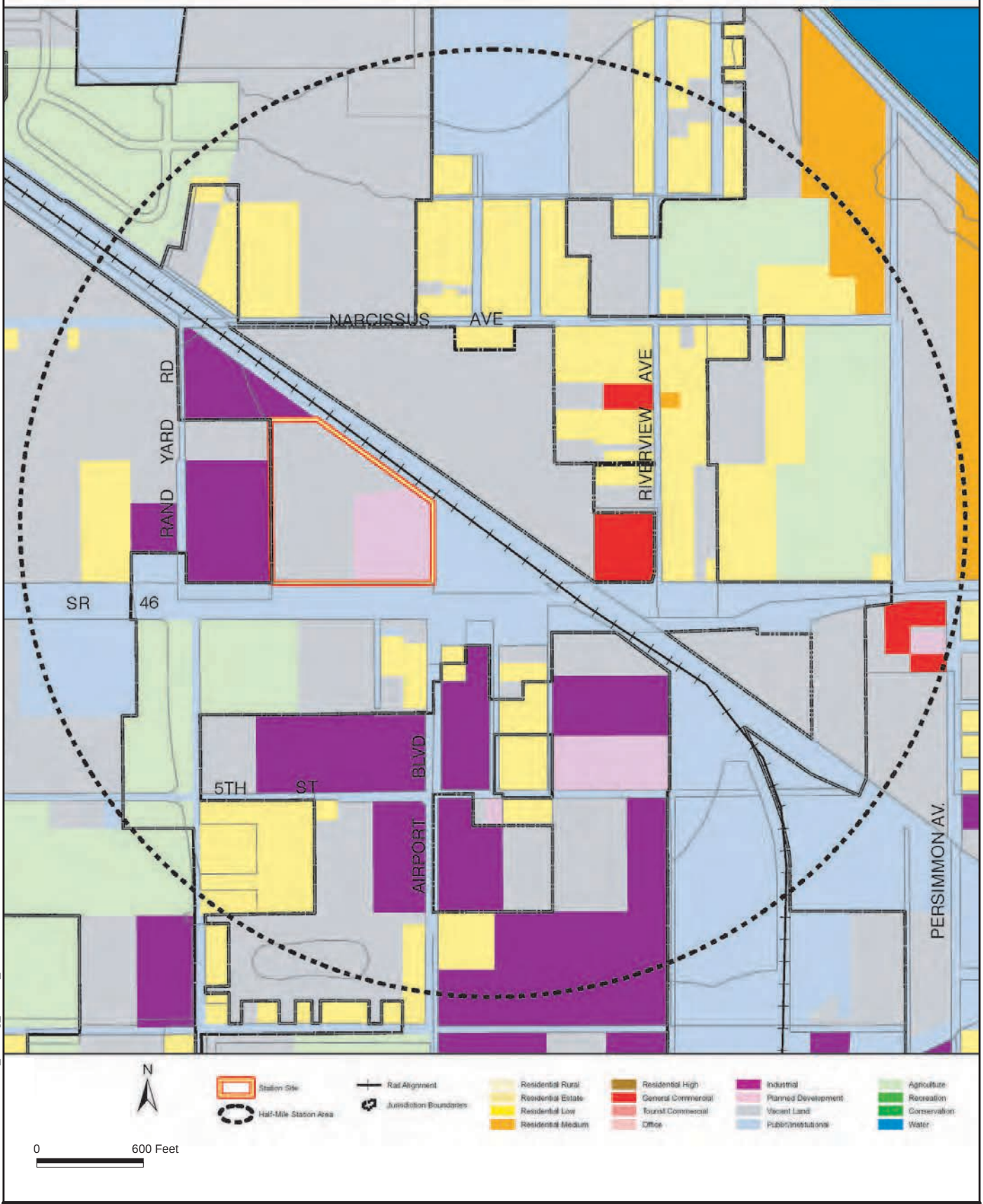


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Volusia County Property Appraiser

Figure B-2

DeBary Saxon Boulevard Station
Generalized Existing Land Use

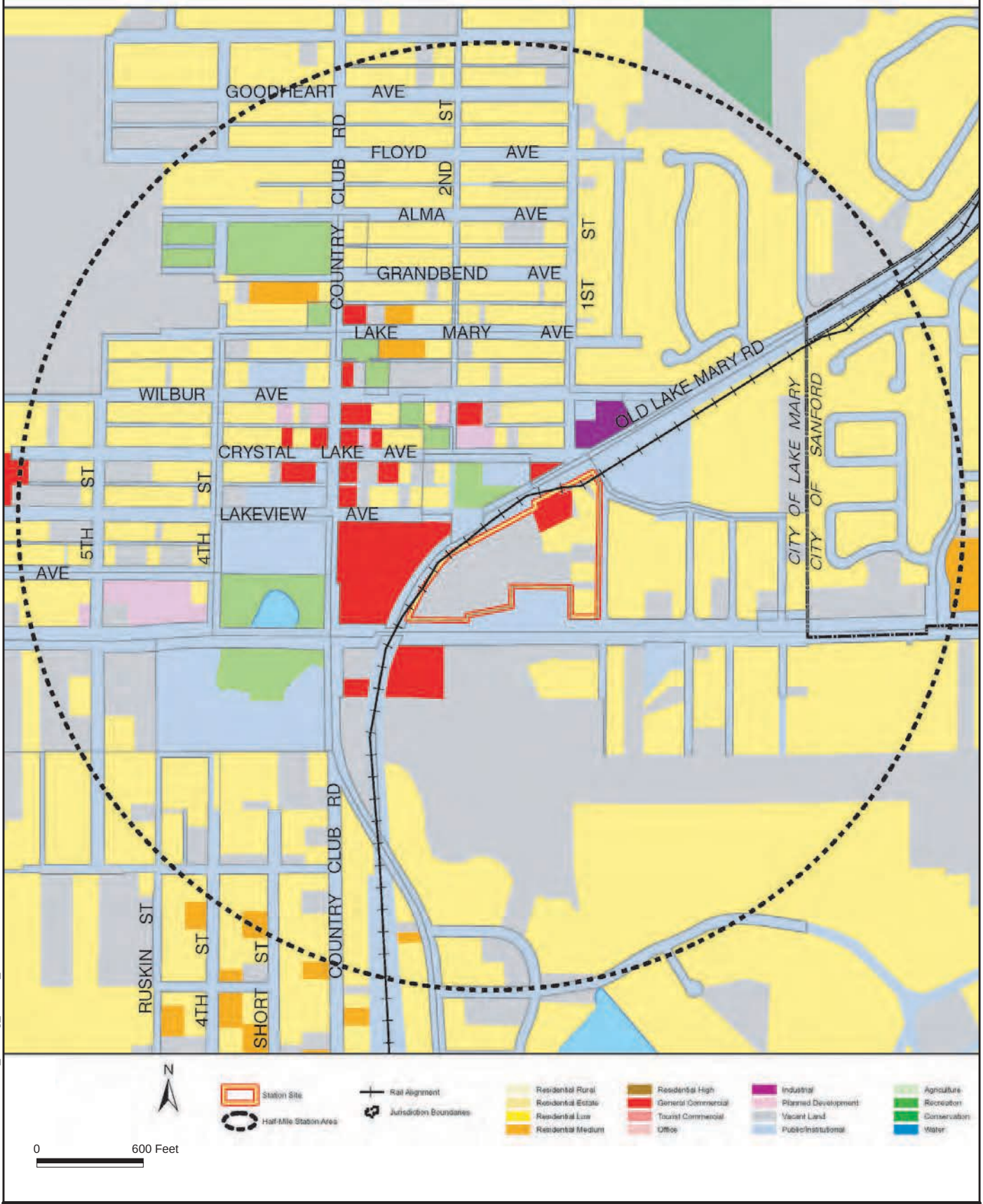


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Seminole County GIS

Figure B-3

Sanford Station
Generalized Existing Land Use

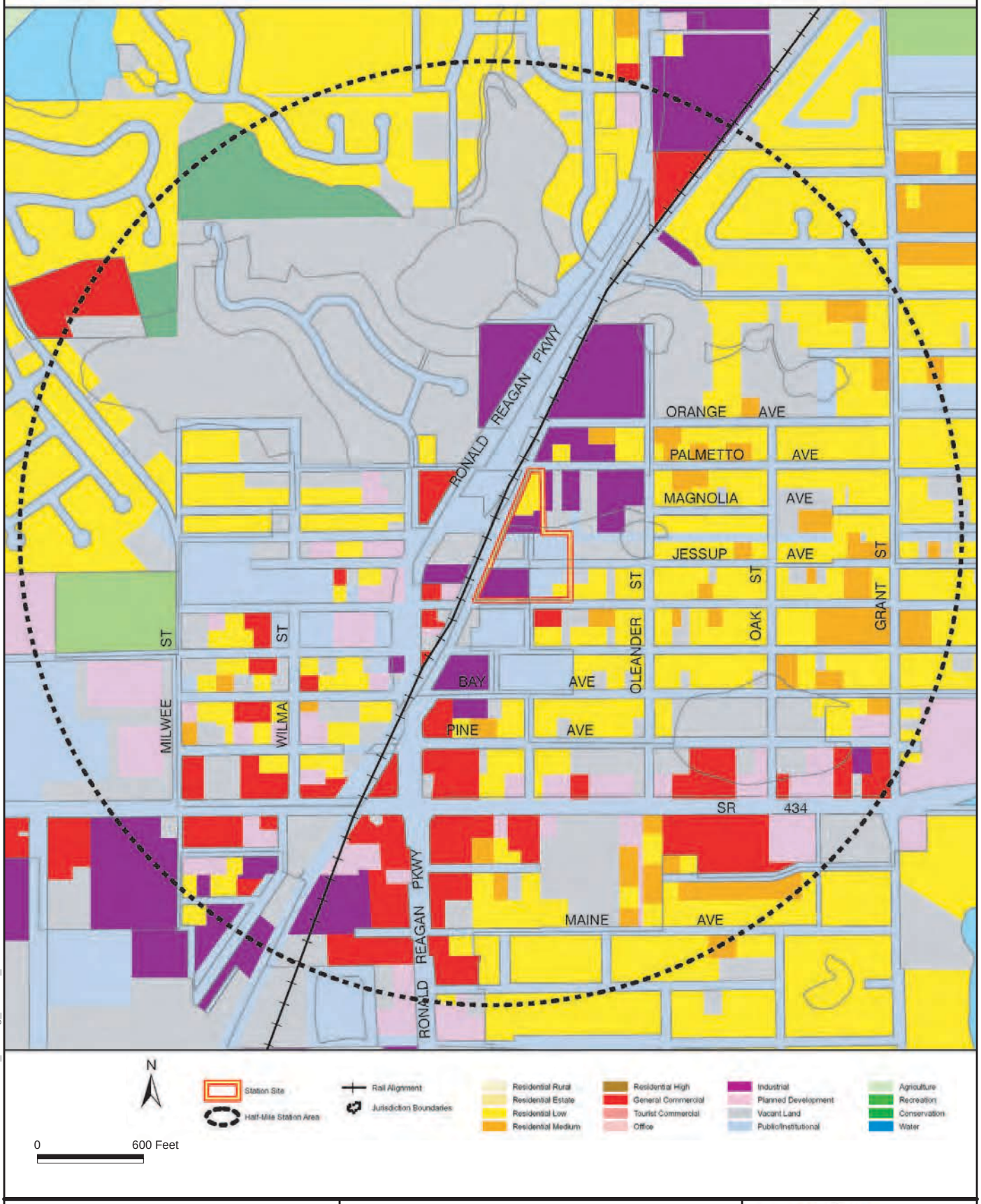


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Seminole County GIS

Figure B-4

Lake Mary Station
Generalized Existing Land Use

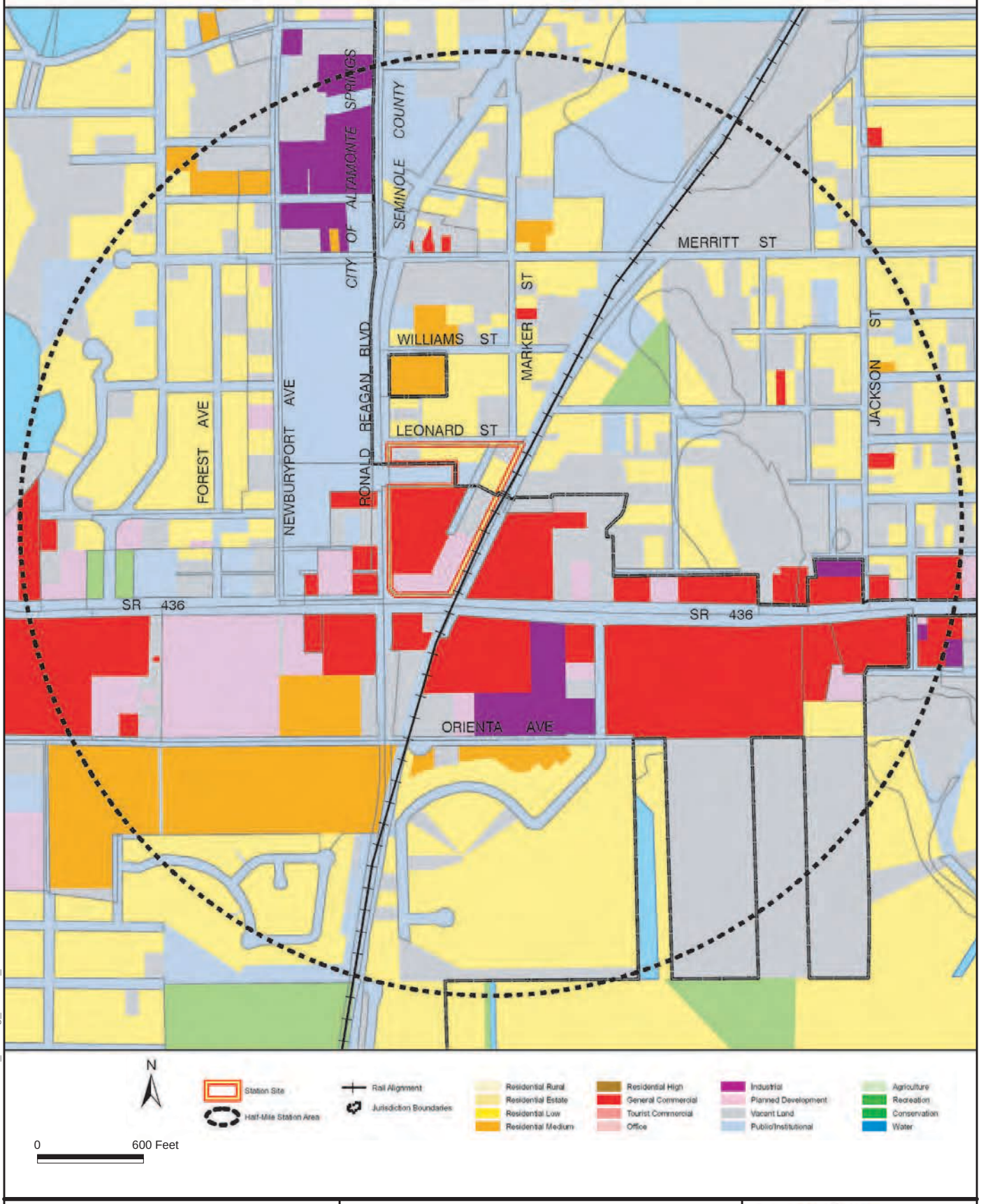


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Seminole County GIS

Figure B-5

Longwood Station
Generalized Existing Land Use

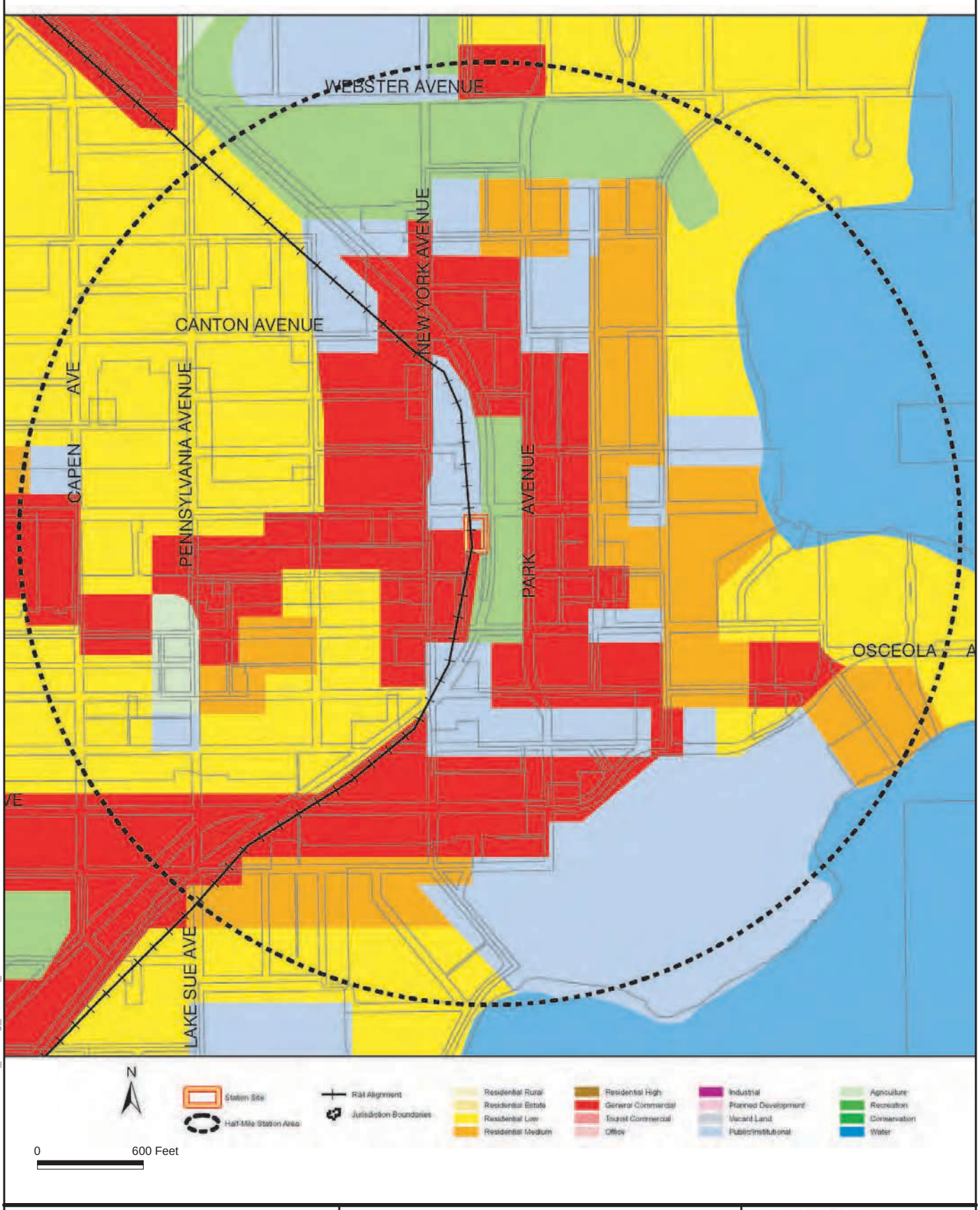


G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Seminole County GIS

Figure B-6

Altamonte Springs Station
Generalized Existing Land Use

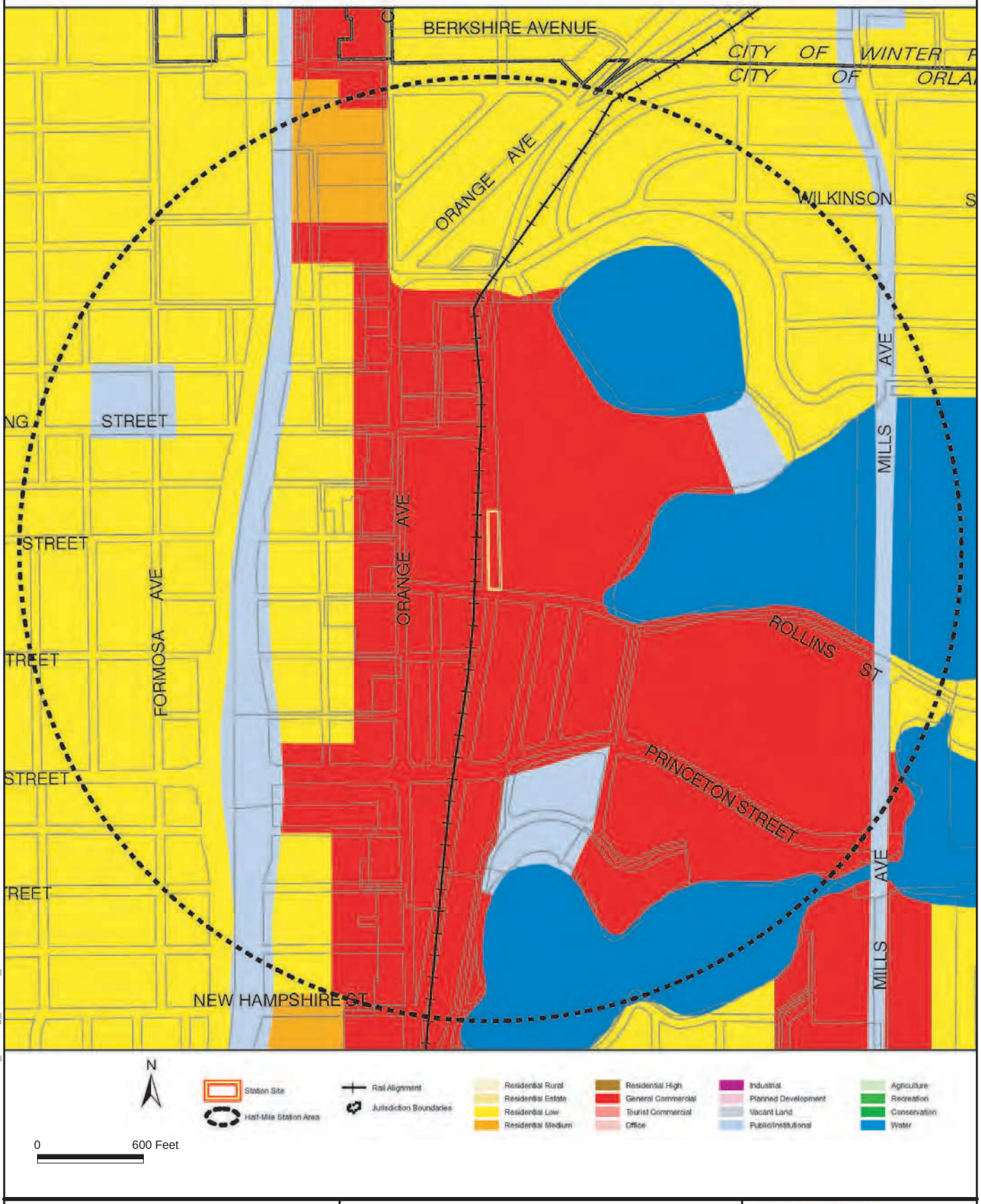


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-7

Winter Park Station
Generalized Existing Land Use

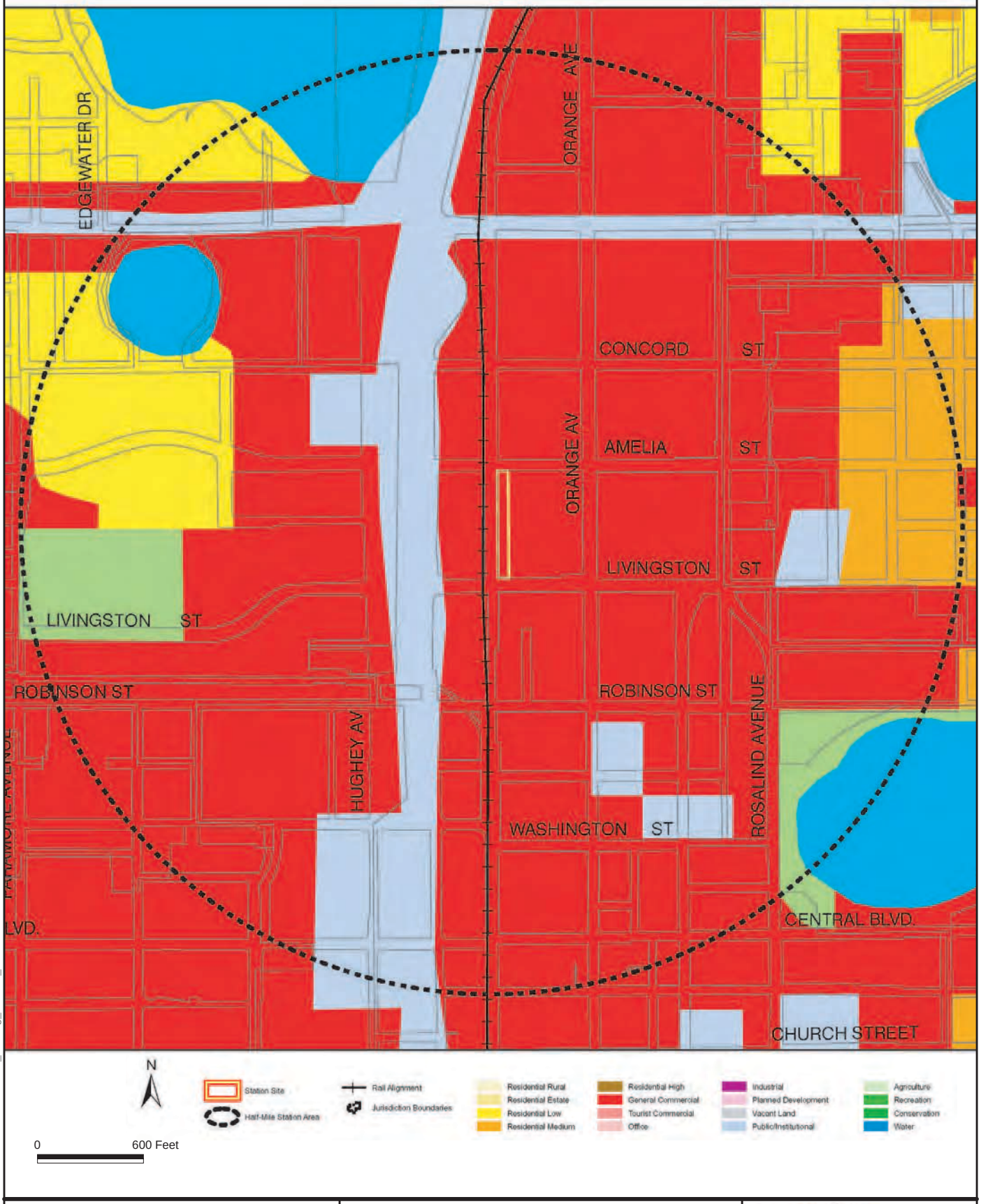


G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Orange County GIS

Figure B-8

Florida Hospital Station
Generalized Existing Land Use



G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-9

LYNX Central Station
Generalized Existing Land Use

G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Orange County GIS

Figure B-10

Church Street Station
Generalized Existing Land Use

G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Orange County GIS

Figure B-11

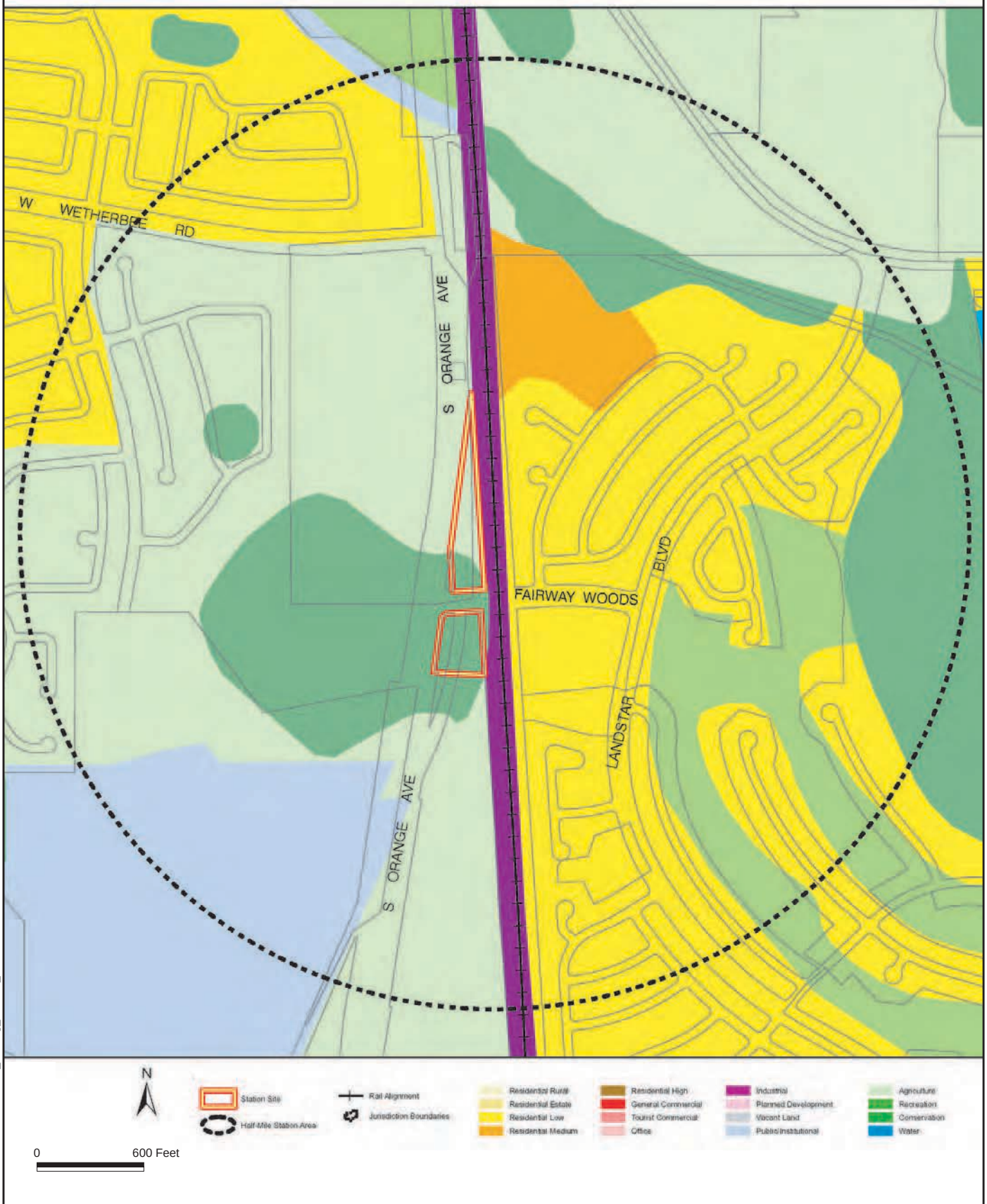
Orlando Amtrak/ORMC Station
Generalized Existing Land Use

G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-12

Sand Lake Road Station
Generalized Existing Land Use

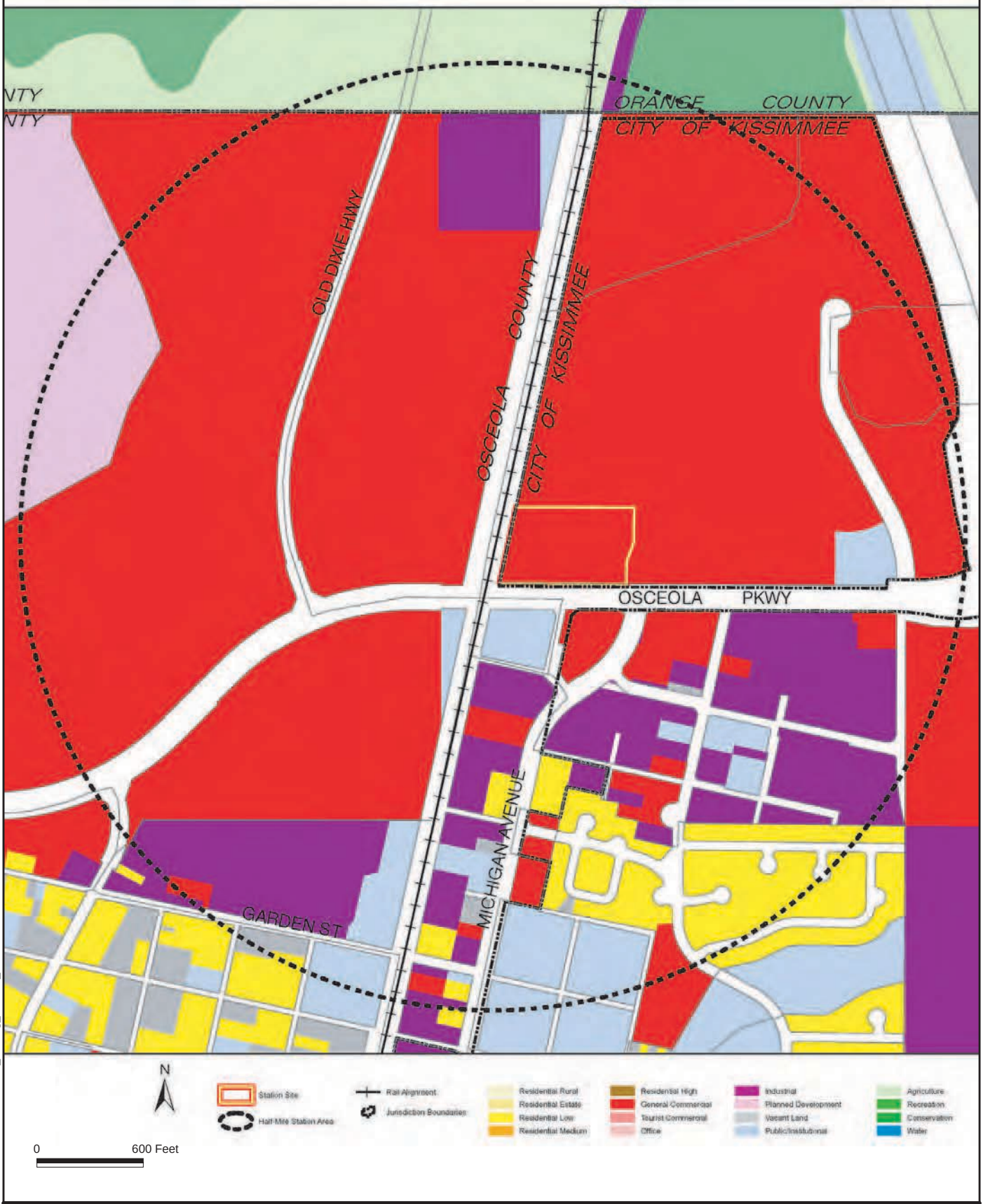


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Orange County GIS

Figure B-13

Meadow Woods Station
Generalized Existing Land Use

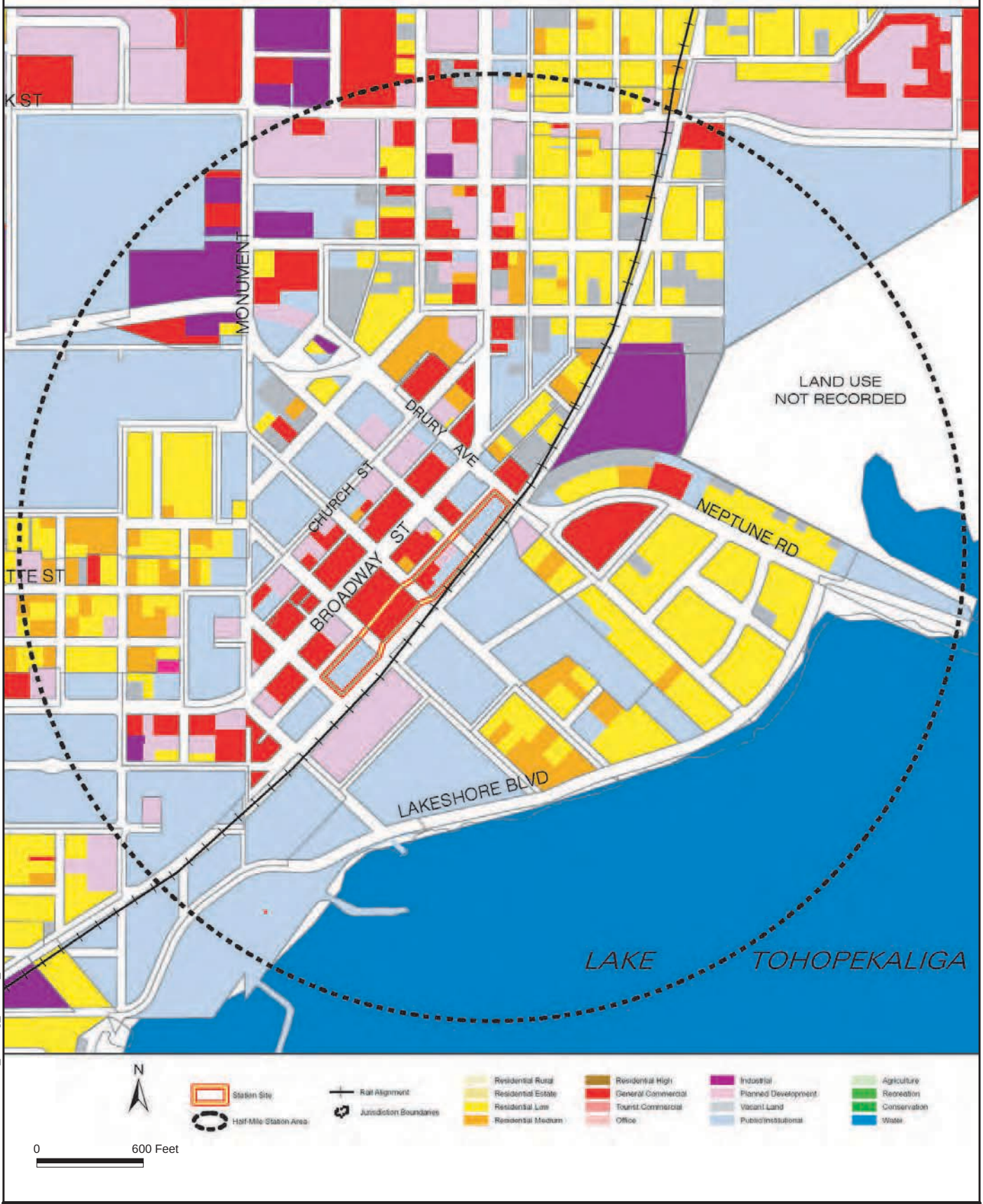


G:\18713 Commuter Rail\zzz_existing_landuse_1205

Source: Orange County GIS, Osceola County Property Appraiser

Figure B-14

Osceola Parkway Station
Generalized Existing Land Use

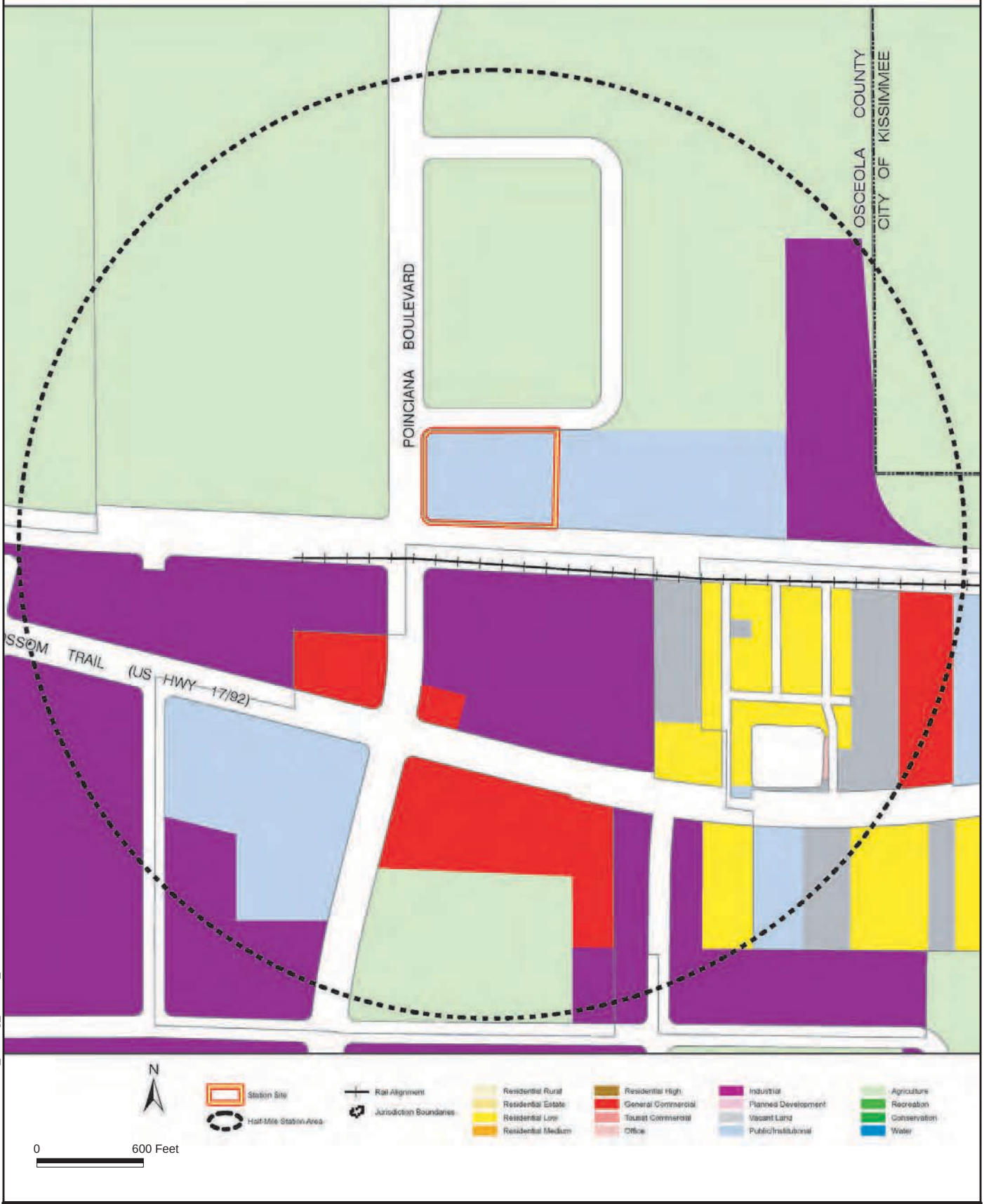


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Osceola County Property Appraiser

Figure B-15

Kissimmee Station
Generalized Existing Land Use

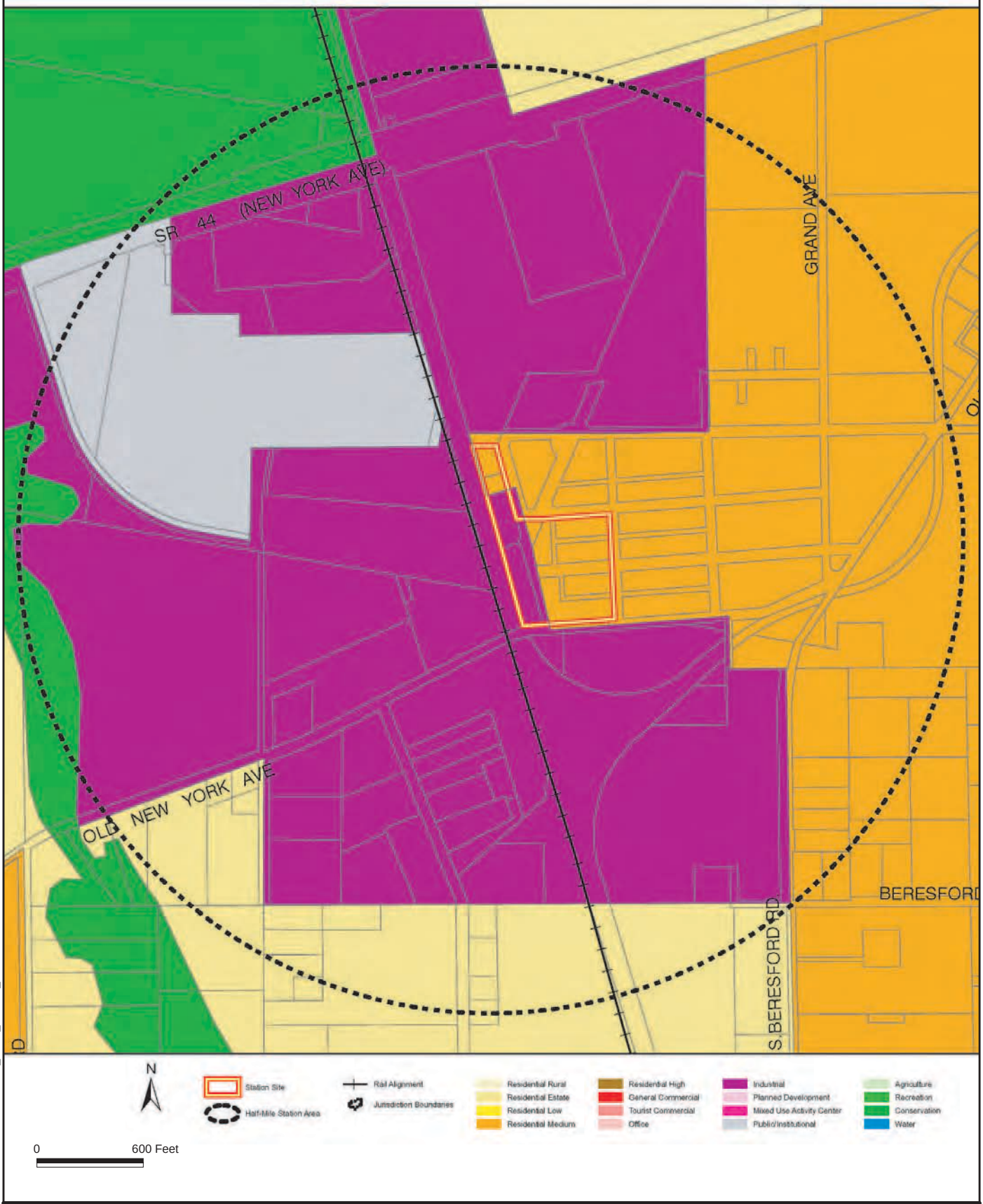


G:\18713 Commuter Rail\zz_existing_landuse_1205

Source: Osceola County Property Appraiser

Figure B-16

Poinciana Boulevard Station Generalized Existing Land Use

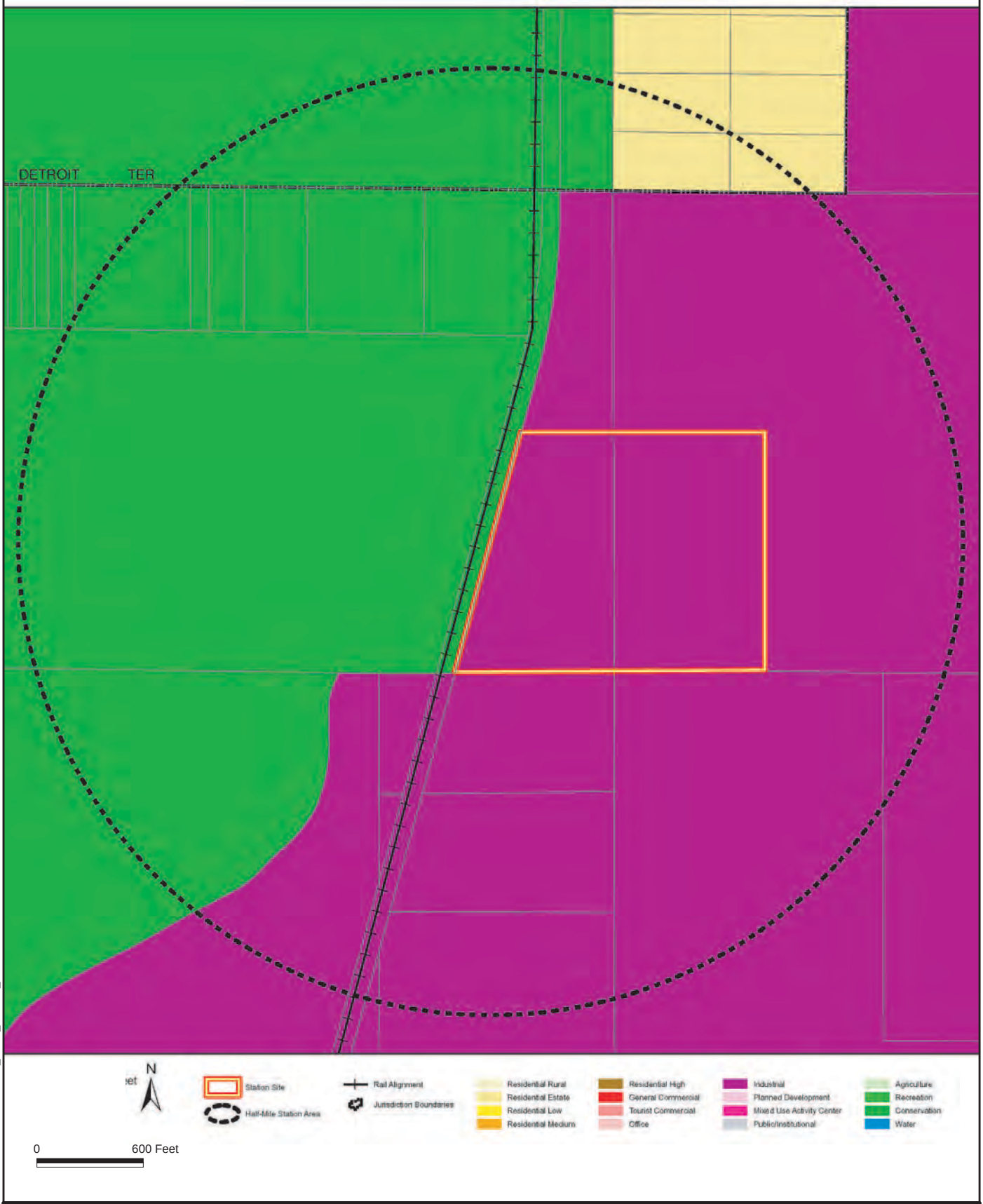


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-17

DeLand Amtrak Station
Generalized Future Land Use

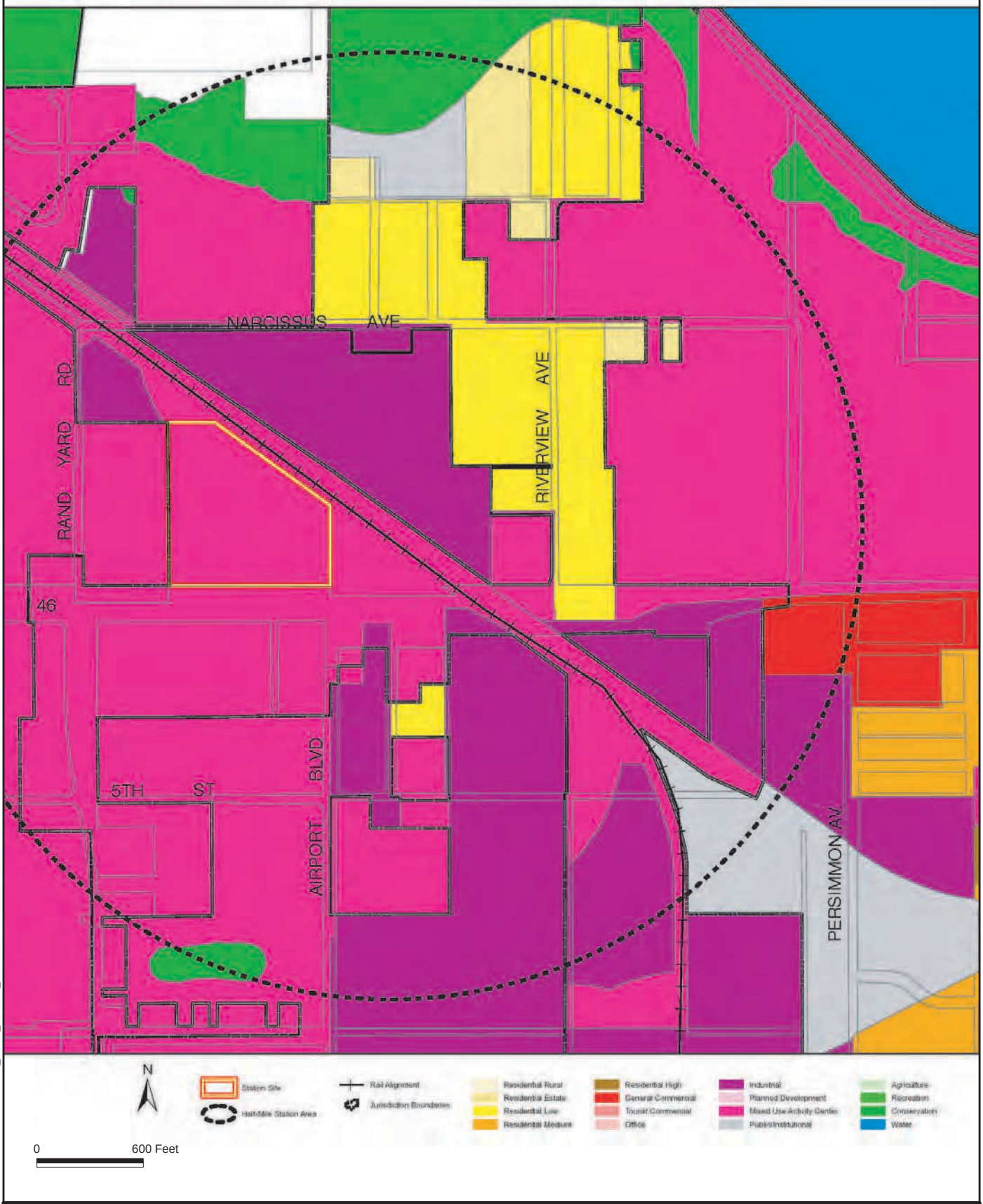


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-18

DeBary Saxon Boulevard Station Generalized Future Land Use

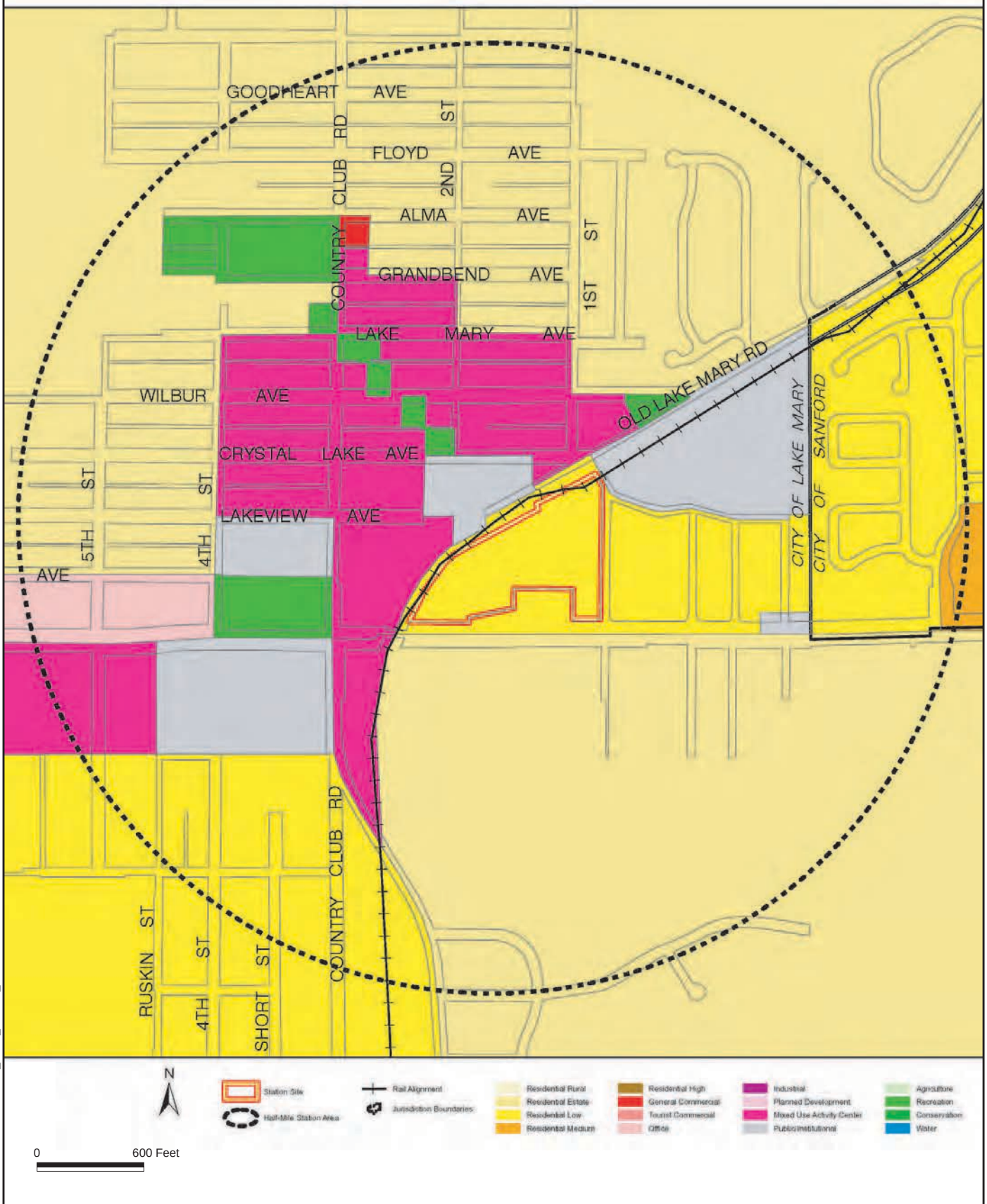


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-19

Sanford Station
Generalized Future Land Use

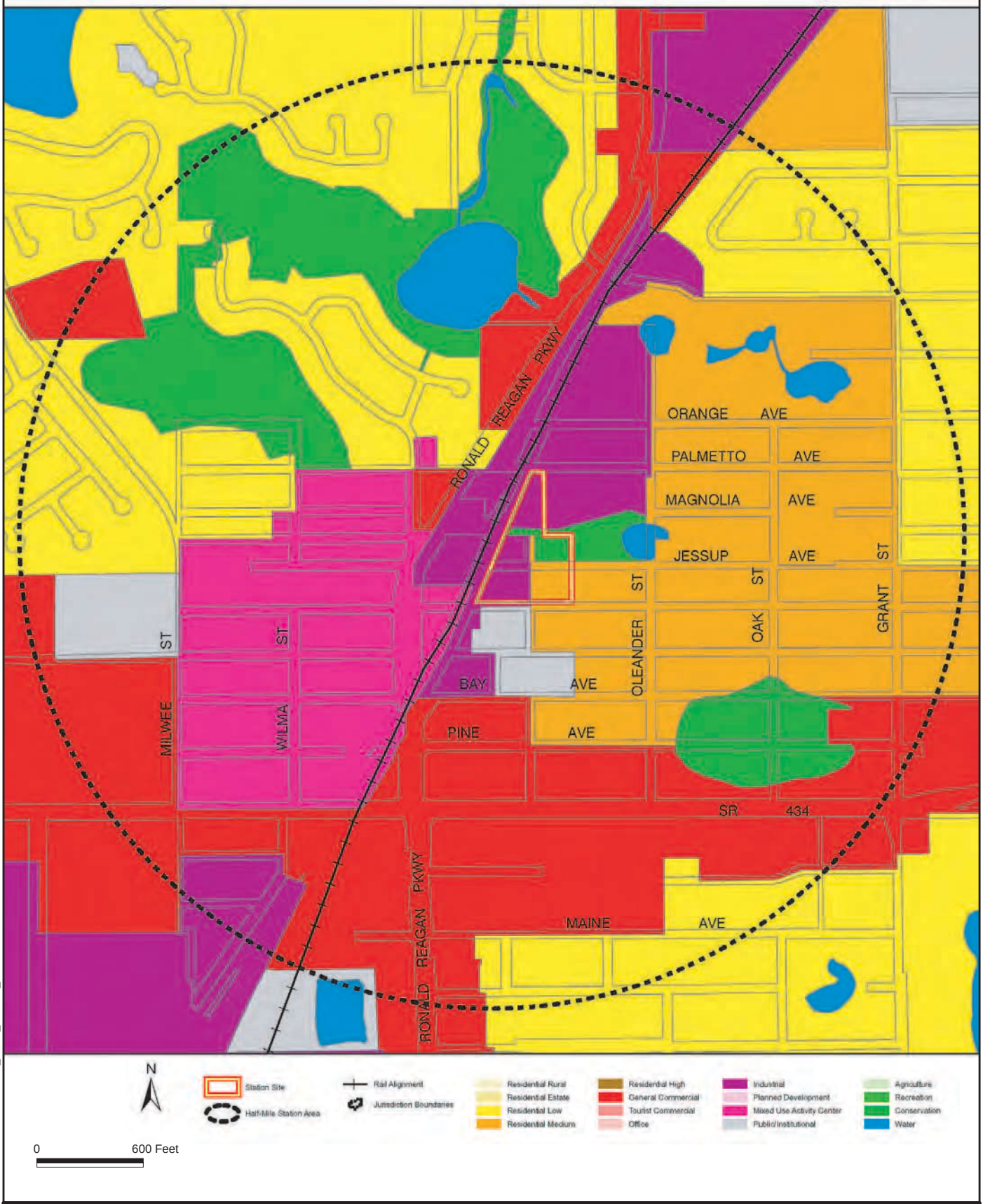


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-20

Lake Mary Station
Generalized Future Land Use

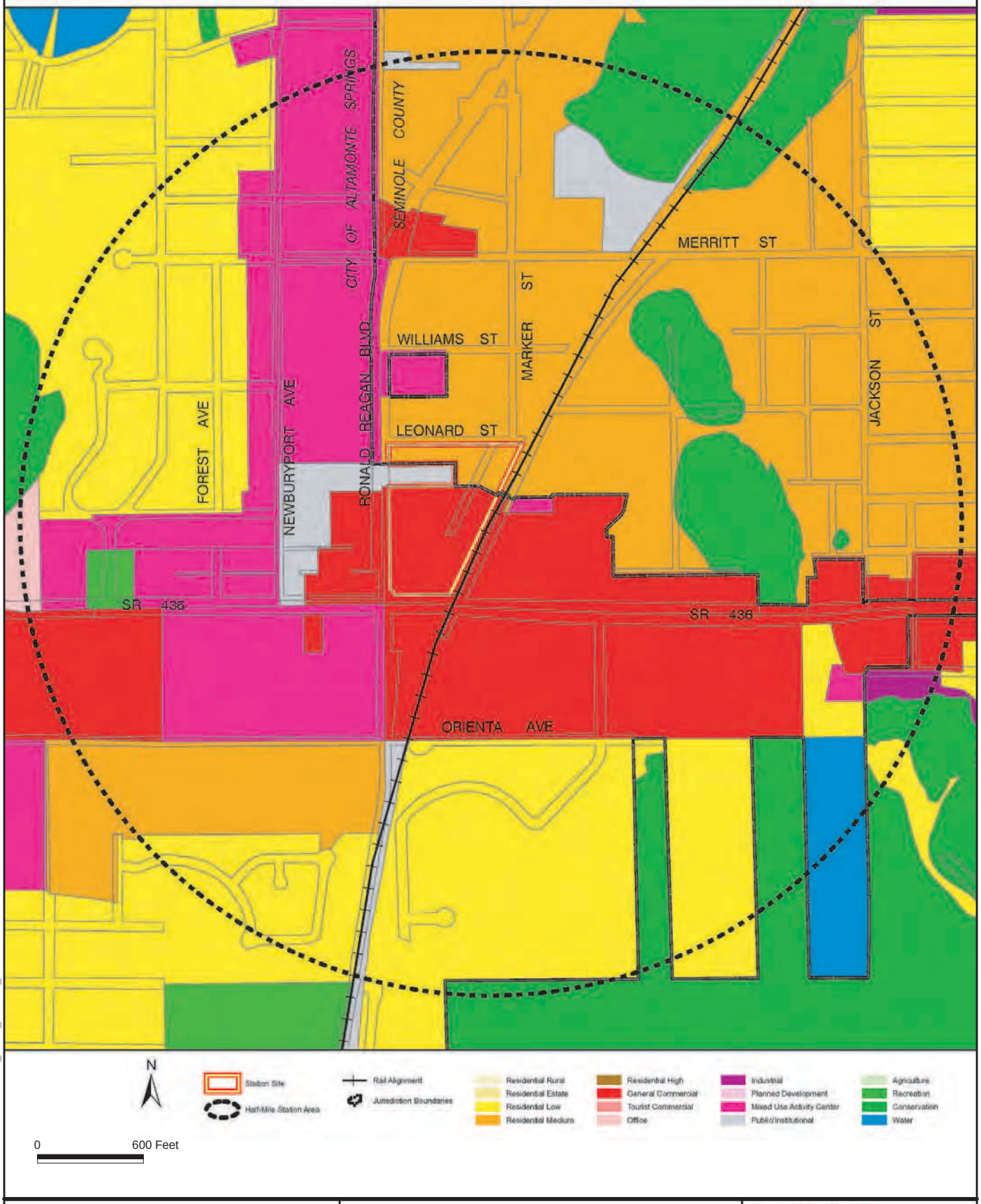


G:\18713 Commuter Rail\zz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-21

Longwood Station
Generalized Future Land Use

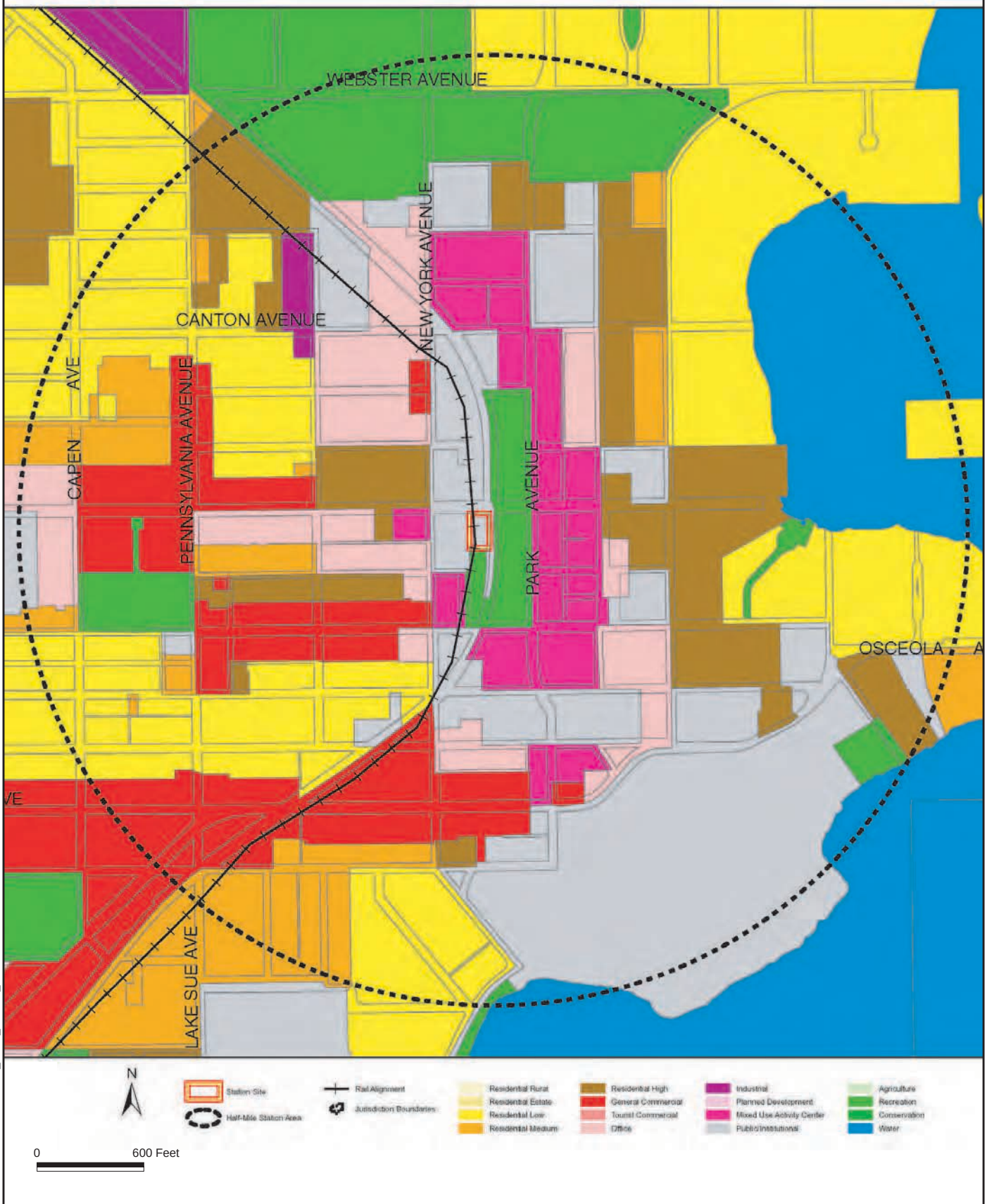


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-22

Altamonte Springs Station Generalized Future Land Use

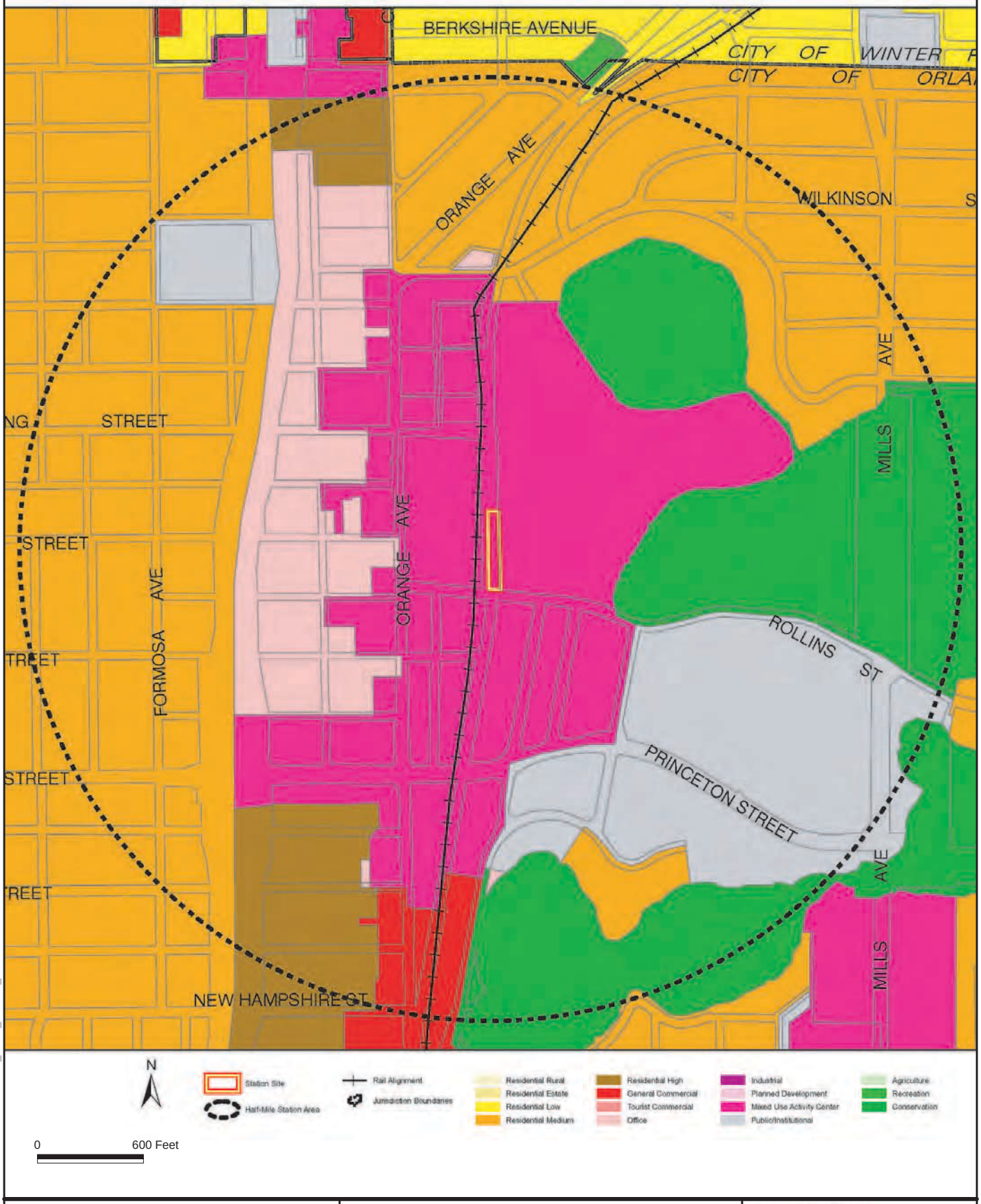


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-23

Winter Park Station
Generalized Future Land Use

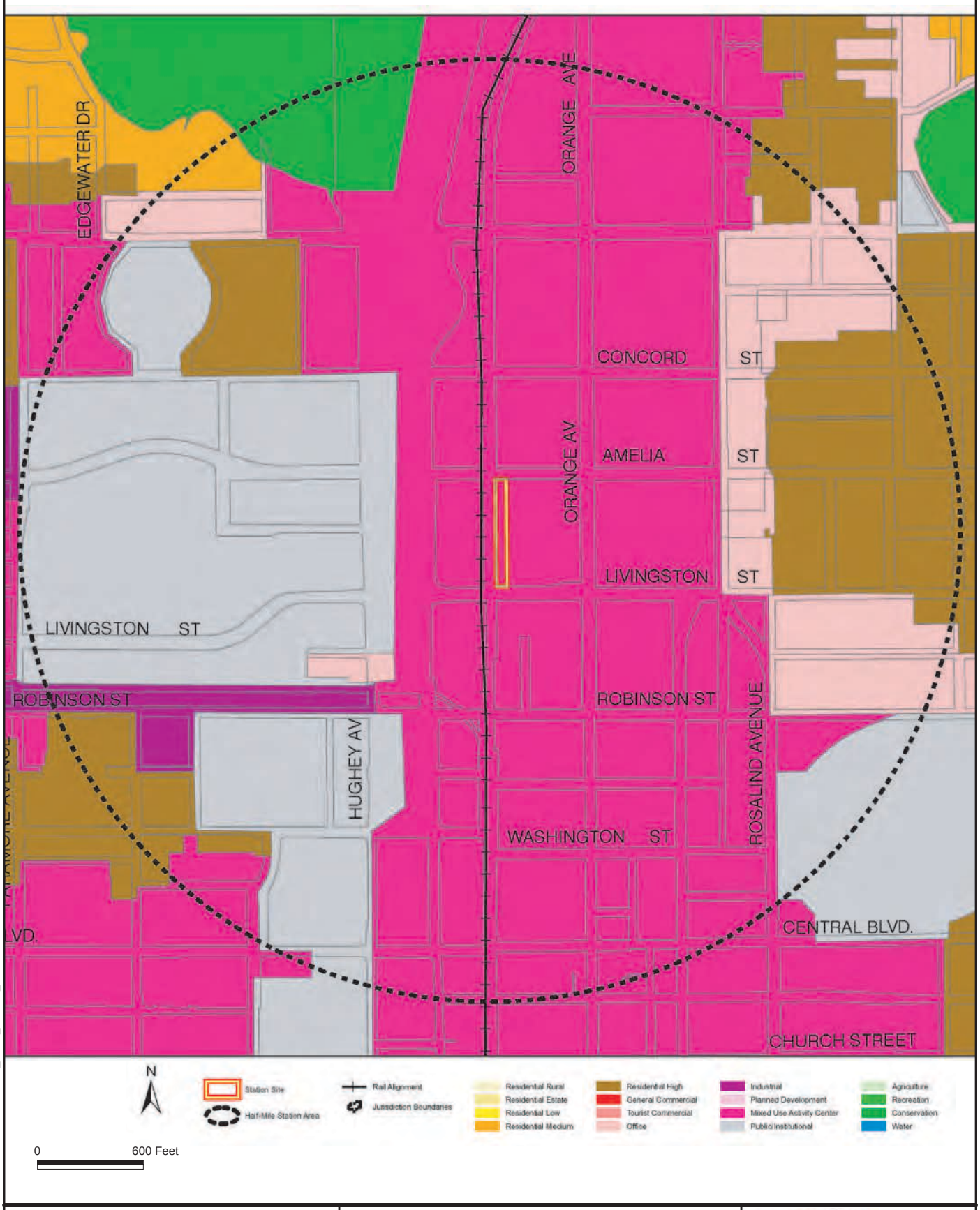


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-24

Florida Hospital Station
Generalized Future Land Use



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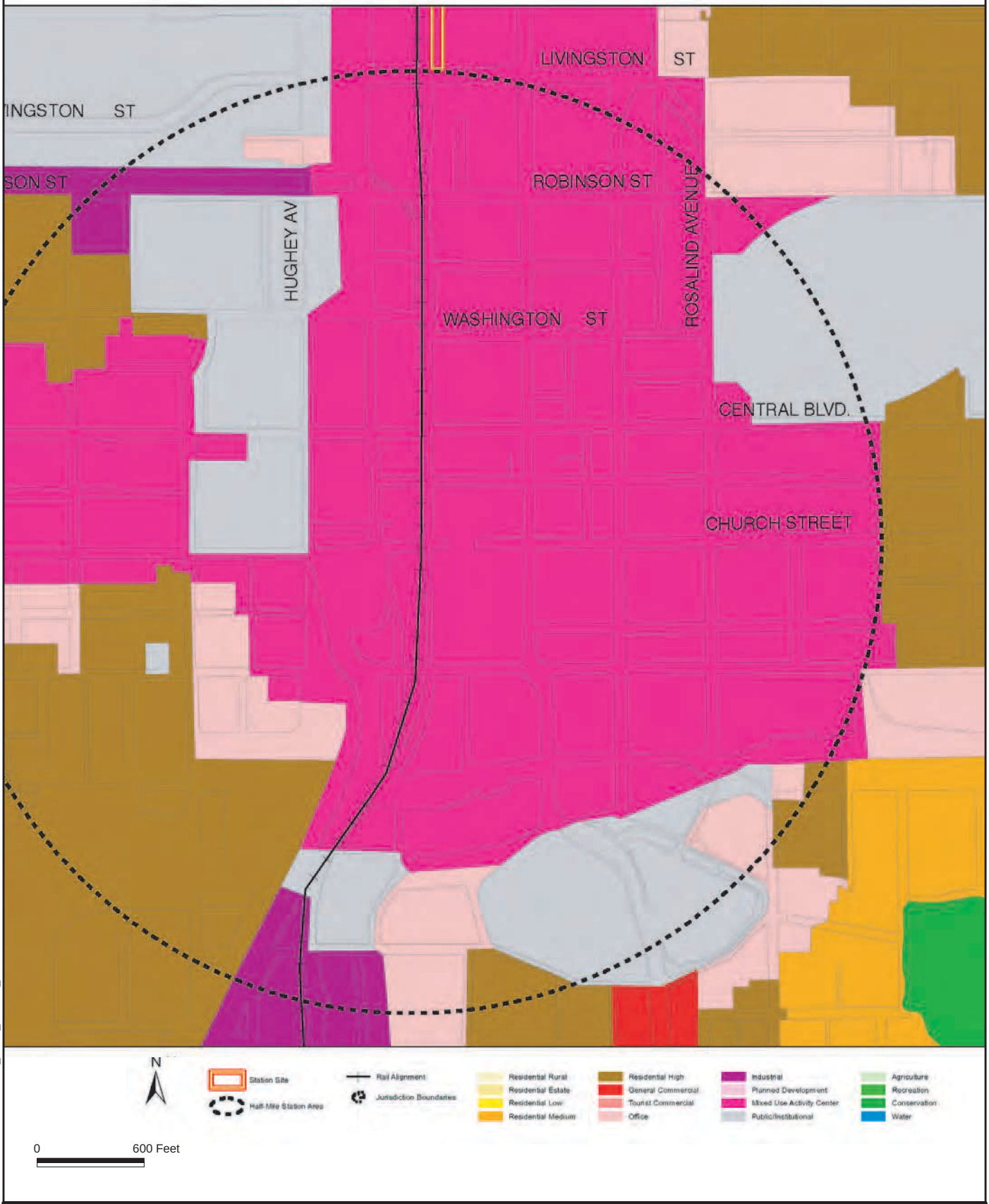
Source: East Central Florida Regional Planning Council

Figure B-25

LYNX Central Station Generalized Future Land Use

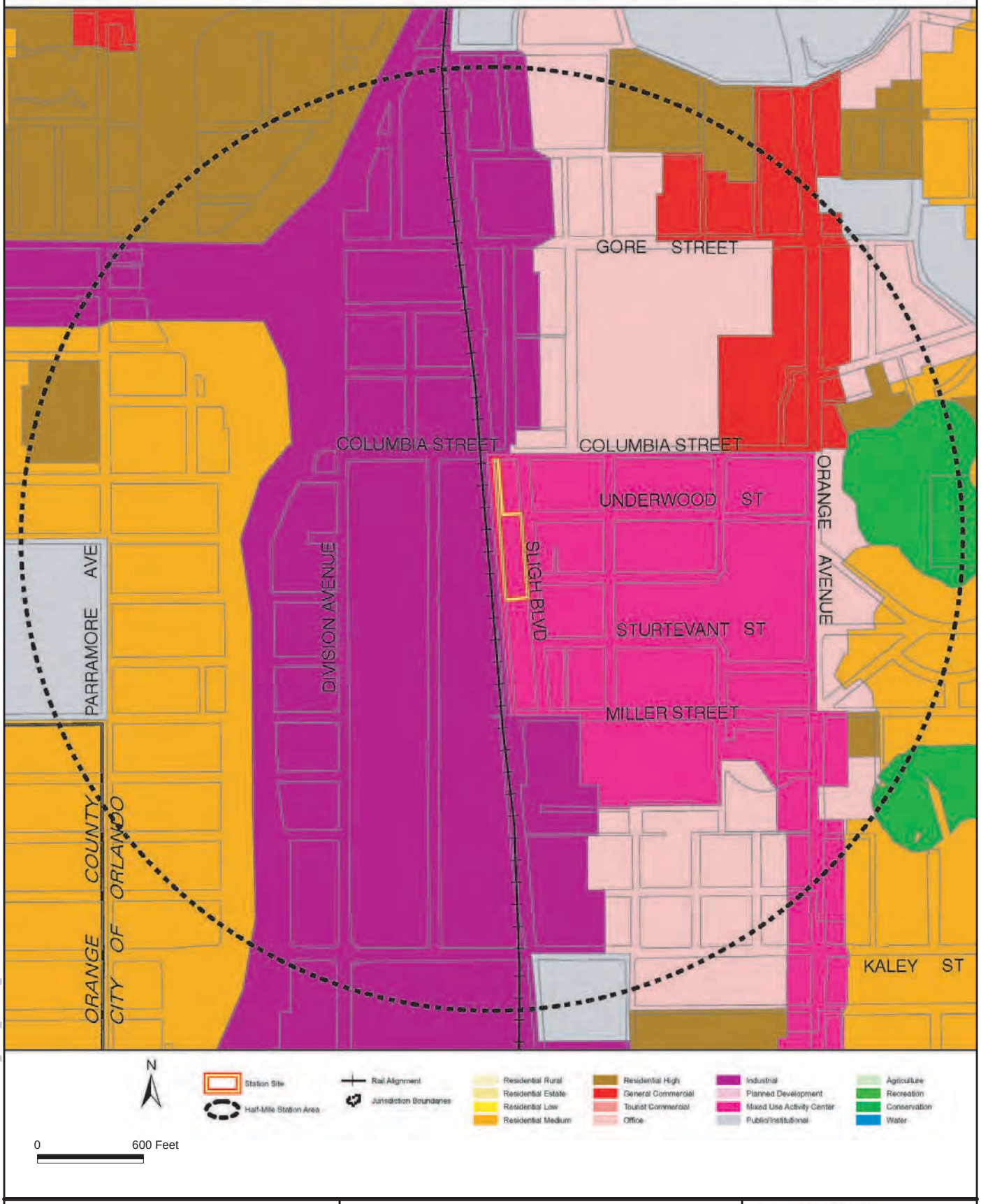


G:\18713 Commuter Rail\zz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-26

Church Street Station
Generalized Future Land Use

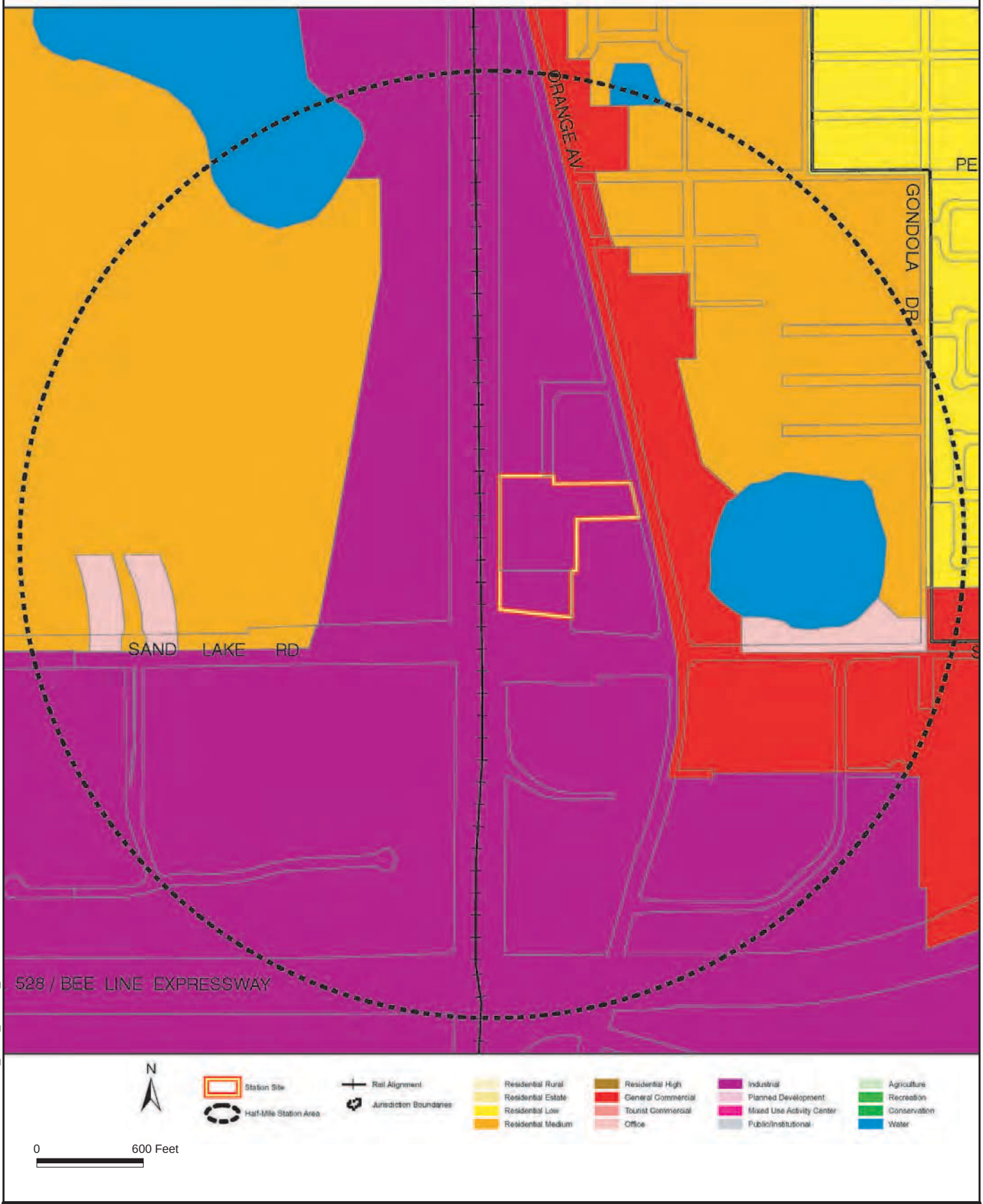


G:\18713 Commuter Rail\zz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-27

Orlando Amtrak/ORMC Station Generalized Future Land Use

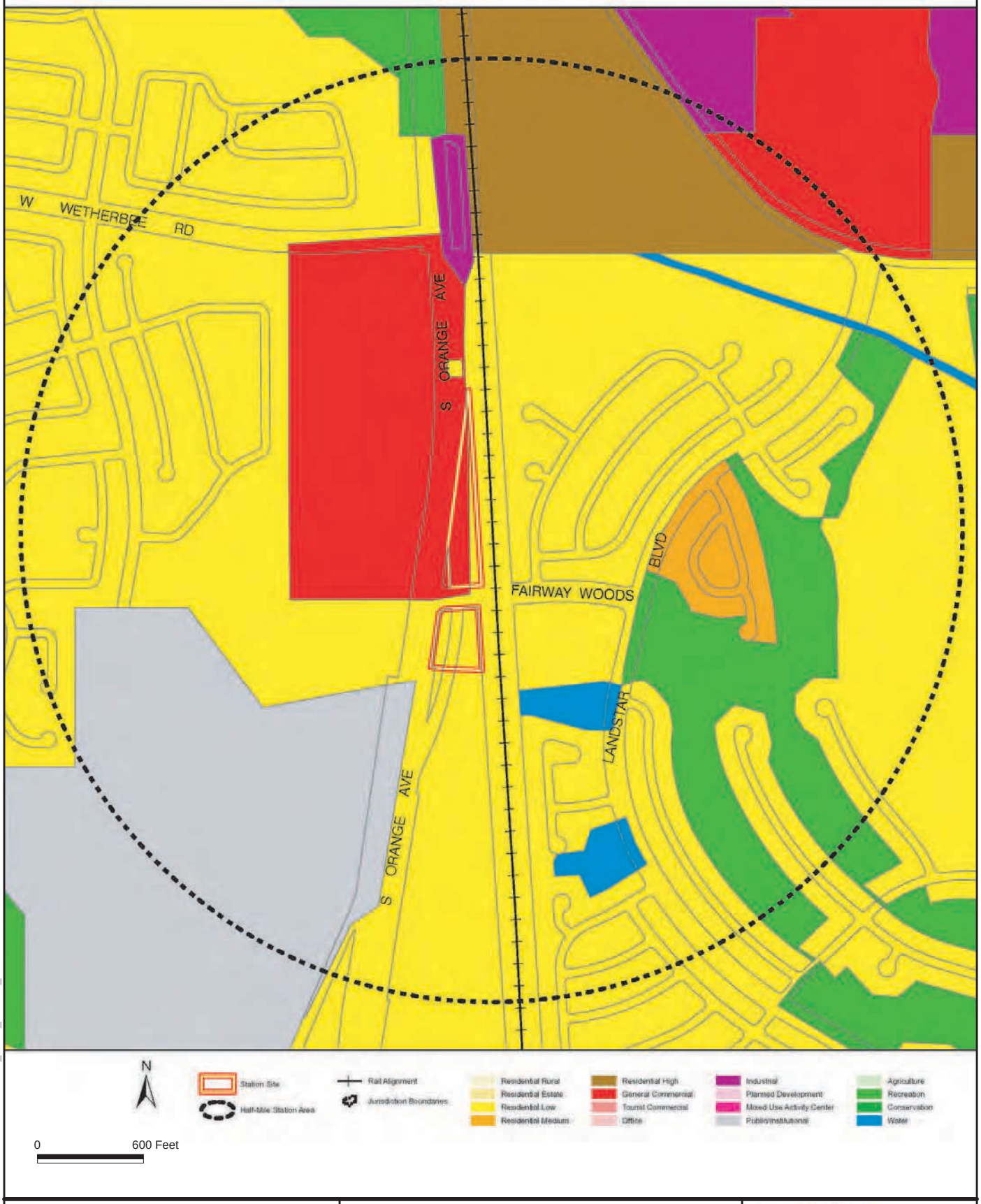


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-28

Sand Lake Road Station Generalized Future Land Use

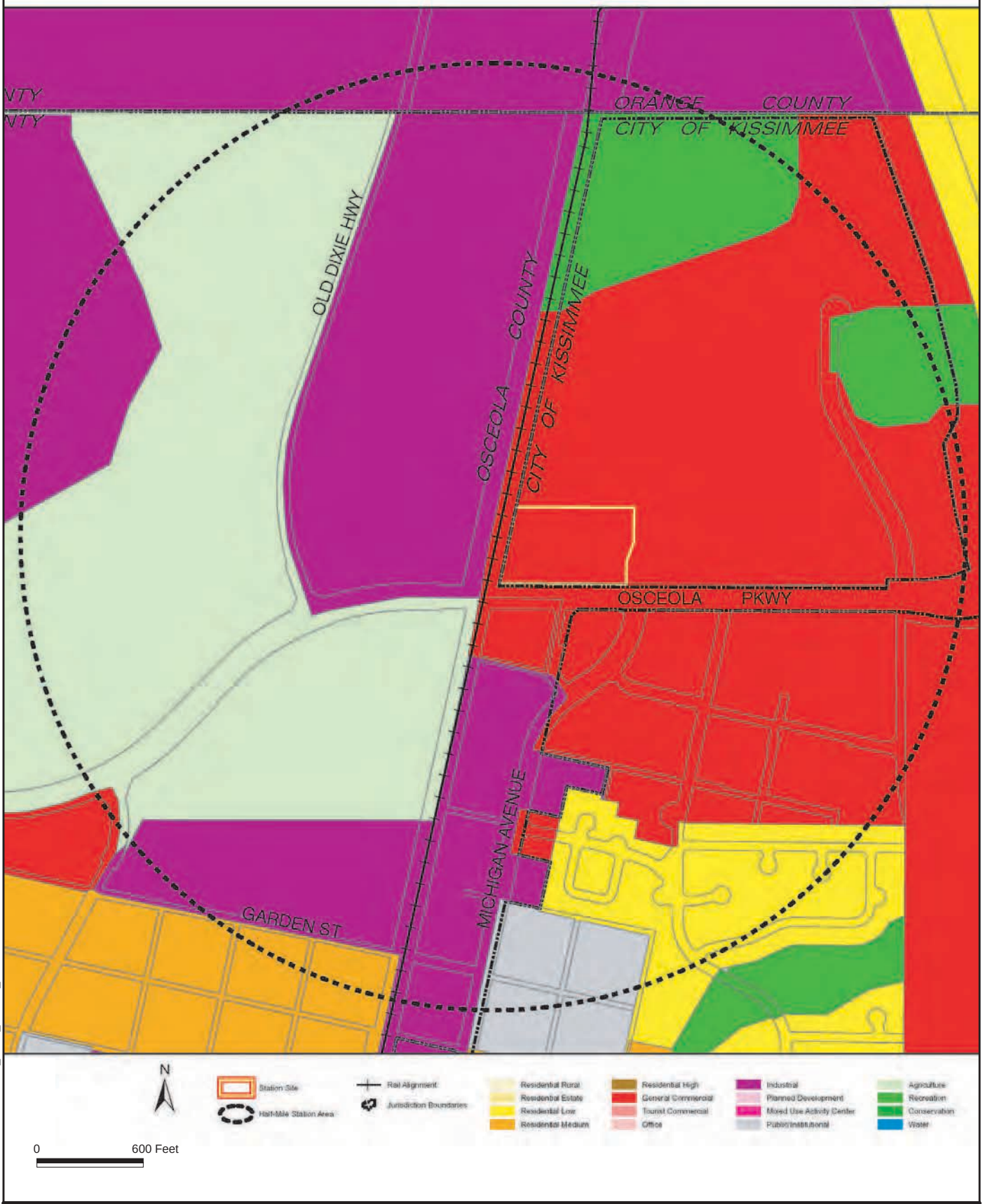


G:\18713 Commuter Rail\zz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-29

Meadow Woods Station Generalized Future Land Use

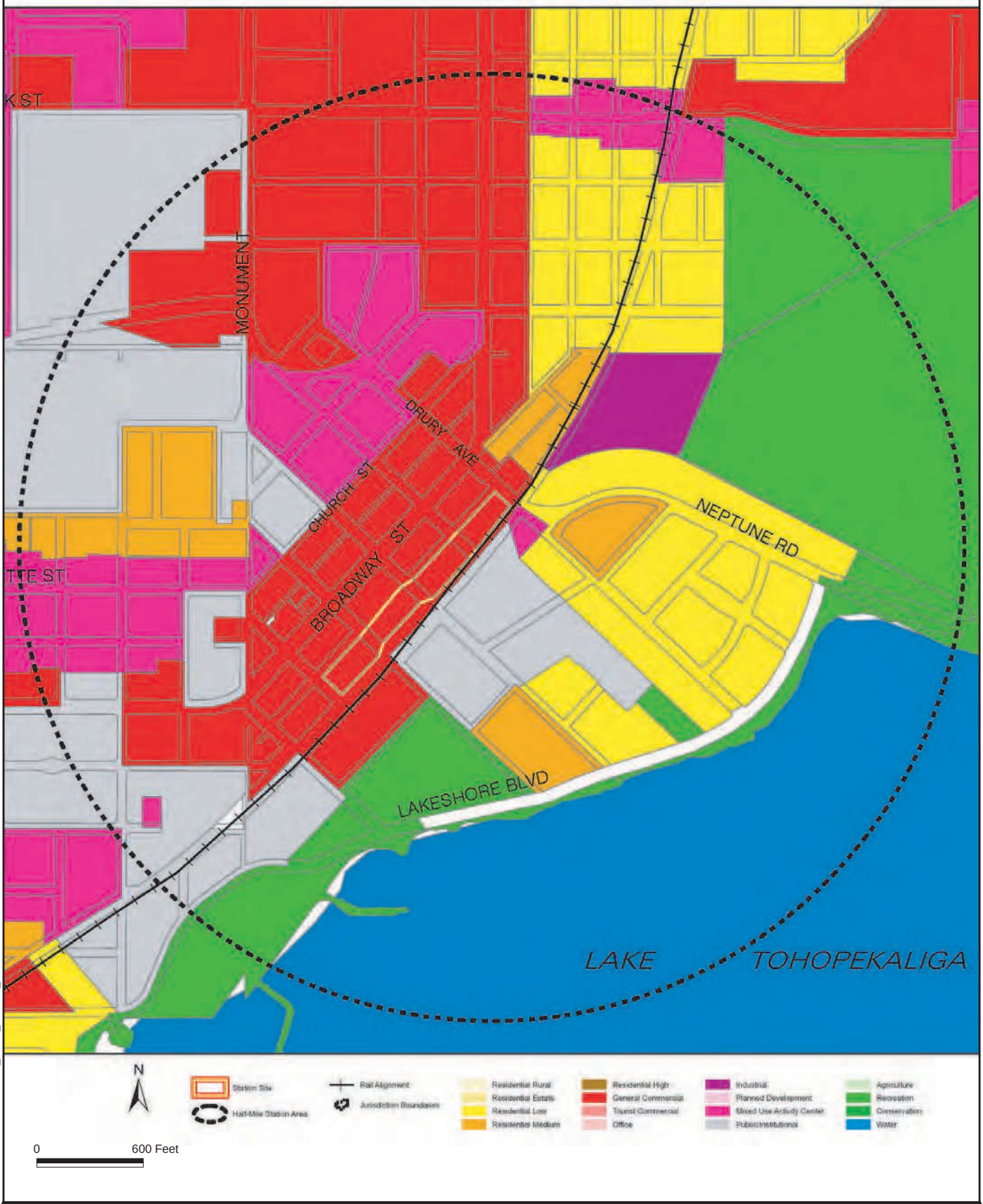


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-30

Osceola Parkway Station Generalized Future Land Use

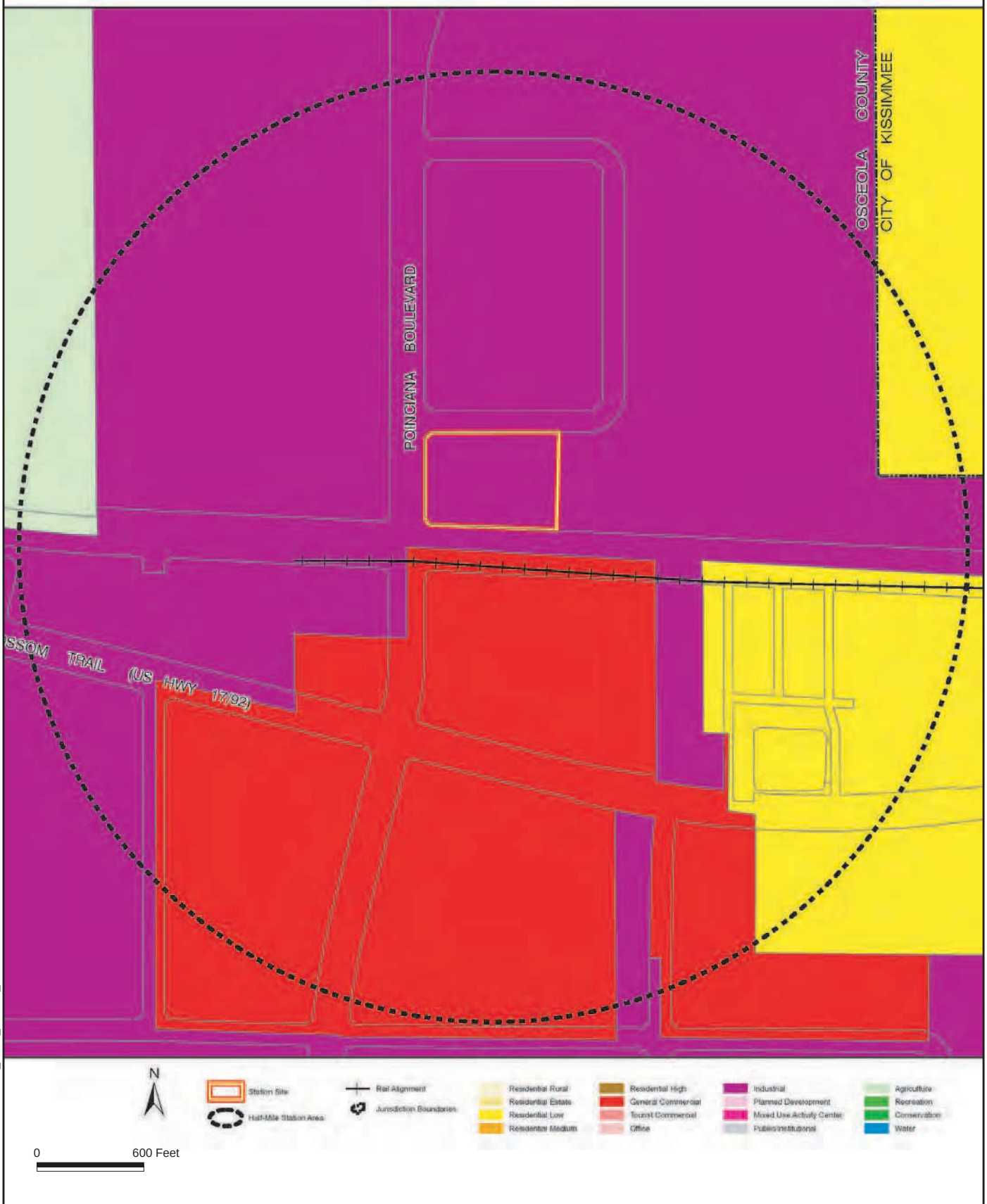


G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-31

Kissimmee Station
Generalized Future Land Use



G:\18713 Commuter Rail\zzz_future_landuse_1205

Source: East Central Florida Regional Planning Council

Figure B-32

Poinciana Boulevard Station Generalized Future Land Use

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Neighborhood Boundaries)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B54	Allen Edwards 1	CSX Rail line east, Lake Beresford south and Hontoon Road west (generally)		Predominately agriculture	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Brackett 1	Minnesota Avenue north, Grand Avenue east, SR 44 south		Predominately public / institutional	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Brackett Sub/Fitch Grant 2	SR 44 north, Carlis Road east (generally), Shell Road southwest (generally)		Primarily agriculture with some public / institutional	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Buena Vista	Alhambra Avenue north, Lake Beresford east and Flowing Well road south (generally), Santiago Street west		Primarily commercial with some single family residential	
B54	Dreka Heights	CR 44 north, Ridgewood Avenue east, Euclid Avenue south, Grand Avenue west		Primarily single family residential with some conservation	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Fatio Heights	Beresford Avenue north, Woodward Avenue east, Beresford Road south, Ridgewood Avenue west		Predominately single family residential	Lighthouse Christian Academy
B54	Gardner Subdivision	SR 44 north, CSX Rail line east, Carlis Road southwest		Primarily public / institutional with some industrial and commercial	Fire Station No. 45; Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Gillespies Homestead 1	CSX Rail line east, Beresford Avenue south, Fair Street west		Primarily agriculture, industrial, single family residential with some commercial	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Gillespies Homestead 2	Old New York Avenue north, Beresford Road east, CSX Rail line west	Historic structure - DeLand Rail Road Depot on Old New York Avenue	Predominately industrial	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Hough Paxton & Wilson	CSX Rail line angles northeast, Lake Beresford angles southwest		Primarily single family residential with some agriculture	
B54	Lake Beresford Palms	Covington Avenue south, Spring Garden Avenue west (generally)		Predominantly single family residential	

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Figure Number	Neighborhood Name	General Location (Neighborhood Boundaries)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B54	Lake Beresford Palms	Alhambra Avenue north (generally), Lake Beresford east, Flowing Well Road south (generally), Hontoon Road west		Predominantly single family residential	
B54	Lake Beresford Shores	Beresford Avenue north, Ridgewood Avenue east, Lake Beresford west		Primarily agriculture with some single family residential and vacant	Lake Beresford
B54	Pelham Square	SR 44 north, Grand Avenue east, Old New York Avenue south, CSX Rail line west		Predominantly agriculture with some vacant	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Volusia Area 1	Ridgewood Avenue east, Beresford Avenue south, Beresford Road angles northwest		Primarily single family residential with some agriculture and conservation	
B54	Volusia Area 2	Beresford Avenue north, Ridgewood Avenue east, Beresford Road south (generally), CSX Rail line north west		Predominantly single family residential	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B54	Volusia Area 3	Old New York Avenue north, Lakeview Drive east (generally), Lake Beresford south, Hontoon Road west (generally)		Predominately agriculture or vacant	Lake Beresford
B54	West New York Park	Fair Street east, New York Avenue south (generally), Shell Road west (generally)		Primarily agriculture with some single family residential	Within 1/2 mile of proposed station location at the Deland Amtrak Station
B55	Hamilton Heights	Spring Garden Avenue east, 20th Street south, CSX Rail line west		Primarily vacant with some single family residential or agriculture	
B55	Highland Park	New York Avenue north, Bishop Avenue east, Brown Avenue south, Grand Avenue west		Predominantly single family residential	
B55	Orange City / DeLand Farms	Spring Garden Avenue is found centered in this neighborhood		Predominantly agriculture	
B55	Volusia Area 4	Beresford Road north, Spring Garden Avenue east, McGregor Road south, Lake Beresford west		Primarily agriculture and single family residential with some public / institutional	Lake Beresford Greenway Park

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B55	Volusia Area 5	McGregor Road north, Spring Garden Avenue east (generally), French Avenue south, Lake Beresford west		Predominately conservation	Blue Springs State Park; Lake Beresford
B55	West Highlands 1	20th Street north, Hamilton Avenue east, New York Avenue south, CSX Rail line west		Predominantly single family residential	
B56	Blue Spring Park	French Avenue north and west, Cedar Avenue east, Adeline Street south (generally)	One historic structure - Louis B. Thursby House in Blue Springs State Park	Predominately conservation	Blue Springs State Park; The Lagoon
B56	Orange City Terrace	Fern Street north, Buford Avenue east, Adeline Street south, Magnolia Avenue west		Predominantly single family residential	Adjacent to Blue Springs State Park
B56	Volusia Area 6	Generally located near French Avenue north, 17-92 east, Aspen Avenue south, Buford Avenue west		Primarily single family residential with some vacant	
B57	DeBary Plantation 1	17-92 east, Highbanks Road south, Donald Smith Boulevard west		Predominately single family residential	DeBary Elementary School; Within 1/2 mile of the proposed station location at the DeBary Saxon Blvd. Station
B57	DeBary Plantation 2	Highbanks Road north, Rosendown Boulevard east (generally), Holladay Road west		Predominately single family residential	
B57	Orlandia Heights 1	Highbanks Road north, Laurianne Road east, Sanford Avenue south, Afton Avenue west		Predominantly single family residential	
B57	St. Johns River Estates	Highbanks Road north, Afton Avenue east, Walrock Street south, Nurick Avenue west		Predominantly single family residential	Just north of Konomac Lake
B57	Volusia Area 7	CSX Rail line east, Detroit Terrace south, Lake / Volusia County line west		Predominately conservation	Blue Springs State Park; Within 1/2 mile of the proposed station location at the DeBary Saxon Blvd. Station
B57	Volusia Area 8	Adeline Street north, 17-92 east, Highbanks Road south, Lake / Volusia County line west,		Primarily agriculture with some single family residential and conservation	DeBary Community Park; Within 1/2 mile of the proposed station location at the DeBary Saxon Blvd. Station
B58	EA Osteens	Savanna Street north, Old DeLand Road east, Volusia / Seminole County line south, 17-92 west		Primarily public / institutional with some single family residential	Lake Monroe District Park

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B58	Volusia Area 10	Generally located near Spring Vista Drive north, 17-92 east, Benson Junction Road south, Shell Road west		Predominantly single family residential	Adjacent to Gemini Springs County Park
B58	Volusia Area 11	Dirksen Drive north, I-4 angles east, 17-92 angles west		Primarily public / institutional with some vacant and conservation	Gemini Springs County Park
B58	Volusia Area 9	Generally located near Konomac Lake Drive north, Shell Road east, Volusia / Seminole County line south		Primarily infrastructure with some vacant and agriculture	Adjacent to Konomac Lake; railroad bisects access to Lake
B58	Volusia Park	Generally located near Benson Junction Road north, 17-92 east, Simone Drive south, CSX Rail line west		Predominantly industrial	

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Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B59	Bookertown	Orange Boulevard north, Dunbar Avenue east, Chestnut Street south, Halsey Avenue west		Predominantly Industrial	
B59	Preserve at Lake Monroe	17-92 north, Rand Yard Road angles southwest, Walnut Crest Run east	Low Income	Predominantly vacant with some public institutional and agriculture lands	Within 1/2 mile of the proposed station location at Sanford SR 46
B59	Sanford Farms	Volusia County border north, Orange Boulevard south, 17-92 east		Primarily vacant, conservation or industrial land	Lake Monroe Wayside Park
B59	Seminole Area 1	17-92, SR 46 north (portions), Upsala Road south, Persimmon Avenue east, Interstate 4 west	Low Income; one historic structure - Sanford Rail Road Depot on 8th Street	Predominantly vacant land with some agriculture and public institutional lands	Lake Monroe Shoreline Park, Page Private School, Fire Station 38; Within 1/2 mile of the proposed station location at Sanford SR 46
B59	St. Josephs	17-92 north, Interstate 4 angles west, SR 46 south	Low Income; two historic sites - Rand Yard Road/Mountain Ice Company Plant and Lake Monroe School on School Street; Part of boundary runs along Lake Monroe	Predominantly vacant with some agriculture and single family residential	Seminole Community Private School, Central Florida Zoological Park
B60	Academy Manor	McCracken Road north, Airport Boulevard W. west, Dixie Way east, Commerce Way south (generally)	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	Academy Manor Park, Technology Academy
B60	Chase Groves	Lake Boulevard along northwest, SR 417 east (generally), Old Lake Mary Road southeast, Chase Home south	Minority	Predominantly vacant with some single family residential	
B60	Country Club Manor 1	Country Club Circle angles west, Country Club Drive angles east, 20th Street W. north (generally)	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	
B60	Country Club Manor 2	Country Club Drive angles west (generally), Hays Drive east, 25th Street W. south	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	
B60	Country Club Manor 3	25th Street W. north, Georgia Avenue east (generally), Ridgewood Avenue south	Minority, Low Income and Transit Dependant	Predominantly multi-family residential with some vacant lands	
B60	Dixie	McCracken Road north, Persimmons Avenue east, Harrison Street south, Dixie Way west (generally)	Minority, Low Income and Transit Dependant	Predominantly public institutional with some single family residential	Crooms Technology High
B60	Goldsboro 1	SR 46 north, Persimmon Avenue west, 7th Street W. south, Pecan Avenue east	Minority, Low Income and Transit Dependant	Predominantly public institutional with some multi-family residential and vacant lands	George State Park, ACS Goals II (school); Within 1/2 mile of the proposed station location at Sanford SR 46
B60	Goldsboro 2	7th Street W. north Persimmon Avenue west, 10th Street W. south and Pecan Avenue east (generally)	Minority, Low Income and Transit Dependant	Primarily public institutional, multi or single family residential	West Side Recreation Center
B60	Goldsboro 3	10th Street W. north, Mulberry Avenue west, 13th Street W. south, Cedar Avenue east (generally)	Minority, Low Income and Transit Dependant	Primarily single family residential or public institutional lands	
B60	Goldsboro 4	13th Street north, 17-92 east, 16th Street south and Persimmon Avenue west (generally)	Minority, Low Income and Transit Dependant	Primarily public institutional, single family residential or vacant lands	Sanford Middle School

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B60	Goldsboro 5	16th Street north, Lake Avenue east, 18th Street south, Roosevelt Avenue west	Minority, Low Income and Transit Dependant	Predominantly public institutional with some single family residential and vacant lands	Goldsboro Elementary
B60	Isle of Pines	Generally located near Crystal Drive W. north, Crystal View E. east, Teak Place south, Pine Lake Drive west	Minority	Predominantly single family residential with some vacant land	
B60	Lincoln Heights	St. John's Parkway north (generally), Airport Boulevard W. east, 23rd Street W. south, SR 417 west (generally)	Minority	Predominantly vacant with some public institutional and single family residential	
B60	Lockhart 1	20th Street north (generally), Airport Boulevard W. east, Country Club Road south, SR 417 west (generally)	Minority	Primarily vacant, single family residential or public institutional lands	
B60	Lockhart 2	18th Street north (generally), Southwest Road angles east, Country Club Road south (generally), Airport Boulevard W. to the west	Minority, Low Income and Transit Dependant	Primarily single family residential, public institutional or vacant lands	
B60	Placid Lake	Old Lake Mary Road angles northwest, Placid Lake Drive east, Airport Boulevard W. angles southwest	Minority, Low Income and Transit Dependant	Predominantly vacant with some multi-family residential and public institutional lands	Wicklow Elementary
B60	Seminole Area 2	SR 417 curves northeast, 25th Street W. south, Upsala Road west	Minority	Predominantly single family residential and vacant land with some public institutional uses	Idyllwilde Elementary
B60	Seminole Area 3	Southwest Road angles northeast, 25th Street W. south, Airport Boulevard west	Minority, Low Income and Transit Dependant	Predominantly industrial and vacant lands with some commercial and public institutional lands	Cyber High Charter School, Rays of Hope Charter School
B60	Seminole Area 4	18th Street north, Lake Avenue east, Country Club Road to the south, Old Lake Mary Boulevard to west (generally)	Minority, Low Income and Transit Dependant	Predominantly vacant with some public institutional lands	
B60	Seminole Area 5	25th Street W. north, 417 angles west, Old Lake Mary Boulevard angles east	Minority	Predominantly vacant with some agricultural and public institutional lands	Quest Academy
B60	Seminole Area 6	Country Club Road north, Hardy Avenue east (generally), 25th Street W. south, Old Lake Mary Road west (generally)	Minority, Low Income and Transit Dependant	Predominantly vacant and public institutional with some industrial	
B60	Seminole Area 7	25th Street W. north, 17-92 angles southeast, Placid Lake Drive west (generally)	Minority, Low Income and Transit Dependant	Predominantly public institutional with some single family residential	Memorial Building (City Recreational), McKibbin Park, Druid Park, Seminole High School, Millennium Middle School, Seminole County Health Department
B60	Seminole Area 8	Chase Home north, Old Lake Mary Road angles southeast, Crystal View S. west	Minority	Predominantly single family residential with some public institutional	
B60	St. Gertrude	17-92 north, SR 46 south, Willner Circle west, Mangoustine Avenue east	Minority, Low Income and Transit Dependant; Central Florida Regional Hospital	Primarily public institutional, multi-family residential or vacant lands	Central Florida Regional Hospital; Within 1/2 mile of the proposed station location at Sanford SR 46; adjacent to Lake Monroe

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B61	Crystal Lake 1	Fredrick Avenue north, Country Club Road east, Lake Mary Boulevard south, Crystal Lake west		Predominantly public institutional and single family residential with some vacant lands	Crystal Lake Shores, Crystal Lake Beach Park, Lake Mary City Hall; Within 1/2 mile of the proposed station location at Railroad Avenue
B61	Crystal Lake 2	Fredrick Avenue north, Abbott Avenue east, Lake Mary Boulevard south, Country Club Road west	Minority	Predominantly single family residential with some public institutional	Stair Step Park, Lake Mary Police Department; Within 1/2 mile of the proposed station location at Railroad Avenue
B61	Crystal Lake 3	East Crystal Lake north, Old Lake Mary Road angles northeast, Abbott Avenue west	Minority	Predominantly single family residential with some vacant, public institutional and conservation	Within 1/2 mile of the proposed station location at Railroad Avenue
B61	Crystal Lake 4	Crystal Drive W. north (generally), East Crystal Lake east, Fredrick Avenue south, Country Club Road west	Minority	Predominantly single family residential with some vacant, public institutional and recreation	Liberty Park; Within 1/2 mile of the proposed station location at Railroad Avenue
B61	Egrets Landing	Old Lake Mary Road angles northwest, Egrets Landing Drive southeast	Minority	Predominantly vacant land	
B61	Evansdale	Lake Mary north, Broadmoor Road south, 3rd Street west (generally)	Existing rail corridor bisects neighborhood	Predominantly single family residential with some public institutional, water and vacant lands	Crescent Park; Within 1/2 mile of the proposed station location at Railroad Avenue; Lake Mary
B61	Groveview Village	Old Lake Mary Boulevard northwest, Sterling Pine Street east and Lake Mary Boulevard south (generally)	Minority; existing utility easement bisects neighborhood	Predominantly single family residential with some public institutional lands	Groveview Subdivision Park; Within 1/2 mile of the proposed station location at Railroad Avenue
B61	Hazel Glen	Hazel Boulevard north, Lake Mary Boulevard south and Old Lake Mary Boulevard northwest (generally)	Minority	Predominantly single family residential with some public institutional lands	Within 1/2 mile of the proposed station location at Railroad Avenue
B61	Hidden Lake	Generally located near Old Lake Mary Road angles northwest, Borada Road east, Wildwood Drive to the southwest	Minority	Predominantly single family residential with some public institutional	
B61	Lake Bingham	College Lane north (generally), College Drive east, Lake Road to south, Webster Street west (generally)		Predominantly public institutional with some single family residential and vacant lands	Seminole Community College, Fire Station 35
B61	Lakeview	Lake Mary Boulevard north, Country Club Road east, VanBuren south, Longwood Lake Mary Road west		Primarily single family residential with some vacant land	Lake Mary Elementary, Lake Mary Elementary Park
B61	LeTourneau Acres	Broadmoor Road north, Cardinal Oaks Court to east (generally), Main Road to south		Predominantly single family residential with some vacant lands	
B61	Seminole Area 10	17-92 angles northeast, Lake Mary Boulevard south, Old Lake Mary Road angles southwest (generally)	Minority	Predominantly vacant with some public institutional and single family residential	Devon Charter School, ACS Seminole Alternatives School
B61	Seminole Area 11	Old Lake Mary Boulevard northwest, Lake Mary Boulevard south	Minority	Predominantly single family residential with some public institutional and vacant lands	
B61	Seminole Area 12	Lake Mary Boulevard north (generally), Stillwood Lane east, Lake Mary south, Country Club Road west (generally)		Predominantly single family residential with some vacant, multi-family residential and public institutional	

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B61	Seminole Area 9	Airport Boulevard W. north, 17-92 east, Hidden Lake Drive south and Old Lake Mary Road west (generally)	Minority	Predominantly vacant with some single family residential and public institutional	Lee P. Moore Park
B61	The Cove	Old Lake Mary Road angles northeast, Regan Trail south (generally), East Crystal Lake west	Minority	Primarily vacant lands	
B61	Woldunn	Broadmoor Road north, 1st Road to east, Bush Hill Court south, Woldunn Circle to west		Predominantly single family residential and vacant with some public institutional	
B62	Big Tree Crossing	Waterway Place north, CR 427 southeast, Longwood Lake Mary Road west		Predominantly vacant and industrial with some public institutional lands	
B62	Cardinal Oaks	Broadmoor Road north, Webster Street east and Country Club Road west (generally)		Predominantly single family residential with some public institutional lands	
B62	Country Club Heights	Exeter Avenue north (generally), Country Club Road east, Continental Boulevard south, Clyde Avenue west		Predominantly single family residential with some public institutional lands	
B62	Country Downs	Keeneland Pike northeast, Country Club Road northwest		Predominantly single family residential with some public institutional lands	
B62	Countryside	Country Club Road east and Leslie Lane south		Predominantly single family residential with some vacant and public institutional lands	
B62	Crystal Creek	Silk Bay Place north, Clyde Boulevard east, CR 427 south		Predominantly single family residential with some public institutional lands	
B62	Eagle Creek	Humphrey Road north, Leslie Lane angles northeast and Eagle Creek Circle south (generally), Longwood Lake Mary Road west		Predominantly single family residential with some vacant and public institutional lands	
B62	Hampton Park	Oberlin Terrace north (generally), CR 427 angles southeast, Crystal Creek Drive west (generally)		Predominantly public institutional with some vacant and single family residential	
B62	Henson Acres	Acorn Drive north, Longwood Lake Mary Road east, Bay Meadow Road south and Meadowbend Drive west (generally)		Predominantly single family residential with some vacant and agricultural lands	
B62	Hidden Oak Estates	Generally located near Longwood Hills Road north, Cross Cut Way east, Freeman Street south, Cor Jesu Court west	Low Income	Predominantly single family residential with some water, conservation and public institutional lands	Within 1/2 mile of the proposed station location at Longwood
B62	Lake Searcy Shores	Generally located near Church Avenue W. north, CR 427 east, SR 434 south, Fig Tree Run west	Low Income; Orlando Regional South Seminole Hospital	Predominantly single family residential with some public institutional, vacant and office	Reiter Park, South Seminole Hospital School, Fire Station 15; Within 1/2 mile of the proposed station location at Longwood
B62	Lake Wayman Heights	Rosedale Avenue north, N. Grant Street west, E. Magnolia Avenue south	Minority	Predominantly single family residential with some public institutional lands	Longwood Elementary, Longwood Nazarene Pre-School/Day Care, Small World Park, Fire Station 17

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B62	Lakeview Heights	CR 427 angles northwest, Springwood Court south, Grant Street N. southeast (generally)	Low Income	Predominantly vacant and single family residential with some public institutional lands	Lake Ruth
B62	Longdale	Eagle Avenue north, Commerce Circle east (generally), Longdale Avenue south, Grant Street N. west	Minority	Predominantly single family residential with some recreation, public institutional, vacant and industrial lands	Candyland Park
B62	Longwood 1	Springwood Court north, CR 427 angles southeast, Cross Cut Way west (generally)	Low Income; Contains primary portion of the Longwood Historic District; Longwood City Hall, Longwood Post Office	Predominantly single family residential with some public institutional	Within 1/2 mile of the proposed station location at Longwood
B62	Longwood 2	N. Grant Street east, Georgia Avenue south, rail line angles northwest	Minority	Predominantly single family residential with some public institutional lands	Within 1/2 mile of the proposed station location at Longwood
B62	Longwood 3	CR 427 angles west, Georgia Avenue north, N. Grant Street east, SR 434 south	Low Income	Predominantly single family residential with some public institutional and vacant lands	Within 1/2 mile of the proposed station location at Longwood
B62	Longwood Green	Bay Meadow Road north, CR 427 east, Longwood Hills Road south, Lazy Acres Lane (generally)		Primarily public institutional, vacant or single family residential	
B62	Longwood Hills 2	Longwood Hills Road north, CR 427 east, Bucksaw Place west, 14th Avenue (generally) south	Low Income	Predominantly single family residential with some public institutional lands	
B62	Longwood Park	Howard Boulevard north, Longwood Lake Mary Road east, Acorn Drive south and Shriver Court west (generally)		Predominantly single family residential with some public institutional and vacant lands	
B62	Longwood Plantation	Generally located near Bucksaw Place north, CR 427 to east, Magnolia Avenue south, Freeman Street west	Low Income; Contains portion of Longwood Historic District	Predominantly vacant with some public institutional lands	Within 1/2 mile of the proposed station location at Longwood
B62	Meadow Brooke	Leslie Lane north, rail line west, Country Club Road east, Silk Bay place south (generally)		Predominantly single family residential with some vacant lands	
B62	Remington Oaks	Generally located near Sundance Drive north, Longwood Lake Mary Road east, Howard Boulevard south, Queensbridge Drive west		Predominantly public institutional with some vacant lands	Lake Mary High School, Greenwood Lakes Park
B62	Seminole Area 13	Lake Mary Boulevard north, Longwood Lake Mary Road east, Green Way Boulevard south, Lake Emma Road west	Minority	Predominantly vacant and single family residential with some public institutional lands	Greenwood Lakes Middle
B62	Seminole Area 14	Longwood Lake Mary Road west, Eagle Knob Point north (generally), Crystal Lake Neighborhood east, CR 427 south (generally)		Predominantly vacant with some public institutional lands	
B62	Sky Lark	Generally located near Timocuan Way north, Mocking Bird Lane east, Eagle Avenue south, Grant Street N. west	Minority	Predominantly single family residential with some public institutional lands	Crane Lake Park, Pelican Lake Park, Raven Park, Arbor Park

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B62	Soldiers Creek	Van Burden Avenue north, Country Club Road east and Humphrey Road south (generally), Longwood Lake Mary Road west		Predominantly single family residential with some vacant lands	Garden Academy of Learning
B62	Spring Hammock	N. CR 427 angles northwest, 17-92 angles southeast, Raven Avenue south	Minority	Predominantly conservation with some vacant and public institutional lands	Big Tree Park
B62	Tiberon Cove	Tiberon Cove Road north (generally), Eastport Drive east, Church Avenue W. southwest	Low Income	Predominantly single family residential with some public institutional and commercial lands	Within 1/2 mile of the proposed station location at Longwood
B62	Wildmere 2	N. Grant Street west, SR 434 south, Jessup Avenue north, Wayman Street east (southern portion)	Low Income	Predominantly single family residential and public institutional with some commercial	Within 1/2 mile of the proposed station location at Longwood
B63	Downtown Altamonte Springs 1	Pecan Drive north (generally), The Hermit's Trail east, Altamonte Drive E. south, Palm Springs Drive west	Minority, Low Income and Transit Dependant	Predominantly commercial with some public institutional	Portion of Hermit's Trail Park; Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Downtown Altamonte Springs 2	1st Street north (generally), CR 427 east, Altamonte Drive E. south, The Hermit's Trail west	Altamonte Springs City Hall	Primarily public institutional	Portion of Hermit's Trail Park, Fire Station 11; Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Downtown Altamonte Springs 3	Orange Drive south, Maitland Avenue east, Altamonte Drive north, Palm Springs Drive west	Transit Dependant	Predominantly vacant and commercial with some office	
B63	Downtown Altamonte Springs 4	Altamonte Drive north, CR 427 east, Lake Drive south (generally), Lake Villas Drive west	Minority, Low Income and Transit Dependant; Life Care Center of Altamonte Springs	Primarily commercial, multi-family residential or office	Within 1/2 mile of the proposed station location at Altamonte Springs
B63	East Altamonte 1	Station Street / Rail line angles southeast, CR 427 west, Magnolia Street north	Minority, Low Income and Transit Dependant; Altamonte Springs Post Office	Primarily public institutional, single family residential or vacant lands	Rosenwald Center; Within 1/2 mile of the proposed station location at Altamonte Springs; Lake Mobile
B63	East Altamonte 2	Orange Drive north, Maitland Avenue east, Sherwood Drive south, Altamonte Bay Club Circle west	Minority, Low Income and Transit Dependant	Primarily vacant public institutional or single family residential	Winwood Park; Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Fern Park Estates 1	Plumosa Avenue north, 17-92 east, Melody Lane south, Lake Mobile Drive west (generally)	Minority, Low Income and Transit Dependant	Predominantly vacant with some industrial and public institutional	
B63	Fern Park Estates 2	Melody Lane north, N. Cypress Way east, Lemon Lane south, Anchor Road west	Minority, Low Income and Transit Dependant	Predominantly public institutional with some industrial	
B63	Fern Park South	Division Street south, 17-92 east, Prairie Lake west, Altamonte Drive north	Minority, Low Income and Transit Dependant	Predominantly single family residential with some commercial	Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Grande South	Rail line west, Salina Drive east, Plum Lane north, Merrit Street south	Minority, Low Income and Transit Dependant	Predominantly single family residential with some vacant and public institutional lands	Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Lake Griffin	Dog Track Road north, 17-92 east, Concord Drive south and CR 427 west (generally)	Minority, Low Income and Transit Dependant; Health Oval Group Home, Lotus Lake Retirement Home	Predominantly single family residential with some public institutional and vacant lands	Milwee Middle School, Lotus Lake Petirement Home, Plaza Oval Group Home; Lake Griffin; Trout Lake; Lake Ellen
B63	Longwood 4	SR 434 north, N. Grant Street east, CR 427 west, Maine Avenue south	Transit Dependant	Predominantly single family residential and vacant with some public institutional	Within 1/2 mile of the proposed station location at Longwood

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B63	Maltbie Shores	Magnolia Drive south, SR 427 S. west, William Avenue east	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Oak Harbour	Sherwood Drive north (generally), Maitland Avenue east, Ellsworth Street south (generally), Lake Orienta Drive west	Transit Dependant	Predominantly vacant with some single and multi family residential	
B63	Prairie Lake	CR 427 west, Temple Avenue, Ridge Road and South Street south (portions), 17-92 east, Division street north	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	Fire Station 22; Within 1/2 mile of the proposed station location at Altamonte Springs; Prairie Lake
B63	Sanlando Springs 1	Campello Road south, Alberta Street north, Beach Avenue west	Transit Dependant	Predominantly industrial and vacant with some public institutional lands	Lake Seminole Park, Lake Elaine Park, Lake Phyllis Park, Island Lake Center
B63	Sanlando Springs 2	Campello Street north, Oak Avenue (generally) east,	Minority, Low Income and Transit Dependant	Predominantly single family residential and public institutional with some vacant lands	
B63	Sanlando Springs 5	CR 427 and Lake Avenue to east, The Hermit's Trail to the west (southern portion)		Predominantly single family residential with some public institutional lands	Portion of Hermit's Trail Park; Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Sanlando Springs 6	Tropical Hills Drive north, Adelaide Boulevard east, Holly Street south (generally)	Minority, Low Income and Transit Dependant	Predominantly single family residential with some vacant and public institutional lands	Portion of Hermit's Trail Park; Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Seminole Area 15	CR 427 west, Grant Street east, Georgia Avenue south	Transit Dependant	Predominantly vacant and single family residential with some public institutional lands	Within 1/2 mile of the proposed station location at Longwood
B63	Seminole Area 16	Wildmere Avenue north, CR 427 west, 17-92 east, Dog Track Road south	Transit Dependant; Longwood Healthcare Center	Predominantly office, single family residential and public institutional	Lyman High School, Northland Christian Academy, Columbus Harbour Recreation Area, Longwood Health Care Center
B63	Seminole Area 17	Rail line along east, Magnolia Street south, North Street north, Brentwood Avenue west (generally)	Minority, Low Income and Transit Dependant	Primarily industrial, vacant and public institutional	
B63	Seminole Area 18	Alpine Street north, The Hermit's Trail east and Altamonte Drive E. south (generally), Palm Springs Drive west	Minority, Low Income and Transit Dependant; Florida Hospital Altamonte	Predominantly single and multi-family residential with some vacant and public institutional lands	Florida Hosptial Altamonte, Altamonte Christian School; Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Seminole Area 19	Orienta Avenue north, CR 427 S. west	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	Within 1/2 mile of the proposed station location at Altamonte Springs
B63	Seminole Area 20	Maitland Avenue east, Orange Drive north (generally), Sherwood Drive south, Altamonte Bay Circle west	Transit Dependant	Primarily single family residential, water and vacant lands	
B63	Seminole Area 21	Orienta Avenue north, CR 427 east, Crestwood Lane south (generally), Maitland Avenue west	Minority, Low Income and Transit Dependant; Altamonte Springs Library, All Womens Healthier Center of Orlando	Predominantly single family residential with some public institutional, multi-family residential and recreation	Eastmonte Park, Turnbull Park, All Women's Health Center of Orando
B63	South Longwood	Rail line west, SR 427 east, comes to point at 434 north, Pineda Street south	Transit Dependant	Predominantly industrial with some vacant and public institutional lands	

Table B-4
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Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B63	Sunnytown	17-92 east, SR 436 south, Anchor Road west, Lemon Street north	Minority, Low Income and Transit Dependant	Predominantly single family residential and vacant with some public institutional lands	Central Christian Academy
B63	Town and Country Estates	CR 427 S. west, SR 436 north, Magnolia Drive south	Minority, Low Income and Transit Dependant	Predominantly vacant with some single family residential	Within 1/2 mile of the proposed station location at Altamonte Springs; Prairie Lake
B63	Wildmere 1	Maine Avenue and SR 434 north, Wildmere Avenue south, Oxford Street east, CR 427 west	Transit Dependant	Predominantly single family residential	Little Wonders of God Academy; Within 1/2 mile of the proposed station location at Longwood
B64	Charter Oaks 1	Crestline Lane north, Walnut Place east, Spring Lake Road south, Woodling Place west (generally)	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	
B64	Charter Oaks 2	Spring Lake Road north, Walnut Place east, Bishop Drive south, Woodling Place west		Predominantly single family residential with some public institutional	
B64	Cherrywood Gardens	17-92 angles along north, Cherrywood Gardens Drive east, North Avenue south	Transit Dependant	Predominantly vacant with some public institutional and commercial lands	
B64	Fern Terrace 1	Temple Avenue north, Walnut Place west, Button Fern Lane south, Jaffa Drive east	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	
B64	Fern Terrace 2	O'Brien Road north, Jaffa Drive east, Walnut Place west		Predominantly commercial, public institutional and single family residential	Wilford Woodruff Academy School
B64	Floridahaven	Lake Seminary around east, north and west, Faith Avenue south (generally)		Predominantly single family residential	
B64	Lake Ridge Park	South Street north, Ridge Road / Temple Avenue south, Highland Drive to the west	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional	
B64	Lakewood Shores	17-92 angles to north, Cherrywood Gardens Drive west, North Avenue south, Lake of the Woods east	Transit Dependant	Predominantly single and multi-family residential with some commercial and public institutional lands	La Administad Foundation / Lakewood Center
B64	Oak Park	Pennsylvania Avenue north, Maitland Avenue west, Woodling Place east (generally), Spring Lake Road south	Minority, Low Income and Transit Dependant	Predominantly single family residential with some public institutional lands	
B64	Oak Springs	Martin Avenue west, Ellsworth Street north, Pershing Drive south, Maitland Avenue east	Transit Dependant	Predominantly single family residential with some public institutional lands	
B64	Seminole Area 22	O'Brien Road south, Button Fern Lane west, South Street north, 17-92 east	Minority, Low Income and Transit Dependant	Predominantly commercial with some multi and single family residential and industrial	
B64	Seminole Area 23	O'Brien Road north, 17-92 east, Seminole Orange County boarder south, Lake Seminary to the west		Predominantly vacant with some industrial and public institutional lands	
B64	Seminole Area 24	Spring Lake Road north, Woodling Place east, Faith Terrace south (generally), Maitland Avenue west		Predominant Land Use is Public / Institutional with the rest being made up of mostly residential single family	Maitland Retirement Home, St. Mary Magdalen School

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B64	Seminole Area 25	Ornale Road north, Maitland Avenue east, Orange/Seminole County Boundary south, Lake Shore Drive west		Predominantly single family residential	
B64	Seminole Area 26	Florida Haven Drive north, Orange/Seminole County Boundary south, Maitland Avenue west		Predominantly single family residential	
B64	Wellington	Gastonberry Road east, Hewett Lane north (generally), Derbyshire Road south, Lake of the Woods west	Transit Dependant	Predominantly residential single family with minimal Public / Institutional lands	

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11	Bucher Heights	Maitland Boulevard north and Faith Street east (generally), Sandspur Road south	Transit Dependent	Predominantly single family residential	
11	Camwood	Lake Maitland angles northeast, New York Avenue east, Park Avenue south, Summerland Avenue west		Predominantly single family residential	Adjacent to Lake Maitland
11	Clarks Addition	E. Kennedy Boulevard north, East Street east, Lime Street south, West Street west	Minority and Transit Dependent	Primarily single and multi-family residential	Fire Station 46
11	Delroy Park	Horatio Avenue north, Oakleigh Drive east (generally), Lake Maitland south		Predominantly single family residential	Adjacent to Lake Maitland
11	Dixie Terrace	Willard Avenue north, Sunnyside Drive east, Park Avenue angles southwest		Predominantly single family residential	
11	Dixie Terrace 2	Magnolia Road north (generally), Sunnyside Drive east, Willard Avenue south (generally), 17-92 west		Primarily single family residential with some commercial	
11	Fairoaks	Fair Oaks Lane north, Lake Minnehaha south		Primarily single family residential with some water	
11	Green Oaks	Lake Maitland north and east, Dixie Parkway south, Sunnyside Drive west		Predominantly single family residential	Adjacent to Lake Maitland
11	Greenwood Gardens 1	Greenwood Road north, Robinhood Drive east, Sybelia Avenue south, Maitland Avenue west	Transit Dependent	Primarily single and multi-family residential	
11	Greenwood Gardens 2	Maitland Boulevard north, Maitland Avenue east, Sybelia Avenue south, Hillcrest Avenue west (generally)	Transit Dependent	Predominantly single family residential	
11	Hillcrest Village	Generally located near Maitland Boulevard north, Hillcrest Avenue east, Sandspur Road south, Faith Street west	Transit Dependent	Predominantly single family residential	
11	Home Acres	Monroe Avenue north, 17-92 east, Lee Road south, Bennett Avenue west	Low Income and Transit Dependent	Primarily commercial and single family residential	
11	Lake Catherine	Windgrove Trail north, Lake Catherine Drive east, Lake Avenue south, East Street west	Transit Dependent	Primarily water with some single family residential and agriculture	Adjacent to Lake Catherine and Park Lake
11	Lake Eulalia Heights	Lake Catherine Drive north, Lake Avenue south and Barnard court east (generally), Park Lane W. west	Transit Dependent	Predominantly water	Adjacent to Lake Catherine
11	Lake Faith	Lake Faith north, Lookout Place east, Maitland Boulevard south, Lake Faith Drive west (generally)	Transit Dependent	Primarily multi-family residential, water and agriculture with some single family residential	Lake Faith
11	Lake Maitland Manor	Manor Road angles northwest, Lake Maitland angles southeast		Primarily single family residential with some water	Adjacent to Lake Maitland
11	Lake Maitland Shores	Quayside Circle north (generally), Lake Maitland east, Magnolia Road south, 17-92 west		Predominantly multi-family residential with some single family residential	Adjacent to Lake Maitland
11	Lake Sybelia	Sandspur Road north, Maitland Avenue east, Packwood Avenue south, Lake Sybelia Drive west		Primarily single family residential with some commercial	Lake Sybelia Beach Park, Hill Recreational Center, Hill Park School, Post Office; Adjacent to Lake Sybelia
11	Lake Sybelia Cove	Lake Sybelia Drive angles northwest, Lake Catherine Drive angles southeast, Windgrove Trail south (generally)	Transit Dependent	Primarily agriculture with some single family residential and water	Adjacent to Lake Catherine and Lake Sybelia
11	Lakeview Terrace	Lake Sybelia Drive north, Boynton Road east, Lake Catherine Drive south, S. Lake Sybelia Cove west	Transit Dependent	Predominantly water	Adjacent to Lake Catherine and Lake Sybelia
11	Magnolia Court	17-92 angles northwest, Versailles Circle east and George Avenue south (generally)		Primarily public / institutional with some commercial and conservation	
11	Magnolia Farms	Magnolia Road north, Ridgewood Avenue east, Tangerine Place south, 17-92 west		Primarily multi-family residential with some commercial	
11	Magnolia Gardens	Railroad Avenue angles northeast, Webster Avenue south, Denning Drive west	Minority, Low Income and Transit Dependent	Primarily commercial and single family residential	
11	Maitland 1	Sybelia Avenue north, 17-92 east, Packwood Avenue south, Maitland Avenue west		Primarily commercial with some public / institutional	Fire Station 45, City of Maitland City Hall, Maitland Police Department
11	Maitland 2	Versailles Circle north (generally), Lake Minnehaha east, Horactio Avenue south, N. Swoope Avenue west		Primarily single family residential with some conservation	
11	Maitland 3	Packwood Avenue north, Manor Road east (generally), Lake Maitland south, 17-92 west		Primarily single family residential with some multi-family residential and commercial	Adjacent to Lake Maitland
11	Maitland 5	W. Packwood Avenue north, 17-92 east, Monroe Avenue south, Lake Catherine Drive west	Transit Dependent; Four historic structures - Wise-Taliaferro Residence, Ventris Avenue, Pine Crest Villa, S. Central Avenue, William Waterhouse House, S. Lake Lily Drive, Episcopal Church of the Good Shepard Chapel, Maitland	Primarily commercial and water	Lake Lily Park, Senior Center, Fort Maitland Park, Library; Adjacent to Park Lake, Lake Catherine and Lake Sybelia
11	Maitland Concourse	Maitland Boulevard angles northwest, Bucher Road, east, Sandspur Road south, Concourse Parkway loops west	Transit Dependent	Predominantly agriculture	
11	Maitland Forest	Mayo Avenue north, Terra Place east (generally), Bentley Lane south, Shady Run Lane west		Primarily conservation with some single family residential	
11	Maitland Grove	Sandspur Road angles north, Hillman Avenue east, Lake Sybelia Drive south, Pryde Drive west		Predominantly single family residential	

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11	Maitland Park South	Magnolia Road north, Sunnyside Drive east, Alpine Drive south (generally), Ridgewood Avenue west		Predominantly single family residential	
11	Maitland Place	17-92 angles northeast, Lake Minnehaha east (generally), George Avenue south		Primarily commercial with some public / institutional and conservation	
11	Minnehaha Shores	Lake Minnehaha north, Dommerich Drive east, Horatio south, Minnehaha Circle west		Primarily single family residential with some water and recreation	Minnehaha Park
11	Northshore Estates	Sandspur Road north, Hope Trail east (generally), Lake Sybelia Drive south, Hillman Avenue west (generally)		Primarily public / institutional and single family residential with some agriculture	Lake Sybelia Elementary; Adjacent to Lake Sybelia
11	Oaks of Maitland	Mayo Avenue north, Sequoia Trail east, Lake Minnehaha south, Quinwood Lane west		Predominantly single family residential	
11	Oakwood	Greenwood Road north, 17-92 east, Marion Way south and Robinhood Court west (generally)	Transit Dependent	Primarily single family residential with some commercial	
11	Orange Area 1	North Avenue north, Tuckaseegee Trail east, Mayo Avenue south, Ellington Drive west		Primarily single family residential with some agriculture and conservation	
11	Orange Area 2	Orange/Seminole Boundary north, Lake Faith Drive east, Maitland Boulevard south, Lake Charity west	Transit Dependent	Primarily agriculture with some single family residential and water	
11	Orangedale Park	Tangerine Place north, Ridgewood Avenue east, Orange Place south (generally), 17-92 west		Primarily single family residential with some commercial	
11	Packwood	Horatio Avenue north and east, Packwood Avenue south, 17-92 to west		Primarily commercial with some conservation and single and multi-family residential	Covered Bridge Park, Jim Hourser Azalea Garden
11	Palm Cove	Orange/Seminole County border north, Ellington Drive east, Mayo Avenue south, Sanford Avenue west		Predominantly single family residential	Maitland Community Park
11	Park Grove	Dixie Parkway north, Summerland Avenue east, Park Avenue south, Sunnyside Drive west		Predominantly single family residential	
11	Park Lake	Lake Avenue north, Park Lake east, Park Lake Place south, East Street west	Transit Dependent	Primarily multi-family residential with some water and agriculture	Adjacent to Park Lake
11	Park Lake Grove	Park Lake Place north, Gem Lake Drive east (generally), Monroe Avenue south, Pearlnan Court west (generally)	Transit Dependent	Primarily multi-family residential and agriculture with some single family residential	Adjacent to Park Lake
11	Park Lake Shores	17-92 east, Monroe Avenue south, Gem Lake Drive west (generally)	Transit Dependent	Primarily multi-family residential with some water, commercial and single family residential	Adjacent to Park Lake
11	Park North	Park Avenue north, New York Avenue east, Beloit Avenue south, Pennsylvania Avenue west		Predominantly single family residential	
11	Pennsylvania Place	Park Avenue north, N. Pennsylvania Avenue east, Railroad Avenue angles southwest, Denning Drive west		Primarily single family residential with some agriculture	
11	Stonehill	Orange/Seminole County border north, Stonehill Drive east, Lookout Place south, N. Maitland Avenue west	Transit Dependent	Predominantly single family residential	Adjacent to Lake Faith
11	Sybelia Shores	Pryde Drive angles northeast, Lake Sybelia Drive angles southeast, Willowbrook Trial to west		Predominantly single family residential	Adjacent to Lake Sybelia
11	Terra Place	Mayo Avenue north, Quinwood Lane east, Fair Oaks Lane south, Terra Place west (generally)		Predominantly single family residential	
11	Twelve Oaks	Lake Maitland north and east, Park Avenue angles southwest		Primarily single family residential with some water	Adjacent to Lake Maitland
11	Twin Acres	Park Avenue angles northeast, Denning Drive east, Solana Avenue angles southwest		Primarily commercial with some single family residential	
11	Versailles	17-92 angles northwest, Shady Run Lane angles southeast, Versailles Circle south		Predominantly single family residential	
11	Westminster	Maitland Boulevard north and Bucher Road east (generally), Sandspur Road south	Transit Dependent	Predominantly single family residential	
11	Winter Park 5	Park Avenue north, Old England Avenue east, Webster Avenue south, New York Avenue west	One historic district - Winter Park Club and Golf Course	Primarily single family residential with some recreation	Adjacent to Lake Maitland; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
11	Winter Park 6	Palmer Avenue north, Lake Osceola east, Webster Avenue south, Old England Avenue west		Predominantly single family residential	Adjacent to Lake Maitland and Lake Osceola
11	Winter Park 7	Beloit Avenue north, New York Avenue east, Webster Avenue south, Pennsylvania Avenue west	One historic district - Winter Park Club and Golf Course	Primarily public / institutional with some recreation	Within 1/2 mile of the proposed Winter Park/Park Avenue Station
11	Winter Park 8	Solana Avenue angles northeast, Denning Drive east, Webster Avenue south (generally), 17-92 west	Low Income and Transit Dependent	Primarily commercial with some public / institutional	Winter Park Tech
11	Winter Park Oaks	Monroe Avenue north, Bennett Avenue east, Lee Road south, Lake Bell west	Minority, Low Income and Transit Dependent	Primarily multi-family residential with some agriculture, single family residential and commercial	
11	Woodbridge	Orange/Seminole County border north, 17-92 east, Maitland Boulevard south and Stonehill Drive west (generally)	Transit Dependent	Primarily single family residential with some vacant lands	Summit Charter School
12	Beverly Park	Fairbanks Avenue north, 17-92 east, Gene Street south, Nicolet Avenue west	Low Income and Transit Dependent	Predominantly commercial	
12	Bungalow Park	Bungalow Avenue north, Denning Drive east, Harmon Avenue south, 17-92 west	Low Income and Transit Dependent	Primarily single family residential with some commercial	

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12	Capens	Webster Avenue north, Pennsylvania Avenue east, Morse Boulevard south, Denning Drive west	Minority, Low Income and Transit Dependent	Primarily single family residential with some commercial	Valencia Community College; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
12	Cherokee Park	Minnesota Avenue north, Pennsylvania Avenue east, Azalea Lane west		Primarily recreation and single family residential	Portion of Mead Gardens
12	College Quarter	Holt Avenue north, French Avenue east, Victoria Avenue south, Pennsylvania Avenue west	One historic district - College Quarter District	Primarily single family residential with some multi-family residential	Adjacent to Lake Virginia; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
12	Columbia Court	Huntington Avenue north, Lakeview Drive east (generally), Clarandon Avenue south, Pennsylvania Avenue west		Primarily public / institutional with some single family residential	
12	Fairbanks Park	Fairbanks Avenue north, Denning Drive east, S. Kentucky Avenue south, Ward Avenue west	Low Income and Transit Dependent	Primarily commercial with some single family residential	
12	Garden Acres	Harmon Avenue north, Denning Drive east, Nottingham Street south, 17-92 west		Predominantly single family residential	
12	Harper Place	Minnesota Avenue north, 17-92 east, Harmone Avenue south, Wisconsin Avenue west	Transit Dependent	Predominantly commercial with some multi and single family residential	
12	Hill Addition	Canton Avenue north, Denning Drive east, Morse Boulevard south, Orlando Avenue west	Low Income and Transit Dependent	Primarily commercial with some public / institutional	
12	Lake Island Estates	Morse Boulevard north, Denning Drive east, Fairbanks Avenue south, 17-92 west	Low Income and Transit Dependent	Primarily recreation with some commercial	Lake Island Park
12	Lake Killarney	Lee Road north, 17-92 east, Lake Killarney angles along southwest	Low Income and Transit Dependent	Primarily commercial with some water and single and multi-family residential	Adjacent to Lake Kilarney
12	Lawndale	W. Fairbanks Avenue north, Wisconsin Avenue east (generally), Harmon Avenue south, I-4 west	Low Income and Transit Dependent	Primarily commercial with some single family residential and public / institutional	Adjacent to Lake Kilarney
12	Oak Crest	W. Fairbanks Avenue north, Ward Avenue east, N. Kentucky Avenue south, 17-92 west	Low Income and Transit Dependent	Primarily commercial with some single family residential	
12	Oak Park	Barcelona Way east, Nottingham Street south, Denning Drive west		Predominantly recreation	Portion of Mead Gardens; Adjacent to Lake Sue
12	Orange Area 4	Gene Street north, 17-92 east, Minnesota Avenue south, Nicolet Avenue west	Transit Dependent	Predominantly commercial	
12	Orwin Manor 4	Harmon Avenue north, 17-92 east, Nottingham Street south, Clay Street west	Transit Dependent; One historic district - Orwin Manor Historic District	Primarily single family residential with some commercial	Within 1/2 mile of the proposed Florida Hospital Station
12	Rexarden	Holt Avenue north, Orange Avenue east, Denning Drive angles west	Minority, Low Income and Transit Dependent	Primarily commercial with some recreation	Within 1/2 mile of the proposed Winter Park/Park Avenue Station
12	Sevilla	Barcelona Way north and west, South Pennsylvania Avenue east, Lake Sue south		Predominantly single family residential	Portion of Mead Gardens: Adjacent to Lake Sue
B65	Seville Park	Aragon Avenue north, Denning Drive east, Bungalow Avenue south, 17-92 west	Low Income and Transit Dependent	Primarily single family residential with some commercial	
B65	Virginia Heights	Clarendon Avenue north, Lake Virginia east, Lake Sue Avenue south, Pennsylvania Avenue west		Primarily single family residential with some conservation	Winter Park High: Adjacent to Lake Virginia
B65	Winter Park 1	Park Avenue northeast, Morse Boulevard south, Pennsylvania Avenue west	Minority, Low Income and Transit Dependent	Primarily single family residential with some commercial and public / institutional	Fire Station 60, Post Office; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
B65	Winter Park 2	W. Webster Avenue north, Interlachen Avenue east, Holt Avenue south, Park Avenue west	Low Income and Transit Dependent; One historic district - Winter Park Club and Golf Course; One historic structure - Winter Park ACL Freight Depot, W. New England Avenue	Primarily commercial with some recreation, multi-family residential and public / institutional	Central Park, Winter Park City Hall, Winter Park Police Department, Fire Station 61, Winter Park Country Club; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
B65	Winter Park 3	Morse Boulevard north, Park Avenue east, Holt Avenue south, Denning Avenue west	Minority, Low Income and Transit Dependent	Primarily single family residential and commercial	Shady Park, Hannibal Square; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
B65	Winter Park 4	Webster Avenue north, Lake Osceola / Lake Virginia east and south, Interlachen Avenue west	Transit Dependent	Primarily single family residential and public / institutional with some multi family residential	Library, Rollins College, Dinky Dock Park; Adjacent to Lake Osceola and Lake Virginia; Within 1/2 mile of the proposed Winter Park/Park Avenue Station
B65	Winter Park Gardens	Barnum Avenue angles northwest, Azalea Lane east, Harmon Avenue south		Primarily multi-family residential with some single family residential, recreation and commercial	Portion of Mead Gardens
B65	Winter Park Village	Webster Avenue north (generally), Denning Drive east, Canton Avenue south, 17-92 west	Low Income and Transit Dependent	Predominantly commercial	
B66	Central Business District 1	S. Ivanhoe Boulevard north, Highland Avenue east, E. Colonial Drive south, I-4 west	Low Income; Three historic structures - Orlando Water and Light Company, N. Orange Avenue; Judge Cheney House, N. Garland Avenue; Colonial Garage, W. Colonial Drive (both border between Central Business Districts 1 and 2)	Primarily commercial with some single family residential	Portion of Park Lake Park, Marks Street Senior Recreation Center, Senator Beth Johnson Park: Adjacent to Lake Ivanhoe, Lake Concord, Lake Highland and Park Lake; Within 1/2 mile of the proposed LYNX Central Station
B66	College Park 1	Par Street north, I-4 east, Winter Park Street south, Harrison Avenue west		Predominantly single family residential	Mathews Park
B66	College Park 2	Winter Park Street north, I-4 east, Ivanhoe Boulevard south, Ivanhoe Road west		Primarily single family residential with some water	Lake Ivanhoe Park; Lake Ivanhoe; Within 1/2 mile of the proposed Florida Hospital Station

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B66	College Park 3	Darmount Street north, I-4 east (generally), Colonial Drive south, Edgewater Drive west		Primarily single family residential with some water	Ivanhoe Plaza Park, Portion of Don Dudley Park; Adjacent to Lake Concord, Lake Ivanhoe and Lake Dot; Within 1/2 mile of the proposed Florida Hospital Station
B66	Colonialtown North 1	Yates Street north, Edgewater Drive east, Colonial Drive south, 17-92 west	Low Income	Primarily single family residential with some commercial	Colonialtown Park/Neighborhood Center, Colonialtown Square Park, Fire Station 4
B66	Golfview	Minnesota Avenue north, Formaos Avenue east, Par Street south, Edgewater Drive west		Primarily recreation with some single family residential	Dubsdread Golf Course
B66	Lake Formosa 1	Rollins Street north, 17-92 east, Princeton Street south, McRae Avenue west (generally)	Minority	Predominantly commercial	Loch Haven Park (* note that this park holds several other cultural facilities*); Adjacent to Lake Estelle; Within 1/2 mile of the proposed Florida Hospital Station
B66	Lake Formosa 2	E. Princeton Street north, 17-92 east, Virginia Drive south, Orange Avenue west	Low Income	Primarily commercial with some single family residential and water	Loch Haven Park Neighborhood Center, Lake Formosa Park; Lake Formosa; Within 1/2 mile of the proposed Florida Hospital Station
B66	North Orange 1	Par Street north, Clippinger Court east, I-4 Ramp south, I-4 west	Transit Dependent; One historic district - Orange Avenue Commercial District	Primarily commercial with some water and single family residential	Gaston Edwards Park; Lake Ivanhoe; Within 1/2 mile of the proposed Florida Hospital Station
B66	North Orange 2	Wilkinson Street north, Rollins Street south, Estelle Drive west	Minority	Primarily commercial with some water	Florida Hospital; Lake Winyah and Lake Estelle; Within 1/2 mile of the proposed Florida Hospital Station
B66	Orwin Manor 1	Westminster Street north, Orange Avenue angles east, Clay Street west	Transit Dependent; One historic district - Orwin Manor Historic District	Predominantly single family residential	Portion of Orwin Manor Park; Within 1/2 mile of the proposed Florida Hospital Station
B66	Orwin Manor 2	Nottingham Street north, 17-92 east, Rollins Street south, N. Orange Avenue west (generally)	Minority; One historic District: Orwin Manor Historic District	Primarily single family residential with some water	Portion of Orwin Manor Park; Lake Winyah and Lake Estelle; Within 1/2 mile of the proposed Florida Hospital Station
B66	Orwin Manor 3	Nottingham Street north, Lake Sue east, Lake Shore Drive south, 17-92 west	One historic district - Orwin Manor Historic District	Primarily single family residential with some water	Lake Estelle Park; Lake Sue, Adjacent to portions of Lake Rowena and Lake Estelle; Within 1/2 mile of the proposed Florida Hospital Station
B66	Park Lake Highland 1	Virginia Drive north, 17-92 east, Marks Street south, Highland Avenue west	Low Income	Primarily single family residential, commercial and public / institutional with some water	Big Tree Park; Lake Highland; Adjacent to Lake Ivanhoe
B66	Park Lake Highland 2	E. Mark Street north, 17-92 east, E. Colonial Drive south, Highland Avenue west	Low Income	Primarily single family residential with some commercial	Portion of Park Lake Park; Park Lake
B66	Pinecrest	Harmon Avenue north, Clay Street east, Par Street south, I-4 west	Low Income and Transit Dependent	Primarily single family residential, public / institutional and commercial	
B66	Pinewood 2	I-4 north and east, Par Street south, Formosa Avenue west		Predominantly single family residential	
B66	Rowena Gardens 1	Lake Shore Drive north, Merritt Park Drive east, Nebraska Street south, 17-92 west		Primarily single family residential with some vacant land and water	Lake Rowena Park; Within 1/2 mile of the proposed Florida Hospital Station
B66	Rowena Gardens 2	Nebraska Street north, Fern Creek Avenue east, Virginia Drive south, 17-92 west	Low Income	Primarily single family residential with some commercial	
B67	Callahan 1	Amelia Street north, I-4 east, Washington Street south, Parramore Avenue west	Minority, Low Income and Transit Dependent	Primarily commercial with some recreation	Orlando Tennis Center, Orlando Downtown Recreation Complex, Orlando Centroplex, Expo Center, Callahan Neighborhood Center, Ford Community Charter, Orlando Police Department; Within 1/2 mile of the proposed LYNX Central Station
B67	Callahan 2	Washington Street north, Hughey Avenue east, Central Boulevard south, Parramore Avenue west		Predominantly commercial	Within 1/2 mile of the proposed LYNX Central Station
B67	Carlton Terrace	Michigan Street north, Taylor Avenue east, Williana Street south, Wadsworth Avenue west	Low Income and Transit Dependent	Predominantly commercial	
B67	Central Business District 2	Colonial Drive north, Lake Avenue east (generally), East-West Expressway south, I-4 west	Minority, Low Income and Transit Dependent; Five historic structures - Judge Cheney House, N. Garland Avenue; Colonial Garage, W. Colonial Drive (both border between Central Business Districts 1 and 2); Harry P. Leu, Inc., W. Livingston Street; Bumby Hardware, Church Street; Old Railroad Depot, Church Street; One historic district - Downtown Orlando Historic District;	Primarily commercial with some public/institutional	Heritage Square, Lake Eola Charter, City Commons Plaza, Passport Charter, Fire Station 1, Orange County Courthouse, Orlando Public Library, Orlando City Hall; Adjacent to Lake Eola and Lake Lucerne; Within 1/2 mile of the proposed LYNX Central Station
B67	College Park 4	Yates Street north, Edgewater Drive east, Colonial Drive south, Orange Blossom Trail west		Predominantly single family residential	Portion of Don Dudley Park, Lake Adair Park, Overbrook Park; Adjacent to Lake Concord; Within 1/2 mile of the proposed LYNX Central Station
B67	Holden Heights 1	W. Kaley Avenue north, I-4 east, Michigan Street south, Orange Blossom Trial west	Minority, Low Income and Transit Dependent	Predominantly single family residential	Kaley Square Park
B67	Holden Heights 2	Gore Street north, I-4 east, Orange Blossom Trail west (generally)	Minority, Low Income and Transit Dependent	Primarily single family residential with some commercial	Grand Avenue Elementary, Grand Avenue Park; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	Holden Heights 3	Michigan Street north, Lake Holden east, 33rd Street south, Lee Street west		Predominantly single family residential	Adjacent to Lake Holden

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Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B67	Holden Heights 4	W. Miller Avenue north, Parramore Avenue east, W. Kaley Avenue south, Orange Blossom Trail west (generally)	Minority, Low Income and Transit Dependent	Predominantly single family residential	Lake June; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	Holden/Parramore 1	Church Street north, Lee Avenue east, East-West Expressway south, Orange Blossom Trail west	Minority, Low Income and Transit Dependent	Primarily single family residential with some commercial	
B67	Holden/Parramore 2	East-West Expressway north, Parramore Avenue east, Gore Street south, Orange Blossom Trail west	Minority, Low Income and Transit Dependent	Primarily institutional with some single and multi-family residential	John H. Jackson Community Center
B67	Holden/Parramore 3	Central Boulevard north, Hughey Avenue east, Church Street south, Parramore Avenue west		Predominantly commercial	Fire Station 2
B67	Holden/Parramore 4	Church Street north, Hughey Avenue east, East-West Expressway south, Lee Avenue west	Minority, Low Income and Transit Dependent	Primarily commercial with some single family residential	Within 1/2 mile of the proposed LYNX Central Station
B67	Holden/Parramore 5	East-West Expressway north, I-4 angles east, Gore Street south, Parramore Avenue west	Minority, Low Income and Transit Dependent	Primarily multi-family residential with some single family residential	ZL Riley Park
B67	Lake Cherokee 1	East-West Expressway north, Delaney Avenue east, Gore Street south, S. Orange Avenue west	Low Income and Transit Dependent	Primarily multi-family residential with some water and commercial	Mayor William Beardall Senior Center; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	Lake Cherokee 2	East-West Expressway north, S. Summerlin Avenue east, Gore Street south, Delaney Avenue west	Low Income and Transit Dependent	Primarily multi-family residential with some water and single family residential	Cherokee School, Lake Cherokee Park, Cherokee Park; Lake Cherokee; Adjacent to Lake Davis
B67	Lake Copeland	Cherokee Drive north, Delaney Avenue east, Hollenbeck Street south (generally), Orange Avenue west		Primarily commercial and single family residential with some water	Al Coith Park; Lake Copeland and Lake Lurna; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	Lake Dot	Colonial Drive north, I-4 east, Amelia Street south, Parramore Avenue west	Minority, Low Income and Transit Dependent	Primarily commercial with some single family residential	Lake Dot Park, Lake Dot; Orlando Tech; Within 1/2 mile of the proposed LYNX Central Station
B67	Lake Eola Heights 1	E. Colonial Drive north, N. Summerlin Avenue east, E. Amelia Street south, N. Magnolia Avenue west	Low Income and Transit Dependent	Primarily multi-family residential with some commercial	Adjacent to Park Lake; Within 1/2 mile of the proposed LYNX Central Station
B67	Lake Eola Heights 2	Amelia Street north, Summerlin Avenue east, Central Boulevard south, Rosalind Avenue west		Primarily multi-family residential with some commercial	Adjacent to Lake Eola; Within 1/2 mile of the proposed LYNX Central Station
B67	Lake Holden Area 1	Michigan Street north, Wadsworth Avenue east, Richard Place south (generally), Lake Holden west		Primarily single family residential with some water and commercial	Adjacent to Lake Holden
B67	Pineloch 1	Michigan Street north, Delaney Avenue east, Pinelock Avenue south, Orange Avenue west (generally)	Low Income and Transit Dependent	Predominantly commercial	
B67	Pineloch 2	Michigan Street north, Osceola Avenue east, Pineloch Avenue south, Delaney Avenue west		Predominantly commercial	
B67	South Division 1	I-4 angles northwest, Hughey Avenue east, Gore Street south	Low Income and Transit Dependent	Primarily commercial with some public / institutional	Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	South Division 2	Gore Street north, Hughey Avenue east, Kaley Street south, I-4 west	Low Income	Primarily commercial with some industrial	Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	South Division 3	W. Kaley Avenue north, Lucerne Trail east (generally), Orange Avenue south, Michigan Street west	Minority, Low Income and Transit Dependent	Primarily industrial with some commercial	Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	South Eola 1	Robinson Street north, Summerlin Avenue east, Central Boulevard south, Rosalind Avenue west		Primarily water with some commercial	Lake Eola Park; Lake Eola; Within 1/2 mile of the proposed LYNX Central Station
B67	South Eola 2	Central Boulevard north, Summerlin Avenue east, East-West Expressway south, Lake Avenue west	Low Income and Transit Dependent	Primarily commercial with some recreation and multi-family residential	Constitution Green; Adjacent to Lake Eola
B67	South Orange 1	East-West Expressway north, Orange Avenue east, Gore Street south, S. Orange Avenue west	Low Income and Transit Dependent	Predominantly commercial	Southern Gateway Park; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	South Orange 2	Gore Street north, Orange Avenue east, Miller Street south, Sligh Boulevard west	Low Income; One historic structure - Orlando ACL Railroad Structure, Sligh Boulevard;	Primarily commercial with some single family residential	Orlando Regional Healthcare System, Lake Beauty Park and Bloch Cancer Survival Park; Lake of the Woods; Adjacent to Lake Copeland; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	South Orange 3	Kaley Street north, Orange Avenue east, Michigan Street south, Lucerne Trail west (generally)	Minority, Low Income and Transit Dependent	Predominantly commercial	Fire Station 5; Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B67	Wadeview Park 1	Hollenbeck Street north, S. Osceola Avenue east, Michigan Street south, Orange Avenue west	Low Income	Predominantly single family residential	Within 1/2 mile of the proposed Orlando AMTRAK/ORMC Station
B68	Albert Shores	Pineloch Avenue north, S. Orange Avenue east (generally), Cattail Court (generally) and Lake Holden west		Primarily industrial and single family residential	Adjacent to Lake Holden
B68	Camelot by the Lake	Old Orchard Lane north, Little Lake Conway east, Unnamed Street 190 south, Orange Avenue west (generally)		Predominantly multi-family with some single family residential	Adjacent to Little Lake Conway
B68	De Lome Estates	Derry Down Road north, Summerlin Avenue east, Lake Jennie Jewel southwest	Transit Dependent	Predominantly single family residential	
B68	Gatlin 1	Orange Avenue angles northeast, Jamacia Lane south, Lake Jessamine west (generally)		Primarily agriculture with some industrial	

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B68	Gatlin 2	Lake Gatlin Road north, Lake Gatlin Woods east, Jamacia Lane south		Predominantly commercial	
B68	Gatlin 3	Harbour Island Road north, Lake Conway east, Mandalay Road south, Orange Avenue west (generally)		Primarily industrial or commercial	Adjacent to Little Lake Conway;
B68	Gore 1	Gatlin Avenue north, Lake Gatlin south		Predominantly single family residential	Adjacent to Lake Gatlin
B68	Granada Woods	Holden Avenue north, Unnamed Street 197 east, Lake Jessamine south, Jessamine Lane west		Predominantly single family residential	Adjacent to Lake Jessamine
B68	Hansel-Prescott	Prescott Drive north, Lake Gatlin east, Harbour Island Road south (generally), Orange Avenue west		Primarily commercial and single family residential	Adjacent to Lake Gatlin
B68	Holden Park	Lake Holden north, Brandeis Avenue east (generally), Holden Avenue south, South Shore Road west (generally)		Primarily single family residential with some agriculture	Adjacent to Lake Holden
B68	Jessamine Beach	Lake Jessamine north and west, Rockwood Avenue east, Roselawn Drive south (generally)		Predominantly single family residential	Big Oak Park; Adjacent to Lake Jessamine and Lake Mary
B68	Lake Conway	Little Lake Conway north, Hoffner Avenue south, Randolph Avenue west		Primarily single family residential and vacant land	Adjacent to Little Lake Conway
B68	Lake Gatlin Woods	Lake Gatlin Road north, Lake Gatlin east, Prescott Drive south, Orange Avenue west (generally)		Predominantly single family residential	Adjacent to Lake Gatlin
B68	Lake Holden Groves	Orange Avenue east, Spender Street south (generally), Lake Holden west		Primarily single family residential with some water and industrial	Adjacent to Lake Holden
B68	Lake Jennie Jewel	Generally located near Moonstone Way north, S. Summerlin Avenue east, Derry Down Road south and Orange Avenue west	Transit Dependent	Predominantly single family residential	
B68	Lake Jessamine	Holden Avenue north, S. Orange Avenue east (generally), Stratemeyer Drive south (generally), Lake Jessamine west		Predominantly agriculture	Adjacent to Lake Jessamine
B68	Lake Jessamine Estates	Generally located near Jamaica Lane north, Orange Avenue east, Laval Drive south, Stratemeyer Drive west		Primarily single family residential and agriculture	Cypress Grove Park; Adjacent to Lake Jessamine
B68	Lake Mary Jess	Mary Jess Road north, Orange Avenue east, Oak Ridge Road south and Rockwood Avenue west (generally)		Primarily single family residential with some water	Lake Mary
B68	Lake Pineloch Heights	E. Pineloch Avenue north, Lake Pineloch east, Oak Estates Drive south, Center Street west	Transit Dependent	Primarily single family residential with some commercial	
B68	Livingston	Hoffner Avenue north, Wallace Street south, Randolph Avenue west		Predominantly single family residential	Fire Station 70; Adjacent to Lake Conway;
B68	Oak Lynn	Mandalay Road north, Lake Conway east, Old Orchard Land south, Hansel Avenue west		Predominantly single family residential	Adjacent to Little Lake Conway
B68	Oakwater	Jennie Jewel Drive north, Lake Jennie Jewel east, Orange Avenue angles southwest	Transit Dependent	Primarily commercial with some single family residential and industrial	
B68	Orange Area 5 (DUP)	Willana Street north, S. Orange Avenue east, Holden Avenue south and Forrestal Avenue west (generally)	Low Income and Transit Dependent	Primarily industrial with some commercial	
B68	Orange Area 6	Laval Drive north, Orange Avenue east (generally), Mary Jess Road south, Chenault Avenue west (generally)		Predominantly industrial	
B68	Pine Castle 1	Oak Ridge Road north, Orange Avenue east (generally), Lancaster Road south, lee Lan Drive west	Minority, Low Income and Transit Dependent	Primarily single family residential with some commercial	
B68	Pine Castle 2	Wallace Street north, Matchett Road east, Nela Avenue south (generally), Orange Avenue west	Minority	Primarily commercial and single family residential	
B68	Pine Castle 4	Mary Jess Road north, Randolph Avenue east, Wallace Street south, Orange Avenue west (generally)		Primarily commercial with some single family residential	Pine Castle Elementary; Adjacent to Little Lake Conway
B68	Randolph 1 (north)	Summerlin Avenue east, Gatlin Avenue south, Orange Avenue west		Primarily commercial with some single family residential and water	Lake Jennie Jewel and adjacent to Lake Gem Mary
B68	Randolph 2 (south)	Gatlin Avenue north, Lake Gatlin Road south, Orange Avenue west (generally)	Transit Dependent	Primarily commercial with some single family residential	Adjacent to Lake Gatlin
B68	River Oaks	Lake Gatlin north and Vaughn Avenue east (generally), Harbour Island Road south, Orange Avenue west (generally)		Predominantly single family residential	Adjacent to Lake Gatlin and Little Lake Conway
B68	Rockwood	Kepner Street north and Chenault Avenue east (generally), Mary Jess Road south, Rockwood Avenue west (generally)		Predominantly single family residential	Adjacent to Lake Jessamine
B68	South Lake Holden	Generally located near Spencer Street north, Orange Avenue east, Holden Avenue south and Lake Holden west		Predominantly single family residential	Adjacent to Lake Holden
B68	South Side	Butler Drive north, Delaney Street east, Highway Place south, Orange Avenue west	Transit Dependent	Primarily single family residential with some multi-family residential	UCP Charter
B69	Airport Commerce Center	McCoy Road north, Beachline Expressway east and south, Orange Avenue west		Primarily industrial, agriculture and commercial	Within 1/2 mile of the proposed Sand Lake Road Station
B69	Belle Isle Pines	Perkins Road north, Lake Conway east, Wind Harbor Road south, Gondola Drive west		Predominantly single family residential	Adjacent to Lake Conway

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Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B69	Belle Isle West	Perkins Road north, Lake Conway east, Wind Harbor Road south, Gondola Drive west		Predominantly single family residential	Adjacent to Lake Conway; Within 1/2 mile of the proposed Sand Lake Road Station
B69	Conway Shores	Lake Conway north and east, Beachline Expressway south, Gondola Drive west		Primarily commercial with some single family residential	Adjacent to Lake Conway
B69	Lake Gloria Preserve	Cherry Gove Circle north and west, Sand Lake Road south	Minority	Primarily agriculture and conservation	Adjacent to Lake Gloria; Within 1/2 mile of the proposed Sand Lake Road Station
B69	Lake Gloria Shores	Landcaster Road north, Bay Lake south and east, Sandy Oaks Lane west	Minority	Predominantly agriculture	Adjacent to Lake Gloria
B69	Nela Isle	Overland Road north, Nela Avenue southeast, Matchett Road west	Minority	Predominantly single family residential	Adjacent to Lake Conway
B69	Nela Isle 2	Nela Avenue north, Gondola Drive east, Perkins Drive south, Matchett Road west		Predominantly single family residential	
B69	Nela Isle 3	Nela Avenue north, Lake Conway east, Perkins Road south, Gondola Drive west		Predominantly single family residential	Adjacent to Lake Conway
B69	Orange Area 12	Beachline Expressway northeast, Landstreet Road south, Florida's Turnpike southwest	Minority	Primarily vacant and industrial	
B69	Orange Area 7	Lancaster Road north, Lake Gloria east, Cherry Grove Circle south, Rivo Alto Drive west	Minority	Primarily single family residential with some public / institutional and agriculture	Lancaster Elementary, Walker Middle; Adjacent to Lake Gloria; Within 1/2 mile of the proposed Sand Lake Road Station
B69	Orange Area 8	Sand Lake Road north, Orange Avenue east (generally), Beachline Expressway south	Minority	Primarily agriculture with some conservation and industrial	Adjacent to Lake Gloria; Within 1/2 mile of the proposed Sand Lake Road Station
B69	Orange Area 9	Beachline Expressway north, Boggy Creek Road east, Landstreet Road south		Primarily industrial with some vacant and agricultural land	
B69	Pine Castle	Nela Avenue north, Gondola Drive east, McCoy Road south, Orange Avenue west (generally)		Primarily single family residential with some commercial	Within 1/2 mile of the proposed Sand Lake Road Station; Bear Head Lake
B69	Pine Castle 3	Sand Lake Road north, Sunport Drive east, Beachline Expressway south (generally)	Minority	Predominantly agriculture	Within 1/2 mile of the proposed Sand Lake Road Station
B69	Pine Castle 5	Sand Lake Road north, Orange Avenue east, Beachline Expressway south		Predominantly industrial	Within 1/2 mile of the proposed Sand Lake Road Station
B69	Pine Castle 6	Beachline Expressway north, Orange Avenue east (generally), Landstreet Road south	Minority	Primarily industrial and agriculture with some conservation	Within 1/2 mile of the proposed Sand Lake Road Station
B69	Pine Castle 7	Beachline Expressway north, Landstreet Road south, Orange Avenue west		Primarily industrial with some agriculture	Within 1/2 mile of the proposed Sand Lake Road Station
B69	Prosper Colony	Landstreet Road north, Sidney Hayes Road east, Central Florida Parkway south, Bachman Road west	Minority	Primarily industrial and commercial with some agriculture	
B69	Taft 1	Landstreet Road north, Orange Avenue east (generally), Taft Vineland Road south, Sidney Hayes Road west	Minority	Primarily residential multi-family with some commercial and industrial	Taft Neighborhood Park
B69	Taft 2	Landstreet Road north, Atlantic Avenue east, 4th Street south, Orange Avenue west		Primarily single family residential with some commercial	Spahler Activity Center, Fire Station 73
B69	Taft 3	4th Street north, 4th Avenue east (generally), Tradeport Drive south (generally), Orange Avenue west	Minority	Primarily industrial, multi-family residential, conservation, residential single family and commercial	
B69	Taft 4	4th Street north, 11th Avenue east, 11th Street south, 3rd Avenue west (generally)	Low Income	Predominantly residential single family	Taft Ballfields
B69	Wind Harbor	Wind Harbor Road north, Lake Conway east, Colleen Drive south, Gondola Drive west		Predominantly single family residential	Adjacent to Lake Conway; Within 1/2 mile of the proposed Sand Lake Road Station
B70	Boggy Creek 2	Tradeport Drive north (generally), Boggy Creek Road east, Orange Avenue west	Minority	Primarily agriculture with some commercial	
B70	Hunter Subdivision	Taft Vineland Road north, Orange Avenue east, South Avenue south	Minority	Primarily agriculture with some commercial and industrial	
B70	Orange Area 13	Taft Vineland Road north, Intermodel Way east (generally), Zell Drive south (generally), Florida's Turnpike west	Minority	Predominantly industrial	
B70	Orange Area 14	Boggy Creek Road east, Wetherbee Road south, Orange Avenue west	Minority	Predominantly agriculture	Within 1/2 mile of the proposed Meadow Woods Station
B70	Southchase 1	Orange Avenue north, Wetherbee Road south, Florida's Turnpike west	Minority	Primarily single family residential with some recreation	South Orange Sports Complex; Within 1/2 mile of the proposed Meadow Woods Station
B70	Southchase 2	Wetherbee Road north, Orange Avenue east (generally), Florida's Turnpike southwest	Minority	Primarily agriculture with some conservation	Bear Creek Recreation Complex, Southwood Elementary, Cypress Creek High School; Within 1/2 mile of the proposed Meadow Woods Station
B71	Southchase 3	Central Florida Greenway north, Florida's Turnpike east, Orange/Osceola County line south, Orange Blossom Trail west		Primarily single family residential and vacant land	Endeavor Elementary
B70/B71	Meadow Woods	Wetherbee Road north, Orange/Osceola County line south, Landstar Boulevard west (generally)	Minority	Primarily single family residential and agriculture	Meadow Woods Elementary, Oakshire Elementary

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B71	Buenaventura Lakes	Orange/Osceola County line north, Buenaventura Boulevard east (generally), Florida's Turnpike west	Minority	Predominantly single family residential	
B71	Marydia	Osceola Parkway north, Bill Beck Boulevard east, Joelson Road south, Orange Blossom Trail west	Minority and Transit Dependent	Primarily industrial, commercial, single family residential and public / institutional	Marydia Neighborhood Park, Fire Station 61; Within 1/2 mile of the propsed Osceola Parkway Station
B71	Osceola Area 6	Orange/Osceola County line north, Florida's Turnpike east, Osceola Parkway south, Orange Avenue west	Minority and Transit Dependent	Predominantly commercial	Within 1/2 mile of the proposed Osceola Parkway Station
B71	Osceola Corporate Center	Orange/Osceola County line north, Orange Avenue east, Osceola Parkway south, Orange Blossom Trail west	Minority and Transit Dependent	Primarily commercial with some office	Within 1/2 mile of the proposed Osceola Parkway Station
B72	Beaumont	Midland Street north, Broadway Avenue east, Emmett Street south, John Young Parkway west	Low Income and Transit Dependent; One (1) Historic District - Kissimmee Historic District	Primarily public / institutional with some single family residential	Parks and Recreation Administration Building, Fire Station 11; Within 1/2 mile of the proposed Kissimmee AMTRAK Station
B72	Benita Park / McClaren	Donegan Avenue north, Vine Street south, Main Street west	Low Income, Minority and Transit Dependent	Primarily single family residential with some industrial and commercial	Conelius Chambers Park
B72	Canterbury	Lake Shore Boulevard north, Cantebury Lane east and south, John Young Parkway west	Transit Dependent	Predominantly single family residential	Adjacent to Lake Tohopekaliga
B72	Courthouse	Emmett Street north, Clay Street angles east, John Young Parkway west	Low Income and Transit Dependent; One (1) Historic District - Kissimmee Historic District; One (1) Historic structure - Johnson-Stefee House on Vernon Avenue	Primarily single family residential or public / institutional	Within 1/2 mile of the proposed Kissimmee AMTRAK Station; Adjacent to Lake Tohopekaliga
B72	Davis Bungalow Park	Woodland Creek Road north (generally), Old Dixie Highway east, Donegan Avenue south, Orange Blossom Trail west	Minority and Transit Dependent	Primarily multi and single family residential with some commercial	
B72	Essex Park	Boulder Drive north, Vine Street south, Michigan Avenue west	Minority	Predominantly commercial	
B72	Hospital	Vine Street north, Central Avenue east, Rose Avenue south, John Young Parkway west	Low Income, Minority and Transit Dependent	Primarily residential single family, public / institutional and office	Osceola Regional Medical Center; Within 1/2 mile of the propsed Kissimmee AMTRAK Station

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B72	Kissimmee Heights	Shawnee Drive north, Michigan Avenue east, Vine Street south, Kelley Avenue west	Minority	Predominantly single family residential	
B72	Lakefront	Neptune Road north, Lakeshore Boulevard east and south, Broadway Avenue angles west	Transit Dependent; One (1) Historic structure - Kissimmee ACL Train Depot on Pleasant Street	Primarily public / institutional with some single family residential	Civic Center, K.A.S.T. Club, Community House Park, Kissimmee Lakefront Park, Yacht Club Park, Lakeshore Recreation Center Park, Toho Marina; Within 1/2 mile of the propsed Kissimmee AMTRAK Station; Adjacent to Lake Tohopekaliga
B72	Mill Run	Florida's Turnpike angles northeast, Old Boggy Creek Road south, Orchid Lane west (generally)		Predominantly single family residential	Kissimmee Charter Elementary, Quail Hollow Park, Mill Run Park, Mill Creek Elementary, Mill Slough Park, Denn John Middle School, Denn John Softball Complex/Rainbow Park Aquatic Center, Fire Station 12
B72	Osceola Area 5	Joelson Road north, Michigan Avenue east, Donegan Avenue south, Old Dixie Highway west	Minority and Transit Dependent	Primarily industrial with some single family residential	
B72	Osceola Area 8	Donegan Avenue north, Orange Blossom Trail east, Vine Street south, Central Avenue west	Low Income, Minority and Transit Dependent	Primarily residential single family with some commercial and public / institutional	UCP Charter, Florida Hospital Kissimmee
B72	Robert Bass	Vine Street north, Oak Street east (generally), Neptune Road south, Main Street west	Low Income and Transit Dependent; One (1) Historic Structure: W.B. Makinson House on E. Lake Street	Primarily vacant with some public / institutional, single family residential and commercial	Within 1/2 mile of the proposed Kissimmee AMTRAK Station; Adjacent to Lake Tohopekaliga
B72	Robinson	Vine Street north, Main Street east, Ellison Plaza south, Central Avenue west	Low Income, Minority and Transit Dependent	Primarily commercial, office, public institutional and single family residential	Within 1/2 mile of the proposed Kissimmee AMTRAK Station
B72	Royale Oaks	Generally located near Donegan Avenue north, Michigan Avenue east, Vine Street south, CSX rail line west	Minority	Predominantly single family residential	
B72	Sweetwood	Mill Creek Place north, Mill Slough Road south, Michigan Avenue west	Minority and Transit Dependent	Predominantly single family residential	
B72	Town and Country	Mill Slough Road north, Sand Run Road east (generally), Boulder Drive south, Michigan Avenue west	Minority	Predominantly single family residential	

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

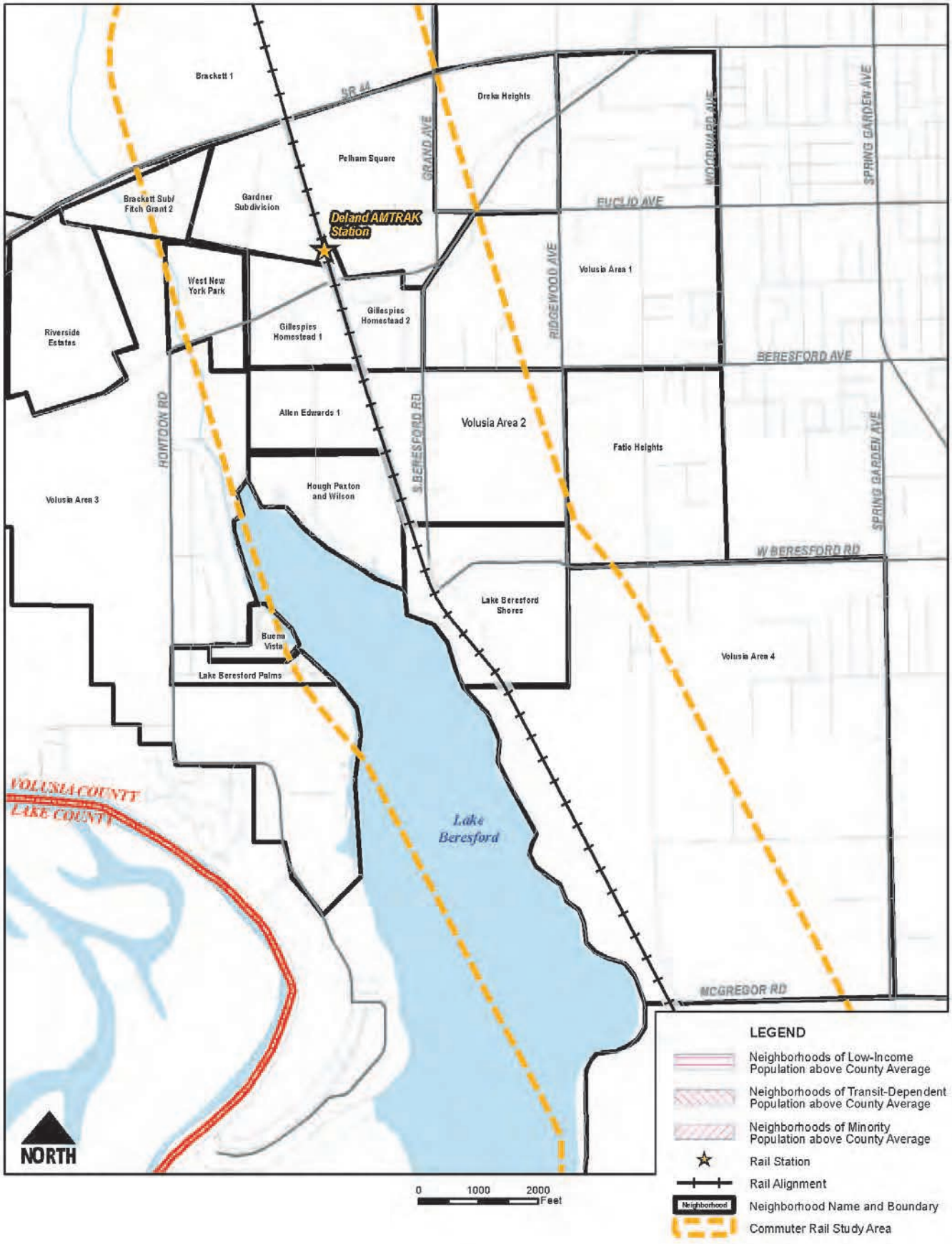
Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B72	Windsong	Donegan Avenue north, Michigan Avenue east, Windway Circle south and west	Minority	Predominantly single family residential	
B73	Country Estates	Hoagland Boulevard north, Old Tampa Highway angles east	Minority and Transit Dependent	Primarily agriculture with some single family residential	Oren Brown Park
B73	Gilbert Park	Pershing Street north, Clay Street angles east, Hoagland Boulevard west	Minority and Transit Dependent	Primarily residential single family with some public / institutional	
B73	Lakeshore	Clay Street angles west, Lake Topo east, John Young Parkway angles southwest	Transit Dependent	Primarily agriculture and water	Adjacent to Lake Tohopekaliga
B73	Mabbette - John Young - Thacker	Patrick Street north, John Young Parkway east, Clay Street south, Thacker Avenue west		Predominantly single family residential	
B73	Orange Blossom Acres 1	Aldersgate Drive north, Pleasant Hill Road east, Orange Blossom Trail south, Westgate Drive west	Minority and Transit Dependent	Predominantly commercial	
B73	Orange Blossom Acres 3	Marsh Road north, Pleasant Hill Road east, Aldersgate Drive southwest	Low Income and Transit Dependent	Predominantly public / institutional lands	
B73	Osceola Area 4	Clay Street angles northwest, Knowles Boulevard south, Pleasant Hill Road west	Transit Dependent	Primarily agriculture with some public / institutional	
B73	Osceola Park	Clay Street north, John Young Parkway angles east	Transit Dependent	Primarily single family residential, commercial and public / institutional	Osceola Park
B73	Pinedale	Patrick Street north, Thacker Avenue east, Pershing Street south	Low Income	Primarily public / institutional with some single family residential	Osceola High School
B73	Pleasant Oaks	Old Tampa Highway angles northwest, Pleasant Hill Road east, Marsh Road south (generally)	Transit Dependent	Primarily agriculture or public / institutional	
B73	Prospect Park	Mabbette Street north, John Young Parkway east, Patrick Street south, Thacker Avenue west	Low Income, Minority and Transit Dependent	Predominantly single family residential	

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B73	Shingle Creek Village	Knowles Boulevard north, John Young Parkway east and south, Pleasant Hill Road west		Predominantly single family residential	
B74	Campbell City	Old Tampa Highway north, Broad Street east, Orange Blossom Trail south, Dolores Drive west (generally)		Primarily industrial with some commercial	
B74	Campbell Estates	Orange Blossom Trail north, Daniels Street east (generally), Ham Brown Road west (generally)		Primarily single family residential with some agriculture	
B74	Campbell Heights	Old Tampa Highway north, Marks Street east, Orange Blossom Trail south, Dolores Drive west (generally)		Primarily single family residential with some multi-family residential	Fire Station 43
B74	Cherub Homes	Old Tampa Highway north, Judith Drive east, Orange Blossom Trail south, Louis Drive west (generally)		Predominantly single family residential	Within 1/2 mile of proposed Poinciana Industrial Park Station
B74	Crest Ridge Acres	Old Tampa Highway south, Crest Ridge Drive runs through center of neighborhood	Minority	Primarily multi and single family residential	
B74	Intercession City 1	Old Tampa Highway north, Dolores Drive east (generally), Orange Blossom Trail south, Judith Drive west (generally)		Primarily single family residential and vacant land	Within 1/2 mile of the proposed Poinciana Industrial Park Station
B74	Intercession City 2	Orange Blossom Trail north, Blue Spruce Avenue south	Transit Dependent	Primarily industrial with some single family residential, commercial and public / institutional	Within 1/2 mile of proposed Poinciana Industrial Park Station
B74	Orange Vista	Orange Blossom Trail north, Grove Court east and Daniels Street west (generally)		Predominantly single family residential	
B74	Osceola Area 1	Generally located near Bass Road north, Old Tampa Highway angles east, Crest Ridge Drive west	Transit Dependent	Predominantly agriculture	Horizon Middle School
B74	Osceola Area 2	Orange Blossom Trail north, Ham Brown Road east, Albatross Way south	Minority	Primarily agriculture with some single family residential	
B74	Osceola Area 3	Old Tampa Highway angles northwest, Westgate Drive east (generally), Orange Blossom Trail south, Vintage Street west	Low Income and Transit Dependent	Primarily public / institutional with some vacant and single family residential	

Table B-4
Osceola County Community Impact Assessment
Summary Table by Neighborhood

Figure Number	Neighborhood Name	General Location (Cross Streets)	Neighborhood Characteristics	Predominant Land Use	Community Amenities and Services (Parks, Schools, Community Centers, Fire, Police)
B74	Poinciana Area 1	Poinciana Boulevard north and west, Crestridge Drive east (generally), Old Tampa Highway south	Minority	Predominantly agriculture	Within 1/2 mile of proposed Poinciana Industrial Park Station
B74	Poinciana Area 2	Old Tampa Highway north, Poinciana Boulevard east (generally), Orange Blossom Trail south		Predominantly industrial	Within 1/2 mile of proposed Poinciana Industrial Park Station
B74	Poinciana Area 3	Orange Blossom Trail north, Enterprise Drive south, Avenue A west (generally)	Transit Dependent	Primarily industrial with some single family residential and vacant land	
B74	Whispering Pines	Orange Blossom Trail north (generally), Whispering Pines Boulevard east, White Pine Avenue south	Transit Dependent	Predominantly commercial	



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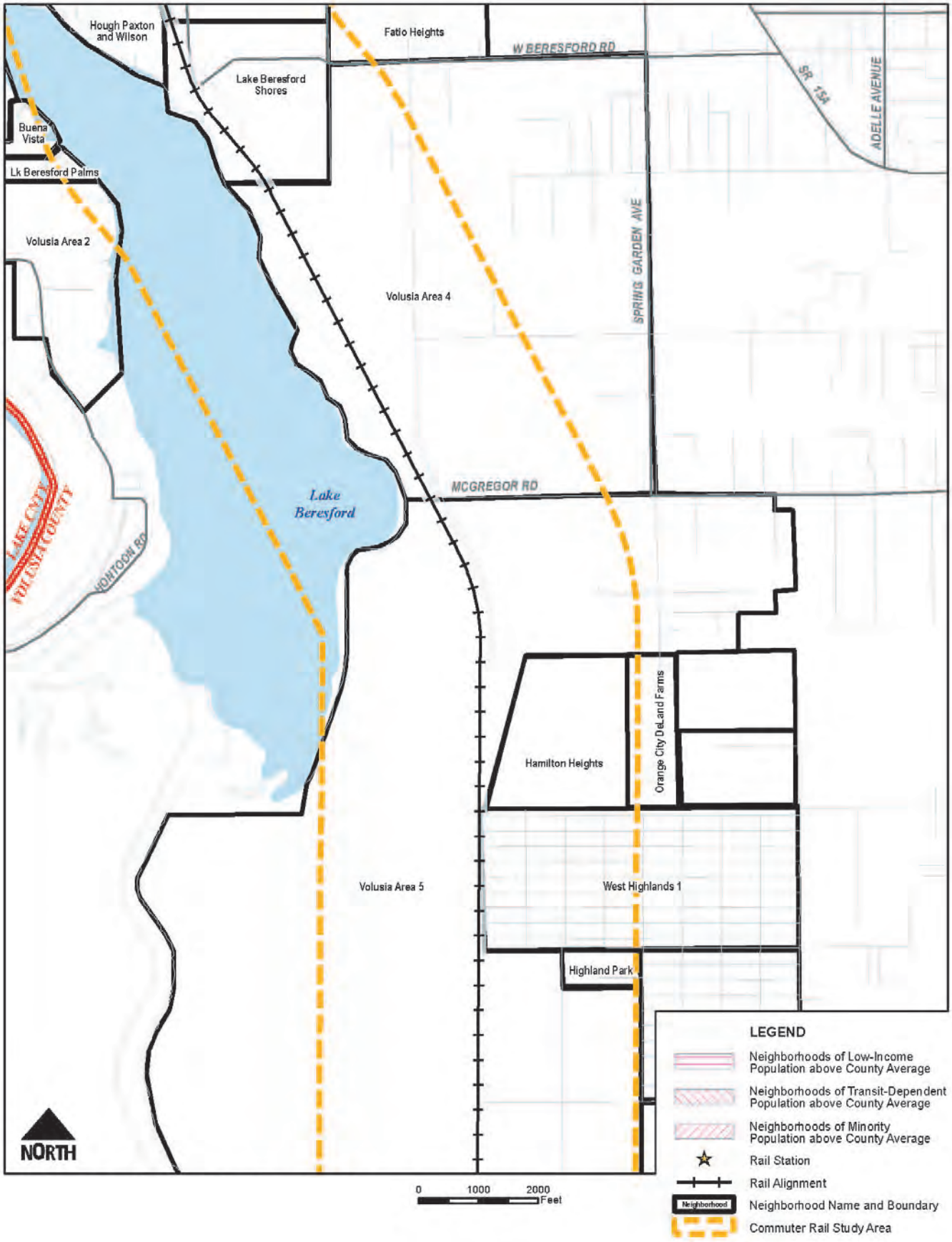
Sources: Volusia County GIS, Glatting Jackson

Figure B-54

Neighborhoods and Corresponding Demographic Indicators



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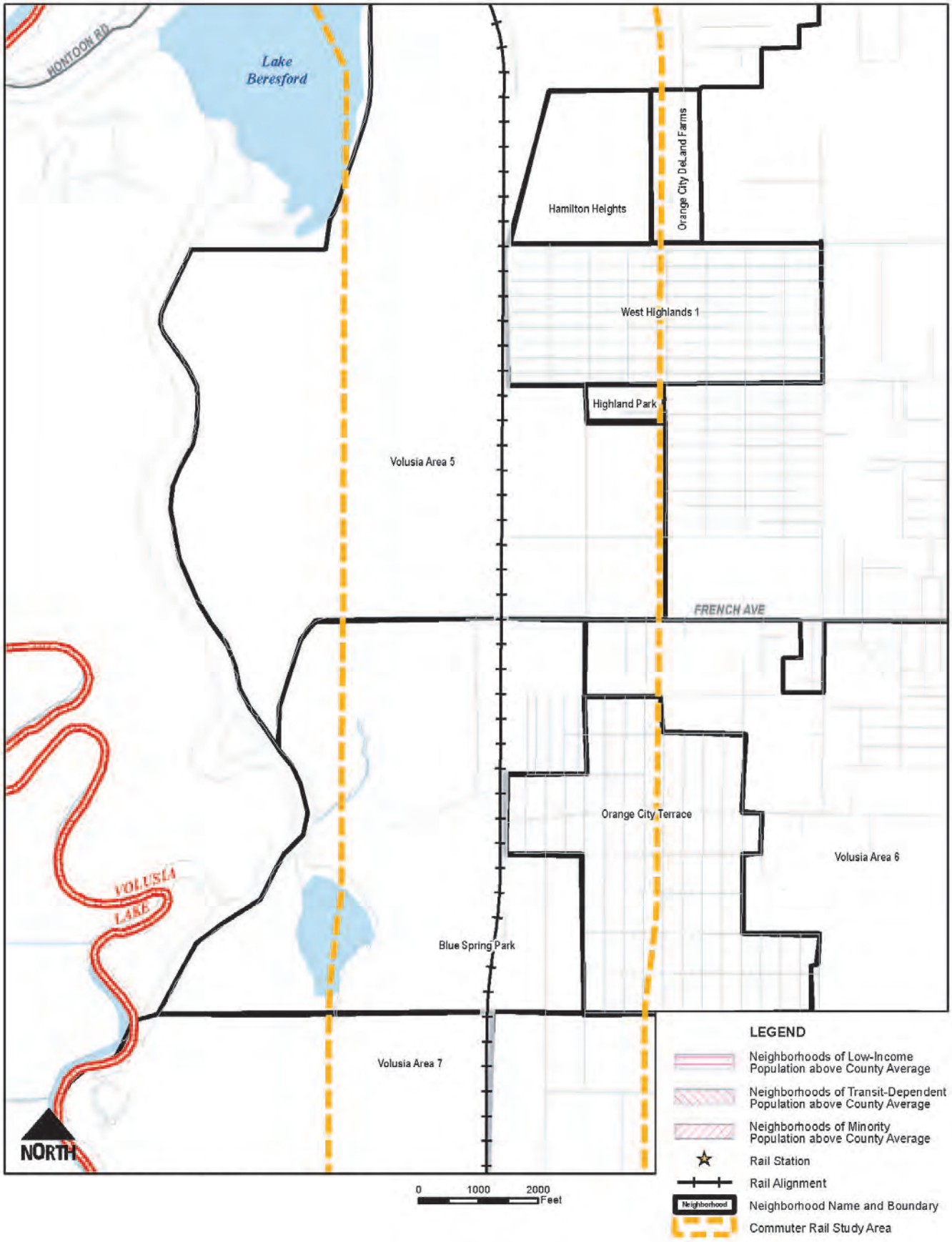
Sources: Volusia County GIS, Glatting Jackson

Figure B-55

Neighborhoods and Corresponding Demographic Indicators

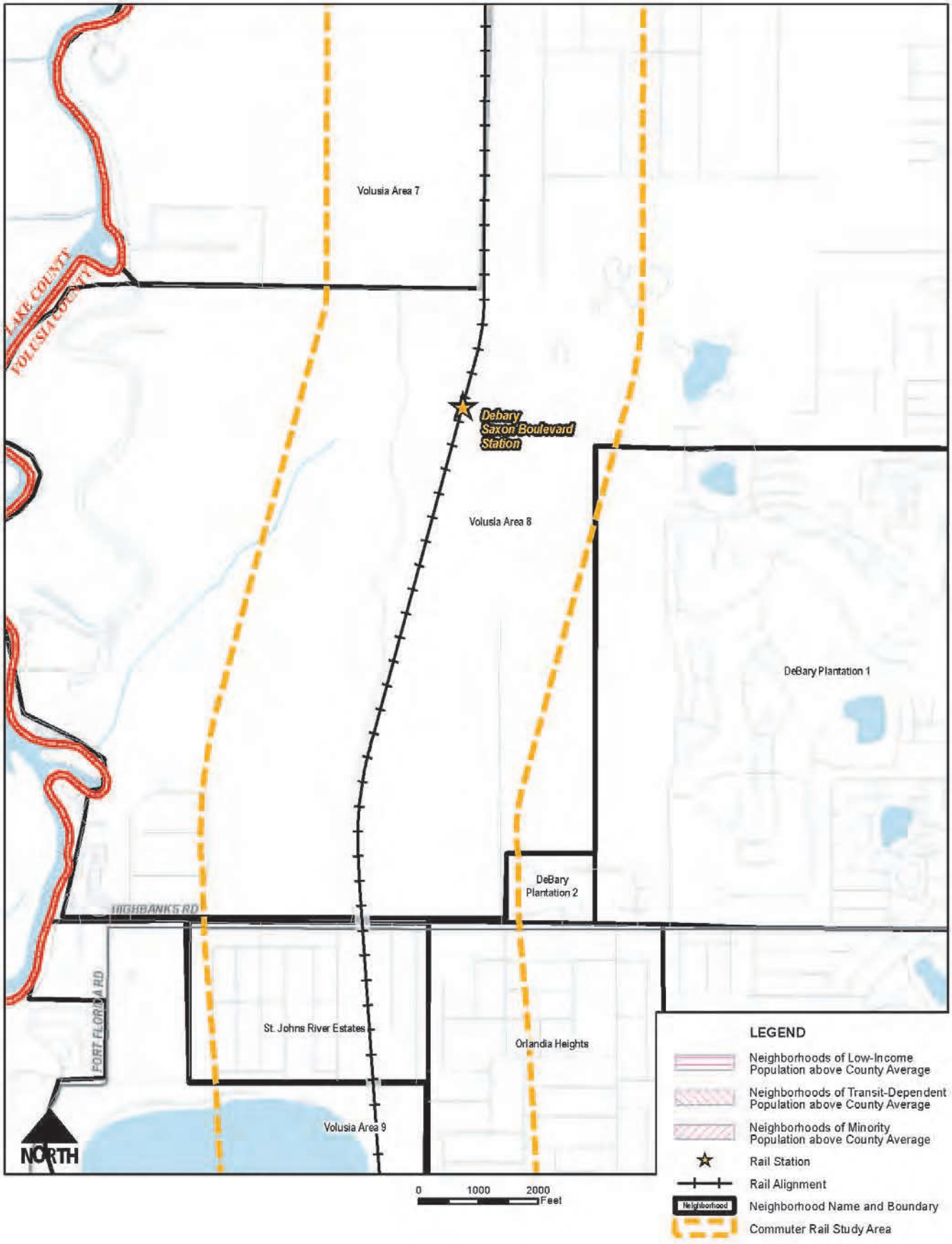


G:\18713 Commuter Rail\zzz_demographics

Sources: Volusia County GIS, Glatting Jackson

Figure B-56

Neighborhoods and Corresponding Demographic Indicators

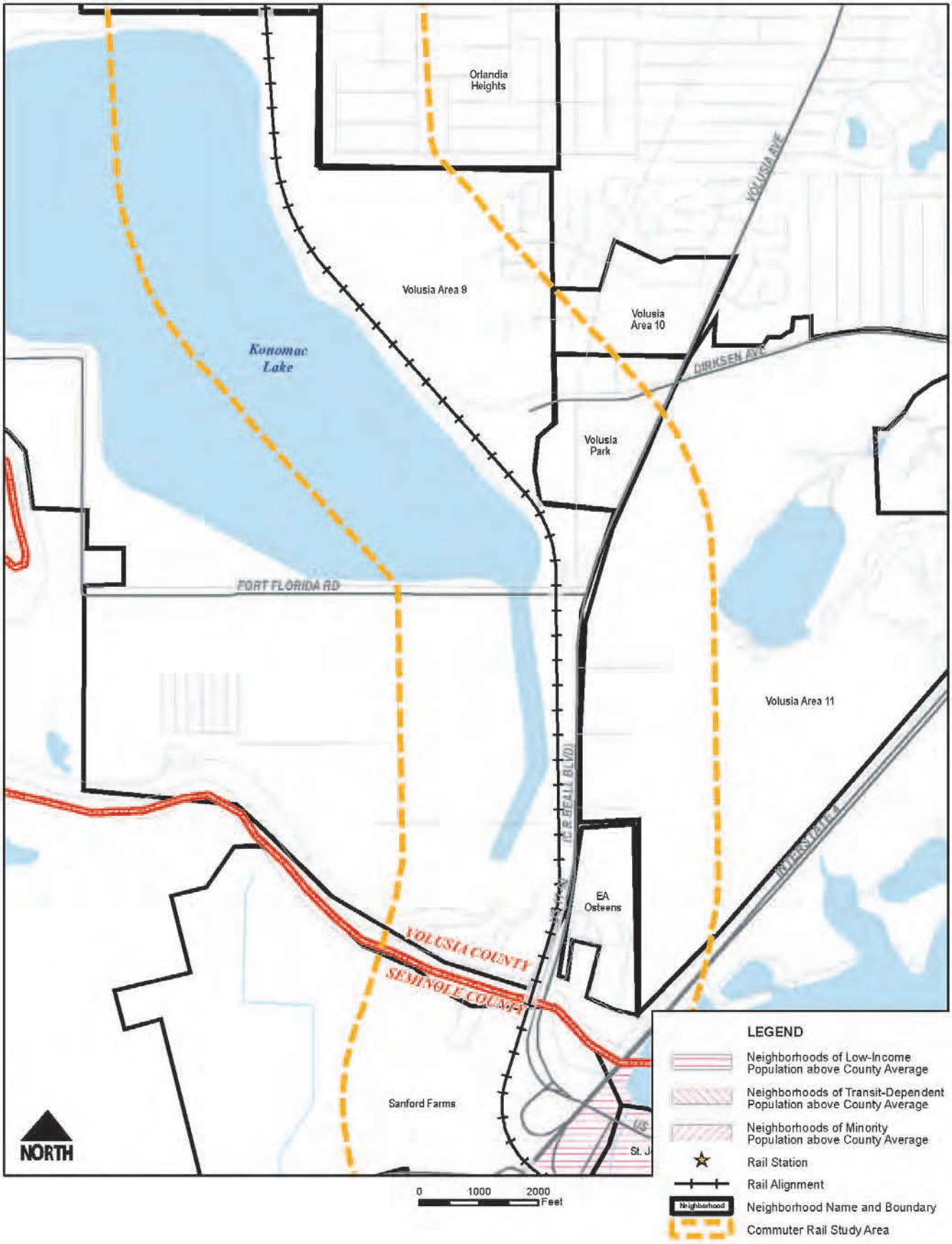


G:\18713 Commuter Rail\zzz_demographics

Sources: Volusia County GIS, Glatting Jackson

Figure B-57

Neighborhoods and Corresponding Demographic Indicators

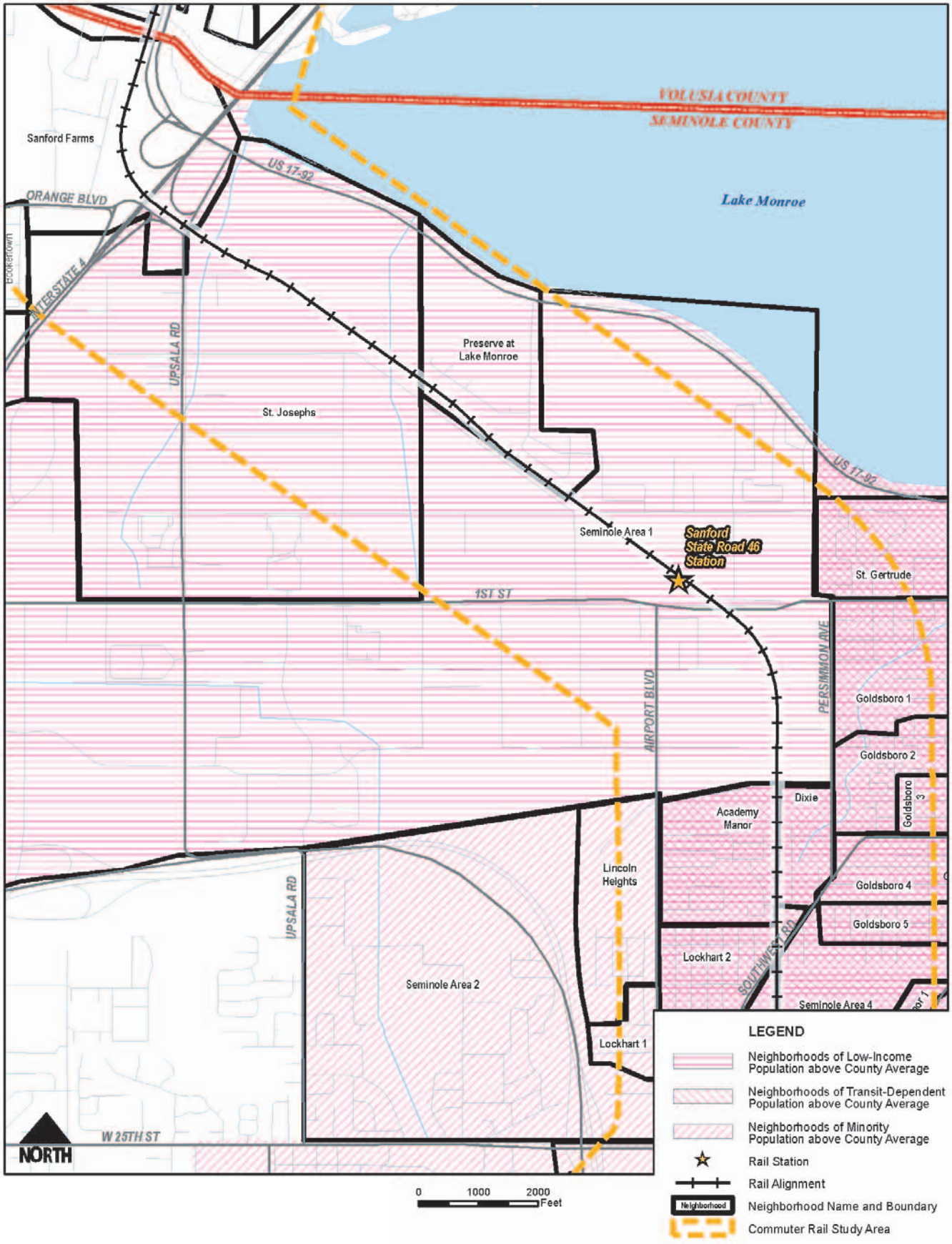


G:\18713 Commuter Rail\zzz_demographics

Sources: Volusia County GIS, Seminole County GIS, Glatting Jackson

Figure B-58

Neighborhoods and Corresponding Demographic Indicators

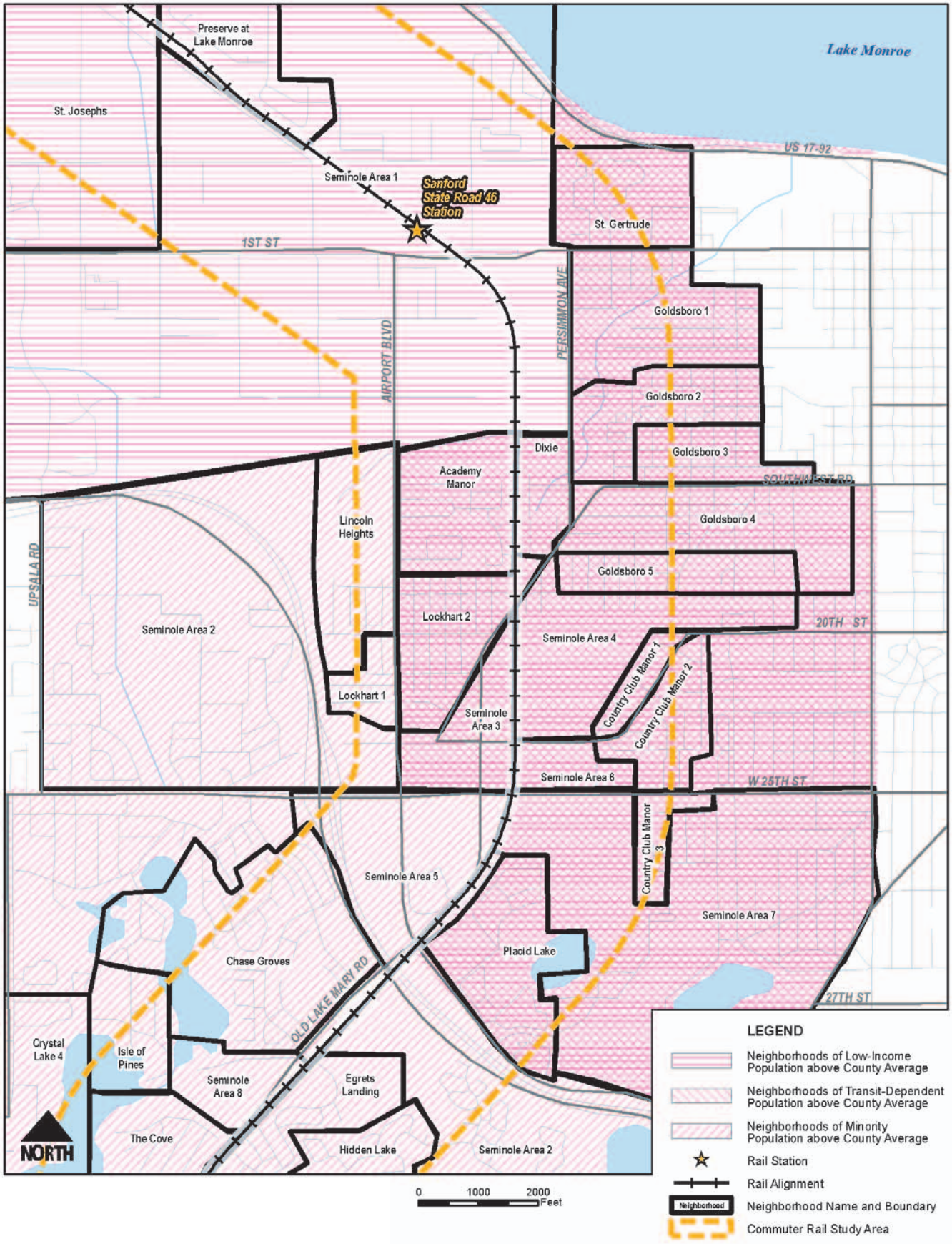


G:\18713 Commuter Rail\zzz_demographics

Sources: Seminole County GIS, Glatting Jackson

Figure B-59

Neighborhoods and Corresponding Demographic Indicators

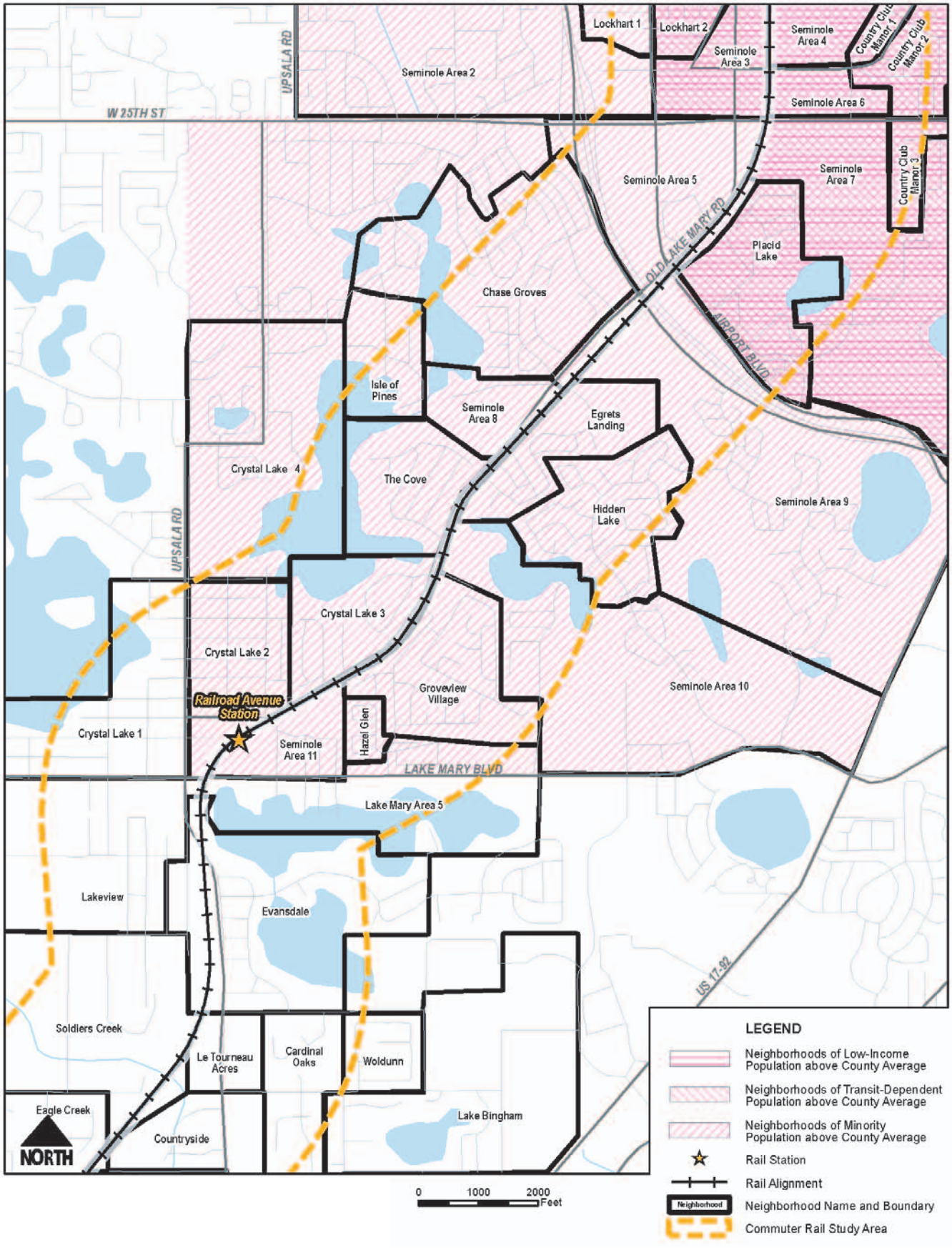


G:\18713 Commuter Rail\zzz_demographics

Sources: Seminole County GIS, Glatting Jackson

Figure B-60

Neighborhoods and Corresponding Demographic Indicators

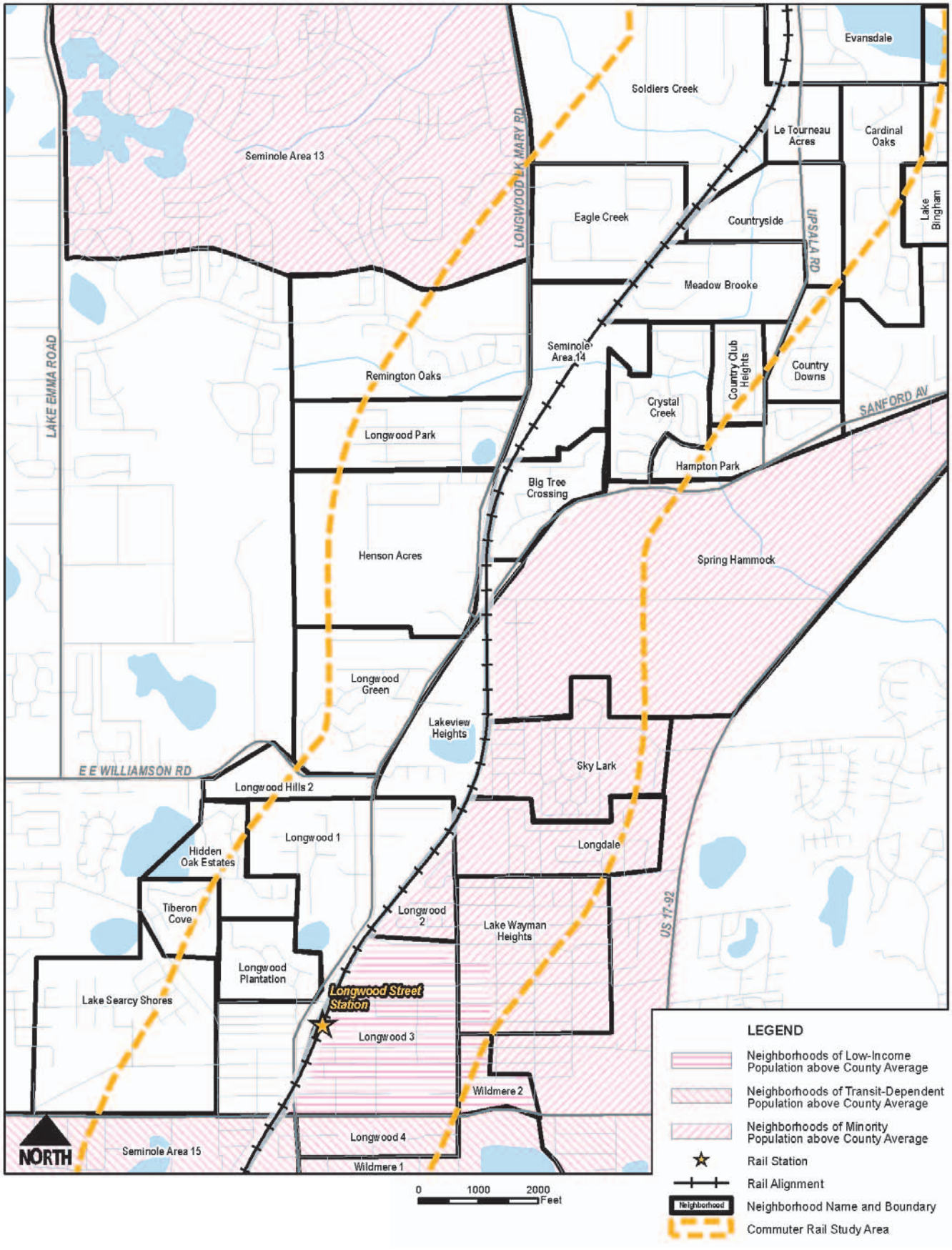


G:\18713 Commuter Rail\zzz_demographics

Sources: Seminole County GIS, Glatting Jackson

Figure B-61

Neighborhoods and Corresponding Demographic Indicators

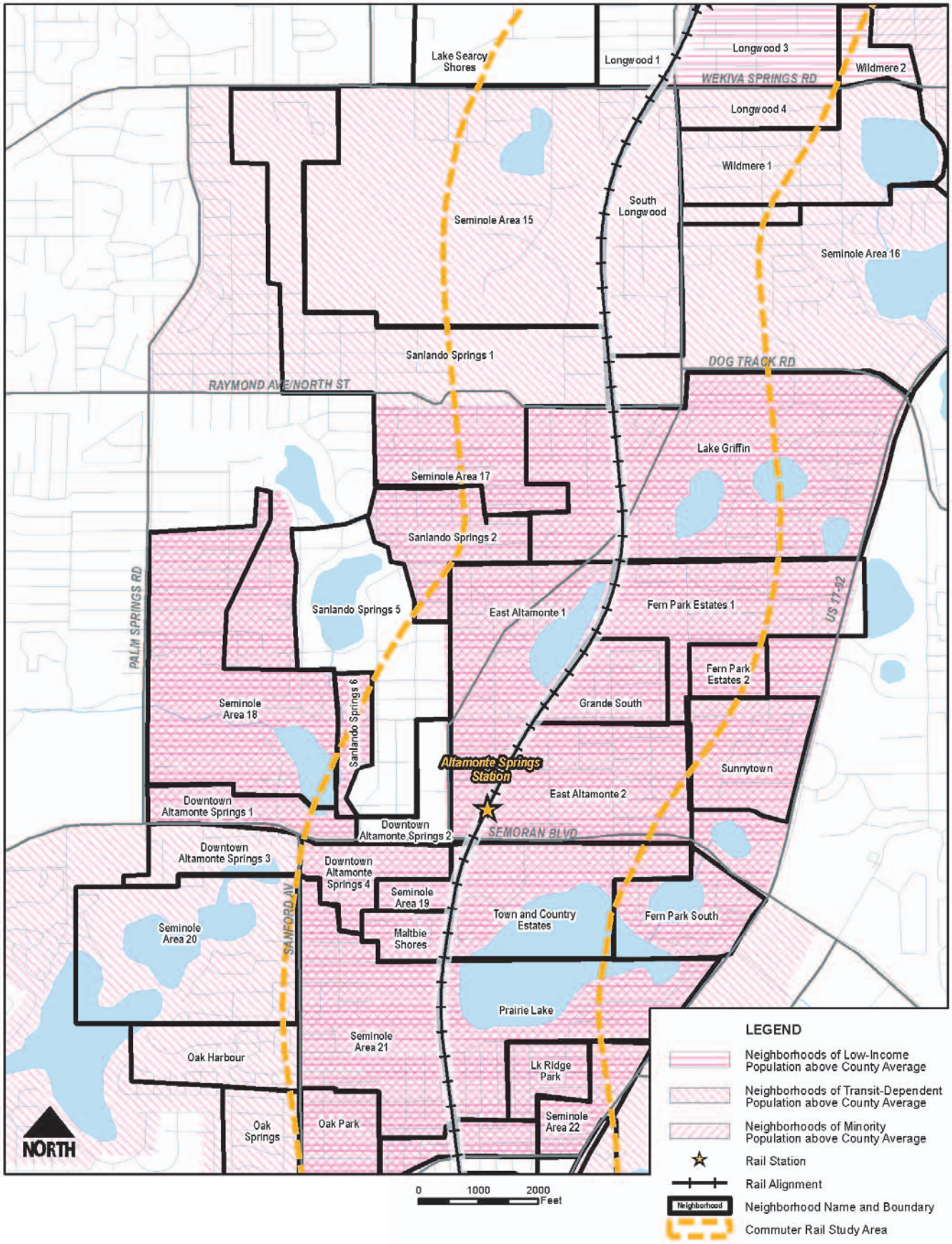


G:\18713 Commuter Rail\zzz_demographics

Sources: Seminole County GIS, Glatting Jackson

Figure B-62

Neighborhoods and Corresponding Demographic Indicators

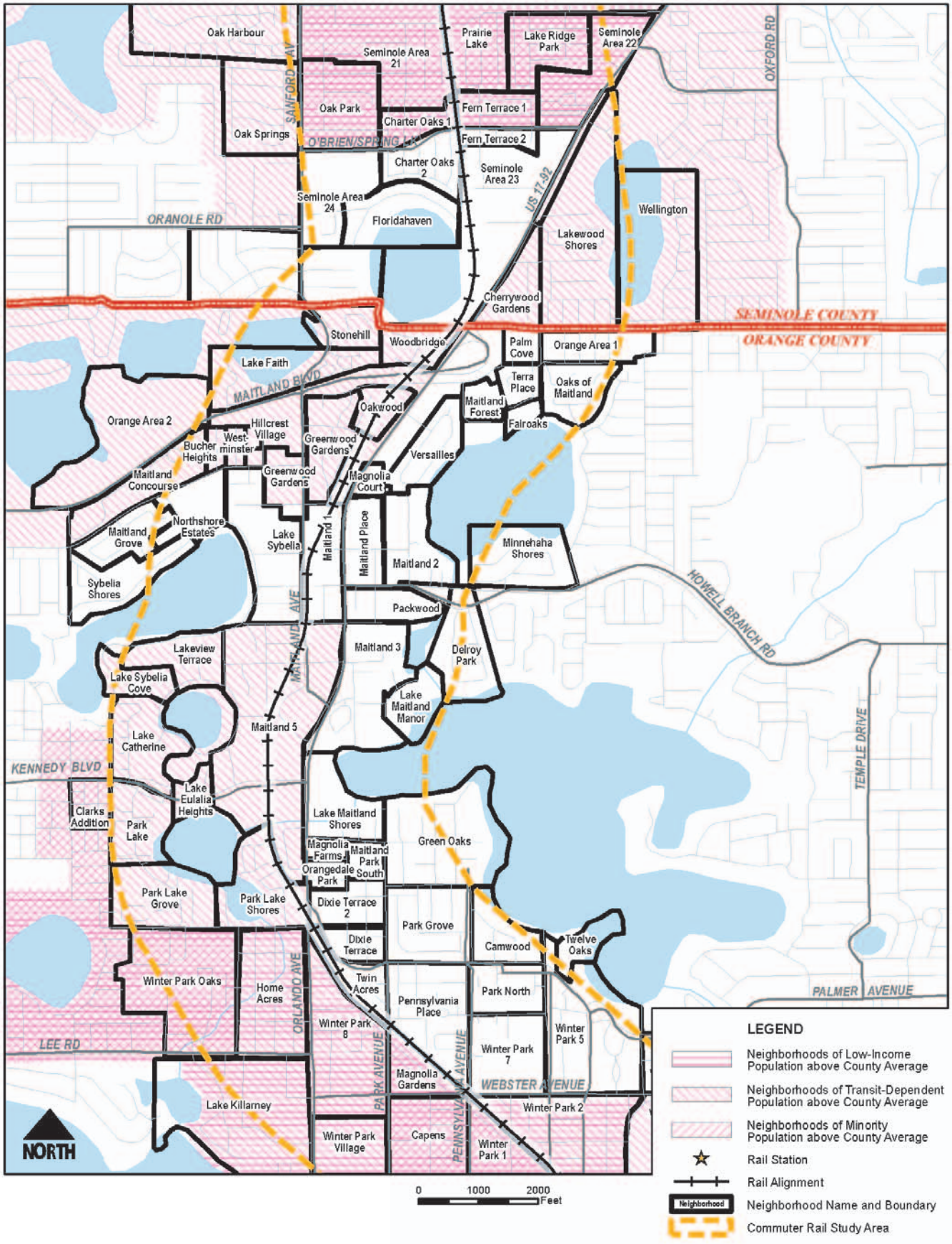


G:\18713 Commuter Rail\zzz_demographics

Sources: Seminole County GIS, Glatting Jackson

Figure B-63

Neighborhoods and Corresponding Demographic Indicators

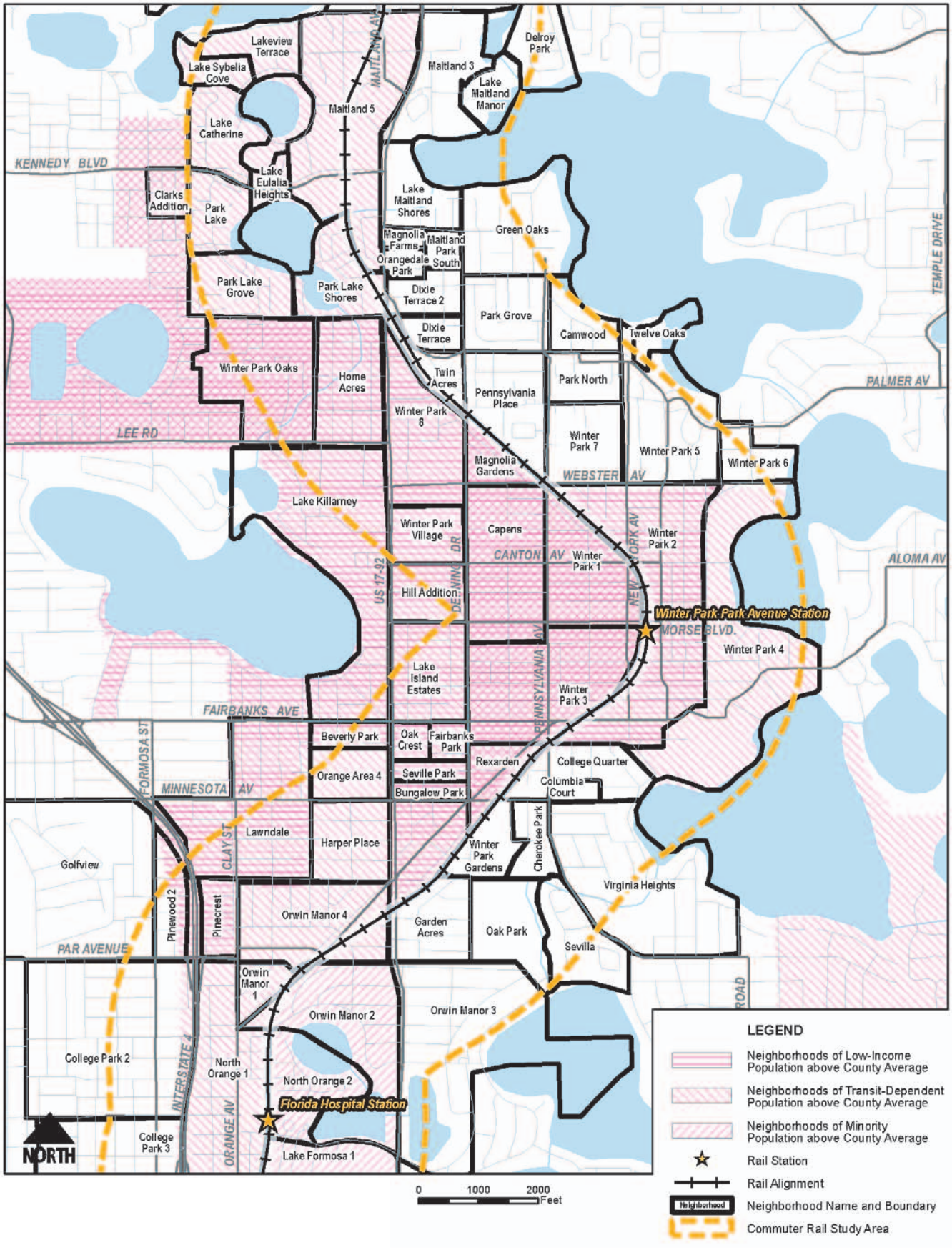


G:\18713 Commuter Rail\zzz_demographics

Sources: Seminole County GIS, Orange County GIS, Glatting Jackson

Figure B-64

Neighborhoods and Corresponding Demographic Indicators

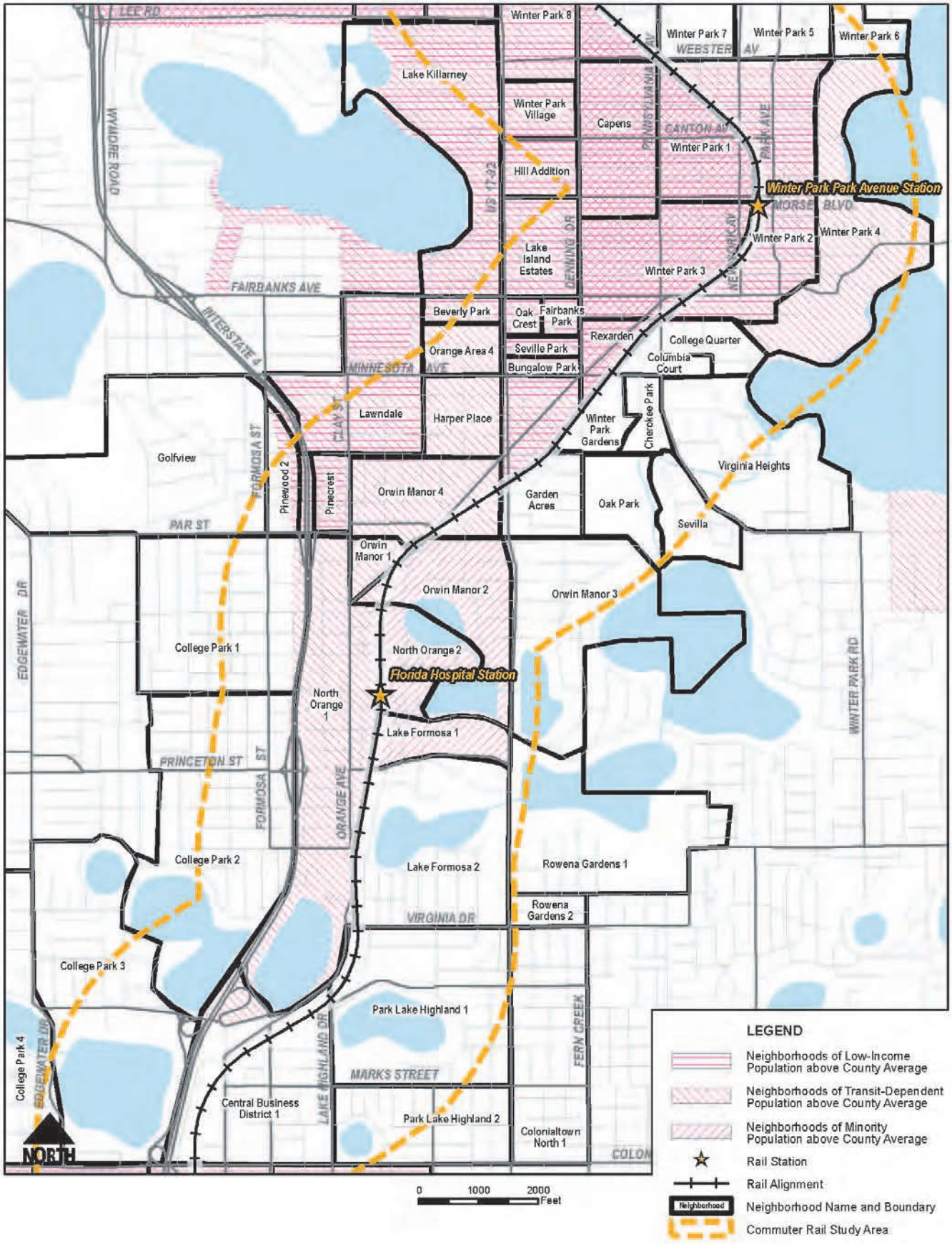


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Glatting Jackson

Figure B-65

Neighborhoods and Corresponding Demographic Indicators

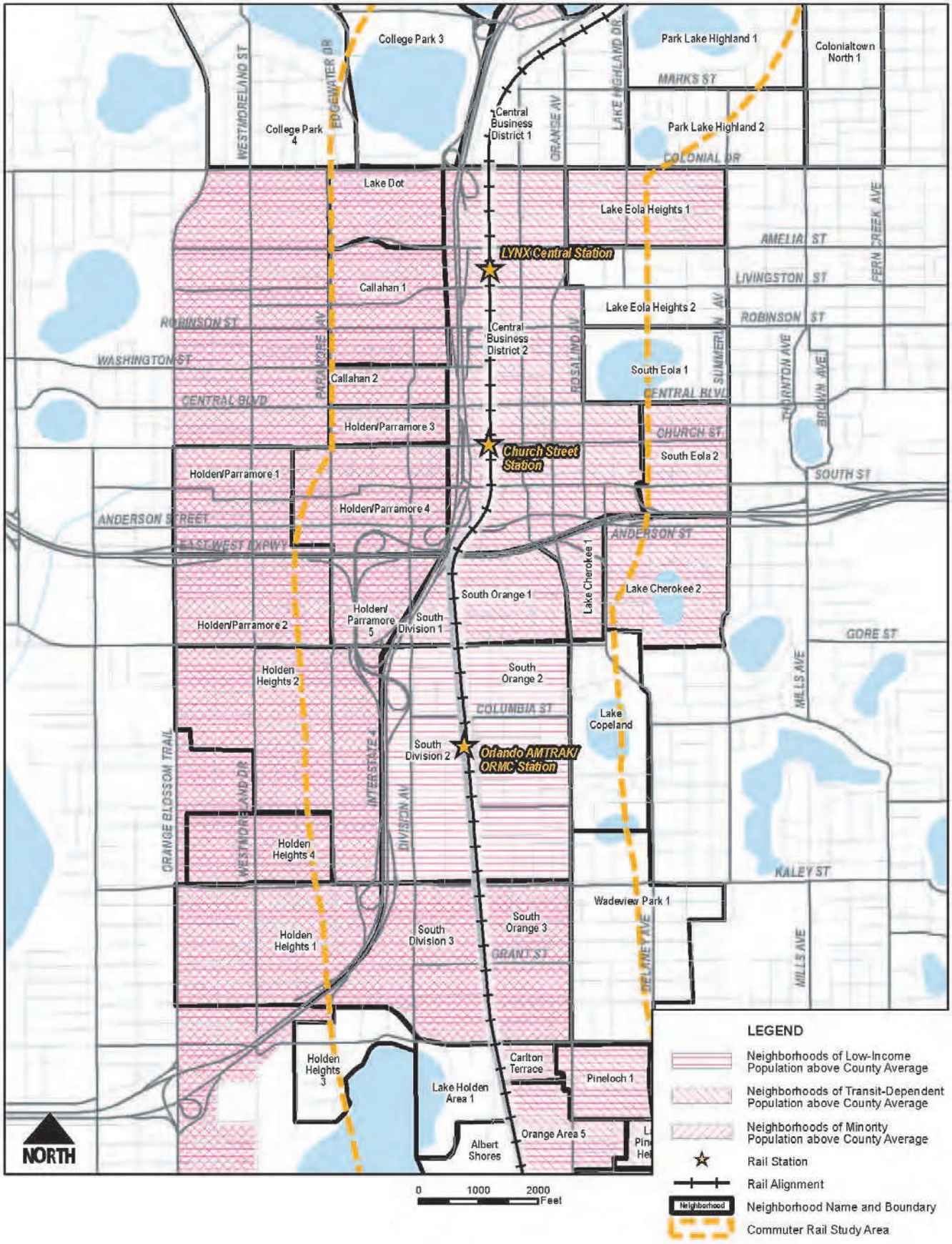


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Glatting Jackson

Figure B-66

Neighborhoods and Corresponding Demographic Indicators

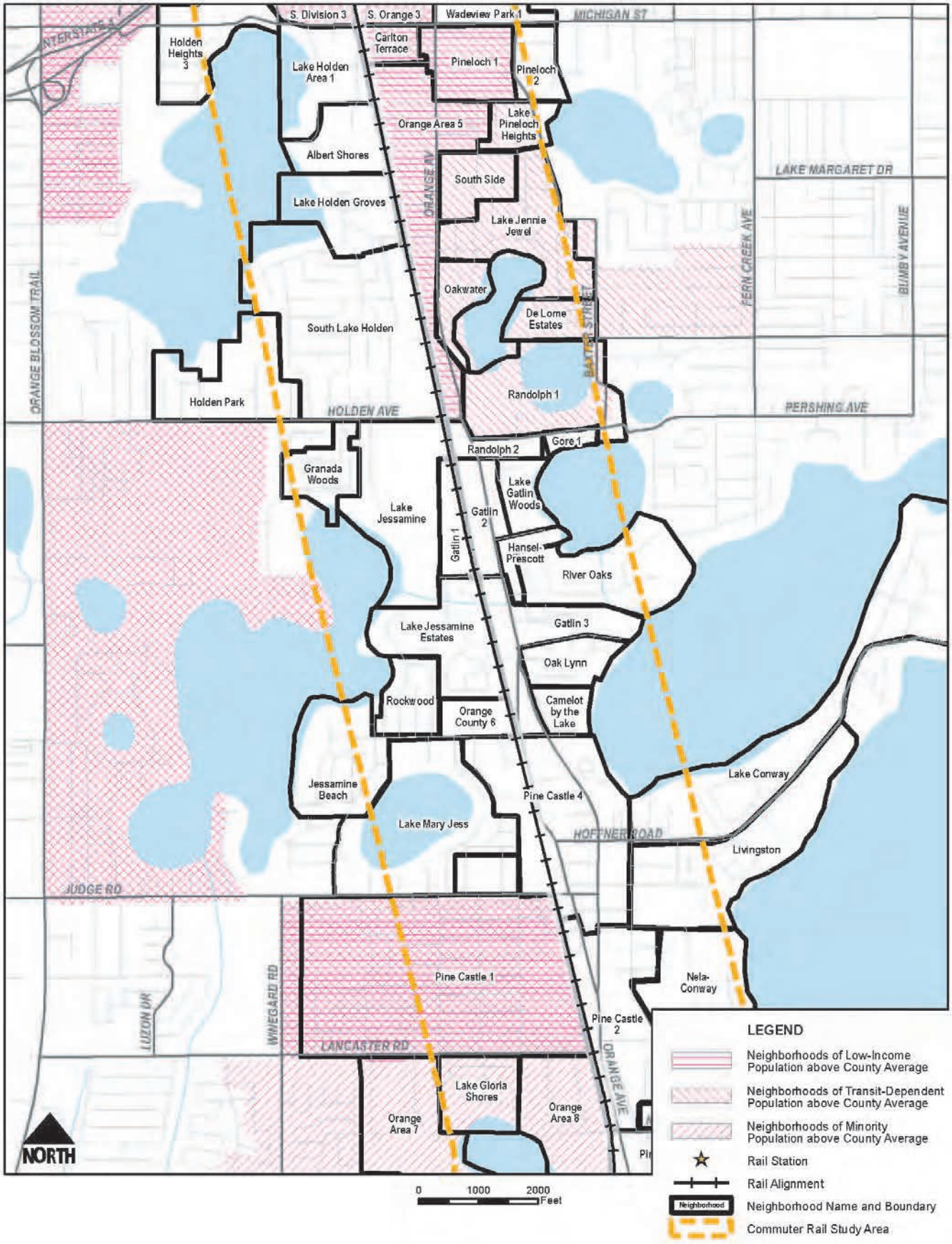


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Glatting Jackson

Figure B-67

Neighborhoods and Corresponding Demographic Indicators

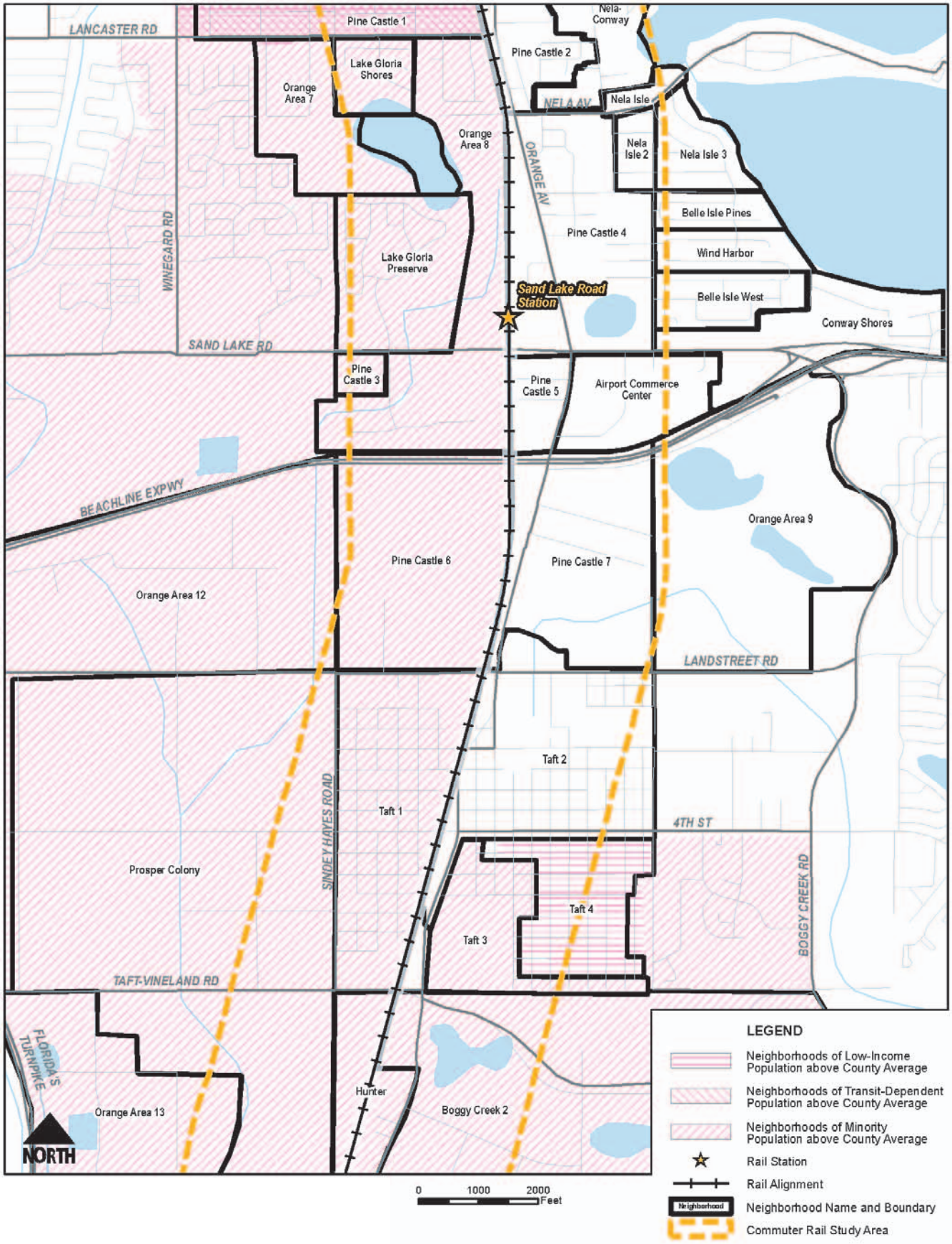


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Glatting Jackson

Figure B-68

Neighborhoods and Corresponding Demographic Indicators

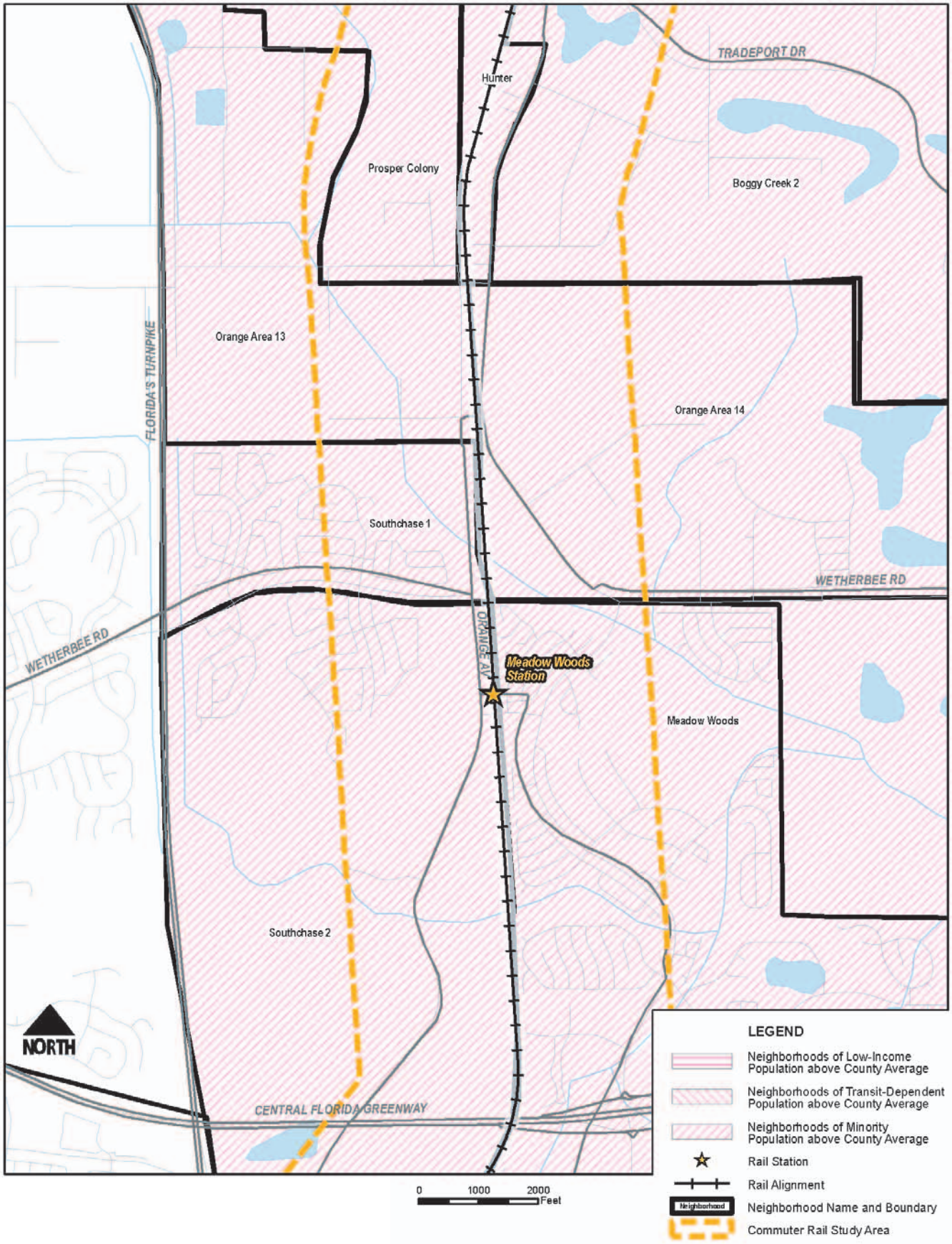


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Glatting Jackson

Figure B-69

Neighborhoods and Corresponding Demographic Indicators

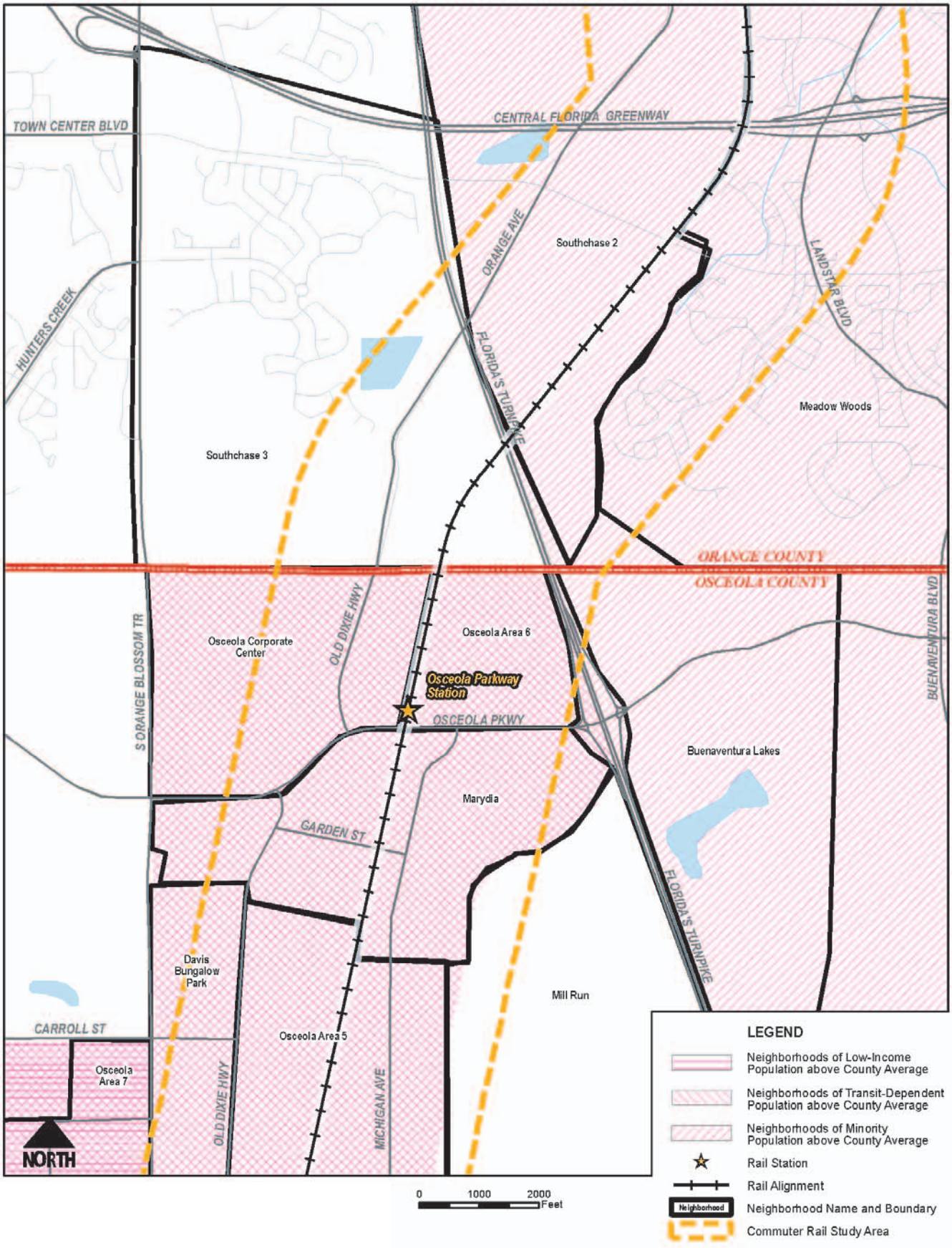


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Glatting Jackson

Figure B-70

Neighborhoods and Corresponding Demographic Indicators

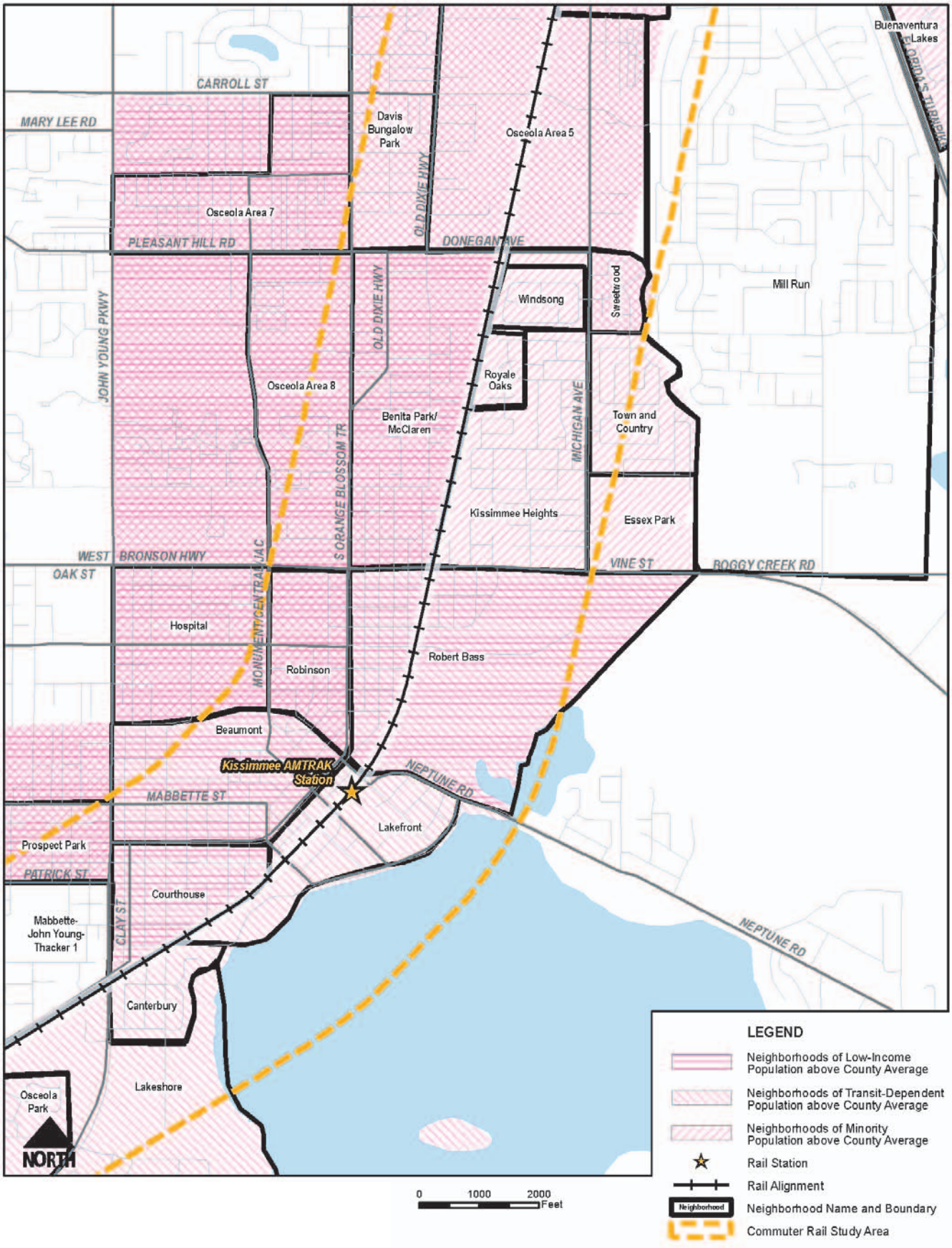


G:\18713 Commuter Rail\zzz_demographics

Sources: Orange County GIS, Osceola County GIS, Glatting Jackson

Figure B-71

Neighborhoods and Corresponding Demographic Indicators

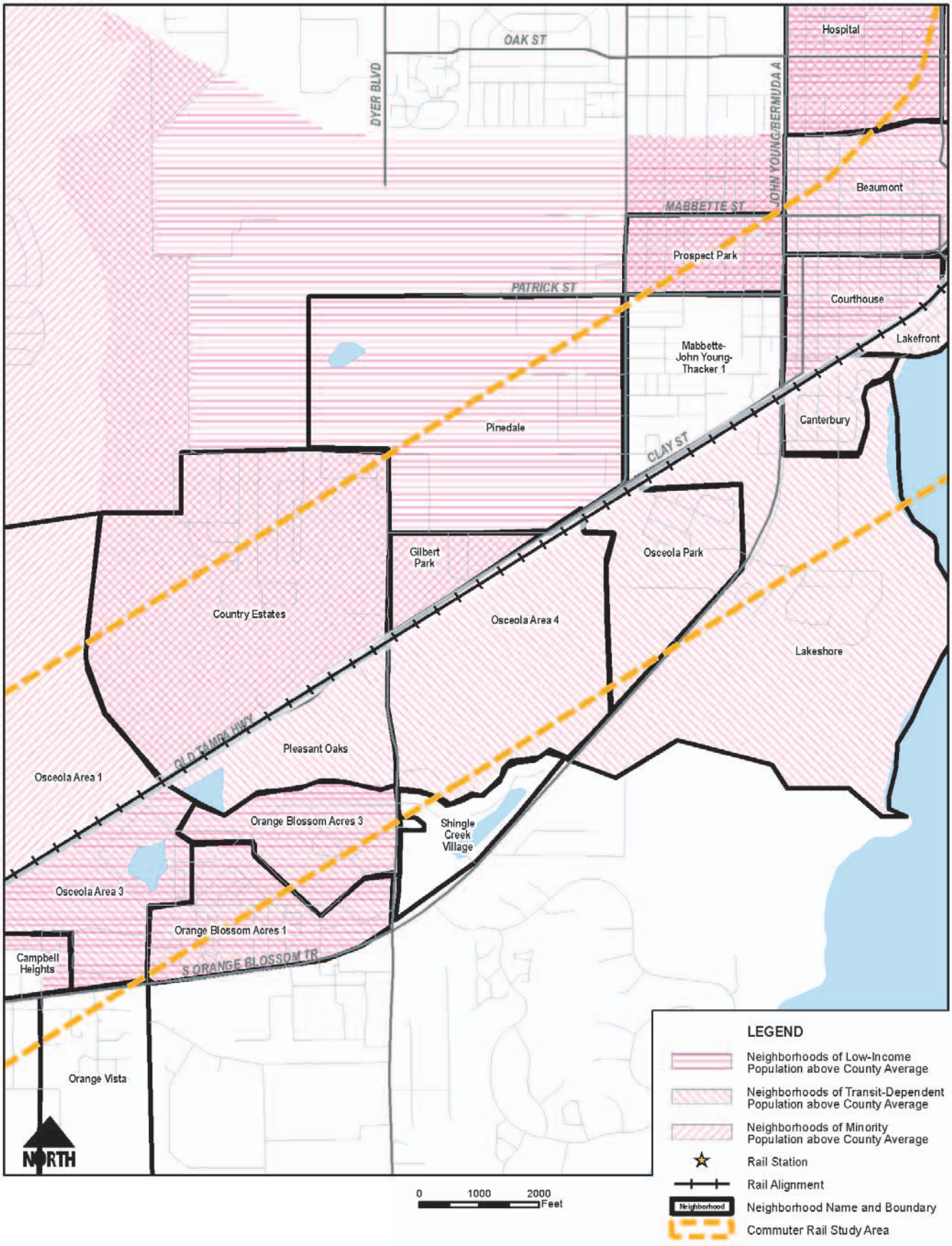


G:\18713 Commuter Rail\zzz_demographics

Sources: Osceola County GIS, Glatting Jackson

Figure B-72

Neighborhoods and Corresponding Demographic Indicators

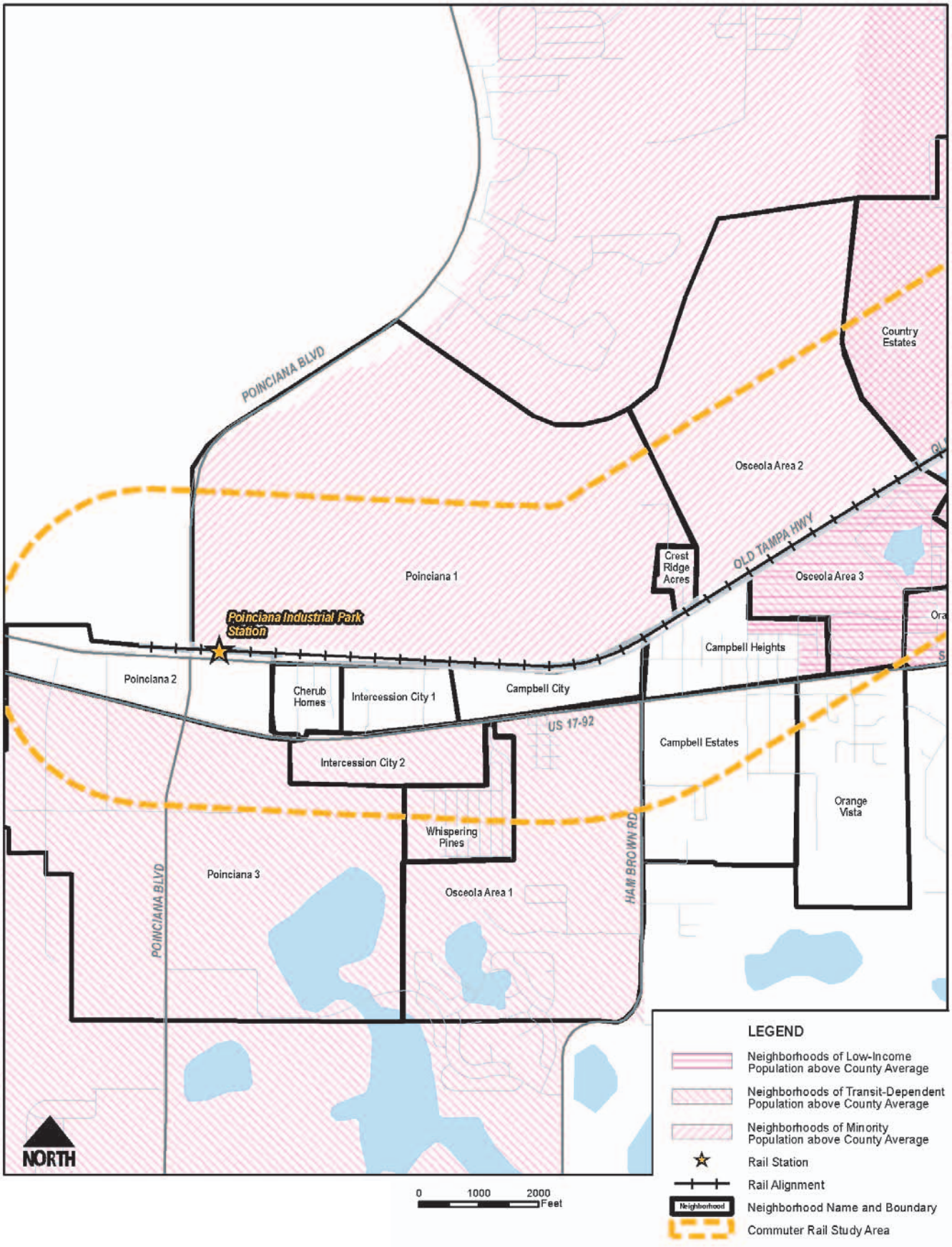


G:\18713 Commuter Rail\zzz_demographics

Sources: Osceola County GIS, Glatting Jackson

Figure B-73

Neighborhoods and Corresponding Demographic Indicators



G:\18713 Commuter Rail\zzz_demographics

Sources: Osceola County GIS, Glatting Jackson

Figure B-74

Neighborhoods and Corresponding Demographic Indicators

APPENDIX C

LIST OF EA RECIPIENTS

APPENDIX C – LIST OF RECIPIENTS

C.1 Federal Agencies

Advisory Council on Historic Preservation, Office of Cultural Resources Preservation

U.S. Army Corps of Engineers, District Engineer, Regulatory Branch

U.S. Coast Guard, Seventh District, Commander

U.S. Department of Agriculture, State Conservationist, Natural Resources Conservation Service

U.S. Department of Commerce

- National Marine Fisheries Service, Southeast Regional Office
- National Marine Fisheries Service, Habitat Conservation Division
- National Oceanic and Atmospheric Administration

U.S. Department of Health and Human Services

- Center of Environmental Health and Injury Control, Centers for Disease Control
- Office of Management Analysis and Systems

U.S. Department of Housing and Urban Development, Regional Environmental Officer

U.S. Department of Interior

- Bureau of Indian Affairs, Office of Trust Responsibilities, Environmental Services Staff
- Bureau of Land Management, Eastern States Office
- Fish and Wildlife Service, Field Supervisor, Jacksonville, Florida
- Fish and Wildlife Service, Field Supervisor, Vero Beach, Florida
- National Park Service, Southeast Regional Office
- Office of Environmental Policy and Compliance
- U.S. Geological Survey Chief, Environmental Affairs Program

U.S. Department of State, Office of Environmental, Health and Natural Resources, OES-E

U.S. Department of Transportation

- Office of Secretary
- Federal Aviation Administration
  - Airport District Office
  - Regional Director
- Federal Highway Administration
- Federal Railroad Administration, Office of Economic Analysis

U.S. Environmental Protection Agency

- Program Development Management Branch, NEPA Compliance Division
- Region IV, Regional Administrator

U.S. Federal Emergency Management Agency

- Associate General Counsel of Insurance and Mitigation
- Chief, Natural Hazards Branch

C.2 State Agencies

Executive Office of the Governor, Florida State Clearinghouse, Intergovernmental Affairs Policy Unit

Florida Department of Commerce, Economic Development Division

Florida Department of Community Affairs

Florida Department of Environmental Protection

- Division of Environmental Resources Permitting
- Division of Recreation and Parks

Florida Department of Natural Resources

- Marine Fisheries Commission
- Office of Land Use Planning and Biological Services

Florida Department of Transportation, Office of the Secretary

Florida Game and Fresh Water Fish Commission

- Office of Environmental Service
- Endangered Species Coordinator

C.3 Regional Agencies

Orlando Urban Area Metropolitan Planning Organization, Executive Director

East Central Florida Regional Planning Council, Executive Director

South Florida Water Management District, Executive Director

St. John's River Water Management District, Executive Director

C.4 County Agencies

Orange County, County Manager's Office

Orange County Aviation Department

Orange County Environmental Protection Department, Office of the Director

Orange County Historic Preservation Division

Orange Housing and Urban Development

Orange County Police Department

Orange County Public Library System

- Holden Avenue Branch
- Downtown Branch

Volusia County, County Manager's Office

Volusia County Aviation Department

Volusia County Environmental Protection Department, Office of the Director

Volusia County Historic Preservation Division

Volusia Housing and Urban Development

Volusia County Police Department

Volusia County Public Library System, Central Bfanch

Osceola County, County Manager's Office

Osceola County Aviation Department

Osceola County Environmental Protection Department, Office of the Director

Osceola County Historic Preservation Division

Osceola Housing and Urban Development

Osceola County Police Department

Osceola County Public Library System, Central Branch

Seminole County, County Manager's Office

Seminole County Aviation Department

Seminole County Environmental Protection Department, Office of the Director

Seminole County Historic Preservation Division

Seminole Housing and Urban Development

Seminole County Police Department

Seminole County Public Library System, Central Branch

C.4.1 Local Agencies/Municipalities

City of Altamonte Springs, Planning Department

Town of Eatonville, Planning Department

City of Longwood, Planning Department

City of Maitland, Planning Department

City of Orlando, Planning Department

City of Winter Park, Planning Department

City of DeLand, Planning Department

City of DeBary, Planning Department

City of Sanford, Planning Department

City of Deltona, Planning Department

City of Casselberry, Planning Department

City of Edgewood, Planning Department

Town of Pine Castle, Planning Department

Town of Belle Isle, Planning Department

Town of Winter Springs, Planning Department

Public Libraries

- Altamonte Springs Public Library
- Maitland Public Library
- Winter Park Public Library

C.4.2 Other

Rollin College, Documents Librarian

University of Central Florida, Documents Librarian

C.5 Recipient of Executive Summary

C.5.1 Federal Agencies

Office of Management and Budget

U.S. Environmental Protection Agency

- Groundwater Technology and Management Section
- Office of Wetland Protection

C.5.2 State Agencies

Florida Department of Agriculture

- Farmland Preservation Division

Florida Department of Health and Rehabilitative Services

C.5.3 Regional Agencies

Orlando-Orange County Expressway Authority

Seminole County Expressway Authority

C.5.4 County Agencies

Orange County, Office of Emergency Management

Orange County, Parks and Recreation

Orange County, Public Works Department

Orange County, Water and Sewer Authority

Orange County Protection Department (10)

Volusia County, Office of Emergency Management

Volusia County, Parks and Recreation

Volusia County, Public Works Department

Volusia County, Water and Sewer Authority

Volusia County Protection Department (10)

Osceola County, Office of Emergency Management

Osceola County, Parks and Recreation

Osceola County, Public Works Department

Osceola County, Water and Sewer Authority

Osceola County Protection Department (10)

Seminole County, Office of Emergency Management

Seminole County, Parks and Recreation

Seminole County, Public Works Department

Seminole County, Water and Sewer Authority

Seminole County Protection Department (10)

C.5.5 U.S. Legislators

C.5.6 State Elected Officials

C.5.7 Local Elected Officials

C.5.8 Project Advisory Group

C.5.9 Interested Organizations/Associations/Major Property Owners

APPENDIX D

LIST OF TECHNICAL REPORTS

APPENDIX D – LIST OF TECHNICAL REPORTS

D.1 Engineering

Existing Conditions Report, October, 2005

Engineering and Architectural Guidelines, April, 2006

Station Location Methodology Report, January 2006

CSX A-Line Commuter Rail Operations Analysis Technical Memorandum, October 2005

CFCRT/CSXT A-Line Build Alternative Freight Capacity Technical Memorandum 2005

Highway – Railroad Grade Crossing Analysis Report, January 2006

Vehicle Storage and Maintenance Facility Technical Memorandum, February 2006

CFCRT Proposed Control Center Requirements Report, November 2005

Location Hydraulics & Drainage Pond Siting Assessment Report, January 2006

Transit Operating Plans Report, December 2005

Maintenance of Traffic (MOT) Report, October 2005

O&M Methodology and Results Report, December 2005

Capital Cost Methodology Technical Memorandum, June 2006

Project Management Plan (Outline), January 2006

Comments and Coordination Report, February 2007

D.2 Environmental

Advance Notification Package, January 2005

Cultural Resource Assessment, October 2005

Wetlands Evaluation Report, January 2006

Endangered Species Biological Assessment, January 2006

Noise and Vibration Technical Report, December 2006

Air Quality Report, January 2006

Contamination Screening Evaluation Report, April 2005

APPENDIX E

AGENCY CORRESPONDENCE

APPENDIX E – AGENCY CORRESPONDENCE

E.1. Federal Agencies

United States Department of the Interior (May 20, 2005)
Department of Environmental Protection (March 30, 2005)
Department of Health & Human Services (March 9, 2005)
United States Department of the Interior (March 9, 2005)
United States Department of Transportation (FAA) (March 3, 2005)
United States Department of Homeland Security (USCG) (February 24, 2005
United States Department of Commerce (NOAA) (February 22, 2005)
United States Department of Transportation (FHA) (September 14, 2004)
United States Fish and Wildlife Service (February 8, 2007, February 21, 2007)

E.1.1 Federally Recognized Indian Tribes

Miccosukee Tribe of Indians of Florida (February 23, 2005)

E.2. State Agencies

Florida Department of the State – Division of Historical Resources (November 30, 2005)
Florida Department of the State – Division of Historical Resources (January 25, 2006)
Florida Department of the State – Division of Historical Resources (March 23, 2006)
Florida Department of the State – Division of Historical Resources (March 9, 2007)
Florida Fish and Wildlife Conservation Commission (May 20, 2005)
Florida Fish and Wildlife Conservation Commission (May 20, 2005)
Florida Fish and Wildlife Conservation Commission (May 20, 2005)
Florida Fish and Wildlife Conservation Commission (May 20, 2005)
Florida Department of Environmental Protection (April 1, 2005)
Florida Department of Transportation (September 10, 2004)
Florida Department of Transportation (March 5, 2007)

E.3. Local Governments and Agencies

Florida Natural Areas (May 20, 2005)
METROPLAN Orlando (February 2, 2005)

E3.1 County

Volusia County (March 2, 2005)
Volusia County (February 15, 2005)
Volusia County (February 11, 2005)
Seminole County (February 10, 2005)
Volusia County (February 7, 2005)

E.3.2 City

City of Lake Mary (March 16, 2005)
City of Orlando (March 14, 2005)
City of Orlando (March 14, 2005)
City of Kissimmee (March 9, 2005)
City of Kissimmee (March 7, 2005))

City of Kissimmee (March 3, 2005)
City of Sanford (February 22, 2005)
City of Maitland (February 21, 2005)
City of Kissimmee (February 3, 2005)

FLORIDA DEPARTMENT OF STATE
Kurt S. Browning
Secretary of State
DIVISION OF HISTORICAL RESOURCES

March 9, 2007

Ms. Noranne Downs, P.E.
District Five Secretary
Florida Department of Transportation
719 S. Woodland Blvd.
DeLand, FL 32807

RE: DHR Project File Number: 2007-1465 (previous DHR No.: 2006-11957c)
Received by DHR: March 7, 2007
Financial Project ID No.: 412994-1-22-01
Project: *Central Florida Commuter Rail Transit*
Counties: Orange, Osceola, Seminole, Volusia

Dear Ms. Downs:

Our office concurs that, contingent upon on-going consultation with your office, and the specific proposed actions outlined in your letter, that the proposed undertaking will have no adverse effect on the DeLand ACL Railroad Station (8VO2653), the Orlando ACL Railroad Station (8OR139), the Old Orlando Railroad Depot 98OR25) and the Downtown Orlando Historic District (8OR422). We would also like to commend the Federal Transit Administration and the Florida Department of Transportation for their commitment to insuring the continued use of these resources and the preservation of those qualities that reflect their significance.

If you have any questions, please contact Sherry Anderson, Architectural Historian, Transportation Compliance Review Program, by email *sanderson@dos.state.fl.us*, or at 850-245-6432.

Sincerely,

Frederick P. Gaske, Director, and
State Historic Preservation Officer

XC: Roy Jackson, FDOT, CEMO
Bob Gleason, FDOT, District Five
Tawny Olore, FDOT, District Five

500 S. Bronough Street • Tallahassee, FL 32399-0250 • http://www.flheritage.com

☐ Director's Office (850) 245-6300 • FAX: 245-6436
☐ Archaeological Research (850) 245-6444 • FAX: 245-6452
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Southeast Regional Office (561) 416-2115 • FAX: 416-2149
☐ Northeast Regional Office (904) 825-5045 • FAX: 825-5044
☐ Central Florida Regional Office (813) 272-3843 • FAX: 272-2340

Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

719 S. Woodland Blvd.
DeLand, FL 32807

STEPHANIE KOPELOUSOS
INTERIM SECRETARY

March 5, 2007

Mr. Frederick P. Gaske
Director and State Historic Preservation Officer
Florida Department of State
Division of Historical Resources
500 South Bronough Street
Tallahassee, FL 32399-0250

Subject: RE: Florida DHR Project File Number: 2006-11957(c)
Central Florida Commuter Rail Transit
Orange, Osceola, Seminole and Volusia Counties
Financial Project ID No.: 412994-1-22-01

Dear Mr. Gaske:

The Federal Transit Administration (FTA), as lead agency, in cooperation with the Florida Department of Transportation (FDOT), is undertaking to construct the Central Florida Commuter Rail Transit (CRT) Project along the existing CSXT right-of-way, an active freight and passenger railroad corridor, in Orange, Osceola, Seminole and Volusia Counties, Florida. The project extends 60.8 miles from the DeLand Amtrak Station to Poinciana Industrial Park. As part of this effort, a historical/architectural and archaeological survey was conducted between April and July 2005 in compliance with Section 106 of the *National Historic Preservation Act (NHPA) of 1966* (Public Law 89-655, as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*, revised January 2001); the *National Environmental Policy Act (NEPA) of 1969* (Public Law 91-190); and Section 4(f) of the *Department of Transportation Act of 1966* (Public Law 89-670, as amended). The project area of potential effect (APE) was defined as the zone within approximately 100 feet from the edge of each side of the existing CSXT right-of-way and the footprint and immediately adjacent property of each proposed station and other ancillary features. The Cultural Resource Assessment Survey Report was prepared by Archaeological Consultants, Inc. and reviewed by your office.

On January 5, 2006, Ms. Sherry Anderson from your staff conducted an on-site visit to review the potential effects of construction activities on nearby significant historic properties at six potential station locations. As a result, the FDOT concluded and your office concurred (March 23, 2006), that the proposed improvements at the Florida Hospital, Lynx Central and Kissimmee Amtrak sites "should not adversely affect the nearby historic properties." It was also determined

that the improvements proposed at the DeLand Amtrak, Church Street, and Orlando Amtrak/ORMC sites "have the potential to adversely affect the surrounding historic properties."

Specifically, these historic properties include the potentially National Register of Historic Places (NRHP)-eligible DeLand ACL Railroad Station (8VO2653), the potentially NRHP-eligible Orlando ACL Railroad Station (8OR139), and the NRHP-listed Old Orlando Railroad Depot (8OR25) within the NRHP-eligible Downtown Orlando Historic District (8OR422).

Therefore, the FTA, in cooperation with the FDOT, will fulfill the following commitments before project construction activities are undertaken to ensure that potential adverse effects to historic properties are avoided or minimized:

1. The FTA will provide design plans of the proposed DeLand Amtrak, Orlando Amtrak/ORMC and Church Street stations at the 30, 60, and 90 percent stages of completion for SHPO review and comment. The FTA will coordinate with the SHPO office so that potential visual and aesthetic effects to the above-mentioned historic properties (8VO2653, 8OR139, 8OR422 and 8OR25) can be avoided or minimized. The plans will show the exact location of platforms and other improvements, including proposed parking areas. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

2. The FTA will provide a sensitive design treatment for the three proposed stations and will ensure that the design, materials and locations of station platforms and canopies are architecturally and aesthetically compatible with the design of nearby historic resources.

3. The FTA will consult with the SHPO office to determine appropriate landscaping treatments designed to reduce the potential visual effects of parking lots and ancillary features at the proposed stations.

4. The FTA will make every reasonable effort to maintain the rural character of the DeLand Amtrak Station through the use of environmentally compatible elements, such as vegetative screening, in the design of parking lots and sidewalks.

5. The FTA will make every reasonable effort to minimize physical alterations to the historic properties. Where required, alterations will be made in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR Part 68).

6. Should there be any changes to previously reviewed and agreed upon design plans, the FTA will contact the SHPO and provide the opportunity for review and comment. The SHPO will have a period of 30 days upon receipt of acceptable plans to complete their review.

These stipulations underscore the FTA's commitment to avoid or minimize adverse effects to the significant historic properties located within the project APE. Contingent upon on-going consultation with your office, and the specific proposed actions outlined above, we look forward to your concurrence with the determination that the proposed undertaking will have No Adverse Effect to the DeLand ACL Railroad Station (8VO2653), Orlando ACL Railroad Station (8OR139), the Old Orlando Railroad Depot (8OR25), and the Downtown Orlando Historic District (8OR422).

On behalf of the FTA, we look forward to working with you and your staff in finalizing design plans which enhance the historic values embodied in these significant properties.

Sincerely,

George S Lovett

for Noranne Downs, P.E.
District Five Secretary

cc: Tawny Olore/FDOT
Bob Gleason/FDOT

Received 2/12/07

Florida Department

CHARLIE CRIST
GOVERNOR

133 South Semor
Orlando, FL

FWS Log No 41910-2007-I-0291

The proposed action is not likely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) This finding fulfills the requirements of the Act.

Candace Martino 2/21/07
FOR David L. Hankla, Field Supervisor — Date

February 8, 2007

Todd Mecklenborg
Fish & Wildlife Biologist
U.S. Fish and Wildlife Service
9720 Executive Center Drive North, Suite 101
St. Petersburg, FL 33702

Subject: Central Florida Commuter Rail Transit (CFCRT) Project
Environmental Assessment
From DeLand Amtrak Station to Poinciana Industrial Park
Volusia, Seminole, Orange and Osceola Counties, Florida
Financial Project ID: 412994-2-22-01
Endangered Species Biological Assessment

Dear Mr. Mecklenborg:

The Federal Transit Administration (FTA) in consultation with the Florida Department of Transportation (FDOT), is proposing a Commuter Rail Transit (CRT) Project to operate on the existing CSX Transportation, Inc. (CSXT) A-line rail corridor from the existing DeLand Amtrak Station in Volusia County, south through downtown Orlando and Kissimmee until its terminus at the Poinciana Industrial Park in Osceola County.

The CRT project proposes an alternative mode of transportation to improve the mobility of travelers along Interstate 4 (I-4) and other major roadways within the Orlando Metropolitan Region, including, but not limited to, US 17-92, US 441, Orange Avenue, and SR 434 (Forest City Road). The study corridor, which is the primary travel corridor in the region, is highly congested and experiences poor highway levels of service all during the day, especially in the morning mid-day and afternoon peak hours.

The CRT project was included in the METROPLAN Orlando Cost Feasible Year 2025 Long Range Transportation Plan adopted in June 2005 and the Volusia County Metropolitan Planning Organization (MPO) 2025 Cost Feasible LRTP adopted in November 2005. These major planning studies have provided the basis for the development of the EA for the commuter rail system.

The Full Build Alternative would extend from the DeLand Amtrak Station to Poinciana Industrial Park, a distance of 60.8 miles, via the CSXT A-Line. A total of sixteen stations are in the Full Build Alternative and they would be located at: DeLand, Saxon Boulevard Extension (DeBary), Sanford, Lake Mary, Longwood, Altamonte Springs, Winter Park, Florida Hospital, LYNX Central Station, Church Street (in downtown Orlando), Orlando Amtrak/ORMC, Sand Lake Road, Meadow Woods, Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park.

This Endangered Species Biological Assessment (ESBA) has been conducted in accordance with Section 7 of the Endangered Species Act of 1973 to assess potential effects on protected species and their habitats within the project corridor. In order to determine occurrence and potential occurrence of important natural features, habitats, and state and/or federally protected plant and animal species within the study area, preliminary data were collected and field investigations were conducted. The (ESBA) provides a detailed description of the methodology used to identify and quantify the type and acreage of each habitat and listed species within the Corridor.

Results of observations or occurrence records of federal and/or state-listed species: endangered (E), threatened (T), or species of special concern (SSC) are briefly mentioned below. Based on the findings of database searched, field survey and regulatory agency coordination; the following project effects have been determined for this study. The ESBA is provided separately as a technical support document.

Federally Listed Species

No direct adverse impacts to individual or to regional populations of federally listed species or their habitat are anticipated as a result of the proposed CFCRT project. These species include American alligator (T), Bald Eagle (T), Beautiful pawpaw (E), Bluetail mole skink (T), Britton's beargrass (E), Audubon's Crested Caracara (T), Eastern indigo snake (T), Florida bonamia (T), Florida grasshopper sparrow (E), Florida Scrub Jay (T), Florida Manatee (E), Red-cockaded Woodpecker (E), Sand skink (T), Everglades Snail kite (E) and the Wood Stork (E).

American Alligator

Alligators and evidence of alligators were observed throughout the project corridor. As this project will have only minor impacts on wetland systems, it is unlikely that this project will adversely affect alligators. Alligators are transient species and not dependent on specific habitats. Additionally, any mitigation for wetland impacts will provide additional habitat for alligators. Therefore, this project will have no effect on the American alligator.

Bald Eagle

The bald eagle is protected as a threatened species by the USFWS and FFWCC. Current FFWCC and FNAI data indicate numerous bald eagle nests adjacent to the corridor, with the closest nest (OR-044) to the proposed project site occurring near the southern end of Lake Holden. The proposed project activities are greater than 1500 ft. from this nest. Prior to construction, the distance from active nest(s) to the proposed construction areas should be re-evaluated. Based on current data, this project will have no effect on the bald eagle.

The FDOT will resurvey the project corridor for the presence of bald eagle during the final design and permitting phases of this project. The results of these surveys will provide a basis for modification of construction activities, if necessary. The FDOT will coordinate with USFWS throughout this process to establish adequate protection measures.

Beautiful Pawpaw
The beautiful pawpaw is a low shrub of the Annonaceae family, listed as endangered by both the Department of Agriculture and Consumer Services (DOACS) and USFWS. This low growing shrub with dark green leaves and creamy white flowers is native to well-drained soils in fire-adapted pine flatwoods. No beautiful pawpaw were observed during field investigations, therefore, this project will have no effect on the beautiful pawpaw.

Bluetail Mole Skink
The bluetail mole skink is listed as threatened by both State and Federal agencies. This small, shiny, brownish to pink lizard with a blue tail juvenile stage typically occupies xeric upland habitats of the Central Ridge in Florida. While potential habitat occurs adjacent to the project corridor, field investigations did not uncover any occurrences of this species and the proposed project is not expected to impact bluetail mole skink habitat. Therefore, this project may affect, but is not likely to adversely affect the bluetail mole skink.

Britton's Beargrass
Britton's beargrass is listed as endangered by both DOACS and USFWS. This member of the Agavaceae family is a perennial which forms basal rosettes of leaves 1 to 2 meters long. The flowering stem terminates in a 1-1.5 meter high panicle with white flowers, usually appearing in April. This species occurs in a variety of habitat types, including dry scrub and mesic hammocks, but always in droughty, infertile soils. No individuals of Britton's beargrass were observed during the field surveys; therefore, this project will have no effect on Britton's beargrass.

Audubon's Crested Caracara
Crested caracaras in Florida are protected as threatened species by both state and federal agencies. Typical habitat includes open grasslands, which historically consisted of open prairie but now includes improved pasturelands. Caracaras generally construct distinctive nests out of vines and sticks, usually in cabbage palms.

The USFWS office in Vero Beach provided information regarding a known nest in Section 32, Township 25 South, Range 29 East, in Osceola County along the corridor, and recommended surveys for caracara nests along areas of suitable habitat within the project corridor. Based on the guidelines established within the DRAFT Standard Local Operating Procedures (SLOPES) for the crested caracara, "If the surveys do not detect caracara nests, then a 'may affect, not likely to adversely affect' determination may be reached." No caracaras or nests were observed within initial surveys of the study area; however, a resurvey following guidelines established in the SLOPES is required prior to construction. If nests are observed during resurveys, this project may comply with caracara guidelines by providing for construction outside of nesting season.

This scenario requires a full restriction of intrusive actions in the primary zone (985 feet) and the secondary zones (6,600 feet), with any acceptable land uses determined by formal consultation and occurring outside the nesting season (November through April). If nests are observed in resurveys, the FTA will consult with the USFWS. Given that the CFCRT will not impact natural habitats and is expected to result in minor impacts to wetlands, adherence to the guidelines set forth in the SLOPES for Audubon's crested caracara will provide for a determination that this project may affect, but is not likely to adversely affect the crested caracaras.

The FDOT will resurvey the project corridor for the presence of caracara nests during the final design and permitting phases of this project. The results of these surveys will provide a basis for modification of construction activities, if necessary. The FDOT will coordinate with USFWS throughout this process to establish adequate protection measures.

Eastern Indigo Snake
The Eastern indigo snake is a large, stout-bodied black snake that may inhabit a variety of habitats throughout Florida. This species often over winters in gopher tortoise burrows in the northern portions of its range. Indigo snakes primarily utilize upland habitats and but also forage in hydric habitats. Both FFWCC and USFWS list this species as a threatened species. No record of occurrence or evidence of presence was found during the preliminary data collection and field surveys. Because of the possibility of occurrence within the project area, the project shall adhere to the USFWS "Standard Protection Measures for the Eastern Indigo Snake." It may be concluded that this project may affect, but is not likely to adversely affect the Eastern indigo snake.

To assure the protection of the Eastern indigo snake during construction, all design and construction will follow the established guideline "Standard Protection Measures for the Eastern Indigo Snake" as outlined in Appendix D of the ESBA.

Florida Bonamia
The Florida bonamia is a vining plant in the Convolvulaceae family, listed as endangered by the (DOACS), and listed as threatened by the USFWS. This white-throated, blue to purple flowering plant is the only blue flowered morning glory vine found in scrub areas. No Florida bonamia were observed during field investigations, therefore, this project will have no effect on the Florida bonamia.

Florida Grasshopper Sparrow
The Florida grasshopper sparrow is protected as an endangered species by both the Florida Fish and Wildlife Conservation Commission (FFWCC) and USFWS. This non-migratory, endemic subspecies is a small, short-tailed bird inhabiting low scrub palmetto and dwarf oaks within the prairie region of South Central Florida. This species is listed as occurring in southern Osceola County, but potential suitable habitat exists adjacent to the corridor.

The project is not expected to impact the Florida grasshopper sparrow habitat. Therefore, this project will have no effect on the Florida grasshopper sparrow.

Florida Scrub Jay
The Florida scrub jay is a species protected under threatened status by both FFWCC and USFWS. This endemic species is restricted to scattered, often small and isolated patches of sand pine scrub, xeric oak scrub, and scrubby flatwoods in peninsular Florida. Nesting occurs from March through June, usually in low scrubby oak species between 3 and 10 feet in height. Habitat loss is the primary reason for this species' decline.

FNAI data indicate the presence of the Florida scrub jay associated with scrub habitat near the northern sections of the study area. Field evaluations documented four scrub jays (one apparent breeding pair and two juveniles) near the southern end of Konomac Lake near DeBary. These birds were observed foraging at one location to the east of the existing CSXT tracks, among grapevine (*Vitas sp.*) and blackberry (*Rebus sp.*) growths. The birds were also observed perching on nearby sand pine (*Pinus clausa*), but were not observed crossing the tracks. The jays preferred habitat occurs on only one side of the corridor in this area. During design and prior to construction, a more detailed, species specific survey to determine the extent of scrub jay occupation and utilization in this area is recommended. Surveys should follow FFWCC and USFWS guidelines. Pending the results of this detailed survey, and subsequent coordination with appropriate agencies, impacts to individual scrub jays and scrub jay habitat are expected to be minimal. Therefore the proposed project may affect, but is not likely to adversely affect the Florida scrub jay.

Comprehensive scrub jay surveys will be carried out near the confirmed location (S. of Konomac Lake, near DeBary) based on USFWS guidelines as adopted from Fitzpatrick, et.al., (1991). These surveys will determine the extent and quality of habitat and occupied territory within the project area. Based on the results of these surveys, FDOT will contact USFWS to coordinate appropriate mitigation measures, including timing of construction, if necessary, outside of nesting season.

Florida Manatee
The Florida manatee is listed as an endangered species by both the FFWCC and the USFWS. The manatee inhabits coastal waters, bays, rivers, and occasionally lakes. Manatees require warm-water areas such as springs or cooling water effluent during cold weather. FNAI database records indicate manatee aggregation sites west of the study area in natural spring and spring-run areas. No spring or spring-runs are located within with the project area. No manatees were observed during the field survey. Given that the proposed project will occur within the existing rail corridor, this project will have no effect on Florida manatees.

Red-cockaded Woodpecker
The red-cockaded woodpecker (RCW) is listed as threatened by the State of Florida and endangered by the USFWS. This species utilizes mature, living pines for nesting and roosting, primarily in regularly burned pine flatwoods dominated by longleaf pine (*Pinus palustris*) with little or no understory. No records for RCW within the study area were found, however, a few areas dominated by slash pine were observed outside of the existing right-of-way during field evaluations. No evidence of RCWs was observed. Given the current lack of evidence of RCW

presence, and the limited impact of the proposed project on vegetation (pine trees) within the corridor, this project will have no effect on red cockaded woodpeckers.

Sand Skink
This species is listed as threatened by both FFWCC and USFWS. The sand skink is a small, shiny gray to grayish-white, fossorial lizard occupying the same habitat as described for the bluetail mole skink. While potential habitat occurs adjacent to the project corridor, field investigations did not record any occurrences of this species and the proposed project is not expected to impact sand skink habitat. Therefore, this project may affect, but is not likely to adversely affect the sand skink.

Everglades Snail kite
The Everglades snail kite is a non-migratory, medium-sized raptor, gray or brown with streaks on their heads. This kite species is listed as an endangered species by both USFWS and FFWCC. Their habitat is typically large open freshwater marshes and shallow lakes with sparse aquatic vegetation for foraging. They are dependent on apple snails (*Pomacea paludosa*) for food, and often nest in low trees or shrubs over water. Although occasional fragments of suitable habitat were encountered along the survey area, no record of snail kite presence during field surveys was encountered. Therefore, this project will have no effect on snail kites.

Wood Stork
The wood stork is provided state and federal protection as an endangered species. The wood stork is a colony-forming wading bird that utilizes wetlands and shallow surface water features for foraging. Nesting colonies are typically found in swamps near seasonally isolated wetlands. USFWS guidelines identify an 18.6 mile radius Core Foraging Area (CFA) over appropriate wetlands surrounding nesting colonies. This CFA is intended to protect foraging areas where hydrology and fauna support high concentrations of prey items. If wetlands meeting the CFA criteria are impacted as a result of this project, mitigation must occur within the same CFA.

As described in a letter dated March 9, 2005 from USFWS regarding wood storks, "In some cases, the Service accepts wetlands compensation located outside of the affected wood stork nesting colony CFA. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside the CFA would be acceptable to the Service, provided the impacted wetlands occur within the permitted service area of the bank." USFWS identified four active wood stork nesting colonies near the project area, resulting in CFAs extending to the project area. The colonies are located approximately 11.5 miles east, 17.4 miles northeast, and 12.2 miles and 13.5 miles southeast of the project corridor. Their corresponding CFAs include the entirety of the study area.

Given the current disturbed condition of the wetlands associated with this project, and provided that wetland mitigation occurs within the CFA or an approved mitigation bank, this project may affect, but is not likely to adversely affect the wood stork.

State Listed Species

No direct adverse impacts to regional populations of the state-only listed species are anticipated as a result of the proposed CFCRT project. These species include the Celestial Lily (E), Florida Black Bear (T), Florida Sandhill Crane (T), Gopher Tortoise (SSC), Least Tern (T), Osprey (SSC), and wading birds (SSC) as a group (including Limpkin, Little Blue Heron, Snowy Egret, Tri-colored Heron, and White Ibis).

Celestial Lily

The celestial lily is a perennial herb emerging from a bulb to form linear basal leaves and an inflorescence stem producing dark blue six-petaled flowers. These flowers open only during afternoon and evening hours. This plant is protected by DOACS as an endangered species. FNAI records indicate a possible occurrence within one mile of the study area. No celestial lilies were observed during the field surveys.

This species was not found within the project area and therefore, this project will have no effect on the celestial lily.

Florida Black Bear

The Florida black bear is listed as a threatened species by the FFWCC. This large mammal is dependent on large tracts of land for survival, and requires forested habitats for foraging. Baygalls are often important to this species for dens. Areas of habitat suitable to the Florida black bear occur adjacent to the study area. The project corridor within Seminole and Volusia Counties lies immediately east of the primary range for the Ocala bear population, according to a study by Simek, et. al. (2005), but within portions of the secondary ranges. FFWCC reports numerous occurrences of the Florida black bear near the project area, particularly in Seminole County. Project scientists observed a single bear crossing the existing rail tracks during the field survey. A statewide assessment of road impacts on bears (Simek, et. al. 2005) found a high number of bear roadkill within the Ocala population, but these incidents were limited to two roads. No bear mortality has been associated with the existing rail. Because the CFCRT will utilize the existing rail corridor, no bear mortality is expected. This project will not impact additional natural areas, therefore, the project will not affect bear habitat. Based on no projected mortality or loss of habitat, the proposed project will have no effect on the Florida black bear.

As data from ongoing studies of the Ocala population of the Florida black bear become available, the FDOT will continue to review project involvement with the Florida black bear. If the need arises following construction, FDOT may initiate studies to assess potential effects of the increased rail trips. The proposed project is not expected to adversely impact natural areas or protected species. Nearly all potential effects described for this project are associated with habitat and known occurrence throughout the corridor.

Florida Sandhill Crane
The Florida sandhill crane is a non-migratory crane that frequents wet prairies and lake margins. They often utilize low-lying pasture and shallow wet areas for nesting and foraging. This sandhill crane subspecies which nests in Florida is afforded protection by the FFWCC as a threatened species. While occasional areas of suitable habitat were present adjacent to the existing corridor, no sandhill cranes or nesting sites were observed during the survey period. Further, as wetland-dependent species, wetland impacts may affect sandhill cranes. Appropriate wetland mitigation will compensate for these effects. As a result, the proposed project may affect but is not likely to adversely affect the sandhill crane.

Gopher Tortoise
The gopher tortoise is listed as a species of special concern by the FFWCC. The gopher tortoise generally occupies sandy, well-drained soils with herbaceous forage available. Gopher tortoises construct burrows in soil for year-round shelter and lays eggs in soil mounds at the mouth of the burrow. This burrow may also become occupied by other commensal species, including the Florida mouse, Florida pine snake, eastern indigo snake, and gopher frog. Suitable gopher tortoise habitat and a number of burrows (361 burrows) were recorded within the study area, often adjacent to the existing rail impacts to many of these burrows will be unavoidable in constructing the Build Alternative. Permitting options for impacts to the gopher tortoise include Relocation Permits and Incidental Take permits. Relocation permits may include on-site or off-site relocation. On-site relocation is not recommended for this linear project due a lack of suitable habitat for relocation. Off-site relocation is possible for this project but requires careful selection of a recipient site(s) as well as testing of a subsample of each tortoise population for upper respiratory tract disease (URTD). An Incidental Take Permit from FFWCC allows tortoises to be entombed during the construction process in exchange for a fee which is applied to purchase or manage public lands that provide long-term species protection for the gopher tortoise. Providing that there are opportunities for the continued survival of individual tortoises, the Incidental Take Permit also allows the on-site release of tortoises encountered. This option may have some effect on tortoises on-site, yet contributes to a State program for long-term preservation of the species. Therefore, the gopher tortoise may be affected, but is not likely to be adversely affected by the proposed project.

The FDOT will resurvey the project corridor for gopher tortoises and their burrows immediately prior to construction and coordinate permitting and mitigation with the FFWCC. As described in the ESBA, this may include incidental take permits or relocation.

Least Tern
Least terns are shorebirds that nest in shallow depressions along sandy expanses from mid April to May. They are grey and white birds with black caps and deeply forked tails. Because of heavy harvesting for plumage at the turn of the century and increased habitat loss, FFWCC lists this species of colony nesters as threatened.

FNAI data indicates a previously used least tern nesting site nearly one mile east of the CSXT corridor at Konomac Lake. Because project related activities would be limited to the existing CSXT corridor, this project may affect, but is not likely to adversely affect the least tern.

Osprey
The osprey is a year-round resident bird of prey in Florida. This species of special concern often nests on power poles or man-made structures. Four osprey nests were observed within the study area. Ospreys are afforded protection under the federal Migratory Bird Treaty Act and State adaptation of similar protections. Under these protections, the taking of active nests requires a federal permit, while the taking of any nest, active or inactive, requires a State permit. Federal permits to take active osprey nests are issued by the USFWS Region IV, Division of Law Enforcement. State permits to take active and inactive osprey nests are issued for the Executive Director of the Commission by the Section Leader of the Species Conservation Planning Section, Division of Habitat and Species Conservation. Requests for such permits should be submitted to that office.

This project is not expected to directly impact osprey nests, as avoidance of impacts may be achieved through careful planning during design and construction, as well as careful selection of ingress and egress areas. Therefore, this project will have no effect on ospreys.

Wading birds
This category includes wading birds not treated elsewhere in this document but still afforded protection by the FFWCC. Groupings of these birds may often occur as multi-species colonies, and may include the state listed species of special concern Roseate Spoonbill, Limpkin, Little Blue Heron, Snowy Egret, Tri-colored Heron and White Ibis. Additional non-listed species within these colonies may include water birds such as cormorants, and anhinga.

Colonies are protected by the State of Florida, as well as several wading birds being listed as Species of Special Concern. Various wading bird species were observed in rural and urban areas along the study area, foraging in surface water swales.

While this project will potentially impact wading bird foraging areas through wetland impacts, appropriate wetland mitigation will offset those impacts. Therefore, this project may affect, but is not likely to adversely affect state protected wading bird species.

Findings

While the proposed project are estimated to, at worst, possibly affect, but not likely to adversely affect the species indicated for the study area, protection measures and guidelines as referenced in the ESBA will be followed for all design and construction phases of this project. Additional measures and permitting requirements are indicated for the Florida scrub-jay, Gopher tortoise, Bald Eagle and crested caracara, Eastern indigo snake, the Florida black bear, and the Wood Stork.

Therefore, considering the mitigation measures proposed, no significant impacts to individuals or to regional populations of federally or state-listed species are anticipated as a result of the proposed project. Please let us know of your concurrence with the findings of the ESBA, or if you have any concerns about our assessment of probable impacts, within thirty (30) days so that we may proceed with the Preliminary Engineering phase. If you have any questions, please feel free to contact me at (407) 482-7879.

Sincerely,

Florida Department of Transportation – District 5

Tawny H. Olore, P.E.
Rail Transit Project Manager

Enclosure:
Draft Endangered Species Biological Assessment (January 2006)

Cc: Bob Gleason/FDOT – District 5
George Gault/Earth Tech

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

May 20, 2005

Steffenie Widows
Vanasse Hangen Brustlin, Incorporated
135 West Central Boulevard, Suite 800
Orlando, Florida 32801-2476

REC'D.
MAY 2 3 2005
VHB FLORIDA

09220.00

Service Log No.: 4-1-05-PL-10629
Date Received: April 14, 2005
Project: CSX Railroad Corridor
County: Osceola

Dear Ms. Widows:

Thank you for your letter dated April 13, 2005, in which you requested the Fish and Wildlife Service's (Service) technical assistance for the project referenced above.

PROJECT DESCRIPTION

A project description was not provided. The project is located in Osceola County, Florida.

THREATENED AND ENDANGERED SPECIES

The Service has reviewed its Geographic Information System (GIS) database for recorded locations of federally listed threatened and endangered species on or adjacent to your project. The GIS database is a compilation of data received from several sources.

Wood stork

The project occurs within the geographic range of the endangered wood stork (*Mycteria americana*). We have identified four active wood stork nesting colonies located near the project area. The project is located in the core foraging area (CFA) (within 18.6 miles) of these nesting colonies. These colonies are located approximately 11.5 miles east; 17.4 miles northeast; and 12.2 miles and 13.5 miles southeast of the project corridor. The Service believes the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork, we recommend any lost foraging habitat resulting from the project be replaced within the CFA of the affected nesting colony. Moreover, wetlands provided as mitigation should adequately replace the wetland functions lost as a result of the action. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside the CFA would be acceptable to the Service, provided the impacted wetlands occur within the permitted service area of the bank.

Bald eagle

A nest of the threatened bald eagle (*Haliaeetus leucocephalus*), Florida Fish and Wildlife Conservation Commission nest number OS-82, is located in Section 32, Township 25 South, Range 29 East. If your project is located within 1,500 feet of this nest, we recommend you follow the Service's *Habitat Management Guidelines for the Bald Eagle in the Southeast Region* (Service 1987). This document is located online at: http://northflorida.fws.gov/BaldEagles/Documents/eagle-habitat.pdf.

Audubon's crested caracara

The Service has a record of a nest of the threatened Audubon's crested caracara (*Polyborus plancus audubonii*) occurring in Section 32, Township 25 South, Range 29 East. If suitable habitat occurs within the project corridor, we recommend that surveys for caracara nests, based on Service protocol, be conducted at the project site. Please find enclosed a copy of the Service's *Draft Audubon's Crested Caracara Survey Guidelines* (Service 2002).

No other federally listed species were identified on your project site. The Service has not conducted a site inspection to verify species occurrence or validate the GIS results. However, we assume listed species occur in suitable ecological communities and recommend site surveys to determine the presence or absence of listed species. Ecological communities suitable for listed species can be found in the species accounts in the *South Florida Multi-Species Recovery Plan* (Service 1999). This document is available on the internet at http://verobeach.fws.gov/Programs/Recovery/esvb-recovery.html.

We have also provided for your consideration two computer links: (1) http://verobeach.fws.gov/Programs/Permits/Section7.html and (2) http://migratorybirds.fws.gov/. The first link is a table of species by county in south Florida that are protected as either threatened or endangered under the Endangered Species Act of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 *et seq.*). The table does not include State-listed species. Please contact the Florida Fish and Wildlife Conservation Commission at 772-778-5094 to identify potential State-listed species occurring in the vicinity of your project. The second link provides information on species the Service is required to protect and conserve under other authorities, such as the Fish and Wildlife Coordination Act of 1958, as amended (48 Stat. 401; 16 U.S.C. 661 *et seq.*) and the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 701 *et seq.*). A variety of habitats in south Florida occasionally provide resting, feeding, and nesting sites for a variety of migratory bird species. As a public trust resource, migratory birds must be taken into consideration during project planning and design.

Thank you for the opportunity to comment. If you have any questions, please contact John Wrublik at 772-562-3909, extension 282.

Sincerely yours,

Allen D. Webb for

James J. Slack
Field Supervisor
South Florida Ecological Services Office

Enclosure

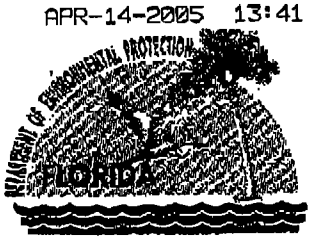
cc: w/o enclosure
DEP, Orlando, Florida
EPA, West Palm Beach, Florida
FWC, Vero Beach, Florida

LITERATURE CITED

U.S. Fish and Wildlife Service (Service). 1987. Habitat Management Guidelines for the Bald Eagle in the Southeast Region. Fish and Wildlife Service; Atlanta, Georgia.

U.S. Fish and Wildlife Service (Service). 1999. South Florida Multi-Species Recovery Plan. Fish and Wildlife Service; Atlanta, Georgia.

U.S. Fish and Wildlife Service (Service). 2002. Draft Audubon's Crested Caracara Survey Guidelines. Fish and Wildlife Service; Vero Beach, Florida.



Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Colleen M. Castille
Secretary

March 30, 2005

Mr. Bob Gleason
Environmental Management Office
Florida Dept. of Transportation, District V
719 Woodland Boulevard, MS 501
DeLand, Florida 32720-6834

RE: Department of Transportation – Advance Notification – Rail Transit Environmental Assessment and Design Services, Central Florida Commuter Rail Transit, Financial ID No.: 412994-2-22-01 – Osceola, Orange, Seminole, and Volusia Counties, Florida

SAI # FL200501310418C

Dear Mr. Gleason:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the referenced advance notification.

The South Florida Water Management District (SFWMD) states that the proposed project will require an Environmental Resource Permit (ERP). Prior to permit application, the applicant is advised to contact permitting staff in the SFWMD's Orlando Service Center to coordinate on issues such as wetland determinations, wetland impacts, threatened and endangered species, mitigation plans, and use of sovereign submerged lands.

The Florida Department of Environmental Protection (DEP) recommends the use of clean diesel in the proposed rail transit train engines to reduce mobile source emissions. The DEP advises that options for clean diesel include ultra–low sulfur diesel (less that 15 ppm sulfur) and blends of biodisel such as 20% biodiesel with petroleum based diesel. The following links provide information on these fuels: http://www.pscleanair.org/dieselsolutions/ds_fuel.shtml and http://www.biodiesel .org/resources/faqs. The most pollution free option for powering these engines would be to use electric power from a power plant that has emission control devices currently in place.

Based on the information contained in the advance notification and the enclosed state agency comments, the state has determined that, at this stage, the allocation of federal funds for the above-referenced project is consistent with the Florida Coastal Management Program (FCMP). The applicant must, however, address the concerns identified by the reviewing agencies prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of any issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Ms. Suzanne E. Ray at (850) 245-2172.

Yours sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/ser

Enclosures

cc: Jim Golden, SFWMD
Barb Bess, DEP Central District

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30341-3724

March 9, 2005

Mr. Bob Gleason
Environmental Administrator
Florida Department of Transportation
719 South Woodland Boulevard
Deland, Florida 32720-6834

Dear Mr. Gleason:

This is in response to your Advance Notification request for the Rail Transit Environmental Assessment and Design Services, Central Florida Commuter Rail.. We are responding on behalf of the Department of Health and Human Services (DHHS), U.S. Public Health Service.

While we have no project specific comments to offer at this time, we do recommend that the topics listed below be considered during the NEPA process along with other necessary topics, and addressed if appropriate. Mitigation plans which are protective of the environment and public health should be described in the DEIS wherever warranted.

AREAS OF POTENTIAL PUBLIC HEALTH CONCERN:

I. Air Quality
- dust control measures during project construction, and potential releases of air toxins
  potential process air emissions after project completion
- compliance with air quality standards

II. Water Quality/Quantity
- special consideration to private and public potable water supply, including ground and surface water resources
- compliance with water quality and waste water treatment standards
- ground and surface water contamination (e.g. runoff and erosion control)
- body contact recreation

III. Wetlands and Flood Plains
- potential contamination of underlying aquifers
- construction within flood plains which may endanger human health
- contamination of the food chain

IV. Hazardous Materials/Wastes
- identification and characterization of hazardous/contaminated sites
- safety plans/procedures, including use of pesticides/herbicides; worker training
- spill prevention, containment, and countermeasures plan

V. Non-Hazardous Solid Waste/Other Materials
- any unusual effects associated with solid waste disposal should be considered

VI. Noise
- identify projected elevated noise levels and sensitive receptors (i.e. residential, schools, hospitals) and appropriate mitigation plans during and after construction

VII. Occupatigna1 Health and Safety
- compliance with appropriate criteria and guidelines to ensure worker safety and health

VIII. Land Use and Housing
- special consideration and appropriate mitigation for necessary relocation and other potential adverse impacts to residential areas, community cohesion, community services
- demographic special considerations (e.g. hospitals, nursing homes, day care centers, schools
- consideration of beneficial and adverse long-term land use impacts, including the potential influx of people into the area as a result of a project and associated impacts
- potential impacts upon vector control should be considered

IX. Environmental Justice
- federal requirements emphasize the issue of environmental justice to ensure equitable environmental protection regardless of race, ethnicity, economic status or community, so that no segment of the population bears a disproportionate share of the consequences of environmental pollution attributable to a proposed project. (Executive Order 12898)

While this is not intended to be an exhaustive list of possible impact topics, it provides a guide for typical areas of potential public health concern which may be applicable to this project. Any health related topic which may be associated with the proposed project should receive consideration when developing the draft and final EISs. Please furnish us with one copy of the draft document when it becomes available for review.

Sincerely yours,

Paul Joe

Paul Joe, DO, MPH
Medical Officer
National Center for Environmental Health (F16)
Centers for Disease Control & Prevention

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

Received
MAR 14 2005
FDOT
Environmental Management

March 9, 2005

Bob Gleason
Florida Department of Transportation
719 South Woodland Boulevard, MS 37
Deland, Florida 32720

Service Log No.: 4-1-05-PL-10742
Date Received: January 31, 2005
Project: Central Florida Commuter Rail
County: Osceola

Dear Mr. Gleason:

Thank you for your letter dated January 28, 2005, in which you requested the Fish and Wildlife Service's (Service) technical assistance for the project referenced above.

PROJECT DESCRIPTION

The project consists of new construction and improvements to existing railroad tracks, signals, grade crossings, and maintenance and storage facilities. The purpose of the project is to improve mass transportation service in the project area. The project is located in Volusia County, Seminole County, Orange County, and Osceola County, Florida.

THREATENED AND ENDANGERED SPECIES

The following provides comments for the portion of the project that occurs within Osceola County only. For comments on the sections of the project that occur in Volusia, Seminole, and Orange Counties, we recommend you contact the Service's Jacksonville Ecological Services Field Office.

The Service has reviewed its Geographic Information System (GIS) database for recorded locations of federally listed threatened and endangered species on or adjacent to your project. The GIS database is a compilation of data received from several sources. We have identified three active nesting colonies of the endangered wood stork (*Mycteria americana*) located near the project area. The project is located in the core foraging area (CFA) (within 18.6 miles) of these nesting colonies. These colonies are located approximately 11.7 miles east, 17.9 miles northeast, and 17.7 miles south of the project corridor. The Service believes the loss of wetlands within a CFA, due to an action, could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork, we recommend any lost foraging habitat, resulting

from the project, be replaced within the CFA of the affected nesting colony. Moreover, wetlands provided as mitigation should adequately replace the wetland functions lost as a result of the action. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside the CFA would be acceptable to the Service, provided the impacted wetlands occur within the permitted service area of the bank.

No other federally listed species were identified on your project site. The Service has not conducted a site inspection to verify species occurrence or validate the GIS results. However, we assume listed species occur in suitable ecological communities and recommend site surveys to determine the presence or absence of listed species. Ecological communities suitable for listed species can be found in the species accounts in the *South Florida Multi-Species Recovery Plan*. This document is available on the internet at http://verobeach.fws.gov/ Programs/ Recovery/csvb-recovery.html.

We have also provided for your consideration two computer links: (1) http://verobeach.fws.gov/ Programs/Permits/Section7.html and (2) http://migratorybirds.fws.gov/. The first link is a table of species by county in south Florida that are protected as either threatened or endangered under the Endangered Species Act of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 *et seq.*). The table does not include State-listed species. Please contact the Florida Fish and Wildlife Conservation Commission at 772-778-5094 to identify potential State-listed species occurring in the vicinity of your project. The second link provides information on species the Service is required to protect and conserve under other authorities, such as the Fish and Wildlife Coordination Act of 1958, as amended (48 Stat. 401; 16 U.S.C. 661 *et seq.*) and the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 701 *et seq.*). A variety of habitats in south Florida occasionally provide resting, feeding, and nesting sites for a variety of migratory bird species. As a public trust resource, migratory birds must be taken into consideration during project planning and design.

Thank you for the opportunity to comment. If you have any questions, please contact John Wrublik at 772-562-3909, extension 282.

Sincerely yours,

Allen D. Webb for

James J. Slack
Field Supervisor
South Florida Ecological Services Office

cc:
DEP, West Palm Beach, Florida
EPA, West Palm Beach, Florida
FWC, Vero Beach, Florida

U.S. Department
of Transportation
**Federal Aviation
Administration**

ORLANDO AIRPORTS DISTRICT OFFICE
5950 Hazeltine National Dr., Suite 400
Orlando, Florida 32822-6024
Phone: (407) 812-6331 Fax: (407) 812-6978

March 3, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS 37
DeLand, Florida- 32720

Dear Mr. Gleason:

RE: Advance Notification for the Rail Transit Environmental Assessment and Design Services
Central Florida Commuter Rail Transit Volusia, Orange and Osceola Counties, Florida
Financial Identification Number: 412994-2-22-01

We have reviewed your January 28, 2005 letter, transmitting the Advance Notification for the above referenced project, and we offer no comment.

Please contact me if you have any questions.

Sincerely,

Vernon P. Rupinta
Program Manager

U.S. Department of Homeland Security
United States Coast Guard

Commander
Seventh Coast Guard District

909 SE 1st Ave, Ste 432
Miami, FL 33131-3050
Staff Symbol: (obr)
Phone: (305) 415-6747
Fax: (305) 415-6763
Email: wtate@d7.uscg.mil

16211
February 24, 2005

Mr. Bob Gleason
Environmental Administrator-District 5
Florida Dept. of Transportation
719 S. Woodland Blvd. MS 37
DeLand FL 32720

Dear Mr. Gleason:

Enclosed is a Bridge Project Questionnaire (BPQ) for your project Central Florida Commuter Rail Transit in Volusia, Seminole, Orange and Osceola Counties, Florida, Financial Identification Number 412994-2-22-01.

Please complete the BPQ and return it to this office with required photographs at your earliest convenience. Completion of this report will facilitate a Coast Guard jurisdictional determination for this waterway and determine whether a Coast Guard bridge permit is required.

If you have any questions concerning the BPQ or Coast Guard permitting policy, you may contact me at (305) 415-6747 or email wtate@d7.uscg.mil.

Regards,

W. GWIN TATE III
Associate Bridge Management Specialist
U.S. Coast Guard
By direction

Enclosure

DEPARTMENT OF HOMELAND SECURITY
U.S. COAST GUARD
Form D7-1103 (Rev. 5-02)

Commander (obr)
Seventh Coast Guard District

909 S.E. 1st Avenue, Rm 432
Miami, FL 33131-3050
(305) 415-6747

BRIDGE PROJECT QUESTIONNAIRE

The Coast Guard must determine whether or not a Bridge Permit is required for your project. By providing full and accurate information on this form, you will assist in our decision making process. Errors or misstatements may require redesigning of your bridge, and may subject you to civil penalty sanctions. If you have any questions regarding this form, do not hesitate to contact the Bridge Administration Branch at the letterhead address or phone number. Regarding the site of your proposed bridge, please provide the following information:

NAVIGATION DATA:

1. Name of waterway:_____

1a. At proposed site, mileage along waterway measured from mouth or confluence_____

1b. Waterway is a tributary of_____ at mile _____

2. Geographical Location:_____
(Road Number, City, County, State)

3. Township, section and range, if applicable:_____

4. Is the waterway tidally influenced at proposed bridge site? ____Range of tide? _____

5. Depth and width of waterway at proposed bridge site:

	Depth	Width
At Mean High Tide	_____	_____
At Mean Low Tide	_____	_____

6. Check the type(s) of present vessel traffic on the waterway:
Canoe _____ Rowboat _____ Small Motorboat _____ Cabin Cruiser _____
Houseboat ____ Pontoon Boat ____ Sailboat _____ Tug and tow _____ None _____

6a. Provide the vertical clearance required for the largest vessel using the waterway _____

6b. Provide a photograph of each type vessel using the waterway.

7. Are these waterways used to transport interstate or foreign commerce? Yes ____ No _____

7a. Are these waters susceptible to use in their natural condition, or by reasonable improvement, as a means to support interstate or foreign commerce? Yes _____ No _____

7b. To your knowledge, are there any planned waterway improvements to permit larger vessels to navigate? ____. If so, what are they?_____

8. Are there any natural or manmade obstructions, bridges, dams, weirs, etc. downstream or upstream? Yes _____ No _____

8a. If yes, provide upstream/downstream location with relation to the proposed bridge.

_____

8b. If the obstruction(s) are bridges, provide vertical clearance at mean high water and mean low water and horizontal clearance normal to axis of the waterway. Vertical Clearance: MHW_____ MLW_____ Horizontal clearance_____

8c. Provide a photograph of the bridge(s) from the waterway showing channel spans.

9. Will the proposed structure replace an existing bridge? _____

9a. Provide permit number and issuing agencies of permits for the bridge(s) to be replaced.

_____

9b. Provide the vertical clearance above mean high water and mean low water and the horizontal clearance normal to axis of waterway. Vertical Clearance: MHW_____ MLW_____ Horizontal Clearance_____

9c. Provide a photograph of the to-be-replaced bridge from the waterway, showing the channel span(s).

10. List the names and addresses of persons whose property adjoins the bridge right of way.

_____

_____

_____

_____

11. List names and addresses/location of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within ½ mile of site.

_____

_____

_____

12. Attach a location map and plans for the proposed bridge; show the vertical clearances above mean high water and mean low water and the horizontal clearance normal to axis of the waterway.

13. Attach three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site.

DATE: _____ SIGNATURE: _____
Proposed Bridge Owner or Agent

ATTACHMENTS: Location Map
Bridge Plans
Photographs
Additional pages of names and addresses (if necessary)

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, Florida 33702-2432

February 22, 2005

Mr. Bob Gleason
Environmental Administrator
Florida Department of Transportation, District 5
719 South Woodland Boulevard, MS 37
Deland, Florida 32720

Dear Mr. Gleason:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the information provided in the Advance Notification (AN) for the proposed Rail Transit Environmental Assessment and Design Services in Central Florida Commuter Rail Transit in Volusia, Seminole, Orange and Osceola counties, Florida (Financial Identification No. 412994-2-22-01). According to the information provided in the AN, the project consists of railroad track and signal improvements, new and improved commuter rail stations, grade crossing improvements, commuter rail vehicles, and maintenance, storage, and control facilities. The Florida Department of Transportation (FDOT) has determined that impacts to the environment would be minimal since the project would be located within an existing active commuter corridor, on existing tracks, and within the existing right-of-way. Wetland areas within the project corridor will be identified at a later date.

In order to evaluate potential impacts to wetland communities and surface waters, NMFS requests that the following information be provided for our review:

1. A description of the wetlands and surface waters within the project corridor and anticipated impacts to these systems.

2. Information on measures to avoid and/or minimize adverse impacts to wetlands and surface waters within the project corridor.

3. A mitigation plan that would fully compensate for unavoidable impacts to wetlands that would be adversely impacted by the proposed project.

4. Information on the quality of the discharge waters and any hydrological connections to downstream receiving waters.

5. Information on measures to avoid or reduce the discharge of contaminated waters or sediments into waters that support fishery resources.

We appreciate the opportunity to provide these comments. Please direct related questions or comments to the attention of Ms. Madelyn T. Martinez in our Southeast Regional Office, 9721 Executive Center Drive, N., St. Petersburg, FL 33702. She may be reached by telephone at (727) 575-4713 or by fax at (727) 575-5300.

Sincerely,

David H. Bartley

Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

cc:
FHWA
FWS, Jacksonville
F/SER3 Shelly Norton
F/SER4 Madelyn Martinez

U.S.Department
of Transportation
Federal Highway Administration

545 John Knox Road, Suite 200
Tallahassee, Florida 32303

(850) 942-9650

September 14, 2004

In Reply Refer To: HPR-FL

Mr. Lowell Clary
Assistant Secretary for Finance & Administration
Florida Department of Transportation
Tallahassee, Florida 32399

Attention: Mr. James Jobe

Dear Mr. Clary:

Subject: Fiscal Year (FY) 2004 Florida Statewide Transportation Improvement Program (STIP) Amendment Number 04-10

We have completed our review of Amendment Number 04-10 to the FY 03/04 STIP revision that includes the following Financial Project Numbers:

2006103	4166511	4068444	4129942	4058742
4058743	4114571	4155611	4140431	2546461

The proposed projects in the submittal do not affect the conformity status in the state's ozone maintenance areas. All changes to the funding of these projects were accounted for by the Florida Department of Transportation (FDOT).

We accept this amendment and find that it was developed based on a continuing, cooperative, and comprehensive transportation planning process.

This letter constitutes approval of Amendment Number 04-10 into Florida's FY 04 STIP.

If you have any questions, please contact Ms. Sabrina David, AICP at (850) 942-9650, Ext. 3008.

Sincerely,

/s/ Sabrina David, AICP
For: Robert S. Wright
Acting Division Administrator

cc: Mr. Roger Krahl, FTA (Region 4)
Ms. Ysela Llort, FDOT (MS-57)
Ms. Kathy Neill, FDOT (MS-28)

Electronic copies were emailed to FDOT's Richard Luten, Brian Pessaro, Lisa Duncan, James Jobe, Barbara Cloud, Edna Horneharley, Terry Buckley, Linda Allen, Josephine Simpson, Gina Caminiti, Fornicher Nixson, Frances Powell, Sandra Harvell, Dawn Rudolph, Bunny Langridge, Stephen Berry, Cindy Harper, Tina Hagans and FTA's Roger Krahl.

SD:awa bc: SD and P&R Reader S:\Planning\STIP\FY04 STIP\STIP FY04-10.doc FILE: 720.5

BUCKLE UP AMERICA

FLORIDA DEPARTMENT OF STATE
David E. Mann
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Tawny Olore, P.E.
Florida Department of Transportation, District Five
719 South Woodland Blvd.
DeLand, FL 32720-6834

November 30, 2005

RE: DHR Project File Number: 2005-11957
Received by DHR: October 14, 2005
Project: *Draft Cultural Resource Assessment Survey Report, Central Florida Commuter Rail Transit*
Financial Project Number: 412994-2-22-01
County: Orange, Osceola, Seminole, Volusia

Dear Ms. Olore:

Our office received and reviewed the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966 as amended, 36 CFR Part 800: Protection of Historic Properties, Chapter 267, Florida Statutes, and applicable local ordinances. It is the responsibility of the State Historic Preservation Officer to advise and assist, as appropriate, Federal and State agencies and local governments in carrying out their historic preservation responsibilities; to cooperate with Federal and State agencies to ensure that historic properties are taken into consideration at all levels of planning and development; and to consult with the appropriate Federal agencies in accordance with the National Historic Preservation Act of 1966 as amended, on Federal undertakings that may affect historic properties and the content and sufficiency of any plans developed to protect, manage, or to reduce or mitigate harm to such properties.

A cultural resources assessment survey was conducted and 157 previously recorded and 229 newly recorded historic resources were identified within the project's Area of Potential Effect (APE). Pursuant to an agreement with our office and due to the nature of the proposed work, only those previously recorded buildings that have changed significantly since their original recordation were included in the current survey. Consequently, 79 previously recorded buildings located within the APE were updated. Additionally, one newly recorded archaeological site and three previously recorded sites were located and assessed in the survey report.

Our office concurs that the following 30 resources have either been listed (noted in bold) or previously determined eligible (noted in italics) or are potentially eligible for listing in the National Register of Historic Places (NRHP):

OS42	Johnson-Steffe House
OS172	**Kissimmee Historic District**
OS415	Kissimmee ACL RR Station
OS501	W.B. Makinson House
OR139	Orlando ACL RR Station
OR422	*Downtown Orlando Historic District*
OR25	**Old Orlando RR Depot**
OR20	*Bumby Hardware Store*
OR875?	*Bumby Annex/Arcade*
OR183	Harry P. Leu, Inc.
OR344?	Colonial Garage
OR177	Judge John M. Cheney House
OR182	Orlando Water and Light Company
OR607?	Orange Avenue Historic District
OR6074	Orwin Manor Historic District
OR607?	College Quarter Historic District
OR358	Winter Park ACL Freight Depot
OR4307	**Winter Park Country Club**
OR4308	**Winter Park Golf Course**
OR250	Episcopal Church of the Good Shepherd
OR469	**Waterhouse Residence**
OR226?	Pine Crest Villa
OR226?	Wise-Taliaferro Residence
OR9620	Lake Lily Drive
OR962?	Seaboard Coast Line Railroad
SE585	**Longwood Historic District**
SE2079	Sanford Railroad Station
SE1192	Lake Monroe School
VO516?	**Thursby House**
VO265?	DeLand ACL RR Station

After consultation with members of our staff, we conclude that the following four properties are also potentially eligible for listing:

OR629	G.O. Kummer House
OR2284	White Way Building
OR2258	Episcopal Church Parsonage (as contributing building to Episcopal Church of the Good Shepherd)
OR607?	Railroad Bridge Overpass

Our office also concludes that the Mountain Ice Company Plant (SE2081) is ineligible for listing. Its advanced deteriorated state including loss of roof and second floor has severely impacted its historic physical integrity and it can no longer convey its historic significance.

There is insufficient information to determine the potential eligibility of the six properties listed below that were previously recorded but not updated as part of this project. Due to the nature and location of the proposed undertaking, these resources may not be affected by the work; however, if it is determined that these resources might be affected, our office may request that these properties by surveyed and submitted to our office for further evaluation.

OR2295	Maitland Public Library
OR2282	Barnett Bank
SE1189	Lake Monroe General Store
VO2655	Old Volusia County Fairgrounds
OR9623	Lake Lily Resource Group
OR2278	Maitland Garden Club (as it relates to Lake Lily Resource Group)

Additionally, we note that a portion of the railroad corridor, the Seaboard Coast Line Railroad (OR9622), was surveyed near Maitland and appears to be potentially eligible for listing; however, it is unclear if this evaluation applies to the entire 61-mile portion of the CSX Transportation railroad corridor. We request clarification on this in order for us to properly assess the potential eligibility of this resource through the entire project corridor.

Please note that our office has not received the original Florida Site File forms for the archaeological sites or the expanded forms included in Appendices V and VI. We look forward to further consultation with our office. If you have any questions concerning our comments, please contact Sherry Anderson, Architectural Historian, Transportation Compliance Review Program, by email *sanderson@dos.state.fl.us*, or at 850-245-6432.

Sincerely,

Frederick P. Gaske

Frederick P. Gaske, Director, and
State Historic Preservation Officer

XC: Ms. Joan Deming, ACI

FLORIDA DEPARTMENT OF STATE
Sue M. Cobb
Secretary of State
DIVISION OF HISTORICAL RESOURCES

January 25, 2006

Robert B. Gleason
Florida Department of Transportation, District Five
719 South Woodland Blvd.
DeLand, FL 32720-6834

RE: DHR Project File Number: 2005-11957(b)
Received by DHR: October 14, 2005
Project: *Central Florida Commuter Rail Transit* (FPN: 412994-2-22-01)
County: Orange, Osceola, Seminole, Volusia

Dear Mr. Gleason:

As you are aware, in November of 2005 our office reviewed the draft Cultural Resource Assessment Survey for the above referenced project in which we requested clarification regarding the potential eligibility of the CSX Transportation railroad corridor (CSXT) for listing in the National Register of Historic Places (NRHP). We later requested the completion of Florida Master Site File forms for this linear resource as well as an evaluation of its NRHP eligibility. In an effort to determine potential effects of the proposed work, Sherry Anderson from our office along with representatives from the Florida Department of Transportation, Archaeological Consultants, Inc., and Earth Tech conducted a site visit. This visit confirmed that the project, which involves adding commuter rail traffic, uses existing rails and does not alter the current configuration of the roadbed along this 61-mile segment of the CSXT corridor. Because this project does not have the potential to cause effects to the CSXT roadbed itself, it is not necessary for your agency to evaluate the eligibility of this resource at this time. We look forward to continuing the consultation process in regard to the addition of commuter waiting areas and a parking lot to be constructed adjacent to several potentially eligible resources.

If you have any questions, please contact Sherry Anderson, Architectural Historian, Transportation Compliance Review Program, by email *sanderson@dos.state.fl.us*, or at 850-245-6432.

Sincerely,

Frederick P. Gaske, Director, and
State Historic Preservation Officer

XC: Ms. Tawny Olore, FDOT, District Five
Mr. David Burwell, Earth Tech
Ms. Joan Deming, ACI

FLORIDA DEPARTMENT OF STATE
Sue M. Cobb
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Robert B. Gleason
Florida Department of Transportation
719 South Woodland Blvd.
DeLand, FL 32720-6834

March 23, 2006

RE: DHR Project File Number: 2006-11957(c)
Received by DHR: March 13, 2006
Financial Project ID No.: 412994-2-22-01
Project: *Central Florida Commuter Rail Transit*
Counties: Orange, Osceola, Seminole, Volusia

Dear Mr. Gleason:

Our office received and reviewed the Summary of Field Visit that outlines the January 5th on-site consultation meeting between Sherry Anderson from our staff and representatives from the Florida Department of Transportation, EarthTech, and Archaeological Consultants, Inc. As you are aware there are several potentially eligible and/or listed properties located in the immediate vicinity of the proposed facility improvements along the commuter rail. Based on the review of preliminary conceptual drawings shown to Ms. Anderson on site as well as verbal descriptions, it appears that the proposed improvements at the Florida Hospital, Lynx Central, and Kissimmee Amtrak sites are located quite a distance away from the surrounding historic properties. Unless these plans change, the canopied platforms at these locations should not adversely affect the nearby historic properties. Please note that our office will need to receive and review plans that show the exact location of these platforms prior to any final effects determinations.

The improvements proposed at the DeLand Amtrak, Church Street, and Orlando Amtrak/ORMC sites do have the potential to adversely affect the surrounding historic properties. It is our understanding that your office will continue to consult with our staff regarding sensitive design solutions that will avoid and/or minimize impacts to these significant resources. Of specific concern are the design, materials, and locations of the canopied platforms at these three sites as well as the addition of parking lots and ancillary features at the DeLand Amtrak station. Outside of Ms. Anderson's brief review of conceptual drawings and aerial views of the sites, our office has not received any design plans at this time; however, we understand this information will be submitted to us in the near future. We look forward to further consultation with your office throughout the design phase of this project and appreciate your willingness to discuss avoidance and/or minimization in order to prevent any adverse effects to these properties.

If you have any questions, please contact Sherry Anderson, Architectural Historian, Transportation Compliance Review Program, by email *sanderson@dos.state.fl.us*, or at 850-245-6432.

Sincerely,

Frederick P. Gaske, Director, and
State Historic Preservation Officer

XC: David S. Burwell, EarthTech
Joan Deming, ACI

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

MARY ANN POOLE, DIRECTOR
OFFICE OF POLICY AND STAKEHOLDER COORDINATION
(850)488-6661 TDD (850)488-9542
FAX (850)922-5679

May 20, 2005

Steffenie Widows
Vanasse Hangen Brustlin, Inc.
135 West Central Blvd Suite 800
Orlando, Fl 32801

Dear To Whom this may concern:

This letter is in response to your request for listed species occurrence records and critical habitats for your project (S2,3,10,15,21,22,28,29,31,32/T25S/R29} {S36/T25S/R28E} {S1,2/T26S/R28E}) located in Osceola County, Florida. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data are located within or adjacent to the project area. Enclosed are 8.5 x 11 maps showing listed species locations, biodiversity hotspots, priority wetlands for listed species, SHCA's, and land cover for the project area.

Please note that our database does not necessarily contain records of all listed species that may occur in a given area. Our data is limited to sites that we surveyed or sites that others have surveyed and provided us with their data. Also, data on certain species, such as gopher tortoises, are not entered into our database on a site-specific basis. **Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.**

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area. Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (http://www.fnai.org).

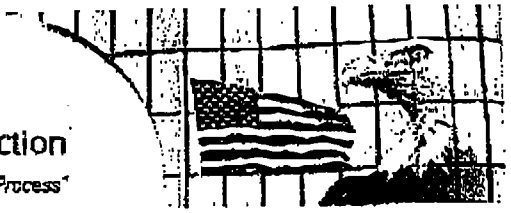
Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at (850) 488-6661 or gisrequests@myfwc.com.

Sincerely,

Christina Williams

cw
ENV 8-7/8
2005.1155-3
Enclosures

Florida
Department of Environmental Protection
"More Protection, Less Process"



Project Information	
Project	FL200501310418C
Comments Due	March 02, 2005
Review Due	April 01, 2005
Description	DEPARTMENT OF TRANSPORTATION - ADVANCE NOTIFICATION - RAIL TRANSIT ENVIRONMENTAL ASSESSMENT AND DESIGN SERVICES, CENTRAL FLORIDA COMMUTER RAIL TRANSIT, FINANCIAL ID NO.: 412994-2-22-01 - OSCEOLA, ORANGE, SEMINOLE, AND VOLUSIA COUNTIES, FLORIDA.
Keywords	DOT - CENTRAL FLORIDA COMMUTER RAIL TRANSIT - OSC./ORANGE/SEM./VOLUSIA CO.
CFDA	20.500

Agency Comments
COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
The Florida Department of Environmental Protection (DEP) recommends the use of clean diesel in the proposed rail transit train engines to reduce mobile source emissions. The DEP advises that options for clean diesel include ultra/low sulfur diesel (less that 15 ppm sulfur) and blends of biodiesel such as 20% biodiesel with petroleum based diesel. The following links provide information on these fuels: http://www.pscleanair.org/dieselsolutions/ds_fuel.shtml and http://www.biodiesel .org/resources/faqs. The most pollution free option for powering these engines would be to use electric power from a power plant that has emission control devices currently in place.
STATE - FLORIDA DEPARTMENT OF STATE
No comment/Consistent
SOUTH FLORIDA WMD - SOUTH FLORIDA WATER MANAGEMENT DISTRICT
This project will require an Environmental Resource Permit (ERP). Prior to permit application, the applicant should contact permitting staff in the SFWMD's Orlando Service Center to coordinate on such issues as wetland determinations, wetland impacts, threatened and endangered species, mitigation plans, and use of sovereign submerged lands.
ST. JOHNS RIVER WMD - ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
No comment
ENVIRONMENTAL POLICY UNIT - OFFICE OF POLICY AND BUDGET, ENVIRONMENTAL POLICY UNIT
No Comment
E. CENTRAL FL RPC - EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL
No Comment
ORANGE - ORANGE COUNTY
No Comment
OSCEOLA - OSCEOLA COUNTY
No Comment
SEMINOLE -
No Comment
VOLUSIA -
No Comment

For more information please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD MS-47

Miccosukee Tribe of Indians of Florida

February 23, 2005

Mr. Bob Gleason
Environmental Administrator - District 5
FDOT
719 South Woodland Boulevard, MS 37
DeLand, FL 32720

RE: Rail Transit EA and Design Services, Financial ID Number: 412994-2-22-01

Dear Mr. Gleason:

The Miccosukee Tribe received your letter concerning the above referenced proposed project. The Tribal Chairman referred your letter to me as I am the Tribal Representative for Native American Graves Protection and Repatriation and Section 106 Consultation. Mr. Fred Dayhoff is a Tribal Consultant on these matters. Please direct all future correspondence to me.

We have no direct knowledge of any cultural, religious, or traditional sites at the proposed project location. We suggest that a cultural resources survey be conducted of the project area. We further request that we be kept informed of this project and receive a copy of the cultural resources survey.

Thank you for consulting with us. Please call me at (305) 223-8380, Ext. 2244, if you require further information.

Sincerely,

Steve Terry
NAGPRA & Section 106 Representative

Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JOSE ABREU
SECRETARY

September 10, 2004

Mr. James E. St. John
Division Administrator
Florida Division Office
Federal Highway Administration
227 N. Bronough St., Room 2015
Tallahassee, FL 32301

Attn: Ms. Sabrina David

RE: STIP Amendment No. 04-10

Mr. St. John:

With this letter and pursuant to the authority delegated to FDOT by the Governor, I approve the first nine projects on the attached spreadsheet as revisions to the Sarasota, Polk, Duval, Dade, and Pinellas Counties MPO's 2003/04-2007/08 Transportation Improvement Program (TIP):

I am recommending that the Federal Highway Administration approve these TIP Amendments for inclusion into Florida's Statewide Transportation Improvement Program as STIP Amendment No. 04-10 (STIP Page 2451).

Per the Office of Policy Planning there are no air quality conformity issues with these projects.

In addition, I am recommending the other three projects on the attached spreadsheet for inclusion in the STIP, on page 2451. These projects are either district wide or outside the MPO boundaries.

In compliance with Title 23 CFR 450.22, I certify that the changes to the STIP were developed in accordance with the applicable requirements of the Federal Transportation Statutes.

Please contact Richard Luten or me if you have any questions regarding this request.

Sincerely,

James B. Jobe, C.P.A., C.G.F.M
Federal Aid Programs Manager
(850) 414-4448, SunCom 994-4448
Internet email: James.jobe@dot.state.fl.us

09220 00

FLORIDA
Natural Areas
INVENTORY

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

May 20, 2005

Steffenie Widows
Vanasse Hangen Brustlin, Inc.
135 West Central Blvd., Suite 800
Orlando, FL 32801

Dear Ms. Widows:

Thank you for your request for information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project:	CSX Railroad Corridor Project
Date Received:	May 12, 2005
Location:	Volusia, Seminole, Orange and Osceola Counties

Based on the information available, this site appears to be located on or very near a significant region of scrub habitat, a natural community in decline that provides important habitat for several rare species within a small area. Additional consideration should be given to avoid and/or mitigate impacts to these natural resources, and to design land uses that are compatible with these resources. This scrub habitat has been identified within 1 mile of the railroad in subset maps A and E on the accompanying map products.

Element Occurrences

A search of our maps and database indicates that currently we have several Element Occurrences mapped within the vicinity of the study area (see enclosed map and table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

The Element Occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates the precision of the element occurrence location, defined as second (within about 300 feet of the point), minute (within about one mile), or general (within about 5 miles). For animals and plants, Element Occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations that may no longer be extant.

Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational data about

Florida Resources and Environmental Analysis Center

Institute of Science and Public Affairs

The Florida State University

these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.

Managed Areas

Portions of the site appear to be located within Blue Spring State Park, managed by the Florida Department of Environmental Protection, Division of Recreation and Parks, and Lake Beresford, managed by Volusia County, Growth and Resource Management Department.

The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.

Potential Natural Areas

Portions of the site appear to be located on or near Potential Natural Areas (PNA). These PNA are priority 3, 4 & 5 and may include the following community types:

Subset Map A: PNA 3 – floodplain marsh/swamp, wet flatwoods.
Subset Map C: PNA 5 – narrow swampy lake fringe, old-growth cypress.
Subset Map D: PNA 4 – xeric uplands, mesic flatwoods.
Subset Map E: PNA 3 – dome swamp, flatwoods, wet prairie, cypress slough.

Potential Natural Areas are lands that appear to be relatively intact areas of natural vegetation based on aerial photography, as determined by FNAI scientists. Please see the enclosed explanation sheet for more information. PNAs are not a regulatory designation; they are intended for conservation planning purposes. The maps show a revised version of the PNAs, based on 1995 land use land cover data from the water management districts.

Potential Habitat for Rare Species

Portions of the site appear to be located on or near Potential Habitat for Rare Species. This potential habitat is associated with a known occurrence in the vicinity of:

Subset Maps A-F:
- wood stork (*Mycteria americana*)
- bald eagle (*Haliaeetus leucocephalus*)
- Florida sandhill crane (*Grus canadensis pratensis*)

Subset Map A:
- Florida black bear (*Ursus americanus floridanus*)
- Florida scrub-jay (*Aphelocoma coerulescens*)
- celestial lily (*Nemastylis floridana*)

Subset Map F:
- Snail kite (*Rostrhamus sociabilis plumbeus*)

FNAI Potential Habitat for Rare Species indicates areas, which based on landcover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Potential habitat layers have been developed for approximately 250 of the most rare species tracked by the Inventory, including all federally listed species.

Potential Habitat is not a regulatory designation, and should not be confused with "critical habitat", which is an official designation made by the U.S. Fish and Wildlife Service. Information on critical habitats can be found in the Code of Federal Regulations, 50 CFR 17.95, which lists all critical habitats that have been designated. The Code of Federal Regulations can be accessed through the following website: "www.access.gpo.gov/nara/cfr/cfr-table-search.html".

The Inventory always recommends that professionals familiar with Florida's flora and fauna should conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/data.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely,

Edwin A. Abbey

Edwin A. Abbey
Environmental Reviewer

encl

METROPLAN
A Regional Transportation Partnership

February 2, 2005

Received
FEB 10 2005
FDOT
Environmental Management

Mr. Bob Gleason
District Environmental Administrator
Florida Department of Transportation
District Five
719 South Woodland Blvd.
Deland, FL 32720-6834

Dear Mr. Gleason:

This is to inform you that METROPLAN ORLANDO's staff has reviewed the information you provided on the Central Florida Commuter Rail project in Orange, Osceola, Seminole and Volusia Counties (FM #412994-2-22-01). Based on this review, it has been determined that this project is consistent with METROPLAN ORLANDO's adopted Year 2025 Long Range Transportation Plan (LRTP). The project is included in the LRTP based on reasonably anticipated transportation revenues and the support of the METROPLAN ORLANDO Board.

Sincerely,

Harold W. Barley

Harold W. Barley
Executive Director

County of Volusia

GROWTH AND RESOURCE MANAGEMENT
PLANNING AND DEVELOPMENT SERVICES
123 West Indiana Avenue · Room 202 · DeLand, FL 32720-4604
(386) 736-5959 · (386) 239-7778 · (386) 423-3367
www.volusia.org

March 2, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS37
DeLand, Florida 32720

Re: Advance Notification for the Rail Environmental Assessment and Design Services
Central Florida Commuter Rail Transit Volusia, Seminole, Orange and Osceola Counties, Florida
Financial Identification Number: 412994-2-22-01

Dear Mr. Gleason:

Thank you for advance notification and the opportunity to complete a preliminary review of the above-mentioned proposal and location map.

The proposal is consistent and in accordance with the State's Coastal Zone Management Program. It should be noted that a portion of the commuter rail crosses and is adjacent to an Outstanding Florida Water (OFW). The OFW is managed by the State in accordance with Section 403.061 (27) of the Florida Statutes. Depending on the magnitude of the project, it is anticipated that site plan, stormwater and building permits at the County and State level may be required in areas where improvements may exist outside of the existing railroad right-of-way.

Related to the matter of cultural resources, improvements associated with the Commuter Rail should have minimal adverse affects on the DeLand Rail Station, a property likely eligible for National Register Listing. Additionally, located adjacent to the railroad track at Benson Junction Road, in DeBary, is the site of the former palmetto fiber brush factory, associated employee buildings, and an early 20th century industrial complex. Identifying and possibly protecting any remaining historic resources will be encouraged and/or required.

The route of the proposed commuter trail bisects a sizable tract situated along the eastern shore of Lake Beresford that is owned by the County of Volusia. This segment of rail includes an overpass, which allows free movement between the portions of this public land located on either side of the railroad. The management objectives for this diverse property include resource protection/enhancement and the provision of compatible outdoor recreational opportunities for use by the public. Improvements to this segment of the rail

corridor which may be necessitated by the proposed project, whether within the current corridor or not, should be evaluated in light of any potential impact upon the future use by the public of this property.

Compatibility of the proposed commuter rail project with the County's efforts to establish a critical component, the multi-use "Spring to Spring" trail, of the county-wide trails system should also be evaluated. The conceptual alignment proposed for this future trail, which extends from the southwestern to the northwestern quadrants of the County, includes traversing portions of the County's Lake Beresford property and the adjoining Blue Springs State Park. This trail segment may utilize the existing rail overpass located on the County's property and an unimproved rail crossing located near the southern boundary of the State Park.

Based on our review, the above-referenced proposal, located in the Central Florida region, does not conflict with the Volusia County Comprehensive Plan for use as a railroad track. Therefore, this office has no objection to the proposed Central Florida commuter rail transit at this time.

Sincerely,

Montye Beamer

Montye Beamer, Director
Growth & Resource Management

MB:LK:ps

cc: Ben L. Dyer, Manager, Comprehensive Planning
Palmer Panton, Land Development Manager
Jay D. Preston, Development Engineer
Ed Isenhour, Planner III
Ron Paradise, Planner III
Tom Scofield, Planner II
S. Laureen Kornel, Planner II

G:\PLAN05\KORNELVGLEASON.DOC

"Jon Cheney" <jcheney@co.volusia.fl.us>
02/15/2005 09:38 AM

To: "Dona DeMarsh" <DDeMarsh@co.volusia.fl.us>, "Gerald Brinton" <GBrinton@co.volusia.fl.us>, "Kenneth R. Fischer" <KFischer@co.volusia.fl.us>, "Laureen Kornel" <LKornel@co.volusia.fl.us>
cc: "Becky Weedo" <BWeedo@co.volusia.fl.us>, "Melissa Booker" <MBooker@co.volusia.fl.us>, <bob.gleason@dot.state.fl.us>
bcc:
Subject: Commuter Rail Transit Environmental Assessment (FN# 412994-2-22-01)

Laureen,

The only comment I have on the Florida DOT EA for the commuter rail study was that Attachment C should show the proposed DeBary Station at the extension of Saxon Blvd per discussions with Cities of DeBary, Orange City, Deltona, DeLand and Volusia County. Otherwise, the EA looked very good. jon:-)

Jon:-)

Jon Cheney, P.E.
County of Volusia Traffic Engineering
123 West Indiana Avenue
DeLand, FL 32720-4262
Tel: 386-736-5968, ext. 2709
Fax: 386-740-5242
email: jcheney@co.volusia.fl.us
website:volusia.org/traffic

>>> Laureen Kornel 02/14/05 11:14AM >>>

County of Volusia

DEPARTMENT OF PUBLIC PROTECTION
Fire Services Division
123 West Indiana Avenue • Room 401 • DeLand, Florida 32720-4619
Telephone (386) 736-5940 • 254-4657 • 423-3357• Fax: 822-5025
www.volusia.org

February 11, 2005

Mr. Bob Gleason
Environmental Administrator - District 5
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS 37
DeLand, Florida 32720-6834

SUBJECT: Advance Notice for Rail Transit Environmental Assessment and Design Services
Central Florida Commuter Rail Transit Volusia, Seminole, Orange, and Osceola Counties, Florida
Financial Identification Number: 412994-2-22-01

Dear Mr. Gleason:

Volusia County Fire Services has reviewed the document regarding the above and have the following comments.

1. Would like to have input into the safety and emergency response aspects i.e.
   a. Emergency access routes and points, railroad right-of-way improvements for emergency vehicle access.
   b. Emergency response contingency planning procedures.
   c. Engineering improvements.

2. Proper water supply for firefighting, i.e. hydrant and/or fire sprinklers in the train station.

Please call me if you have questions regarding this matter.

Sincerely,

James G. Tauber,
Director of Fire Services

JGT/tab

FSD05-033

PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

February 10, 2005

Received
FEB 14 2005
FDOT
Environmental Management

Bob Gleason, Environmental Administrator
Florida Department of Transportation – District Five
719 South Woodland Boulevard
DeLand, Florida 32720-6834

RE: Advance Notification for Rail Transit Environmental Assessment and Design Services
Central Florida Commuter Rail Transit, Volusia, Seminole, Orange and Osceola Counties, Florida
Financial Identification Number 412994-2-22-01

Dear Mr. Gleason:

Thank you for providing Seminole County the opportunity to respond to the commuter rail project. This project is strongly supported by Seminole County and is consistent with our approved Comprehensive Plan.

As the study advances, we look forward to working closely with the Department to bring this project to fruition. Please feel free to contact me with any questions at 407-665-5651.

Sincerely,

SEMINOLE COUNTY

Jerry McCollum, P.E.
County Engineer

JM/dr

c: Alice Gilmartin, Principal Coordinator/Transportation Specialist/Planning Department
Gary Johnson, P.E., Director, Department of Public Works
Pam Hastings, Administrative Manager, Public Works Department

520 WEST LAKE MARY BLVD SUITE 200 SANFORD FL 32773-7424 TELEPHONE (407) 665-5674 FAX (407) 665-5789

Volusia County Schools

FACILITIES SERVICES
3750 Olson Drive, Daytona Beach, Florida 32124
PHONE: 386 / 947-8786 FAX: 386 / 947-5847

Dr. Margaret A. Smith
Superintendent of Schools

February 7, 2005

Florida Department of Transportation
719 S. Woodland Blvd.
DeLand, FL 32720
Attn: Mr. Bob Gleason

RE: Advance Notification for the Rail Transit
Environmental Assessment and Design Services

Dear Mr. Gleason:

Thank you for your letter of January 28, 2005 regarding the above subject. The Volusia County School District has no comment at this time.

Thank you for informing us on this issue.

Sincerely,

Saralee L. Morrissey, AICP
Director of Site Acquisition
and Intergovernmental Coordination

cc: Dr. Margaret A. Smith
Patricia Drago

John C. Litton
City Manager
jlitton@lakemaryfl.com

City of Lake Mary

Incorporated in 1973

March 16, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation
719 South Woodland Boulevard
Deland, FL 32720-6834

RE: **ADVANCE NOTIFICATION FOR THE RAIL TRANSIT ENVIRONMENTAL ASSESSMENT AND DESIGN SERVICES**
FINANCIAL IDENTIFICATION NUMBER: 412994-2-22-01

Dear Mr. Gleason:

I am in receipt of the Advance Notification package dated January 28, 2005, regarding the above referenced subject. At this point it time, the City of Lake Mary does not have any comments as the information is very preliminary.

We look forward to working with you in the very near future.

Sincerely,

John C. Litton
City Manager

cc: John Omana, Community Development Director
Bruce Paster, Public Works Director

JCL/sbt

CITY OF ORLANDO

March 14, 2005

Mr. Bob Gleason
Environmental Administrator
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS 37
DeLand, FL 32720

RE: Advance Notification – Central Florida Commuter Rail

Dear Mr. Gleason:

Thank you for the Advance Notification and the opportunity to comment on the Central Florida Commuter Rail System. The City of Orlando strongly supports this project and Transportation Planning staff is actively involved with FDOT's rail coordinator, Ms.Tawny O'Lore, in the development and review of preliminary plans for stations within our City. The City has coordinated meetings with stakeholders in the vicinity of each station with FDOT and their consultants.

The City of Orlando wants to be heavily involved in the development of stations within our city limits. The proposed stations within the City of Orlando are destination points for many of the potential commuter rail patrons, including our burgeoning central business district and two regional medical facilities with expansion plans. The careful design of the stations themselves, their connectivity to the surroundings and the development of a pedestrian friendly environment surrounding each station location are imperative if commuter rail is to be successful.

Commuter rail is an immediate need for the Central Florida Region, especially when viewed in light of the upcoming reconstruction of the I-4 Corridor. In order to provide alternative modes of travel to offset increased congestion along the I-4 corridor during reconstruction, it is imperative that commuter rail be developed immediately. Ideally, commuter rail would be on-line prior, or in close approximate time, to major reconstruction of the corridor.

While the City supports the project, there are additional considerations that any assessment of the project should take into account, including:

CITY PLANNING DIVISION • ECONOMIC DEVELOPMENT DEPARTMENT
CITY OF ORLANDO • 400 SOUTH ORANGE AVENUE • PO BOX 4990 • ORLANDO, FLORIDA 32802-4990
PHONE 407-246-2269 • FAX 407-246-2895 • http://www.cityoforlando.net

March 14, 2005
Commuter Rail

- A re-analysis of traffic delay at major arterial crossings due to freight and commuter trains, including delays caused by both moving trains and trains at idle. The City currently fields many complaints regarding traffic delay at crossings from existing freight trains along the corridor and believes the current situation significantly hinders mobility and public safety response times throughout the region. City staff believes that if the commuter rail project proceeds, crossing delay would likely decrease if freight lines are relocated as currently proposed, despite the increase in train frequency from commuter rail.

- An analysis of the noise impacts of the specific commuter rail technology utilized when compared to locomotives and light rail, and whether special acoustical treatments are necessary to reduce noise impacts in dense urban environments such as Downtown Orlando.

- The planning of individual stations should ensure that railroad crossing arms do not stay down while trains dwell at stations in order to minimize traffic impacts to adjacent arterial roadways.

- Access to stations by all modes is of paramount importance. Coordinated funding for pedestrian and bicycle access should be given priority throughout the region in the commuter rail service area. Additionally, provision should be made for bicycles on board commuter rail trains.

We appreciate your coordination and work in developing this needed transportation improvement for the better mobility of our City's citizens while increasing travel capacity and choice to benefit the region's tremendous population, employment and economic growth.

Sincerely,

Dean Grandin, AICP
City Planning Director

Cc: Ms. Tawny O'Lore, FDOT
Charles Ramdatt, PE City of Orlando Traffic Engineer
Jim Kimbler, AICP Transportation Planning Chief Planner
Jason Burton, Transportation Planner

CITY OF ORLANDO

March 14, 2005

Mr. Bob Gleason
Environmental Administrator
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS 37
DeLand, FL 32720

RE: Advance Notification – Central Florida Commuter Rail

Dear Mr. Gleason:

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CITY OF ORLANDO • 400 SOUTH ORANGE AVENUE • PO BOX 4990 • ORLANDO, FLORIDA 32802-4990
PHONE 407-246-2269 • FAX 407-246-2895 • http://www.cityoforlando.net

March 14, 2005
Commuter Rail

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- The planning of individual stations should ensure that railroad crossing arms do not stay down while trains dwell at stations in order to minimize traffic impacts to adjacent arterial roadways.

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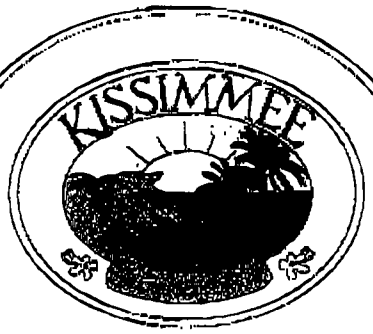
We appreciate your coordination and work in developing this needed transportation improvement for the better mobility of our City's citizens while increasing travel capacity and choice to benefit the region's tremendous population, employment and economic growth.

Sincerely,

Dean Grandin, AICP
City Planning Director

Cc: Ms. Tawny O'Lore, FDOT
Charles Ramdatt, PE City of Orlando Traffic Engineer
Jim Kimbler, AICP Transportation Planning Chief Planner
Jason Burton, Transportation Planner



March 9, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation – District 5
719 South Woodland Blvd., MS 37
DeLand, FL 32720

Dear Mr. Gleason,

Re: Advance Notification for the Rail Transit Environmental Assessment and Design Services

Both the Neighborhood Initiative and Historic Preservation programs would be in support of commuter rail in Kissimmee. However, the following procedures may be necessary in the future and I would like you to be aware of them early in the process so that all aspects are given appropriate consideration.

The City of Kissimmee currently operates under a historic preservation ordinance that requires that applicants for the demolition of any historic structure outside of a locally designated historic district must complete a 60 day waiting period beginning at the time an Application for Demolition is received by the Development Services office. That waiting period can be extended up to 60 days by City Commission. The ordinance also states that applicants for the demolition of any structure in an existing or proposed historic district must complete a 180 day waiting period beginning at the time an Application for Major Review is received by the Development Services office. That waiting period can be extended by up to 180 days by City Commission.

In addition to local restrictions, many of the structures listed in the attached document are eligible for the National Register. In this case, Section 106 Review by the State Historic Preservation Officer would be necessary (Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties)*. Other restrictions as a Certified Local Government may apply according to the State Historic Preservation Officer.

Additional reviews may be required by the Historic Preservation Board and Planning Advisory Board of Kissimmee as well as the State Historic Preservation Officer, Bureau of Historic Preservation and National Park Service.

Development Services Department
City of Kissimmee • 101 N. Church Street • Kissimmee, FL 34741-5054 • FAX 407-518-2147
Building Division: Phone 407-518-2120 • Planning Division: 407-518-2140

Consideration should be given to the considerable number of historic resources within 500 feet of the proposed commuter rail location. In addition to a National Register District there are 162 historic structures within this area, 95 of which have been identified as contributing to a district or individually eligible for the National Register. A list has been attached for your reference.

Specific concern and care should be given to the historic train station. This structure is a source of pride for this community. The Atlantic Coastline Railroad Depot is also believed to be eligible for designation as a local landmark because of its location to the tracks and continuing use as a train depot since its construction in 1911.

Any questions regarding historic structures or our local ordinance should be directed to me in the future. You can contact me by telephone at (407) 518-2145 or email at acarbaja@kissimmee.org.

Sincerely,

Amy K. Carbajal
Neighborhood Planner/Historic Preservation Planner

Enc.

NUMBER	DIR	ADDRESS	SITE_NAME	DATE	STYLE	POTENTIAL
803	N	3RD	803 North 3rd Avenue	1940	Frame Vernacular	Not a contributing resource to a h
114	E.	Bass	114 East Bass Street	1920	Frame Vernacular	Potential contributor, National Re
213	E.	Bass	213 (215) East Bass Street	1900	Frame Vernacular	Potential contributor, National Re
214	E.	Bass	Lee Rogers House	1925	Bungalow	Potential contributor, National Re
405	E.	Bass	405 East Bass Street	1948	Frame Vernacular	Not a contributing resource to a h
1001	N.	Bay	1001 North Bay Street	1940	Frame Vernacular	Not a contributing resource to a h
705	N.	Bay	705 North Bay Street			Demolished
709	N.	Bay	709 North Bay Street	1925	Frame Vernacular	Potential contributor, National Re
710	N.	Bay	710 North Bay Street	1935	Masonry Vernacular	Not a contributing resource to a h
714	N.	Bay	714 North Bay Street	1929	Bungalow	Potential contributor, National Re
810	N.	Bay	810 North Bay Street	1900	Frame Vernacular	Potential contributor, National Re
821	N.	Bay	821 North Bay Street	1900	Frame Vernacular	Potential contributor, National Re
912	N.	Bay	912 North Bay Street	1926C	Frame Vernacular	Not a contributing resource to a h
205	S.	Beaumont	205 South Beaumont Avenue			Demolished
206	S.	Beaumont	Emma Morgan Fee House	1901	Queen Anne	Potential contributor, National Re
821	N	BRACK	821 North Brack Street	1920	Frame Vernacular	Not a contributing resource to a h
613	N.	Brack	613 Brack Street	1939	Frame Vernacular	Potential contributor, National Re
614	N.	Brack	614 North Brack Street	1926	Masonry Vernacular	Potential contributor, National Re
710	N.	Brack	710 Brack Street	1949	Masonry Vernacular	Potential contributor, National Re
716	N.	Brack	716 North Brack Street	1914	Frame Vernacular	Potential contributor, National Re
717	N.	Brack	717 North Brack Street	1920	Frame Vernacular	Potential contributor, National Re
803	N.	Brack	803 North Brack Street	1947	Masonry Vernacular	Potential contributor, National Re
804	N.	Brack	804 North Brack Street	1910	Frame Vernacular	Potential contributor, National Re
809	N.	Brack	809 North Brack Street	1947	Frame Vernacular	Potential contributor, National Re
815	N.	Brack	815 North Brack Street	1949	Masonry Vernacular	Potential contributor, National Re
909	N.	Brack	909 North Brack Street	1930	Bungalow	Potential contributor, National Re
913	N.	Brack	913 North Brack Street	1948	Masonry Vernacular	Potential contributor, National Re
100		Broadway	100 Broadway	1910	Commercial Vernacul	Not a contributing resource to a h
114		Broadway	114 Broadway	1910	Masonry Vernacular	Potential contributor, National Re
121-125		Broadway	R.D. Waring Building	1920	Commercial Vernacul	Potential contributor, National Re
15		Broadway	15 Broadway	1946	Commercial Vernacul	Potential contributor, National Re
16-18		Broadway	Village Deli/ Kiss Key Inc.	1920	Commercial Vernacul	Potential contributor, National Re
201-205		Broadway	T.M. Rivers Building	1924	Commercial Vernacul	Potential contributor, National Re
22		Broadway	Peske Furniture	1910	Commercial Vernacul	Potential contributor, National Re
222-224		Broadway	222-224 Broadway	1915	Mission	Not a contributing resource to a h
23		Broadway	Furniture by Bette	1925	Commercial Vernacul	Potential contributor, National Re

25		Broadway	25 Broadway	1920	Mediterranean Reviv	Potential contributor, National Re
26		Broadway	Goold's Western Wear	1910	Commercial Vernacul	Potential contributor, National Re
28		BROADWAY	Wishing Well Florist	1914C	Commercial Vernacul	Potential contributor, National Re
308		Broadway	308 Broadway	1900	Commercial Vernacul	Not a contributing resource to a h
324		Broadway	324 Broadway	1920	Commercial Vernacul	Not a contributing resource to a h
403		Broadway	A Bicycle House	1926	Mediterranean Reviv	Potential contributor, National Re
404		Broadway	404 Broadway	1947	Commercial Vernacul	Not a contributing resource to a h
421		Broadway	421 Broadway	1920	Mission	Not a contributing resource to a h
510		Broadway	510 Broadway			Demolished
512		Broadway	512 Broadway	1936	Bungalow	Potential contributor, National Re
518		Broadway	518 Broadway			Demolished
530		Broadway	530 Broadway	1948	Frame Vernacular	Potential contributor, National Re
534		Broadway	Gilbert House	1920	Frame Vernacular	Potential contributor, National Re
536-538		Broadway	536-538 Broadway	1912	Frame Vernacular	Potential contributor, National Re
540		Broadway	540 Broadway	1920	Mediterranean Reviv	Potential contributor, National Re
556		Broadway	556 Broadway	1949	Masonry Vernacular	Not a contributing resource to a h
560		Broadway	560 Broadway	1926	Frame Vernacular	Potential contributor, National Re
309	E.	Cherry	309 East Cherry Street	1925	Frame Vernacular	Not a contributing resource to a h
409	E.	Cherry	409 East Cherry Street	1925	Bungalow	Potential contributor, National Re
413	E.	Cherry	413 East Cherry Street	1925	Bungalow	Potential contributor, National Re
300	N.	Church	300 North Church Street	1919	Masonry Vernacular	Not a contributing resource to a h
1227		Clay	1227 Clay Street	1924	Frame Vernacular	Not a contributing resource to a h
1607		Clay	1607 Clay Street	1939	Frame Vernacular	Not a contributing resource to a h
1611		Clay	1611 Clay Street	1940	Frame Vernacular	Not a contributing resource to a h
1845		Clay	1845 Clay Street	1930	Frame Vernacular	Not a contributing resource to a h
801		Clay	801 Clay Street	1925	Frame Vernacular	Not a contributing resource to a h
809		Clay	809 Clay Street	1925	Frame Vernacular	Not a contributing resource to a h
307	S.	Clyde	307 South Clyde Avenue	1940	Classical Revival	Potential contributor, National Re
314	S.	Clyde	314 South Clyde Avenue	1920	Bungalow	Potential contributor, National Re
322	S.	Clyde	322 South Clyde Avenue	1936	Dutch Colonial	Potential contributor, National Re
416	S.	Clyde	416 South Clyde Avenue	1920	Frame Vernacular	Potential contributor, National Re
420	S.	Clyde	420 South Clyde Avenue			Demolished
618	S.	Clyde	618 South Clyde Avenue	1910	Frame Vernacular	Not a contributing resource to a h
7	S	DAKIN	7 South Dakin Avenue	1926	Commercial Vernacul	Not a contributing resource to a h
9	S.	Dakin	Hotel Manhattan	1910	Commercial Vernacul	Not a contributing resource to a h
12	W.	Darlington	12 West Darlington Avenue	1943	Masonry Vernacular	Not a contributing resource to a h
7-9	W.	Darlington	7-9 West Darlington Avenue	1914	Classical Revival	Potential contributor, National Re

410-412	S.	Dillingham	410-412 South Dillingham Aven	1945C	Masonry Vernacular	Potential contributor, National Re
204	E.	Drury	204 East Drury Avenue	1905	Bungalow	Potential contributor, National Re
210	E.	Drury	210 East Drury Avenue	1905	Frame Vernacular	Potential contributor, National Re
212	E.	Drury	212 East Drury Avenue	1940	Minimal Traditional	Potential contributor, National Re
216	E.	Drury	216 East Drury Avenue	1905	Frame Vernacular	Not a contributing resource to a h
605	N.	Elizabeth	605 North Elizabeth Street	1949	Minimal Traditional	Not a contributing resource to a h
412	W.	Emmett	Hanson Walter Association	1932	Commercial Vernacul	Potential contributor, National Re
713	S.	Emory	713 South Emory Avenue	1925	Frame Vernacular	Not a contributing resource to a h
708	W.	Hughey	708 West Hughey Street	1936	Tudor Revival	Potential contributor, National Re
715	W.	Hughey	715 West Hughey Street	1925	Bungalow	Potential contributor, National Re
721	W.	Hughey	Ellis Davis House	1925	Masonry Vernacular	Potential contributor, National Re
1722	W.	Hughey	Dr. Geiger House	1924	Colonial Revival	Potential contributor, National Re
1214	N.	Ingram	1214 North Ingram Street	1936	Frame Vernacular	Not a contributing resource to a h
1317		Kory	1317 Kory Street	1945	Frame Vernacular	Not a contributing resource to a h
407	E	LAKE	W.B. Makinson House	1900	Colonial Revival	Not a contributing resource to a h
208	E.	Lake	208 East Lake Street	1900	Frame Vernacular	Potential contributor, National Re
213	E.	Lake	213 East Lake Street	1931	Frame Vernacular	Potential contributor, National Re
303	E.	Lake	303 East Lake Street	1925	Frame Vernacular	Potential contributor, National Re
412	E.	Lake	412 East Lake Street	1910	Frame Vernacular	Not a contributing resource to a h
20		Lakeshore	20 Lakeshore Boulevard	1925	Commercial Vernacul	Not a contributing resource to a h
200		Lakeshore	200 Lakeshore Boulevard	1930	Commercial Vernacul	Not a contributing resource to a h
1124		LINDSAY	1124 Lindsay Way	1935	Frame Vernacular	Not a contributing resource to a h
216	E.	Magnolia	216 East Magnolia Street	1918	Frame Vernacular	Potential contributor, National Re
310	E.	Magnolia	310 East Magnolia Street	1940	Frame Vernacular	Potential contributor, National Re
313	E.	Magnolia	313 East Magnolia Street	1910	Frame Vernacular	Potential contributor, National Re
407	E.	Magnolia	B.C. Miller House	1944	Colonial Revival	Potential contributor, National Re
615	E.	Magnolia	615 East Magnolia Street	1920	Frame Vernacular	Not a contributing resource to a h
1935	W	MARTIN	1935 West Martin Street	1935	Frame Vernacular	Not a contributing resource to a h
506		MILDRED	506 Mildred Court	1945	Frame Vernacular	Not a contributing resource to a h
300	E	MONUMENT	Kissimmee Community House	1929	Mediterranean Reviv	Not a contributing resource to a h
1003		Mound	1003 Mound Avenue	1924	Minimal Traditional	Not a contributing resource to a h
919		Mound	919 Mound Avenue	1920	Frame Vernacular	Not a contributing resource to a h
17		Neptune	17 Neptune Road	1947	Minimal Traditional	Potential contributor, National Re
25		Neptune	25 Neptune Road	1930	Frame Vernacular	Potential contributor, National Re
29		Neptune	29 Neptune Road	1920	Bungalow	Potential contributor, National Re
41		Neptune	41 Neptune Road	1910	Frame Vernacular	Potential contributor, National Re
45		Neptune	45 Neptune Road	1940	Bungalow	Potential contributor, National Re

214	E.	Oak	214 East Oak Street	1920	Frame Vernacular	Potential contributor, National Re
309	E.	Oak	309 East Oak Street	1940	Frame Vernacular	Potential contributor, National Re
308	E.	Orange	308 East Orange Street	1947	Frame Vernacular	Potential contributor, National Re
17	S.	Orlando	17 South Orlando Avenue	1900	Frame Vernacular	Not a contributing resource to a h
18	S.	Orlando	18 South Orlando Avenue	1915	Bungalow	Potential contributor, National Re
105	E.	Park	105 East Park Street	1930	Bungalow	Potential contributor, National Re
109	E.	Park	109 East Park Street	1920	Frame Vernacular	Potential contributor, National Re
308	E.	Park	308 East Park Street	1920	Frame Vernacular	Potential contributor, National Re
519	W.	Patrick	519 West Patrick Street	1921	Frame Vernacular	Not a contributing resource to a h
511		PEARSON	511 Pearson Ct	1940	Ranch	Not a contributing resource to a h
1021	W.	Penfield	1021 West Penfield Street	1925	Frame Vernacular	Potential contributor, National Re
1022	W.	Penfield	1022 West Penfield Street	1925	Masonry Vernacular	Potential contributor, National Re
1103	W.	Penfield	1103 West Penfield Street	1925	Frame Vernacular	Not a contributing resource to a h
323	W.	Pleasant	323 West Pleasant Street	1926	Classical Revival	Not a contributing resource to a h
316		PLEASANT	Atlantic Coast Line RR Statio	1911	Colonial Revival	Not a contributing resource to a h
915	W	PORTAGE	913-915 West Portage Street	1910	Frame Vernacular	Potential contributor, National Re
504	S.	Randolph	504 South Randolph Street	1920	Commercial Vernacul	Potential contributor, National Re
515	S.	Randolph	515 South Randolph Street	1945	Frame Vernacular	Potential contributor, National Re
706	S.	Randolph	706 South Randolph Street	1920	Frame Vernacular	Not a contributing resource to a h
710	S.	Randolph	710 South Randolph Street	1930	Frame Vernacular	Not a contributing resource to a h
1117	N	ROYAL	Joe Butler House	1927	Bungalow	Potential contributor, National Re
601	N	ROYAL	Parker Eldridge House	1930	Frame Vernacular	Not a contributing resource to a h
1019	N.	Royal	1019 North Royal Street	1935	Frame Vernacular	Potential contributor, National Re
1114	N.	Royal	1114 North Royal Street	1945	Frame Vernacular	Potential contributor, National Re
1116	N.	Royal	1116 North Royal Street	1945	Frame Vernacular	Potential contributor, National Re
1120	N.	Royal	1120 North Royal Street	1947	Masonry Vernacular	Potential contributor, National Re
1201	N.	Royal	1201 North Royal Street	1920	Frame Vernacular	Potential contributor, National Re
1204	N.	Royal	Robert Bass House	1925	Queen Anne	Potential contributor, National Re
1303	N.	Royal	1303 North Royal Street	1925	Bungalow	Potential contributor, National Re
1305	N.	Royal	1305 North Royal Street	1925	Bungalow	Potential contributor, National Re
1306	N.	Royal	1306 North Royal Street	1920	Frame Vernacular	Potential contributor, National Re
1307	N.	Royal	1307 North Royal Street	1925	Bungalow	Potential contributor, National Re
1313	N.	Royal	1313 North Royal Street	1926	Bungalow	Not a contributing resource to a h
1317	N.	Royal	1317 North Royal Street	1926	Bungalow	Not a contributing resource to a h
606		ROYAL	Bass House	1925	Frame Vernacular	Potential contributor, National Re
		RUBY	Kissimmee Power, Water, and	1924	Commercial Vernacul	Not a contributing resource to a h
1503	N	SMITH	1503 North Smith Street	1920	Frame Vernacular	Not a contributing resource to a h

1901	N	SMITH	1901 North Smith Street	1934	Bungalow	Not a contributing resource to a h
1915	N	SMITH	1915 North Smith Street	1941	Frame Vernacular	Not a contributing resource to a h
1314	N.	Smith	1314 North Smith Street	1925	Bungalow	Potential contributor, National Re
1425	N.	Smith	1425 North Smith Street	1946	Frame Vernacular	Not a contributing resource to a h
1715	N.	Smith	1715 North Smith Street	1946	Frame Vernacular	Not a contributing resource to a h
1804	N.	Smith	1804 North Smith Street	1946	Frame Vernacular	Not a contributing resource to a h
1813	N.	Smith	1813 North Smith Street	1930	Frame Vernacular	Not a contributing resource to a h
1606	N.	Sunny	1606 Sunny Street	1945	Masonry Vernacular	Not a contributing resource to a h
222	N.	Vernon	222 North Vernon Avenue	1925	Frame Vernacular	Potential contributor, National Re
214	S.	Vernon	214 South Vernon Avenue	1936	Frame Vernacular	Not a contributing resource to a h
215	S.	Vernon	215 South Vernon Avenue	1936	Colonial Revival	Potential contributor, National Re
219	S.	Vernon	219 South Vernon Avenue	1910	Masonry Vernacular	Potential contributor, National Re
222	S.	Vernon	222 South Vernon Avenue	1925	Queen Anne	Potential contributor, National Re
512	E	WALNUT	512 East Walnut Street	1936	Frame Vernacular	Not a contributing resource to a h
515	E	Walnut	515 East Walnut Street	1947	Frame Vernacular	Not a contributing resource to a h

RESOLUTION # 7-2004

ORIGINAL

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KISSIMMEE SUPPORTING A REGIONAL COMMUTER RAIL SYSTEM FOR CENTRAL FLORIDA

WHEREAS, alternative means of transportation to the automobile are desperately needed to alleviate traffic congestion in Central Florida, and

WHEREAS, the continued economic development of the Central Florida region is dependent upon the development and expansion of mass transit, and

WHEREAS, as a significant part of the Central Florida community, the City Of Kissimmee is in need of multi-modal transportation including commuter rail service to provide for an enhanced quality of life and economic vitality, and

WHEREAS, the Kissimmee Comprehensive Plan supports metropolitan area passenger rail service from Kissimmee to Orlando and other regional activity centers; and

WHEREAS, potential commuter rail facilities are identified in the Kissimmee Comprehensive Plan's Public Transit System Plan, and

WHEREAS, Representative John Mica is working to secure Federal funding for a commuter rail route to serve communities from southern Volusia County to northern Osceola County, including Kissimmee,

NOW, THEREFORE, BE IT RESOLVED by the City Commission of the City Of Kissimmee that all efforts to include the City Of Kissimmee and Osceola County in the development of a commuter rail service are fully supported, and the City of Kissimmee stands ready to assist Representative Mica in securing Federal funding for a regional commuter rail system.

PASSED AND DULY ADOPTED this 17th day of February, 2004.

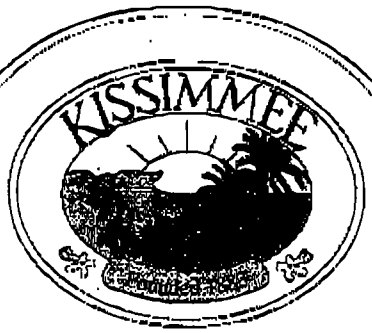
George A. Gant, MD
Mayor-Commissioner

ATTEST:

Linda P. Jaworski, City Clerk

APPROVED AS TO FORM AND LEGALITY:

Donald T. Smallwood, City Attorney



March 3, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS 37
DeLand, Florida 32720

Re: Advance Notification for the Rail Transit Environmental Assessment and Design Services, Central Florida Commuter Rail Transit for Volusia, Seminole, Orange and Osceola Counties, Financial Identification Number: 412994-2-22-01

Dear Mr. Gleason:

The City of Kissimmee is very supportive of commuter rail along the CSXT corridor from the Kissimmee area to southern Volusia County. As indicated by the attached resolution adopted by the City Commission last year, the City believes that commuter rail is needed in Central Florida to help alleviate traffic congestion, assist economic development, and enhance the overall quality of life. This support is also expressed in the City's Comprehensive Plan through directives promoting passenger rail service from Kissimmee to Orlando and other regional activity centers and through the identification of potential commuter rail facilities in Kissimmee.

Among the commuter rail facilities identified in the Comprehensive Plan are two commuter rail stations within the City limits. One of these stations is proposed for downtown Kissimmee and the other in the vicinity of the intersection of Osceola Parkway and Michigan Avenue. For downtown, the Comprehensive Plan calls for an intermodal center that facilitates connections with various bus routes, existing and potential rail service, and other modes of travel.

The planned downtown intermodal center has been designated as part of Florida's Strategic Intermodal System. With funding assistance from the Great American Station Foundation (now Reconnecting America), Kissimmee has had a concept plan drafted for this intermodal center. The environmental assessment and design services for commuter rail provide an opportunity for the Florida Department of Transportation (FDOT) and the City to continue to work together on the planning for this center.

Office of the City Manager
City of Kissimmee • 101 N. Church Street • Kissimmee, FL 34741-5054 • Phone 407-518-2300 • FAX 407-846-8369

During the environmental assessment and design service process, City staff would also like to work with the FDOT regarding other aspects of the project. Please let us know of any information needed regarding our community and environment resources (particularly our many historic resources), permitting requirements, or other topics. City staff would be glad to meet with FDOT and to share readily available information.

Kissimmee appreciates the opportunity to comment on this important Central Florida project.

Very truly yours,

Mark E. Durbin
City Manager

MED/bc FDOT-ConsistencyLtr.doc

Cc: George Mann, Public Works & Engineering Director
Eric Gurr, Public Works & Engineering
Kevin Felblinger, Public Works & Engineering
Mike Steigerwald, Development Services Director
Craig Holland, Development Services
Barry Campbell, Development Services

City of Sanford, Florida

POLICE DEPARTMENT
815 S. FRENCH AVENUE
SANFORD, FL 32771

BRIAN F. TOOLEY
CHIEF OF POLICE

BUSINESS
(407) 323-3030
FAX
(407) 302-2540
www.sanfordpolice.org

February 22, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation – District 5
719 S. Woodland Blvd., MS 37
DeLand, FL 32720

Dear Mr. Gleason:

Thank you for the information regarding the Rail Transit Environmental Assessment and Design Services (your letter dated 2/28/05). I found it most informative. The only question I have is who will be providing on-board security (if any) for such a transit system? I believe adequate security (in terms of criminal activity and/or possible terrorism) must be addressed.

The question for your consideration is who (which agency) would be responsible for security/law enforcement since this transit system will travel through numerous cities and several counties? The Sanford Police Department could certainly provide such services at the station in Sanford, as could other agencies in their respective jurisdictions. The dilemma would be the system's traveling over several counties. Perhaps the FHP or the FDLE could do this, or some other state law enforcement agency. (I am not advocating more work for them...just an observation).

In short, please give careful thought to security/law enforcement for this endeavor. I am available to help in any way in this regard.

Sincerely,

Brian F. Tooley
Chief of Police

"In Partnership With the Community"

February 21, 2005

Received
FEB 24 2005
FDOT
Environmental Management

Bob Gleason
Environmental Administrator, District 5
Florida Department of Transportation
719 South Woodland Boulevard
Deland, Florida 32720-6834

Subject: Advance Notification for the Rail Transit Environmental Assessment and Design Services
Financial ID Number: 412994-2-22-01

Dear Mr. Gleason:

Thank you for the opportunity to provide comments on the Advance Notification for the Rail Transit Environmental Assessment and Design Services. The City of Maitland supports rail transit as a viable solution to the regional transportation challenges facing all of us.

Consistent with earlier actions by the Maitland City Council, I would like to reiterate that the City's desire to maintain a single track configuration within the City limits is of paramount importance. A second track and its required right-of-way would be detrimental to the City's Downtown Revitalization plans.

There a few additional concerns which are of importance to our residents and the driving public. The first is the desire to minimize the occurrence of train horn soundings associated with operating commuter rail through Maitland. The second is the desire to upgrade the roadway/rail surface crossings and signal arms to increase the safety of these crossing in light of the potential additional rail traffic at crossings within Maitland. The last concern is that additional traffic on the CSX 'A' line may increase the frequency of stopped vehicular traffic at the numerous grade crossings in Maitland.

I would like to urge that the environmental review and design process address these concerns.

City staff met with Ms. Tawny Olore and Mr. Bob Gault on January 20, 2005 to discuss this project. As a result of this meeting, future ridership projections for a station in downtown Maitland will be developed and forward to the City for information and discussion purposes.

Again, Maitland would like to thank you for the opportunity to provide comments prior to the start of the Environmental Assessment.

Sincerely,

Mark D. Tobin, P.E.
Transportation Engineer

C: Dean Sprague, City Manager
Anthony Leffin, Public Works Director
Dave Tomek, Community Development Director
Verl Emrick, CRA Director
Michelle delValle, Finance Manager
Sara Blanchard, Senior Planner

February 3, 2005

Mr. Bob Gleason
Environmental Administrator – District 5
FL Dept of Transportation
719 South Woodland Blvd, MS37
Deland, FL 32720

RE: Rail Transit Environmental Assessment

Dear Mr. Gleason:

Thank you for your letter of January 28, 2005 reference Rail Transient Environmental Assessment and Design Services. I appreciate the Kissimmee Gateway Airport being included for comment, and we would like to continue this in the future. In the case of this particular item, we would like to incorporate our comments into the comments submitted by the City of Kissimmee. The Airport is a department of the City. From an airport perspective, I am in favor of the project and have no specific comments at this point.

Please contact me at (407) 518-2516 or tlloyd@kissimmee.org for any questions.

Sincerely,

Terry Lloyd
Director of Aviation

Cc: File

Office of the Director of Aviation
Kissimmee Gateway Airport • 301 N. Dyer Boulevard, Suite 101 • Kissimmee, Florida 34741-4613
Phone 407-847-4600 • FAX 407-847-8399

APPENDIX F

GLOSSARY

APPENDIX F – GLOSSARY

F.1 Definition of Terms

Accessibility 1: A measure of the ability or ease of all people to travel among various origins and destinations. 2. In transportation modeling and planning, the sum of the travel times from one zone to all other zones in a region, weighted by the relative attractiveness of the destination zones involved. 3. In traffic assignment, a measure of the relative access of an area or zone to population, employment opportunities, community services, utilities.

Air Pollution: The presence of unwanted material in the air in sufficient amount and under such circumstances as to interfere significantly with human comfort, health, or welfare, or with full use and enjoyment of property.

Ambient Air Quality: A physical and chemical measure of the concentration of various chemicals in the outside air, usually determined over a specific time period, for example, 5 minutes, 1 hour or 1day.

Base Period (Off-peak Period): In transit, the time of day during which vehicle requirements and schedules are not influenced by peak-period passenger volume demands (e.g., between morning and afternoon peak periods). At this time, transit riding is fairly constant and usually low to moderate in volume when compared with peak-period travel.

Bus Lane: A traffic lane for dominant or exclusive use by buses.

Calibration 1: Reconciliation of an instrument with an established standard. 2. In modeling, the procedure used to estimate the parameters of a model or to adjust a model to replicate actually measured conditions.

Capacity: There are two types of capacity: static and dynamic. Static capacity is the total number of person a vehicle can accommodate. Dynamic capacity is the maximum number of vehicles, spaces, or persons which can be transported past a fixed point in one direction per unit of time (usually 1 hour).

Commuter Rail Transit: Transit services operated during peak hours only, primarily serving work trips.

Consist: The make-up or composition (number and specific type) of a train or vehicles.

Cost-Effectiveness Analysis (CEA): Analytical technique used to choose the most effective method for achieving a program or policy goal. The costs of alternatives are measured by their requisite estimated monetary expenditures. Effectiveness is defined by the degree of goal attainment and may also (but not necessarily) be measured in monetary terms.

Environmental Impact Statement (EIS, 102 Statement): A comprehensive study of likely environmental impacts that will result from major federally assisted projects. An EIS is required by the National Environmental Policy Act of 1969.

Equity: In transportation, a normative measure of fairness among transportation users.

Finding of No Significant Impact (FONSI): A document that describes the reasons that a project will not have significant effect on the environment and, therefore, does not require the preparation of an EIS under the National Environmental Policy Act of 1969.

Future Design Year: The year for which traffic projections have been made and transportation needs analyzed.

Guided Transit: A term applied to transit services where the vehicles are physically by a guideway; includes rail, monorail, AGT and several other technologies.

Level of Service (LOS, L/L): 1. A set of characteristics that indicate the quality and quantity of transportation service provided including characteristics that are quantifiable (system performance, e.g., frequency, travel time, travel cost, number of transfers, safety) and those that difficult to quantify (service quality, e.g., availability, comfort, convenience, modal image). 2. For highway systems, a qualitative rating of the effectiveness of a highway or highway facility in serving traffic, in terms of operating conditions. The Highway Capacity Manual identifies operating conditions ranging from A, for best operations (low volume, high speed) to F, for worst conditions. 3. For paratransit, a variety of measures to denote the quality of service provided; generally in terms of total travel time or a specific component of total travel time. 4. For pedestrians, sets of area occupancy classifications to connect the design of pedestrian facilities with LOS (A for best through F for worst).

Light rail Transit (LRT): A transit mode utilizing overhead power predominantly using right-of-way (ROW) category “B” and sometimes “A” or “C” on different sections. The electrically powered rail vehicles operating in 1- to 4-car consists. The mode has a wide range of L/S and performance characteristics. When a category “A” ROW is utilized, this mode becomes a LRT.

Link: In planning, a section of a transportation system network defined by intersection points (nodes) at each end, that is, a link connects two nodes. It may be one way or two way.

Load Factor: 1. The ratio of used capacity to offered capacity of equipment or facility during a specified time period. It is usually expressed as a percentage of seats occupied at a given point or (in continuous form) passenger miles (kilometers) per train mile (kilometer) to account for the ability to couple rail cars together to achieve efficiency. 2. The ratio or passengers actually carried versus the total passenger capacity of a vehicle, also known as a utilization coefficient.

Major Activity Center (MAC, Activity Center): A geographical area characterized by a large transient population and heavy traffic volumes and densities; for example, central business district, major air terminal, large university, large shopping center, industrial park, and sports arena.

Mass Transportation: transportation by bus, rail, boat, or other conveyance, either publicly or privately owned, that provides general or special services to the public on a regular and continuing basis (not including school bus, charter or sightseeing service).

Modal Split (Mode Split): 1. The proportion of total person trips that uses each of various specified modes of transportation. 2. The process of separating total person trips into the travel used. 3. A term that describes how many people use alternative forms of transportation. It is

frequently used to describe the percentage of people who use private automobiles as opposed to the percentage who use public transportation.

Mode: A particular form of travel, for example, walking, traveling by automobile, traveling by bus, traveling by train.

Model 1: A mathematical or conceptual presentation of relationships and actions within a system. It is used for analysis of the system or its evaluation under various conditions; examples include land use, economic, socioeconomic, transportation. 2. A mathematical description of a real life situation that used data on past and present conditions to make a projection about the future.

Multiple Unit (MU) Train: A multiple unit train is consists of several powered cars (single units, married pairs or other types) that are controlled by one driver. All RRT systems have operated in this manner to distinguish them from train consists with trailers.

Network: 1. In planning, a system of links and nodes that describes a transportation system. 2. In highway engineering, the configuration of highways that constitutes the total system. 3. In transit operations, a system of transit lines or routes, usually designed for coordinated operation.

Park n' Ride (P&R): A term applied to a passenger who drives to a transit station and parks his/her automobile in the station's P&R lot. Possible with any transit mode but most commonly used with rail modes, particularly RRT and RGR.

Passenger Kilometers (Passenger Miles): The transportation of one passenger a distance of 1 kilometer (1 mile).

Passenger Kilometers per Train Mile (Passenger Miles per Train Kilometer): The number of passenger kilometers (miles) accomplished by a given train kilometer (mile) and seat kilometer (mile) provides a measure of transit system efficiency.

Peak (Peak Period, Rush Hours): 1. the period during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or afternoon or evening (p.m.) peak. 2. The period when demand for transportation service is heaviest.

Performance (Transit System): A composite measure of transit system operating characteristics, mostly quantitative, such as service frequency, speed, reliability, safety, capacity, and productivity.

Public Transportation: transportation service to the public on a regular basis using vehicles that transport more than one person for compensation, usually but not always.

Rail Transit: A generic class of transit service involving steel wheels on steel rails. The major services, generally in ascending order of performance, are streetcars, light rail transit, rail rapid transit, commuter rail and regional rail.

Rapid Transit: A generic class of transit modes which operate exclusively on R/W category "A" and have high speed, capacity, reliability and safety including, but not limited to RRT, RTRT, LIRRT and most RGR systems.

Regional Rail (RGR) or Commuter Rail: A regional passenger service usually provided by railroad agencies which consist of electric or diesel-powered trains on grade-separated railroad lines (sometimes with protected grade crossings).

Regional Transit: A term used to describe either long bus or rail transit lines wit few stations and high operating speeds. They primarily service long trips within metropolitan regions, as distinguished from city transit and short-haul transit.

Regular Bus (RB) or Local Services: Common urban bus routes serving all stops, as distinguished from short-haul and express service.

Regular Bus Lane (RBL): A lane or lanes on urban streets or freeways reserved for bus sue only, separated from other lanes by pavement markings, signs or rubber cones, but not by fixed physical barriers.

Right-of-way (ROW, R/W): A general term denoting land property or interest therein, usually in a strip, acquired for or devoted to transportation purposed.

Transportation Disadvantaged (Low-mobility Group): People whose range of transportation alternatives is limited, especially in the availability of relatively easy-to-use and inexpensive alternatives for trip making. Examples include the young, the elderly, the poor, the handicapped and those who do not have automobiles.

Trip 1: A one-way movement of a person or vehicle between two points for a specific purpose; sometimes called one-way trip to distinguish it from a round trip. 2. In rail operations, a mechanical lever or block signal that, when in the upright position, activates a train's emergency braking system. 3. The movement of a transit unit (vehicle or train) in one direction from the beginning of a route to the end of it'; also known as a run.

Trip Assignment (Flow Distribution, Traffic Assignment): In planning, a process by which trips, described by mode, purpose, origin, destination, and time of day, are allocated among the paths or routes in a network by one of a number of models.

Trip Attractions: In planning, the number of trips, daily or for a specified time interval, to or from a zone generated by present or future land uses in that zone. The term normally refers to the non-home end of a trip. Trip attractions can also be defined as the non-home ends of home-based trips or the destinations of non-home-based trips.

Trip Productions: In planning, the number of trips, daily or for a specified time intervals, that are produced from and return to a given zone, generally the zone of residence. Trip productions can also be defined as the home ends of home-based trips or the origin of non-home-based trips.

Urban Public Transportation: Transport systems for intra-urban on intra-regional travel available for use by any person.

Vanpool Service: A form of transit involving privately or publicly provided vans transporting groups or persons to and from work on a regular basis. Drivers are usually selected from each passenger group.

APPENDIX G

LIST OF ABBREVIATIONS AND ACRONYMS

APPENDIX G - LIST OF ABBREVIATIONS AND ACRONYMS

Acronym	Definition	Page
AA	Alternatives Analysis	2-1
AADT	average annual daily traffic	4-3
ACHP	Advisory Council on Historic Preservation	3-27
ACL	Atlantic Coast Line	3-37
ADA	Americans with Disabilities Act	3-43
APE	Area of Potential Effect	3-28
BMPs	Best Management Practices	3-74
Btus	British Thermal Units	3-74
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	3-68
CFAs	Core Foraging Areas	3-62
CFCRA	Central Florida Commuter Rail Authority	1-30
CFCRT	Central Florida Commuter Rail Transit	1-1
CFRTA (local - LYNX)	Central Florida Regional Transportation Authority	1-1
CO	Carbon monoxide	3-49
CRAS	Cultural Resource Assessment Survey	3-27
CRPR	Contamination Risk Potential Rating	7-4
CRT	Commuter Rail Transit	1-20
CSER	Contamination Screening Evaluation Report	3-68
CSXT	CSX Transportation	1-4
CTPP	Census Transportation Planning Package	1-20
CZM	Coastal Zone Management	3-66
dBA	A-weighted sound level	3-55
DMU	Diesel Multiple Unit	2-3
DOT	Department of Transportation	3-13
DRI	Developments of Regional Impact	1-9
EA	Environmental Assessment	1-1
EARs	Evaluation and Appraisal Reports	3-5
ECFRPC	East Central Florida's Regional Planning Council's	1-9
EIS	Environmental Impact Statement	1-30
EOs	Executive Orders	3-12
EPA	Environmental Protection Agency	3-65
ESBAR	Endangered Species Biological Assessment Report	3-60
F.E.C. Railway	Florida East Coast Railway	3-6

Acronym	Definition	Page
FDEP	Florida Department of Environmental Protection	3-61
FDOT	Florida Department of Transportation	1-1
FFGA	Full Funding Grant Agreements	2-22
FFWCC	Florida Fish and Wildlife Conservation Commission	3-63
FHWA	Federal Highway Administration	3-6
FLUCFCS	Florida Land Use Cover and Forms Classification System	3-64
FMSF	Florida Master Site File	3-28
FNAI	Florida Natural Areas Inventory	3-61
FONSI	Finding of No Significant Impact	1-30
FPPA	Farmland Protection Policy Act	3-71
FRA	Federal Railroad Administration	2-3
FS	Florida Statutes	3-65
FTA	Federal Transit Administration	1-1
FY	Fiscal Year	1-18
GIS	Geographic Information System	1-9
GMA	Growth Management Act	1-9
GMP	Growth Management Plan	1-9
HABS/HAER	Historic American Building Survey/Historic American Engineering Record	3-38
HOV	High Occupancy Vehicle	1-16
HVAC	Heat, Ventilation, and Air Conditioning	3-73
I-4	Interstate 4	1-4
IOS	Initial Operating Segment	2-1
ISTEA	Intermodal Surface Transportations Efficiency Act of 1991	3-6
ITS	Intelligent Transportation Systems	1-29
KAST	Kissimmee All States Tourist	3-11
LCS	LYNX Central Station	4-17
L_{dn}	day-night noise level	3-54
L_{eq}	equivalent sound levels	3-55
LOS	Level of Service	1-3
LPA	Locally Preferred Alternative	1-27
LRT	Light Rail Transit	2-2
LRTP	Long Range Transportation Plan	1-20
MOT	Maintenance of Traffic	2-19
MOU	Memorandum of Understanding	4-1
MOW	Maintenance-of-Way	2-16
mphps	miles per hour per second	2-13

Acronym	Definition	Page
MPOs	Metropolitan Planning Organizations	1-27
MUTCD	Manual of Uniform Traffic Control Devices	
NA	Not Applicable`	1-16
NAAQS	National Ambient Air Quality Standards	3-51
NEPA	National Environmental Policy Act	1-1
NHPA	National Historic Preservation Act	3-27
NO_x	nitrogen oxides	3-49
NPDES	National Pollutant Discharge Elimination System	3-66
NPS	National Park Service	3-31
NRHP	National Register of Historic Places	3-26
NW	northwest	3-9
O&M	Operating and Maintenance	2-19
OIA	Orlando International Airport	1-20
ORMC	Orlando Regional Medical Center	3-2
OUATS	Orlando Urban Area Transportation Study	1-5
OUC	Orlando Utilities Commission	3-26
OVA	Organic Vapor Analyzer	3-70
PAG	Projects Communications Group	6-1
PD&E	Project Development & Environmental Manual	3-53
PIP	Public Involvement Program	6-1
$PM_{10}/PM_{2.5}$	particulate matter less than 10 microns or 2.5 microns diameter	3-49
PNAs	Potential Natural Areas	3-61
ppm	parts per million	3-51
PUD	planned unit development	3-2
ROWs	rights-of-way	1-20
SCC		2-20
SE	southeast	1-20
SHPO	State Historic Preservation Officer	3-28
SIB	State Infrastructure Bank	2-21
SIS	Strategic Intermodal System	1-28
SO_2	Sulfur dioxide	3-49
SR	State Route	1-6
STIP	State Transportation Improvement Plan	1-27
SW	southwest	1-20
SWPPP	Storm Water Pollution Prevention Plan	3-74
TDP	Transportation Development Plan	2-6

Acronym	Definition	Page
TEA-21	Transportation Equity Act for the 21st Century	1-29
TEA-LU	Transportation Equity Act – A Legacy for Users	3-5
TOD	Transit Oriented Development	2-15
TSM	Transportation System Management	1-28
UMTA	Urban Mass Transportation Administration	4-7
USACOE	United States Army Corps of Engineers	3-65
USF&WS	United States Fish & Wildlife Service	3-62
USTs	underground storage tanks	3-71
VHT	Vehicle Hours of Travel	1-10
VMT	Vehicle Miles of Travel	1-10
VOCs	volatile organic compounds	3-49
VOTRAN	Volusia County Public Transit System	1-1
vpd	vehicles per day	4-2
VSMF	Vehicle Storage and Maintenance Facility	2-9
WER	Wetland Evaluation Report	3-64
WMD	Water Management District	1-9
WQIE	Water Quality Impact Evaluation	3-67

APPENDIX H

ADVANCE NOTIFICATION

APPENDIX H – ADVANCE NOTIFICATION MAILING LIST

H.1 Federal

Federal Transit Administration, Region IV

Federal Highway Administration, District Transportation Engineer

Federal Emergency Management Agency - Mitigation Division, Chief

Federal Railroad Administration – Office of Economic Analysis, Director

Federal Aviation Administration

U.S. Department of Interior – Bureau of Land Management, Eastern States Office

U.S. Department of Housing and Urban Development, Regional Environmental Officer

U.S. Department of Interior – U.S. Geological Survey, Chief

U.S. Environmental Protection Agency – Region IV, Regional Administrator

U.S. Environmental Protection Agency – Groundwater/Drinking Water Division

U.S. Department of Interior – Fish and Wildlife Service, Field Supervisor

U.S. Army Corps of Engineers – Regulatory Branch, District Engineer

U.S. Department of Commerce – National Marine Fisheries Service, Habitat Conservation Division

U.S. Department of Agriculture – Southern Region, Regional Forester

U.S. Department of Interior – National Park Service, Southeast Regional Office

U.S. Department of Commerce – National Oceanic and Atmospheric Administration

Federal Aviation Administration – Airports District Office

U.S. Department of Health and Human Services – Centers for Disease Control and Prevention

U.S. Department of Interior – Bureau of Indian Affairs, Office of Trust Responsibilities

U.S. Coast Guard – Commander (oan), Seventh District

H.2 Native American

Poarch Band of Creek Indians of Alabama

Muscogee (Creek) Nation of Oklahoma

Seminole Tribe of Florida

Miccosukee Tribe of Indians of Florida

Seminole Nation of Oklahoma

H.3 State

Florida Fish and Wildlife Conservation Commission, Office of Environmental Services

Florida Department of State, Division of Historic Resources

H.3 Elected Officials

U.S. Senator Mel Martinez
U.S. Senator Bill Nelson
U.S. Representative Corrine Brown, District 3
U.S. Representative John Mica, District 7
U.S. Representative Ric Keller, District 8
U.S. Representative Dave Weldon, District 15
U.S. Representative Tom Feeney, District 24
Governor Jeb Bush
State Senator Anthony Hill, Sr., District 1
State Senator Evelyn Lynn, District 7
State Senator James E. King, Jr., District 8
State Senator Daniel Webster, District 9
State Senator Paula Dockery, District 15
State Senator Gary Siplin, District 19
State Senator Carey Baker, District 20
State Senator Lee Constantine, District 22
State Senator Bill Posey, District 24
State Senator Mike Haridopolos, District 26
State Representative D. Allen Hays, District 25
State Representative Pat Patterson, District 26
State Representative Joyce Cusak, District 27
State Representative Dorothy Hukill, District 28
State Representative Bob Allen, District 32
State Representative Sandra Adams, District 33
State Representative David Mealor, District 34
State Representative Dean Cannon, District 35
State Representative Sheri McInvale, District 36
State Representative David Simmons, District 37
State Representative Fredrick C. Brummer, District 38
State Representative Bruce Anton, District 39
State Representative Andy Gardiner, District 40
State Representative Randy Johnson, District 41
State Representative John Quinones, District 49
State Representative Frank Attkisson, District 79

H.4 Organizations

Florida Audubon Society
Sierra Club
Orlando Regional Chamber of Commerce

H.5 Agencies and Authorities

Orlando Orange County Expressway Authority
Florida's Turnpike Enterprise
East Central Florida Regional Planning Council
South Florida Water Management District
St. Johns River Water Management District
METROPLAN Orlando
Volusia County MPO
LYNX
VOTRAN

H.6 Counties

Volusia County Officials
Seminole County Officials
Orange County Officials
Osceola County Officials

H.7 Municipalities

City of DeLand Officials
City of DeBary Officials
City of Orange City Officials
City of Sanford Officials
City of Lake Mary Officials
City of Longwood Officials
City of Casselberry Officials
City of Altamonte Springs Officials
City of Eatonville Officials
City of Maitland Officials
City of Winter Park Officials
City of Orlando Officials
City of Belle Isle Officials
City of Edgewood Officials
City of Kissimmee Officials

Florida Department of Transportation

JEB BUSH
GOVERNOR

719 South Woodland Boulevard
DeLand, Florida 32720-6834

JOSE' ABREU
SECRETARY

January 28, 2005

Ms. Lauren Milligan
State Clearinghouse Coordinator
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS-47
Tallahassee, FL 32399-3000

Dear Ms. Milligan:

Subject: Advance Notification for the Rail Transit Environmental Assessment and Design Services
Central Florida Commuter Rail Transit Volusia, Seminole, Orange and Osceola Counties, Florida
Financial Identification Number: 412994-2-22-01

The attached Advance Notification package is forwarded to your office for processing through appropriate State agencies in accordance with Executive Order 95-359. Distribution to local and Federal agencies is being made as noted.

Although more specific comments will be solicited during the permit coordination process, we request that permitting and permit reviewing agencies review the attached information and furnish us with any general comments they consider pertinent at this time.

It is anticipated that this is a Federal-aid action and the Florida Department of Transportation, in consultation with the Federal Transit Administration, will determine what degree of environmental documentation will be necessary. The determination will be based upon in-house environmental evaluations and comments received through coordination with other agencies. Please provide a consistency review for this project in accordance with the State's Coastal Zone Management Program.

In addition, please review this improvement's consistency to the maximum extent feasible, with the approved Comprehensive Plan of the local government jurisdiction(s) pursuant to Chapter 163, Florida Statutes.

We are looking forward to receiving your comments on the project within 45 days. Should additional review time be required, a written request for an extension of time must be submitted to our office within the initial 45-day comment period.

Your comments should be addressed to:

Mr. Bob Gleason
Environmental Administrator – District 5
Florida Department of Transportation – District 5
719 South Woodland Boulevard, MS 37
DeLand, Florida 32720

Your expeditious handling of this notice is appreciated.

Sincerely,
Florida Department of Transportation – District 5

Bob Gleason
Environmental Administrator – District 5

Attachments:
A - Mailing List
B - Advance Notification Fact Sheet
C - Proposed Commuter Rail Alignment and Station Location Map
D - Application for Federal Assistance

cc: Regional Director, Federal Transit Administration w/mailing list
Mr. James Jobe, Federal Aid Program Coordinator (MS 7) w/mailing list
Carolyn Ismart, Central Environmental Management Office (MS 37) w/mailing list

MAILING LIST

ADVANCE NOTIFICATION
FINANCIAL IDENTIFICATION NUMBER: 412994-2-22-01

Federal Transit Administration, Region IV
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Federal Emergency Management Agency - Mitigation Division, Chief
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U.S. Department of Housing and Urban Development, Regional Environmental Officer
U.S. Department of Interior – U.S. Geological Survey, Chief
U.S. Environmental Protection Agency – Region IV, Regional Administrator
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Florida Fish and Wildlife Conservation Commission, Office of Environmental Services
Florida Department of State, Division of Historic Resources
U.S. Senator Mel Martinez
U.S. Senator Bill Nelson
U.S. Representative Corrine Brown, District 3
U.S. Representative John Mica, District 7
U.S. Representative Ric Keller, District 8
U.S. Representative Dave Weldon, District 15
U.S. Representative Tom Feeney, District 24
Governor Jeb Bush
State Senator Anthony Hill, Sr., District 1
State Senator Evelyn Lynn, District 7
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State Senator Lee Constantine, District 22
State Senator Bill Posey, District 24
State Senator Mike Haridopolos, District 26
State Representative D. Allen Hays, District 25
State Representative Pat Patterson, District 26
State Representative Joyce Cusak, District 27

MAILING LIST (CONTINUED)

ADVANCE NOTIFICATION
FINANCIAL IDENTIFICATION NUMBER: 412994-2-22-01

State Representative Dorothy Hukill, District 28
State Representative Bob Allen, District 32
State Representative Sandra Adams, District 33
State Representative David Mealor, District 34
State Representative Dean Cannon, District 35
State Representative Sheri McInvale, District 36
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Florida's Turnpike Enterprise
East Central Florida Regional Planning Council
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LYNX
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Volusia County Officials
Seminole County Officials
Orange County Officials
Osceola County Officials
City of DeLand Officials
City of DeBary Officials
City of Orange City Officials
City of Sanford Officials
City of Lake Mary Officials
City of Longwood Officials
City of Casselberry Officials
City of Altamonte Springs Officials
City of Eatonville Officials
City of Maitland Officials
City of Winter Park Officials
City of Orlando Officials
City of Belle Isle Officials
City of Edgewood Officials
City of Kissimmee Officials

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ADVANCE NOTIFICATION FACT SHEET
CENTRAL FLORIDA COMMUTER RAIL
FINANCIAL IDENTIFICATION NUMBER: 412994-2-22-01

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1. Need for Project:

The purpose of this study is to develop an alternate mode of transportation to serve north / south travelers along Interstate 4 (I-4) and other major roadways within the Orlando Metropolitan Region. Population and employment growth within the region, combined with increased numbers of vehicle trips per capita and longer trip lengths, are causing an increase in traffic congestion. Congestion inhibits travel mobility, causes longer and frequent delays, impairs air quality, wastes fuel and personal time, stifles economic growth, and diminishes the overall quality of life.

All relevant County Comprehensive Plans address the problem of increasing traffic congestion by stressing the need for multi-modal choices. These plans include Orange County's Comprehensive Plan, Osceola County's Comprehensive Plan, Seminole County's Comprehensive Plan, Volusia County's Comprehensive Plan and Long Range Transportation Plan and METROPLAN Orlando's *2020 Long Range Transportation Plan.* Design and construction for the Commuter Rail, one of three critical transit projects, is included in the prioritized list of the METROPLAN *2020 Long Range Transportation Plan*, but is not included in the *2020 Cost Feasible Plan*.

In addition, the *Central Florida Regional Transportation Authority Systems Plan* (1994), and the Volusia County *Preliminary Rail Feasibility Study* (1998) have both demonstrated that highway expansion/capacity improvement alone would not be sufficient to accommodate future travel demands and support Central Florida's continued economic development, and that premium transit, including rail-based transit, would be needed in various corridors.

The need for transportation improvements in the project area has been the subject of numerous studies conducted since the early 1990's. From a transportation perspective, the need is based on the region's tremendous population and employment growth that has overburdened the existing transportation system, and is expected to continue into the long-term future. These long range and short-range studies are listed below.

Long Range Studies:
- Florida High Speed Rail
- Central Florida Regional Transportation Authority Systems Plan
- Volusia County Preliminary Rail Feasibility Study
- Orange-Osceola County Expressway Authority 2025 Expressway Master Plan
- I-4 Light Rail Transit Supplemental Draft Environmental Impact Statement

Short Range Improvement Programs:
- Orlando Urban Area Transportation Improvement Program (FY 2002-03 – 2006/07) which includes:
  - Osceola County Intermodal Center
  - LYNX Central Station
  - Volusia/Orlando/Osceola Commuter Rail Alternatives Analysis

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Short Range Improvement Programs: (continued)
- Airport Corridor Light Rail Transit Draft Environmental Impact Statement / Final Environmental Impact Statement
- North / South Seminole Intelligent Transportation System Enhanced Bus Circulator Study
- North Corridor Light Rail Transit Draft Environmental Impact Statement / Final Environmental Impact Statement

- LYNX Transit Development Program 2002-2006
  - Airport / I-4 Corridor Draft Environmental Impact Statement and Final Environmental Impact Statement
  - Volusia / Orlando / Osceola Commuter Rail
  - North Corridor Light Rail Transit Supplemental Draft Environmental Impact Statement, Final Environmental Impact Statement and Preliminary Engineering Report
  - Canadian Court Intermodal Center

The Florida Department of Transportation (FDOT), in consultation with the Federal Transit Administration (FTA) has commenced the Central Florida Commuter Rail Transit (CRT) Environmental Assessment (EA) Study in accordance with FTA requirements and the National Environmental Policy Act (NEPA) of 1969, as amended.

2. Description of Project:

Project Limits: The Central Florida CRT corridor is proposed along a section of the existing CSXT A-Line railroad tracks, with a southern terminus at Poinciana Boulevard in Osceola County. From Poinciana Boulevard, the corridor extends north through, or in close proximity to, the Cities of Kissimmee, Edgewood, Belle Isle, and Orlando. From downtown Orlando, the study corridor continues along the CSXT tracks through, or in close proximity to, the Cities of Winter Park, Eatonville, Maitland, Altamonte Springs, Casselberry, Longwood, Lake Mary and Sanford. From Sanford, it would cross beneath I-4, utilize the existing rail bridge across the St. Johns River and continue north into, or in close proximity to, the Cities of DeBary, Orange City and DeLand, in Volusia County. An initial 55-mile corridor was expanded to approximately 61-miles after the first round of public workshops held in 2003, which also served as public scoping meetings for the project. Refer to the Attachment C for the proposed commuter rail alignment and general station locations as identified in the recently completed (May 28, 2004) Alternatives Analysis.

Proposed Improvements: The project consists of railroad track and signal improvements, new and improved commuter rail stations, grade crossing improvements, commuter rail vehicles, and maintenance, storage, and control facilities. Project improvements were generally determined and described in the Alternatives Analysis and are mostly within existing railroad rights of way. The specific location and configuration of the proposed improvements will be defined during this EA Study. The CRT is proposed to serve commuting passengers from the Central Florida region into the Orlando Central Business District, as well as, to key activity centers along the corridor. The proposed CRT would

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provide a higher speed and more reliable transportation option for commuters traveling from as far as Polk County and beyond in the southern end and from Daytona Beach on the northern end. There are four (4) Counties and fifteen (15) Cities that regulate land use within the project study area. These regulating agency's current comprehensive plans recognize the need for safe and efficient infrastructure and encourage a multi-modal transportation system.

Associated Projects: The proposed project will connect with many existing and planned transportation projects in the region, including but not limited to:

- Lynx Central Station
- Orlando International Airport Connector Light Rail Transit System
- Flex Bus Rapid Transit

3. Environmental Information:

Technical Memorandum 6, Community Environmental Impacts for the Central Florida North/South Commuter Corridor Alternatives Analysis, was prepared in December 2003 and became the foundation for the Alternatives Analysis that was finalized on May 28, 2004. These documents provide details on the following aspects of the environment as generally summarized below. It is important to keep in mind that this project is proposed within an existing active CSXT rail corridor, so the impact on the environment is expected to be minimal.

a. Land Uses: The corridor is an existing active CSXT rail line and adjacent land uses range from urban to semi-rural. The southern portion, in Osceola County, is characterized by transitioning land uses and the activity centers of Poinciana and the City of Kissimmee. Through Orange County and Seminole County, the corridor is characterized by urbanized development with a mix of residential, commercial and industrial land uses. The northern portion of the corridor in Volusia County is transitioning to larger tract residential, with some industrial development.

b. Wetlands: The majority of the proposed CRT system will remain on existing tracks within the existing right-of-way. Proposed impacts associated with the development of probable station locations are minimal and are within urban areas or at existing facilities. Therefore, minimal impacts to wetlands are anticipated. Wetland areas within the project corridor will be identified by evaluating existing information such as aerial photography, United States Department of Agriculture/Soil Conservation Service mapped soils, appropriate water management district and/or National Wetland Inventory land use mapping and United States Geologic Survey topographic contours coupled with selective groundtruthing. Any potential wetland impacts will be coordinated with the appropriate regulatory agencies and compensatory mitigation will be provided.

c. Floodplains: According to the Flood Insurance Rate Maps, the proposed project may involve work in areas of the 100-year floodplain. Therefore, impacts to floodplains and regulatory floodways will be assessed as part of this study.

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d. Wildlife and Habitat: Available habitat for many listed species is limited by the lack of natural vegetative communities remaining within the existing right-of-way. Impacts to Threatened and Endangered species due to new station locations is also anticipated to be minimal as stations will be placed at existing facilities or within developed areas. A wildlife and habitat assessment will be conducted to evaluate the potential for any impacts to listed species during the study. The assessment will include collecting information obtained from the U.S. Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, and the Florida Natural Areas Inventory database. Any known populations within or adjacent to the right-of-way will be groundtruthed and recorded for formal coordination with the appropriate regulatory agencies and compensatory mitigation will be provided, as required.

e. Outstanding Florida Waters: The project is within an existing active rail corridor and although not anticipated, the study will evaluate potential impacts in this category.

f. Aquatic Preserves: The project is within an existing active rail corridor, and although not anticipated, the study will evaluate potential impacts in this category.

g. Coastal Zone Consistency Determination is Required? __X__ Yes ___ No

h. Cultural Resources: A Cultural Resource Survey will be conducted as part of this study. Prior studies indicate that National Register sites are located within the corridor. As part of this study, further review from the National Register of Historic Places (NRHP) and the Florida Master Site File will be conducted to identify all recorded and potential historic resources and archaeological sites within the project study area that are listed, determined eligible, or considered potentially eligible for listing in the NRHP. Coordination with the State Historic Preservation Officer will occur as part of this study.

i. Coastal Barrier Resources: None.

j. Contamination: A database search will be conducted to identify registered sites that have the potential for petroleum or hazardous material contamination due to the nature of historical activities at the sites. Databases compiled and maintained by both the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency (EPA) will be used during this study.

k. Sole Source Aquifer: The Volusia-Floridan Aquifer is located adjacent to or just within the northern reaches of the existing active railway. The project study will evaluate the drinking water sources and will outline a plan to protect these sources in accordance with the Clean Water Act and the EPA's Best Management Practices as necessary.

l. Noise: A noise and vibration analysis for the proposed project will be conducted as part of this study.

m. Other Comments: An air quality evaluation will be conducted to assess impacts relating to both transit and construction activities associated with the proposed project.

4. Navigable Waterway Crossing? __X__ Yes ____ No

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FINANCIAL IDENTIFICATION NUMBER: 412994-2-22-01

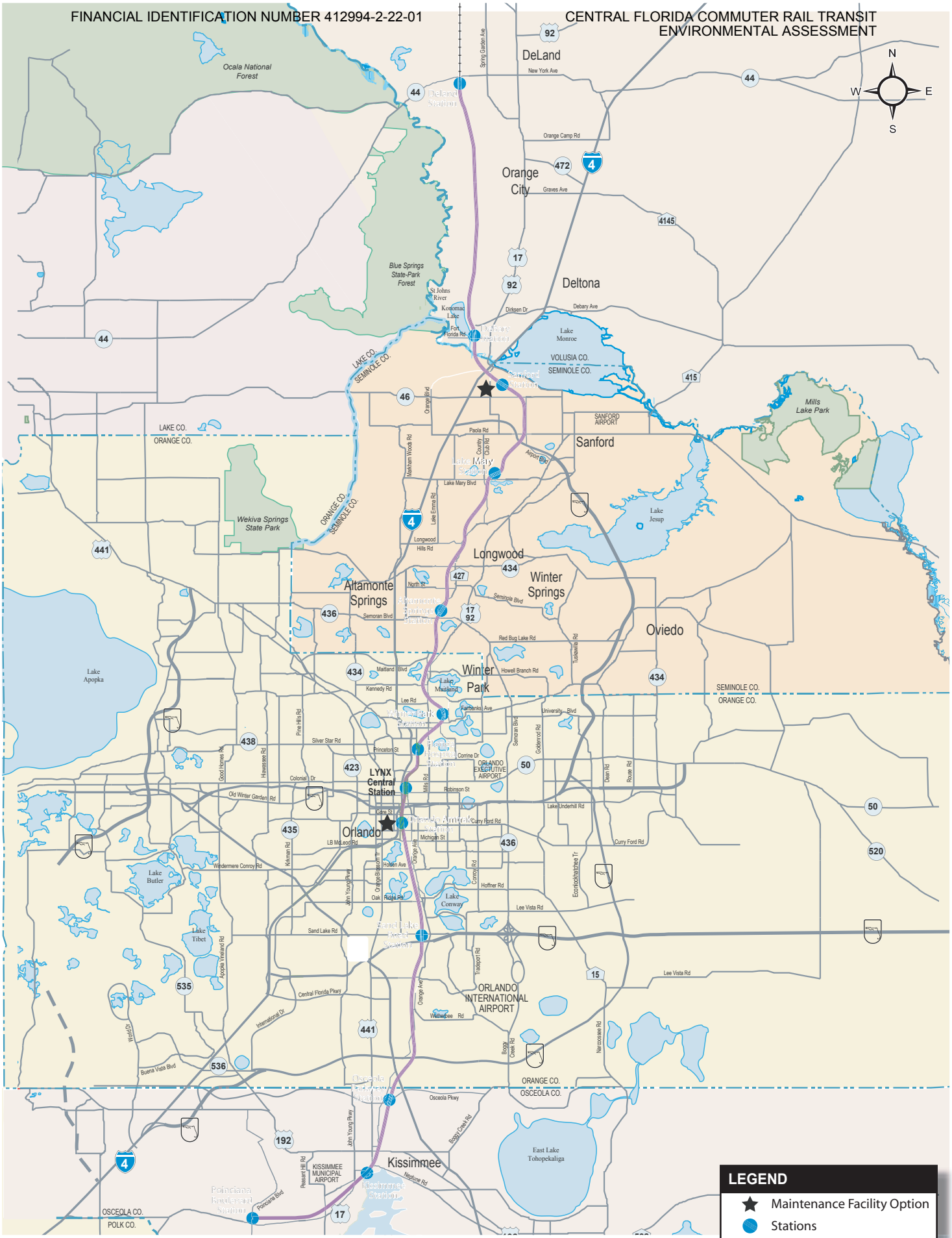
A determination will be made later in the project study under 23 CFR 650, Subpart H, Section 650.825 regarding whether or not a U.S. Coast Guard Permit is required. The project will use the existing railway bridge crossing at the St. Johns River, and the project is not planning a new bridge crossing.

5. **List Permits Required:** The need for permits will be identified as part of this study. The potential for Environmental Resource Permits from the St. Johns River Water Management District and South Florida Water Management District, Nationwide Permit and/or Individual Permit from the Army, Corps of Engineers, Incidental Take Permit (ITP) / Relocation Permit from the Florida Fish and Wildlife Conservation Commission, Habitat Conservation Plan / ITP / Biological Opinion from the U.S. Fish and Wildlife Conservation Commission, and other permit requirements will be determined during this study.

PROPOSED COMMUTER RAIL ALIGNMENT & STATION LOCATIONS

FINANCIAL IDENTIFICATION NUMBER 412994-2-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT
ENVIRONMENTAL ASSESSMENT



APPLICATION FOR FEDERAL ASSISTANCE

	2. DATE SUBMITTED January 28, 2004	Applicant Identifier FPN 412994-2-22-01
1. TYPE OF SUBMISSION Application: X Construction ☐ Non-Construction; Preapplication: ☐ Construction ☐ Non-Construction	3. DATE RECEIVED BY STATE	State Application Identifier
	4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

5. APPLICANT INFORMATION

Legal Name: Florida Department of Transportation	Organizational Unit:: Office of Design State Transportation Planners Office
Address (give city, county, state, and zip code): 605 Suwannee Street Tallahassee, FL 32399-0450 Leon County	Name and telephone number of the person to be contacted on matters involving this application (give area code) Bob Gleason (386) 943-5390
6. EMPLOYER IDENTIFICATION (EIN): 59-6001874	7. TYPE OF APPLICANT: (enter appropriate letter here) A A. State H. Independent School District B. County I. State Controlled Institution of Higher Learning C. Municipal J. Private University D. Township K. Indian Tribe E. Interstate L. Individual F. Intermunicipal M. Profit Organization G. Special District N. Other (Specify):
8. TYPE OF APPLICATION: X New ☐ Continuation ☐ Revision If Revision, enter appropriate letter(s) in box(es): A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other Specify:	9. NAME OF FEDERAL AGENCY: US Department of Transportation - FTA
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER 20-500 TITLE: Federal Transit Capital Gains Investment Grants	11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Financial Identification Number: 412994-2-22-01 Advance Notification for the Rail Transit Environmental Assessment and Design Services Central Florida Commuter Rail Transit Volusia, Seminole, Orange and Osceola Counties, Florida
12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.): Volusia, Seminole, Orange and Osceola Counties. Cities of DeLand, DeBary, Orange City, Sanford, Lake Mary, Longwood, Casselberry, Altamonte Springs, Eatonville, Maitland, Winter Park, Orlando, Edgewood, Belle Isle and Kissimmee	

13. PROPOSED PROJECT:		14. CONGRESSIONAL DISTRICT OF: 3, 7, 8, 15, 24
Start Date	End Date	a. Applicant: b. Project State Wide
11/15/04	11/15/05	

15. Estimated Funding:		16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESSES FOR REVIEW ON: January 11, 2005 DATE b. NO. X PROGRAM IS NOT COVERED BY E.O. 12372 X OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
a. Federal	$166,000,000	
b. Applicant	$	
c. State	$ 83,000,000	
d. Local	$ 83,000,000	
e. Other	$	
f. Program Income	$	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? ☐ Yes If "Yes" attach an explanation. X No
g. TOTAL	$332,000,000	

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Typed Name of Authorized Representative: Bob Gleason	b. Title: District Environmental Administrator	c. Telephone Number: (386) 943-5390
d. Signature of Authorized Representative Bob Gleason		e. Date Signed 1/26/05

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4770 Buford Highway, NE
EEHS/CDB (F-16)
Atlanta, GA 30341-3724

Chief, Review Unit, U.S. Geological Survey Chief
U.S. Department of Interior
Environmental Affairs Program
12201 Sunrise Valley Dr,
MS 423, Rm 2D318
Reston, VA 22092-9998

Director, Bureau of Land Management
U.S. Department of Interior
Eastern States Office
411 Briarwood Drive, Suite 404
Jackson, MS 39206

National Park Service
U.S. Department of Interior
Southeast Regional Office
100 Alabama St., S.W., 1924 Bldg
Atlanta, GA 30333

Regional Administrator
U.S. Environmental Protection Agency, Region IV
61 Forsyth St., S.W.
Atlanta, GA 30303

The Honorable Bill Nelson
U.S. Senator
United State Senate
716 Hart Senate Office Building
Washington, DC 20510

Commander (obr) - Eighth District
US Coast Guard
Hale Boggs Federal Building
500 Camp Street
New Orleans, LA 70130-3396

Mr. Art Meinke
Federal Security Director
US Department of Homeland Security
Transportation Security Administration
5850 T. G. Lee Blvd, Suite 610
Orlando, FL 32822

Chief, Environmental Services Staff
US Department of Interior
Bureau of Indian Affairs
Interior Bldg, Rm 4560
18th and C Streets, NW
Washington, DC 20245-0001

Southeast Regional Office
US Department of Interior
National Park Service
100 Alabama Street, SW
Building 1924
Atlanta, GA 30333

Ms. Lois Hill
Program Manager
U.S. Environmental Protection Agency
Groundwater/Drinking Water Division
61 Forsyth Street, S.W.
Suite 16T20
Atlanta, GA 30303

The Honorable Mel Martinez
U.S. Senator
United State Senate
524 Hart Senate Office Building
Washington, DC 20510

Commander (oan) - Seventh District
US Coast Guard
Brickell Plaza
900 SE First Avenue
Miami, FL 33131-3050

Director, Ecology and Conservation Office
US Department of Commerce
National Oceanic and Atmospheric Administration
14th Street and Constitution Avenue, NW
US/EC Room 6222
Washington, DC 20230-1301

Regional Environmental Officer
US Department of Housing and Urban Development
Richard B. Russell Federal Building
75 Spring Street, S.W.
Atlanta, GA 30303

Director
US Department of Interior
Eastern States Office
Bureau of Land Management
411 Brairwood Drive, Suite 404
Jackson, MS 39206

Mr. Carl Goodwin
Florida Water District Chief
US Department of Interior
US Geological Survey
9100 N.W. 36th Street, Suite 107
Miami, FL 33178

Ms. Alanna Conley
Groundwater Protection Branch - Region IV
US Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, GA 30303

Regional Administrator - Region IV
US Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, GA 30303

Mr. John Cheney
Traffic Engineer
Volusia County
Planning Department
123 W. Indiana Avenue
DeLand, FL 32720-4619

Ms. Mary Anne Connors
Director
Volusia County
Public Works
123 W. Indiana Avenue
DeLand, FL 32720-4619

Sheriff Ben Johnson
Sheriff
Volusia County
PO Box 569
DeLand, FL 32721

The Honorable Joie Alexander
County Council - At Large
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

The Honorable Frank Bruno
County Council - District 2
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

Ms. Cynthia A. Coto
County Manager
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

The Honorable Jack Hayman
County Council - District 3
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

The Honorable Joseph C. Jaynes
County Council - District 4
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

The Honorable Dwight Lewis
County Council / County Chair - District 1
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

The Honorable Bill Long
County Council / Vice Chair - District 5
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

The Honorable Patricia Northey
County Council - At Large
Volusia County Government
Thomas C. Kelly Administration Center
123 W. Indiana Avenue
DeLand, FL 32720

Chief James G. Tauber
Director and Fire Chief
Volusia County Government
123 W. Indiana Avenue
DeLand, FL 32720-4619

Ms. Judy L. Andersen
Board Member, District No. 3
Volusia County Schools
6217 Coquina Circle
Port Orange, FL 32127

Mrs. Victoria L. Bumpus
Board Member, District No. 5
Volusia County Schools
1400 Sonnet Court
Deltona, FL 32738

Ms. Judith G. Conte
Chairman, District No. 4
Volusia County Schools
40 Nicholas Court
Ormond Beach, FL 32176

Ms. Candace Lankford
Vice-Chairman, District No. 1
Volusia County Schools
330 Lake Winnemissett Drive
DeLand, FL 32724

Mr. Earl C. McCrary
Board Member, District No. 2
Volusia County Schools
122 Harney Street
Daytona Beach, FL 32114

Dr. Margaret A. Smith
Superintendent
Volusia County Schools
PO Box 2118
DeLand, FL 32721-2118

Mr. Ken Fischer
General Manager
VOTRAN
Volusia County Public Transit System
950 Big Tree Road
South Daytona, FL 32119-8815

Ms. Stina D'Uva
President
West Orange Chamber of Commerce
12184 W. Colonial Drive
Winter Garden, FL 34787

Mr. Sam Stark
President and CEO
Winter Park Chamber of Commerce
150 N. New York Avenue
PO Box 280
Winter Park, FL 32790

APPENDIX I

UTILITY CONTACT INFORMATION

APPENDIX I – UTILITY CONTACT INFORMATION

I.1 Television

Adelphia Cable Communications (Formerly Telesat Cablevision, Inc.) (Formerly Tele-Media) *__Authorized to sign Agreements for all non-real estate issues__ ***Send ltr to Dan w/ agreements copy in Mr. Walker w/ letter***	4305 Vineland Road Suite G-2 Orlando, FL 32811	>	**Eric Jay** **Construction Supervisor** For Locates, call Uncle Bob Faveau, Fld. Coord. Bill Nimmons, Const. Mgr. Ted Johnson	(407) 422-3961 1-800-432-4770 (407) 422-3961 ext. 409 Fax: 843-6419
American Cablevision Services, Inc. **(Formerly Poinciana New Township, Inc.)**	4100 Pleasanthill Rd. Poinciana, FL 34759	>	**Rick Leible**	(407) 933-5308
Bright House Networks, LLC **(Formerly Orange/ Seminole/Osceola Cablevision) (Formerly TCI/TKR)**	844 Maguire Road Ocoee, FL 34761	>	**Marvin Usry,** **Construction Supervisor** **P.J. King,** **Construction Manager** **Mark Mendoza,** **Const. Coordinator** **Tom Aycock, Field Engr.**	(407) 532-8509 Fax: 656-1162 (407) 532- 8508 pgr: 763-8845 (904) 578-0979
(Formerly Kissimmee Cable TV)	P.O. Box 361016 720 Magnolia Avenue (overnight) Melbourne, FL 32935	>	**Robert Sell** **Director/Engineering** **Sue - Call for meetings** **Rich Briel-Melbourne** **Tim Callahan-PAFB to Brevard Co. Line**	(321) 254-3326 Ext. 306
Com-Cast Commun. **(Affiliate of Scripps Howard Cable TV, Inc.) (Formerly Leesburg Cablevision)** **(Formerly Lake Co. Cablevision, Inc.)**	8130 CR 44, Leg A Leesburg, FL 34788	>	**Danny Ferguson** **Project Engineer** **Ed Cannon** **Utility Coordinator**	(352) 728-8757 Ext. 155 Ext. 156 Fax: 365-6279
Debary Cable **(Formerly TW Cable Sub. of Lake County Cable)**	P.O. Box 26 7 US Highway 17/92 (overnight) DeBary, FL 32713	>	**Glen Burdick**	(407) 668-8689
Time Warner AXS	2301 Lucien Way, Suite 300 Maitland, FL 32751	>	**Dick Aldous** **cc: Kim Fosky**	(407) 667-6876 Fax: 667-6801

Time Warner Comm. (Cont.) (Formerly Hunter's Creek Cablevision)	360 S. Monroe Street Denver, CO 80209 Corporate Programming 290 Harbor Drive Stamford, CT 06902		**Monroe Riskin, President**	

I.2 Power

Florida Power Corporation d/b/a Progress EnergyFlorida Inc.	3300 Exchange Place MAC NP 3B Lake Mary, FL 32746	>	**Rosemary Gruenbaum Liaison Specialist** Jeannie Rodgers Daniel Hendricks Patsy Reagan Tom Harrison Jim Crews, Mgr/Trans. Jim Bent Carol Hagenau Paul Morin, Land Agent Jorge Oviedo	(407) 942-9471 Fax: 407-942-9233 ext 9215 ext 9455 ext 9546 (407) 475-2234 (407) 475-2247 Mobile: (407) 491-8794 (407) 942-9286
Kissimmee Utility Authority **Overnight Address:**	P.O. Box 423219 Kissimmee, FL 32741 1701 W. Carroll Street Kissimmee, FL 34741	>	**Ken Davis, Plan. Eng. Dept.** **Ken Lacky, Mgr. of Oper.** **James C. Walsh, Gen Mgr.** **Johnny Williamson, Supservisor Construction** **Joe Johnson, Plan. Coord.**	(407) 933-7777 ext. 1210 ext. 6654 ext. 6105 ext. 6654
Orlando Utilities Commission (E) ***When contacting OUC need to be sure to send a set of plans to Lighting Division**	500 S. Orange Ave. Orlando, FL 32802	>	**Ivette Sanchez Sr. Project Coordinator** **Don Manley** **Kenneth S. Chaney, Jr. Engineer Underground** **B. Keith Mutters, Dir. Of Engr.** **Chris Taylor**	(407) 236-9651 Fax: 236-9628 (407) 384-4030 Fax: 384-4126 (407) 384-4100 (407) 737-4299 (407) 737-4294 FAX (407) 384-4126

	PO. Box 3193- 32802 6003 Pershing Ave., Suite 163 (overnight) Orlando, FL 32822 Send all Subordinations		**Chuck Easterling** **Scott Poe** **Jill Connor** **Vernon Ford** **Byron Knibbs** **Rick Parker**	(407) 384-4011 (407) 384-4100 Fax: 384-4126 (407) 384-4027 Fax: 737-4233 (407) 423-9157
St. Cloud Electric Utility	2901 17th Street St. Cloud, FL 34769	**>**	**Mohsen T. Faraji**	(407) 957-7290

I.3 Telecommunications

AT&T, Corp.	1717 S. Apopka Vineland Rd Orlando, FL 32835	>	**Richard Kaleta** **Operations Supervisor**	(407) 294-3005
Local services: (Formerly Teleport Communications)	1151 N. Keller Rd, Suite C Orlando, FL 32810		For Locates: **Henry Gomillion** **Howard Zachman**	(800) 252-1133 (407) 563-0016 Fax: 563-7243
Field Office (P.E.A.)	5422 Carrier Drive Suite 203 Orlando, FL 32819	>	**Bobby Wadley** **Outside Plant Engineer**	(407) 248-3445
AT&T Consultant PEA of Florida	5422 Carrier Drive, #309 Orlando, FL 32819		**Kenny Wagner**	(407) 248-3445
AT&T Corp. Continued	1200 Peachtree Street Atlanta, Ga 30309	>	**Peggy Womack - AT&T** **Manager - R/W SME**	(404) 810-4491
Engineering, Design & Construction	888 S. Greensville Ave, Suite 107 Richardson, TX 75081	>	**cc: Gary Hollman** **Regional Project Manager**	(904) 758-1991
Orange & Seminole Counties Orange City & DeBary	450 N. Golden Rod Rd. Orlando, FL 32807	>	**Jim Farrell, Proj. Mgr.**	(407) 273-5084 Fax: 277-7241
Sanford	132 Commerce Way Sanford, FL 32771	>	**cc w/ cover letter only:** **Gaines Spivey** **(407)area codes in Vol. Co**	(407) 327-0530
	P.O. Box 2949 500 N. Orange Ave. (overnight) Orlando, FL 32801		**Jim Reib** **Cindy Miller** **Terry Hamm** **Brenda Correa** **Mercedes Sutton** **Rich Mindrum**	(407) 208-3048 ext. 3045 ext. 3043 ext. 3000 (407) 351-8192 (407) 282-3151 Fax: 277-7241

Epik Communications (Formerly Florida East Coast Telecom, Inc. (FEC Telecom, Inc.)	3501 Quadrangle Blvd., Suite 225 Orlando, FL 32817	>	**Richard Gibson OSP Engineer**	(407)472-8205 cell 321-229-4818
Florida Fiber Network	610 Cresent Executive Ct.Lake Mary, FL 32746	>	**Bob Bowman (I-95 & Turnpike) Buster Red (I-4 & I-75)**	(407) 804-6399 Fax: 804-6363
Level 3 Communications LLC	1025 El Dorado Boulevard Broomfield, CO 80021	>	**Brad Wilcox Program Manager**	(720) 888-5684
	380 Lake Destiny Drive Orlando, FL 32810		**Michael Nicol Contact him for informational purposes only**	(407)754-0106 Fax (407)310-0493
Martin Marietta	See Intermedia Comm.			
MCI Metro	2250 Lakeside Drive Richardson, Texas 75081	>	**Michael Warner Utility Prod. Coord.**	(352) 624-0489 Fax: 624-2667
MCI Worldcom (Brooks Fiber Properties, Inc., MCImetro Access Transmission Services LLC, MCI Telecommunications Corporation, MFS Telecom, Inc, SouthernNet, Inc., Worldcom Network Services, Inc., Intermedia Communications)	2400 N. Glenville, MD-C 3115 Richardson,TX 75082	>	**Dean Boyers(plans/urs) National Support/ Investigations Dept.**	(972) 729-6322 (972) 729-5005
		>	**cc: agreements only Kay Parsons, Agreement Specialist**	
(Outside Plant Dept.)	270 Ellison Road Baldwin, FL 32234		**Cecil Livingston, Mgr South FL Field Services**	
	2250 Lakeside Boulevard Richardson, TX 75082		**Michelle Hanson Joe Brattick Jackie Hall, Contract Specialist Donna Pruett**	(972) 656-5952 (972) 656-6005 Fax: (214) 918-1327
Lake, Sumter, Brevard, Seminole, Orange & Osceola Counties	69 W. Concord Street Orlando, FL 32801		**Chris Bourland Outside Plant Project Mgr**	(407) 841-4226 Fax (407) 425-6821 (561) 820-8949
			Kevin Honeycutt (For informational purposes only)	
MicroFiber Systems (MFS)	1060 Maitland Center Commons Suite 100 Maitland, FL 32151	>	**Nick Agistino**	(407) 667-7862 Fax: 660-8313
Orlando Business Telephone Systems, Inc.	4558 SW 35th Street, Suite 300 Orlando, FL 32811	>	**Paul Case Asst. Proj. Manager Direct line:**	(407) 843-9000 Fax: 996-8901 (407) 996-1183

Sprint-Florida, Inc.	P.O. Box 490049 425 N. 3rd Street (overnight) Leesburg, FL 34749-0048		**For Locates** **Patrick O'Grady** **Dir. - Consumer Market**	1-800-432-4770 (352) 326-1177
Winter Garden District (West Kissimmee Area)	P.O. Box 770339 - MC-3413 33 North Main Street Winter Garden, FL 34777	>	**Mike Shell** **Engineering Manager** **Wade Rich** **Henry Bowlin**	(407) 814-5375 ext. 5386 ext. 5385
Winter Park District Volusia, East Orange & Seminole Counties	Mail Code FLALTH0101 P.O. Box 153000 952 First Street, Bldg. C Altamonte Springs, FL 32715-3000	>	**Carlos Palenzuela** **Manager of Eng/Construction** **Richard Kennedy** **Paul McKenna, Senior Egr** **Jay Hall** **Engineer (Orange City Area)** **Charlie Crimm**	(407) 830-3404 ext. 3428 ext. 3266 (407) 889-6778 Fax: 260-2683
Sprint Communications Company LP d/b/a Sprint Metro (CC: FOR ALL SFI'S CORRESPONDENCE) (formerly known as US Sprint Communications Company LP)	P.O. Box 162922 Altamonte Springs, FL 32716-2922	>	**Robert Sawdy** **Senior Engineer**	(407)889-1264 Fax: 884-1264 cell: (407) 616-7307
Sprint Long Distance Division (Formerly US Sprint Comm. Co)	10 E. Drury Avenue Kissimmee, FL 34744	>	**Steve Thompson** **Senior Engineer**	404-649-2355 (407) 932-1560 P: (800) 795-7243 #8778050
Overnight Mail Address:	418 E. Broadway Kissimmee, FL 34741		**For Locates:**	(800) 521-0579
Time Warner Telecom of Florida L.P. City Greenwood Village County of Araphoe	2301 Lucien Way, Suite 300 Maitland, FL 32751	> >	**Ms. Tina Davis, (Colorado)** **Bill Shepard (Orlando)** **Dick Aldus**	1800-565-8982 ext. 127 (407) 215-0000 Fax: 214-6803
WilTel Business Network Group East	69 West Concord Street Orlando, FL 32801		Timothy Cole OSP Project Manager	(407) 841-4226

I.4 Sewer

Department of Corrections Volusia Correctional Institution (Sanitary Forcemain)	130 W. New York Ave. DeLand, FL 32720	**>**	**Terry Moore (Admin.)**	(386) 736-2700
Florida Governmental Utilities Authority	871 Towne Center Drive Kissimmee, FL 32759	**>**	**Larry Good, Operations Manager (URS, Plans, etc.)**	(407) 933-5302

(Poinciana Utilities, Inc.)	614 Wymore RoadWinter Park, FL 32789	**>**	**Charles Sweat, Dir. of Oper. (Agreements Only) Rick FeldmanJohn Pelham**	(850) 629-6900850-222-3533
Kissimmee, City of	See Municipalities			
Orange County Utilities (W/S) (For Utilities Plans Work) **Lighting Issues**	109 E. Chruch Street, Suite 300 Orlando, FL 32801 4200 South John Young Parkway Orlando, FL 32839-9205	> >	**J. Andres Salcedo, P.E.,** **Chief Engr., Mgr of Projects** Daniel Allen, Mgr of Engineering Division (Andres's Boss) Michael Chandler, Director of Utilities (Daniel's Boss) Ajit Lalchandanei, P.E., County Administrator (Michael's Boss) Secretary Stan Keely, Deputy Dir. Public Utility Allen Ispass, Director W/S Robert D. Teegarden, Staff Engineer Jose Hernandez **Mark Massaro** **Deputy Director**	(407) 836-7250 Fax: 836-5379 (407) 836-7270 (407) 836-7230 ext. 7212 (4078) 836-7201 Fax (407)836-5379 (407) 836-7201
(For Right of Way Issues) Title Search Info, Subordinations, Deed, etc.	Real Estate Management Dept. 400 E. South Street - 5th Floor Orlando, FL 32801		**Ann Caswell** **Assistant Manager** Sabrina Miller - Acquisition Agent	(407) 836-7082 Fax: 836-5969 (407) 836-7076
For Right of Way Issues Orlando/City of	5100 L.B. McLeod Road Orlando, FL 32811		Allen Oyler Joe Wright	(407) 246-2213 246-2670
Osceola Service Co. (W/S)	**See Florida Community Service Corp.**			
South Seminole/North Orange County Waste Water Transmission Authority	P.O. Box 941837 410 Lake Howell Road (overnight) Maitland, FL 32794-1837	>	**Steve Miller, P.E.** **Executive Director**	(407) 628-3419 Fax: 628-0153
Utilities Inc of Florida (Formerly Sanlando Utilities)	P.O. Box 160609 Altamonte Springs, FL 32716-0609	>	**Andrew Dopuch** **Vice President**	(407) 869-1919

I.5 Water

Alayafa Utilities	200 Weathersfield Avenue Altamonte Springs, FL 32714	>	**Scott Haws** **Operations Manager**	(407) 869-1919 Fax: 869-6961
Econ Utilities	2200 N. Park Avenue Winter Park, FL 32789	>	**D.W. McIntosh, P.E.** **President**	(407) 644-4068 or 568-2113
Kissimmee, City of	See Municipalities			
Maitland Utilities, Corp.	See Central V Utilities Corp.			
Midway Canaan Community Water Users Association	2361 Jitway Avenue Sanford, FL 32722	>	**Willie J. Merkerson (h)** **James Bird, Vice President**	(407) 323-0759 321-3603
Orange County Utilities	See Sewer Section			
Orlando Utilities Commission (Water) & (Chilled Water) ***When contacting OUC need to be sure to send a set of plans to Lighting Division**	P.O. Box 3193 500 S. Orange Ave. Orlando, FL 32802	>	**Ivette Sanchez** **Sr. Project Coordinator** **Ray Boyd** **Mgr of Water Operations** **Cliff Russell** **Director of Resources** **Rick Parker-Subordinations**	(407) 236-9651 Fax: 236-9628 (407-423-9157
Orlando Utilities Commission Water (Cont)	3800 Gardenia Ave. Orlando, FL 32839	>	**Ed UpChurch** **Manager Water Engineer** **Mark White** **Rick Pager** **R/W Real Estate Dept** **Rick Winn, Engineer** **Keith Browning**	(407) 649-4415 Fax: 649-4420 649-4475 (407) 423-9100 ext. 157 649-4487
Seminole County Environmental Services	See Sewer Section			
S. Seminole/ N. Orange Co. Wastewater Trans. Authority	See Sewer Section			
Taft Water Assoc., Inc.	1129 E. Pine Street Orlando, FL 32824	>	**Bob Cumby** **Plant Manager**	(407) 855-8712

I.6 Gas

Amerigas Propane Company	2812 Silver Star Rd. Orlando, FL 32808	>	**Mike Hale, Service Mgr** Laura Hebert	(407) 293-6644 Fax: 299-7190
Florida Gas Transmission (Subsidiary of Enron)	P.O. Box 945100 (32794-5100) 601 S. Lake Destiny Dr., Suite 450 (overnight) Maitland, FL 32751	>	**Joe Sanchez** **Engineering Technologist** **Ken Gasaway** **David Runtie**	(407) 838-7171 Fax: 875-5896 (407) 838-7365 (407) 838-7123 (407) 810-0848 (Cell)
Florida Public Utilities Co. (bought So. Fl Natural Gas Co.)	450 S. Charles Richard Beall Blvd. DeBary, FL 32713-9703	>	**Dan Scribben** **Senior Engineer**	(386) 668-9319 Fax: 668-2718 For Locates: 1-800-432-4770
TECO Peoples Gas (Formerly Peoples Gas System, Inc.) (Formerly West Florida Natural Gas Company) (Formerly Gulf Natural)	600 W. Robinson Street Orlando, FL 32801	>	**Russell Harris** **Operations Manager** **Dick Lodgen, Mngr of Ops** **Carlos Quintana** **Bruce Stout** **Dennis Maschinot**	(407) 420-6608 Fax: 839-0768 1-888-228-1150 ext. 243 ext. 2678

I.7 Municipalities

Altamonte Springs, City of (Seminole County) (W/S)	225 Newburyport Avenue Altamonte Springs, FL 32701	>	**John Peters, III** **Director of Public Works** Mac Richter Phil Penland, City Mgr. Victoria Bogle, Utility Coordinator Patsy Wainright, City Clerk Roger Densberger, Const. Mngr Tom Helgeson, City Engineer Dan Goodling	(407) 830-3857 Fax: 263-3790 (407) 830-3920 (407) 830-3860 (407) 830-3857 (407) 830-3863 (407) 571-8346
Casselberry, City of (Seminole County) (W/S)	P.O. Box 180819 (32718) 95 Triplet Lake Drive (overnight) Casselberry, FL 32707	>	**Tony Segreto** **Director of Public Works**	(407) 262-7725 ext. 1233 Fax: 831-6114
DeBary, City of	137 S. Highway 17/92 DeBary, FL 32713	>	**Robert Mauney, City Manager**	

DeLand, City of (Volusia County)	336 W. Michigan Avenue Deland, FL 32720	>	**Keith D. Riger, P.E.** **City Engineer** **David C. Rigsby, Mayor** **Wayne Sanborn, City Mgr.** **Clarence Davenport** **Director of Public Works**	(386) 740-5813 Fax: 736-8494
Deltona, City of	2345 Providence Blvd. Deltona, FL 32725	>	**Fritz Behring** **City Manager**	(386) 561-2100
Eatonville, Town of (Orange County) (W/S)	P.O. Box 2163 307 E. Kennedy Blvd. (overnight) Eatonville, FL 32751	>	**John Pardesi** **Director of Public Works** **Mr. A.E. O'Neall, City Engineer** **Jay Andrews**	(407) 623-1160 ext. 1313 ext. 1616
Kissimmee, City of (Osceola County) (W/S)	101 N. Church St., Suite A Kissimmee, FL 34741-5054	>	**Brian Wheeler** **Director Water Res. Dept** **Robert Pelham** **Asst. Dir. of Engr/Admin.** **Don Smallwood, Legal Dept.** **Sandy Yeager, Legal Dept.** **George Mann, Director** **Lawrence Clough, Assit. Director** **David Derrick, Assit. Director**	(407) 518-2160 Fax: 847-7945 ext. 2253 ext. 2311 ext. 2309
Lake Mary, City of (Seminole County) (Water)	P.O. Box 950700 100 N. Country Club (overnight) Lake Mary, FL 32795-0700	>	**Rick Diaz, P.E.** **Director of Public Works** **David Mealor, Mayor**	(407) 324-3023 (407) 324-3017
Lake Monroe (Seminole County)	P.O. Box 300 Lake Monroe, FL 32747			
Longwood, City of (Seminole County) (W/S)	175 W. Warren Avenue Longwood, FL 32750	>	**Christopher Murphy** **City Engineer** **Richard Kornbluh**	(407) 263-2383 (407) 831-6175
Maitland, City of (Orange County) (W/S)	1776 Independence Lane Maitland, FL 32751	>	**Tony Leffin, P.E.** **Director of Public Works** **Phyllis J. Holvey** **City Manager** **Bobby J. Dobbs** **Water Division Supervisor**	(407) 539-6216 (407) 539-6220 ext. 206

Orlando, City of (Orange County) (Storm-water) (Waste-water)	400 S. Orange Avenue Orlando, FL 32801	>	**Rick Howard** **City Engineer**	(407) 246-3232
	5100 LB McLeod Road Orlando, FL 32811		**George Kirby, Engineer** **Allan Oyler** **Joe Stokes, Survey Info** **John Lomberk, WW Engineer** **Walter Moss**	(407) 246-2547 (407) 246-2261 (407) 246-2213 (407) 246-3824
	P.O. Box 3193 Orlando, FL 32802 SEND ALL SUBORDINATIONS TO		**Rick Parker**	(407) 423-9157
Sanford, City of (Seminole County)	P.O. Box 1788 300 North Park Ave. (overnight) Sanford, FL 32778	>	**Paul Moore** **Utility Director** **William Simmons, City Manager** **Bill Simmons, City Engineer**	(407) 330-5640 (407) 330-5604
St. Cloud, City of (Osceola County) (E/W/S)	1300 9th Street St. Cloud, FL 34769	>	**Paul G. Kaskey** **City Manager** **Mark Luthie, City Engineer**	(407) 957-7300 fax# (407) 957-7385
Public Works Department	2901 17th Street St. Cloud, FL 34769		**Todd Petrie**	(407) 957-7265
	P.O. Box 3193 Orlando, FL 32802 SEND ALL SUBORDINATIONS TO	>	**Rick Parker**	(407) 423-9157
Winter Park, City of (Orange County)	401 Park Avenue South Winter Park, FL 32789-4386	>	**Jim English** **Director of Public Works** **James S. Williams, City Manager** **Richard Harry** **Senior Utility Technician** **Robert Wiseman, P.E.** **Design Engineer** **Ed Bevers, Subordinations** **Troy Attaway**	(407) 599-3240 Fax: 599-3417 (407) 599-3294 (407) 599-3243 (407) 599-3242

I.8 Counties

Orlando Orange County Expressway Authority	525 S. Magnolia Ave. Orlando, FL 32801 Post Buckley Shue & Jernigan	>	**Ben Dreiling** **Tom Miller**	(407) 647-7275 ext. 157
Orange County (Utilities)	(See Sewer Section)		**John Hatcher, Sr., Permits** **Tom Locker, Comptroller**	(407) 836-7920 836-5690 Fax: 836-7999
Engineering (Lighting Only)	4200 S. John Young Pkwy Orlando, FL 32839-9205	>	**Mark Massaro**	
Traffic & Hwy Construction	4200 Whitcomb Avenue Orlando, FL 32809		**Roger Smith**	(407) 836-7831 Fax: 836-7825
Osceola County Roads Department (Public Works - Rm 254)	1 Courthouse Square - Suite 1100 Kissimmee, FL 34741	>	**Chris Crowe County Engineer** **Howard Russell Director of Public Works** **Donald Lepic, P.E.**	(407) 847-1260
Seminole County Environmental Services	500 W. Lake Mary Blvd. Sanford, FL 32773-7499	>	**J. Dennis Westrick, P.E. PEI Manager** **Ruth Lala, Utility Manager Warren Wagner Dir. Environmental Science J.R. Ball, Asst. County EgrHugh Sipes - Utility Engineer**	(407) 665-2040Fax: 665-2125 407-665-2117
Seminole County (continued) For Subordinations:	520 W. Lake Mary Blvd. Suite 200 Sanford, FL 32773	>	**Charles F. Barcus, Program Mgr, Right-of-Way** **Warren Lewis - R/W Agent** **Jerry McCollen - County Engineer**	(407) 665-5661 Fax: (407) 665-5772 (407) 665-5658 ext. 5651
Engineering Dept.	140 Bush Loop Sanford, FL 32773		**Troy VanDerworp Acting Public Works Dir.** **Robert Zaitooni, P.E. County Traffic Engineer**	(407) 323-2500 ext. 5602
Board of Commissioners (Government)	1101 E. First Street Sanford, FL 32771			
Volusia County Roads Department	123 W. Indiana Avenue DeLand, FL 32720-4262	>	**Charles Jensen Utility Engineer** **Karen Monroe** **Maryanne Connors Dir. Water/Utility**	(386) 943-7027 ext. 3287 ext. 2206 ext. 2724 Fax: 740-5162 cell-717-5015

APPENDIX J

FDOT-CSXT MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING (MOU)
by and between
CSX TRANSPORTATION, INC.
and
FLORIDA DEPARTMENT OF TRANSPORTATION
for the
ENVIRONMENTAL ASSESSMENT OF A PORTION OF
CSX TRANSPORTATION, INC.'S "A" LINE
for the
CENTRAL FLORIDA COMMUTER RAIL TRANSIT SYSTEM

WHEREAS, the State of Florida Department of Transportation (hereinafter referred to as FDOT) has undertaken and completed an Environmental Assessment pursuant to a Scope of Services dated November 10, 2004 (hereinafter referred to as EA) associated with a 61- mile portion of rail line that may be acquired for commuter rail transit running from DeLand in Volusia County to Poinciana in Osceola County, and

WHEREAS, the FDOT is in the process of making application to the Federal Transit Administration (hereinafter referred to as FTA) and Congress for capital funds, commonly referred to as New Starts funding to provide a portion of the funds necessary for the planning, design, right-of-way acquisition, construction, and operation of the proposed commuter rail service, and

WHEREAS, the FDOT and the project sponsors, including Orange, Seminole, Osceola and Volusia Counties, have been working to secure local funding for portions of the capital and operating expenses of the Central Florida Commuter Rail Transit System, and

WHEREAS, the FDOT has programmed funds for a portion of the capital cost and initial operating costs of the Central Florida Commuter Rail Transit System, and

WHEREAS, the Central Florida Commuter Rail Transit System is contained in the Year 2030 Metroplan Orlando's *Orlando Urban Area Transportation Study* "Financially Constrained Network," and

WHEREAS, in December 2004, at FDOT'S request, CSX Transportation, Inc. (hereinafter referred to as CSXT) officials and FDOT executives discussed a Strategic Plan, that contemplated designating a portion of the "A" line as primarily for passenger service, and the "S" line to the west of central Florida and in the middle of the state, for freight service, and

WHEREAS, this shift is to complement the strategic location of "intermodal rail villages" most notably in the Lakeland/Auburndale area, and

WHEREAS, the FDOT intent is to encourage CSXT to gradually shift certain freight trains on the portion of the "A" line under consideration over to the "S" line, as capacity

improvements are made to the "S" line and as passenger use increases on the portion of the "A" line so acquired, and

WHEREAS, in support of the CSXT Strategic Plan and the Central Florida Commuter Rail Transit (hereinafter referred to as CF CRT) Project, FDOT and the project sponsors have had meetings with CSXT and have been sharing information in support of refining the proposed CF CRT Project, and

WHEREAS, during 2005, at the request of FDOT, CSXT allowed FDOT consultants access to their right of way to collect environmental field data, and conduct inspections, and

WHEREAS, at the request of FDOT, CSXT has supplied existing freight operations data, track charts, railway signal drawings, right of way, utilities, bridge plans, etc. and fully participated in the development of an enhanced combined CF CRT and freight operating plan for the corridor, and

WHEREAS, the FDOT and CSXT have been negotiating freight traffic density and train operating patterns on the "A" line, and

WHEREAS, a fundamental component of these negotiations is an operating agreement that minimizes freight traffic during the proposed CF CRT service periods, consistent with the CSXT Strategic Plan, and

WHEREAS, the Central Florida Commuter Rail Transit system will greatly benefit all of the citizens of and visitors to the Central Florida region, and is needed in order to relieve traffic congestion, and provide transportation opportunities.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions contained herein, the above parties agree as follows:

1. Both CSXT and FDOT agreed to the scope and the purpose of the EA, which has been completed. For the most part, the property that is the subject of the EA is controlled by CSXT, and CSXT has allowed the EA to proceed. Any further environmental assessment shall be subject to mutual agreement.

2. FDOT is currently in negotiation with CSXT to acquire by purchase or otherwise a portion of the CSXT "A" line in central Florida for passenger rail use in exchange for monetary and other considerations.

3. While this negotiation is nearing its conclusion during this EA process, it was not complete at the time of the EA publication. Consistent with FTA's request, this document serves as a Memorandum of Understanding (MOU) between CSXT and FDOT regarding the permission to conduct an EA on CSXT owned property, CSXT consent to the EA process, CSXT participation in the CF CRT project, and the current status of negotiations.

4. FDOT and CSXT intend, within the next 30 days to enter into a non-binding term sheet that will describe the basic terms and conditions under which: (1) FDOT will acquire a portion of the CSXT "A" Line for passenger rail services, including the CF CRT project, and (2) CSXT will retain certain perpetual exclusive rights to operate limited freight rail service on that portion of the "A" Line acquired by FDOT. In addition, FDOT and CSXT will also negotiate and enter into one or more definitive agreements, the schedule for which has not been determined, covering: (1) the specific conditions under which FDOT will acquire that portion of the "A" Line to operate passenger rail services, and the specific conditions under which CSXT will retain certain perpetual exclusive rights to operate limited freight services on the portion of the "A" Line acquired by FDOT; (2) an "A" Line operating agreement, which will address the respective roles and responsibilities of FDOT and CSXT regarding dispatching, maintenance-of-way, signal maintenance, passenger and freight service periods (operating windows), and any other operational provisions that may be agreed to by the parties; and (3) such other definitive agreements that FDOT and CSXT may agree are necessary to implement the transactions contemplated herein. Nothing in this MOU shall be deemed to (i) imply CSXT consent or acceptance of any operational term addressed in the EA or (ii) require either party to proceed with the transaction to be described in the non-binding term sheet described herein.

5. This MOU is subject to monetary and term items that must be mutually agreed upon by both FDOT and CSXT.

For Florida Department of Transportation

Name Ysela Llort

Title Assistant Secretary For Intermodal Systems Development

Date April 6, 2006

Witness

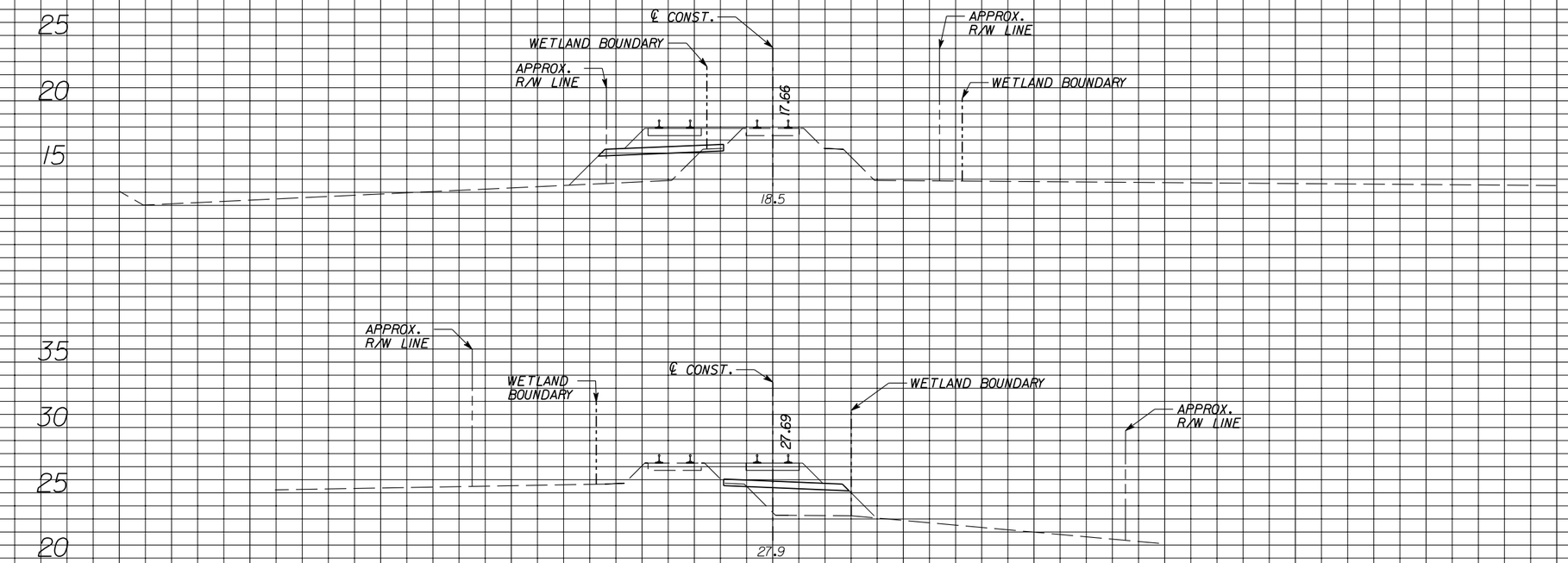
For CSX Transportation, Inc.

Name Peter J. Shudtz

Title Authorized Agent

Date April 6, 2006

Witness



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1" = 10' Vert.

REVISIONS			
DATE	BY	DESCRIPTION	

VHB Vanasse Hangen Brustlin, Inc.
Engineers, Planners & Scientists
135 W. Central Blvd., Suite 800
Orlando, FL 32801 (407)839-4006

EarthTech
A Tyco International Ltd. Company
CERTIFICATE OF AUTHORIZATION NO 8115
30 SOUTH KELLER ROAD, SUITE 500
ORLANDO, FL 32810

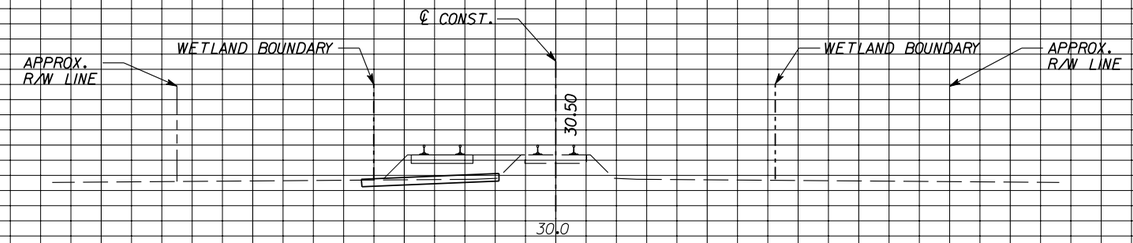
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

CROSS SECTIONS

SHEET NO.



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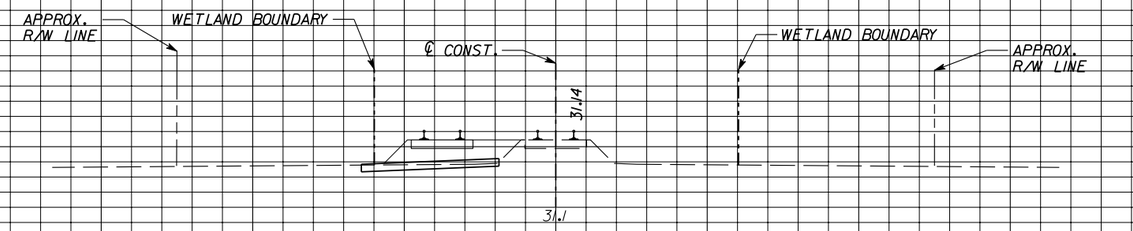

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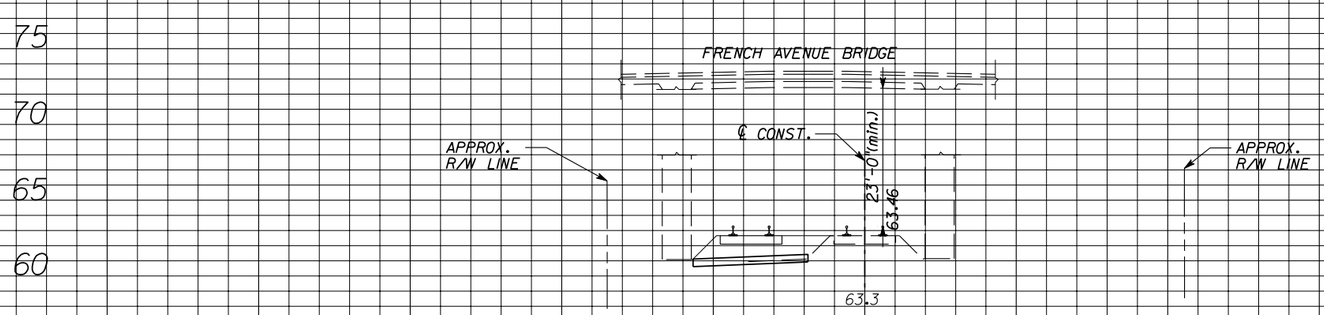

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

CROSS SECTIONS

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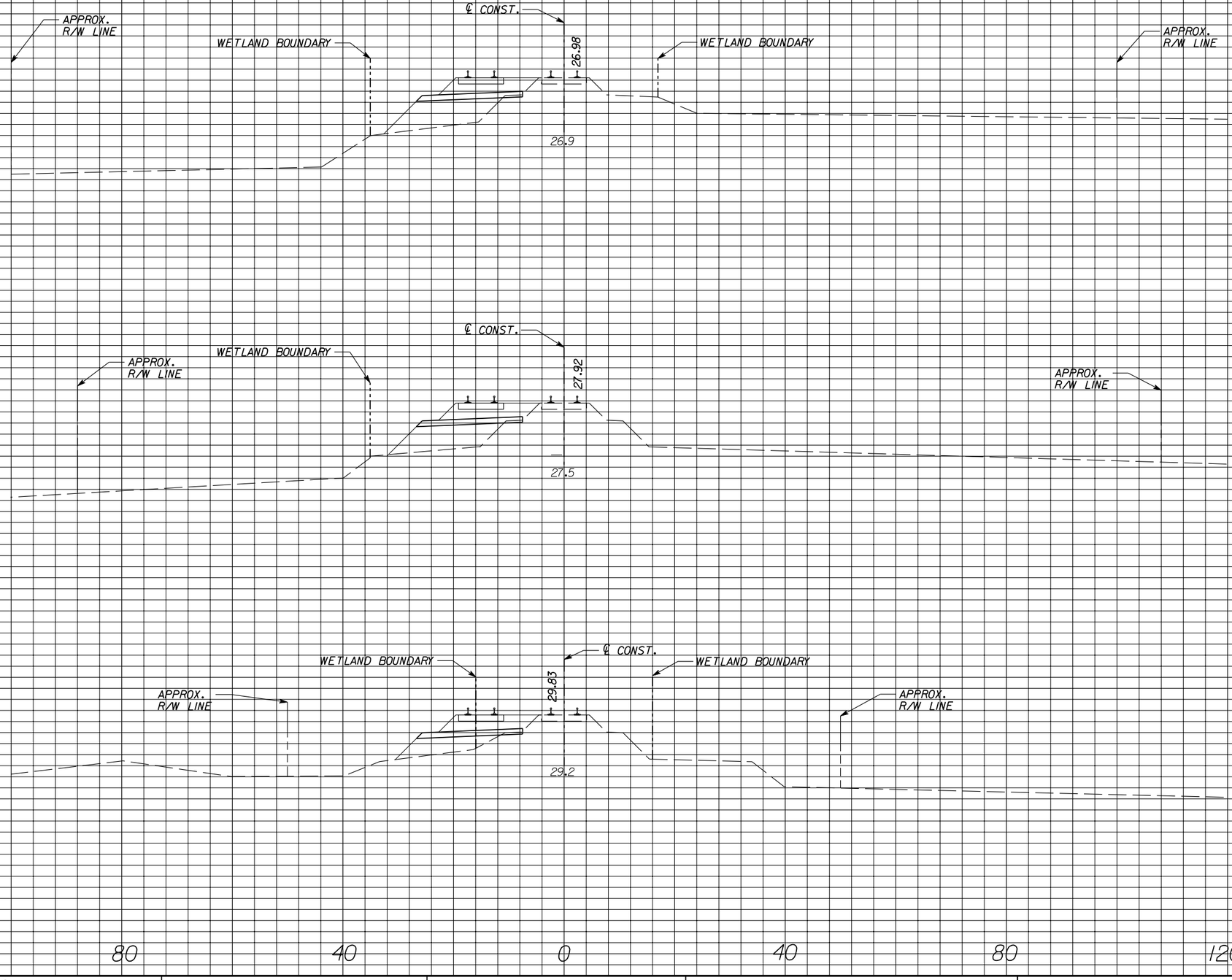

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Orlando, FL 32801 (407)839-4006

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STATE OF FLORIDA
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	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

CROSS SECTIONS

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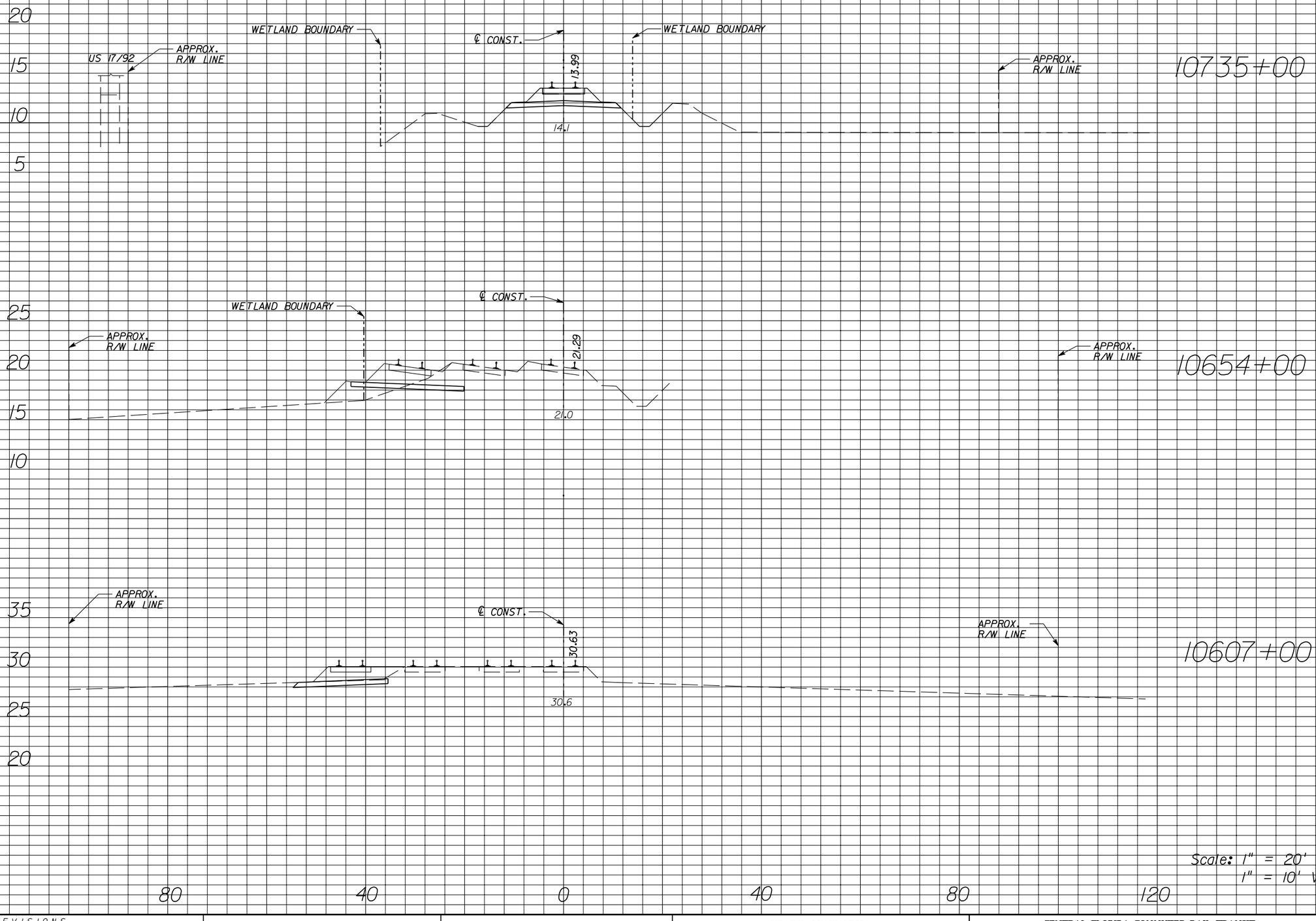

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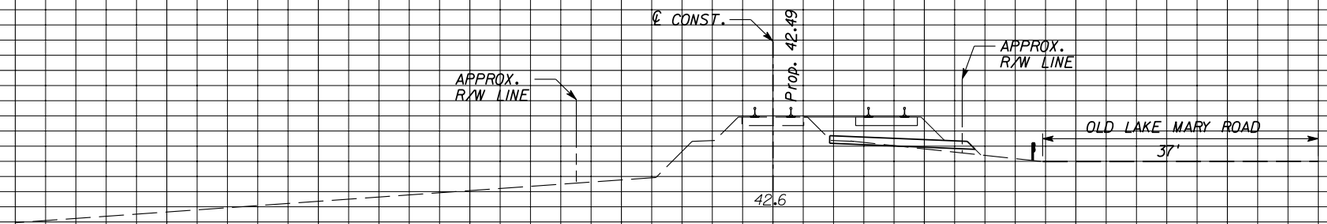

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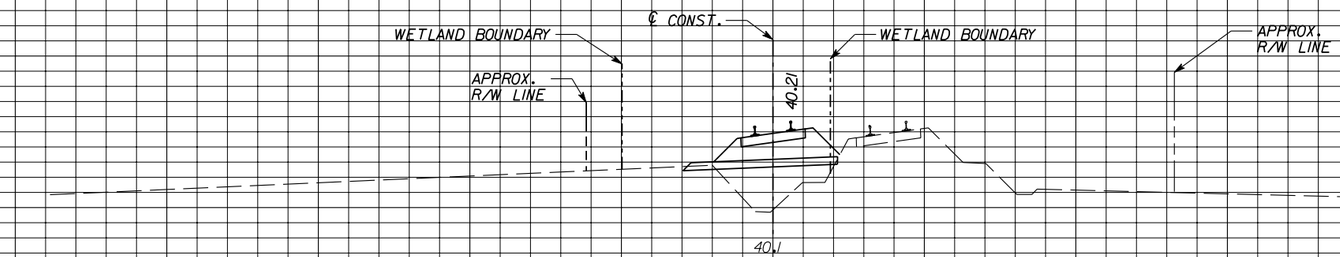

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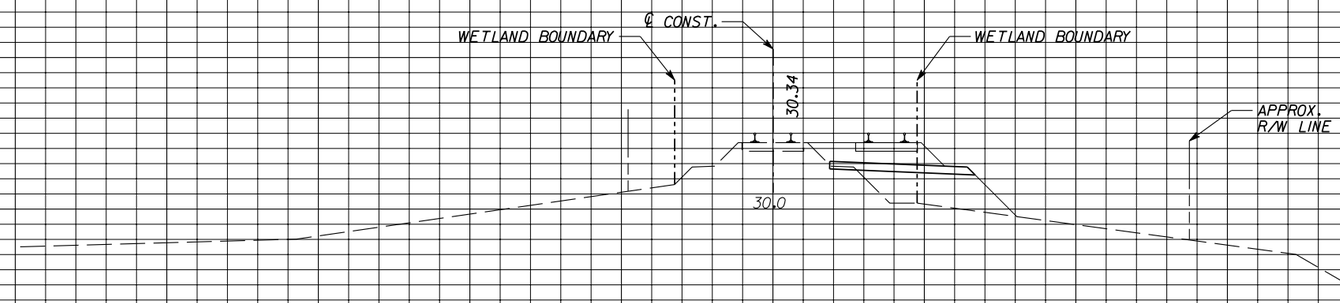

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1" = 10' Vert.

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ORLANDO, FL 32810

STATE OF FLORIDA
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	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

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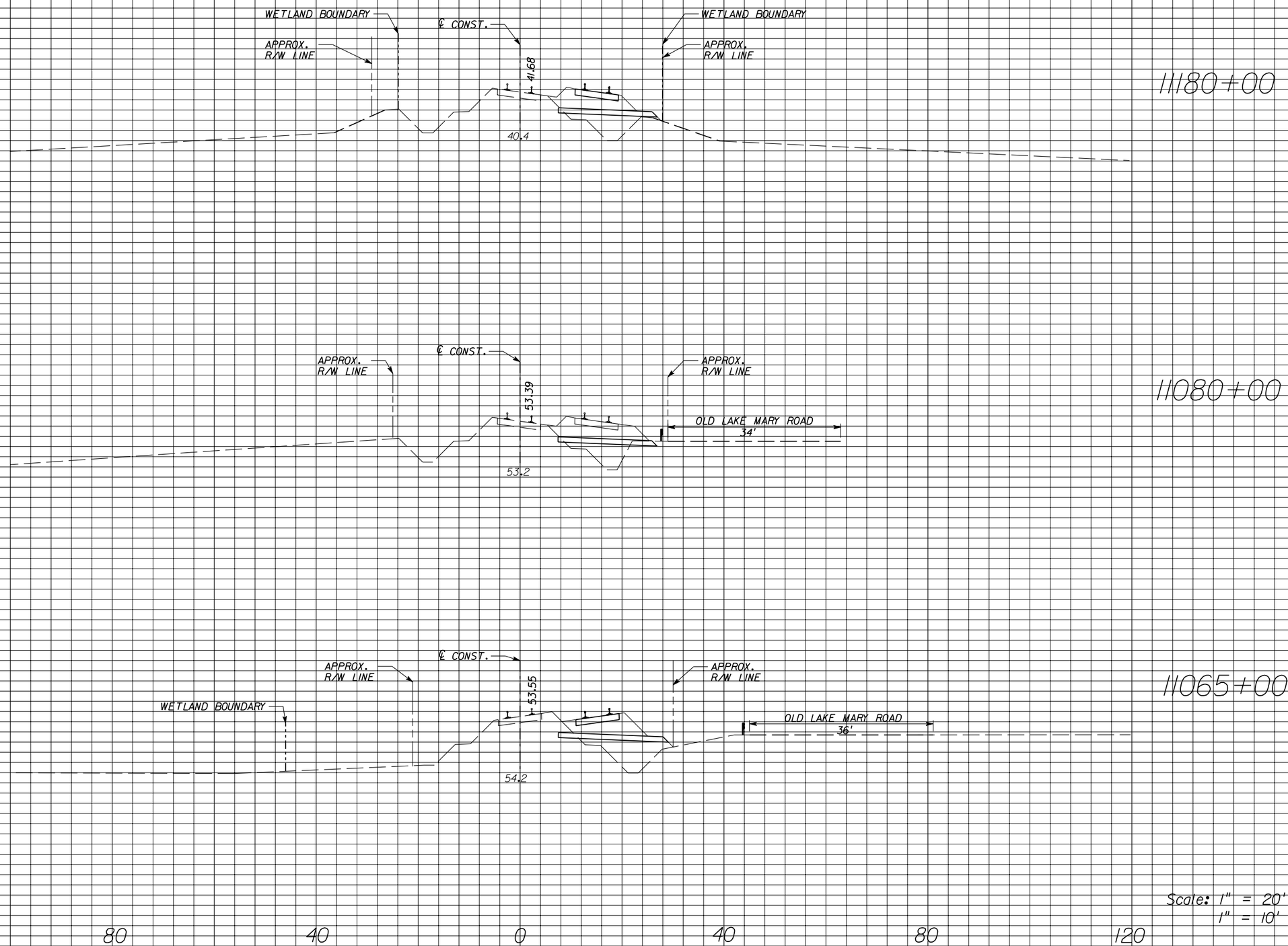

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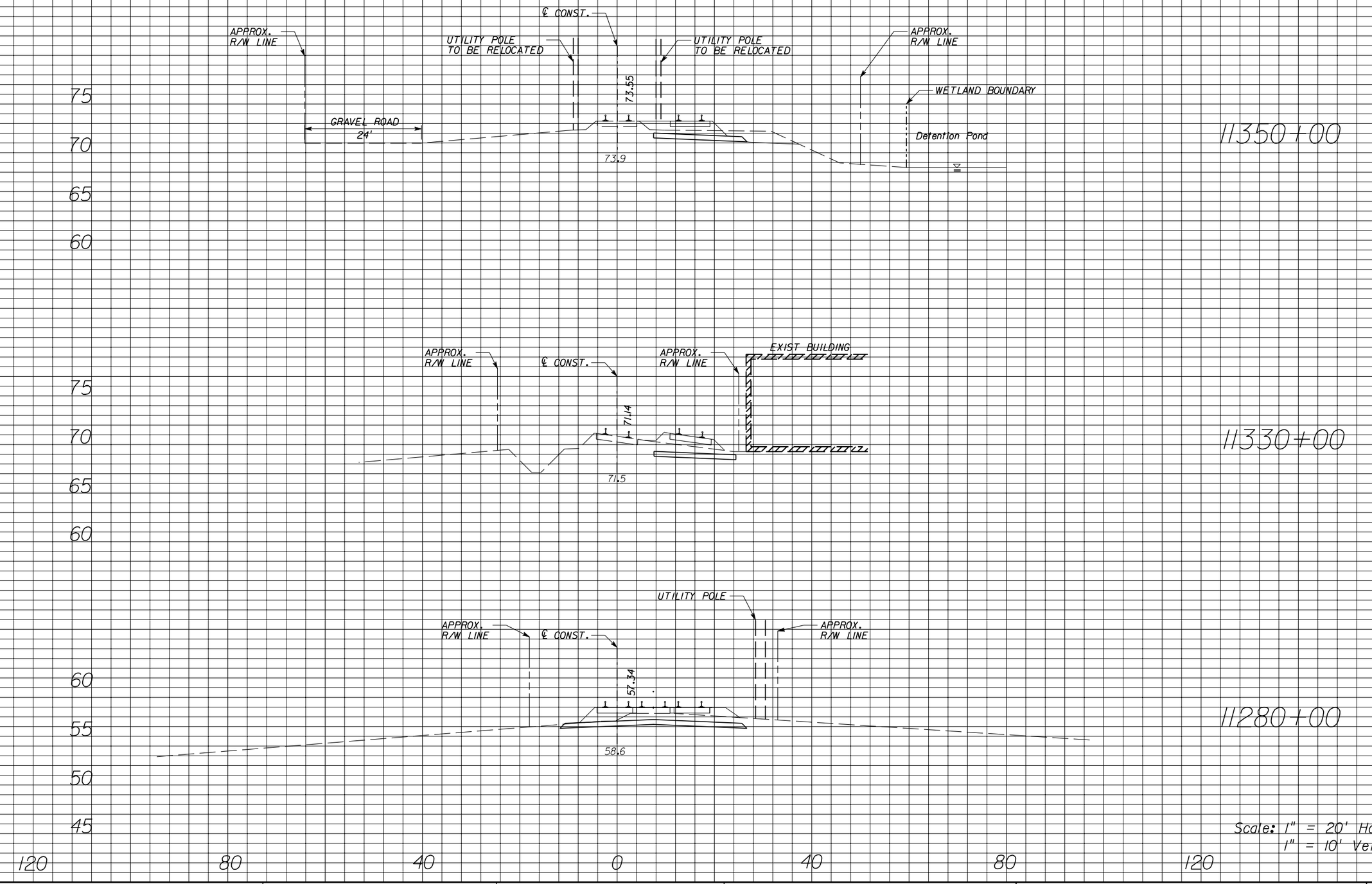

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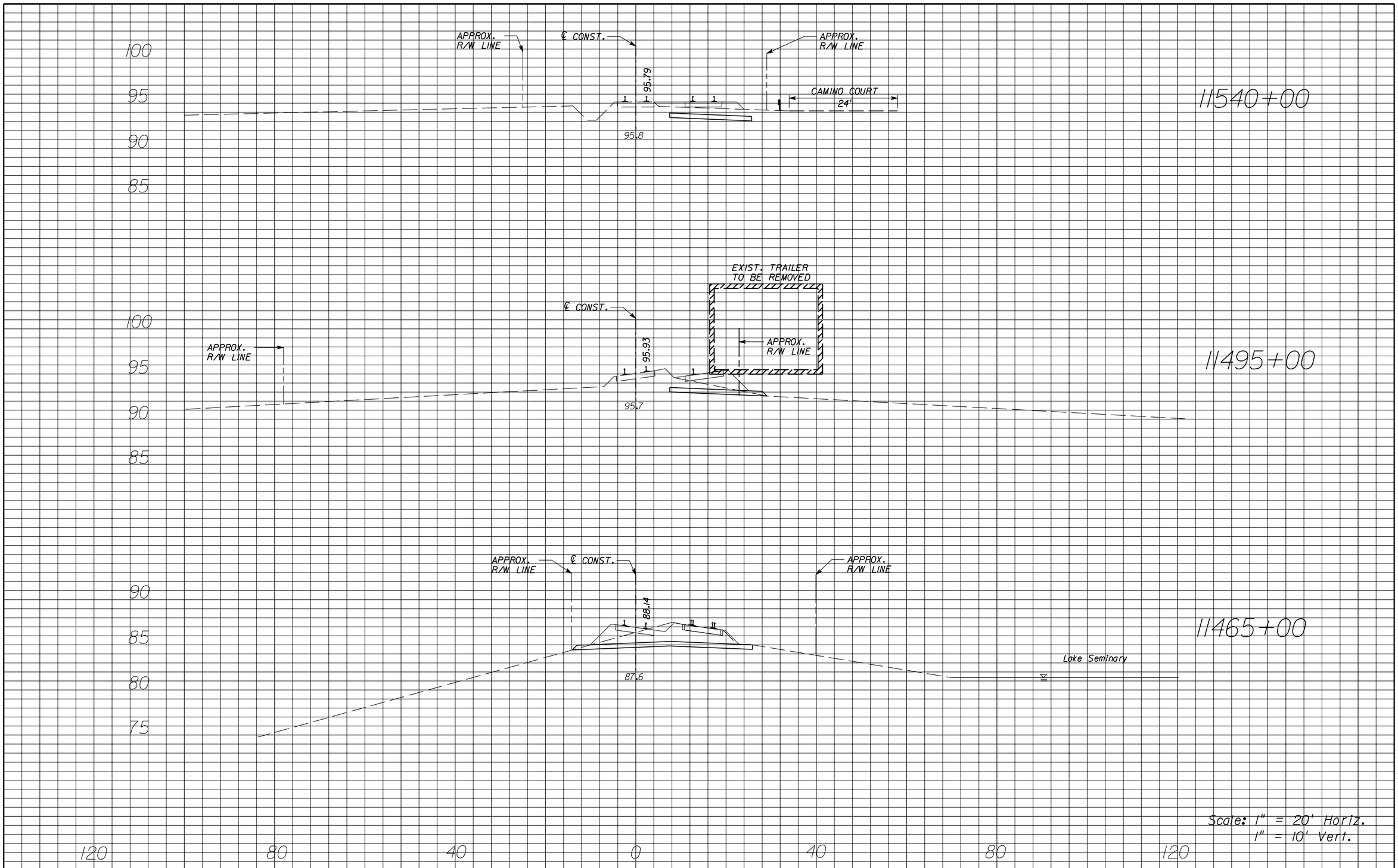

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

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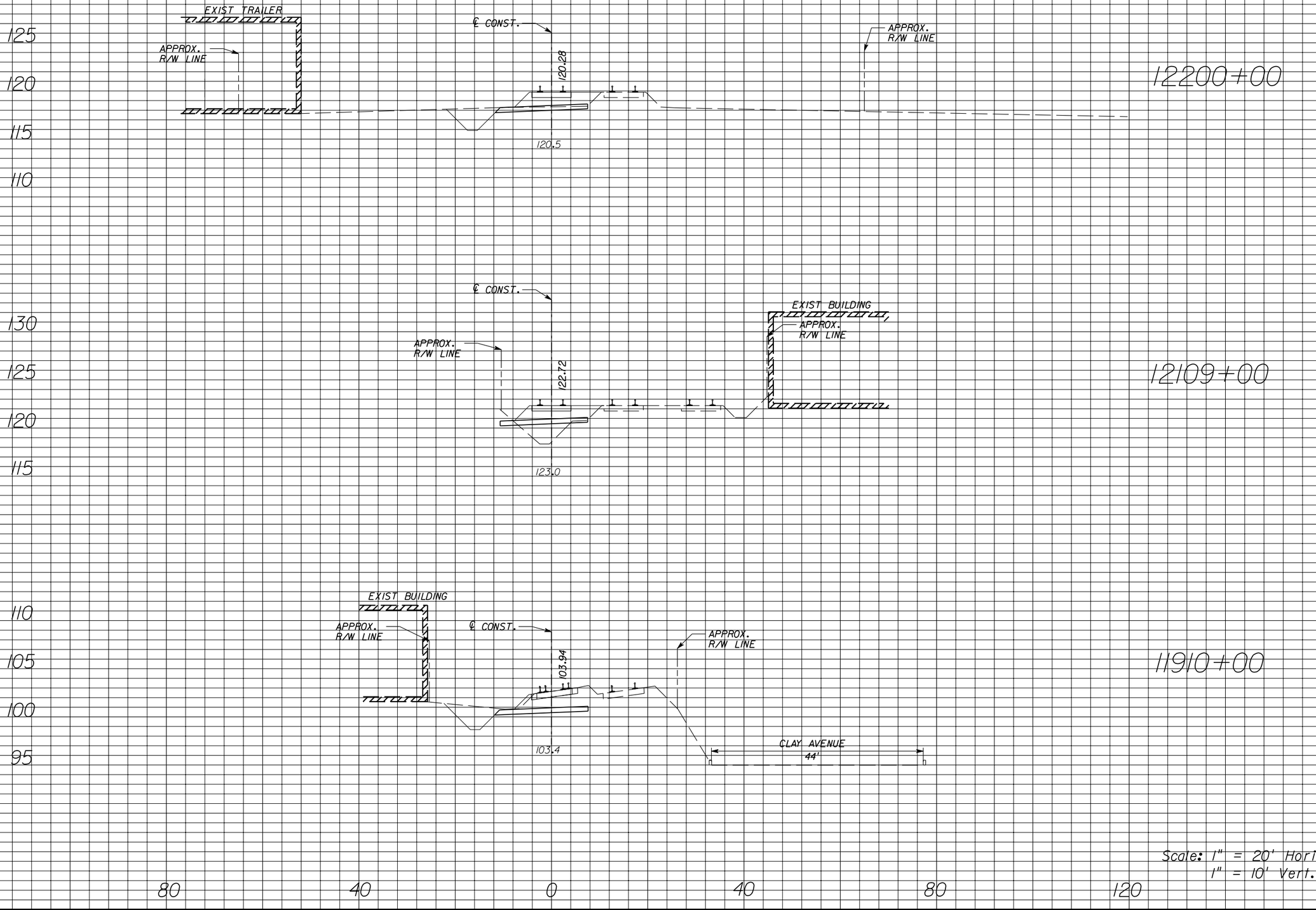

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

CROSS SECTION

SHEET NO.

ADMINISTRATIVE ACTION

FINDING OF NO SIGNIFICANT IMPACT

U.S. Department Of Transportation (USDOT)

Federal Transit Administration (FTA)

and

Florida Department of Transportation (FDOT)

Financial Identification Number 412994-2-22-01

APPENDIX K CONCEPTUAL DRAWINGS

Central Florida Commuter Rail Transit (CFCRT) North/South Corridor Project extending from north to south, along the existing CSX Transportation A-line rail corridor beginning at the DeLand Amtrak station in Volusia County to Poinciana Industrial Park in Osceola County. The total project length extends 60.8 miles. The Full Build Alternative would include a total of sixteen stations located at: the DeLand Amtrak, Saxon Boulevard Extension (DeBary), Sanford, Lake Mary, Longwood, Altamonte Springs, Winter Park, Florida Hospital, LYNX Central Station, Church Street (in downtown Orlando), Orlando Amtrak/Orlando Regional Medical Center (ORMC), Sand Lake Road, Meadow Woods, Osceola Parkway, Kissimmee Amtrak, and Poinciana Industrial Park.

COMPONENTS OF CONTRACT PLANS SET

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

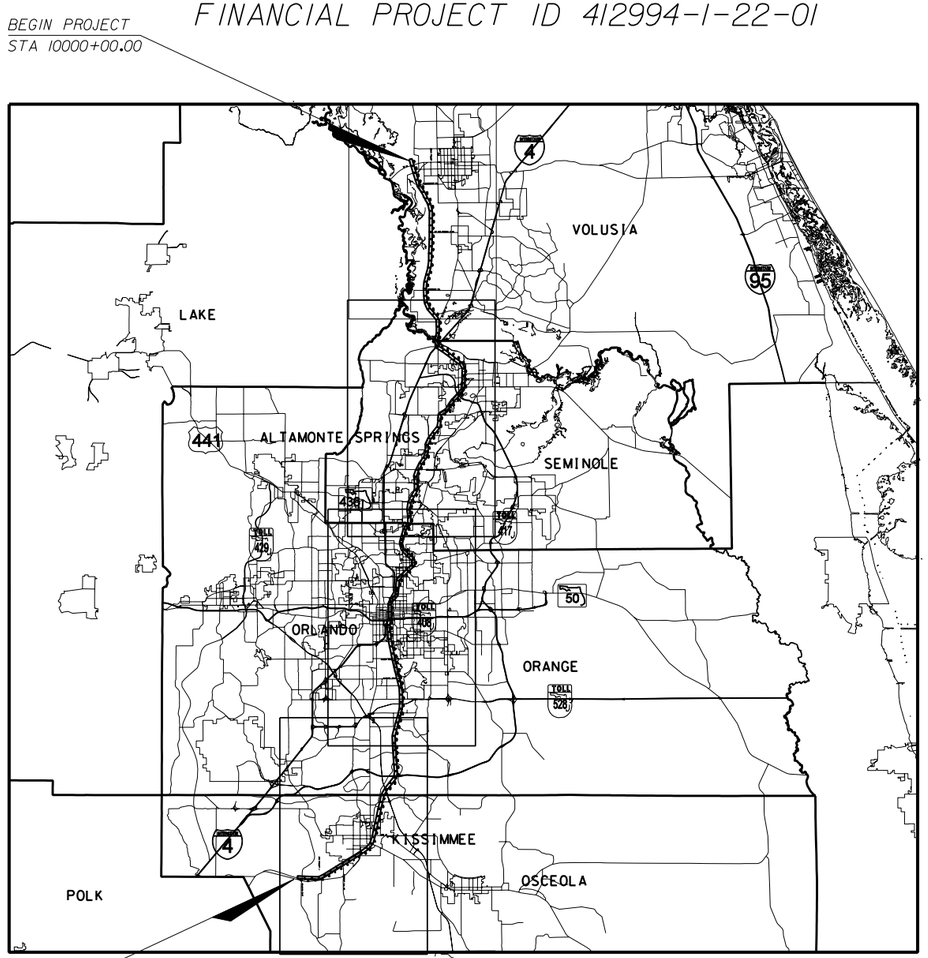
SHEET NO.	SHEET DESCRIPTION
	KEY SHEET
	TYPICAL SECTIONS
	PROJECT LAYOUT
	PLAN AND PROFILE
	STATION CONCEPT PLANS
	YARD AND SHOP
	LAYOVER PLANS
	CROSS SECTIONS

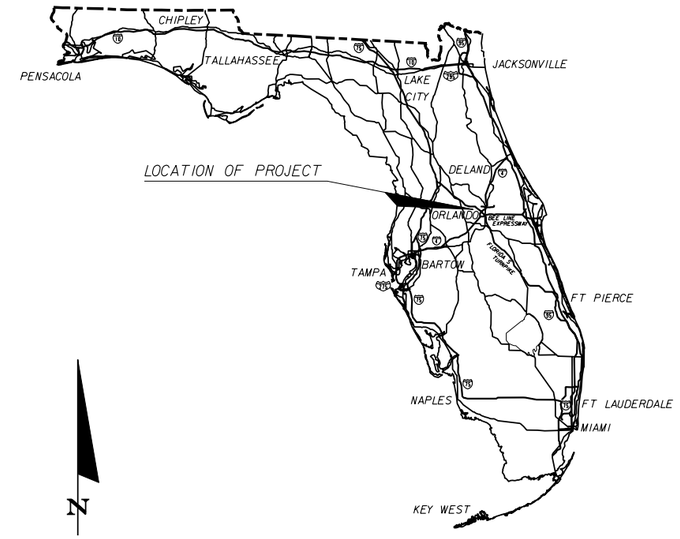
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

FINANCIAL PROJECT ID 412994-1-22-01





GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED JANUARY 2004, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2004, AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE 2004 INTERIM STANDARDS:

INDEX NO	SHEET NO	INDEX DATE
0400	1 OF 1	8-21-03
0304	1-6 OF 6	1-01-05

PROJECT LENGTH IS BASED ON ℄ CONSTRUCTION

LENGTH OF PROJECT	LINEAR FEET	MILES
ROADWAY	000.00	0
BRIDGES	0	0
NET LENGTH OF PROJECT	0	0
EXCEPTIONS	0	0
GROSS LENGTH OF PROJECT	0	0

FDOT PROJECT MANAGER: TAWNY OLORE, P.E.

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

PLANS PREPARED BY:

EARTH TECH CONSULTING, INC.
30 SOUTH KELLER ROAD, SUITE 500
ORLANDO, FL 32810
PHONE (407) 660-1719 FAX (407) 660-0250

CERTIFICATE OF AUTHORIZATION # 8115

CONTRACT # C-8714

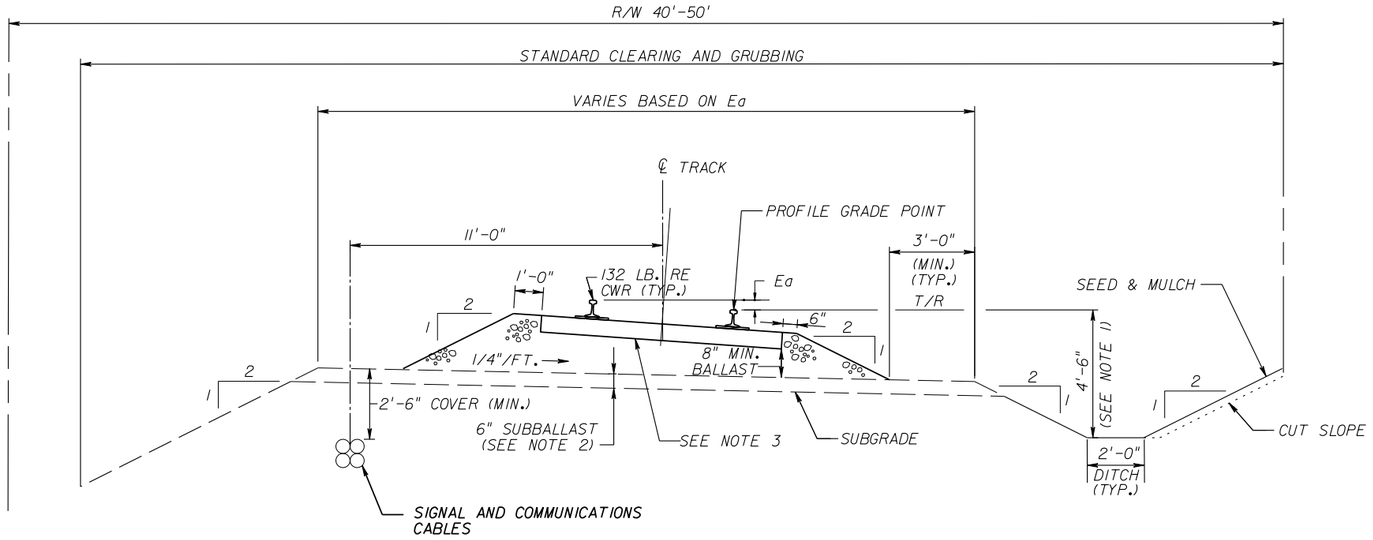
VENDOR # 952661922-011

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

ROADWAY PLANS
ENGINEER OF RECORD: _____

P.E. NO.: _____

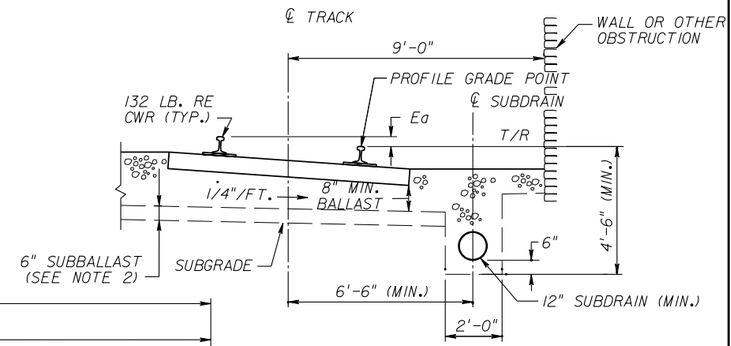
FISCAL YEAR	SHEET NO.
	1



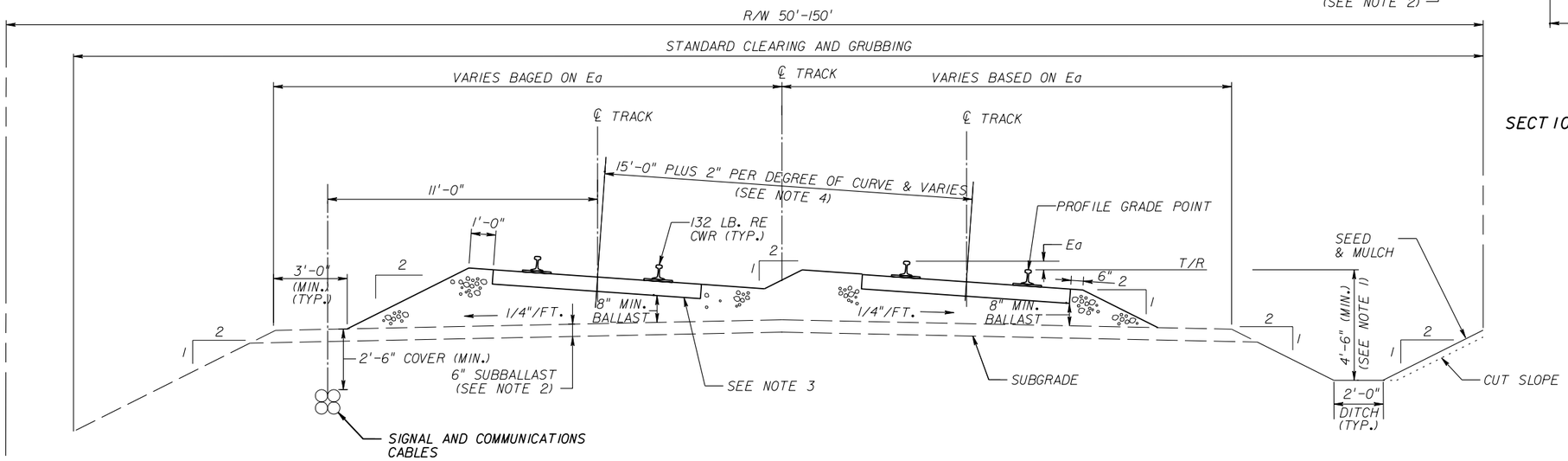
TYPICAL SECTION FOR SINGLE TRACK ON CURVE

NOTES:

1. AT LOCATIONS WHERE SUFFICIENT SIDE DITCH IS NOT POSSIBLE, USE PERFORATED PIPE UNDERDRAIN (12" MIN. DIA.).
2. IN NEW CONSTRUCTION, WHEN SUBGRADE CONDITIONS WARRANT THE USE OF GEOTEXTILE FABRIC, PLACE THE FABRIC BENEATH THE SUBBALLAST.
3. ALL TIES TO BE 9'-0"x9"x7" TIMBER.
4. WHENEVER THE OUTSIDE TRACK HAS THE GREATER SUPERELEVATION, INCREASE THE TRACK CENTERS 3½" PER 1" OF SUPERELEVATION DIFFERENCE.
5. PROFILE GRADE POINT IS FROM THE LOW SIDE RAIL.



SECTION WHEN DITCH IS NOT POSSIBLE



TYPICAL SECTION FOR DOUBLE TRACK ON CURVE

REVISIONS			
DATE	BY	DESCRIPTION	

VHB Vanasse Hangen Brustlin, Inc.
Engineers, Planners & Scientists
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		412994-1-22-01

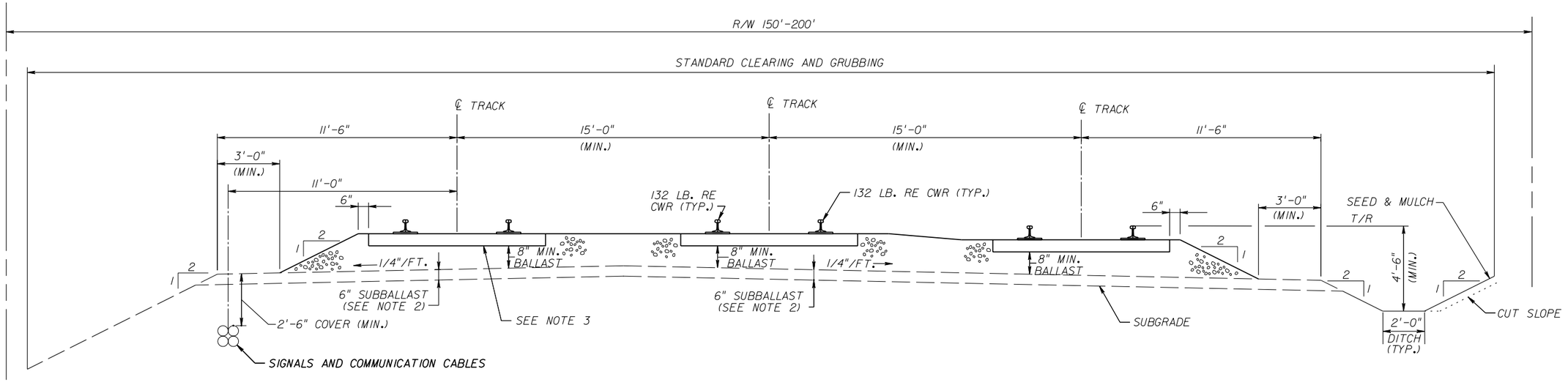
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

TYPICAL SECTIONS

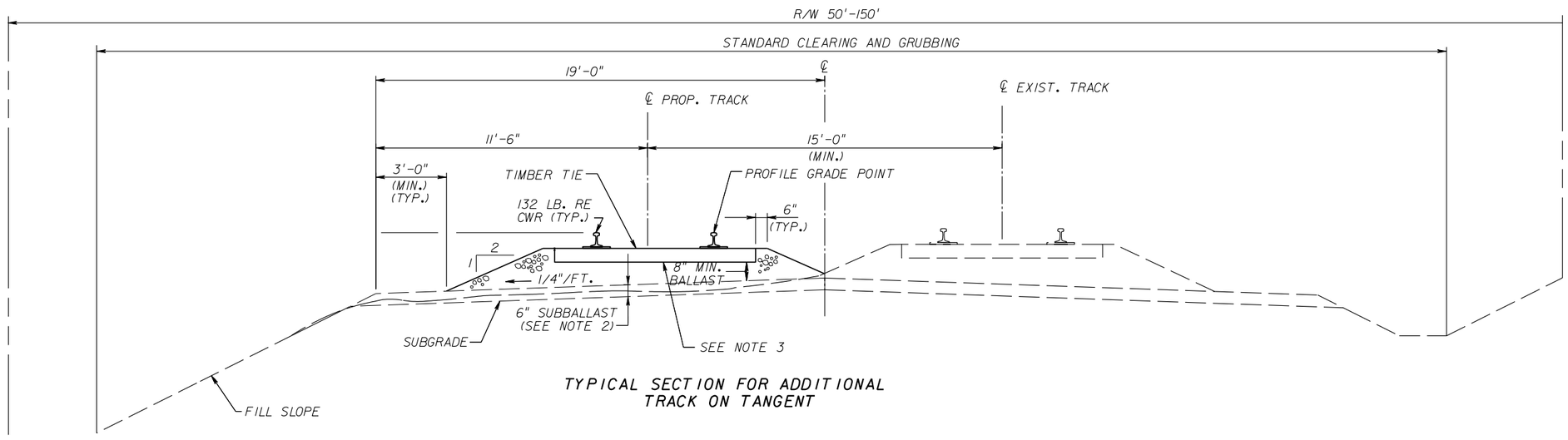
SHEET NO.

NOTES:

1. AT LOCATIONS WHERE SUFFICIENT SIDE DITCH IS NOT POSSIBLE, USE PERFORATED PIPE UNDERDRAIN (12" MIN. DIA.).
2. IN NEW CONSTRUCTION, WHEN SUBGRADE CONDITIONS WARRANT THE USE OF GEOTEXTILE FABRIC, PLACE THE FABRIC BENEATH THE SUBBALLAST.
3. ALL TIES TO BE 9'-0"x9"x7" TIMBER.
4. PROFILE GRADE POINT IS FROM THE LOW SIDE RAIL.



TYPICAL SECTION FOR THREE TRACKS ON TANGENT



TYPICAL SECTION FOR ADDITIONAL TRACK ON TANGENT

REVISIONS			
DATE	BY	DESCRIPTION	

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Engineers, Planners & Scientists
135 W. Central Blvd., Suite 800
Orlando, FL 32801 (407)839-4006

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30 SOUTH KELLER ROAD, SUITE 500
ORLANDO, FL 32810

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

TYPICAL SECTIONS

SHEET NO.

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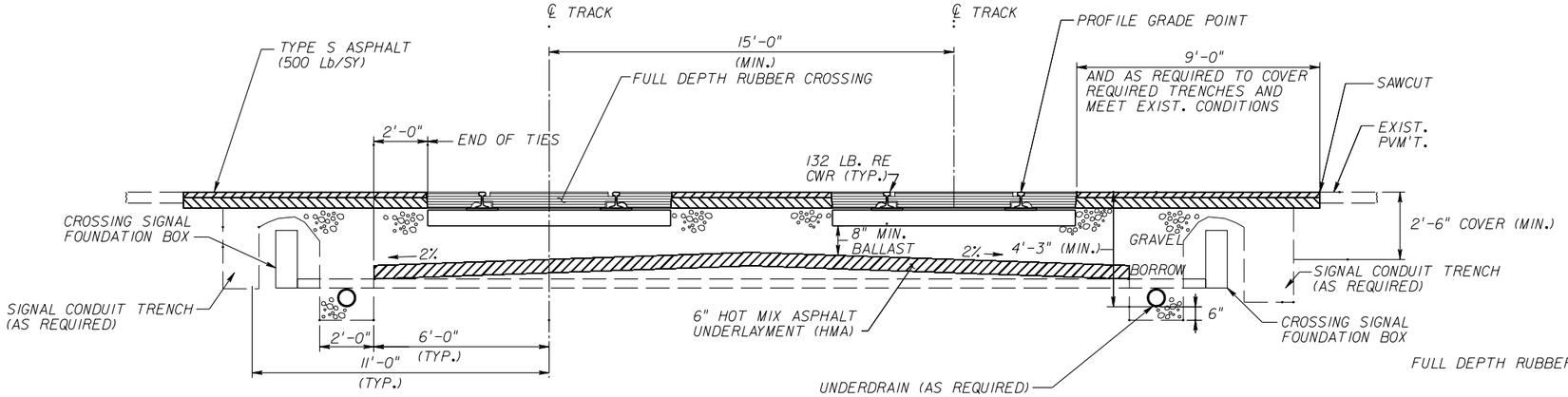
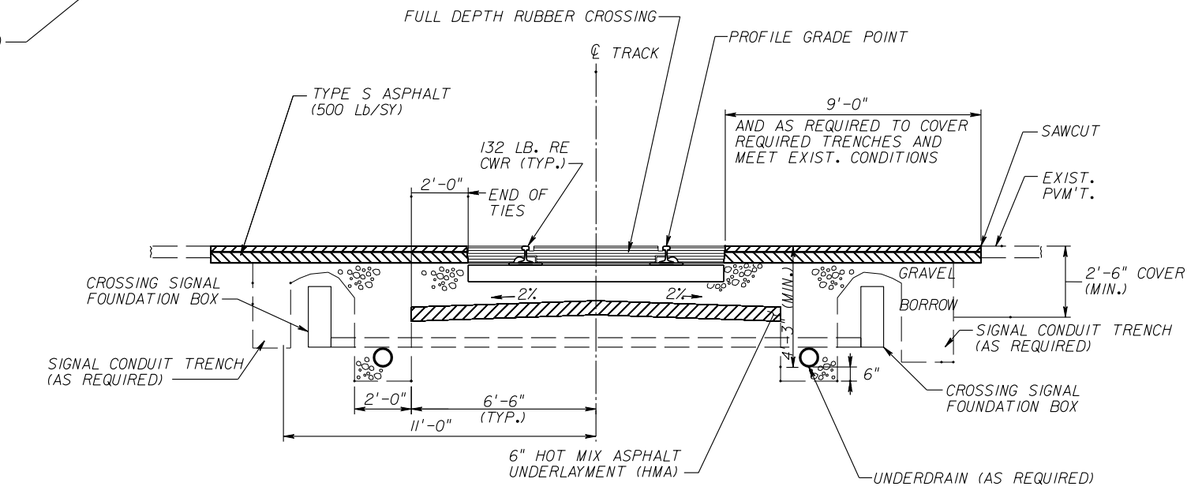


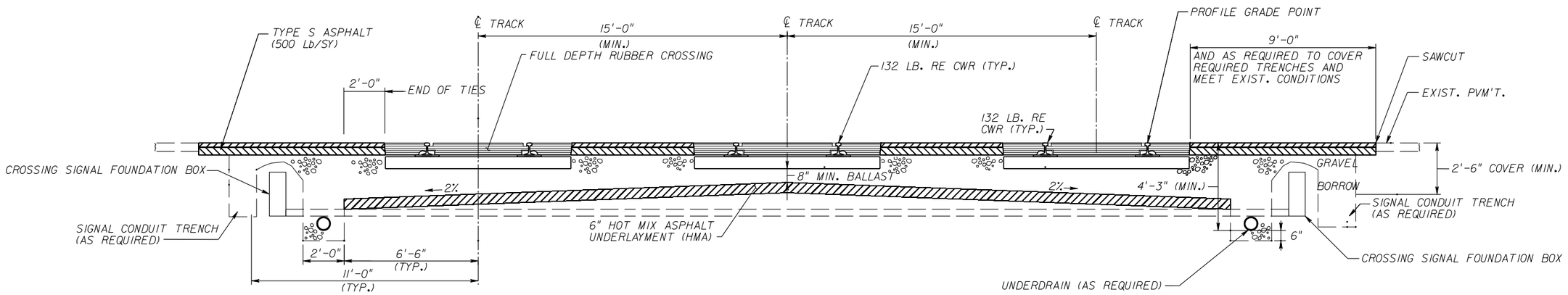
FULL DEPTH DOUBLE TRACK RUBBER CROSSING

NOTES:

1. AT LOCATIONS WHERE SUFFICIENT SIDE DITCH IS NOT POSSIBLE, USE PERFORATED PIPE UNDERDRAIN (12" MIN. DIA.).
2. ALL TIES TO BE 9'-0"x9"x7" TIMBER.
3. FOR ADDITIONAL INFORMATION SEE FDOT STANDARD DRAWING 560 REV 4 DATED 12/02
4. PROFILE GRADE POINT IS FROM THE LOW SIDE RAIL.



FULL DEPTH SINGLE TRACK RUBBER CROSSING



FULL DEPTH TRIPLE TRACK RUBBER CROSSING

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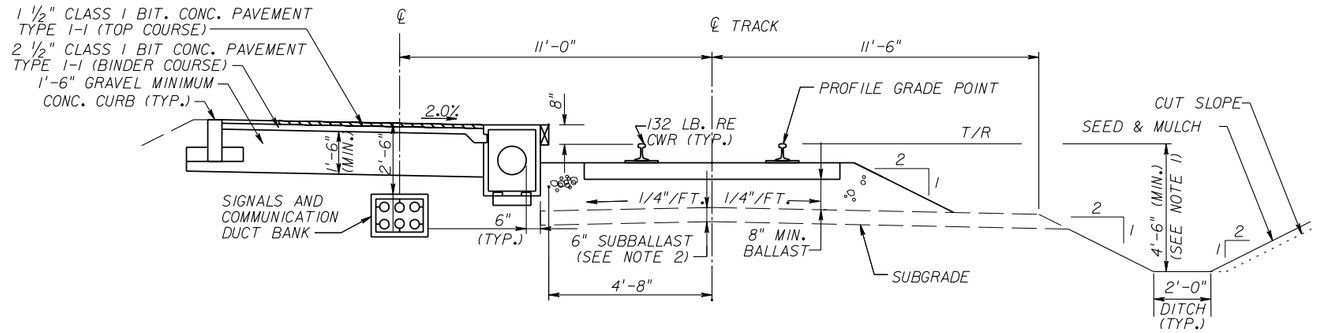
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		412994-1-22-01

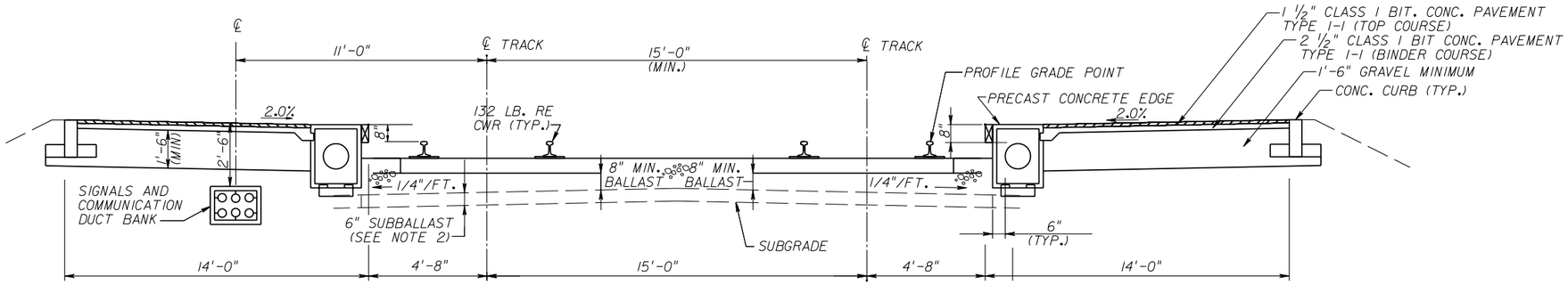
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

TYPICAL SECTIONS

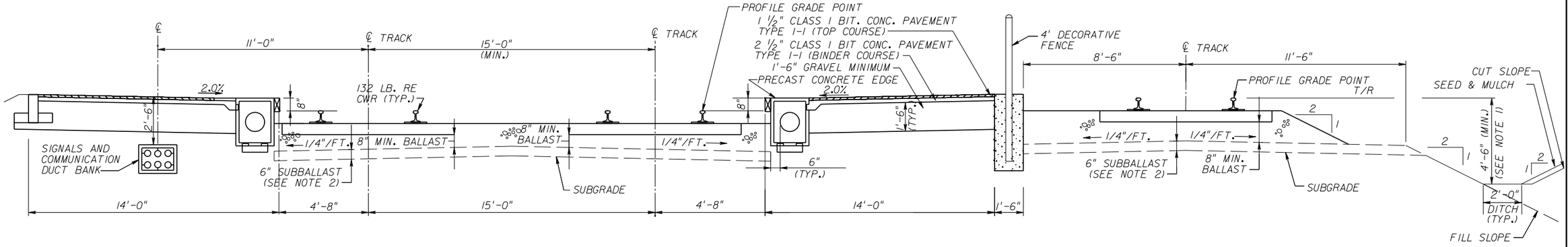
SHEET NO.



TYPICAL SECTION FOR LOW LEVEL PLATFORM ON SINGLE TRACK



TYPICAL SECTION FOR LOW LEVEL PLATFORM ON DOUBLE TRACK



TYPICAL SECTION FOR LOW LEVEL PLATFORM ON TRIPLE TRACK

NOTES:

1. AT LOCATIONS WHERE SUFFICIENT SIDE DITCH IS NOT POSSIBLE, USE PERFORATED PIPE UNDERDRAIN (12" MIN. DIA.).
2. IN NEW CONSTRUCTION, WHEN SUBGRADE CONDITIONS WARRANT THE USE OF GEOTEXTILE FABRIC, PLACE THE FABRIC BENEATH THE SUBBALLAST.
3. ALL TIES TO BE 9'-0"x9"x7" TIMBER.
4. PROFILE GRADE POINT IS FROM THE LOW SIDE RAIL.

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

TYPICAL SECTIONS

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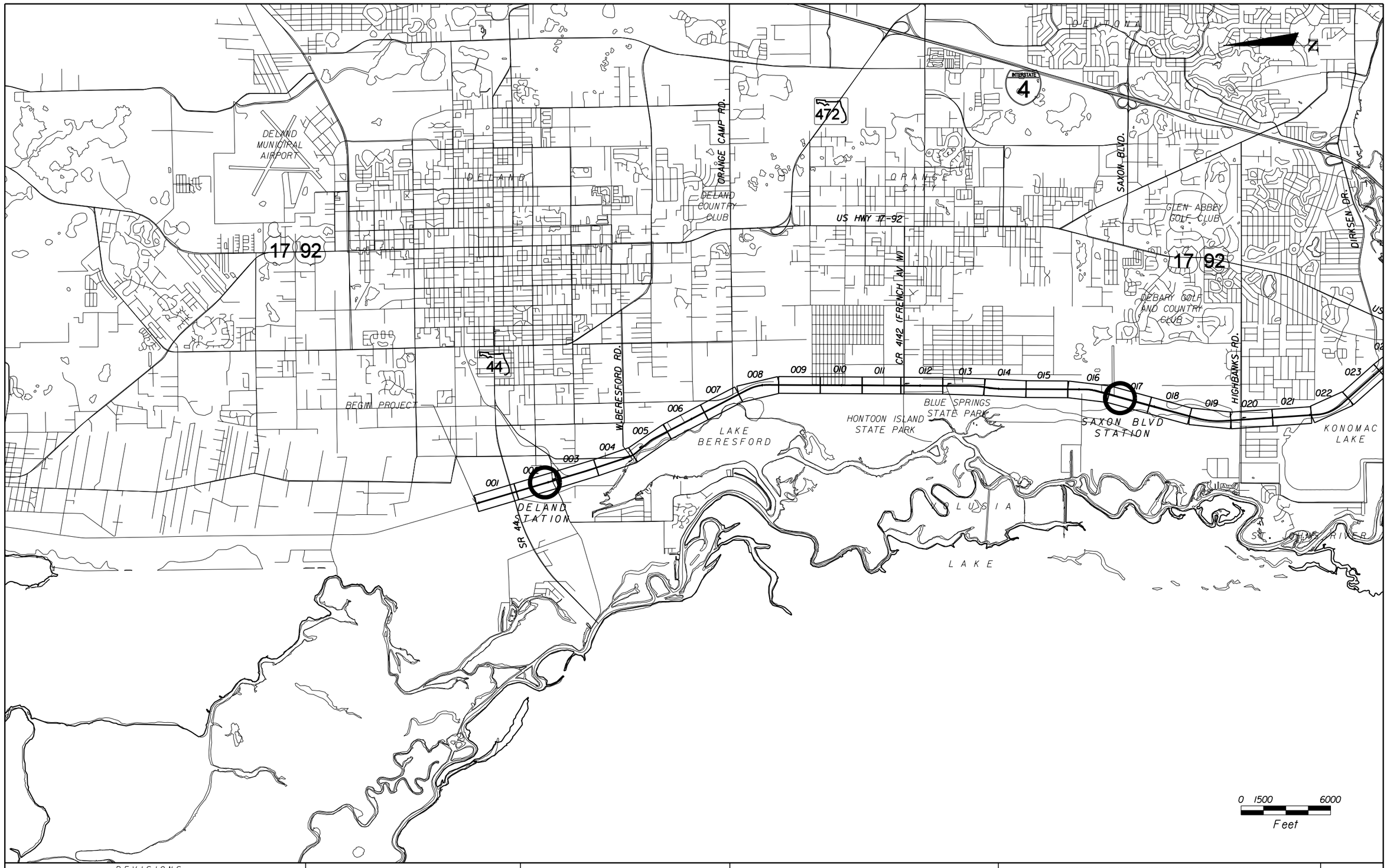

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PROJECT LAYOUT

SHEET NO. 1

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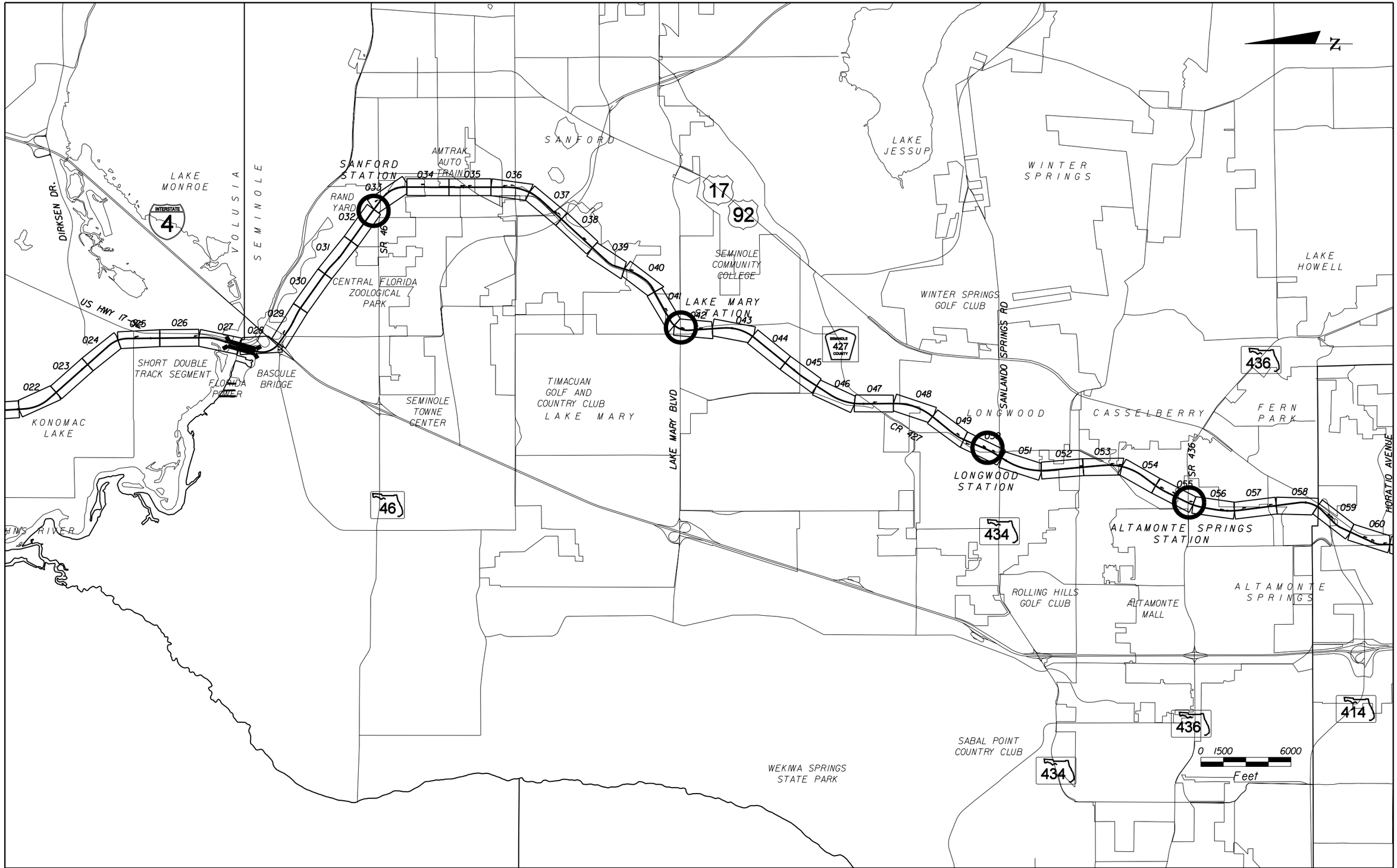

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DEPARTMENT OF TRANSPORTATION

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PROJECT LAYOUT

SHEET NO. 2

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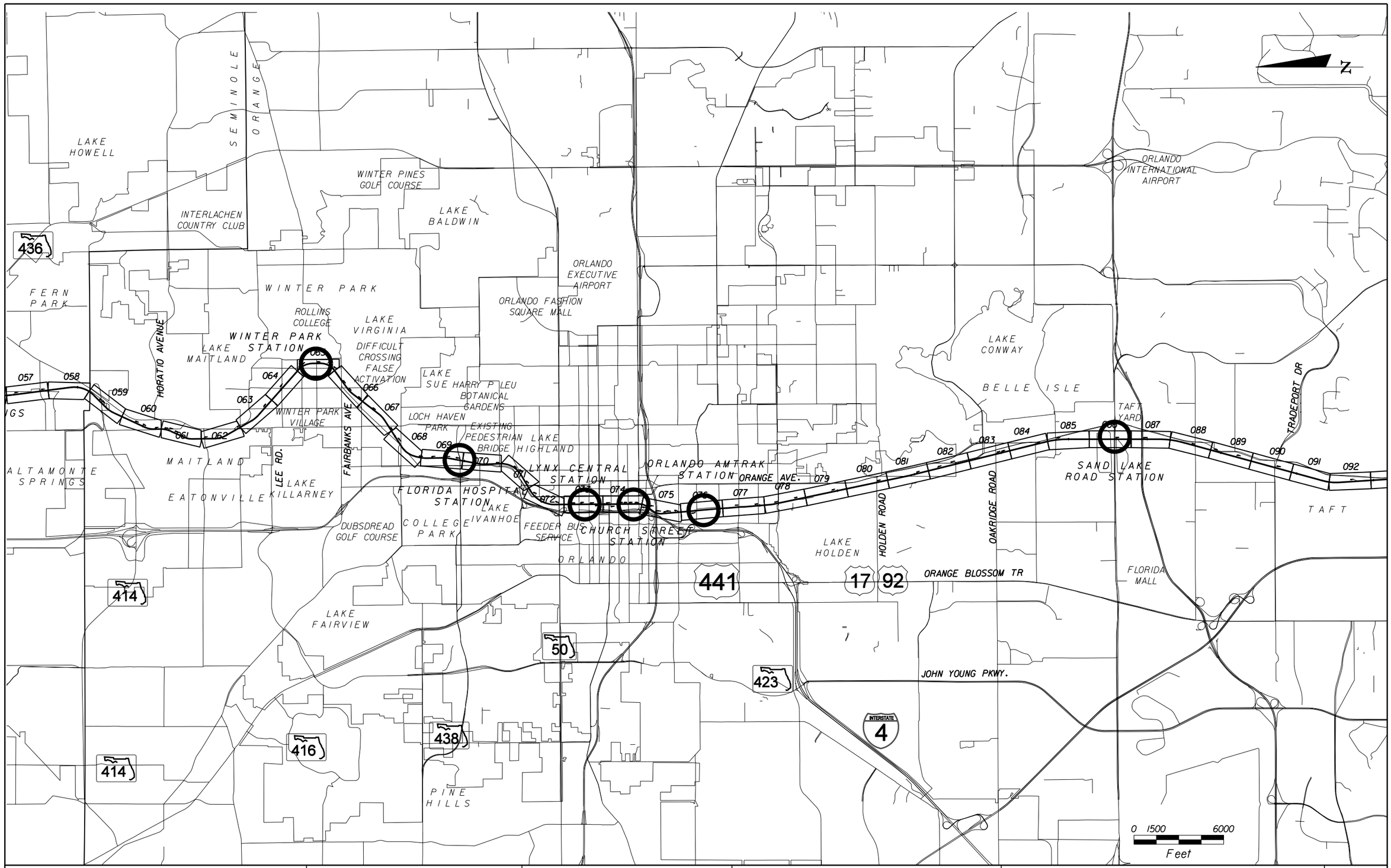

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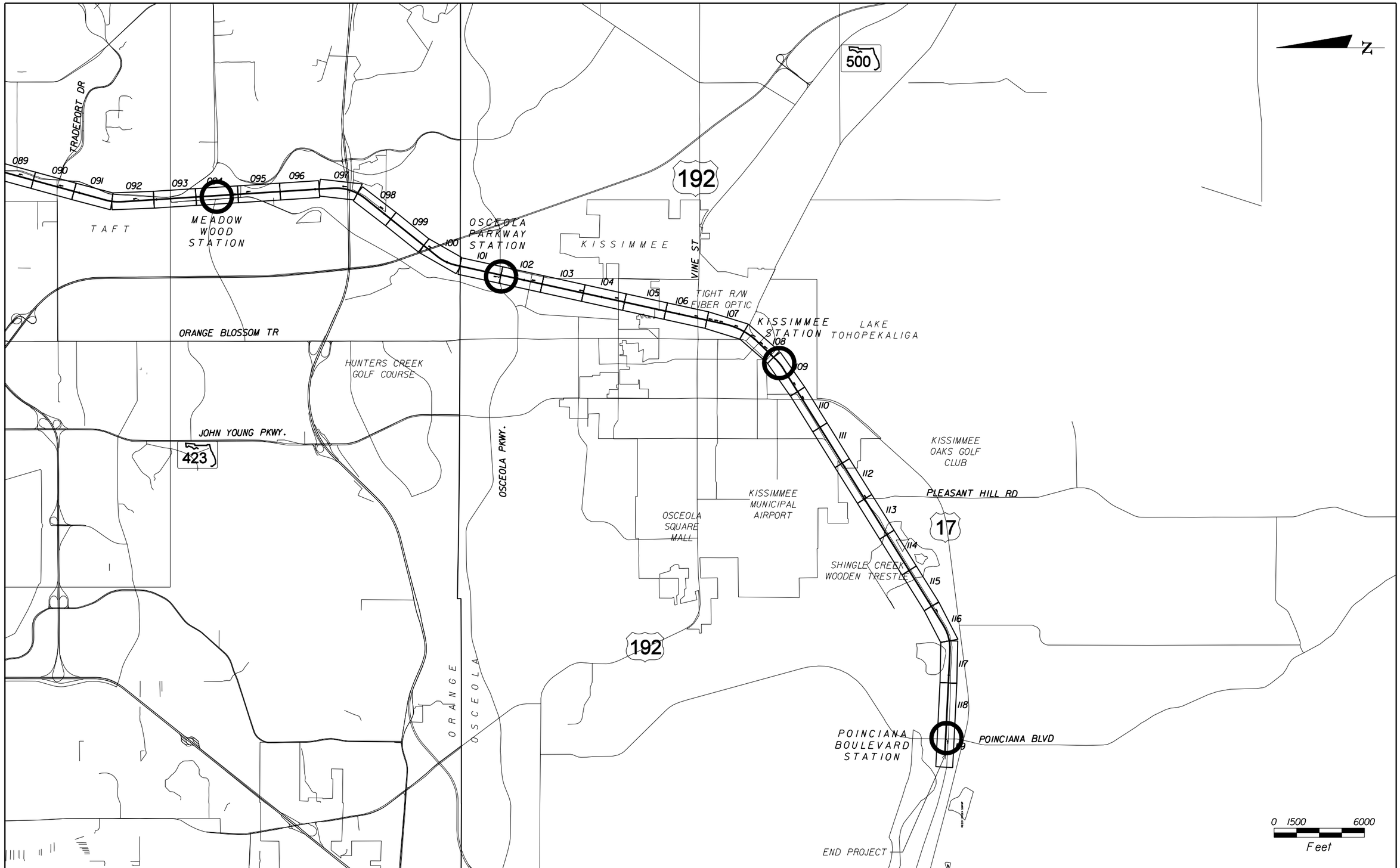
		412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PROJECT LAYOUT

SHEET NO. 3



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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PROJECT LAYOUT

SHEET NO. 4

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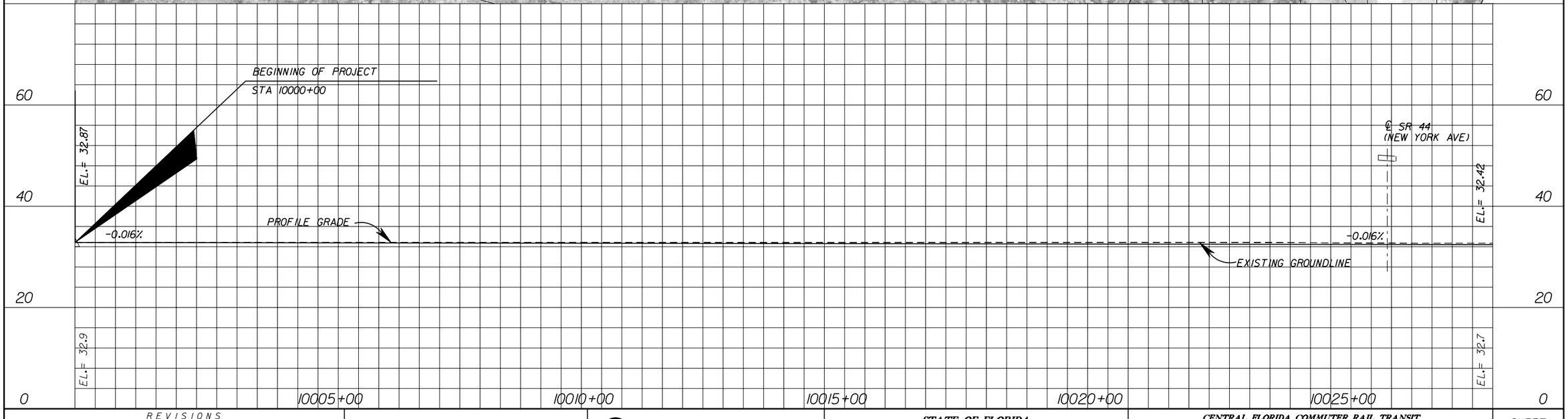

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 1

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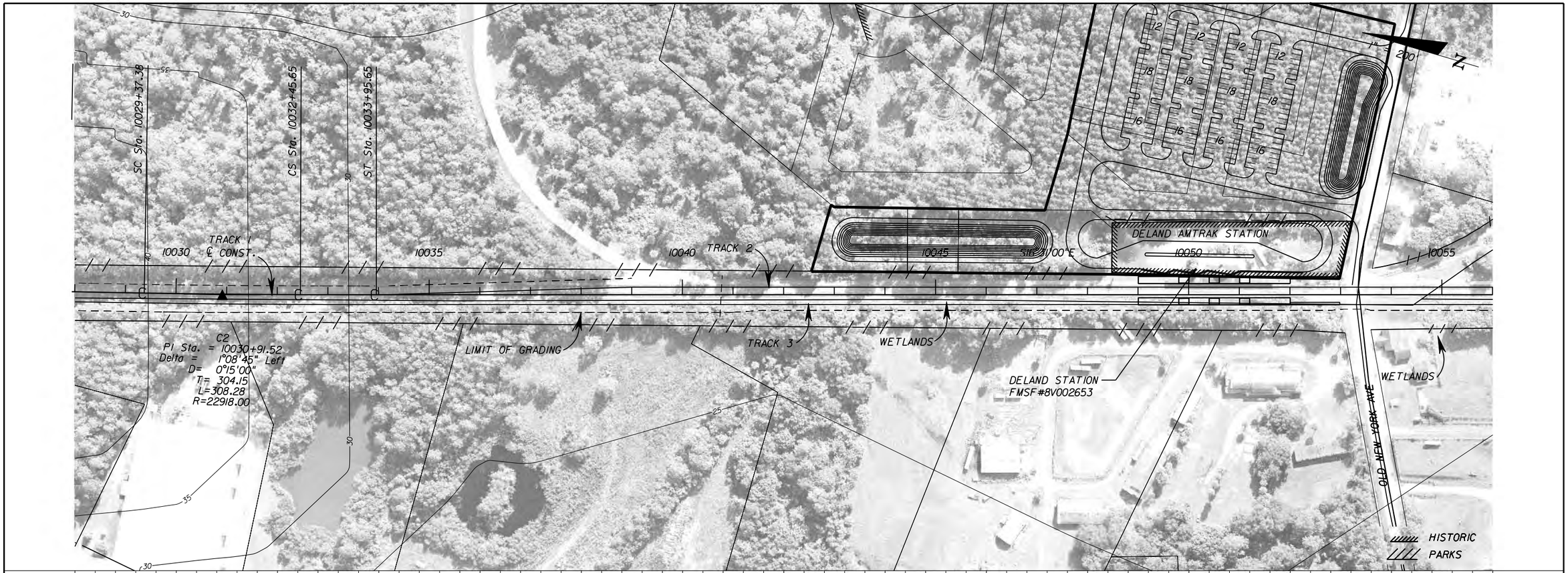

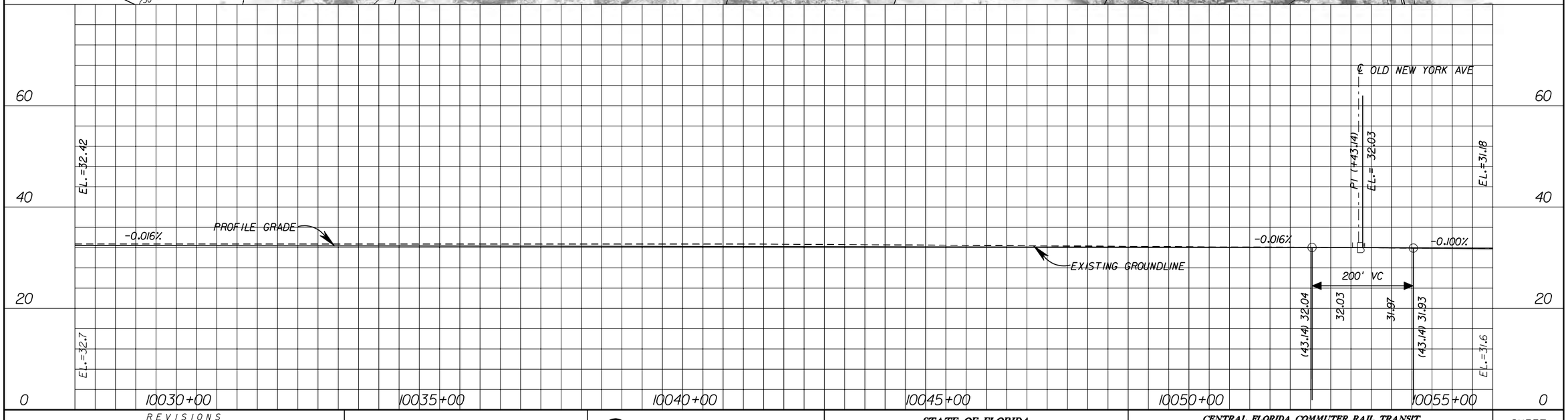

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 2

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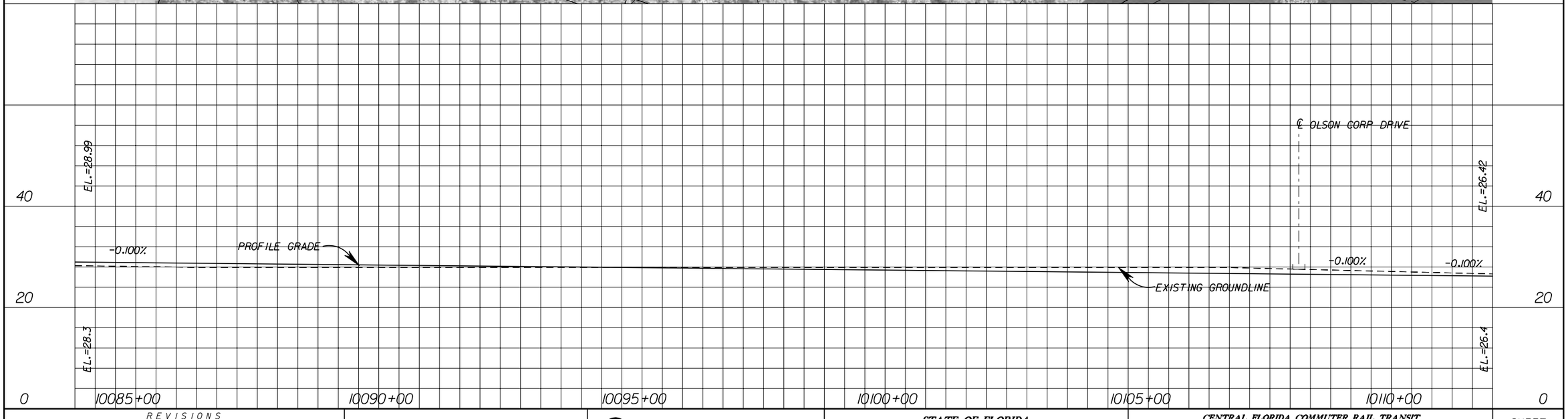
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 3



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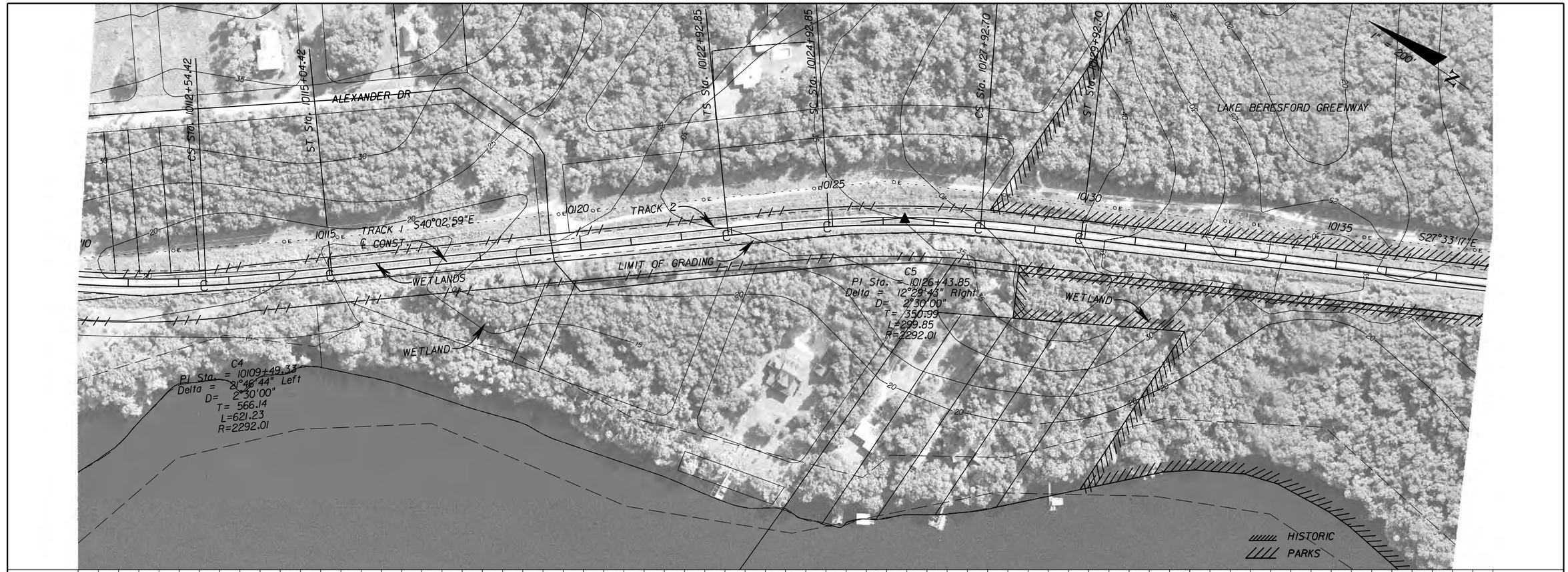
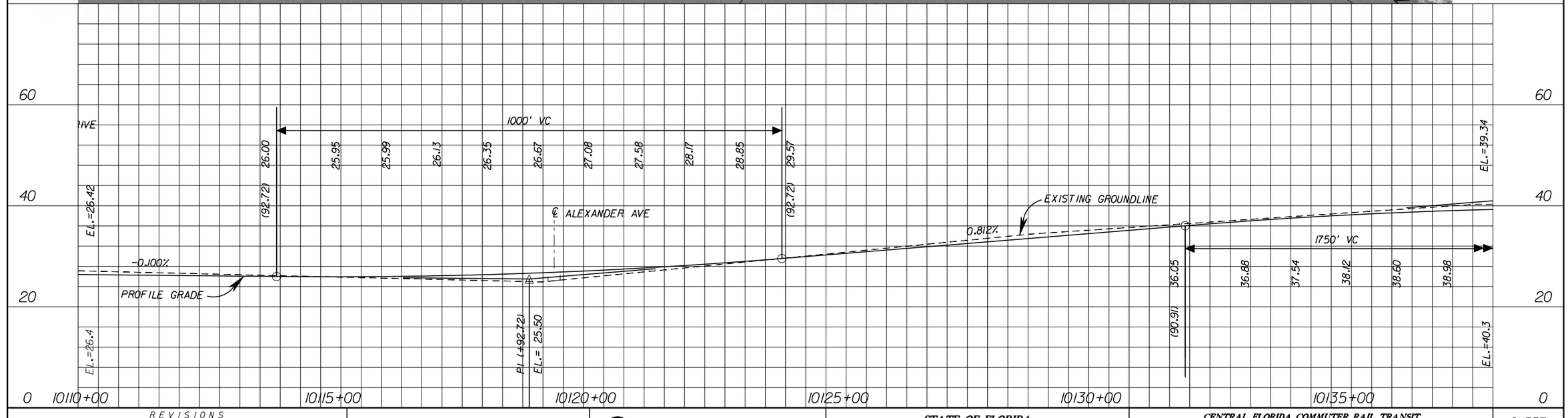
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 4





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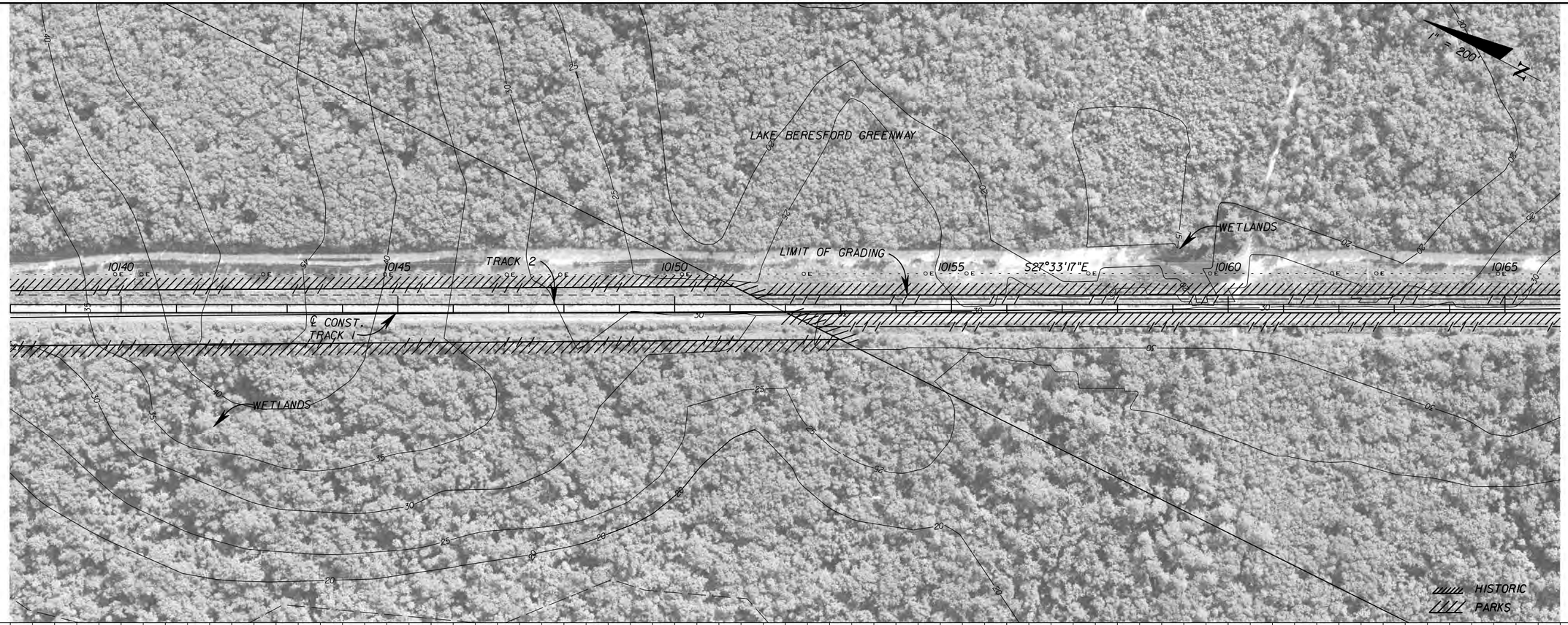
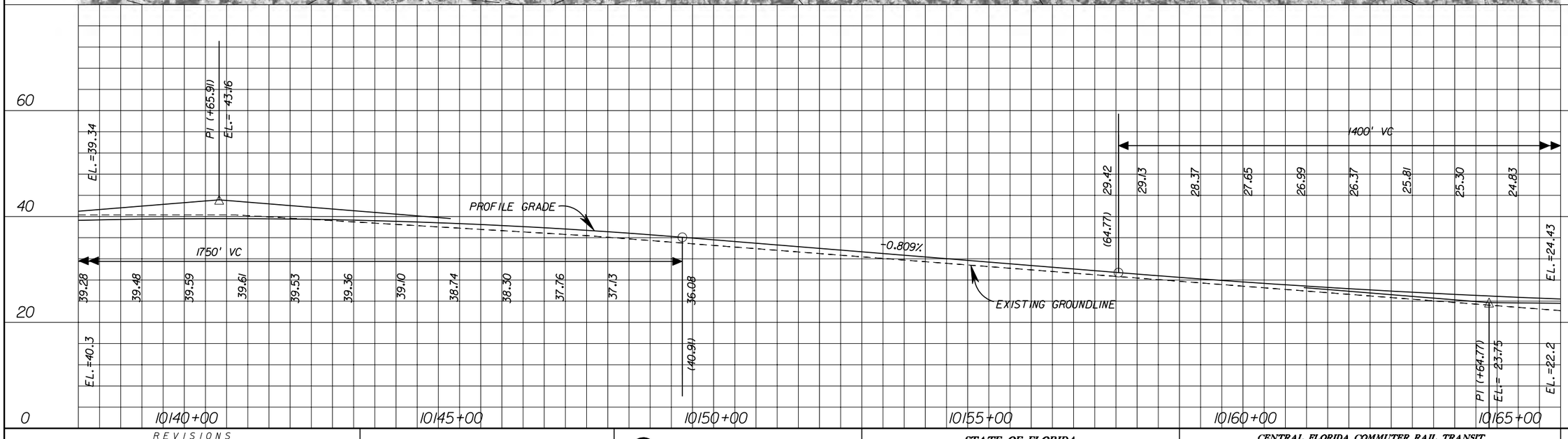
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 5





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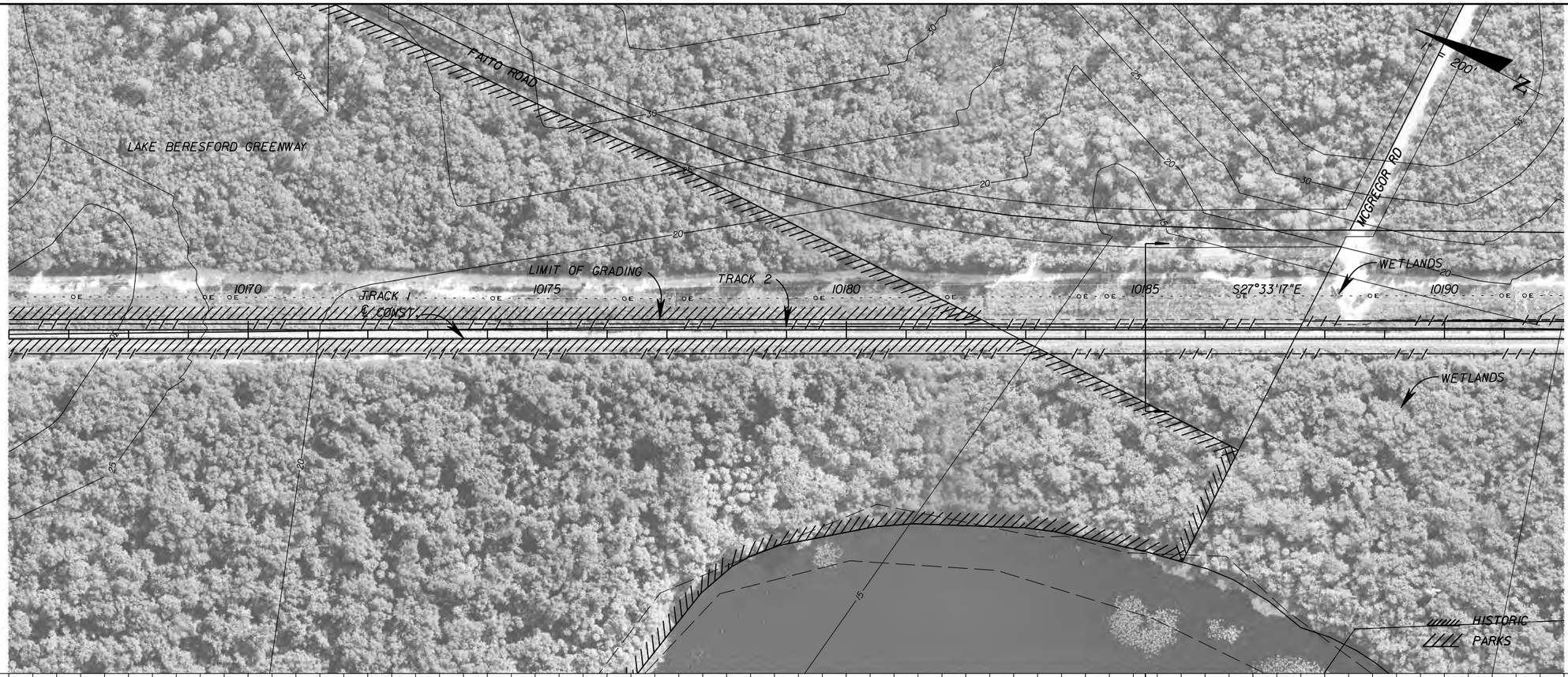
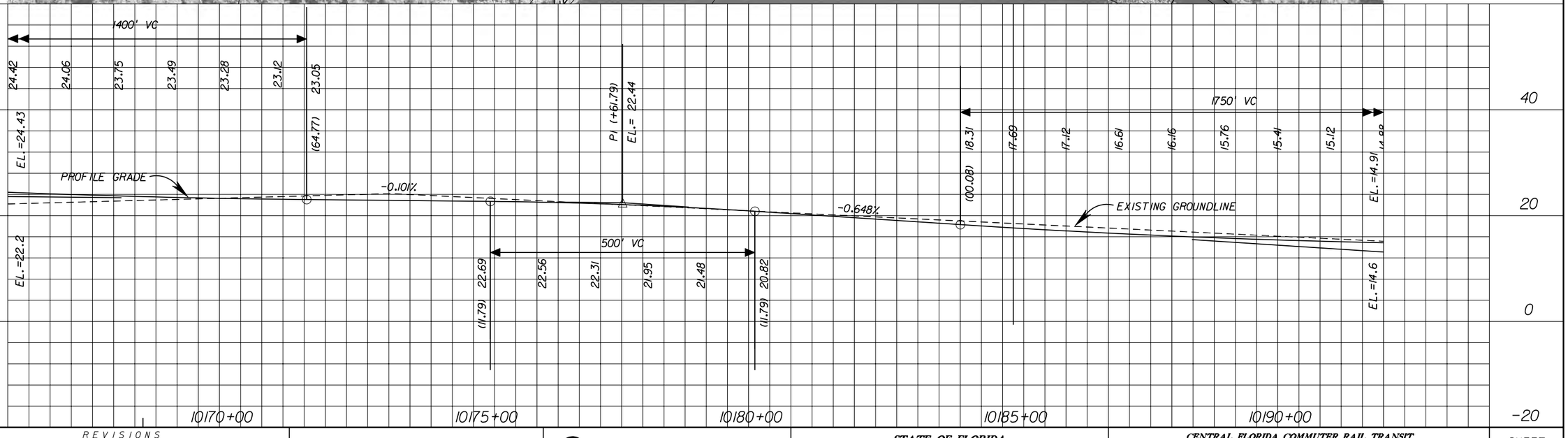
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 6





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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 7

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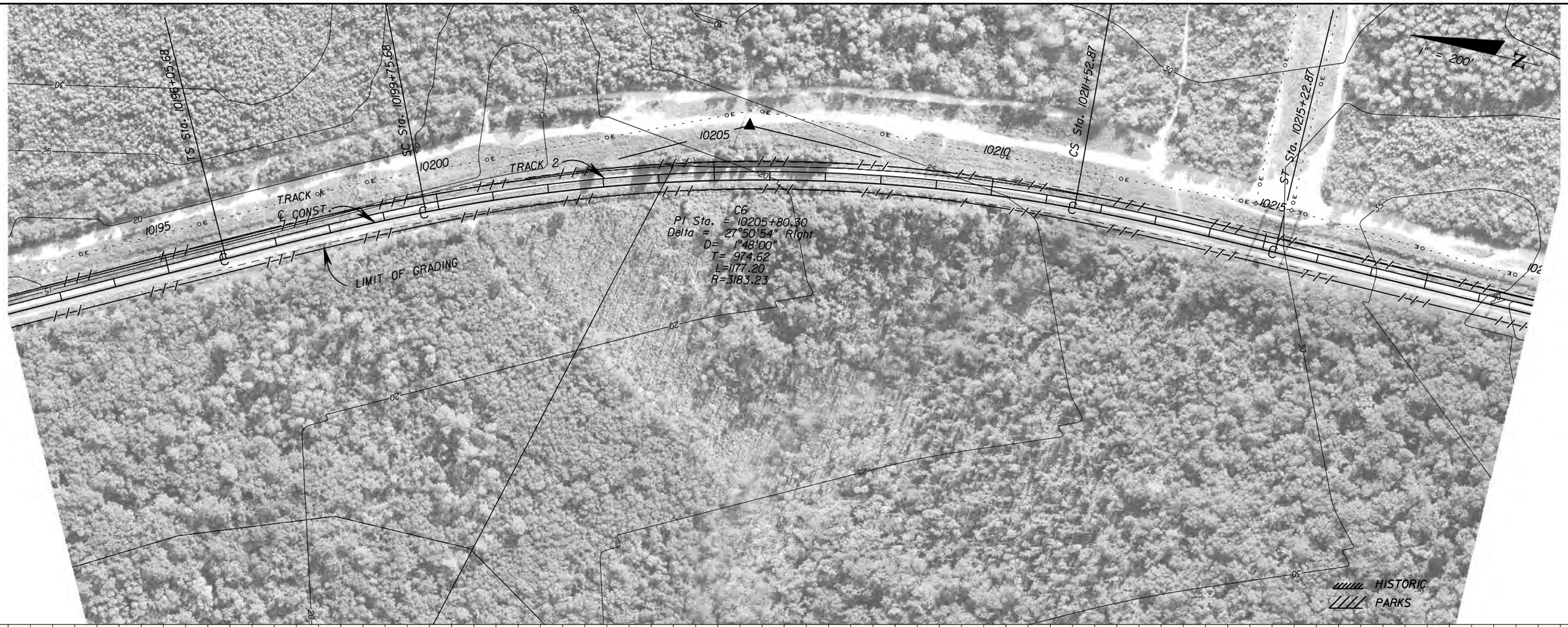

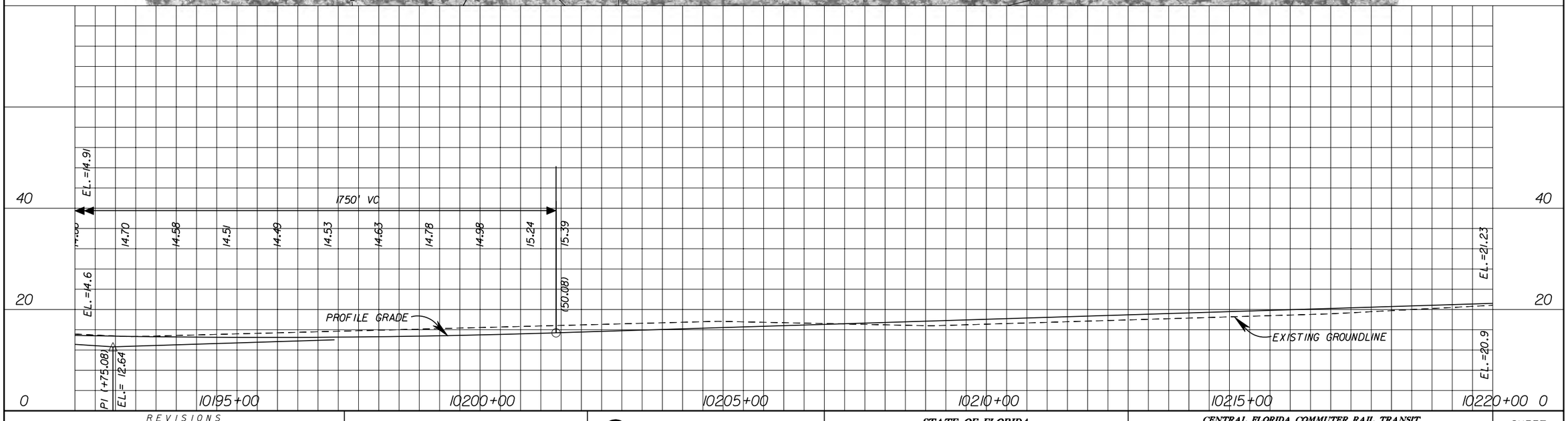

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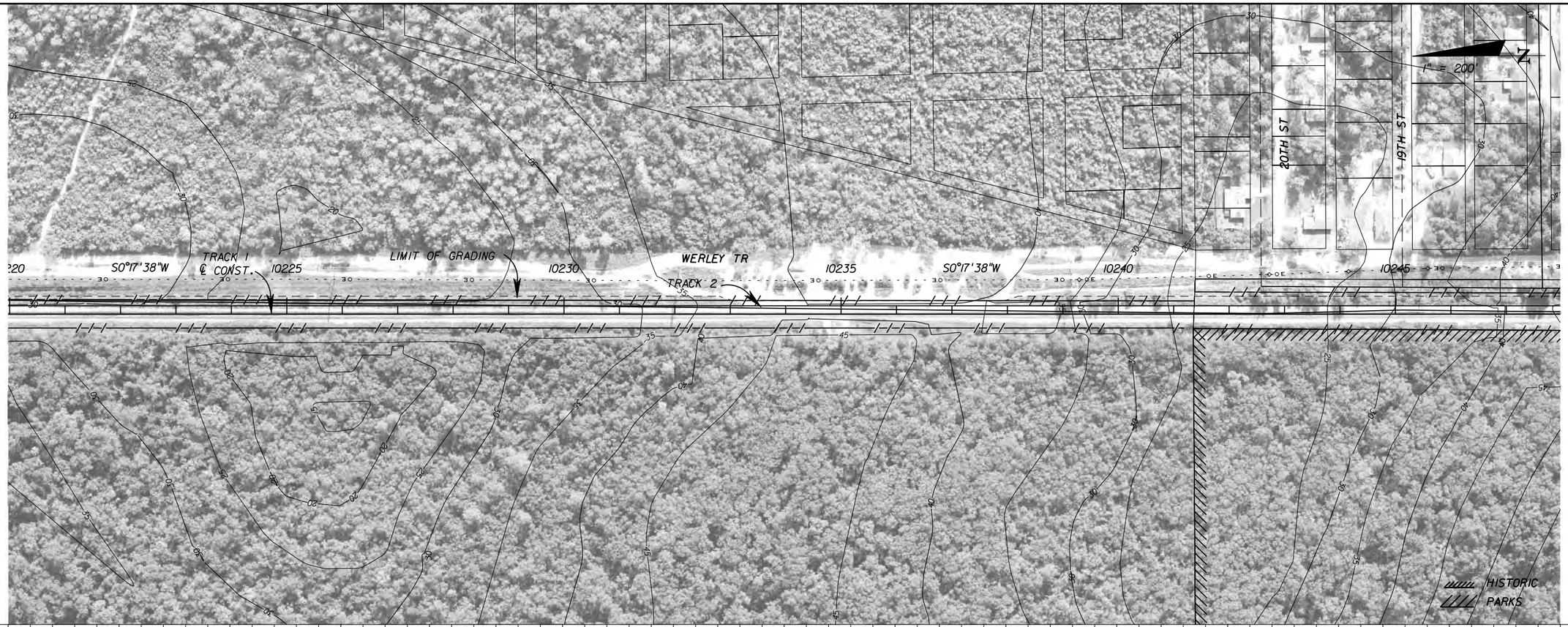
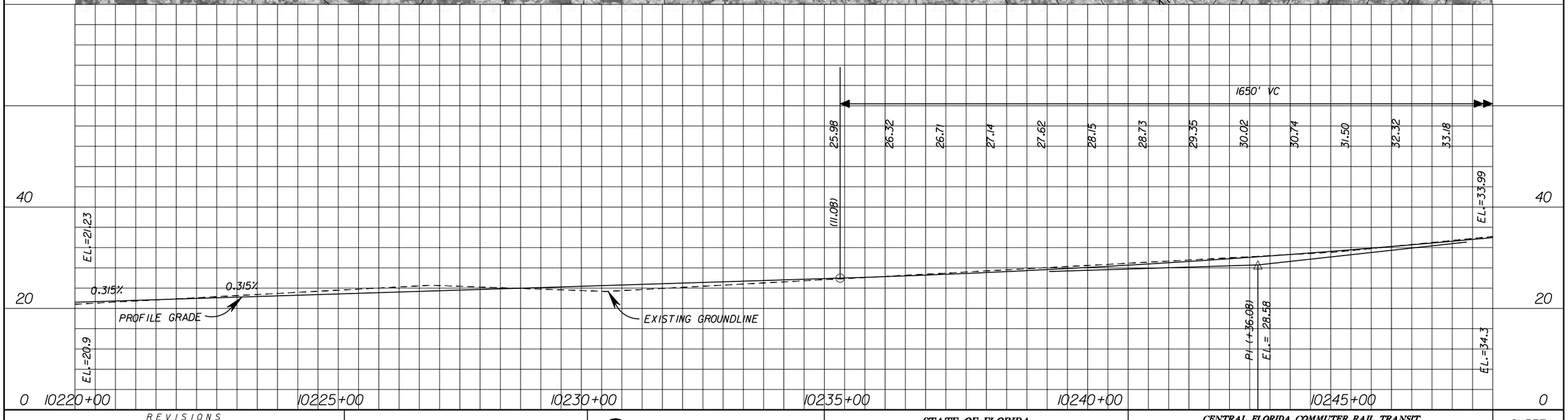
CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 8





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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 9

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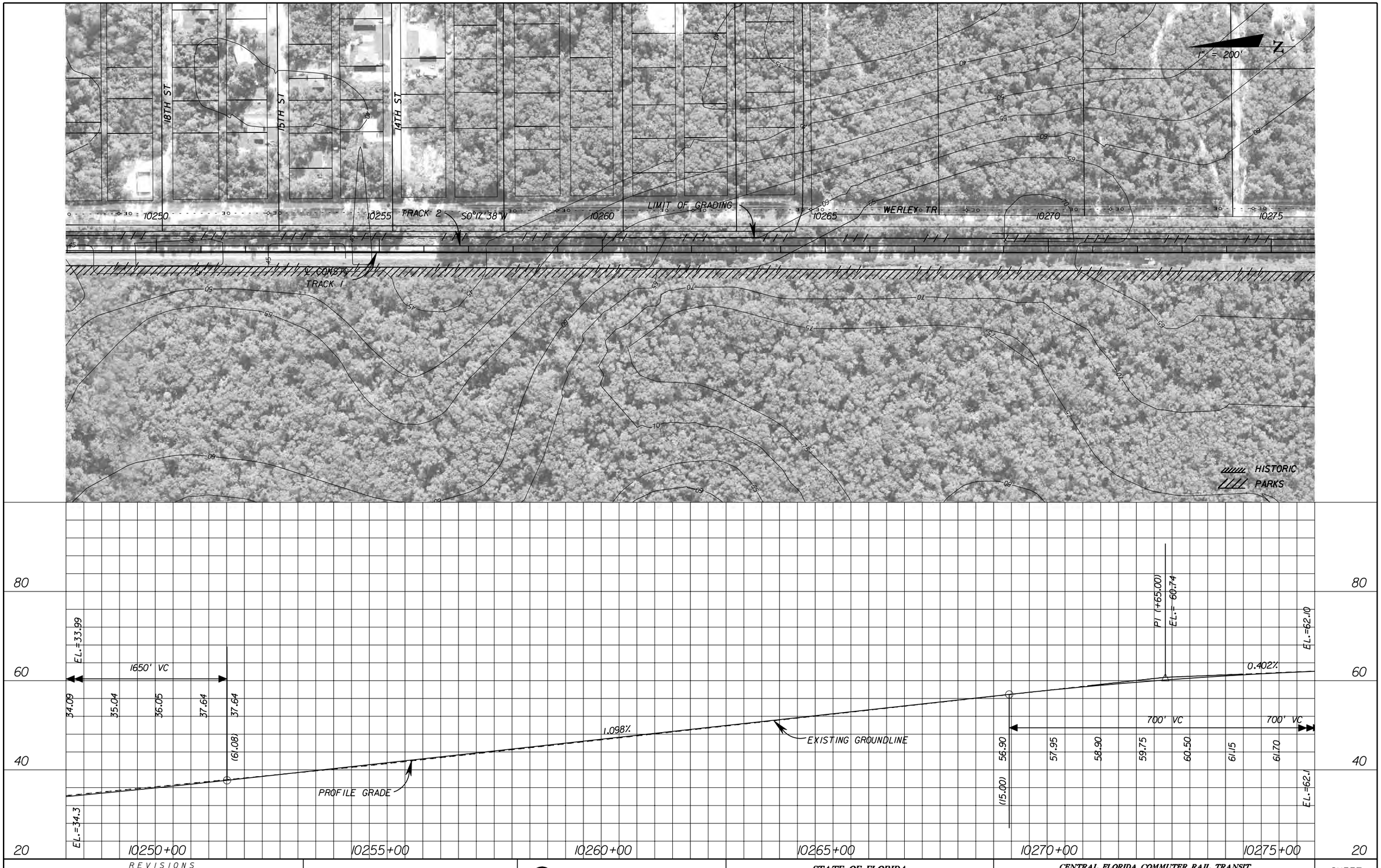

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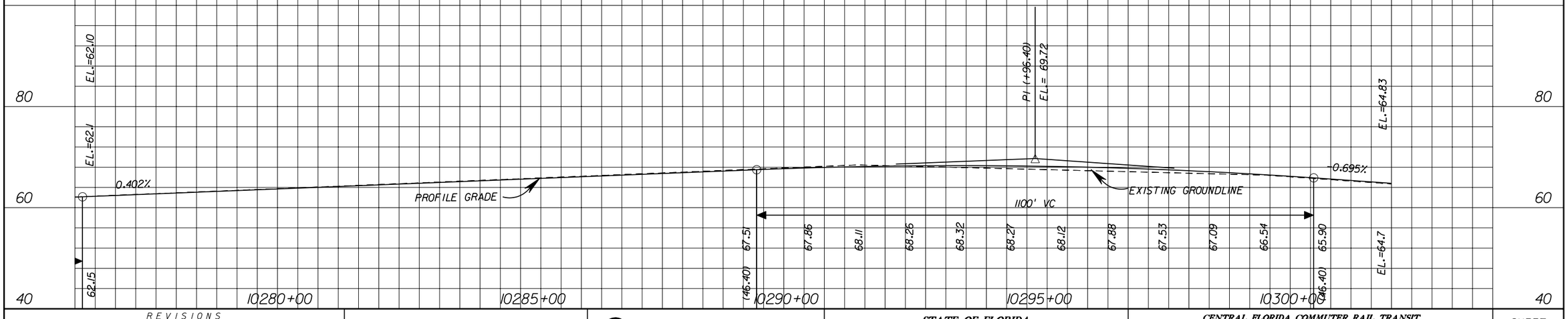
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 10



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CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 11

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CRT	VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 12

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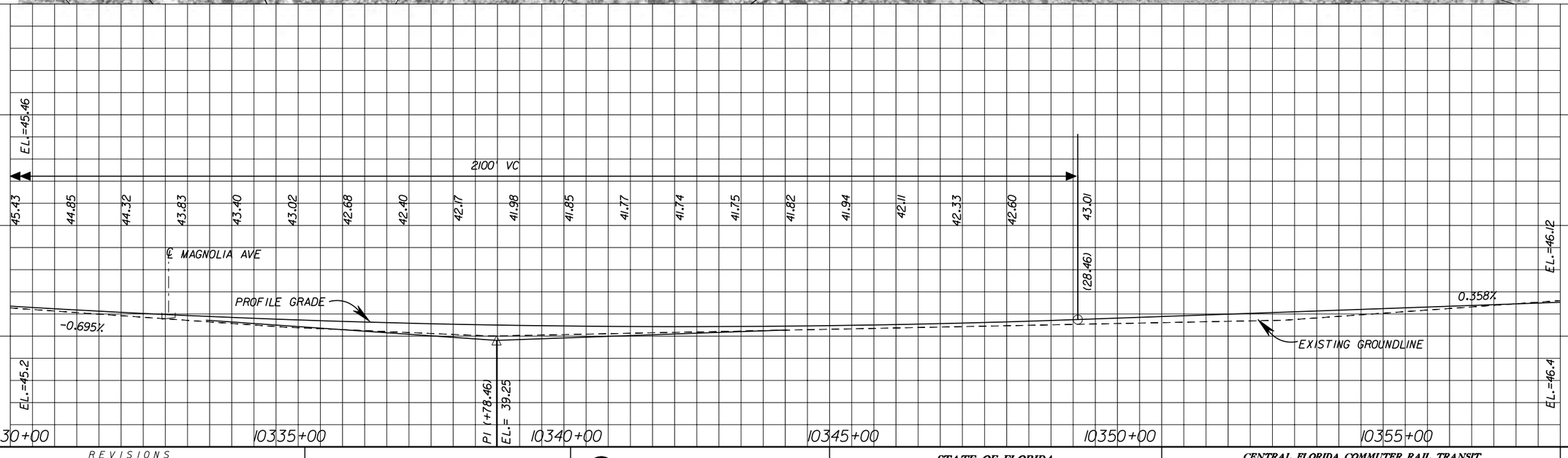

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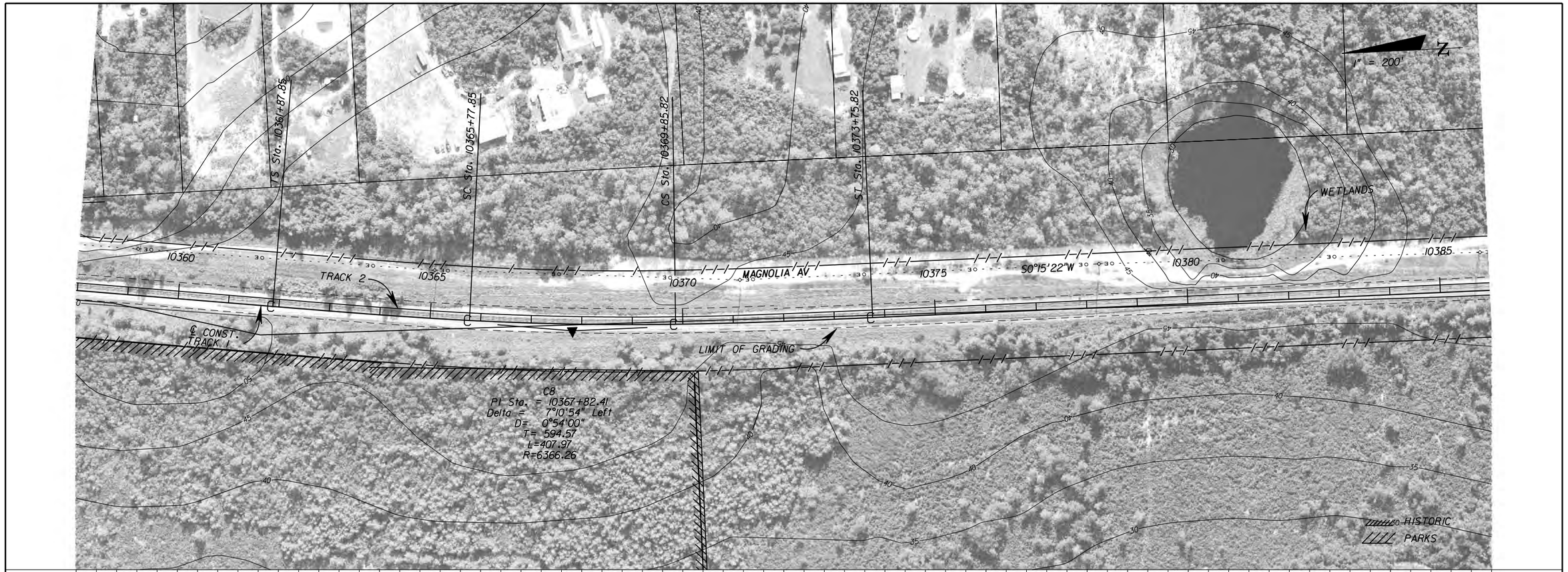
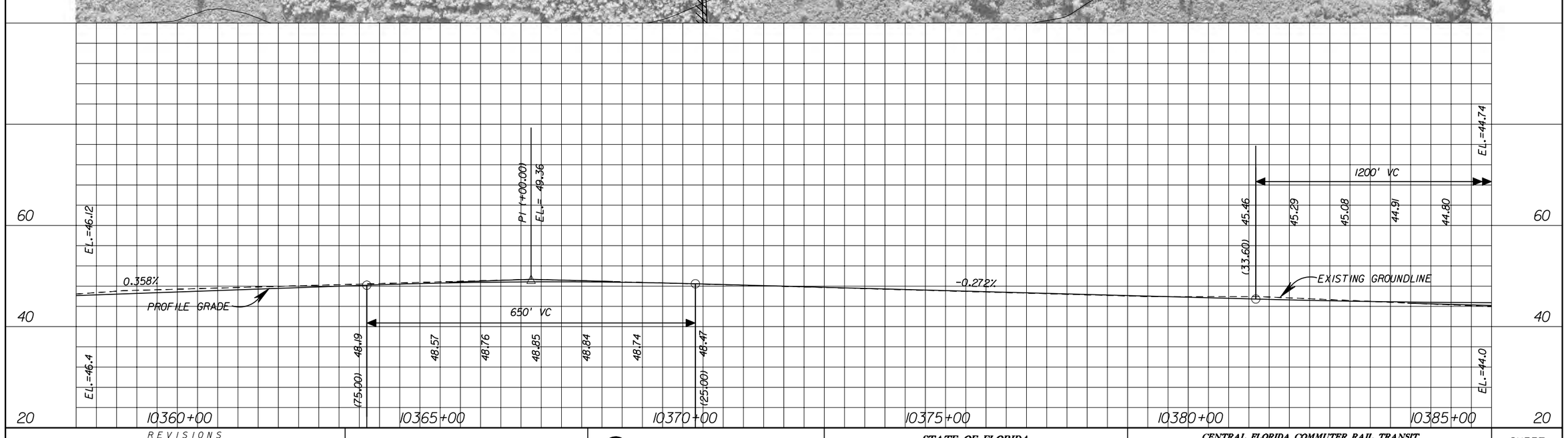
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 13





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CRT	VOLUSIA	412994-1-22-01

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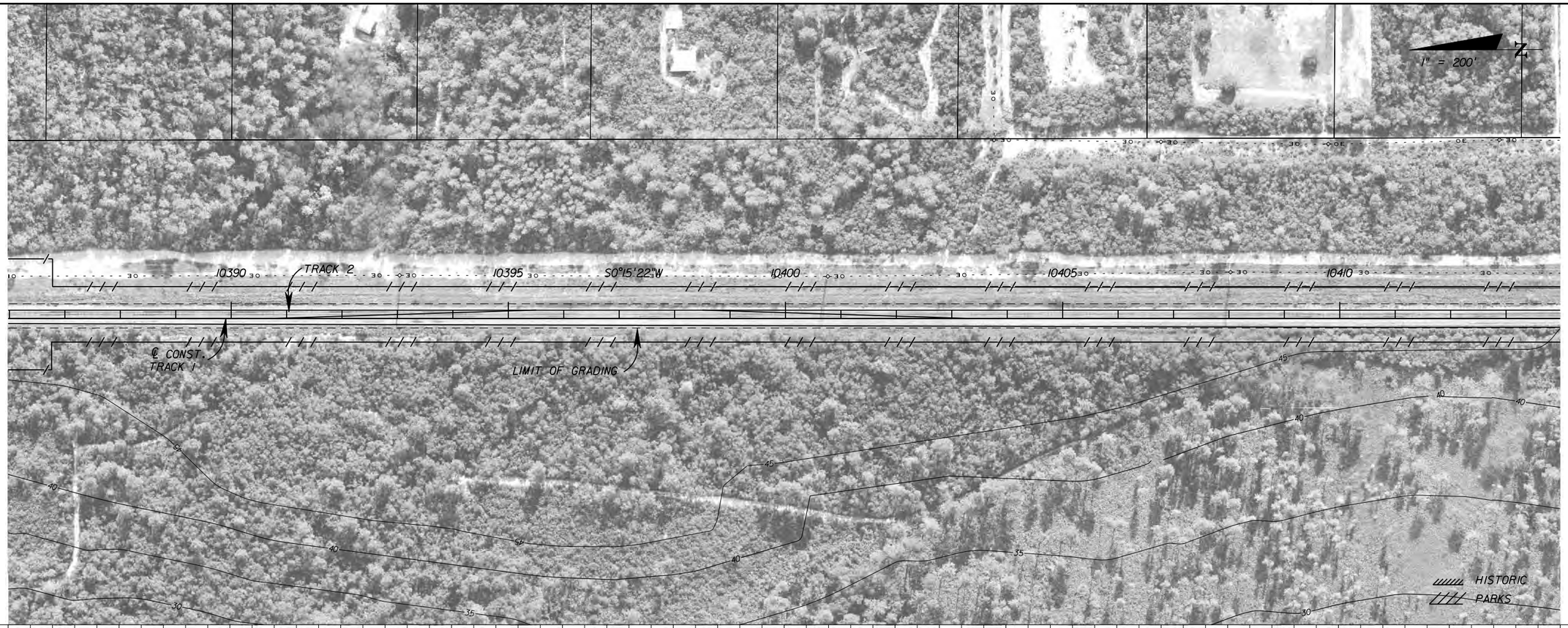
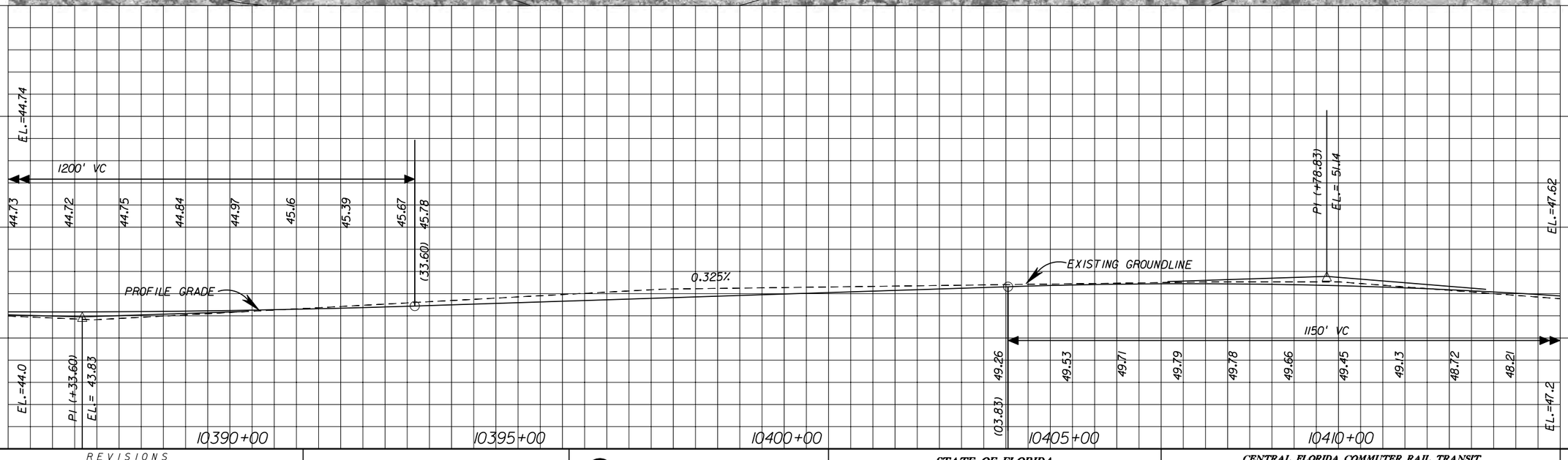
PLAN AND PROFILE

SHEET NO. 14





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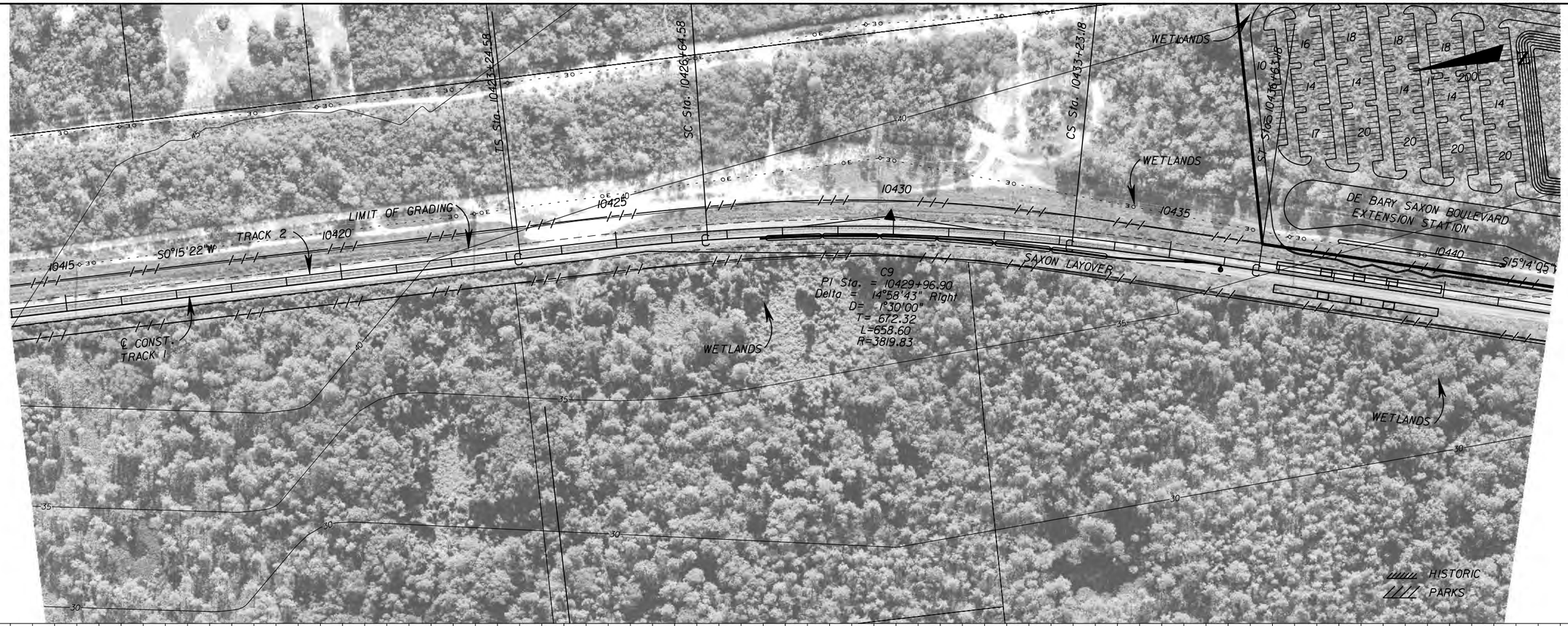
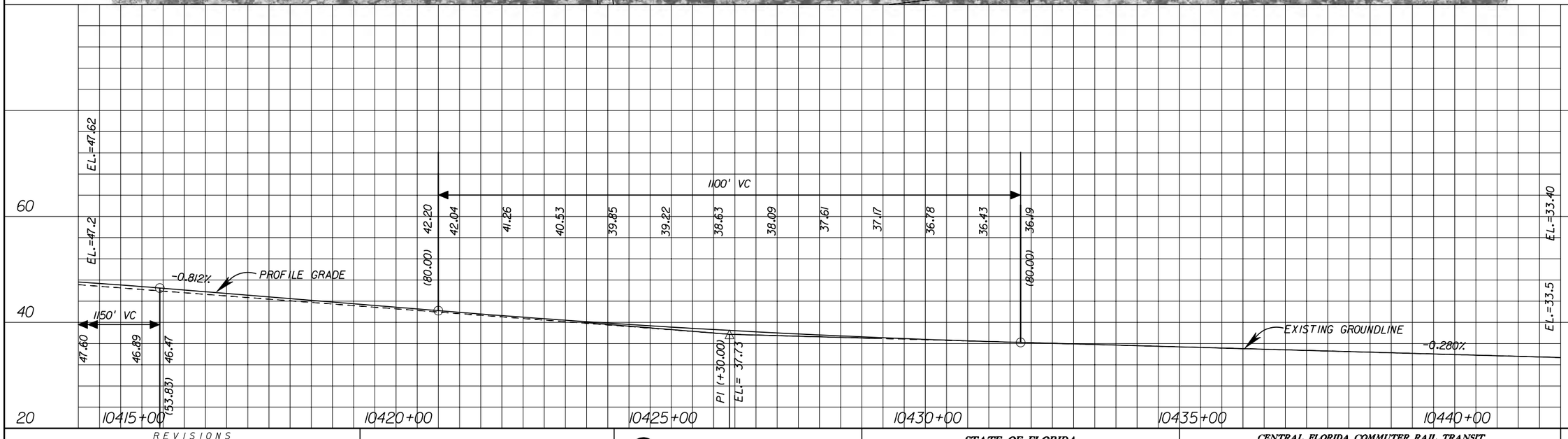
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 15





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PLAN AND PROFILE

SHEET NO. 16

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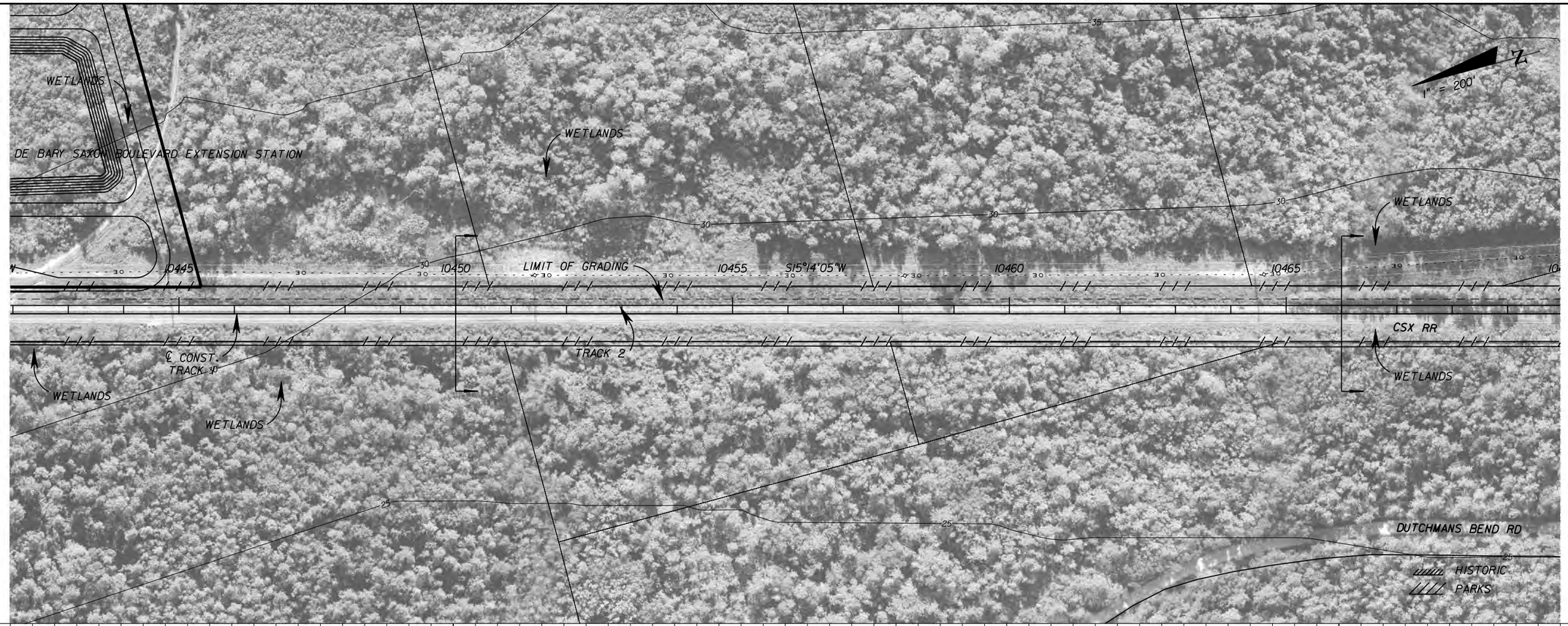

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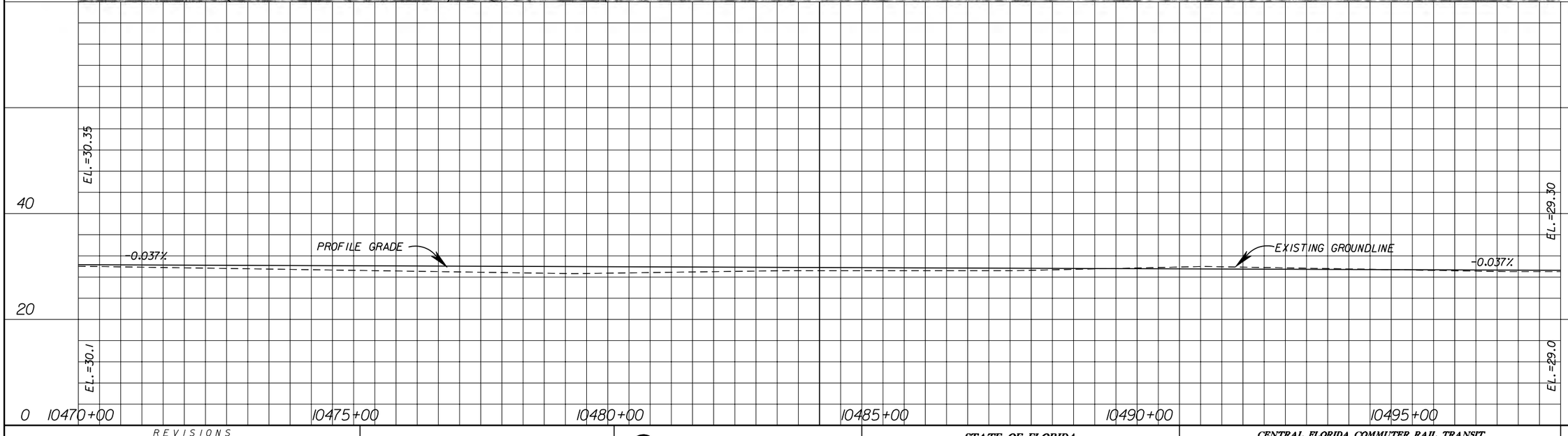
PLAN AND PROFILE

SHEET NO. 17



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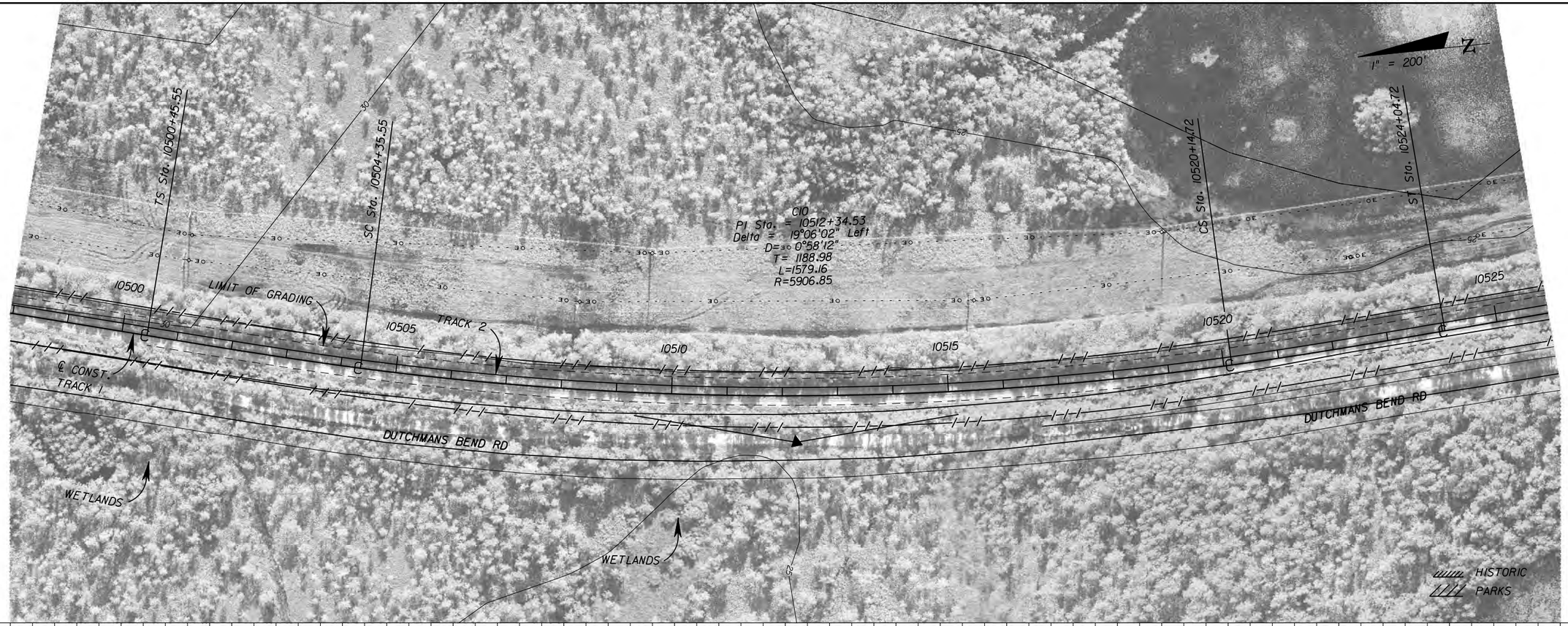

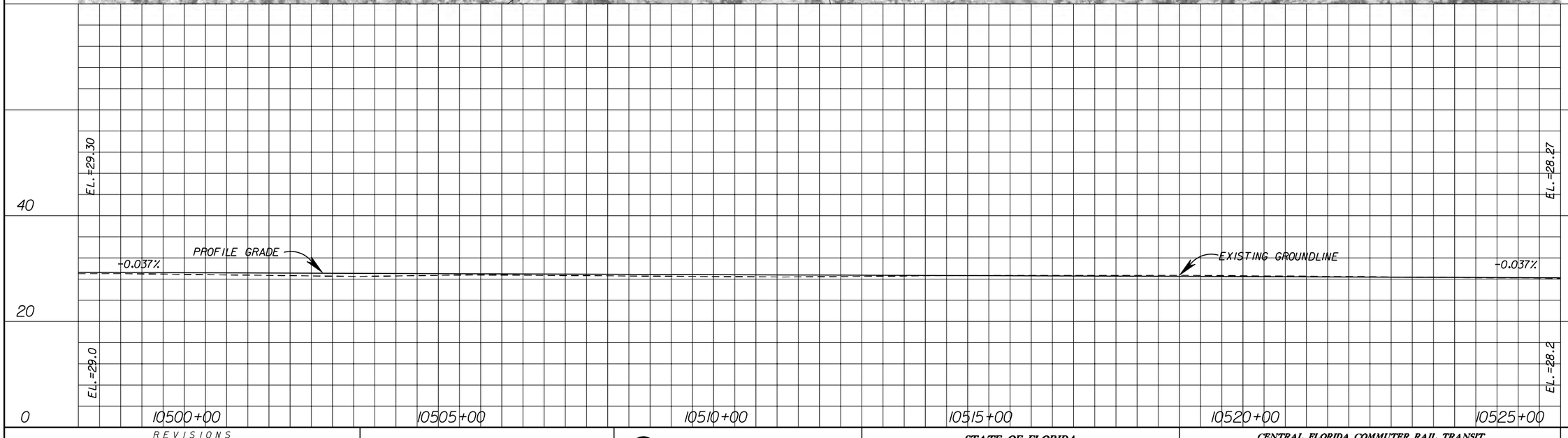

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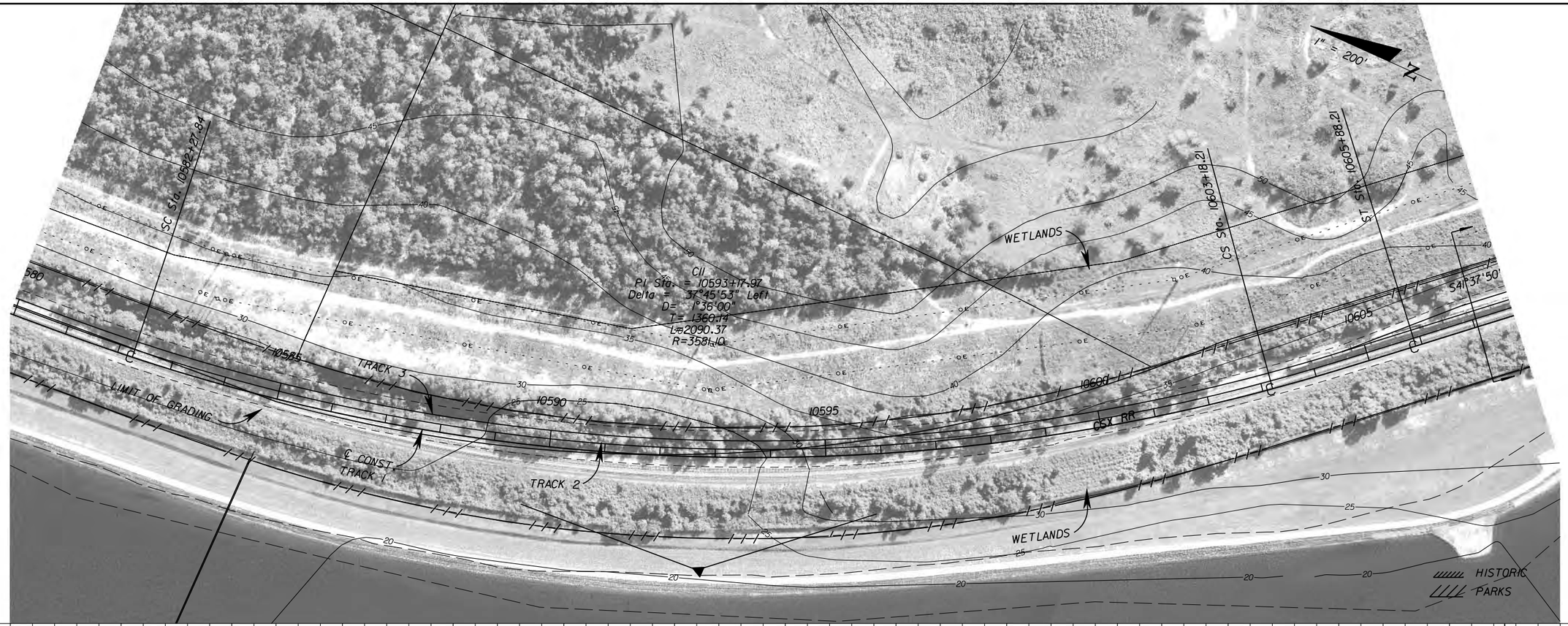

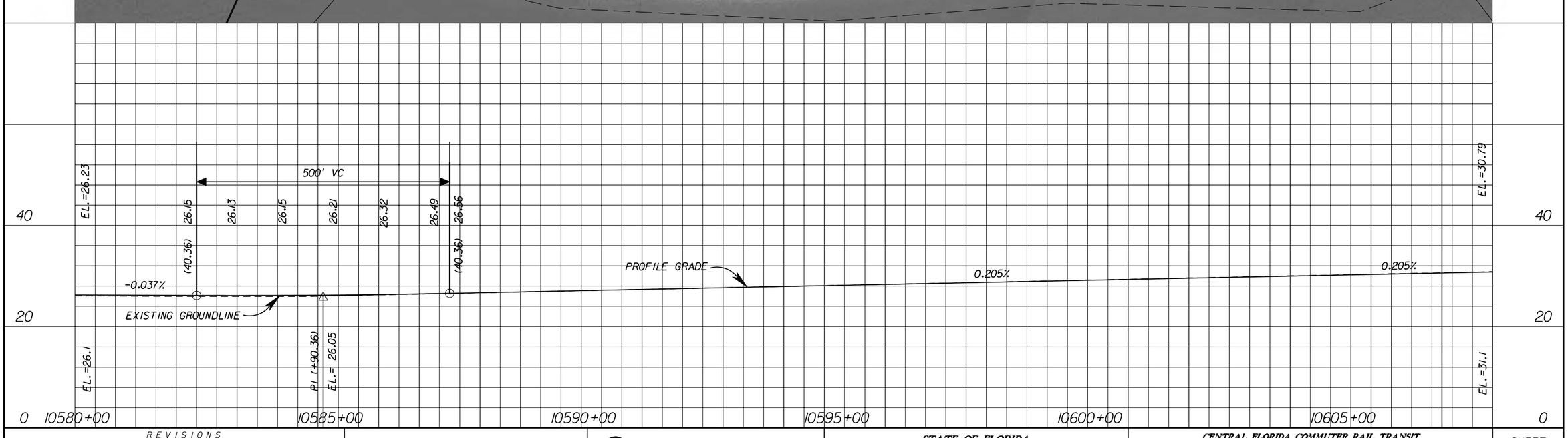

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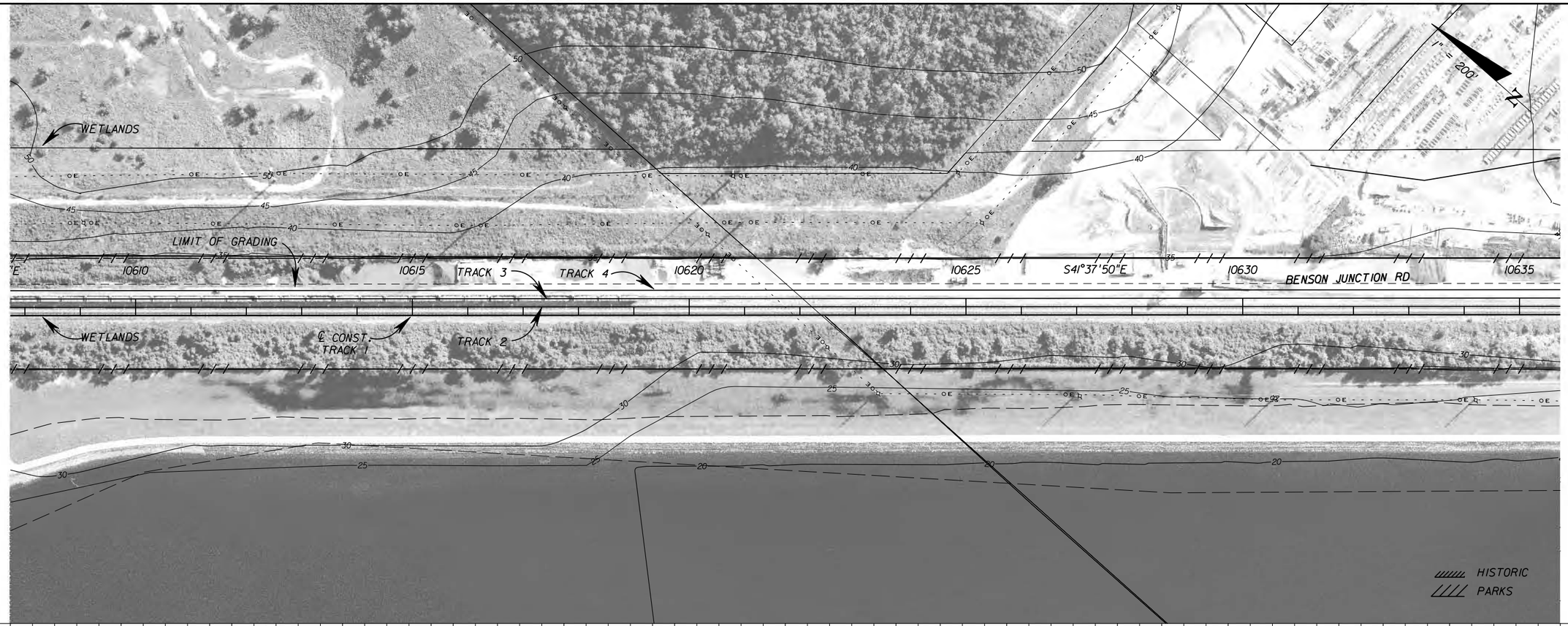

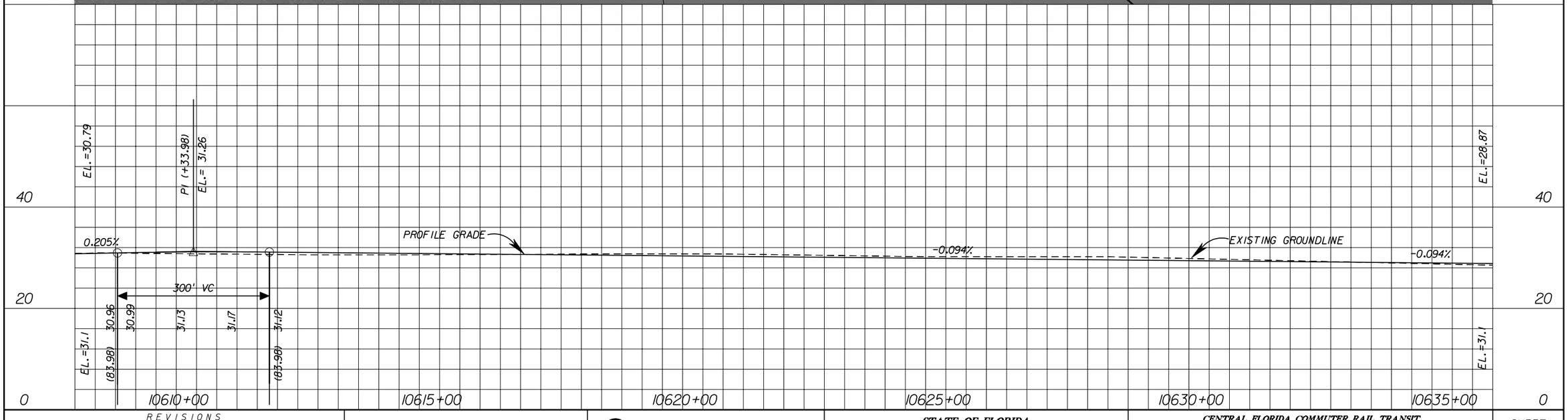

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PLAN AND PROFILE

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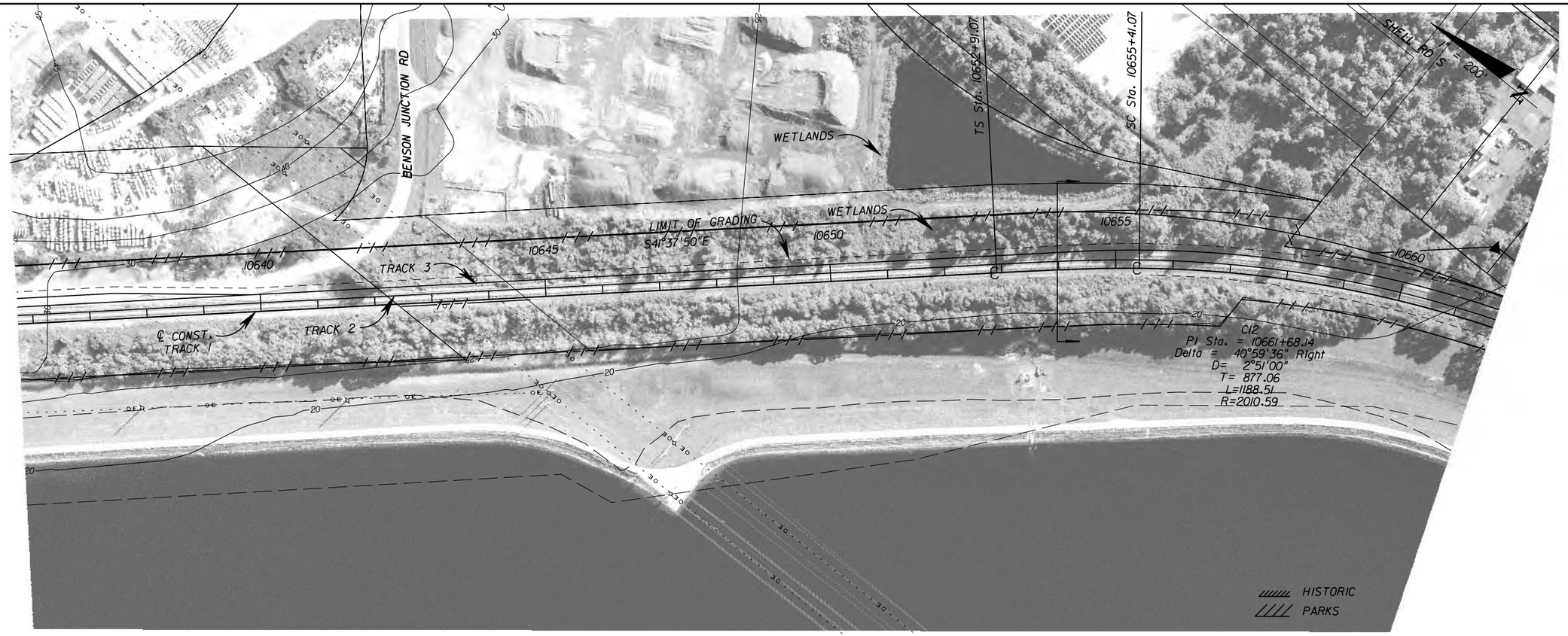

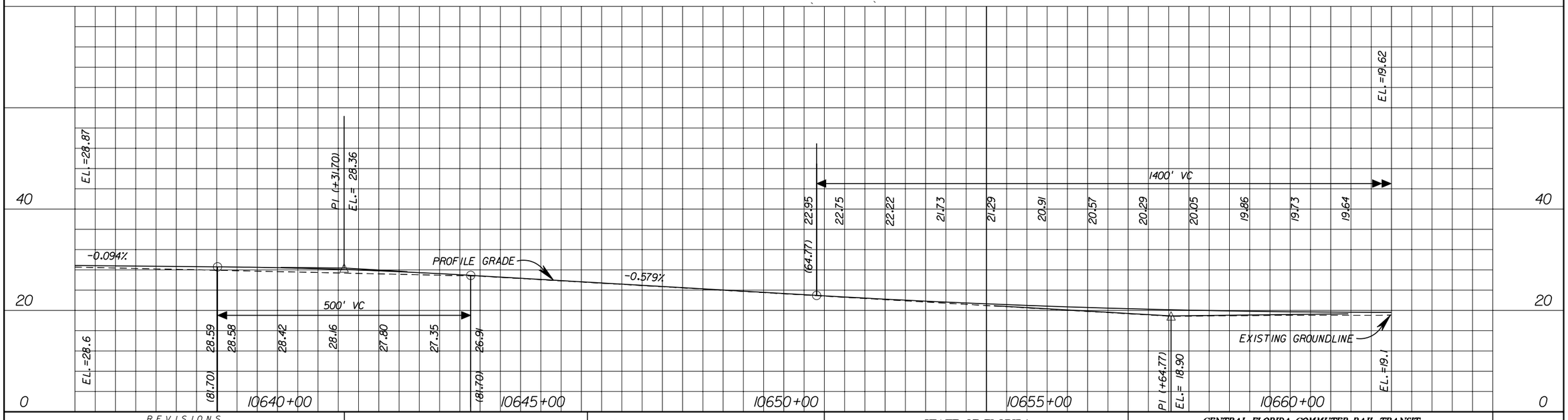

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PLAN AND PROFILE

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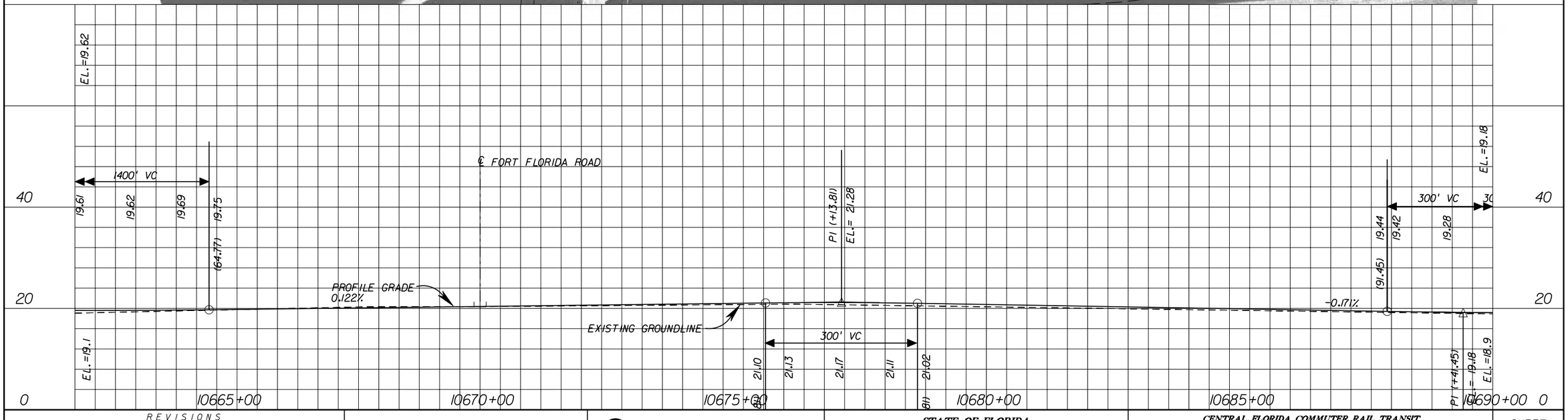

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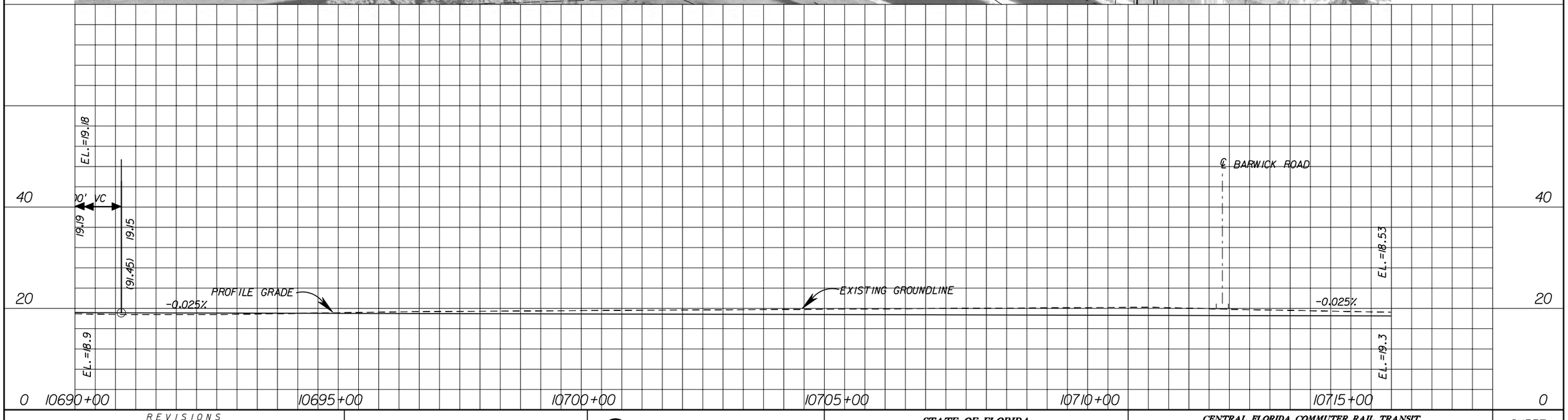

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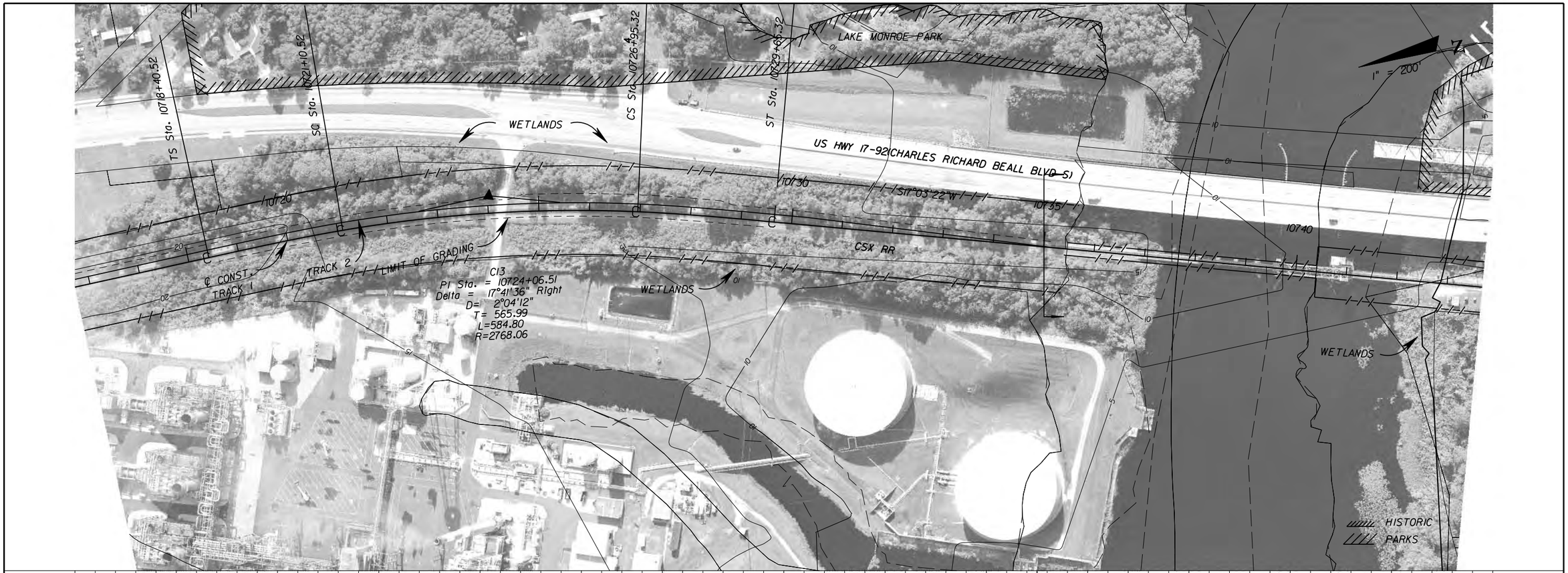
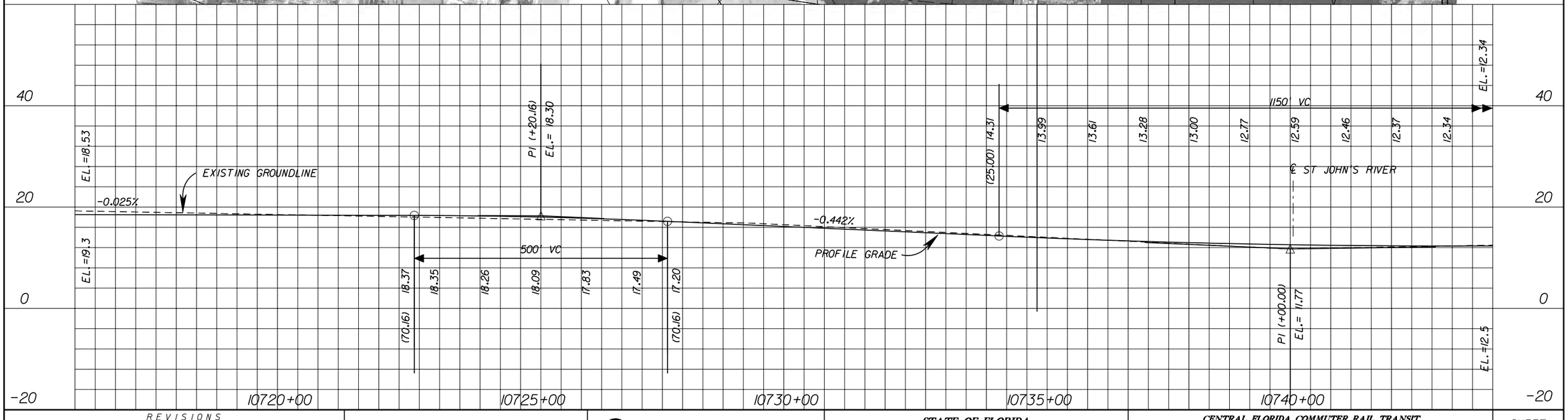
PLAN AND PROFILE

SHEET NO. 26





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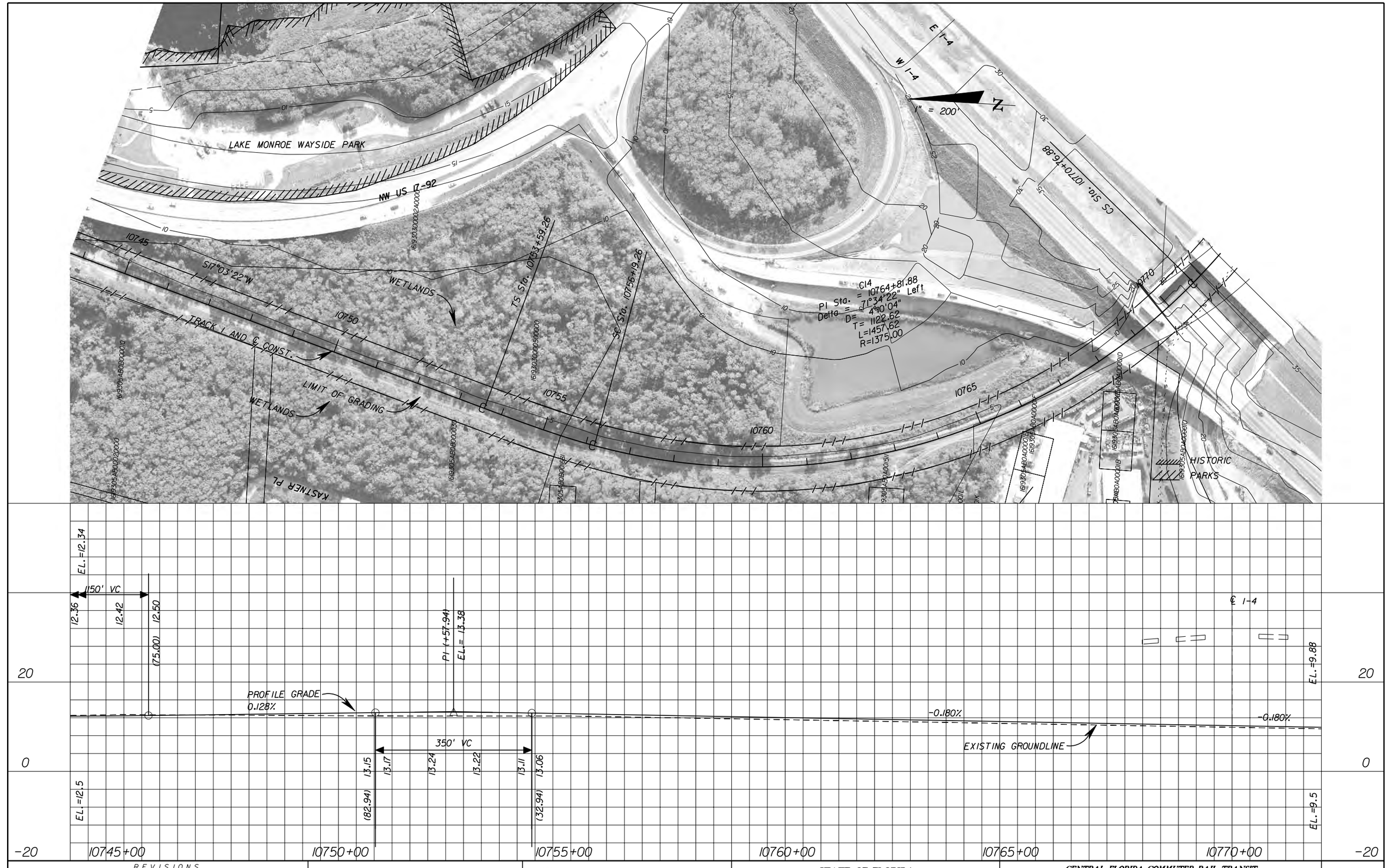
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 27



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CRT	SEMINOLE	412994-1-22-01

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PLAN AND PROFILE

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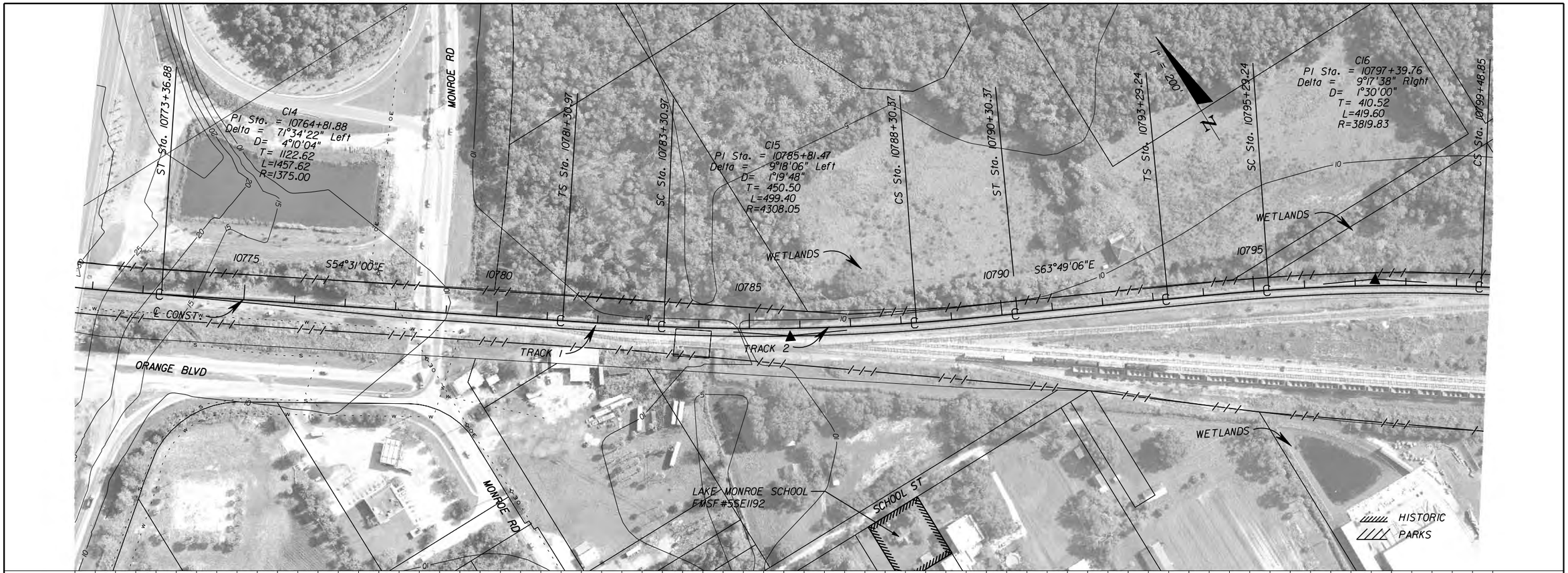

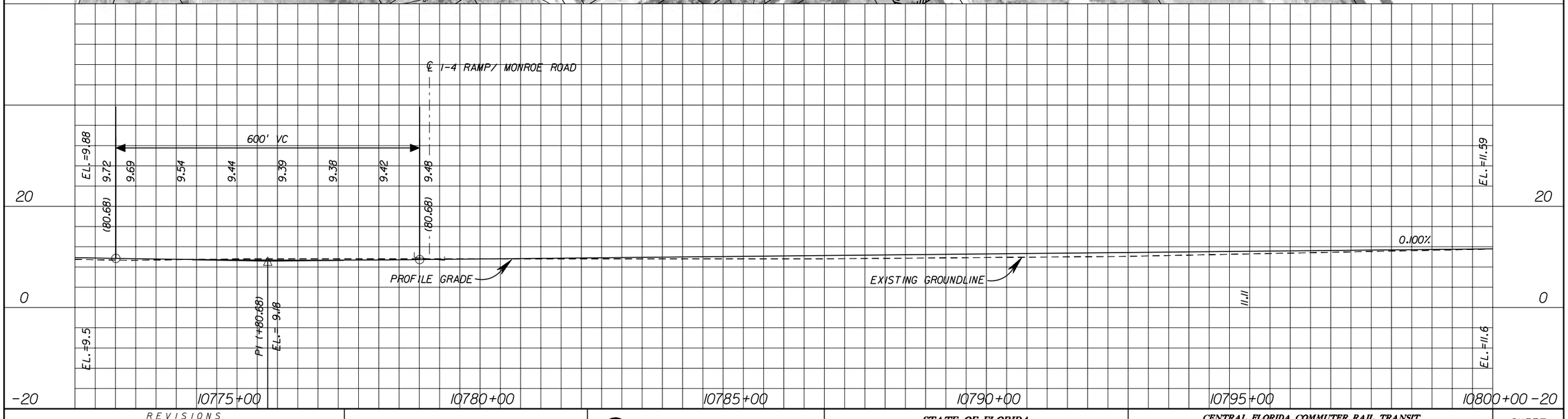

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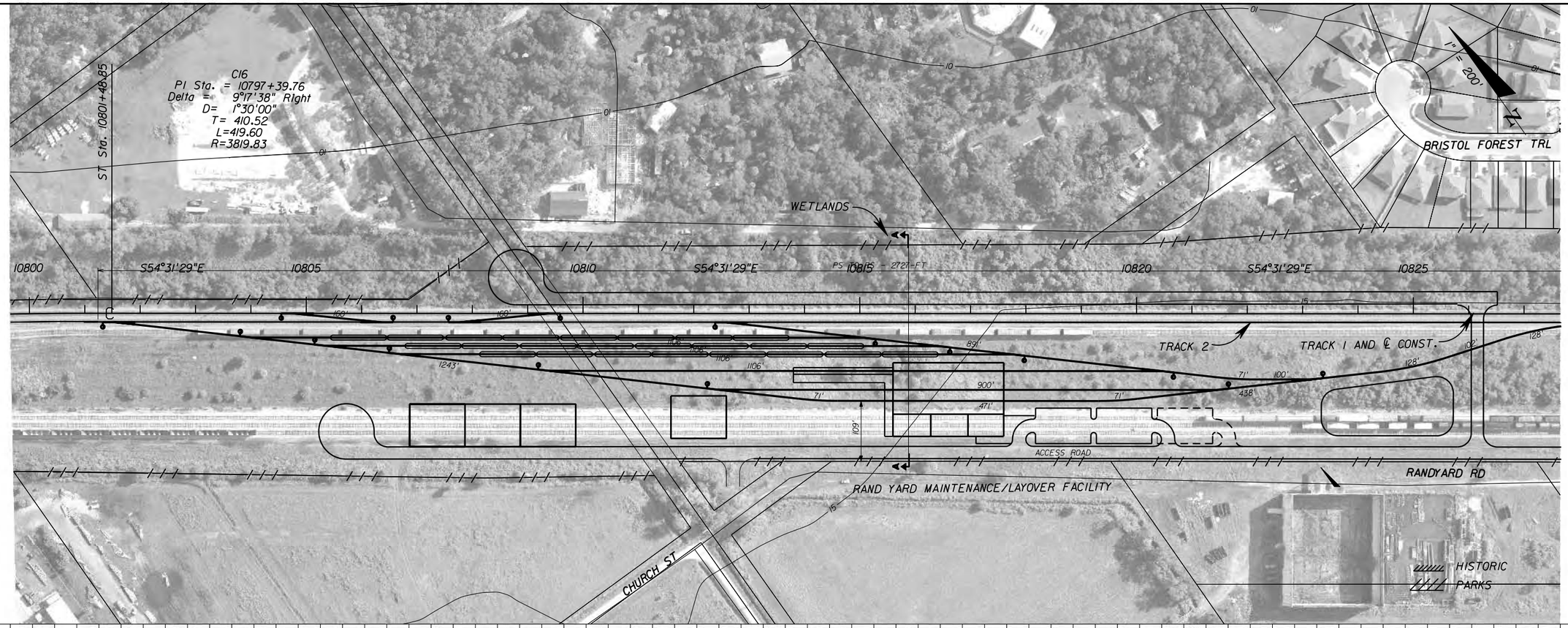

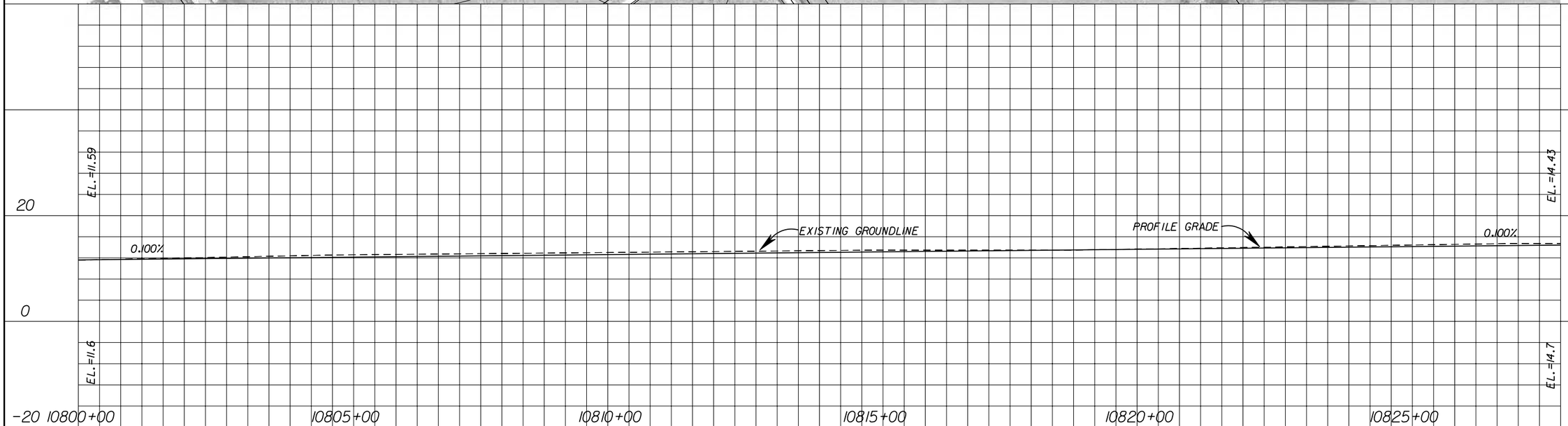

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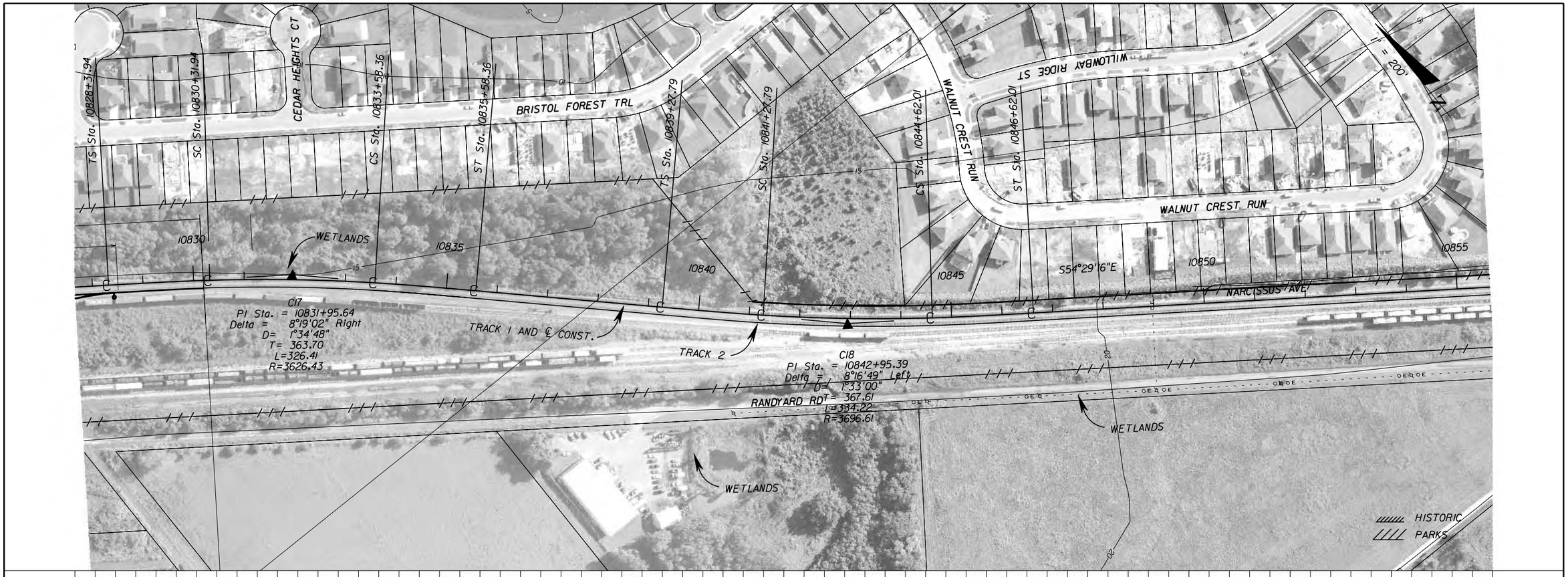
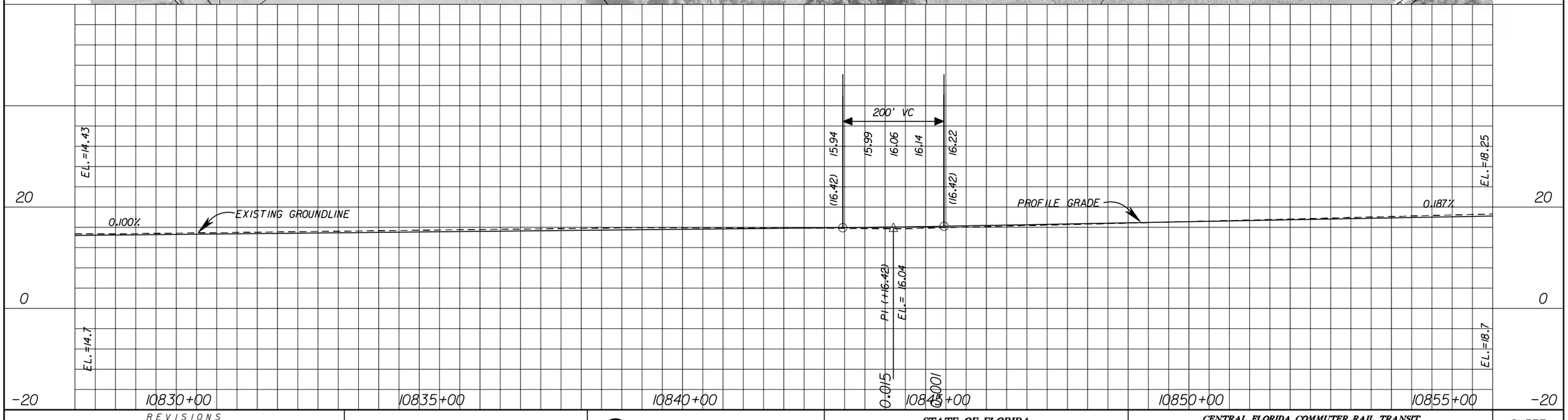
SHEET NO. 30





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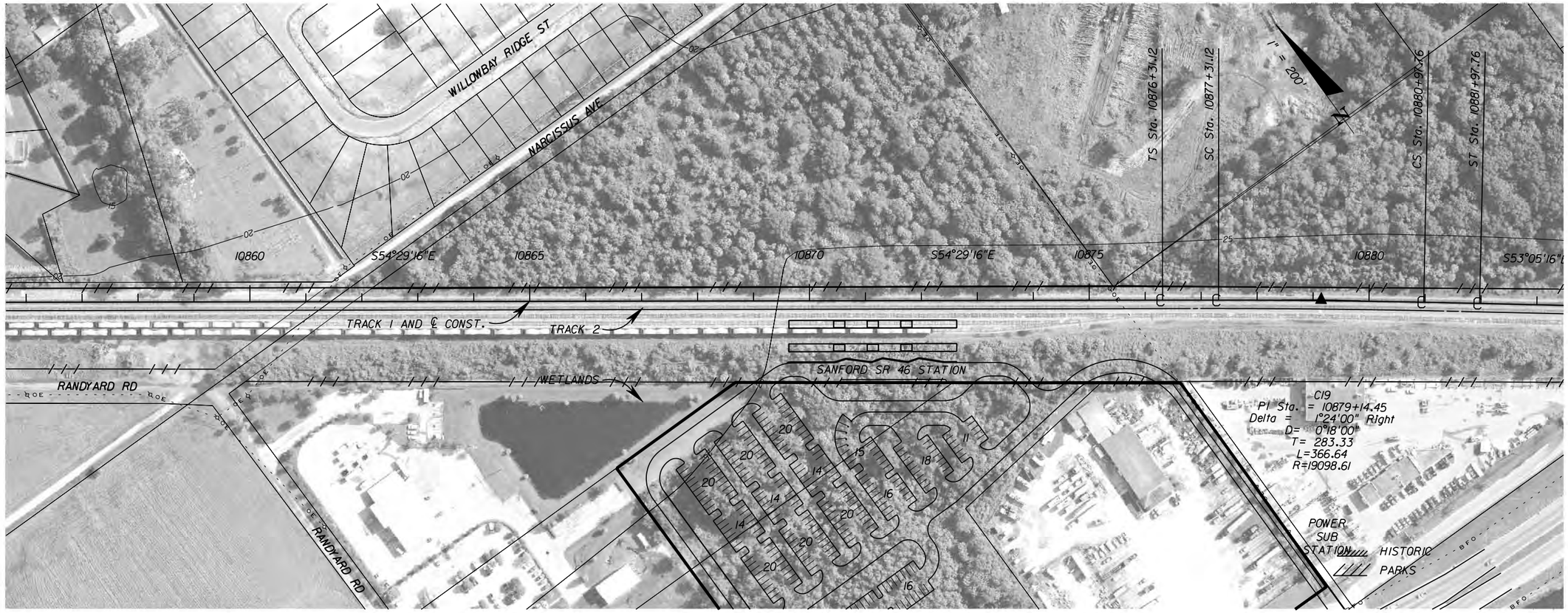

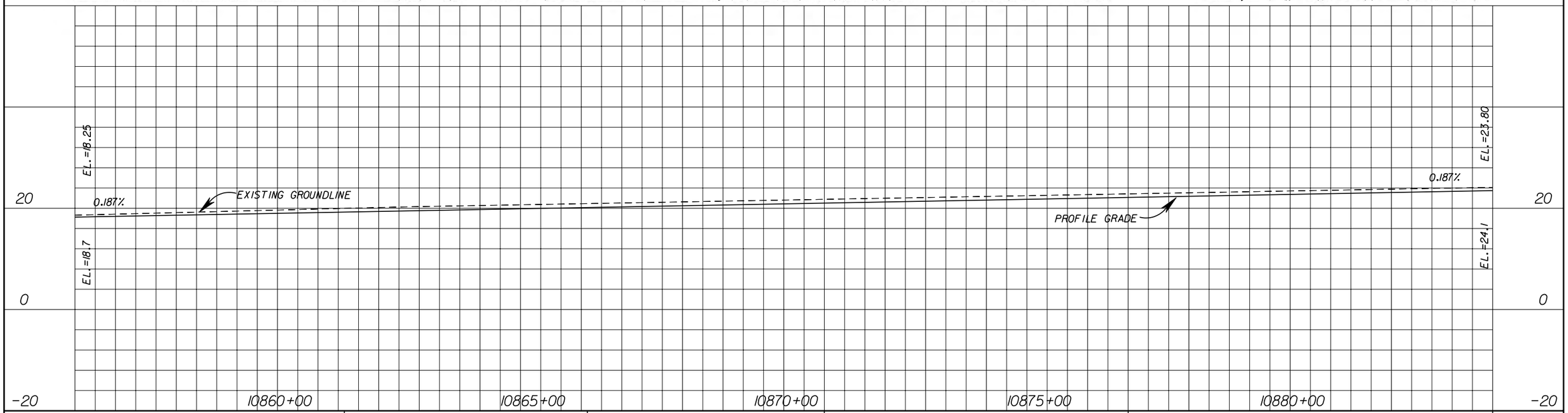

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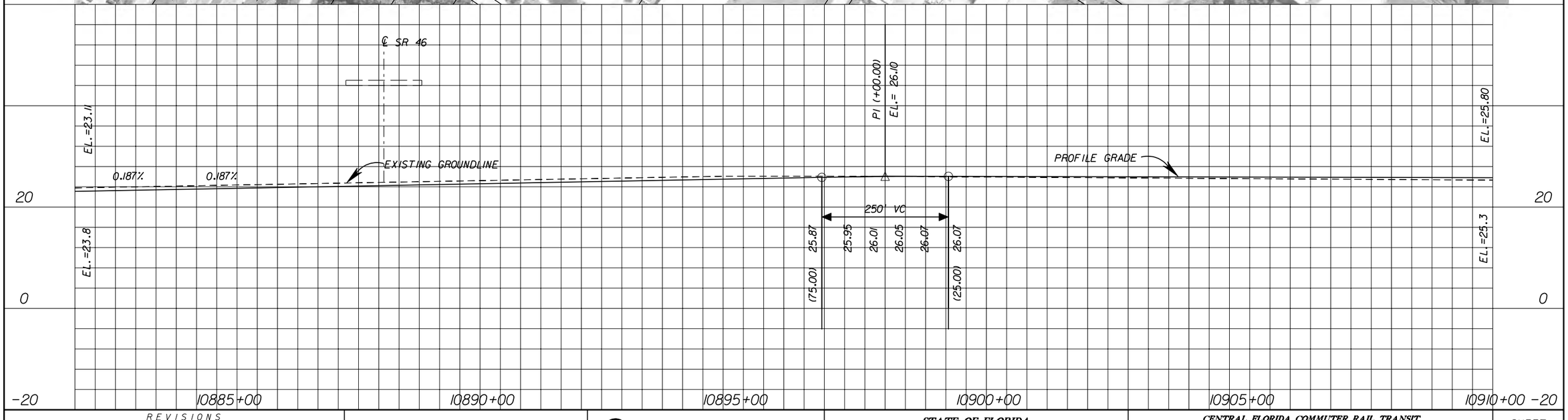

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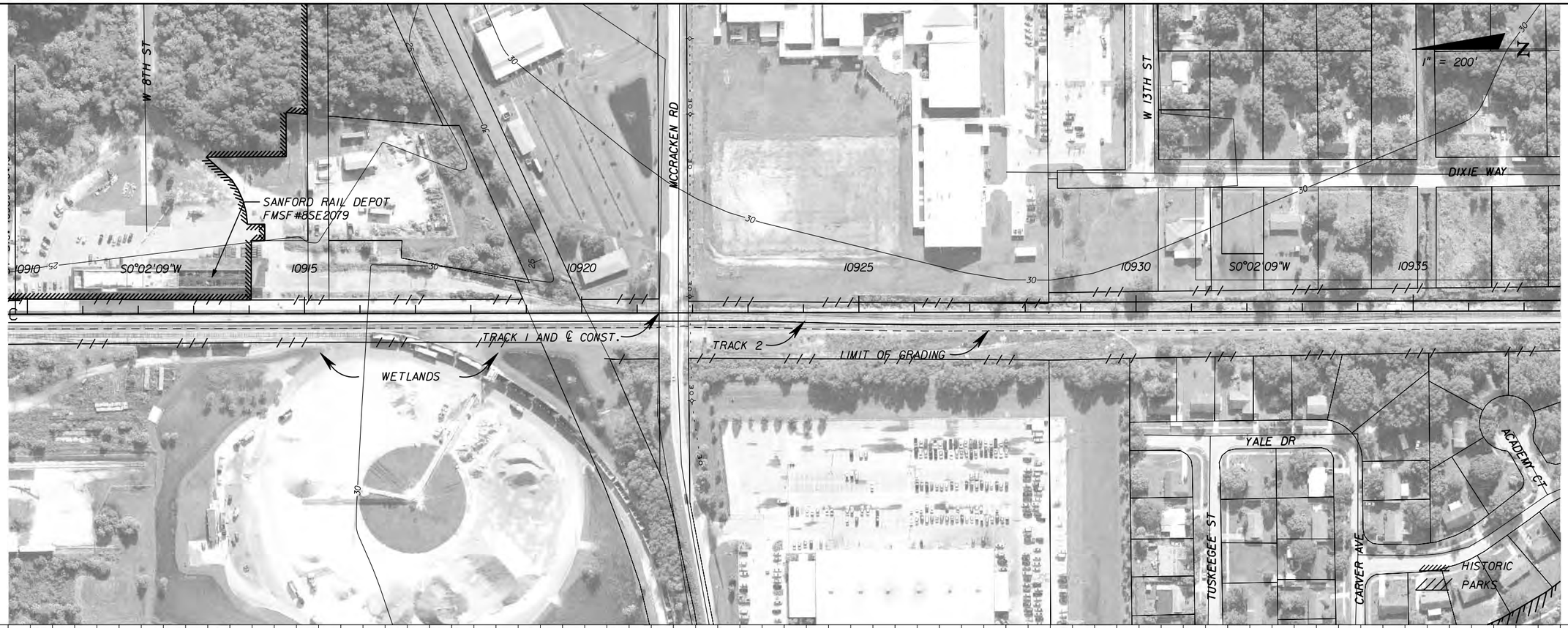
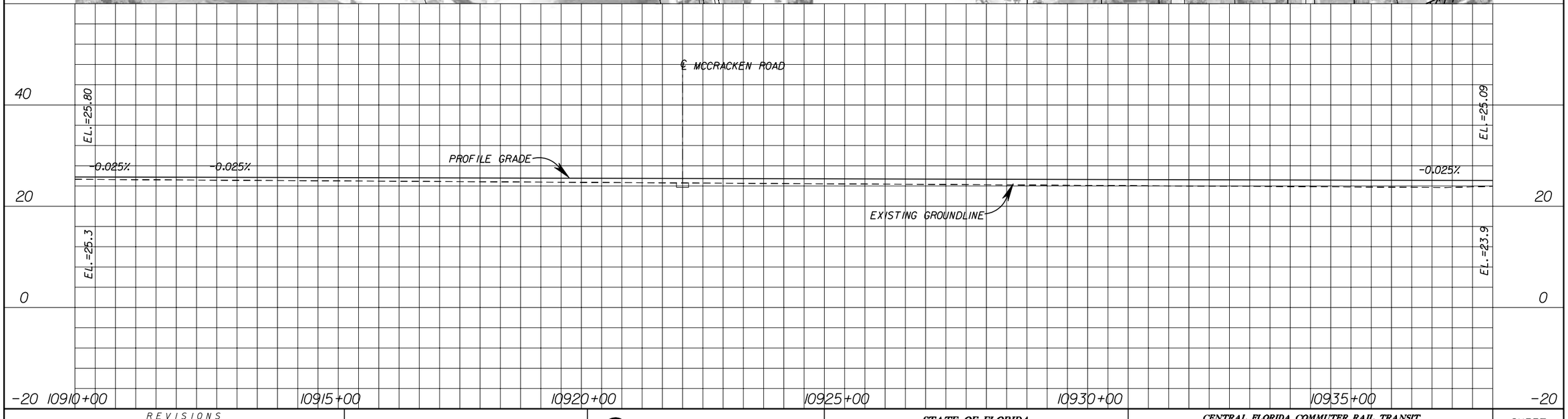
CRT	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 33





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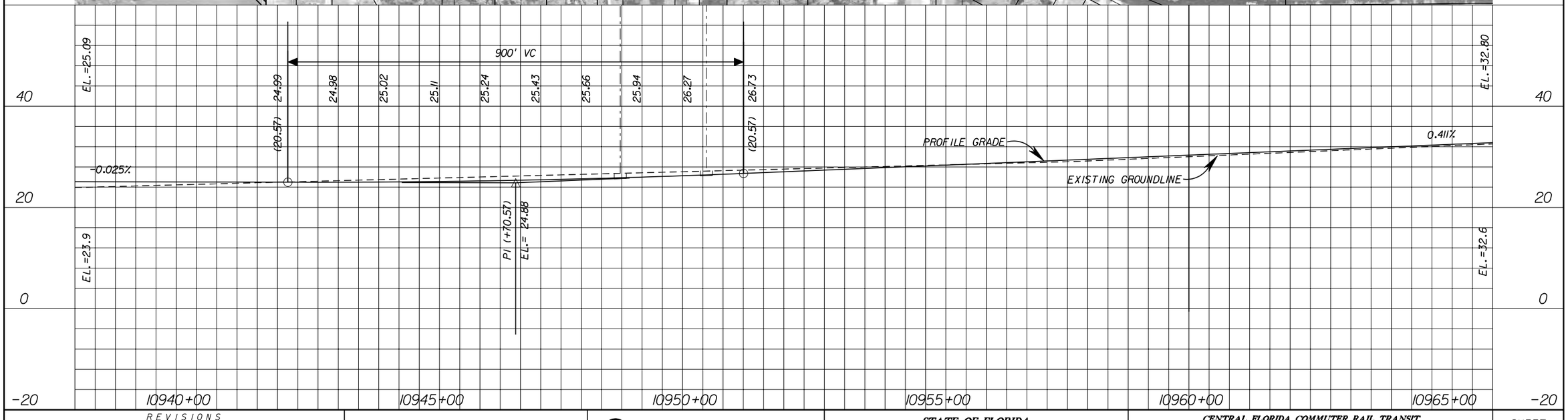
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 34



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PLAN AND PROFILE

SHEET NO. 35

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 36

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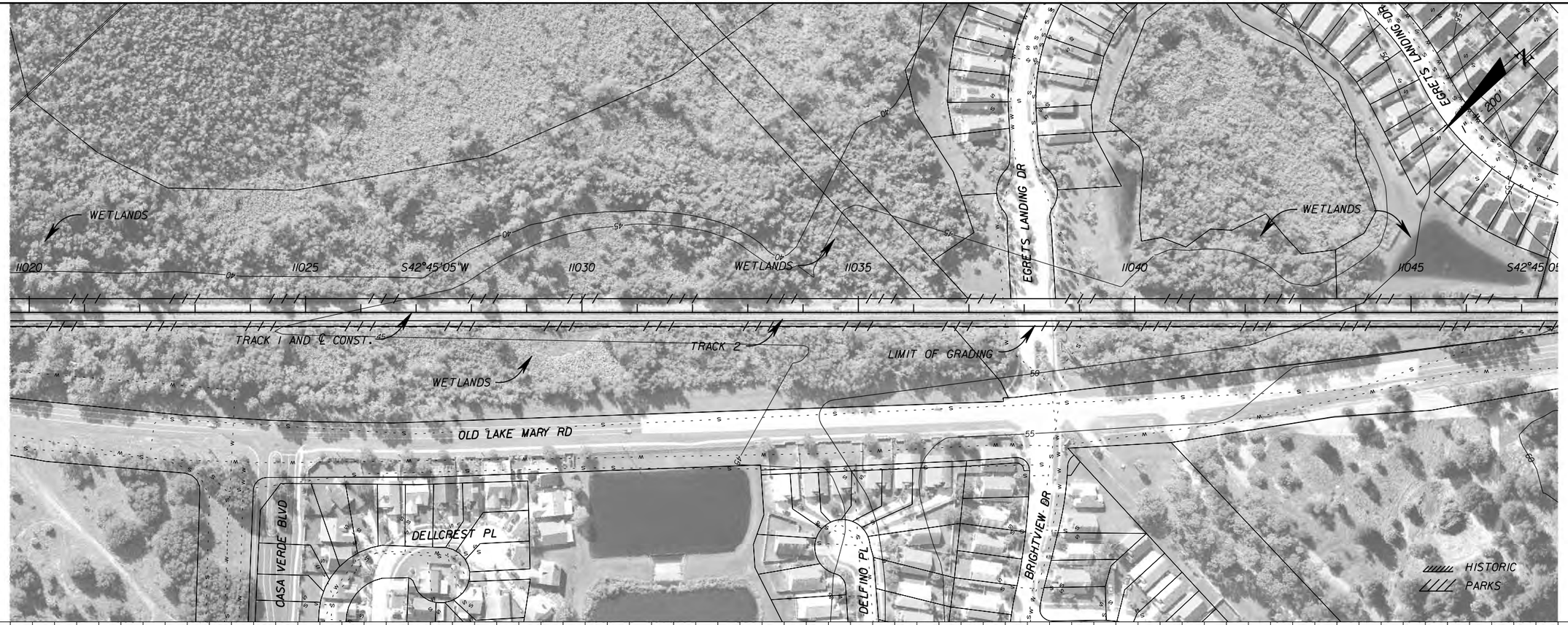
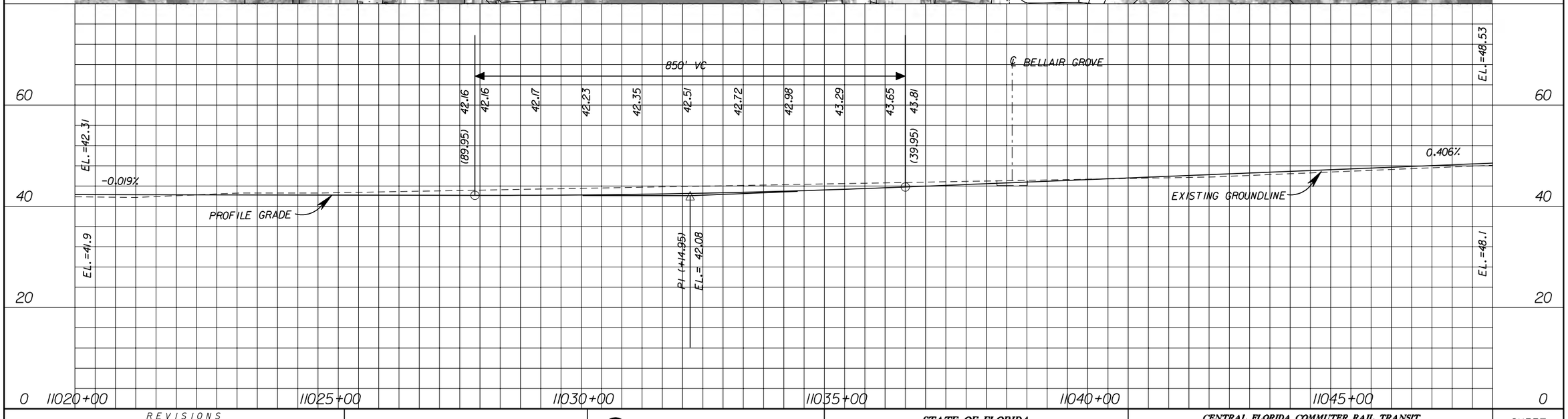
CRT	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 37





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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 38

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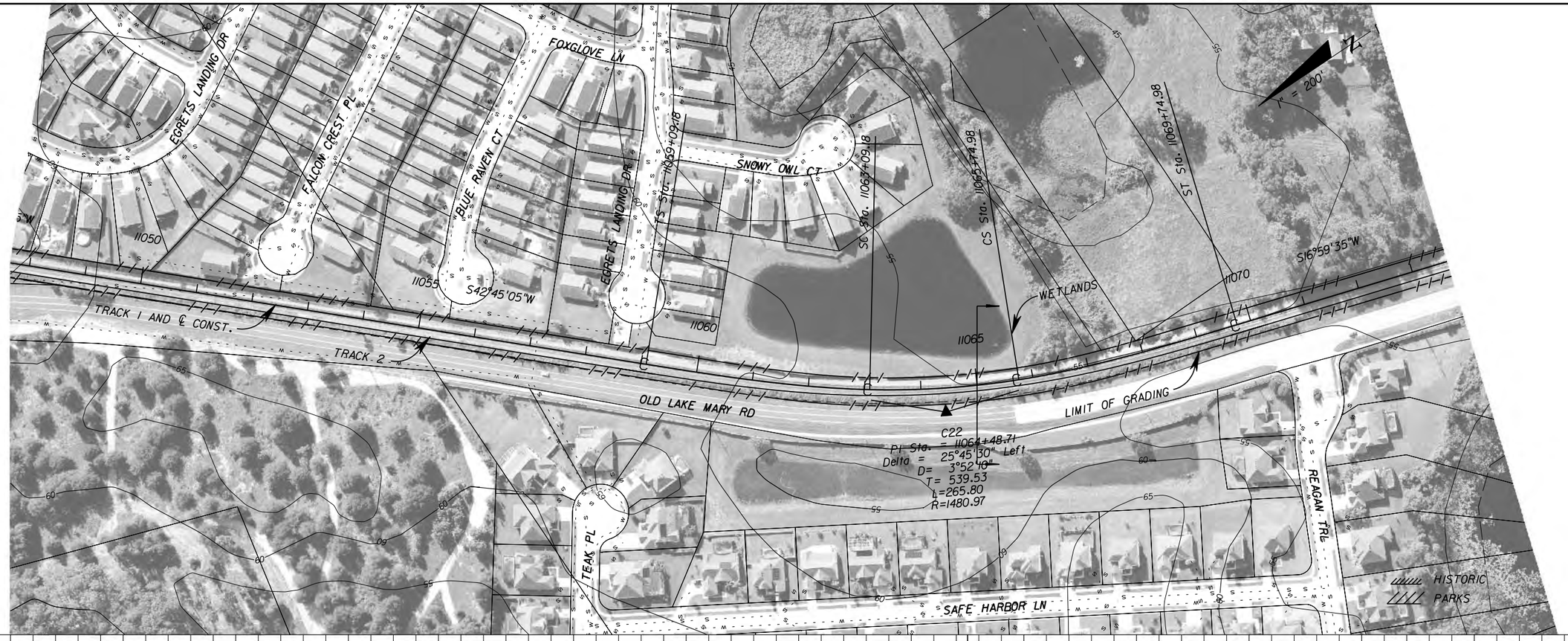

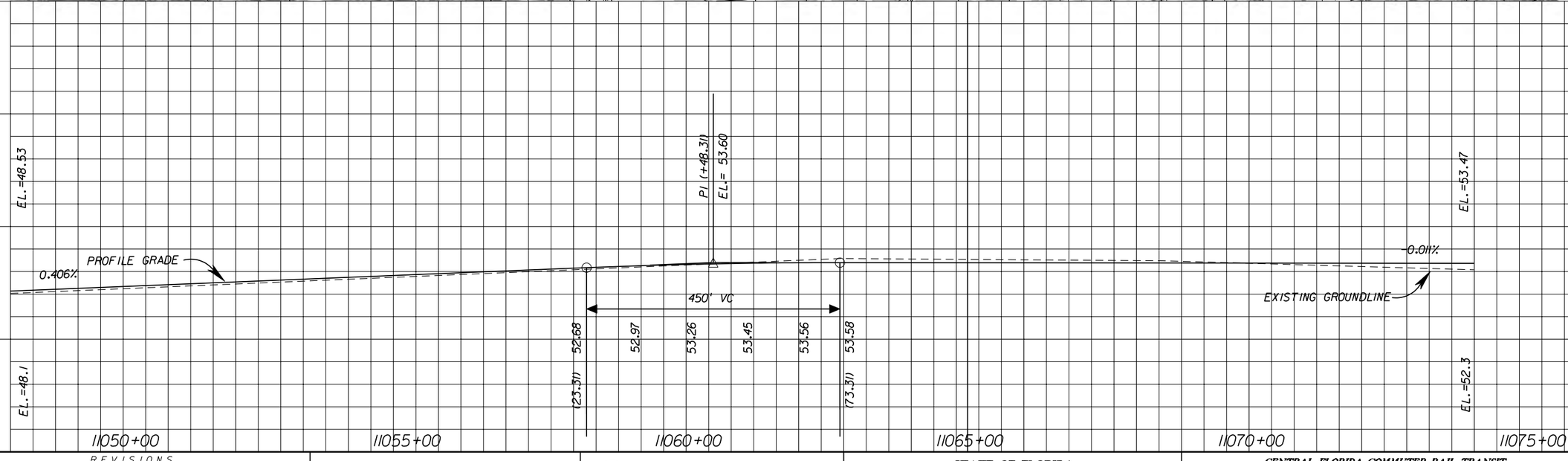

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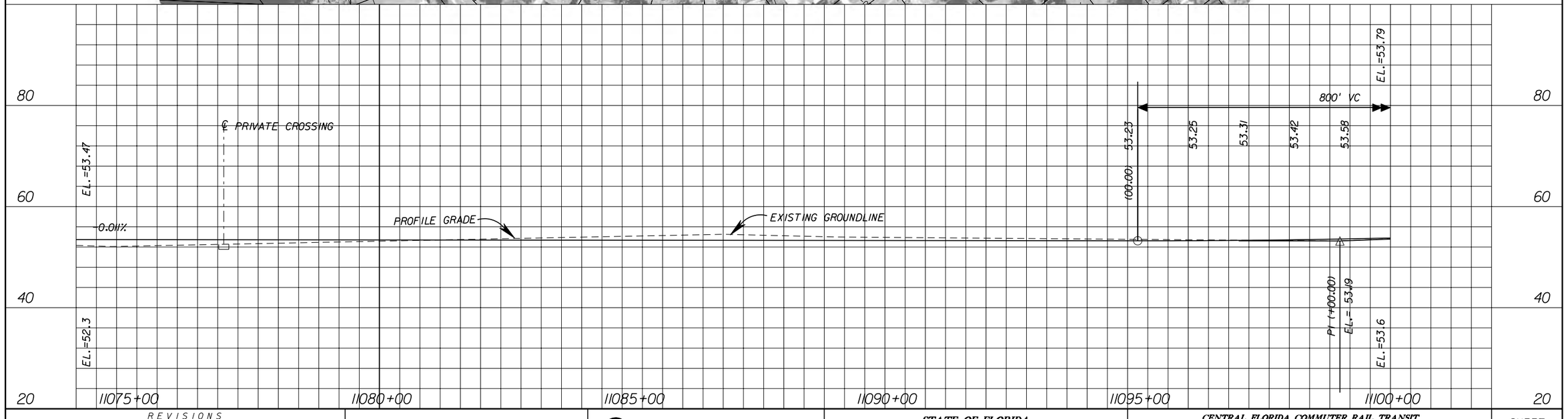
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 39



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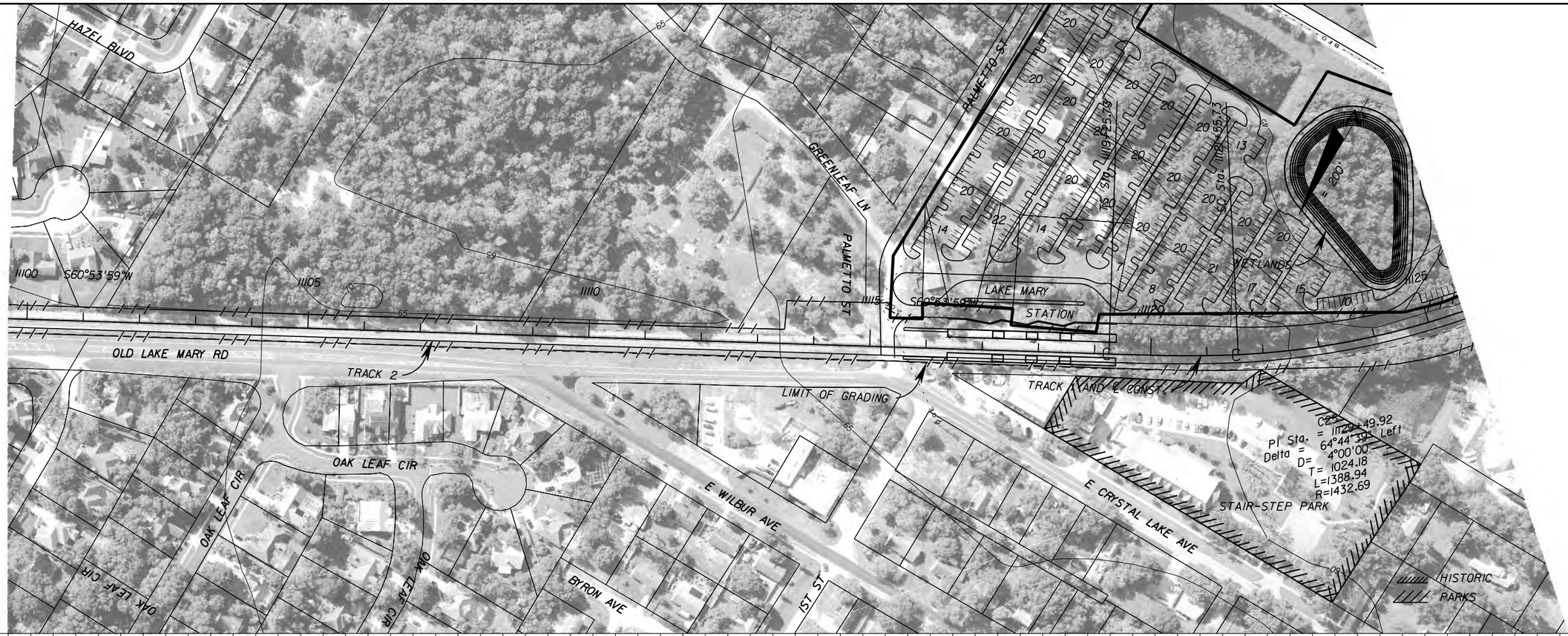
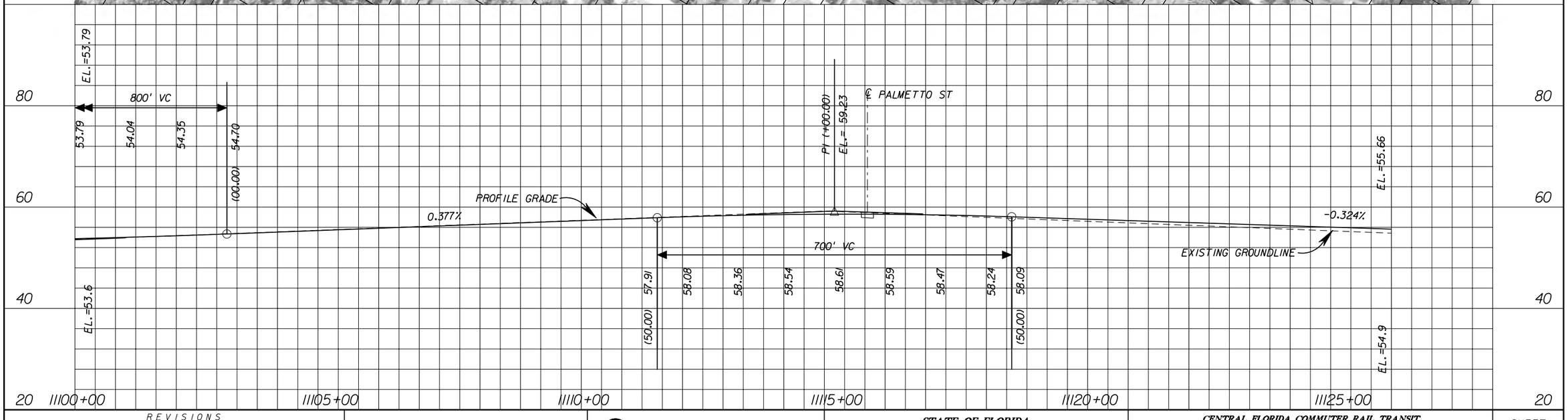
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 40





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PLAN AND PROFILE

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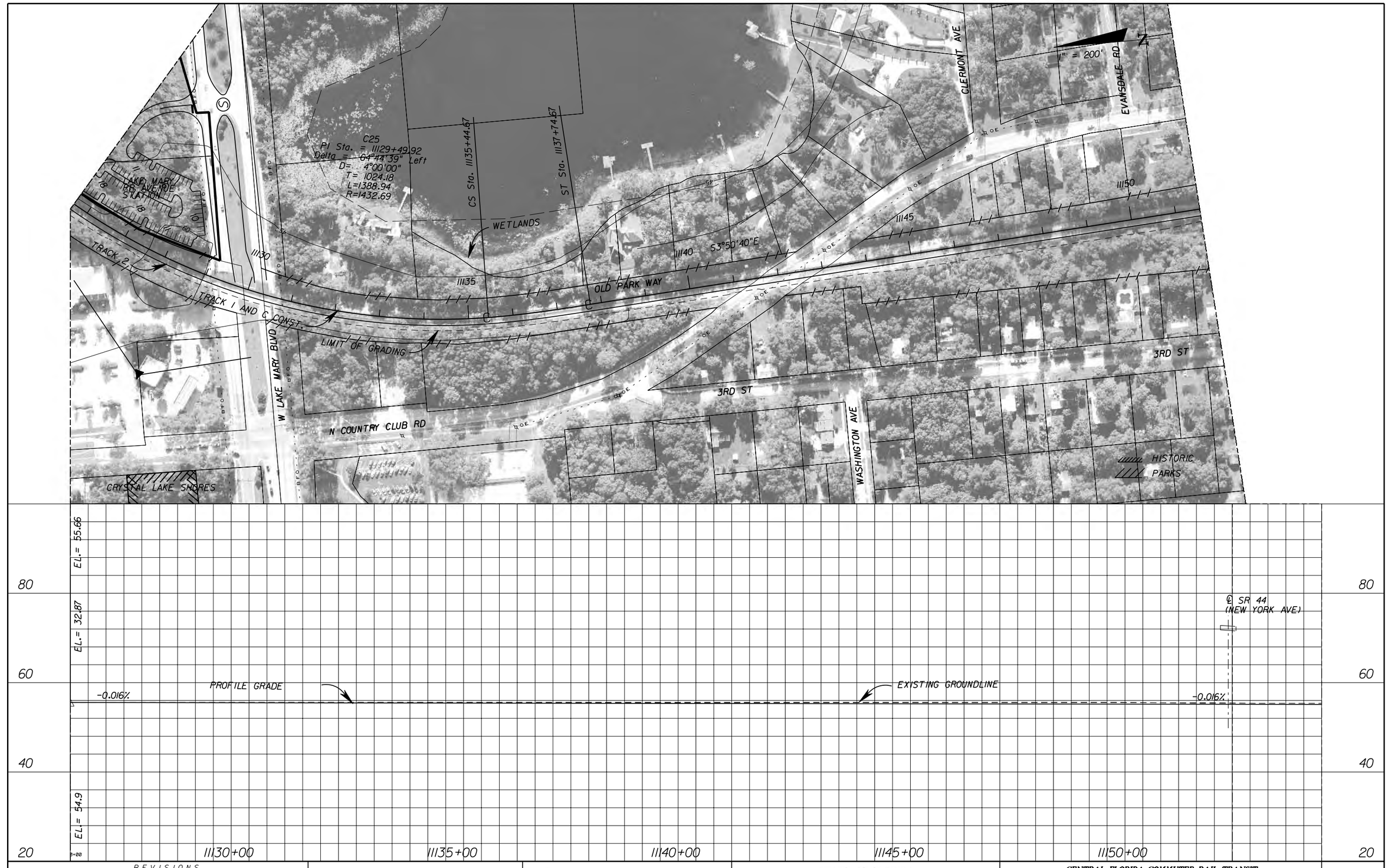

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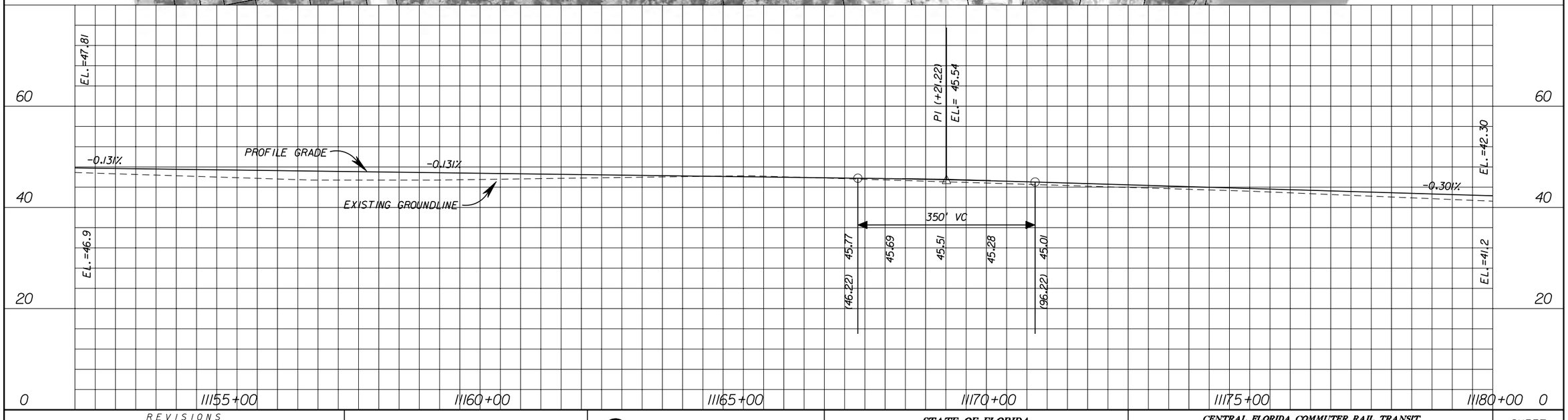
PLAN AND PROFILE

SHEET NO. 42



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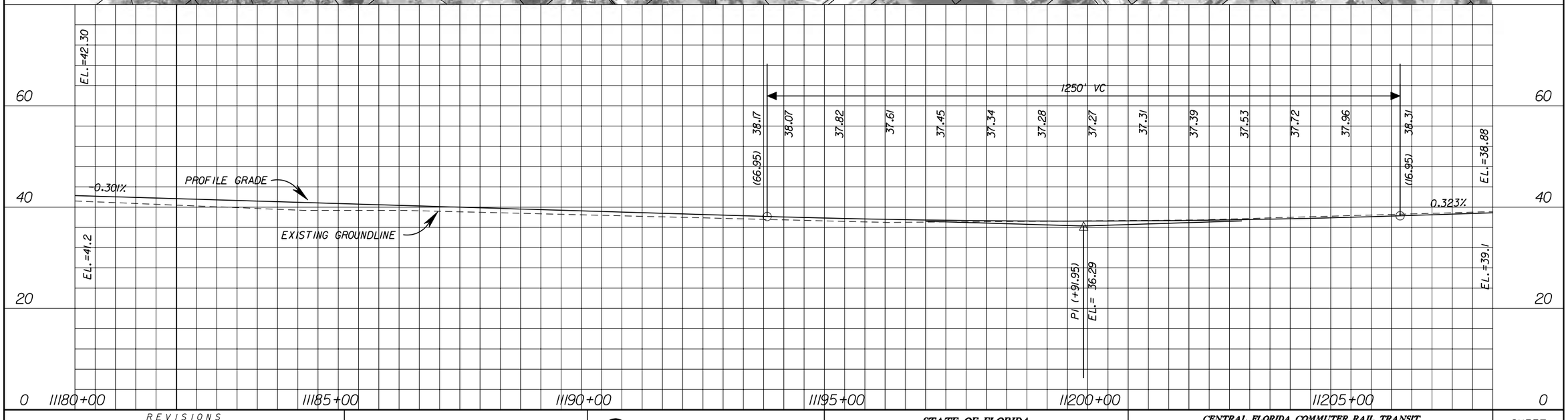
PLAN AND PROFILE

SHEET NO. 43



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PLAN AND PROFILE

SHEET NO. 44

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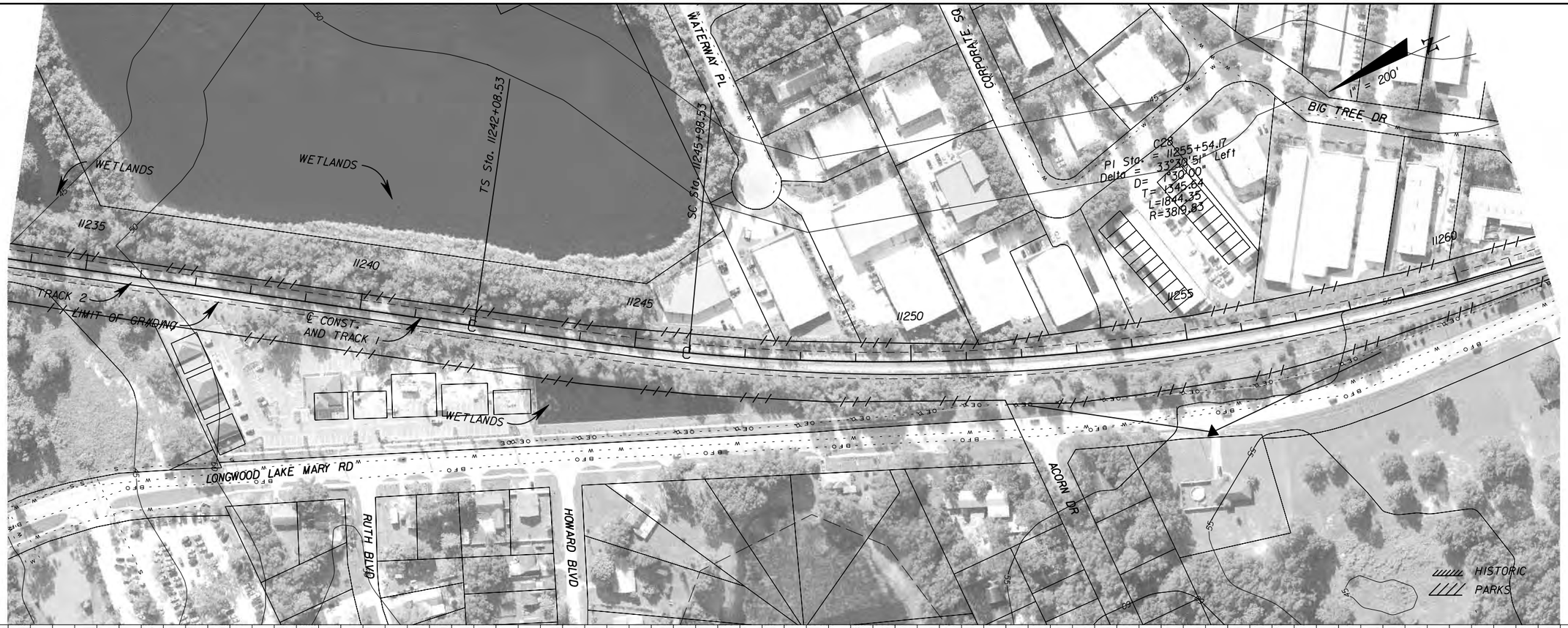
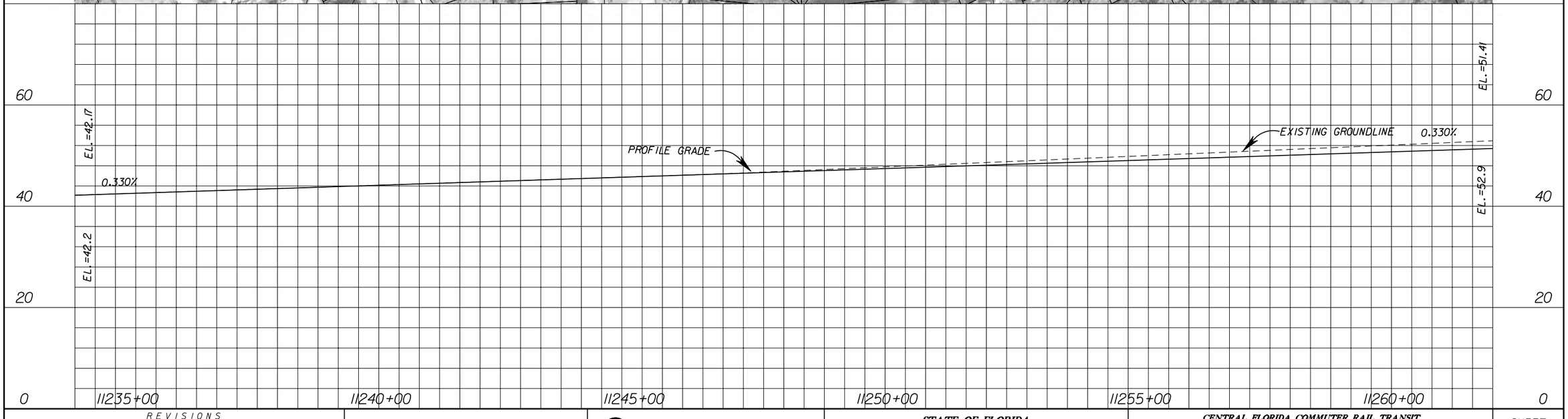
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 45





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PLAN AND PROFILE

SHEET NO. 46

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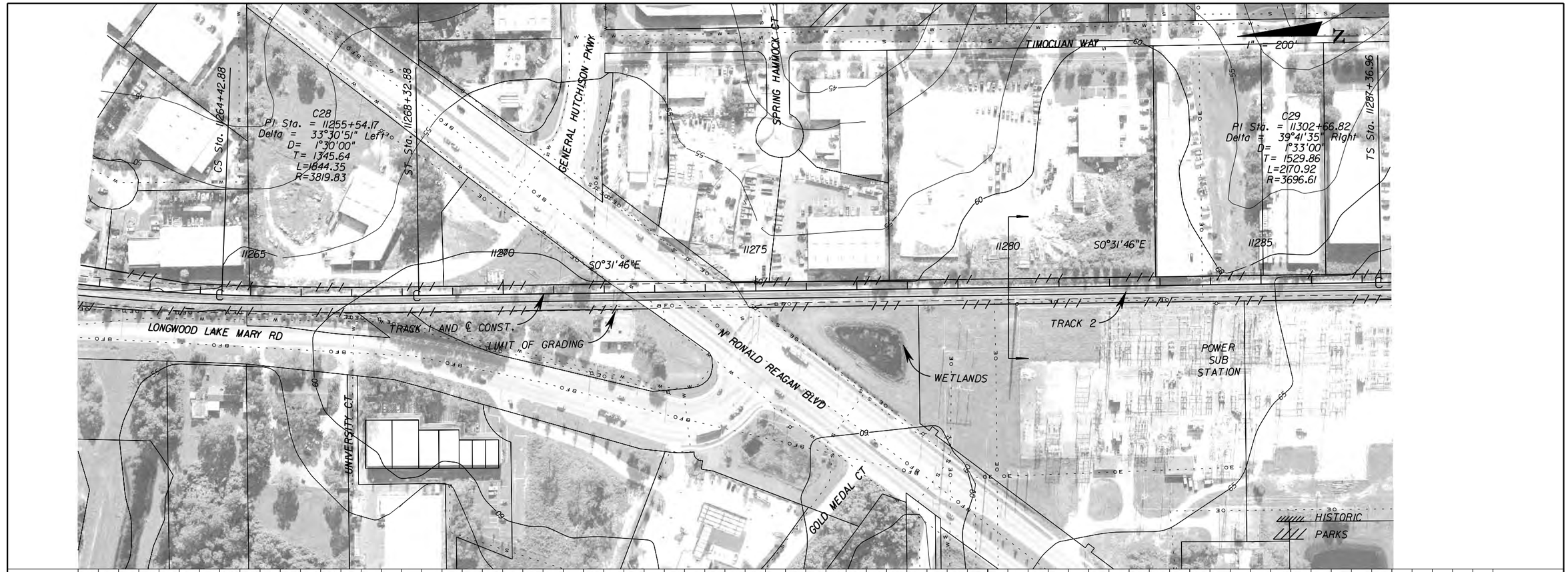

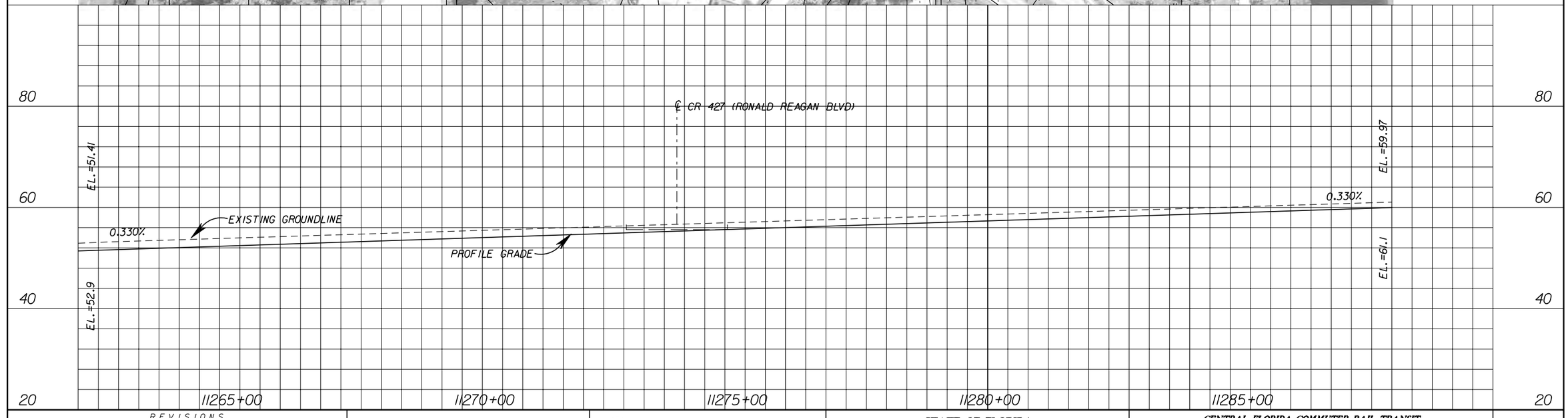

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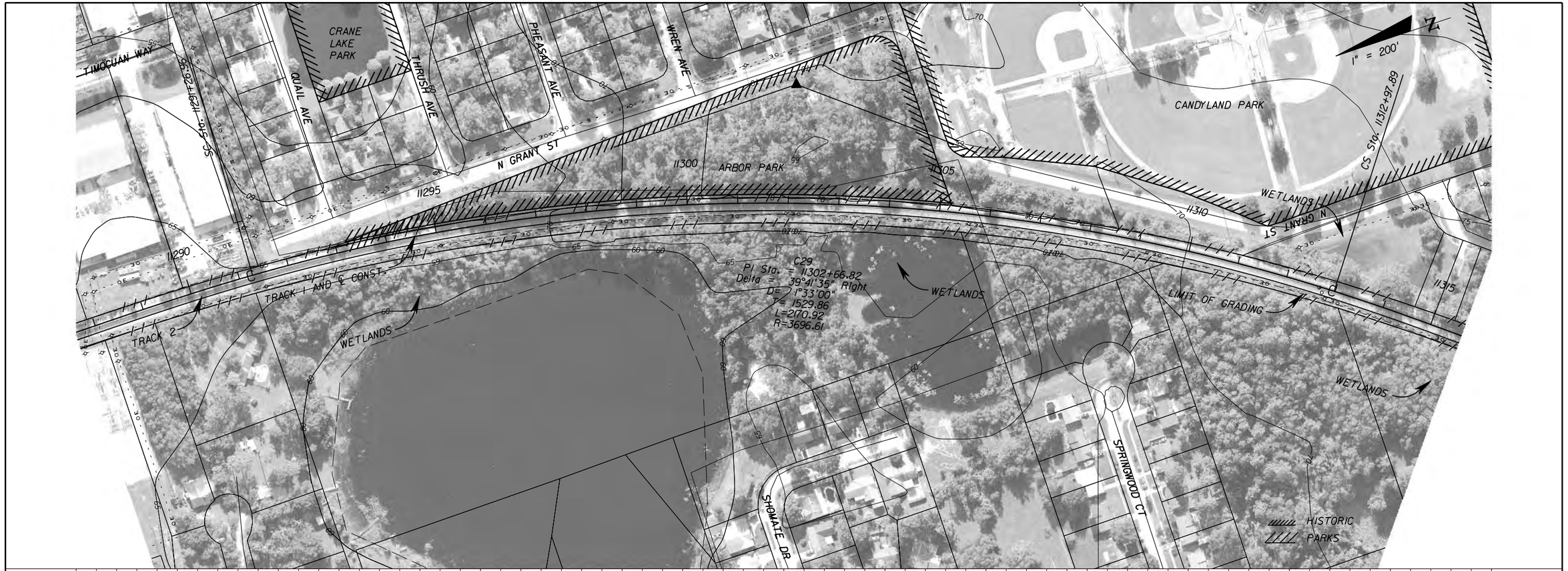
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 47



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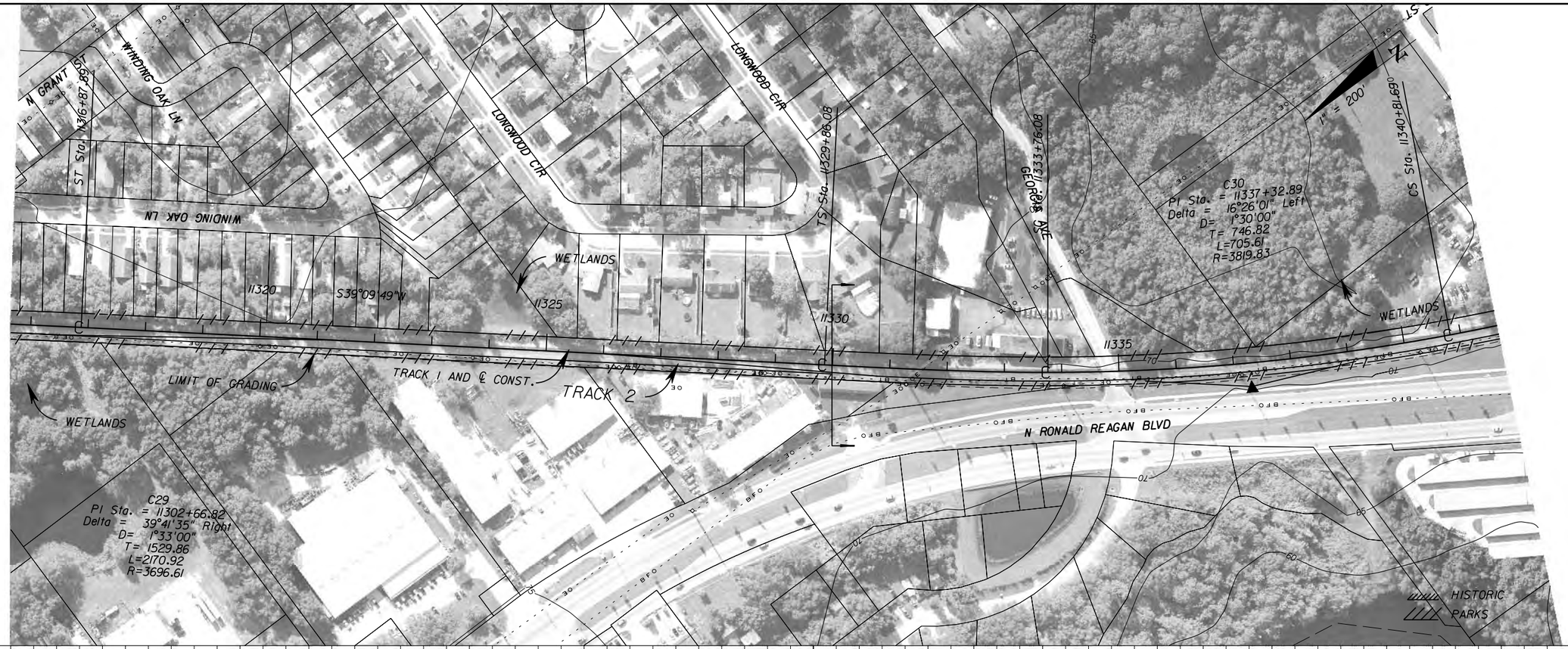
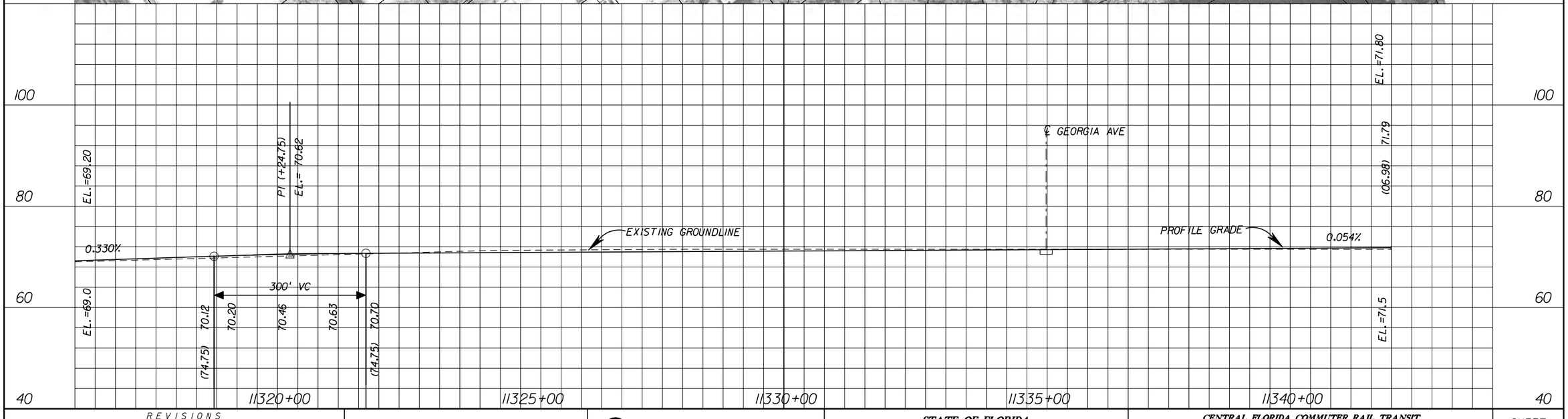
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 48





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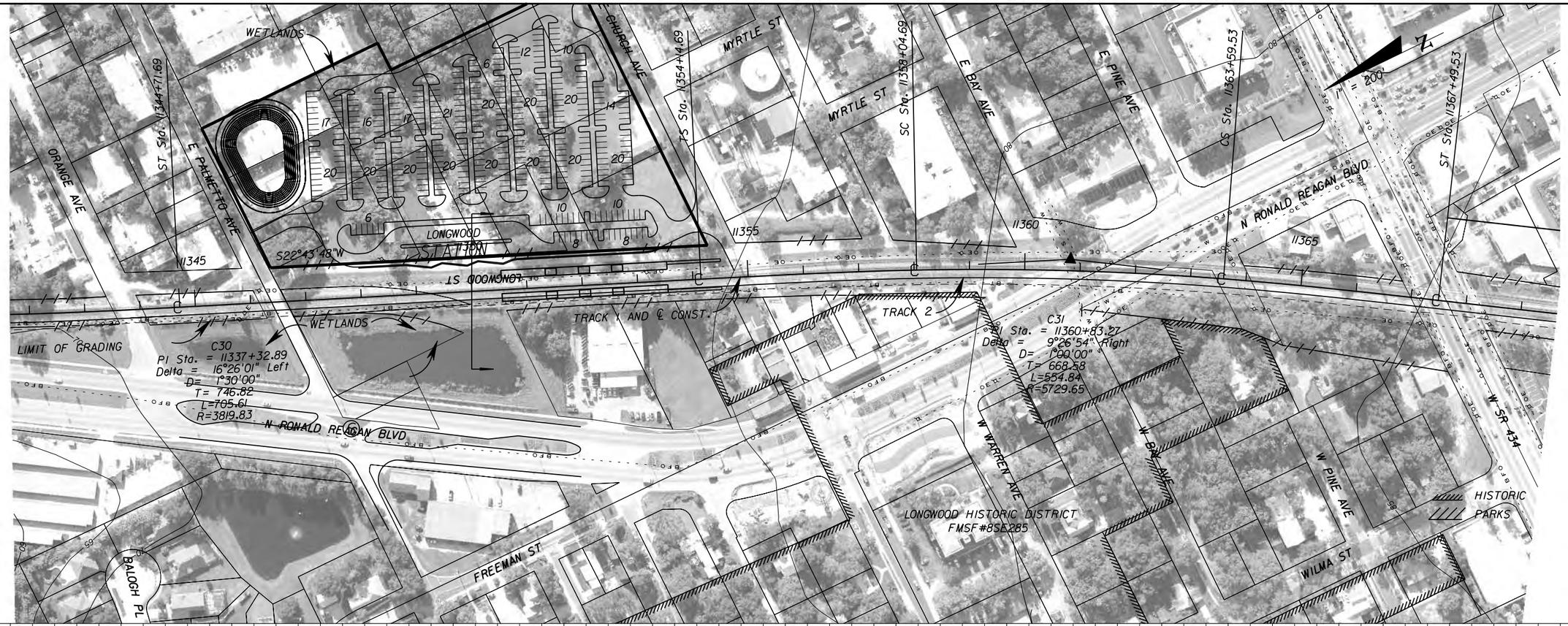
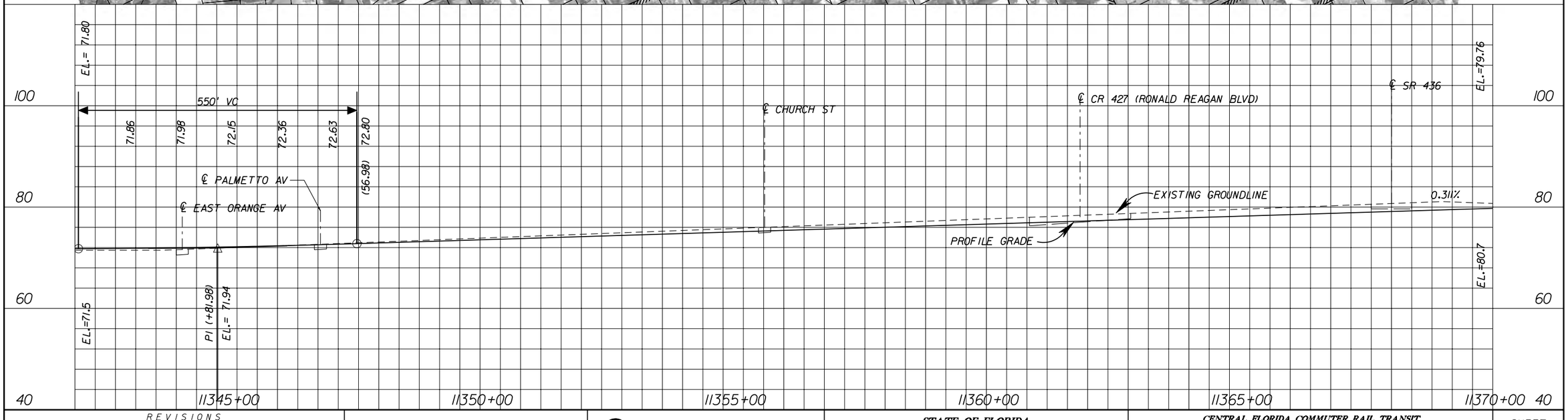
CRT	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 49





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PLAN AND PROFILE

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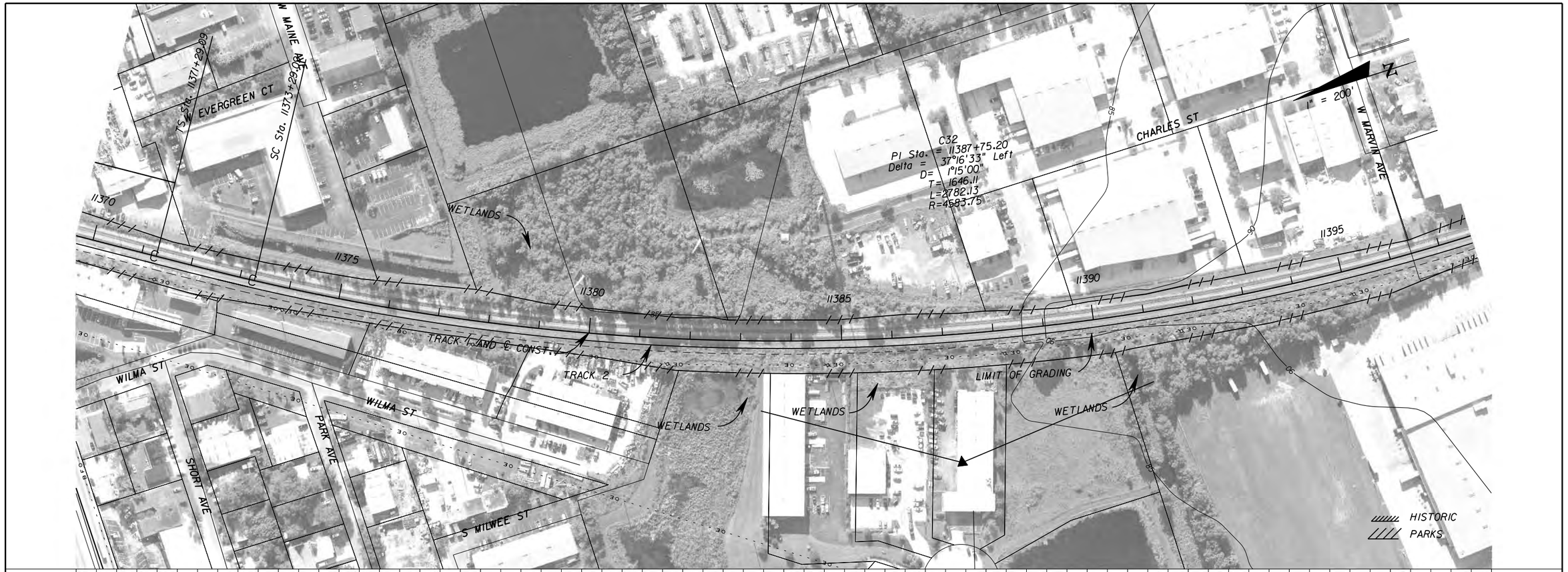

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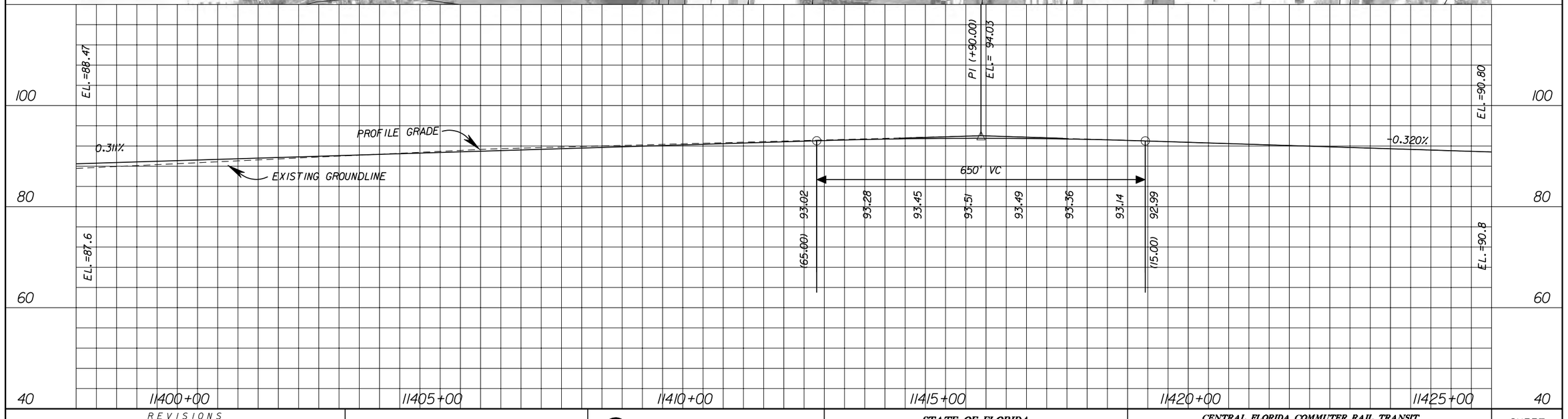
PLAN AND PROFILE

SHEET NO. 51



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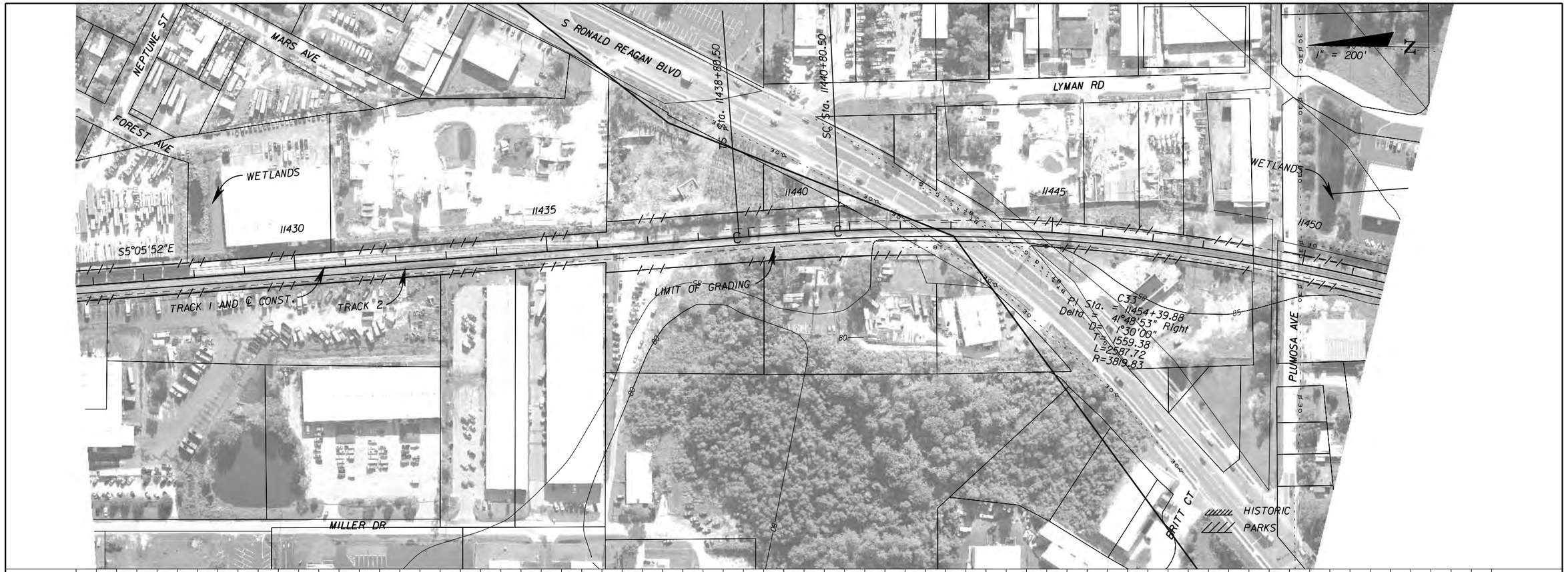
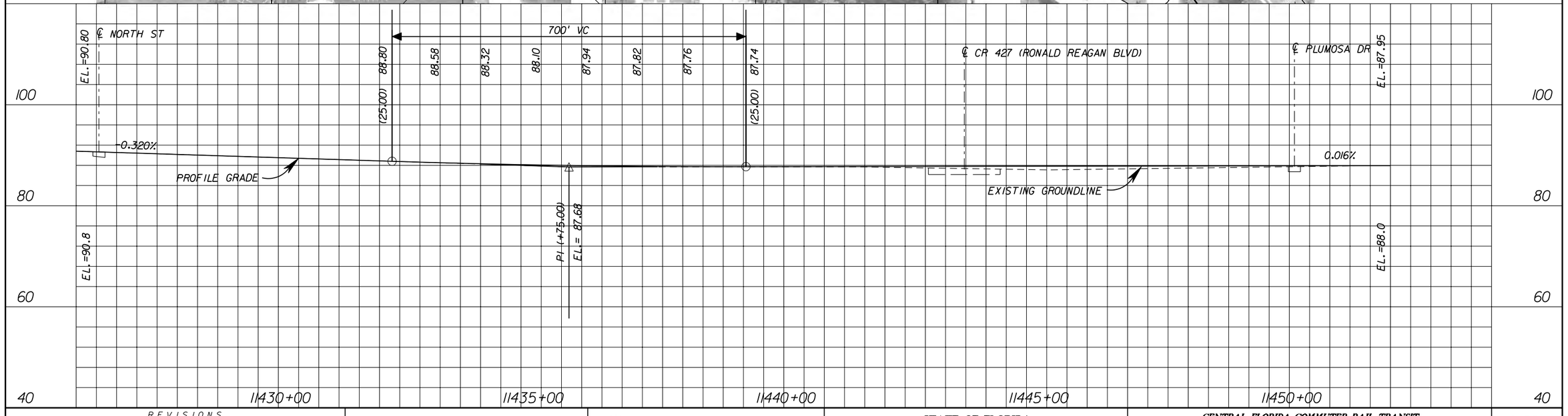
PLAN AND PROFILE

SHEET NO. 52





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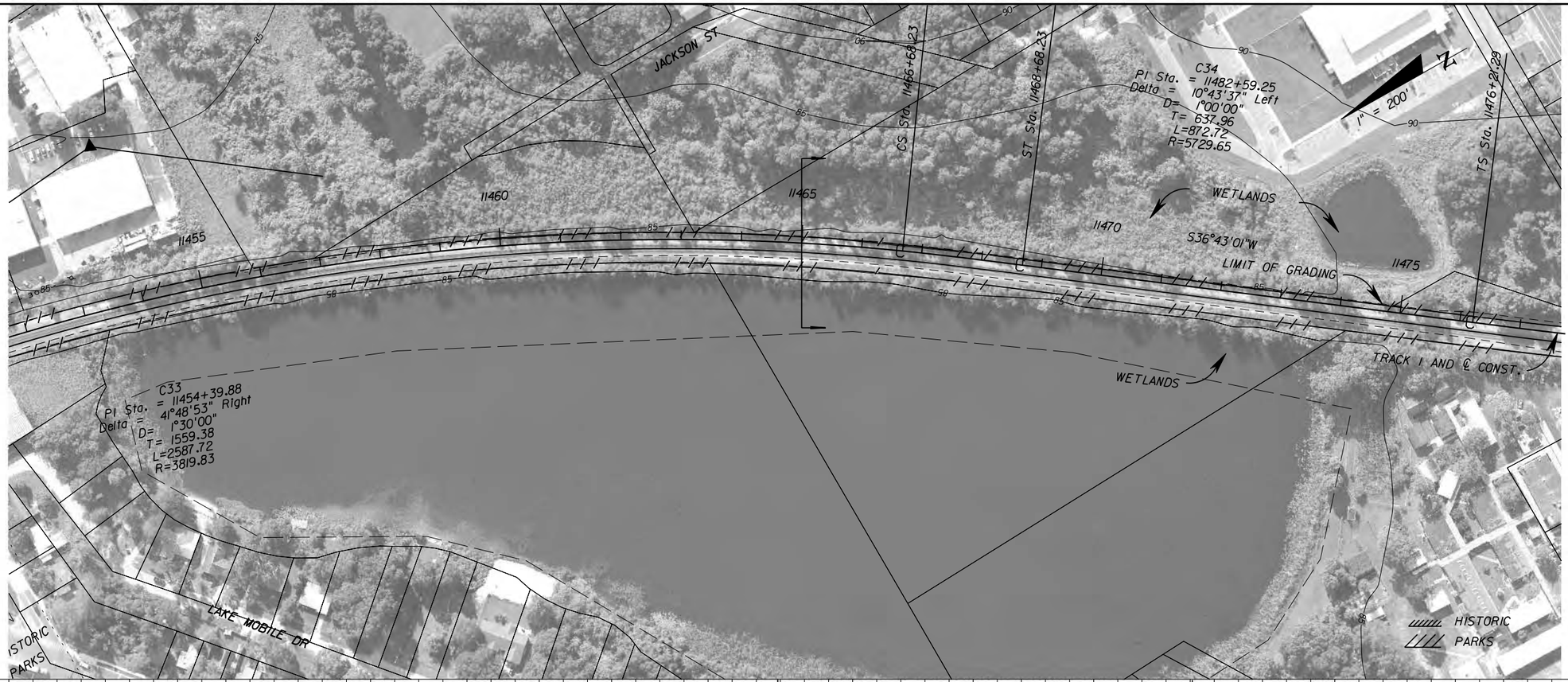
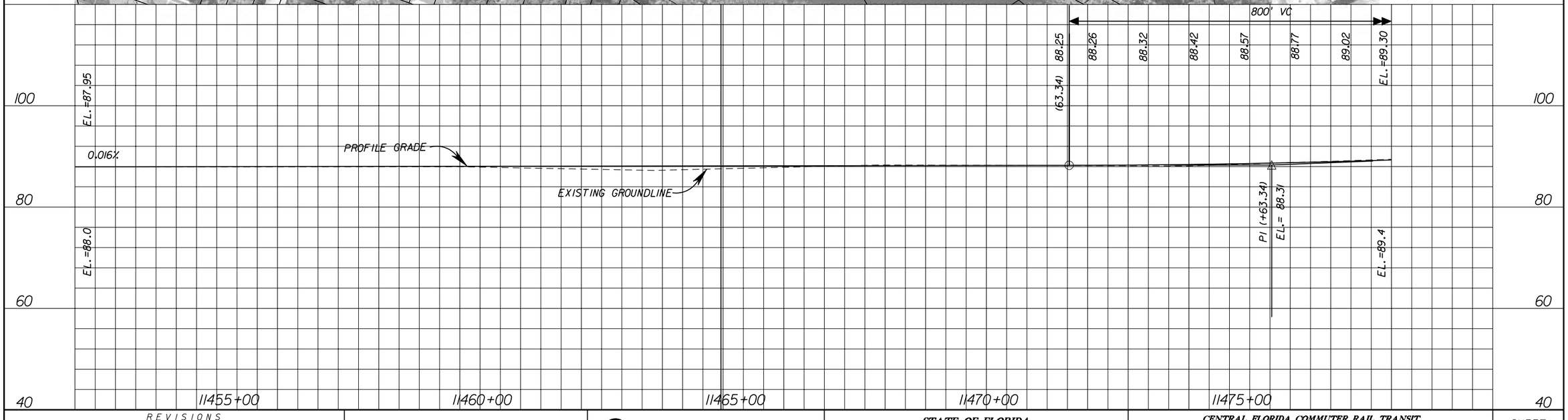
SHEET NO. 53





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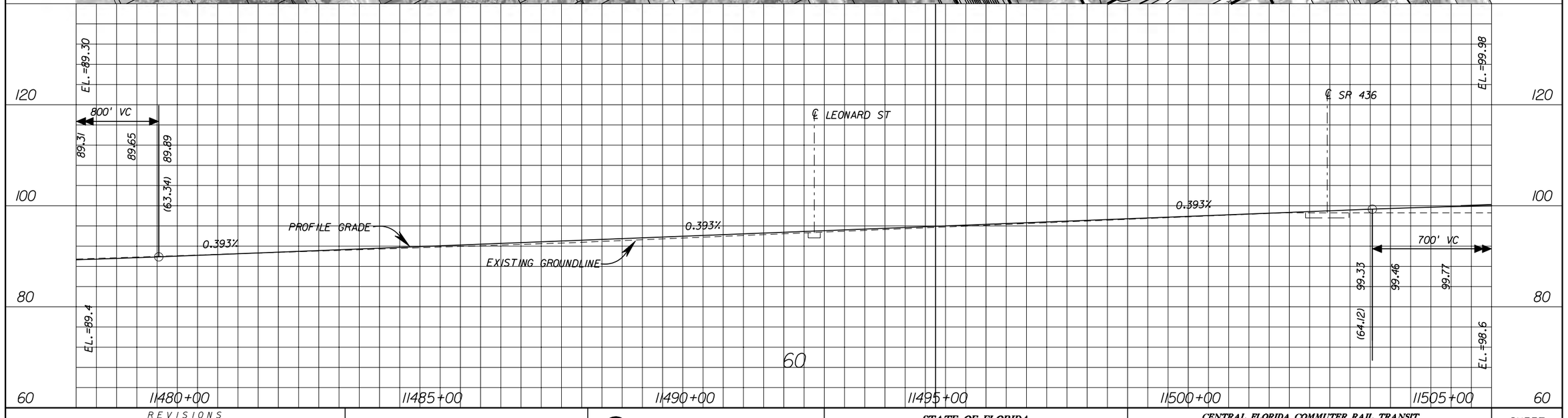
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 54



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PLAN AND PROFILE

SHEET NO. 55

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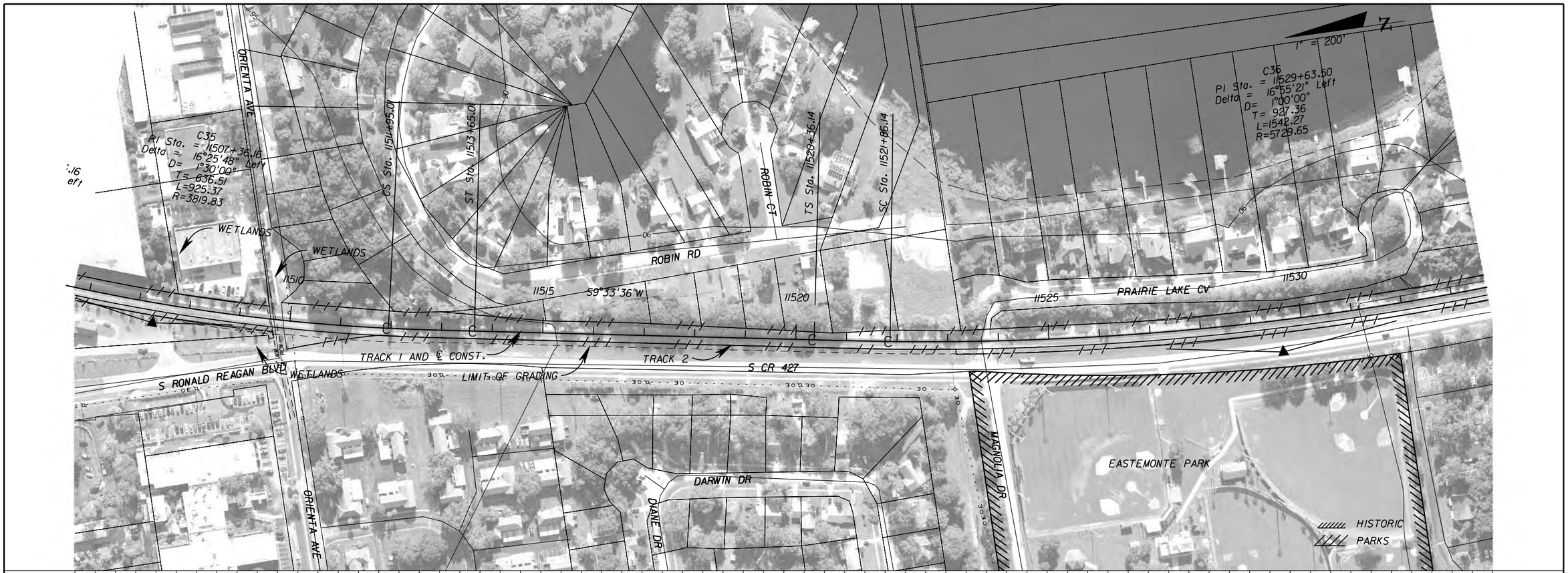

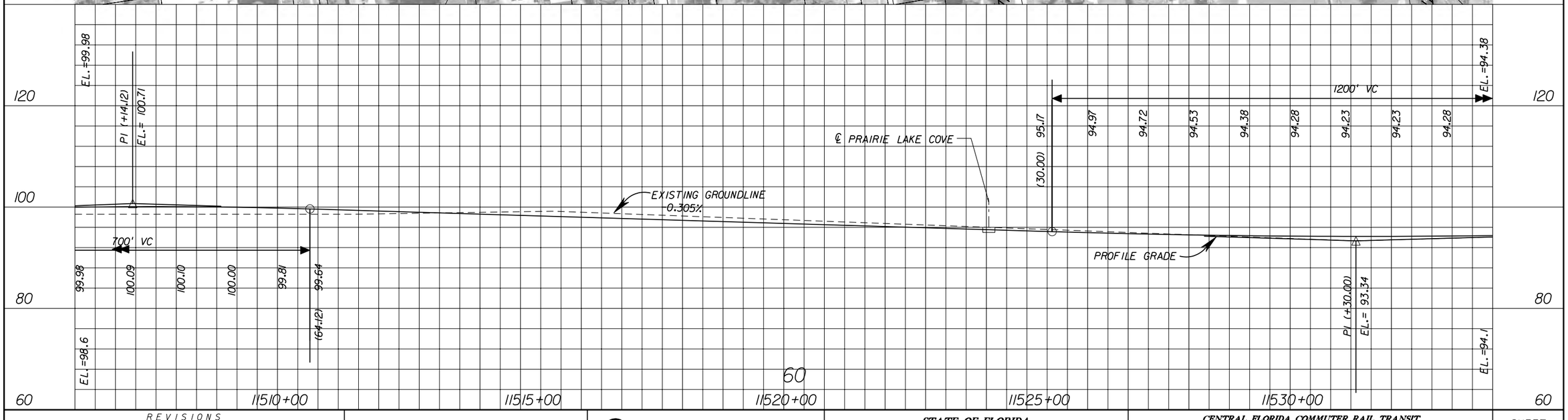

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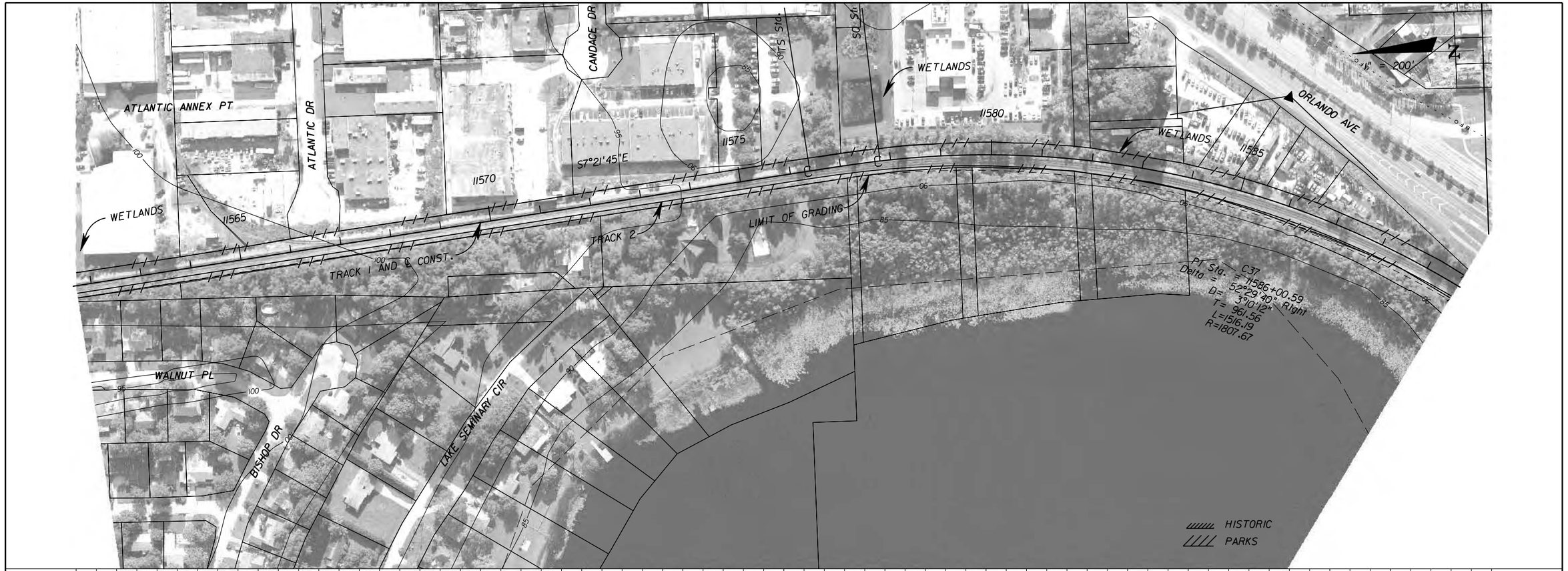
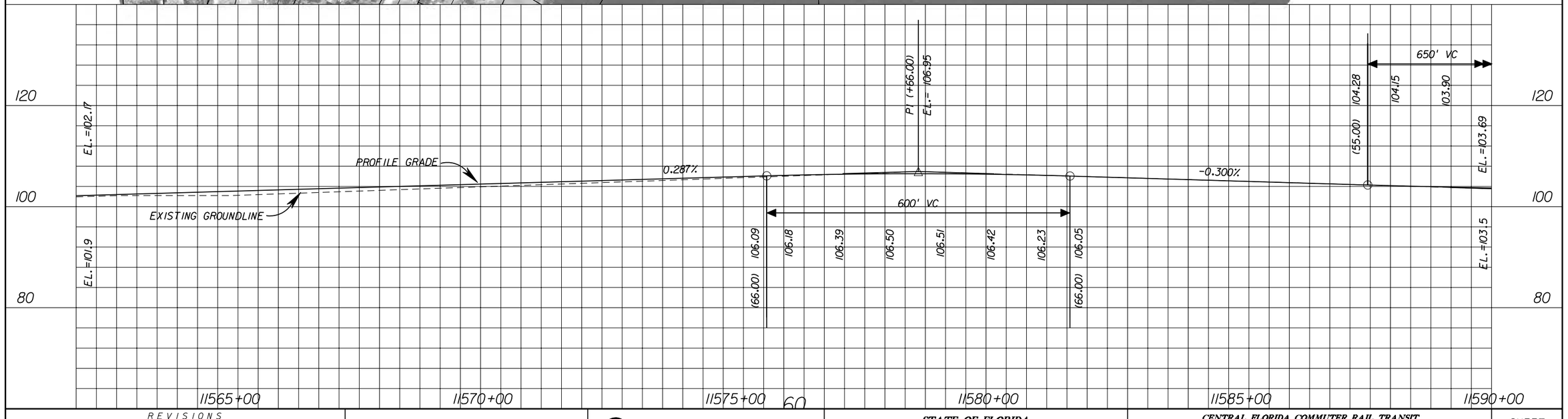
CRT	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 57





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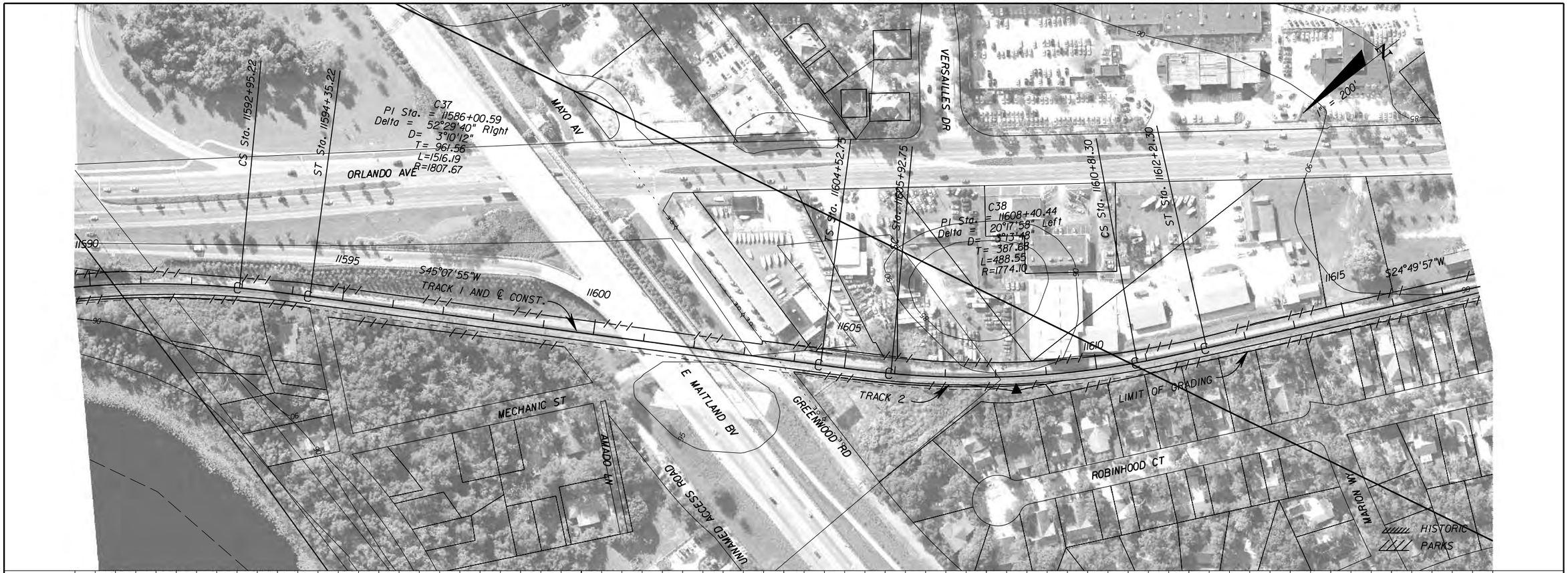
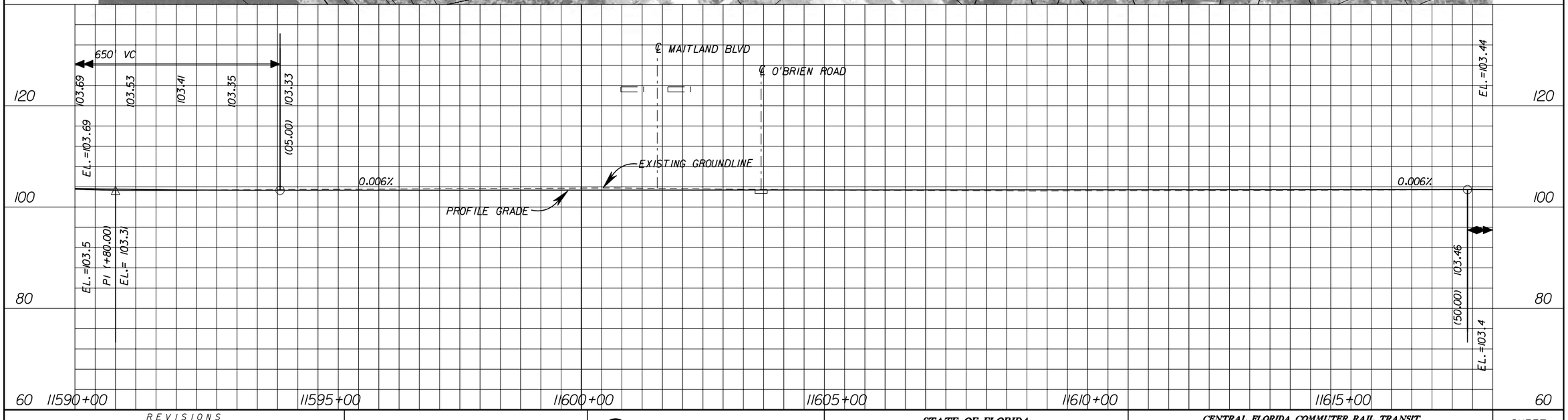
CRT	ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 58





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PLAN AND PROFILE

SHEET NO. 59

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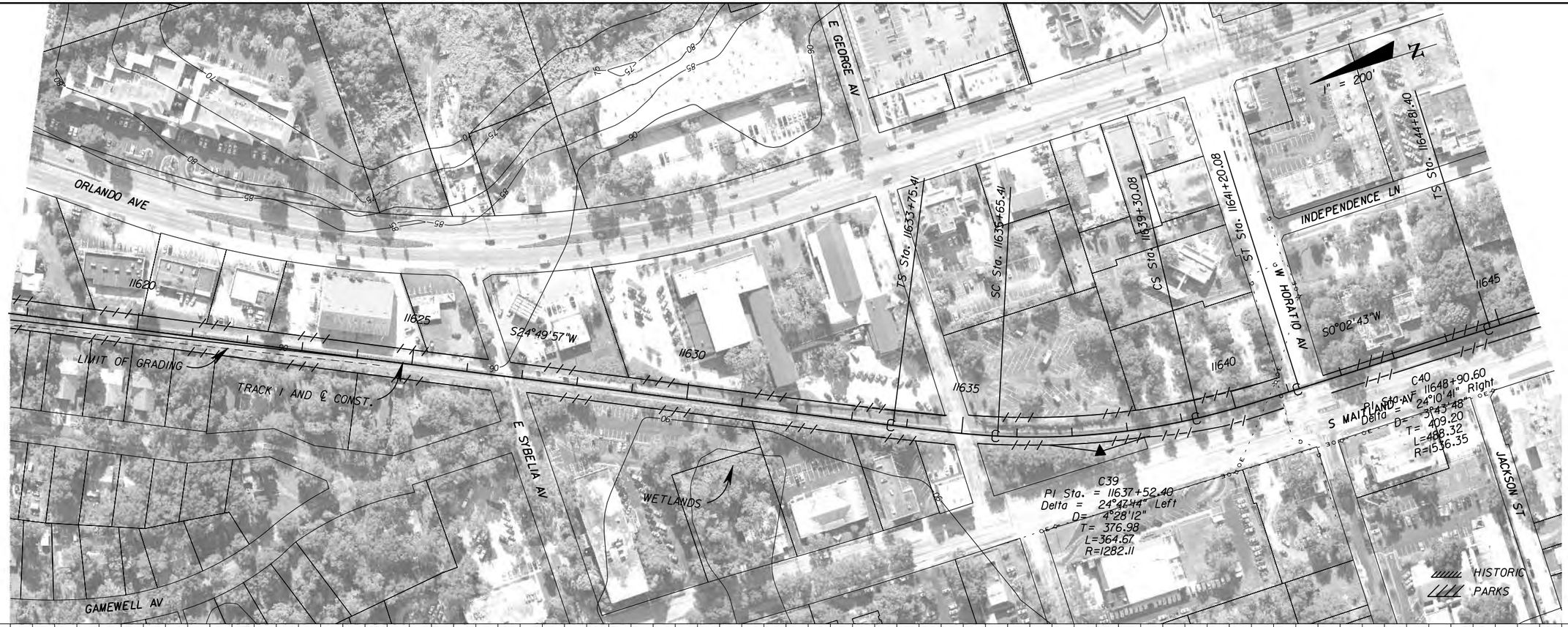

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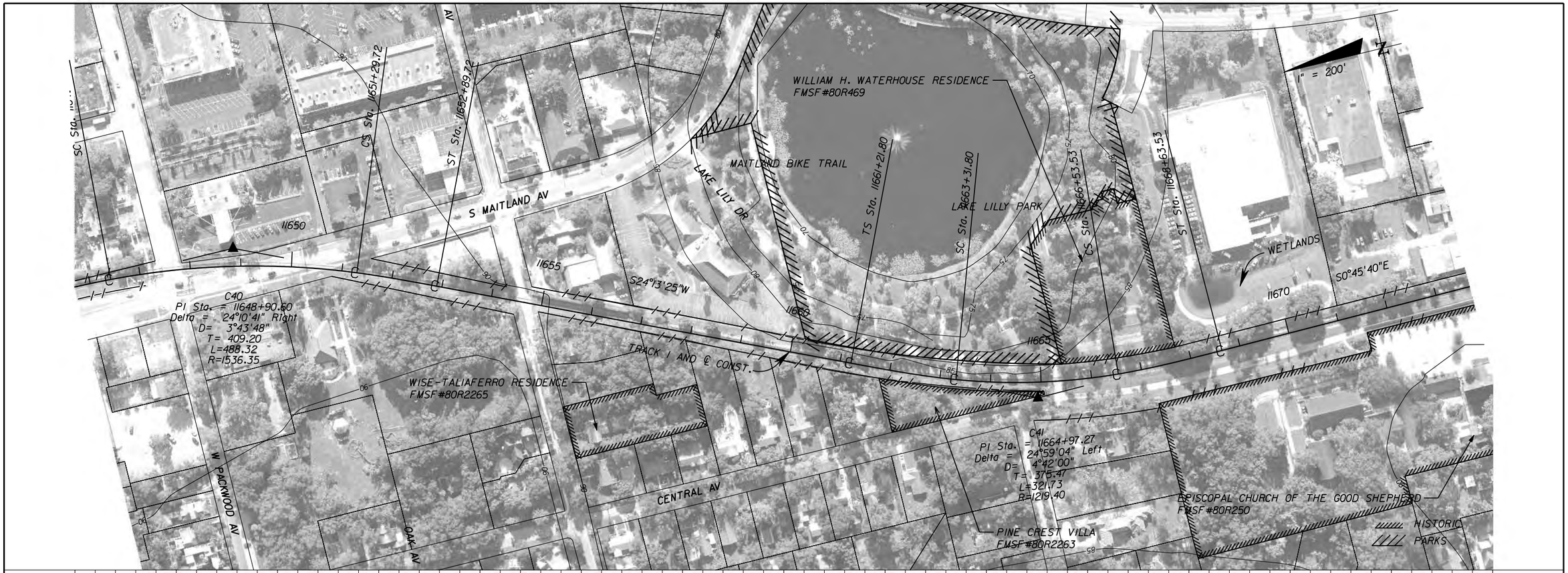

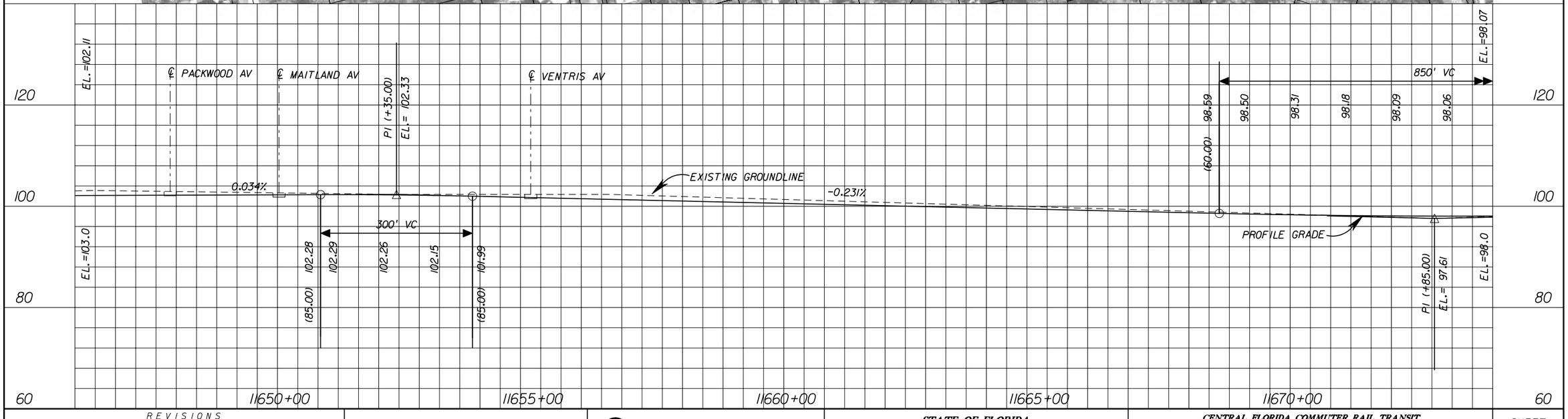

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PLAN AND PROFILE

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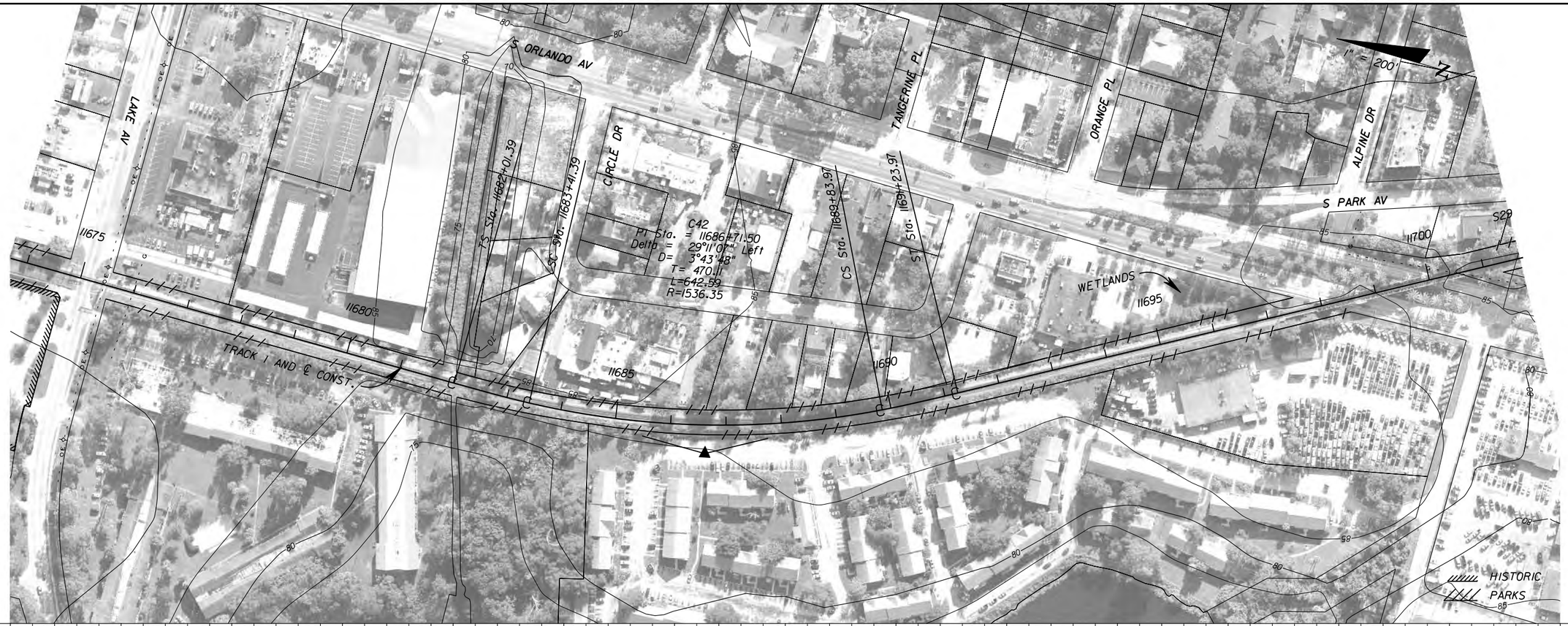

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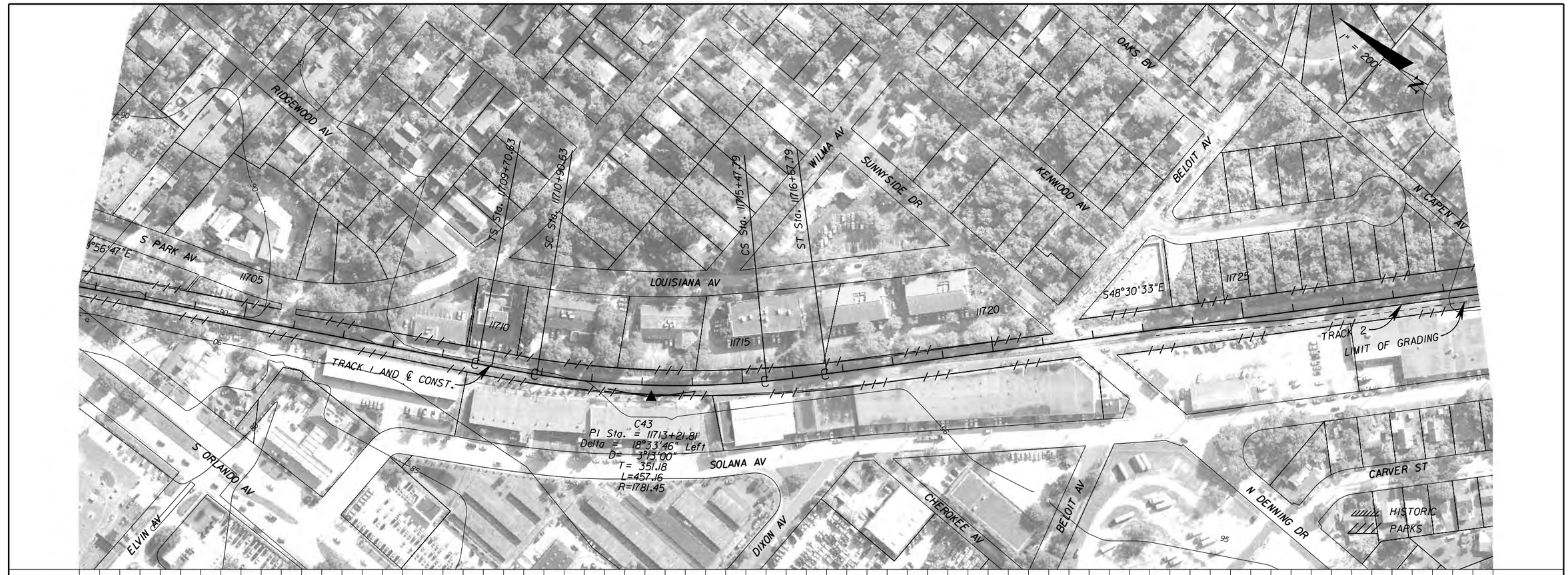
SHEET NO. 62



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SHEET NO. 63

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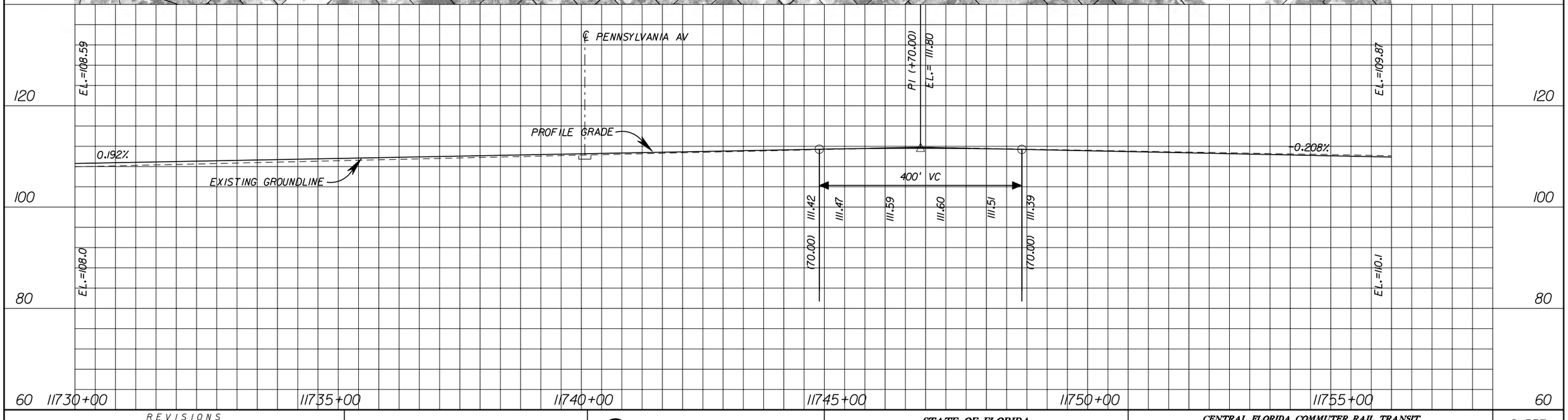

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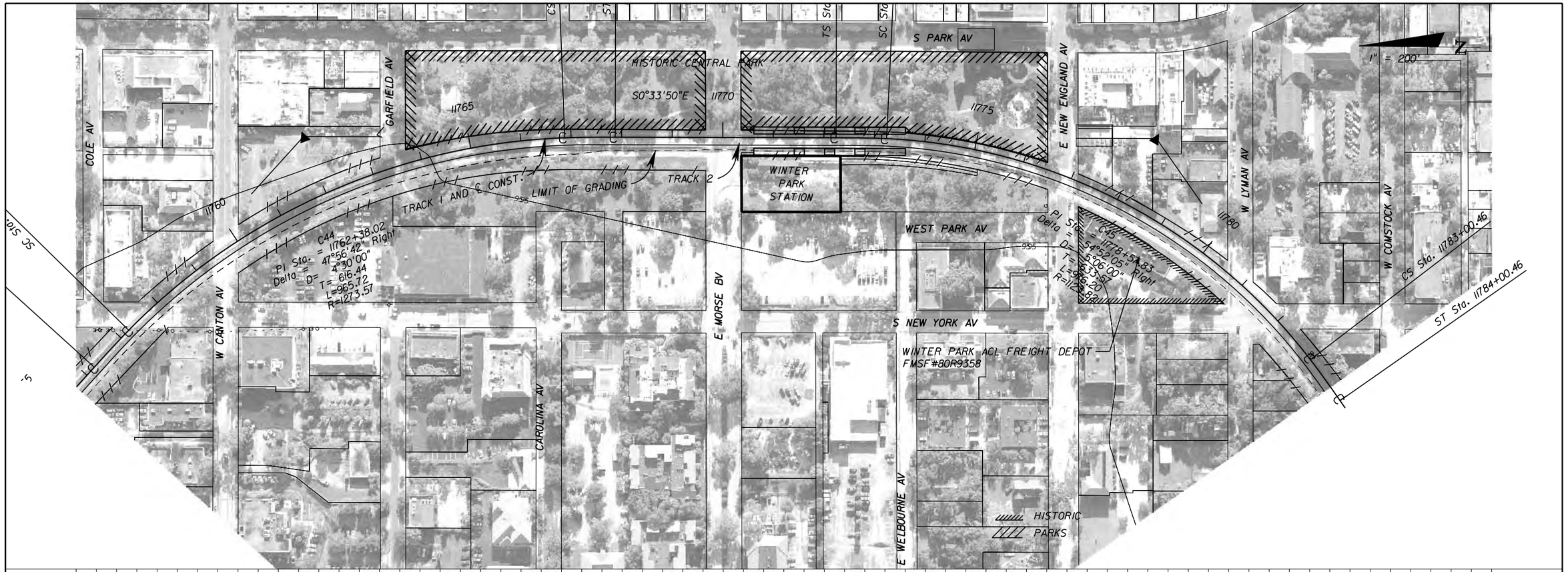
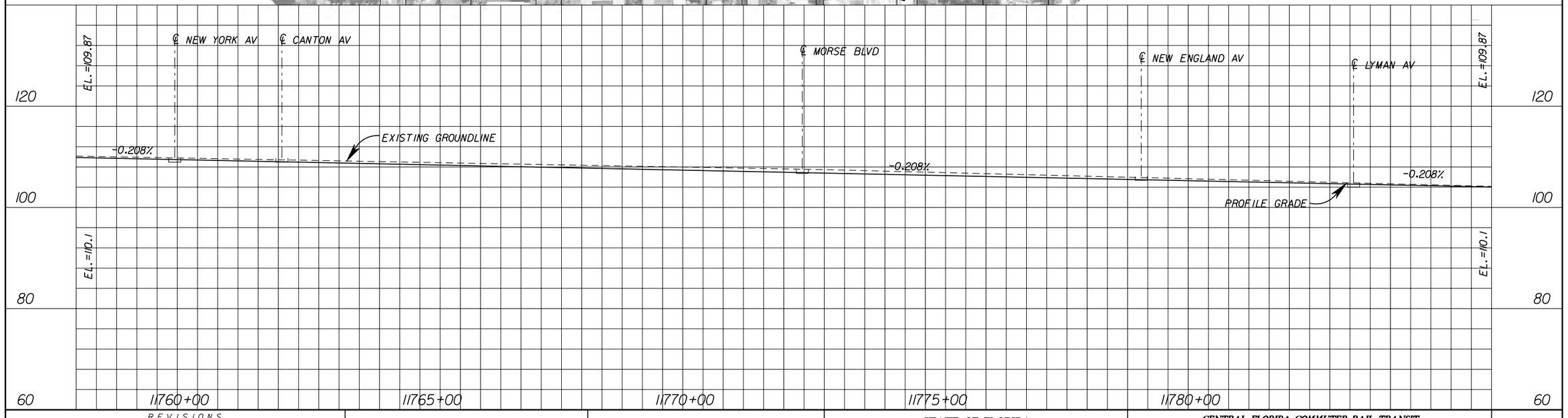
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 64





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PLAN AND PROFILE

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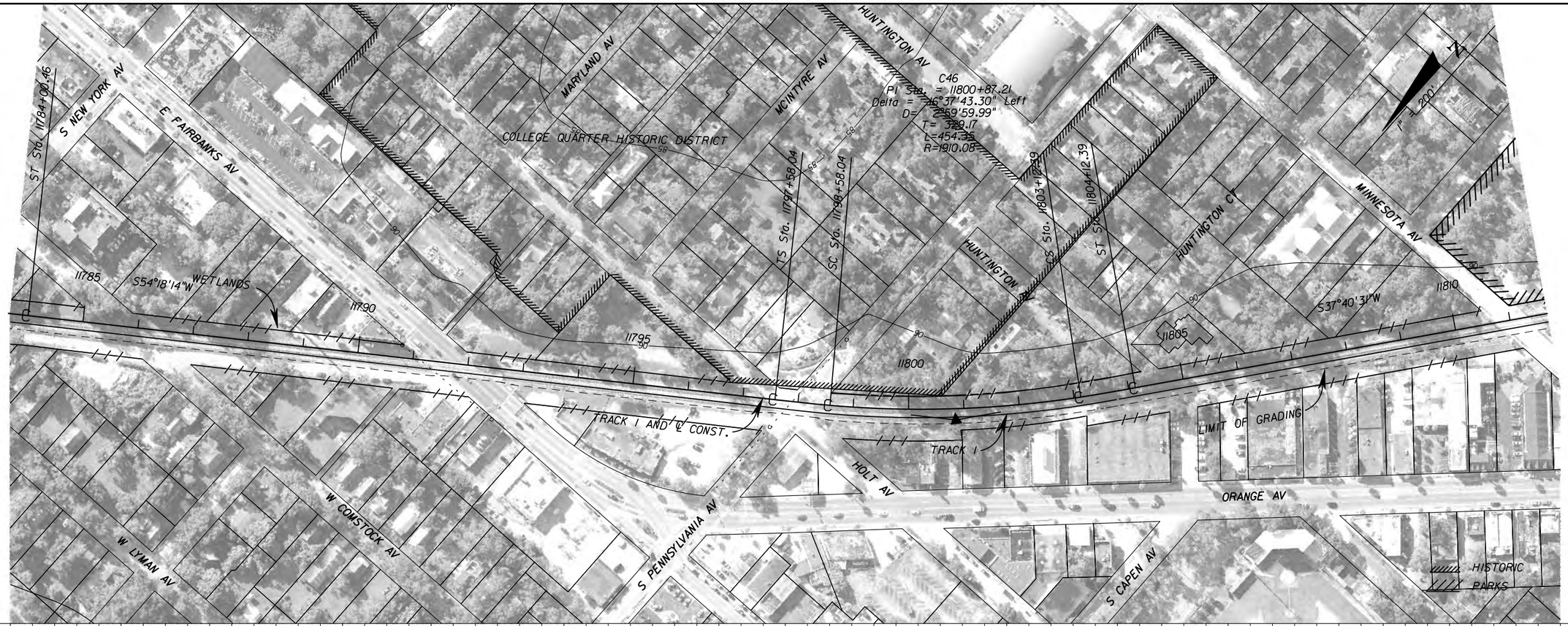

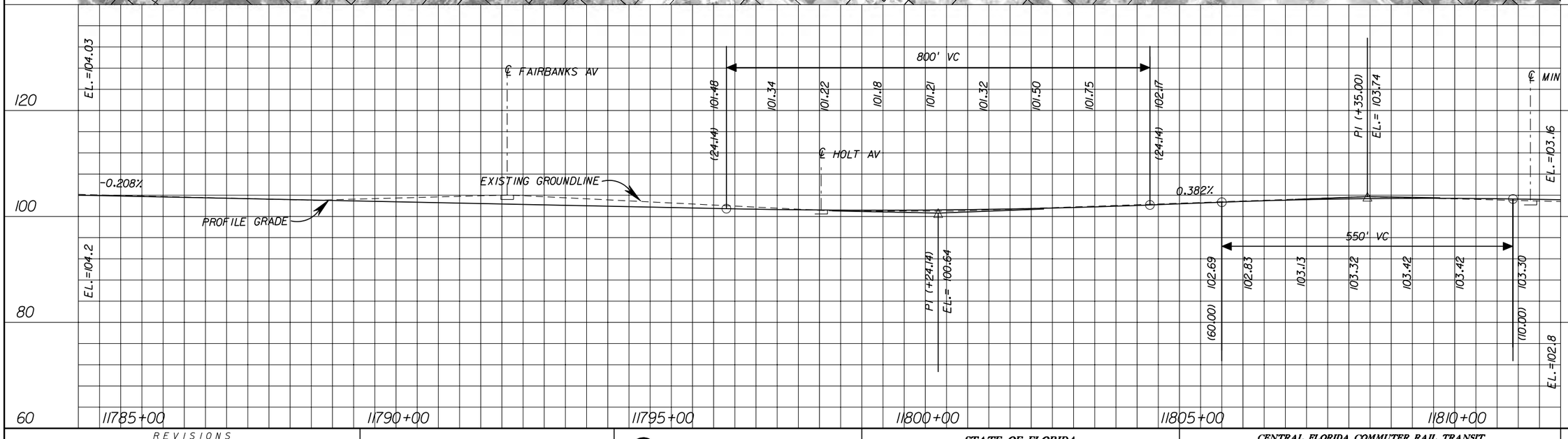

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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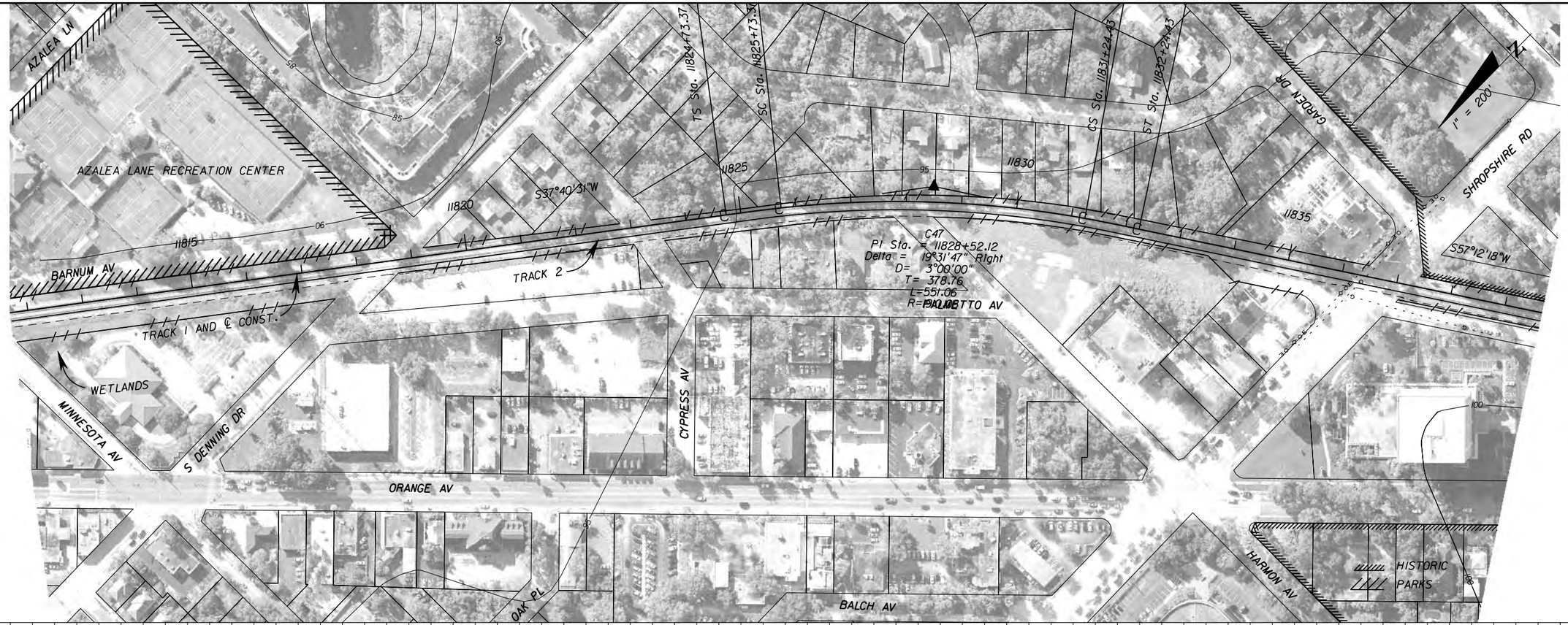

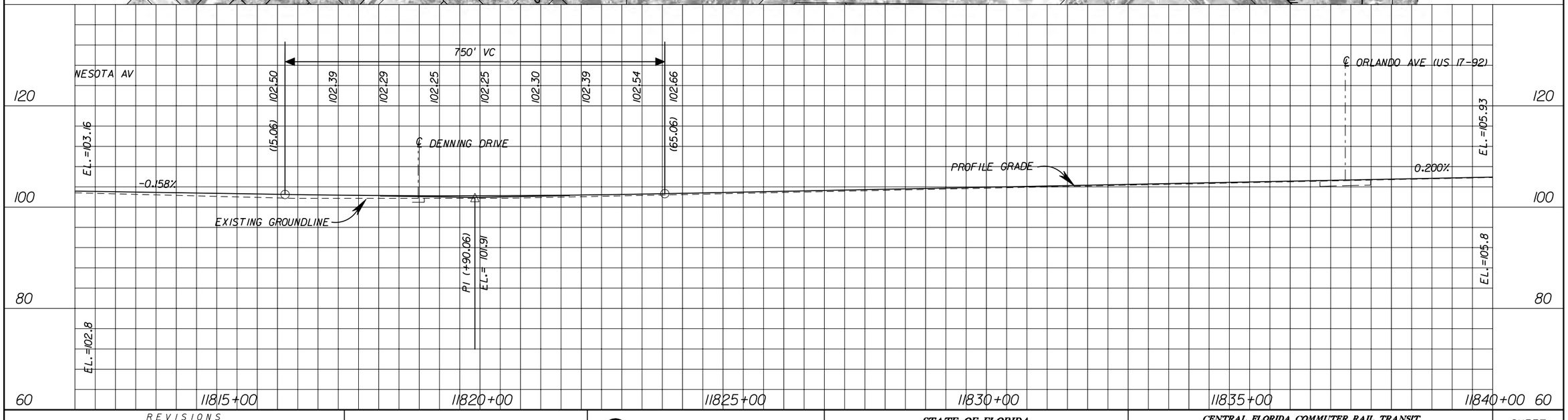

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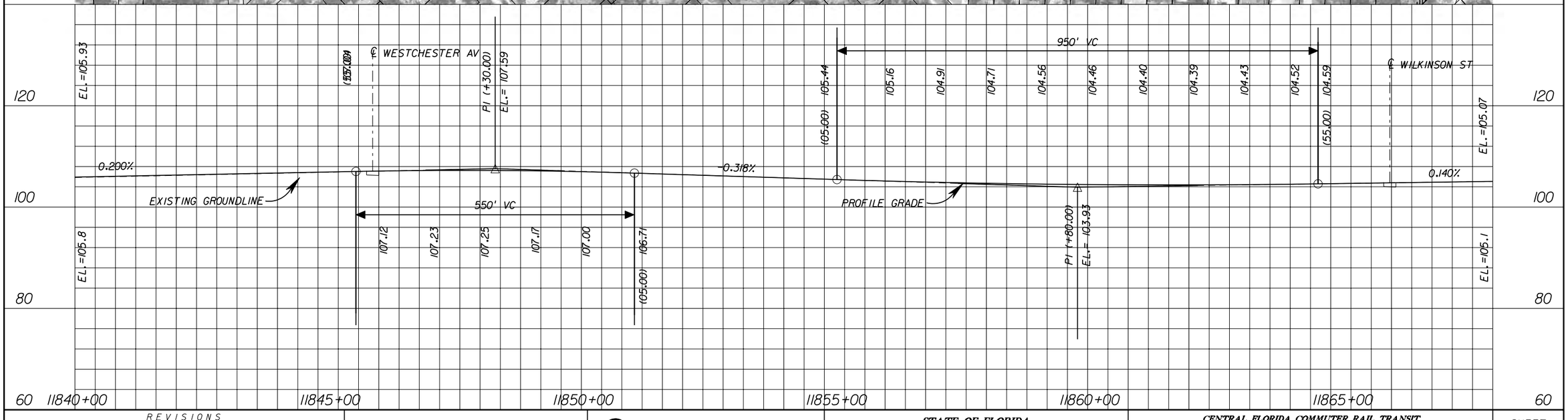
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 67



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PLAN AND PROFILE

SHEET NO. 68

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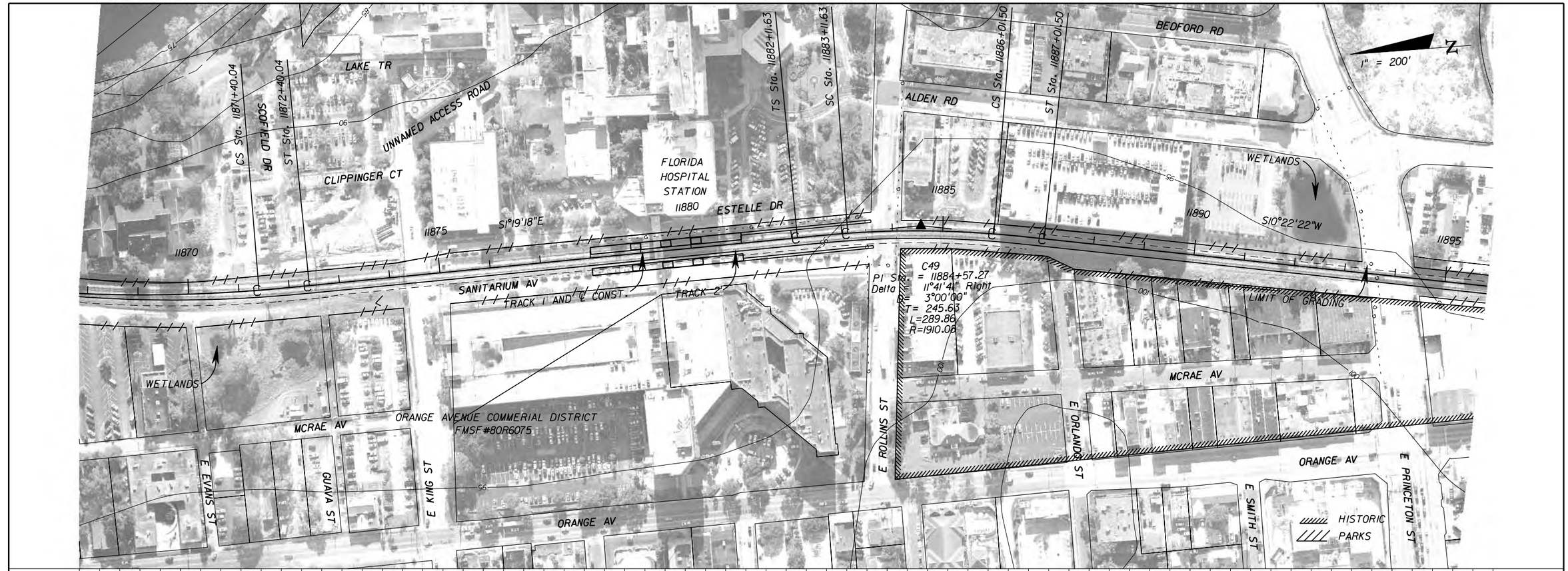

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PLAN AND PROFILE

SHEET NO. 69

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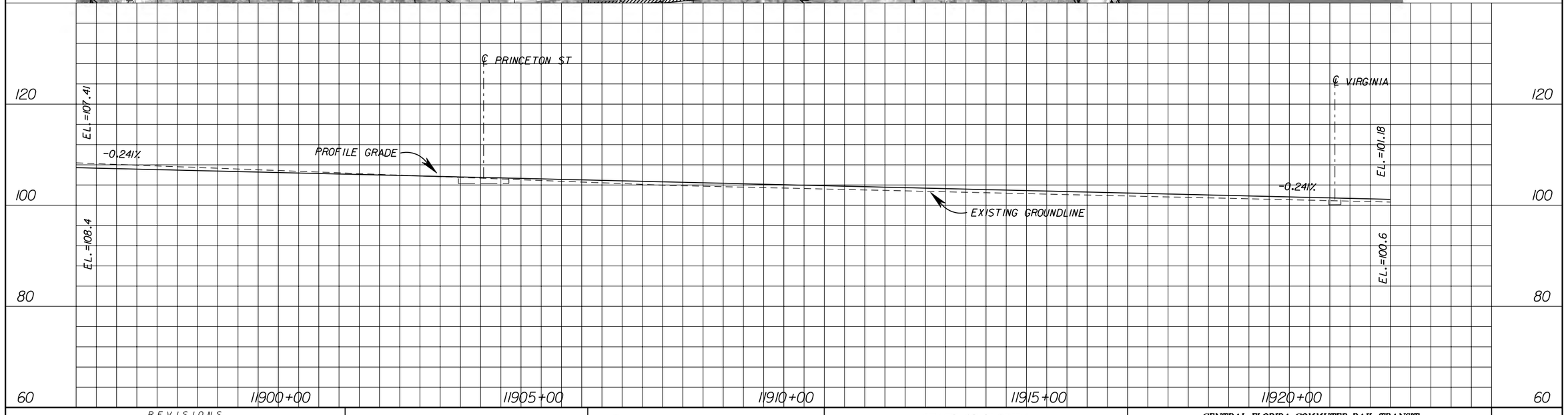

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SHEET NO. 70

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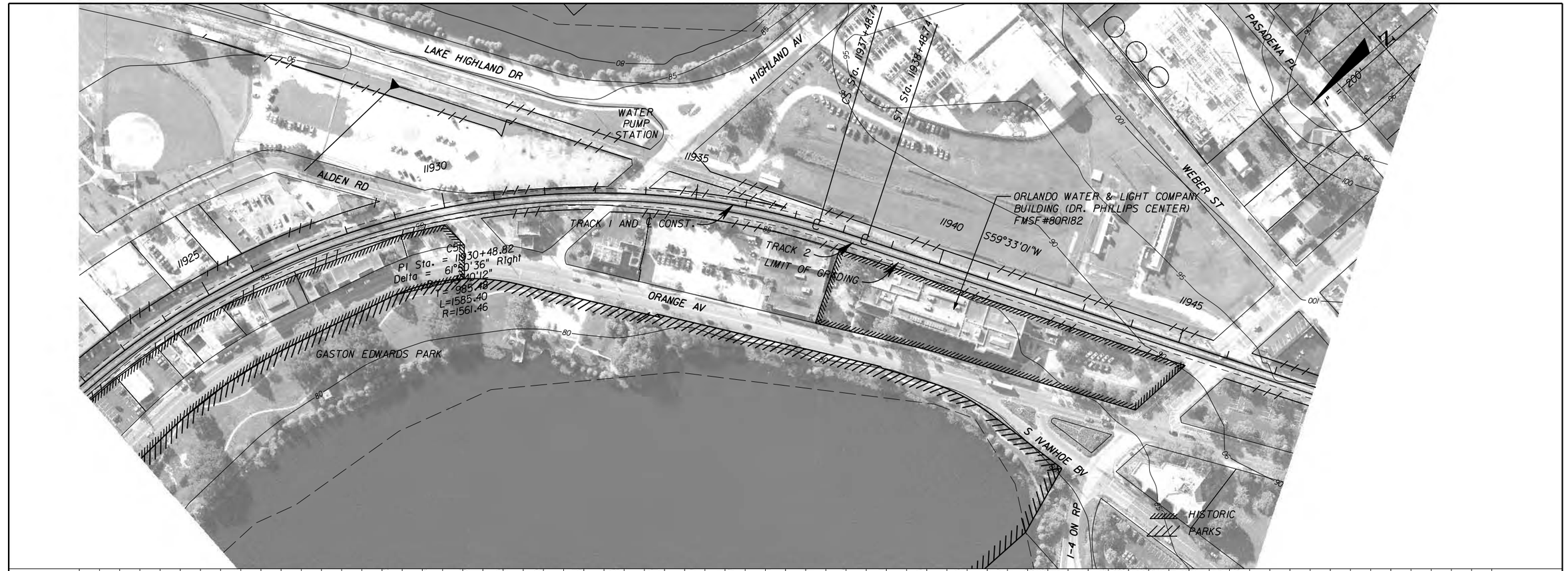

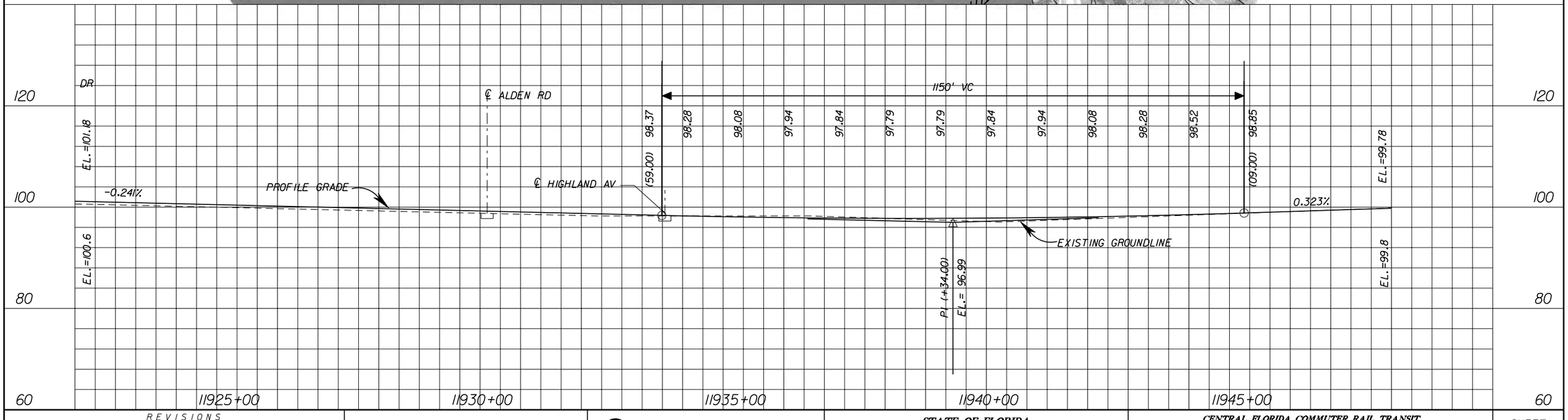

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SHEET NO. 72

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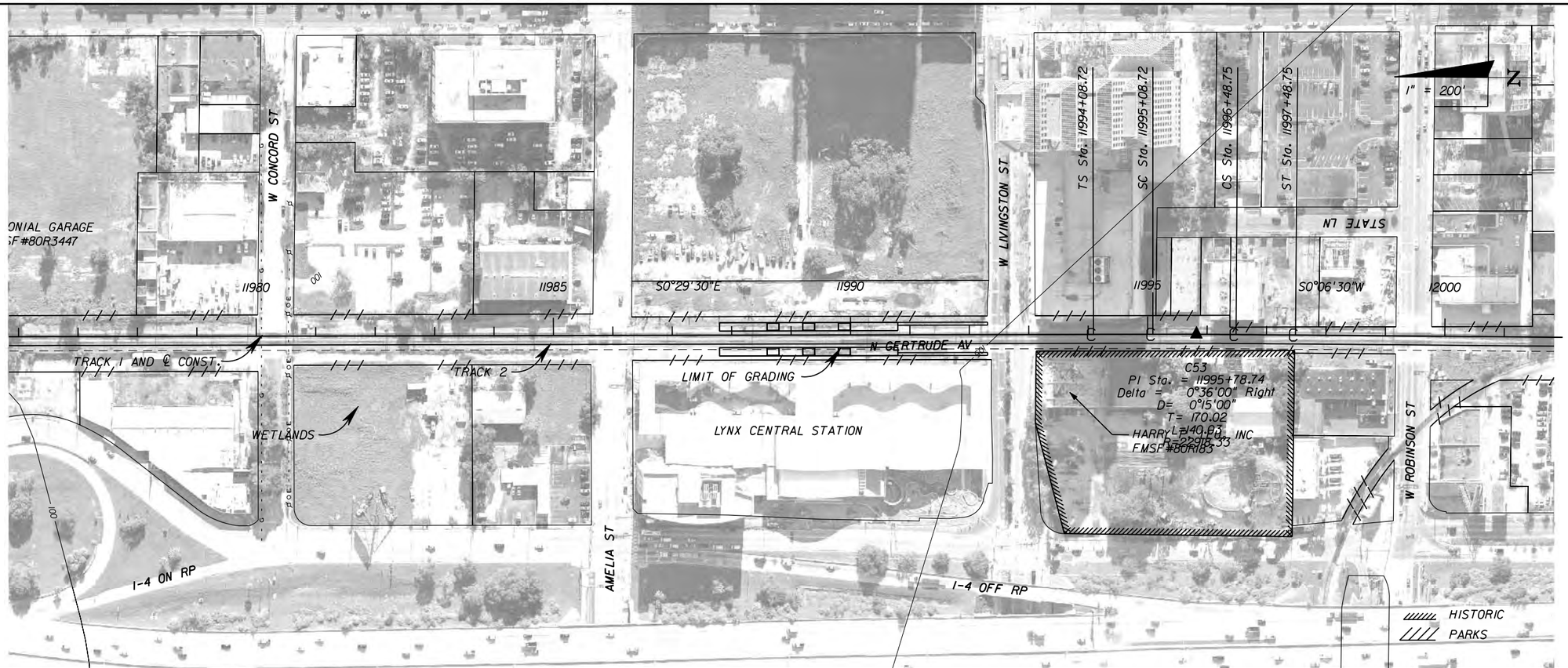

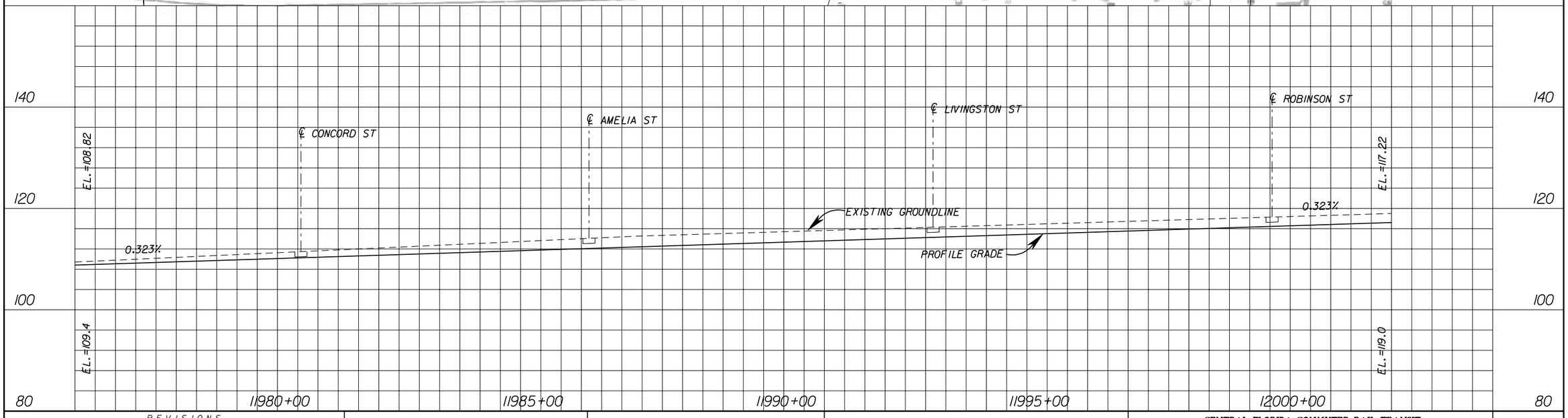

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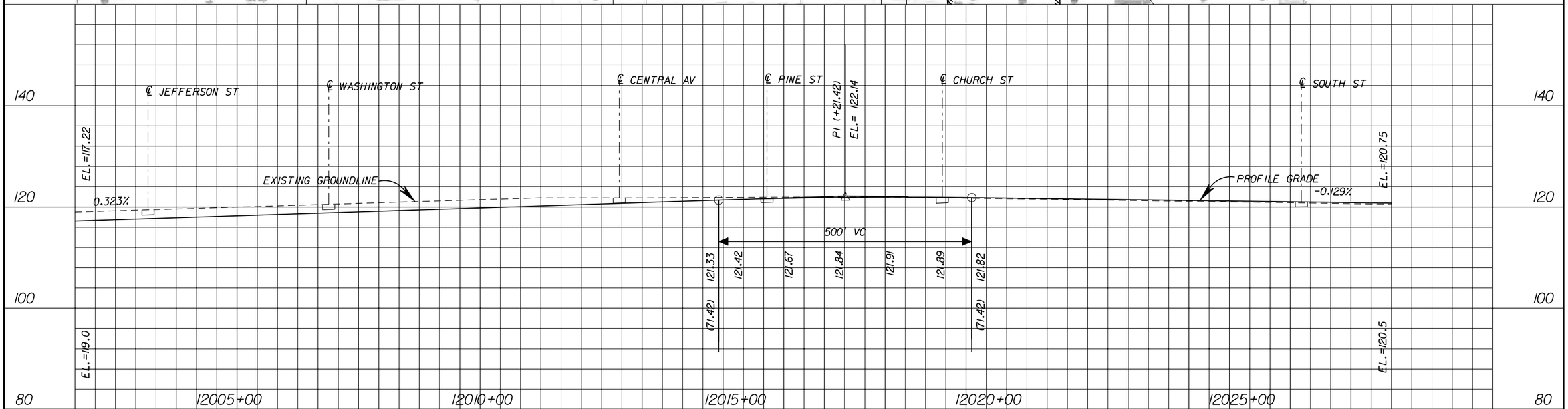

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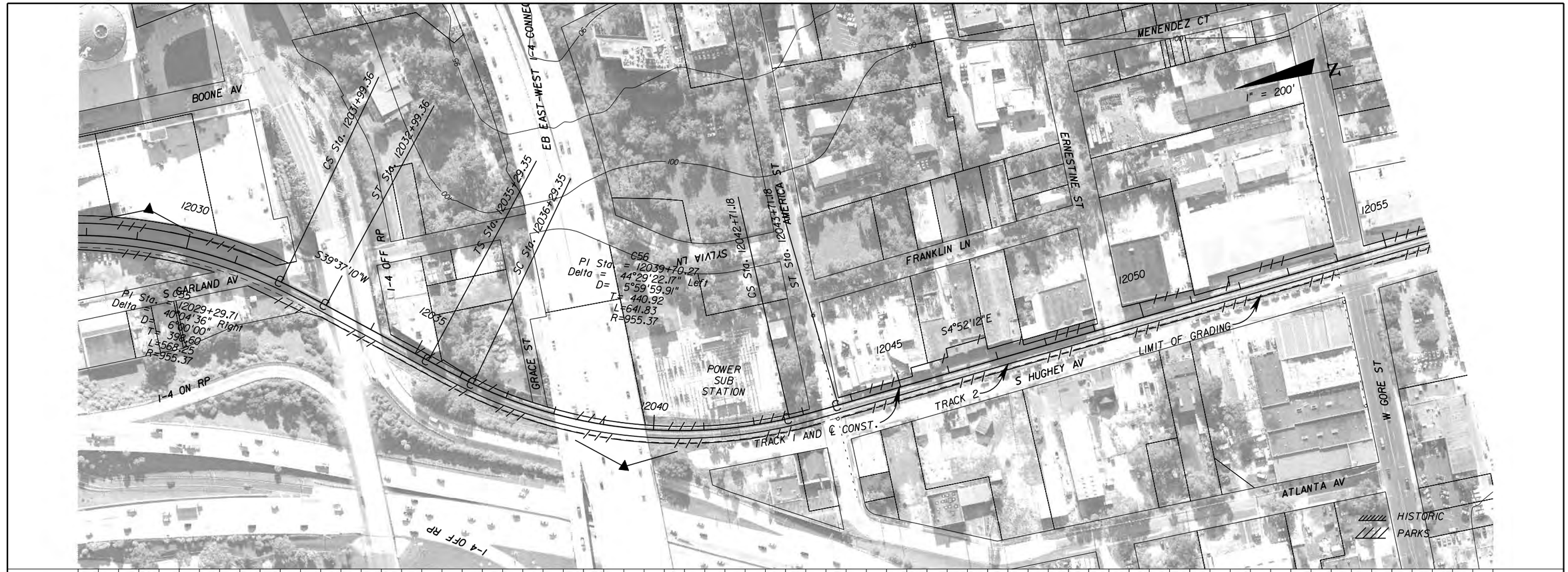

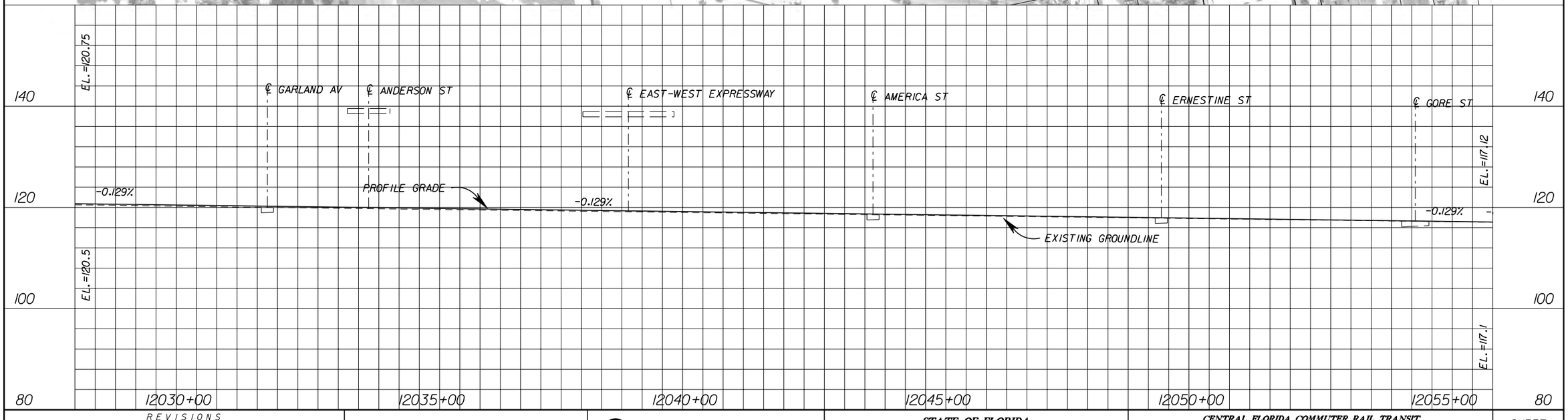

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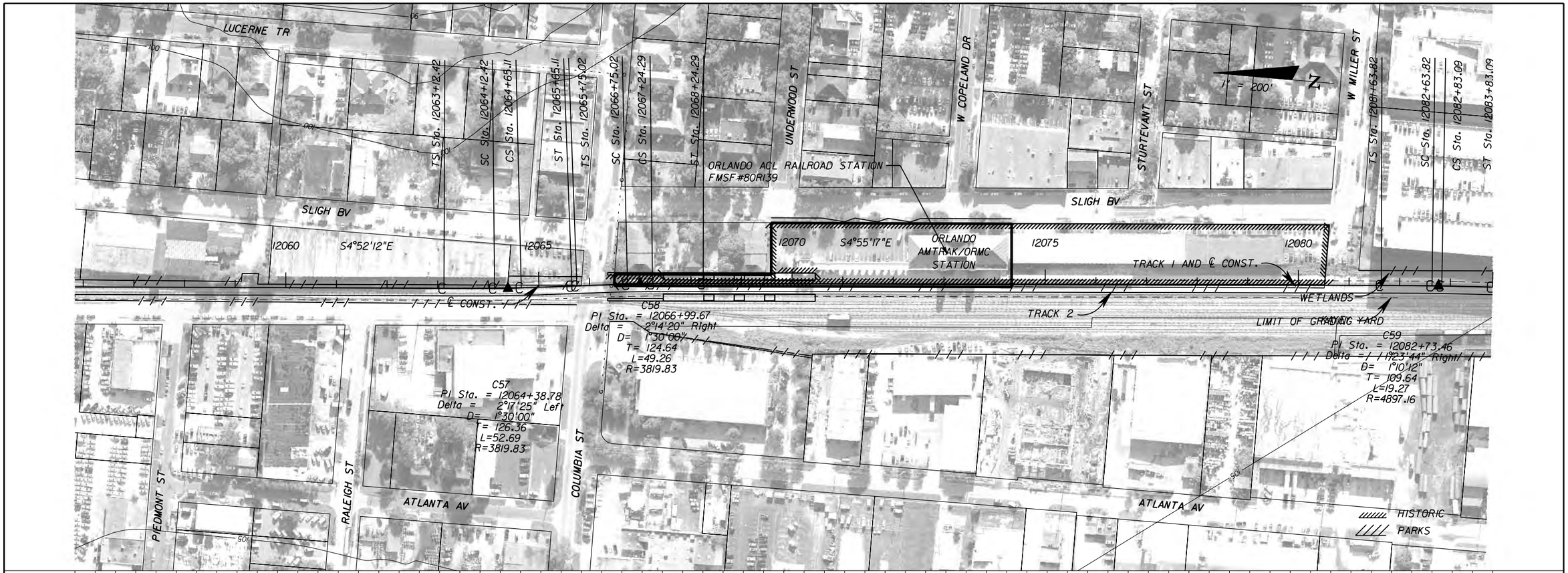
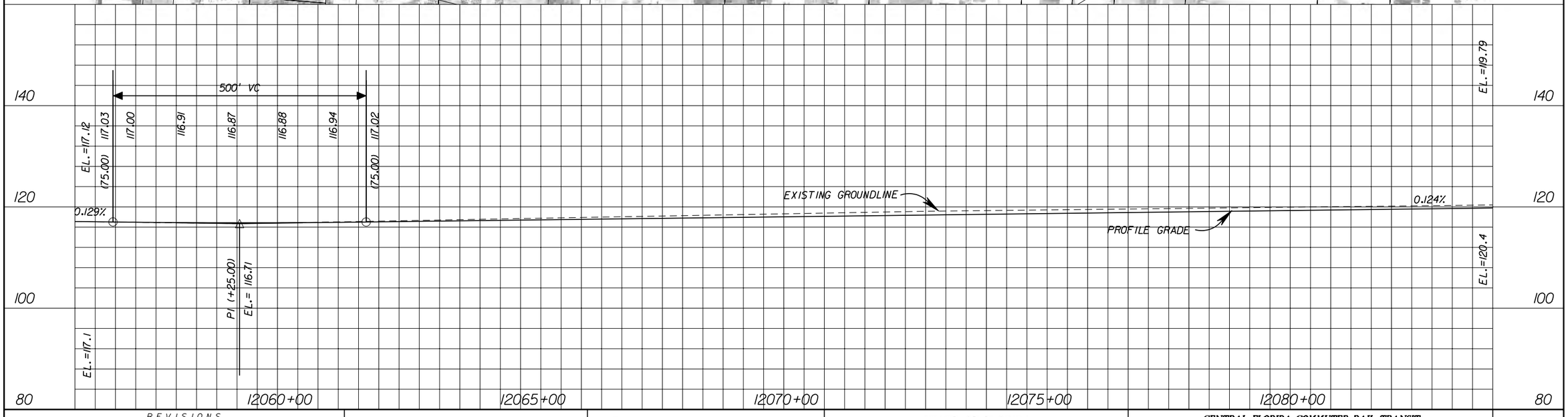
CRT	ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 75





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PLAN AND PROFILE

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PLAN AND PROFILE

SHEET NO. 77

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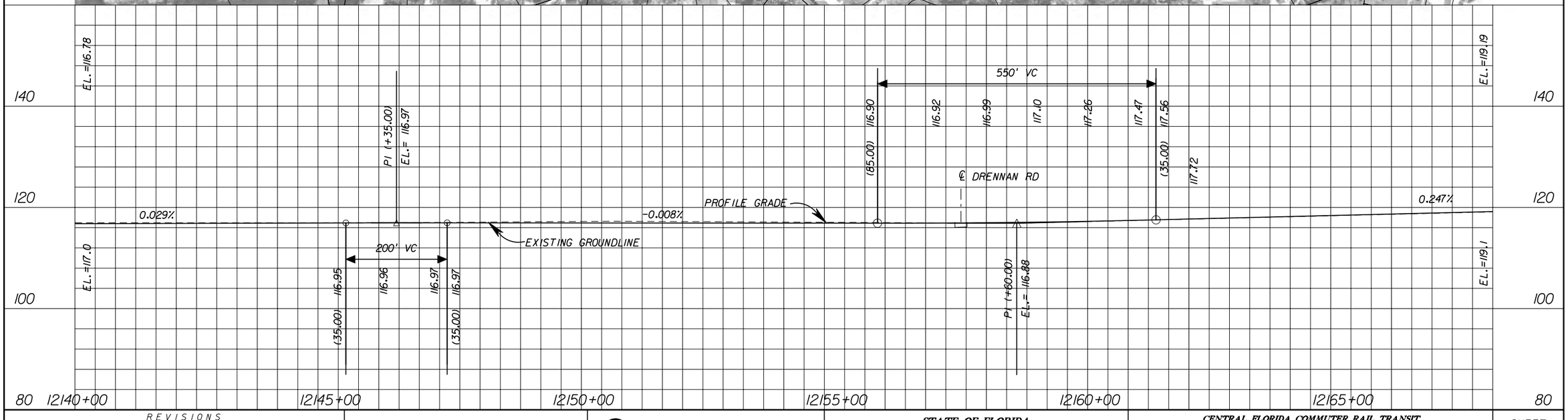
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 78



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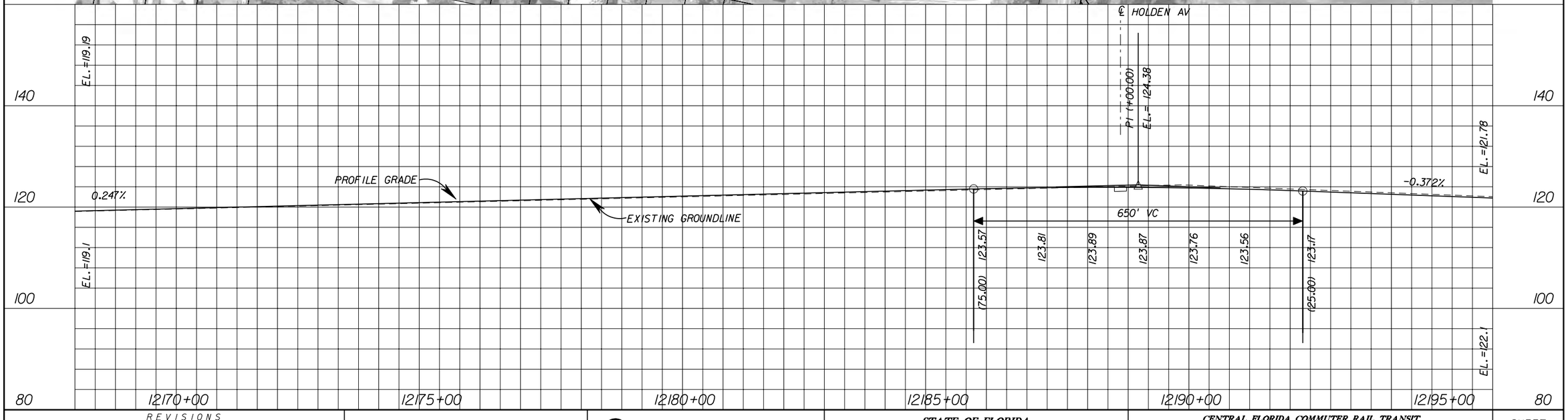
PLAN AND PROFILE

SHEET NO. 79



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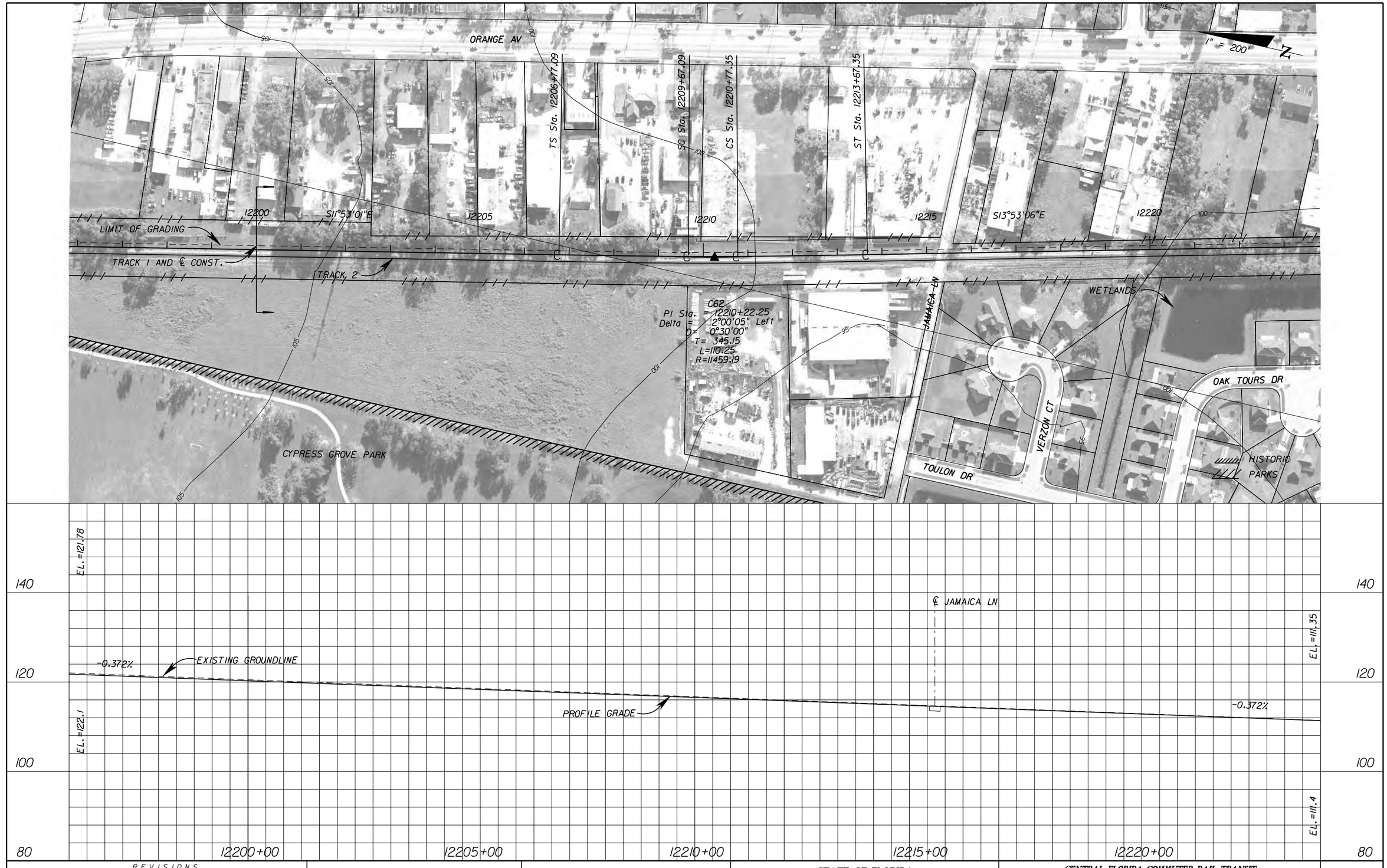

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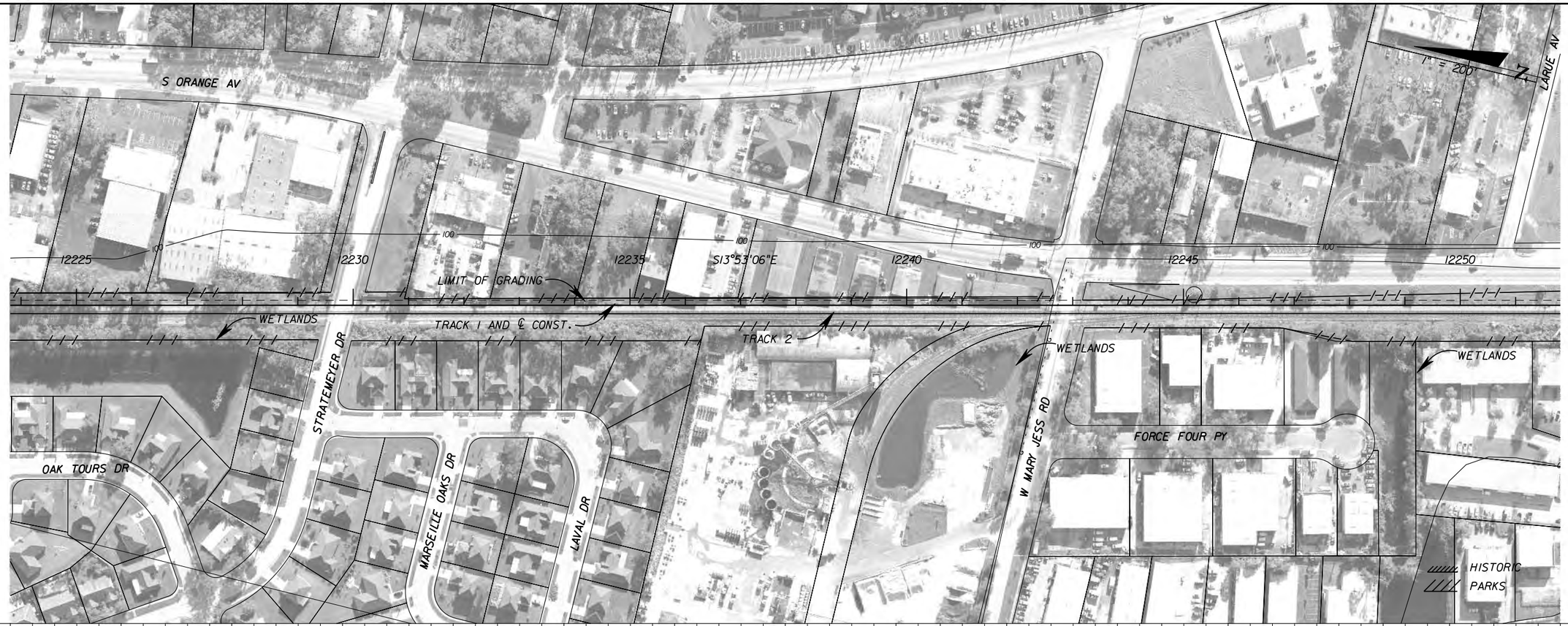

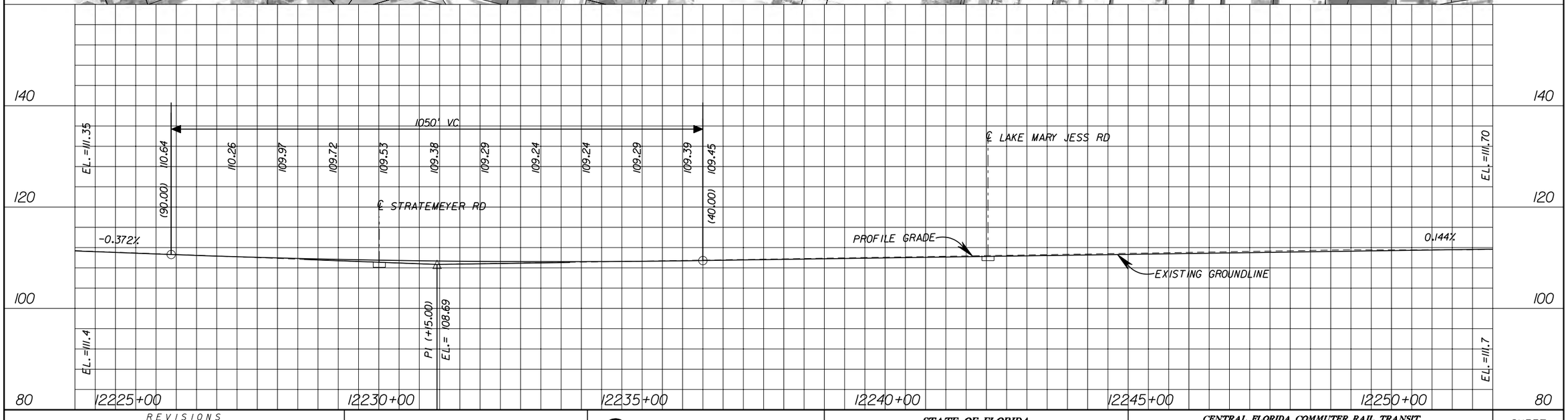

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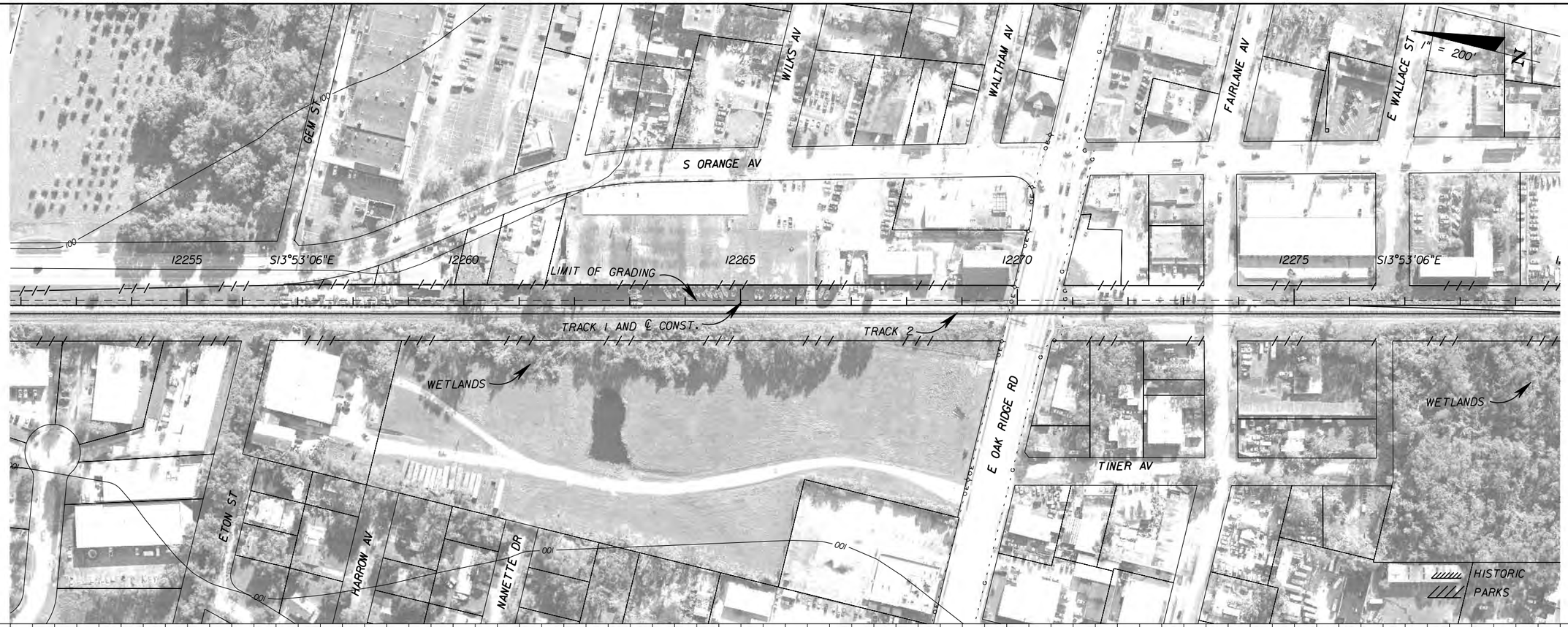

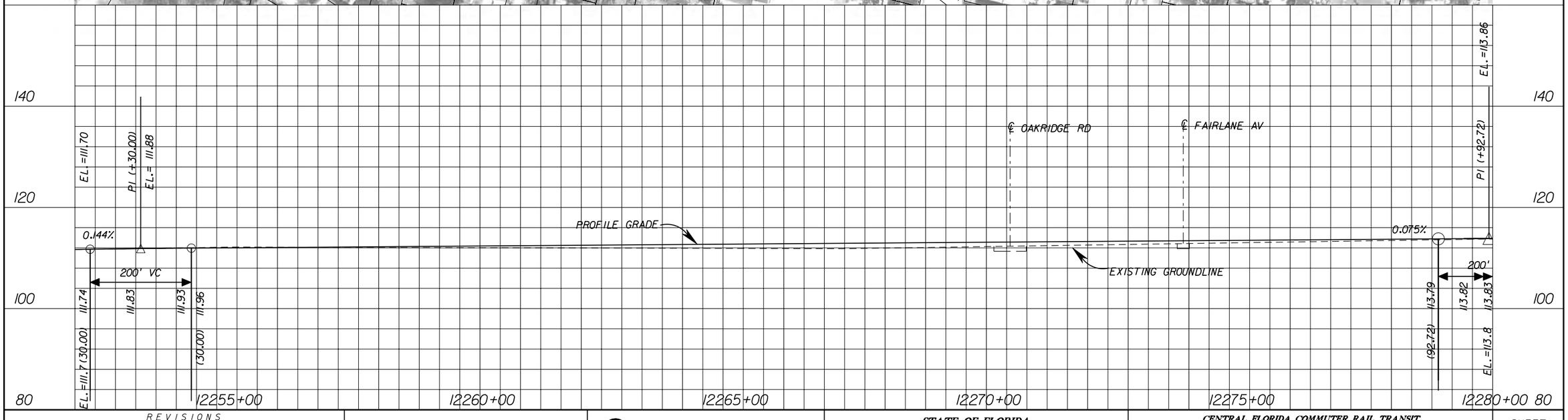

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PLAN AND PROFILE

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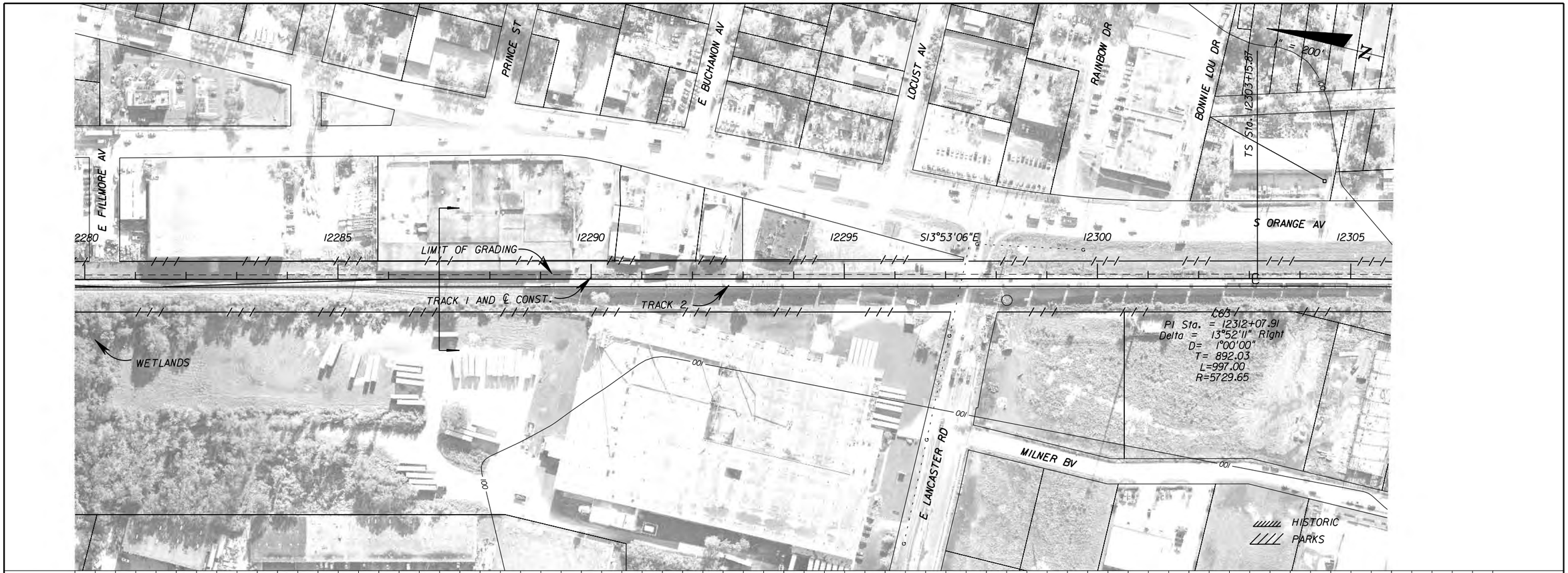

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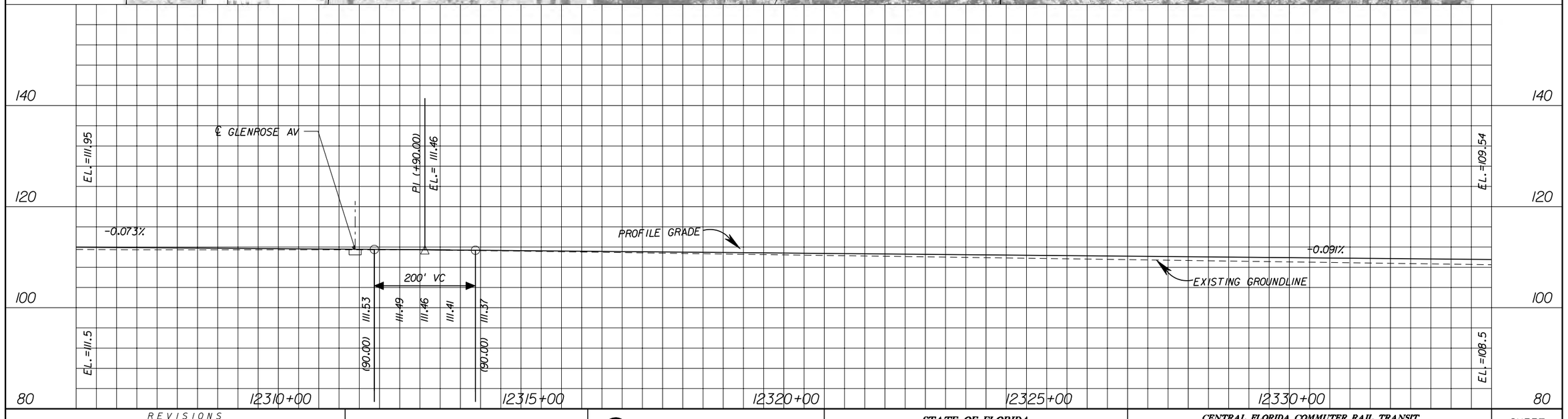

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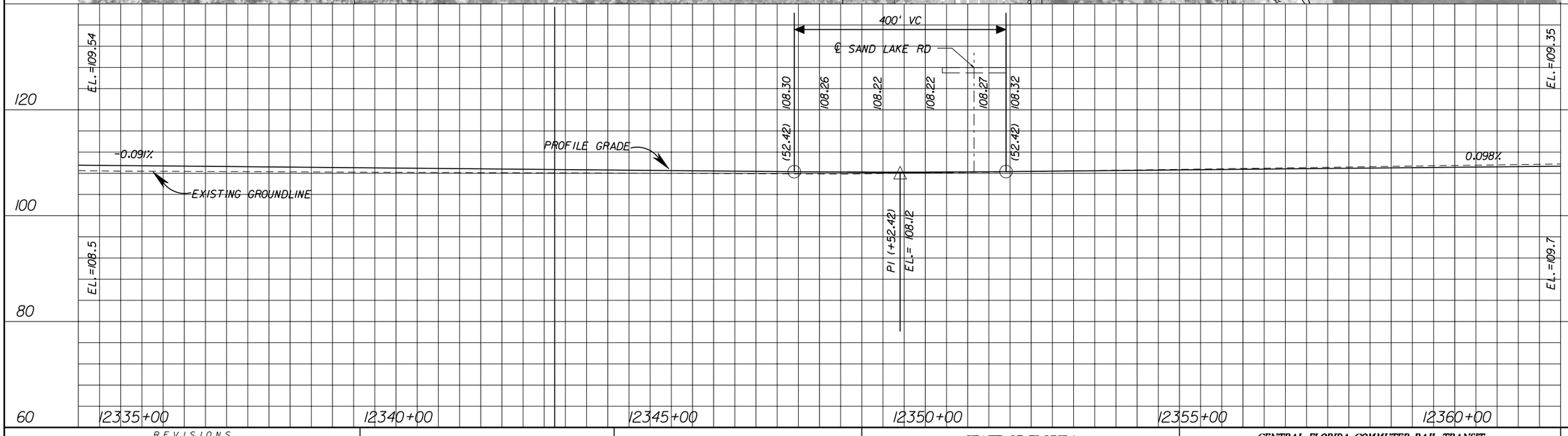

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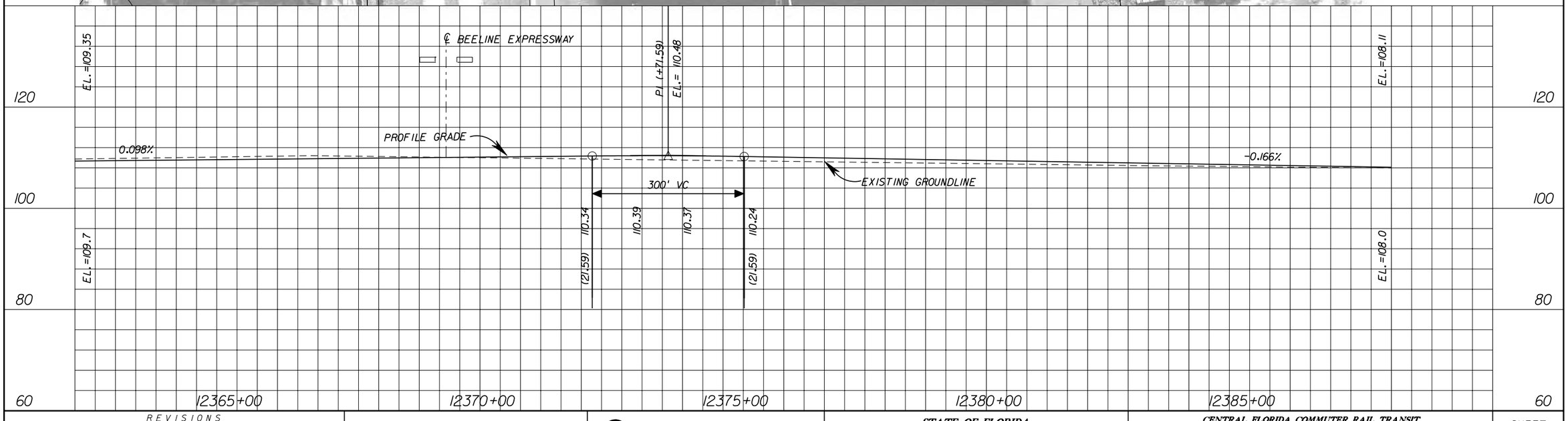

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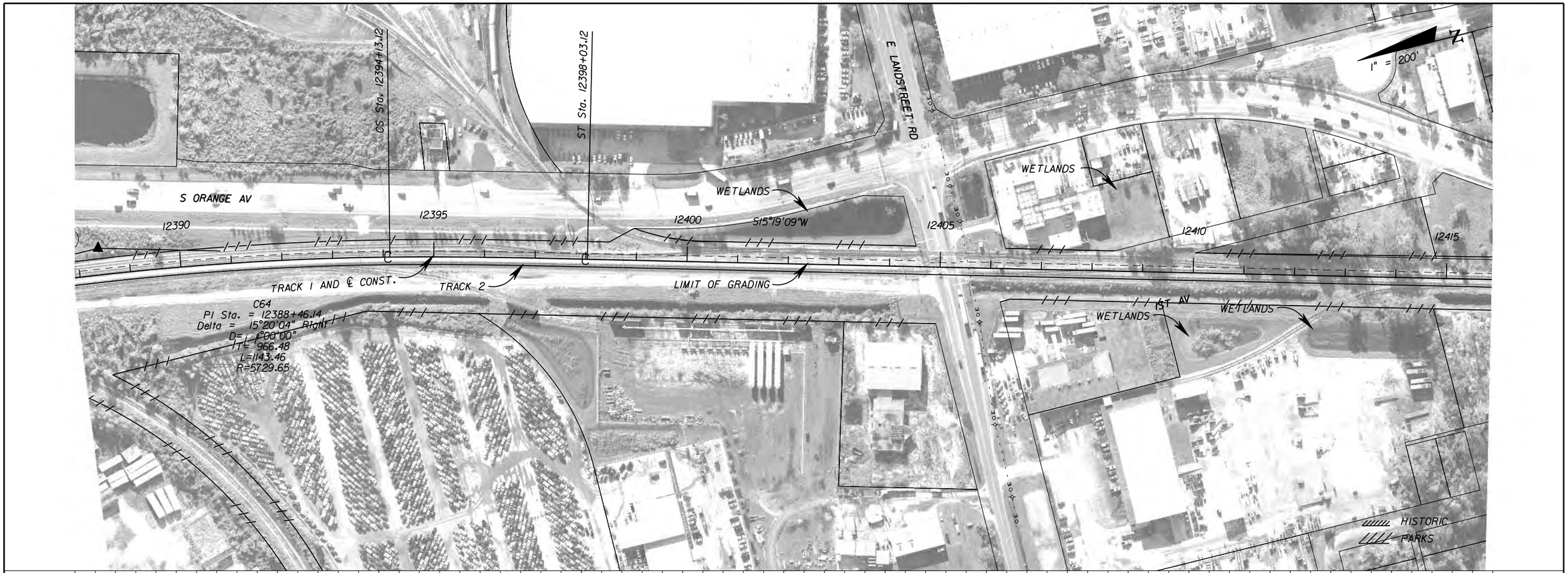

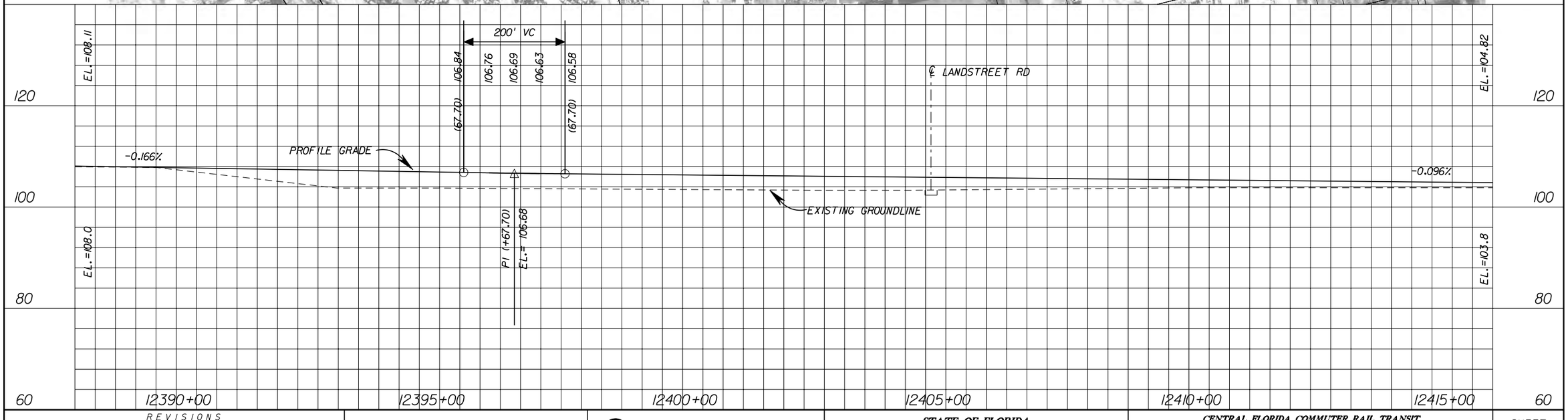

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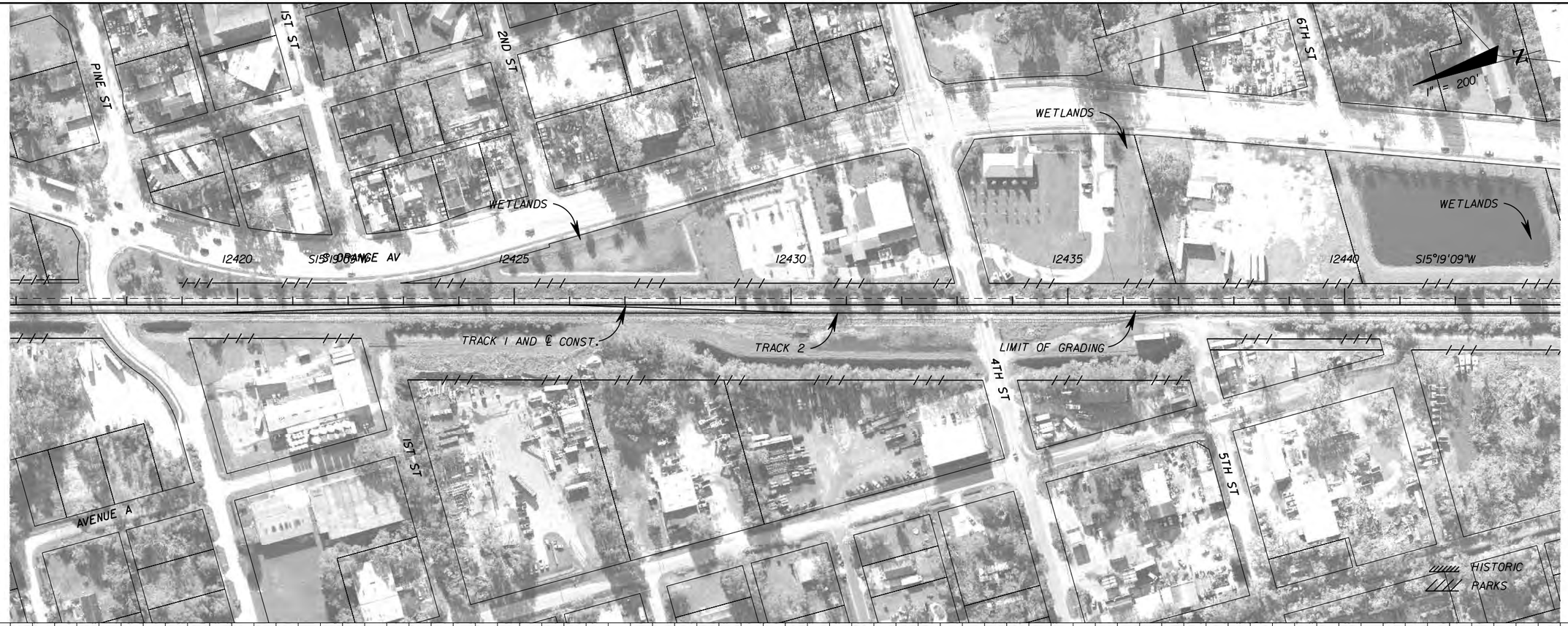

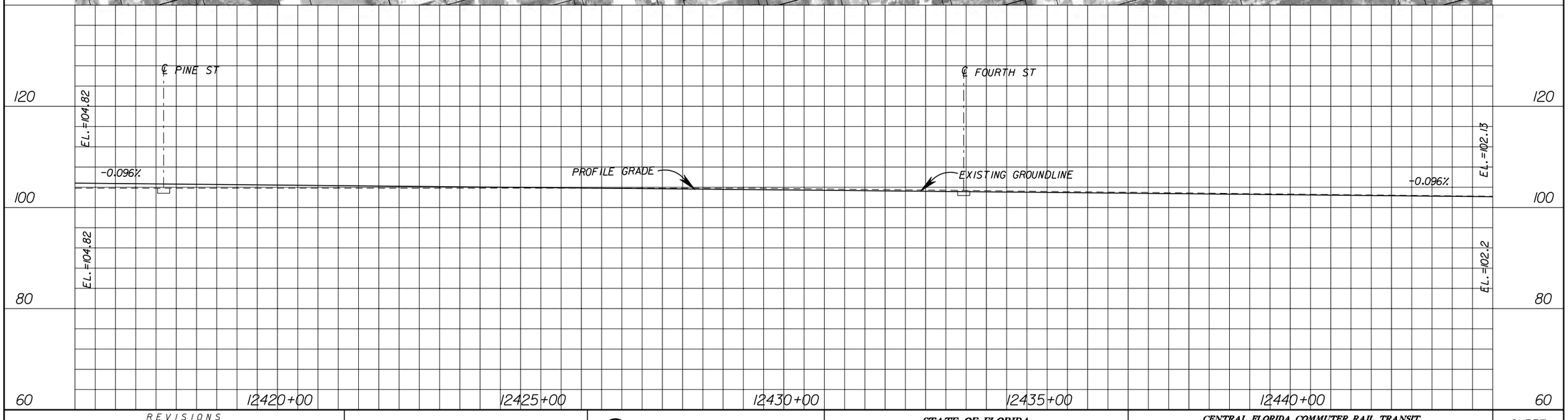

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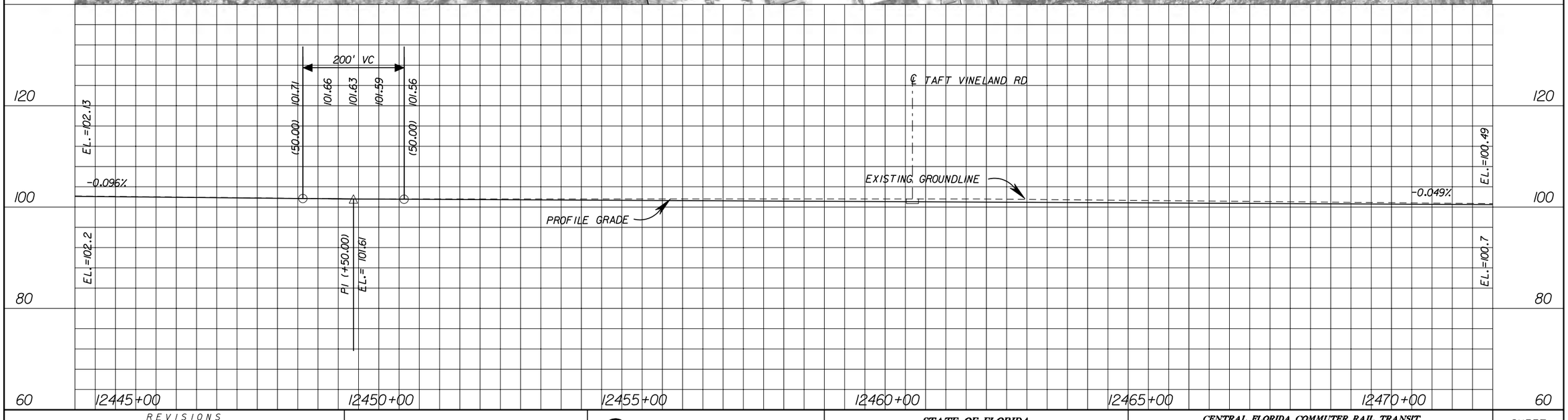

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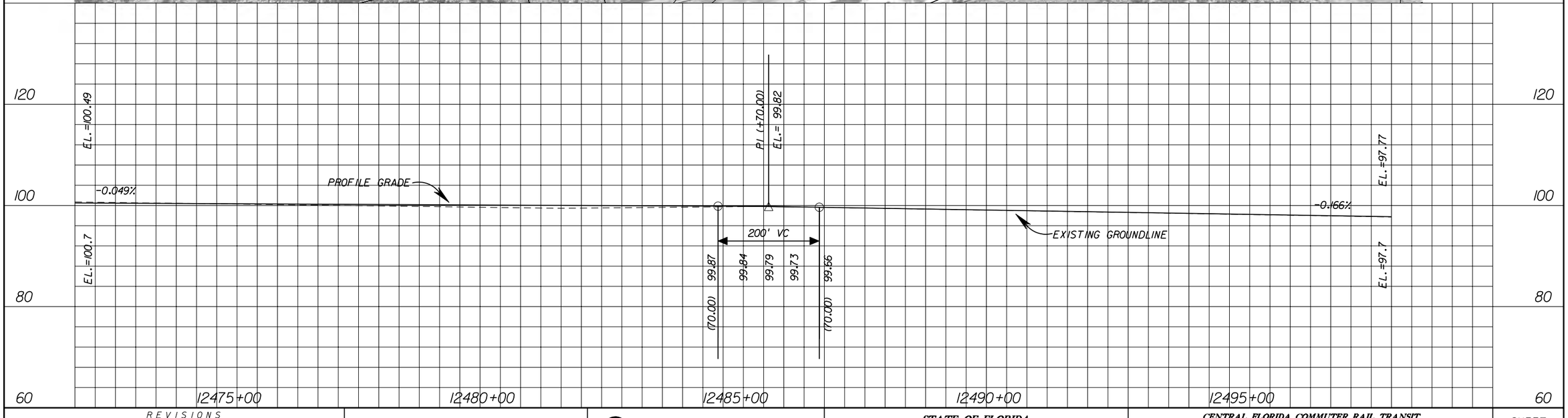

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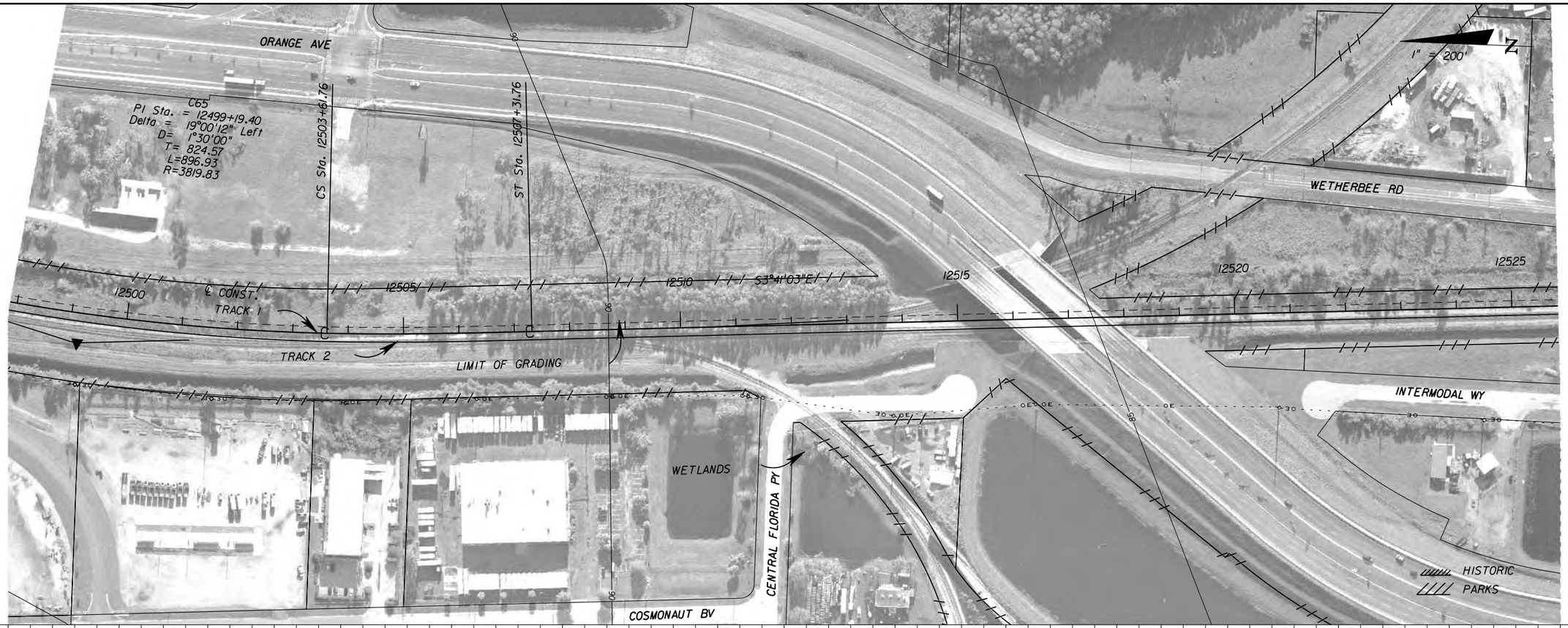

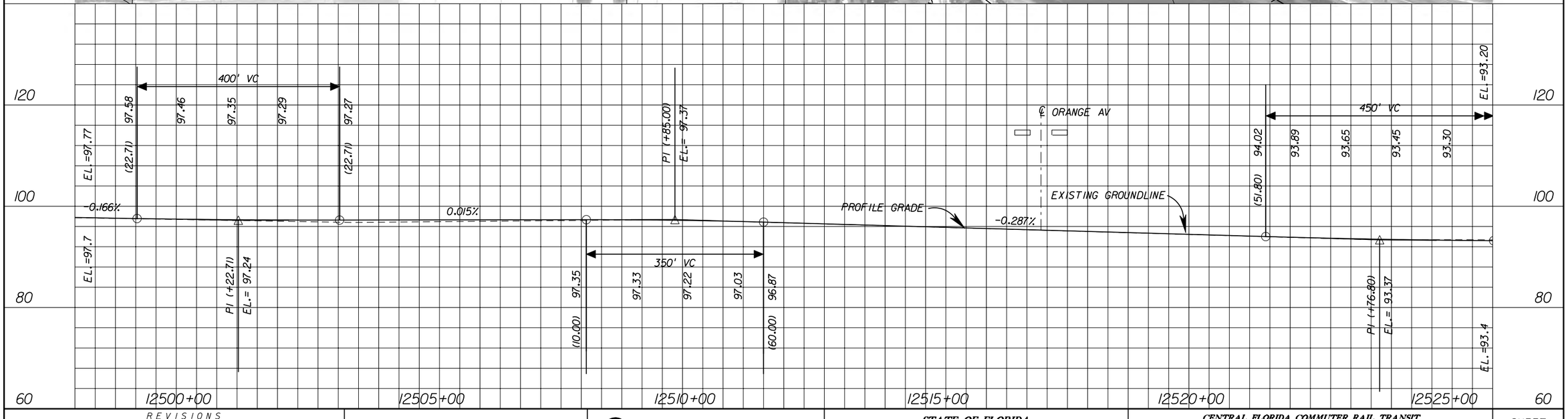

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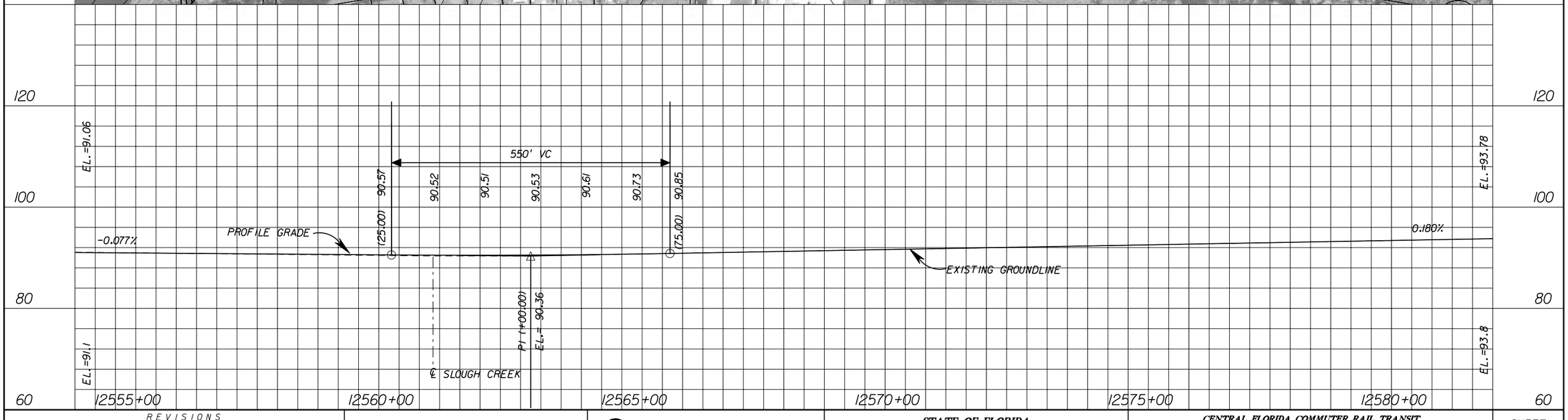

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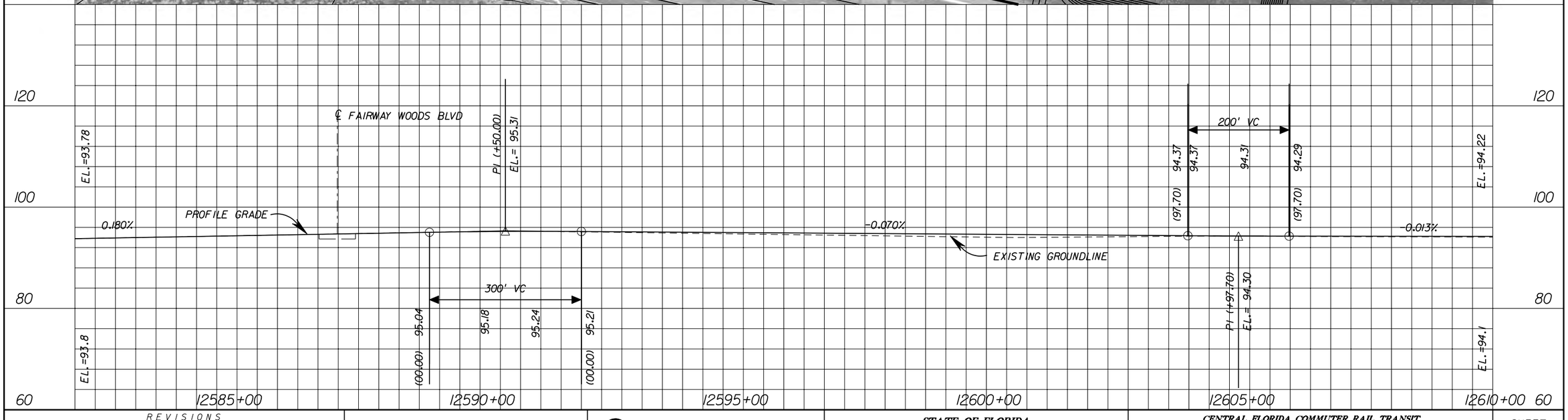

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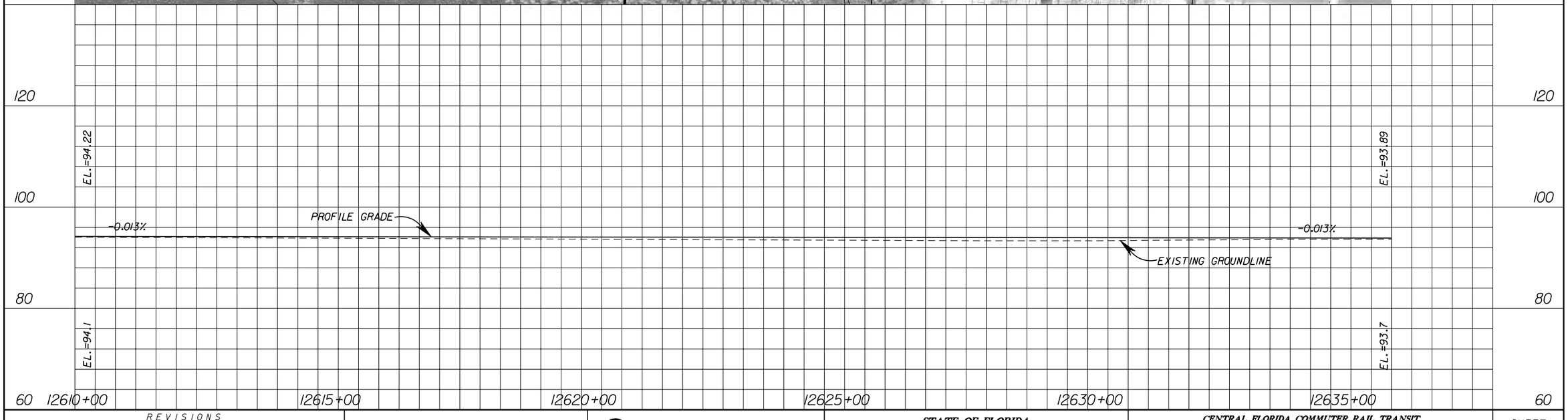

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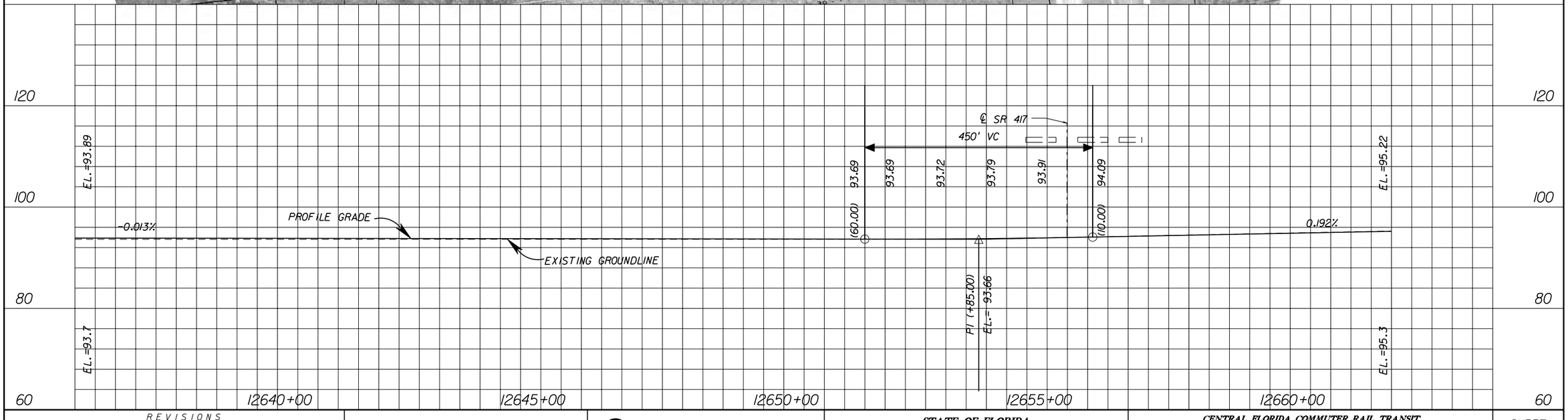

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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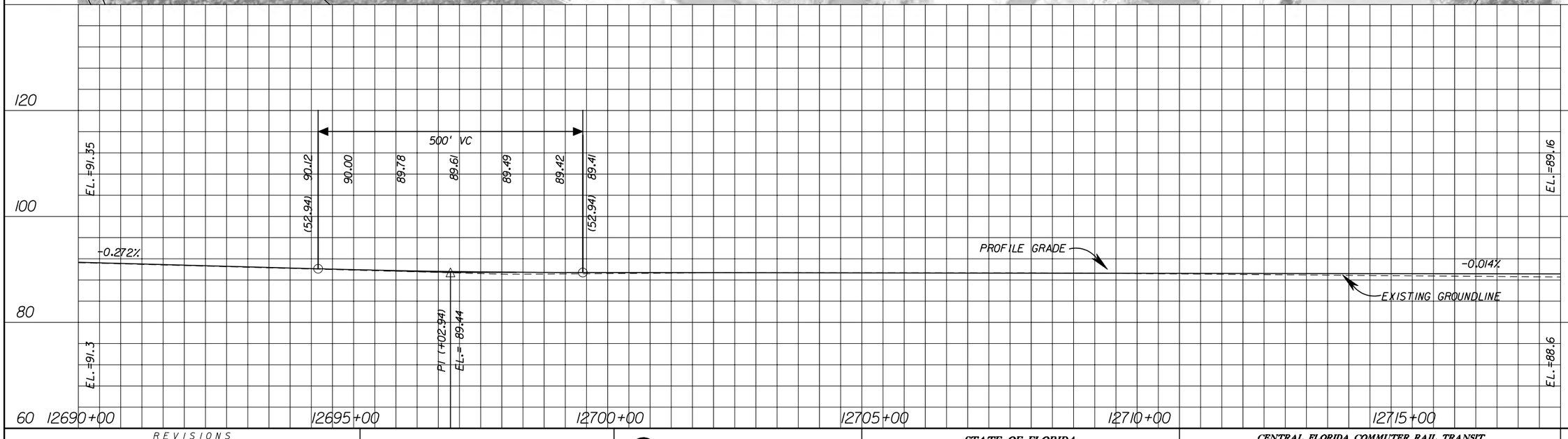
CRT	ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 98



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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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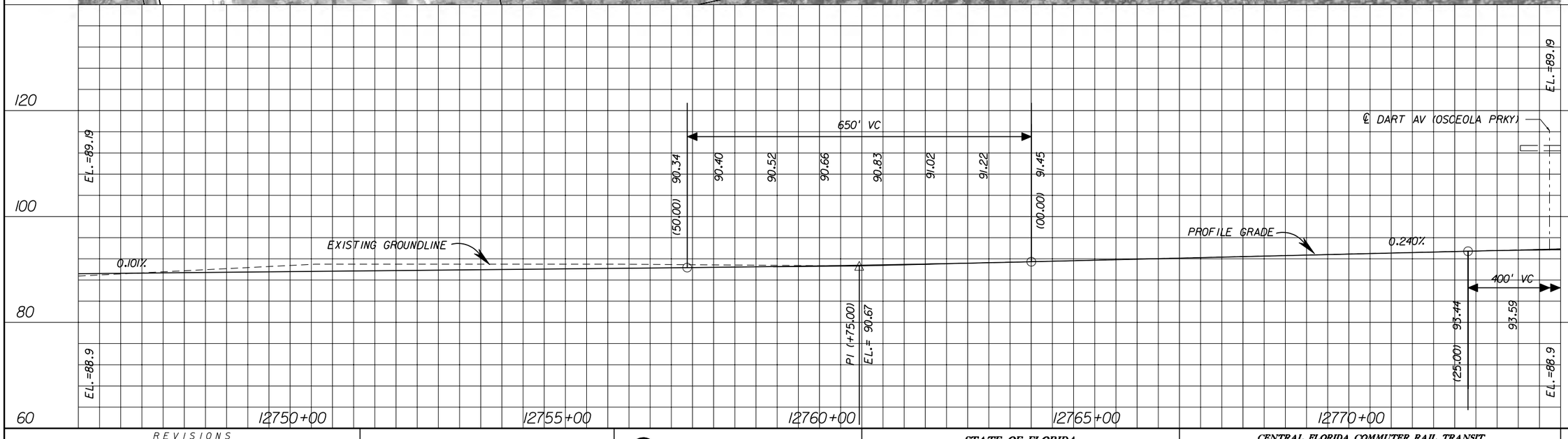

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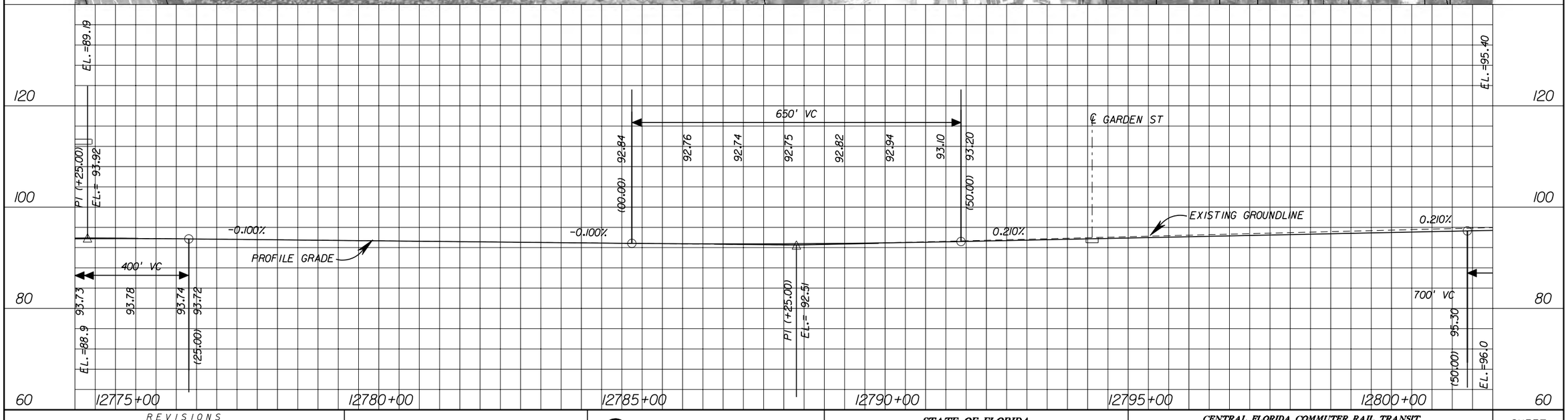

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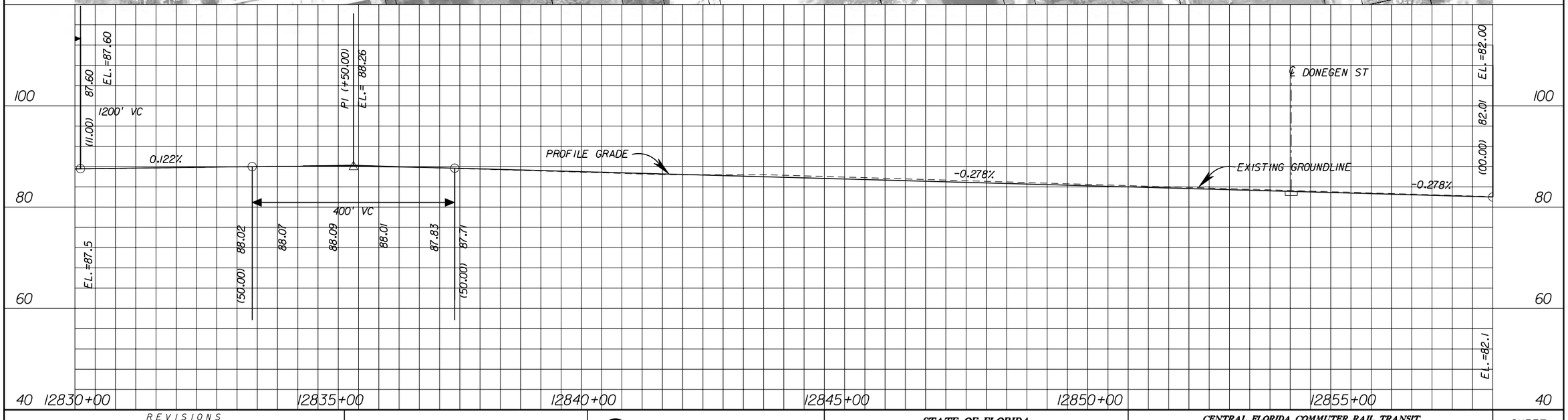
CRT	OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 103



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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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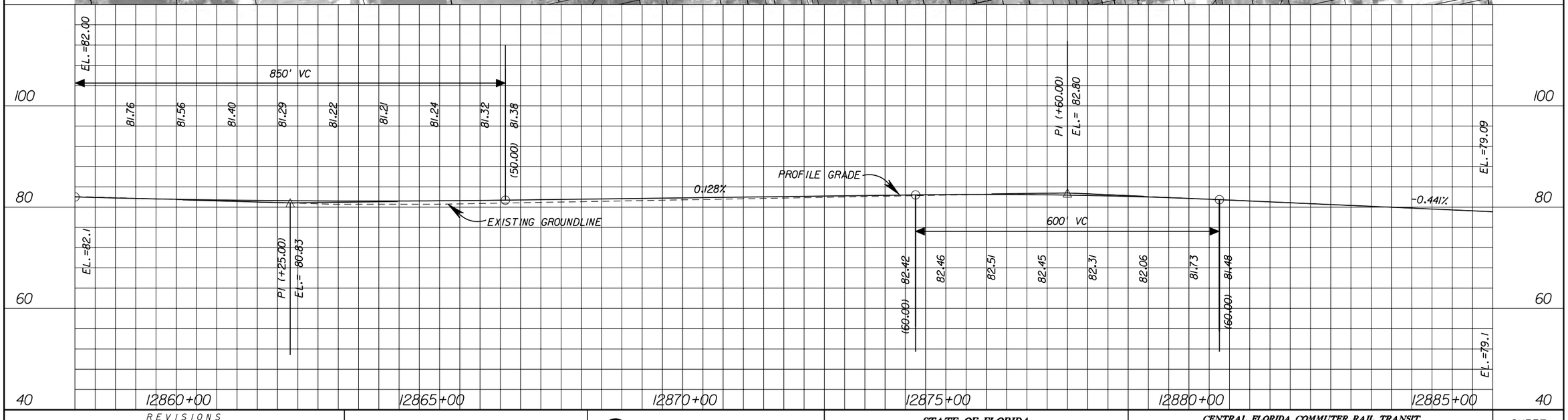

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CRT	OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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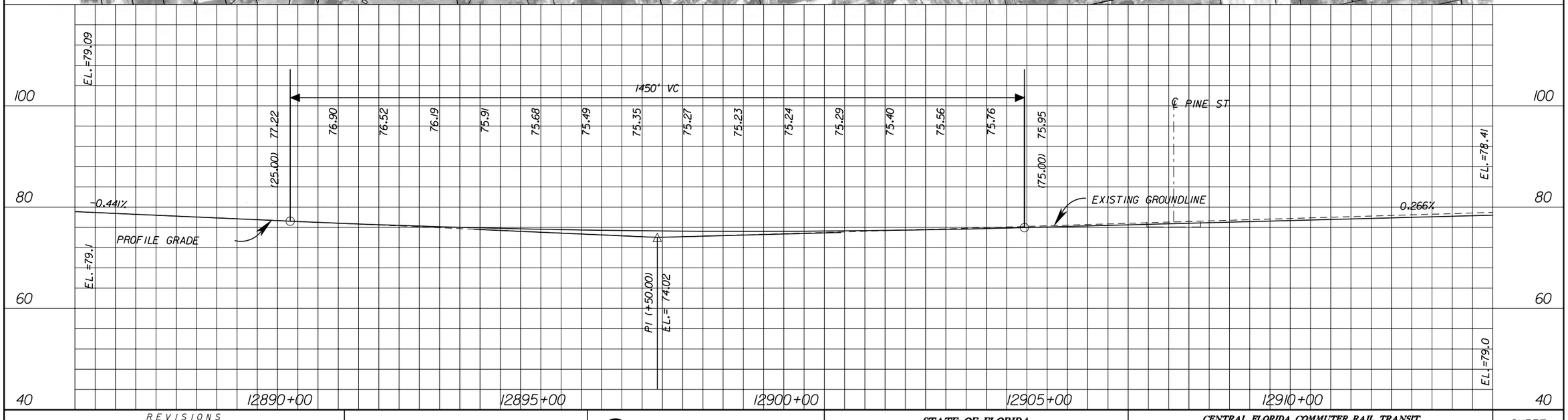

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PLAN AND PROFILE

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PLAN AND PROFILE

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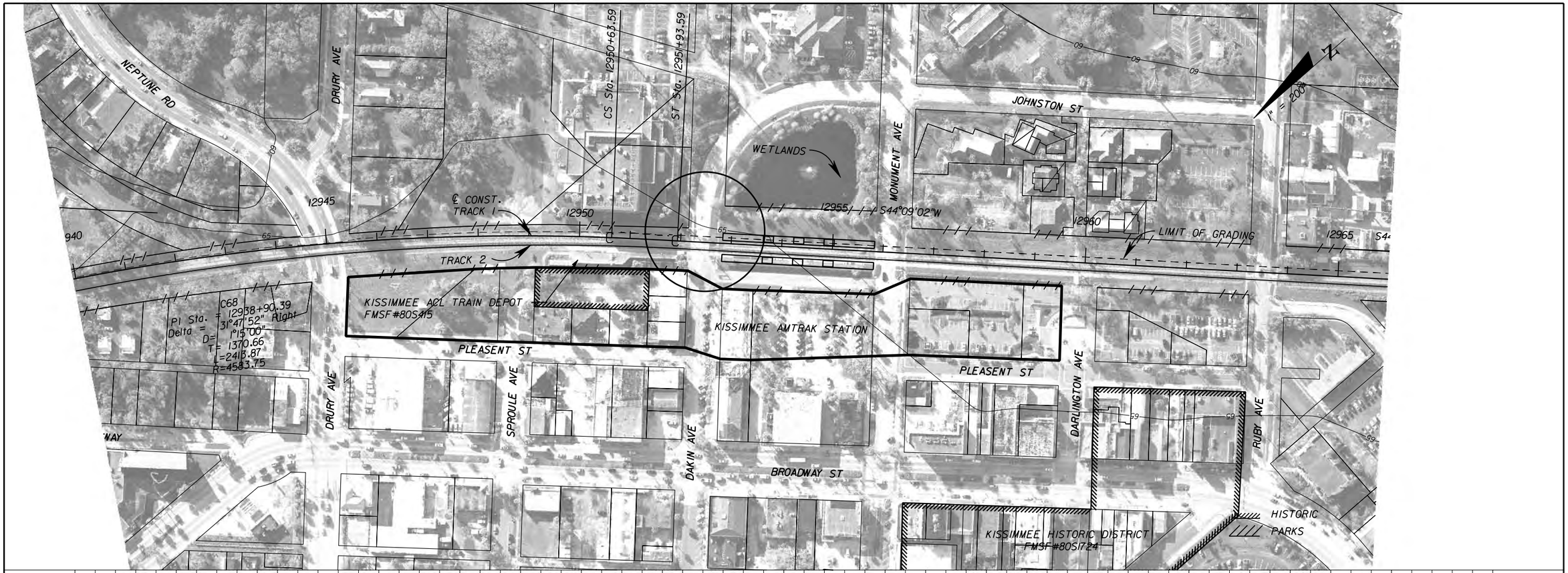

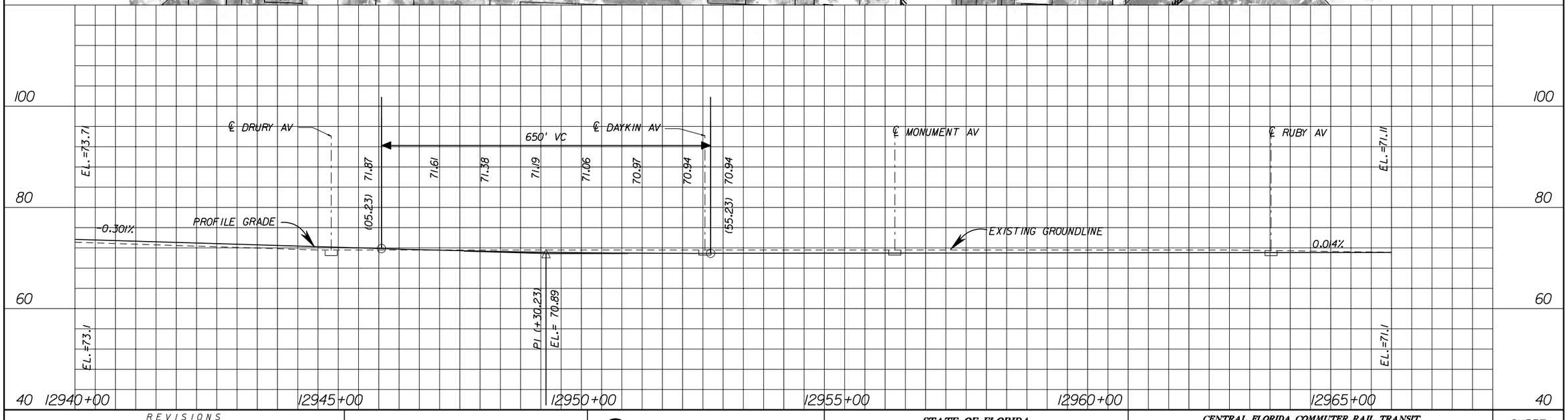

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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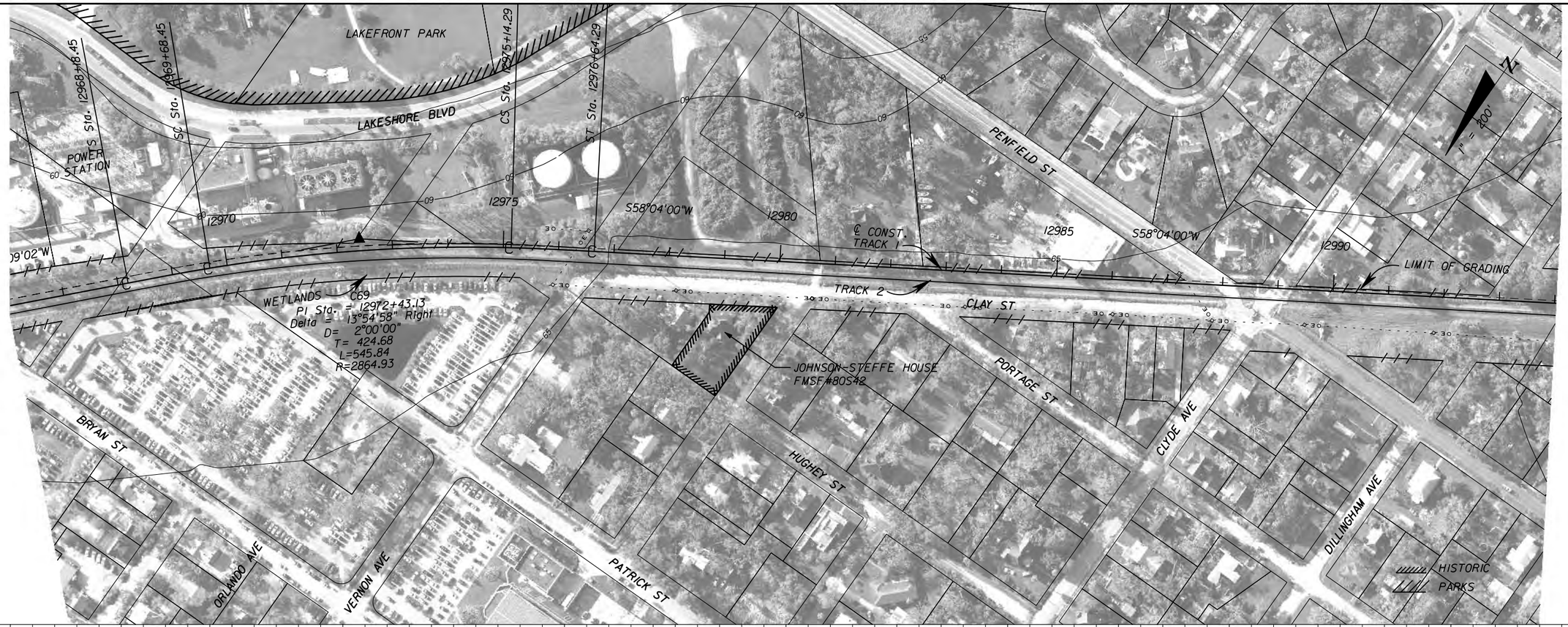

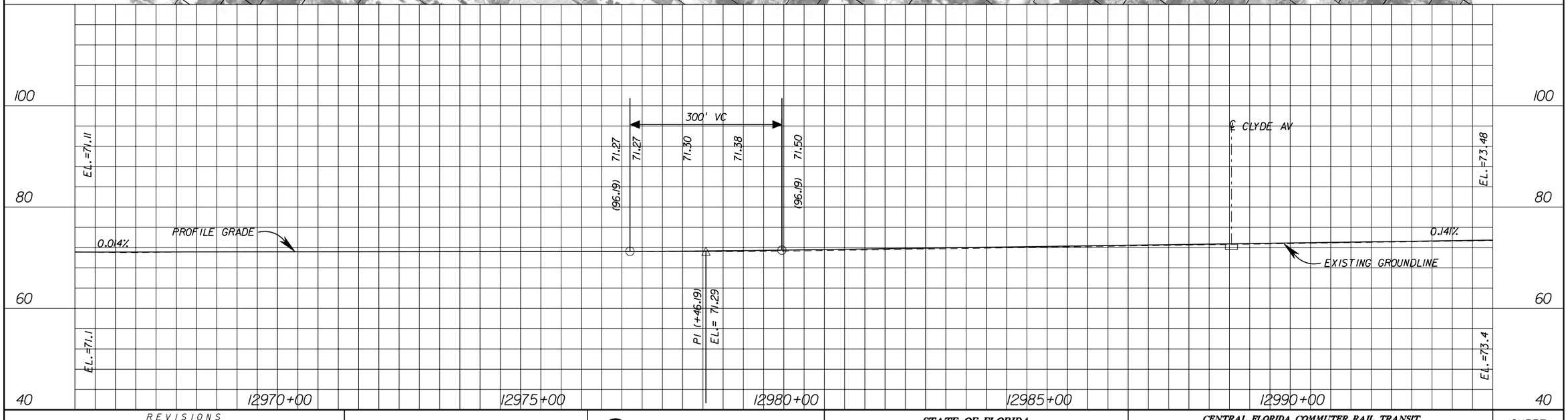

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CRT	OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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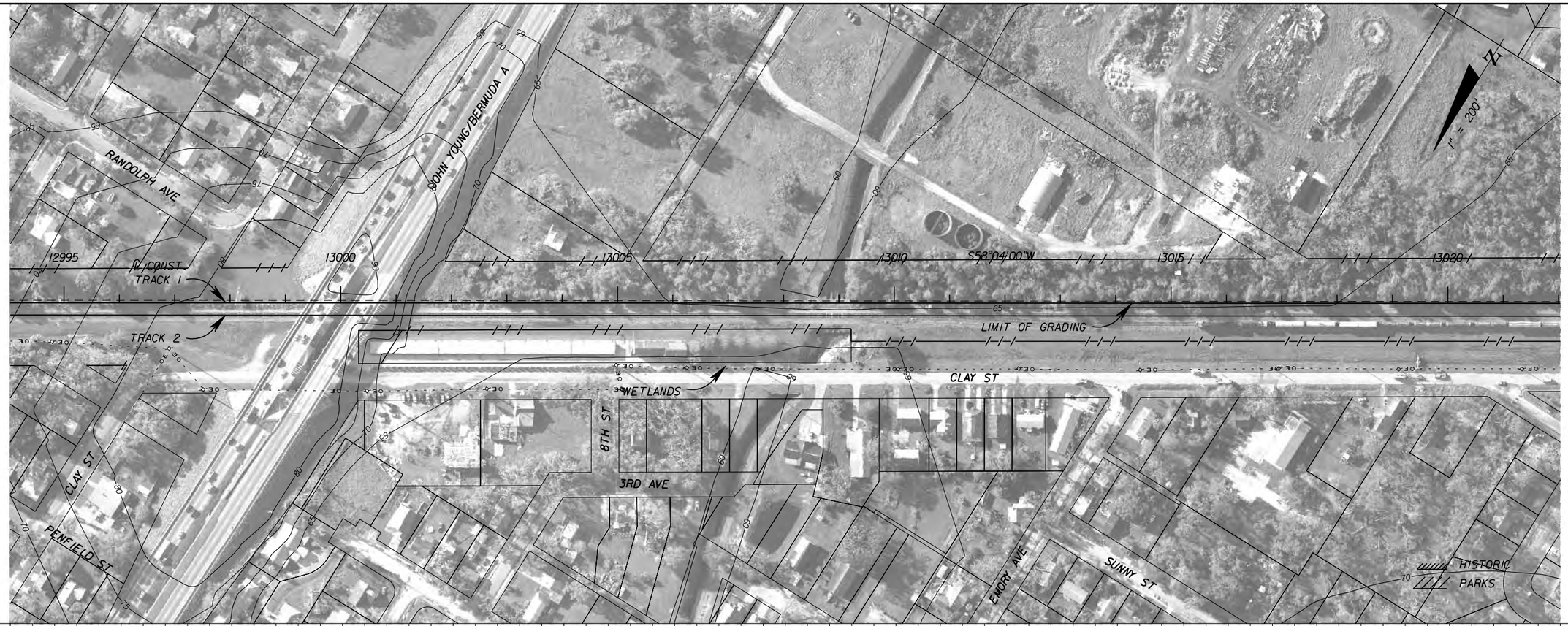

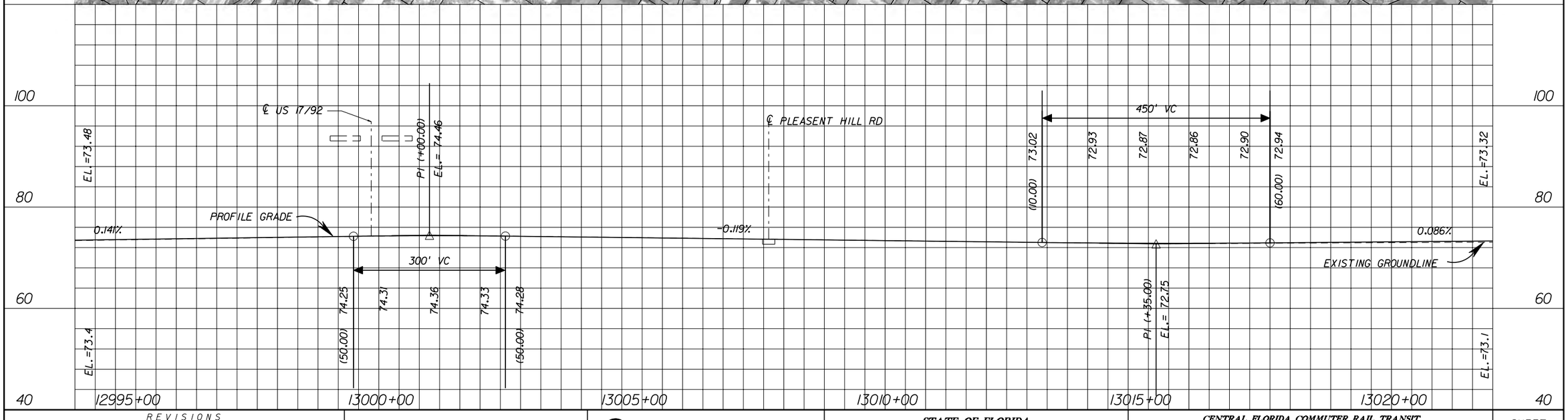

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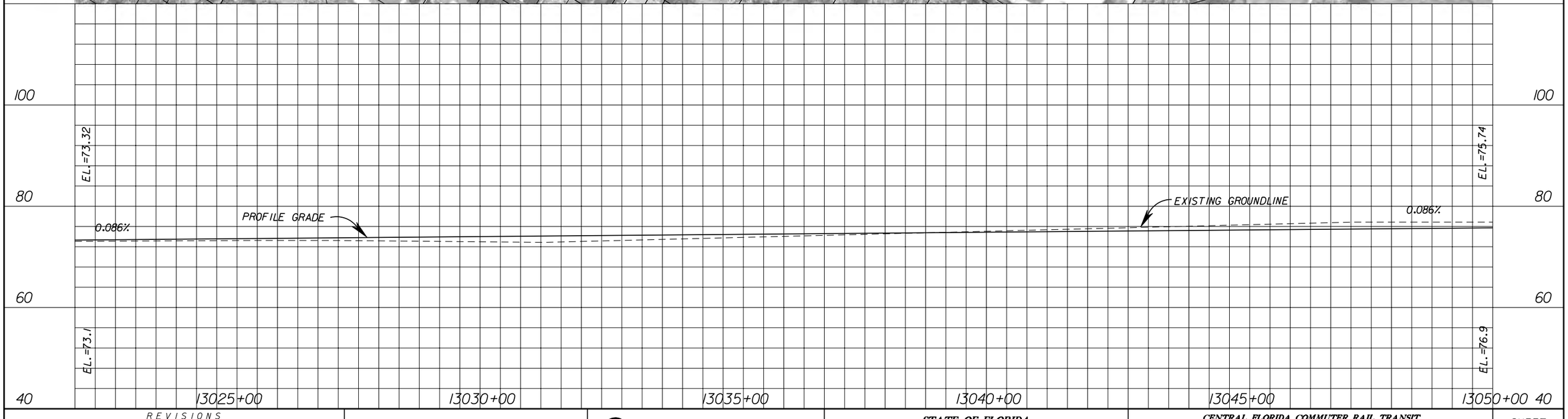
CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

SHEET NO. 110



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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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CRT	OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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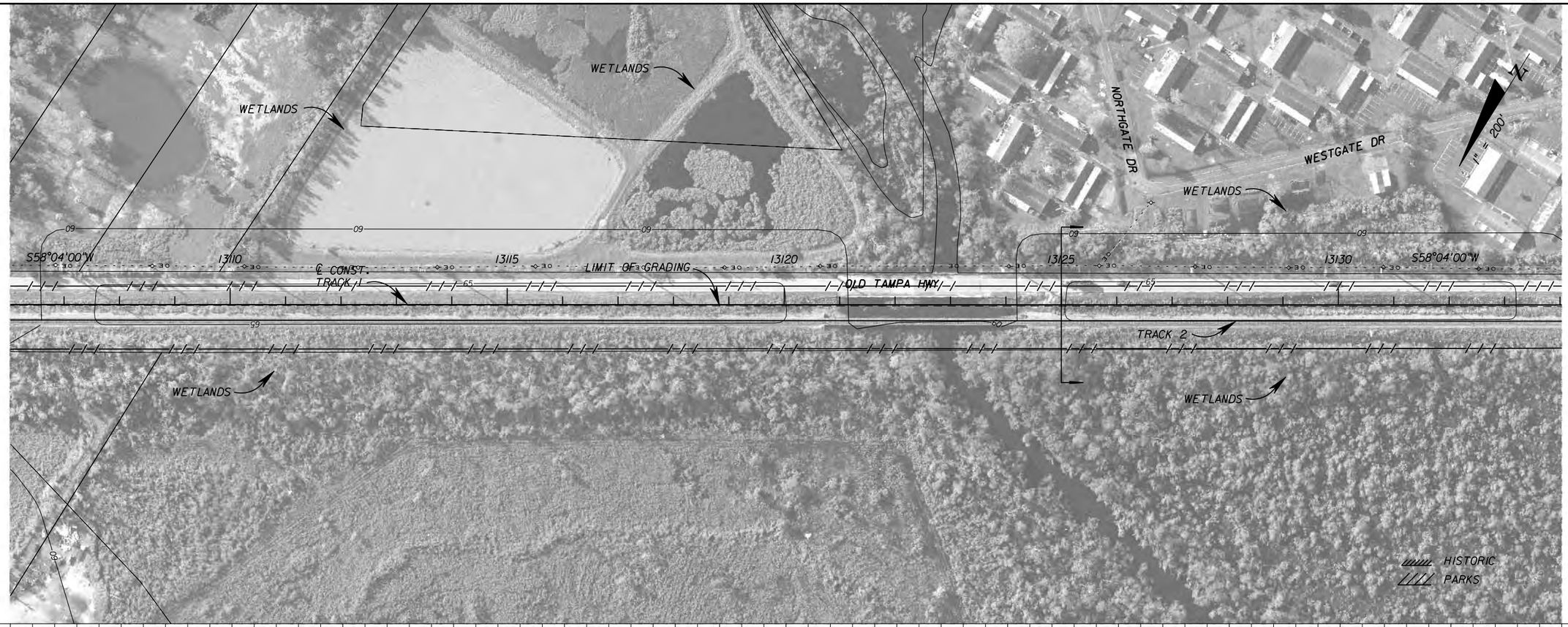

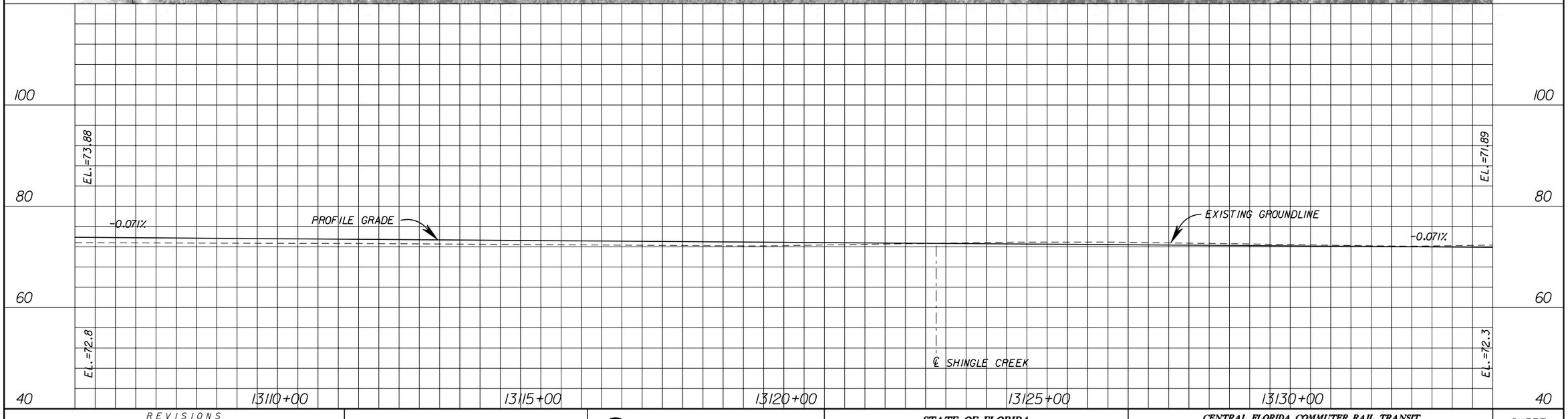

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CENTRAL FLORIDA COMMUTER RAIL TRANSIT

PLAN AND PROFILE

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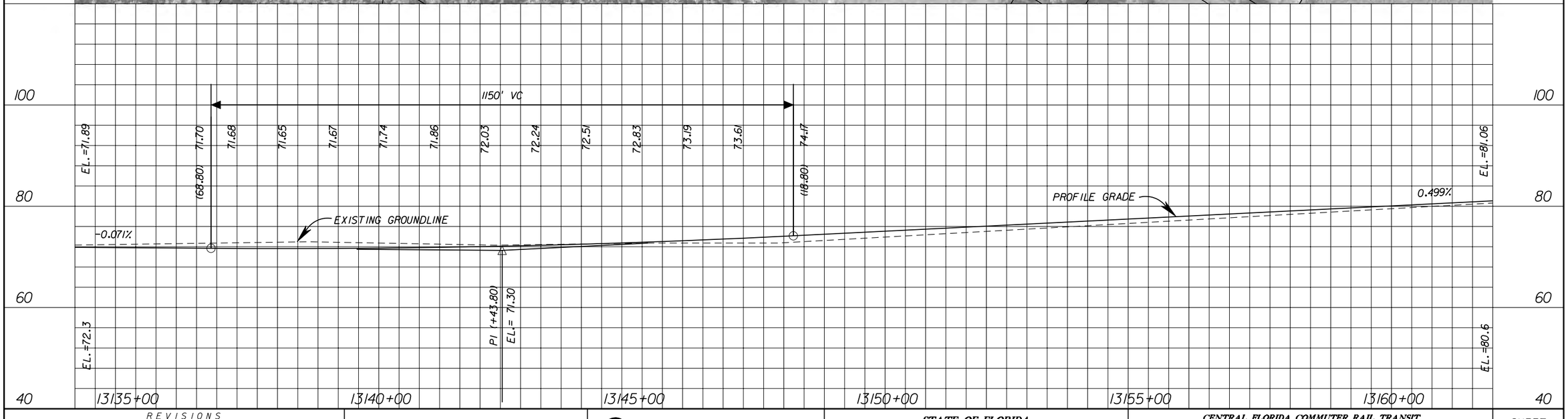

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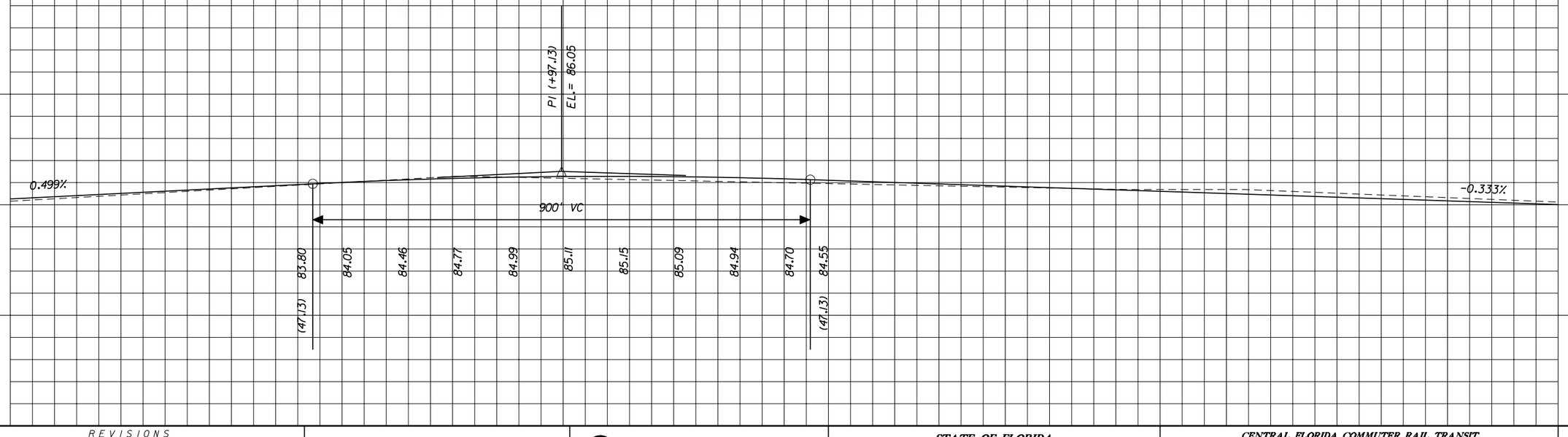

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PLAN AND PROFILE

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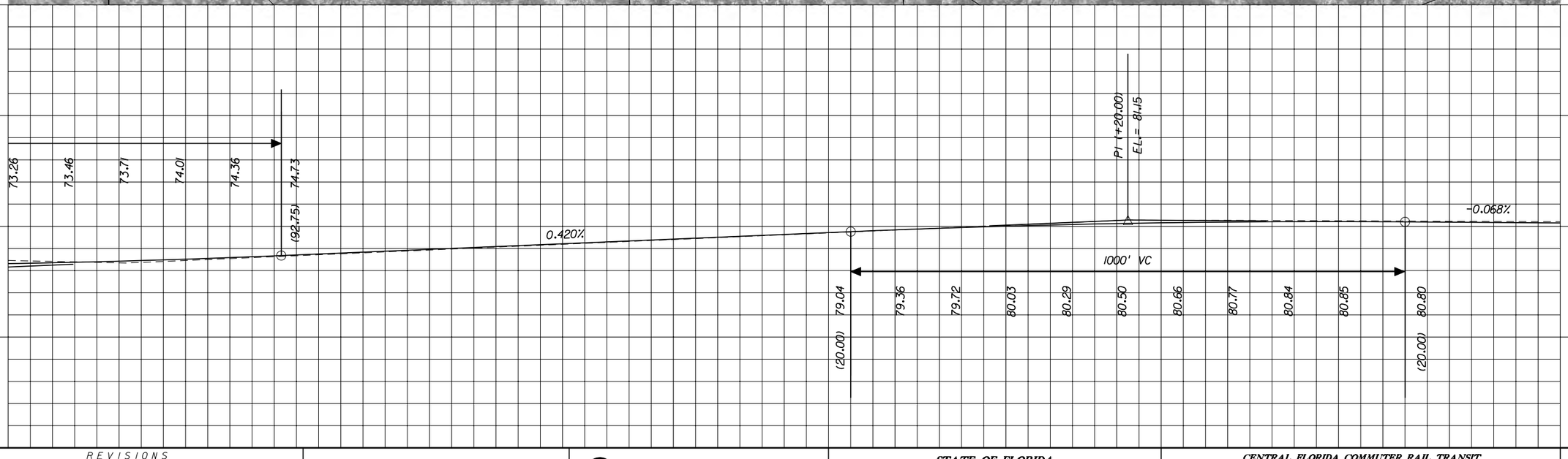

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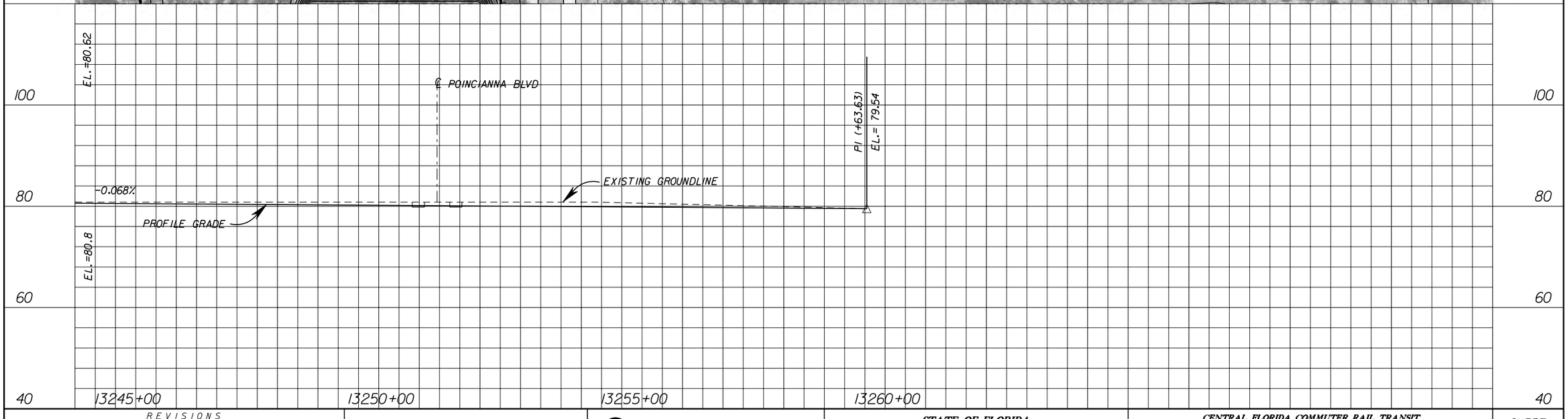

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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DELAND STATION CONCEPT PLAN

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DELAND STATION CONCEPT PLAN

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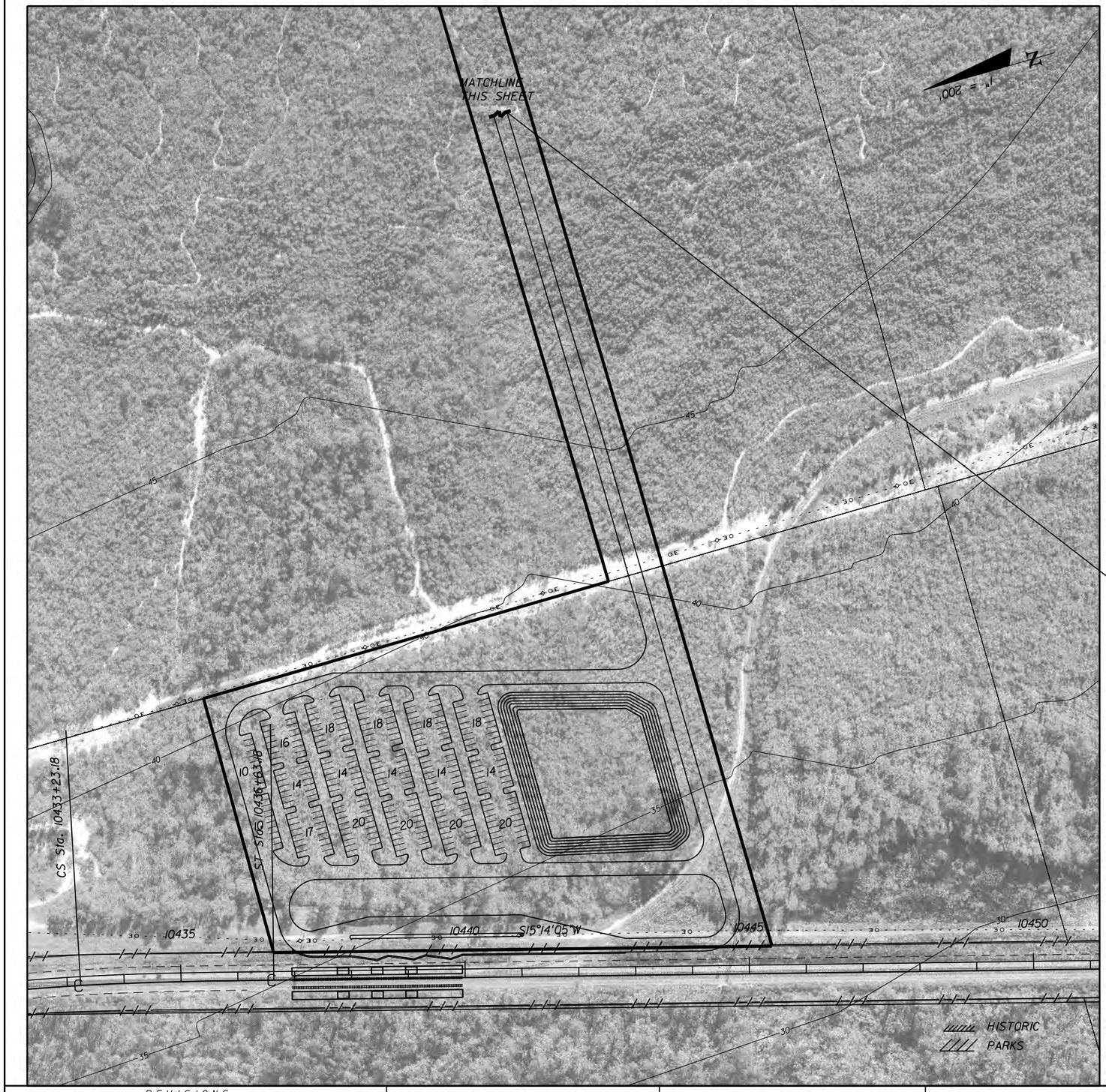

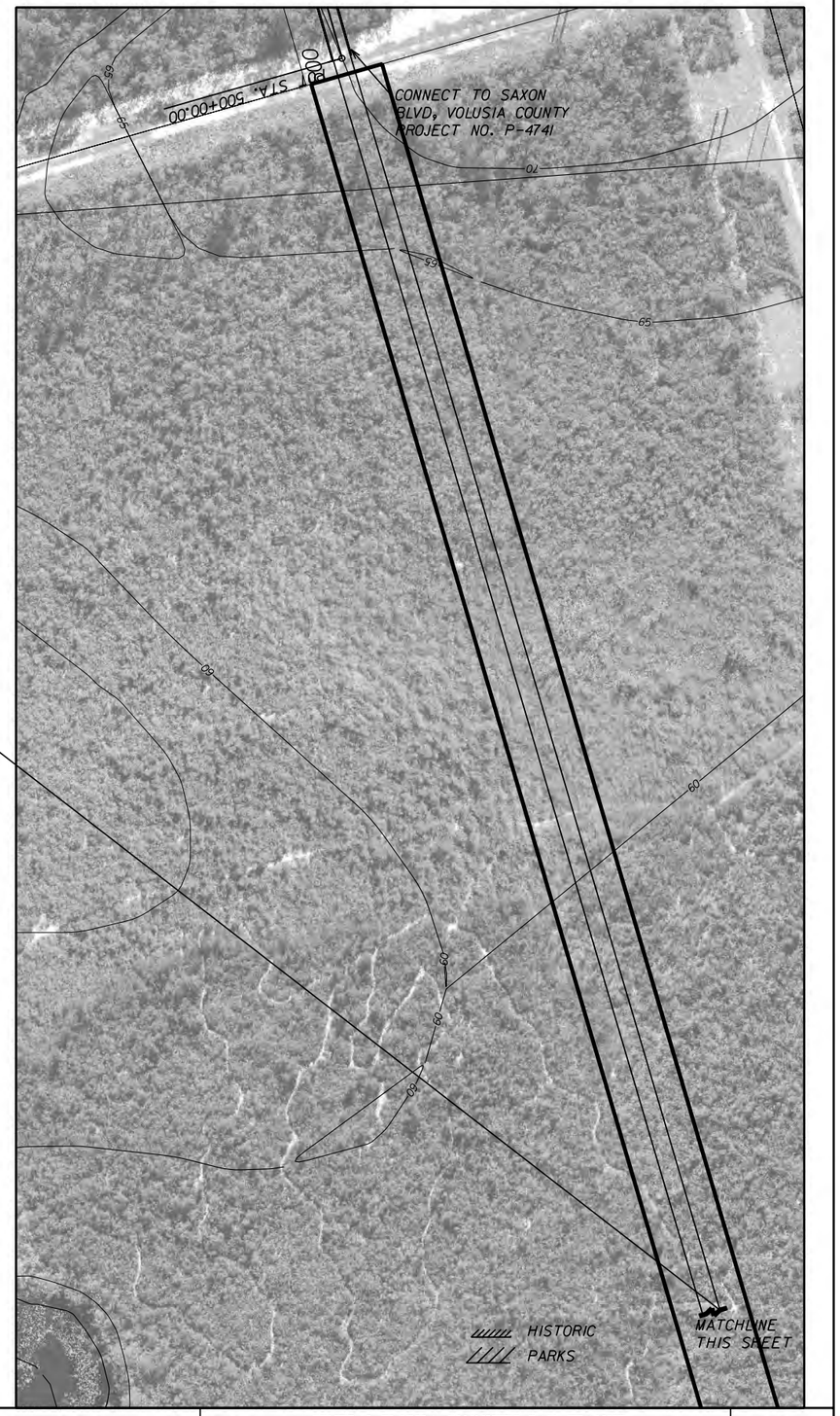

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SAXON STATION CONCEPT PLAN

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SAXON STATION CONCEPT PLAN

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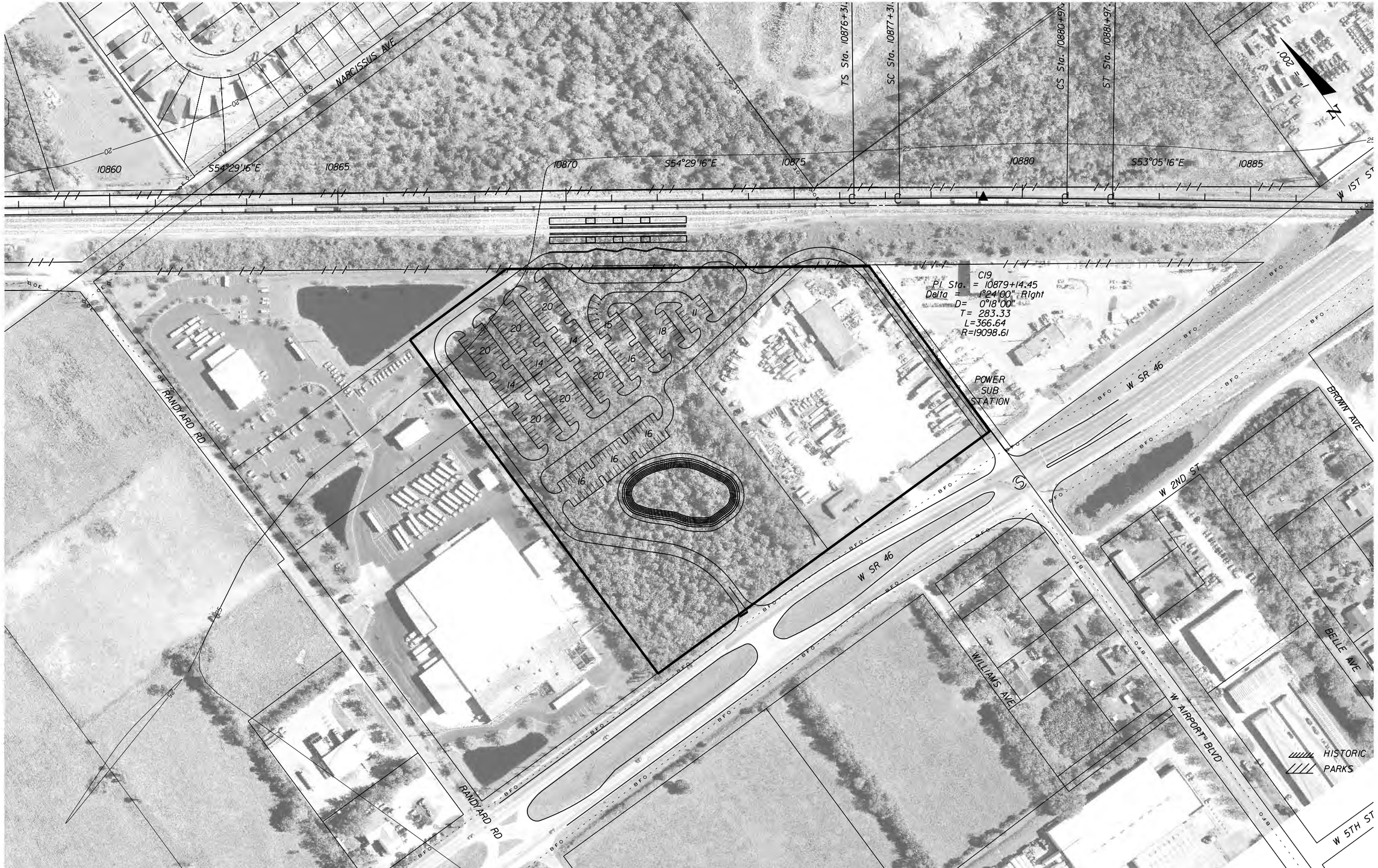

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SANFORD STATION CONCEPT PLAN

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SANFORD STATION CONCEPT PLAN

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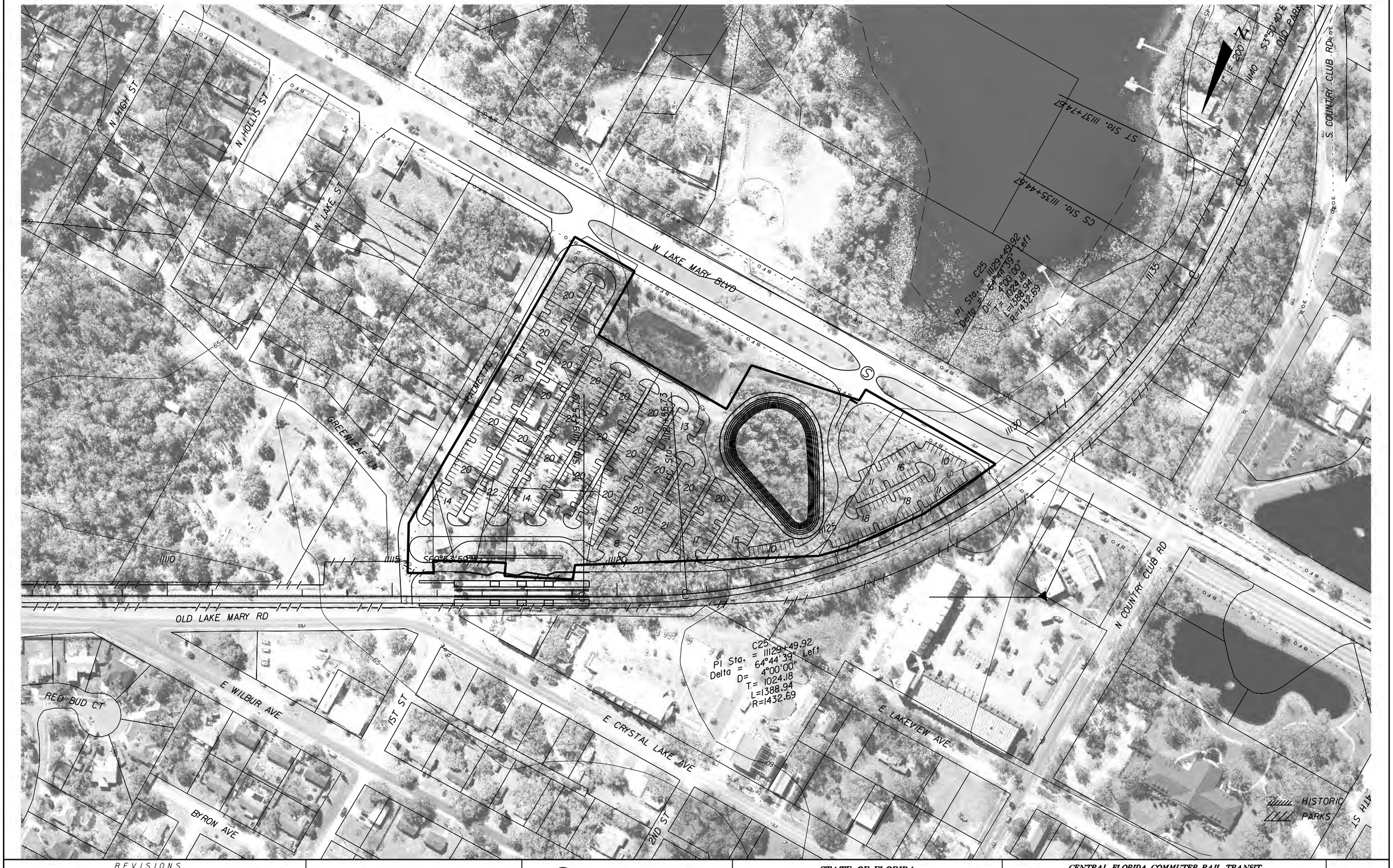

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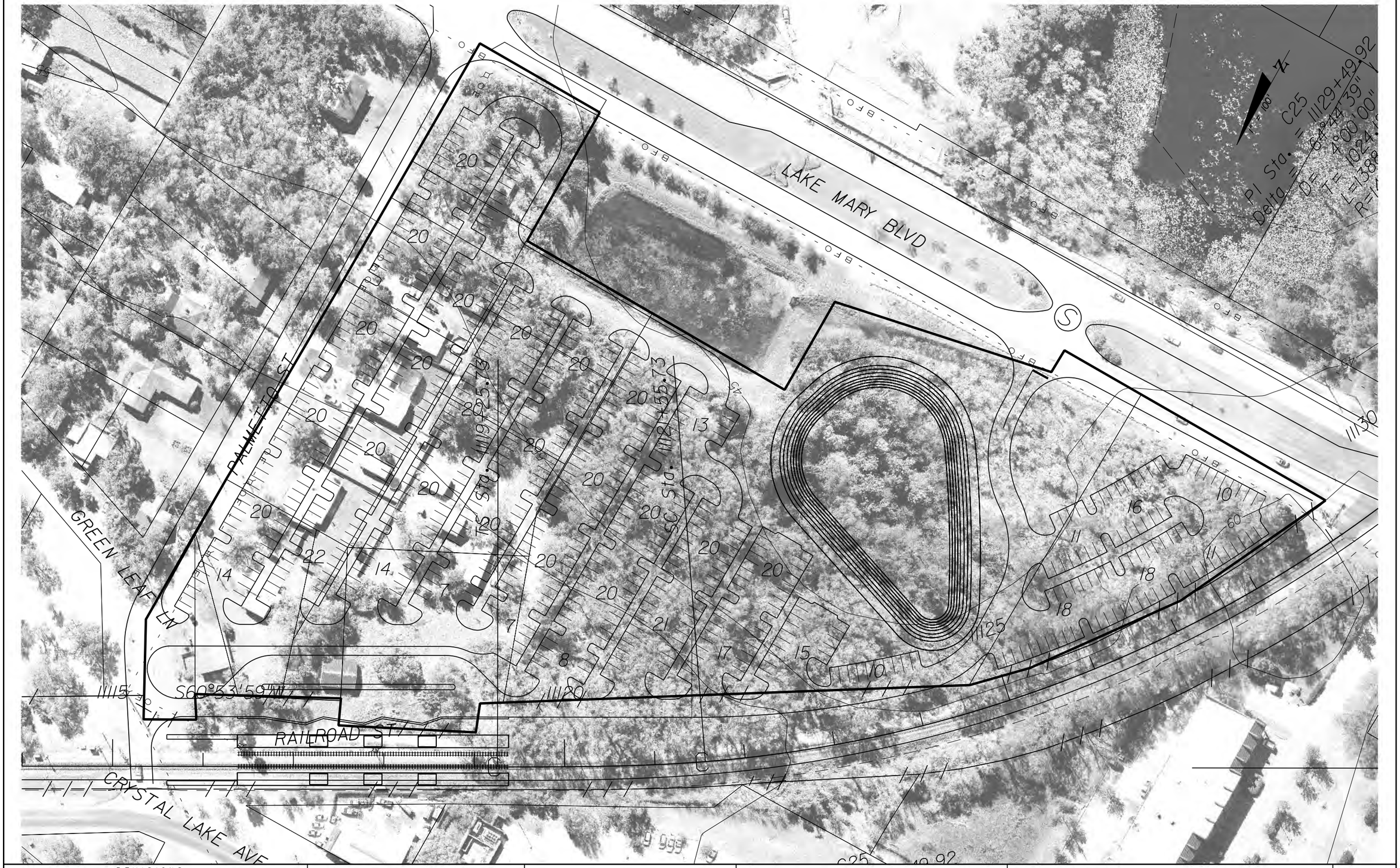
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	LAKE MARY SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

LAKE MARY STATION CONCEPT PLAN

SHEET NO.



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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	LAKE · MARY SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

LAKE MARY STATION
CONCEPT PLAN

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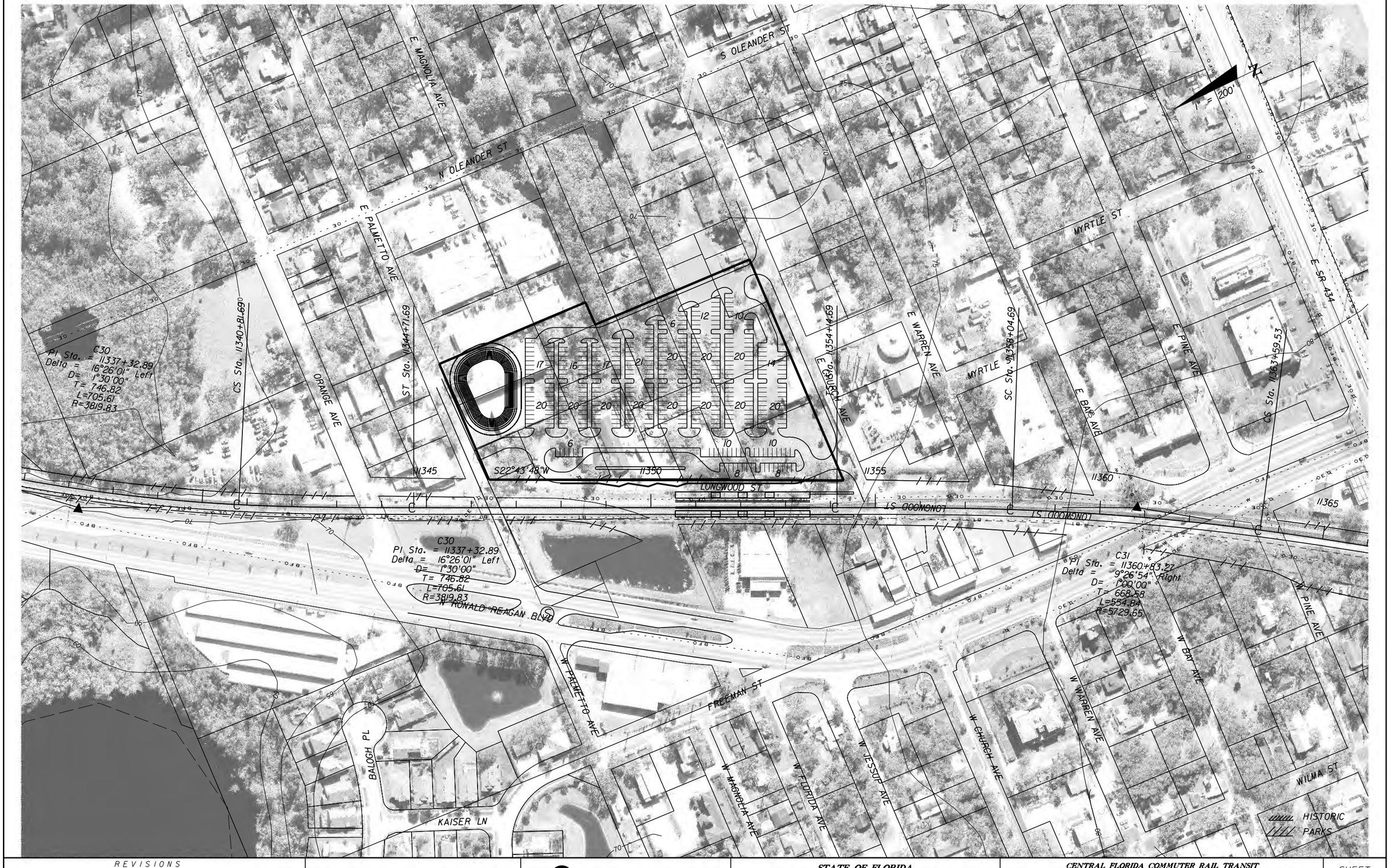

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	LONGWOOD SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

LONGWOOD STATION CONCEPT PLAN

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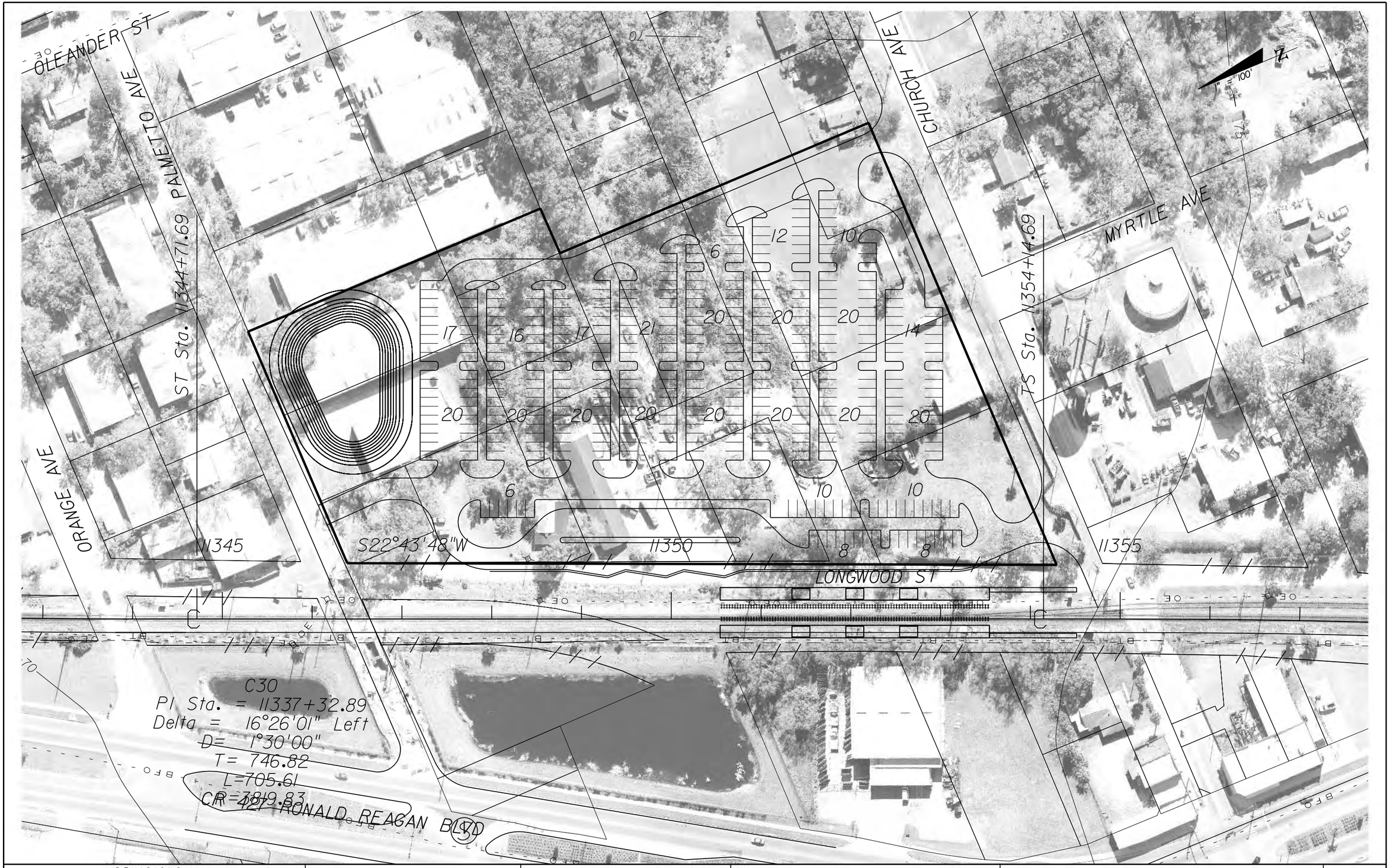

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

LONGWOOD STATION CONCEPT PLAN

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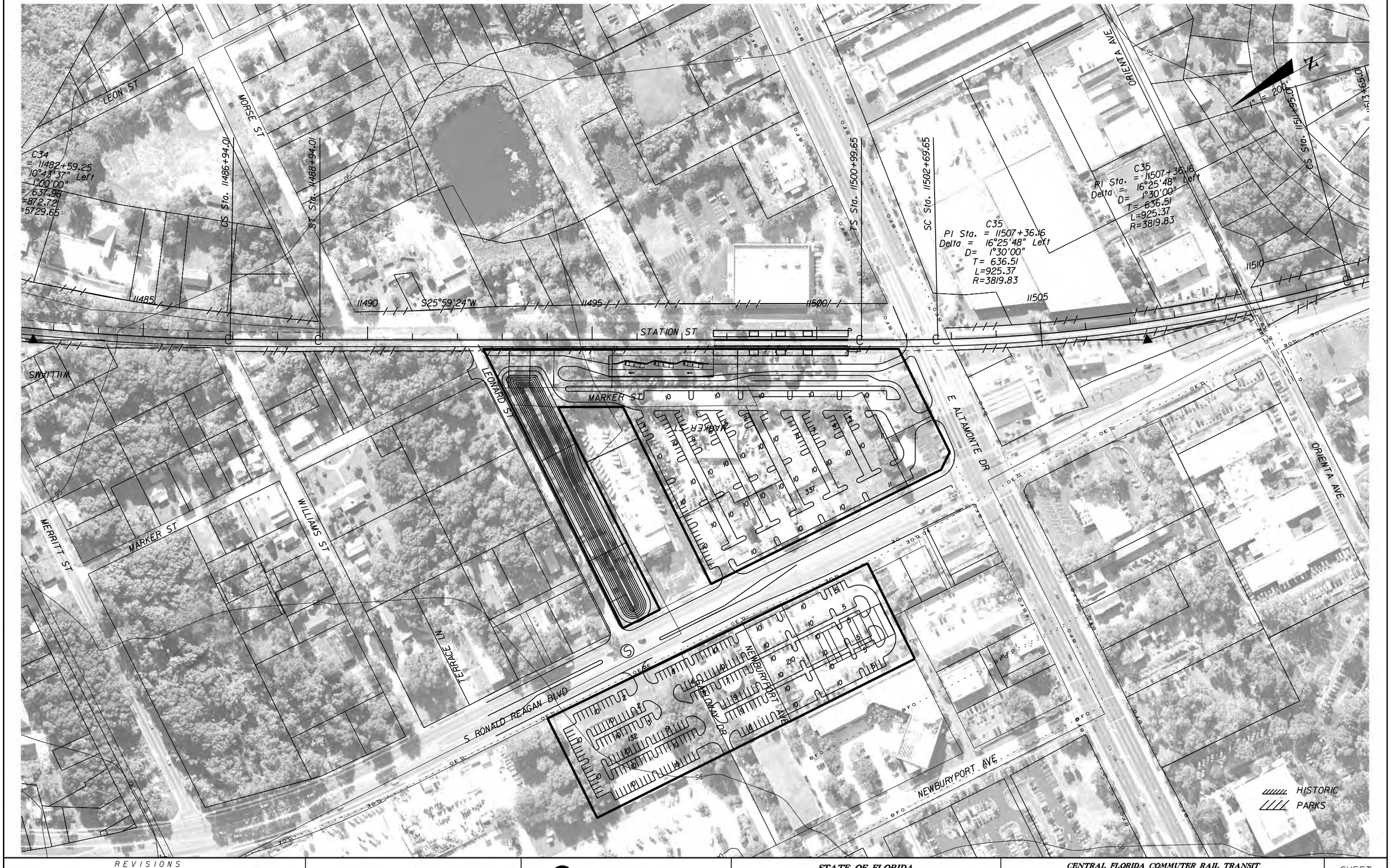

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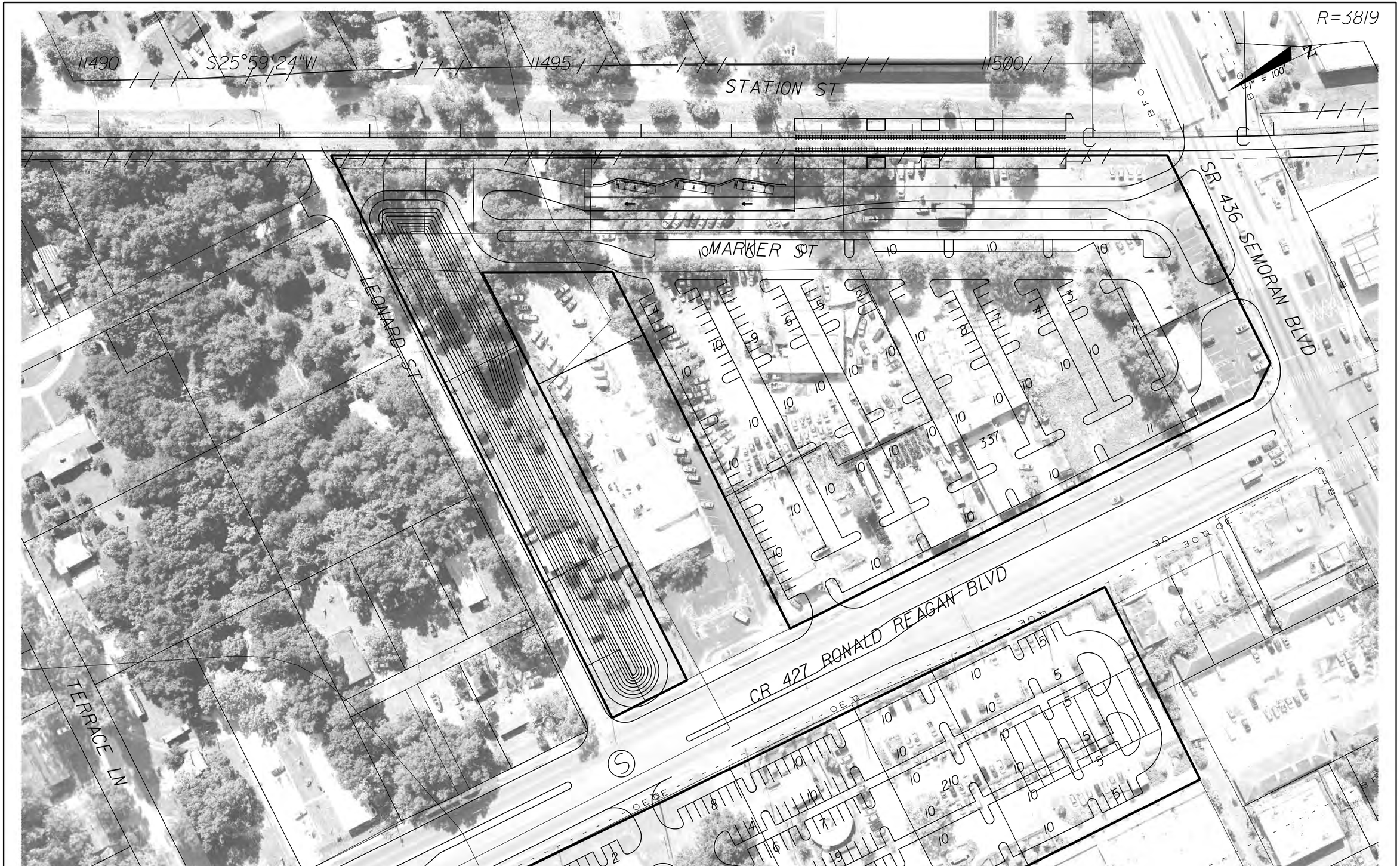
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ALTAMONTE SPRINGS SEMINOLE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

ALTAMONTE SPRINGS STATION CONCEPT PLAN

SHEET NO.



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ALTAMONTE SPRINGS SEMINOLE	412994-1-22-01

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ALTAMONTE SPRINGS STATION CONCEPT PLAN

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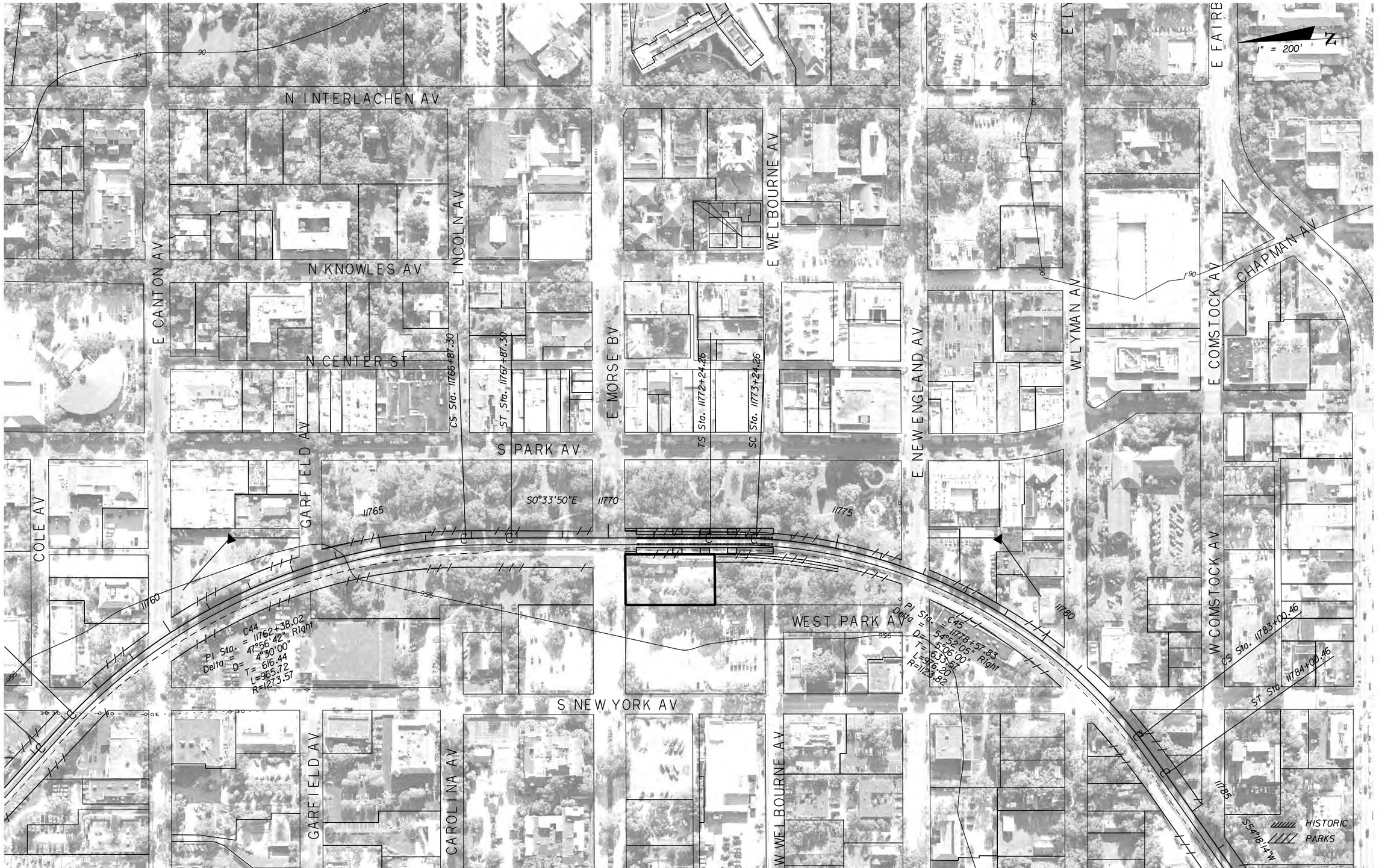

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	WINTER PARK ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

WINTER PARK STATION CONCEPT PLAN

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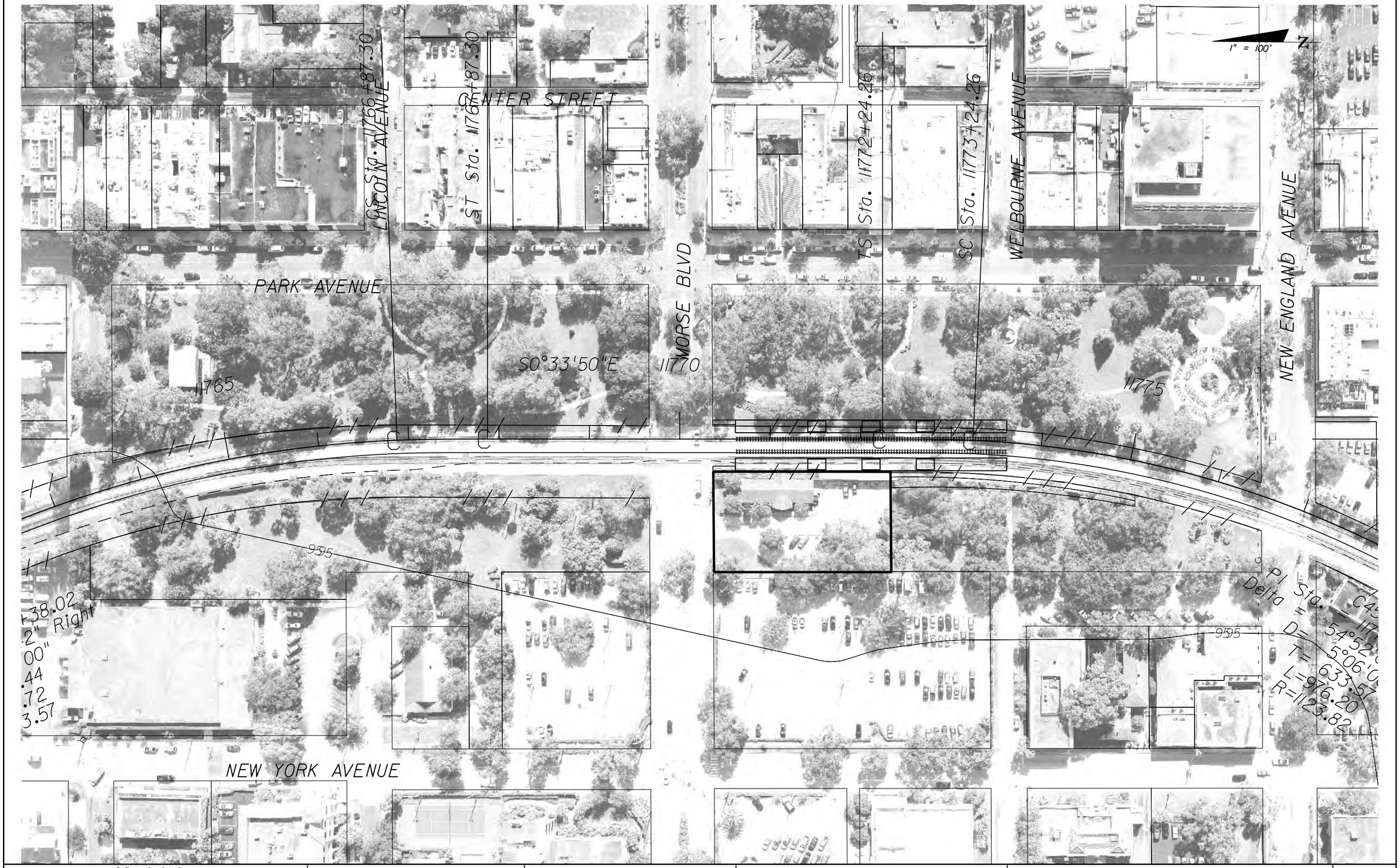

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	WINTER PARK ORANGE	412994-1-22-01

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WINTER PARK STATION CONCEPT PLAN

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	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

FLORIDA HOSPITAL STATION CONCEPT PLAN

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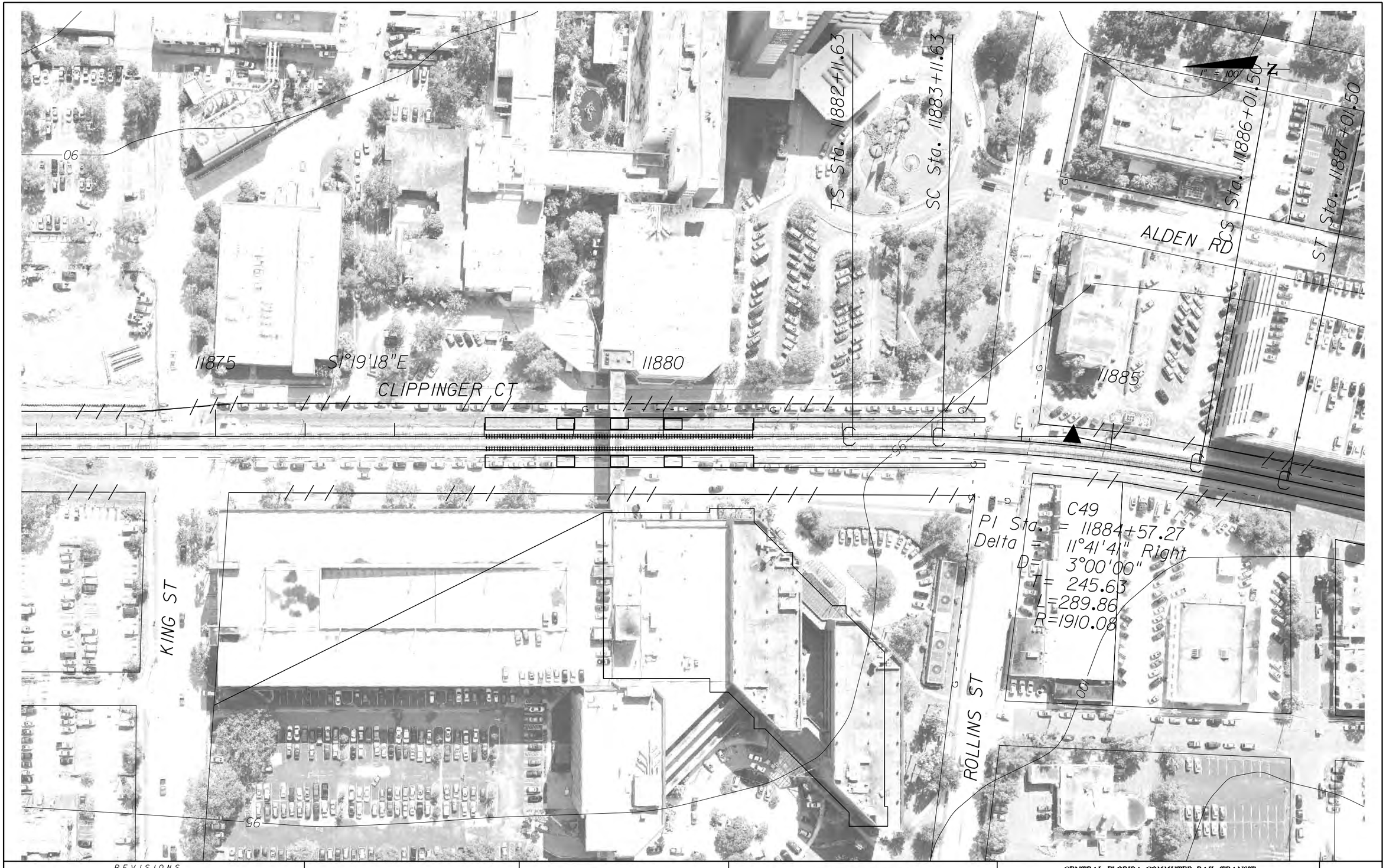

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

FLORIDA HOSPITAL STATION CONCEPT PLAN

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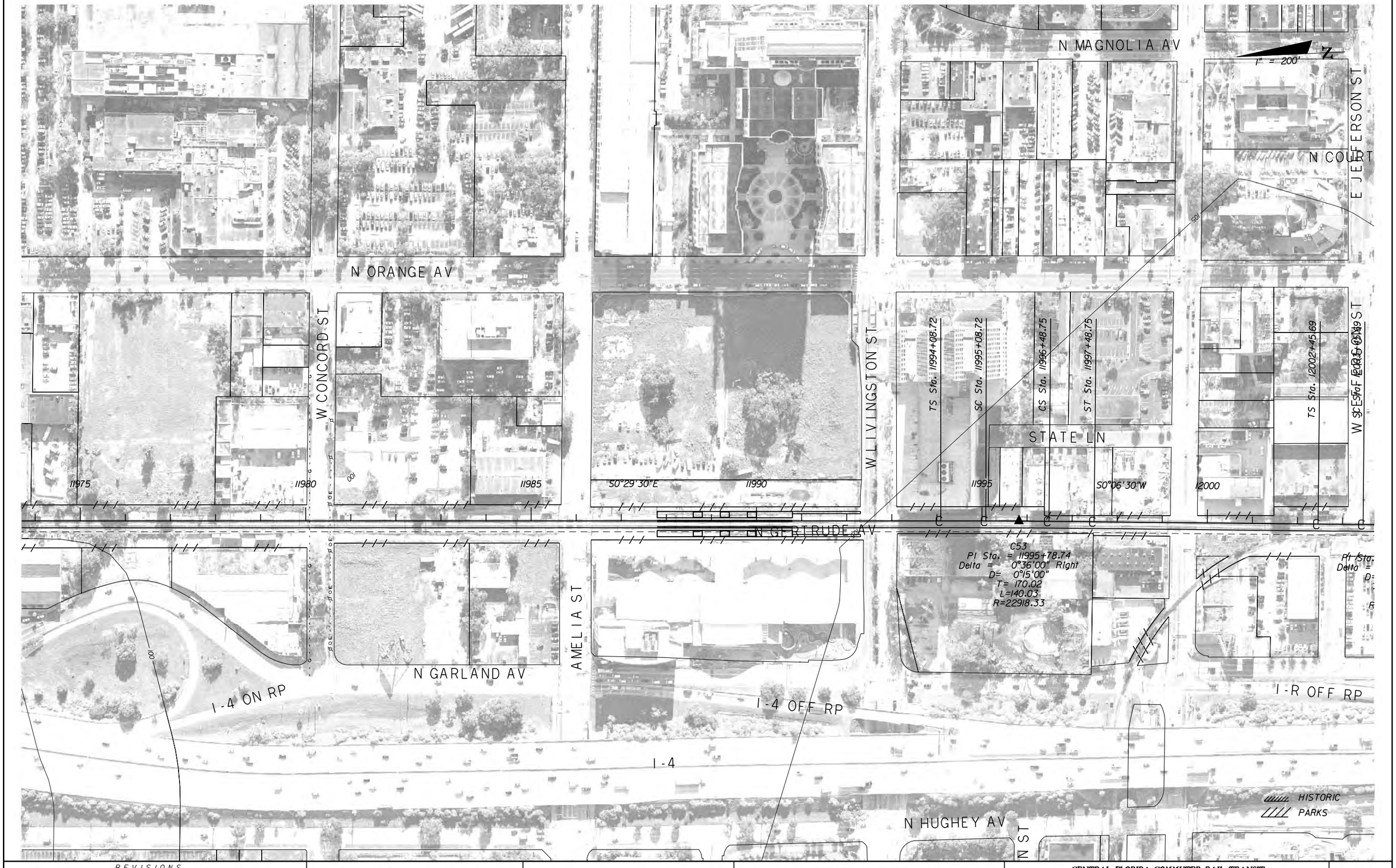

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	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

LYNX CENTRAL STATION CONCEPT PLAN

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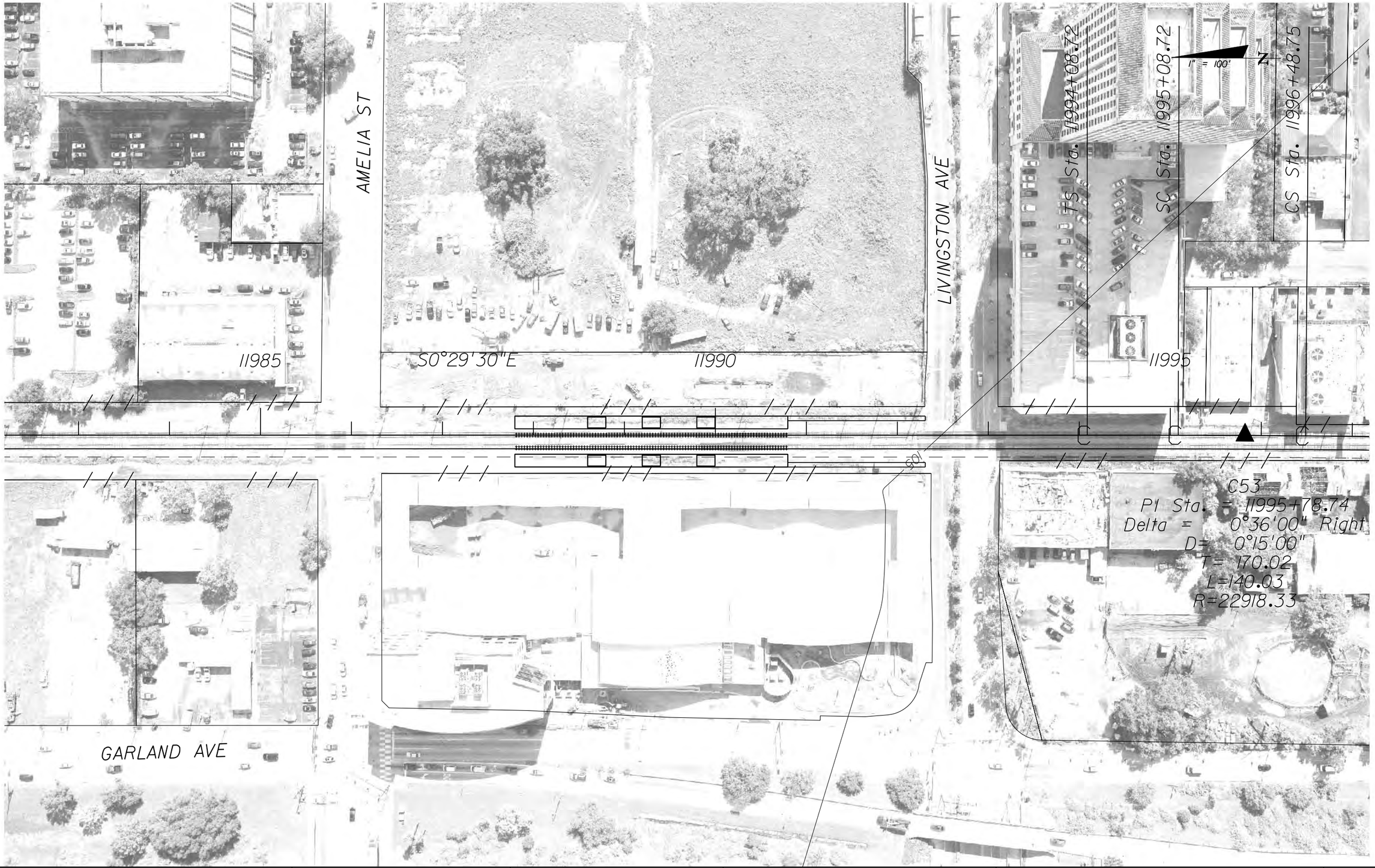

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

LYNX CENTRAL STATION
CONCEPT PLAN

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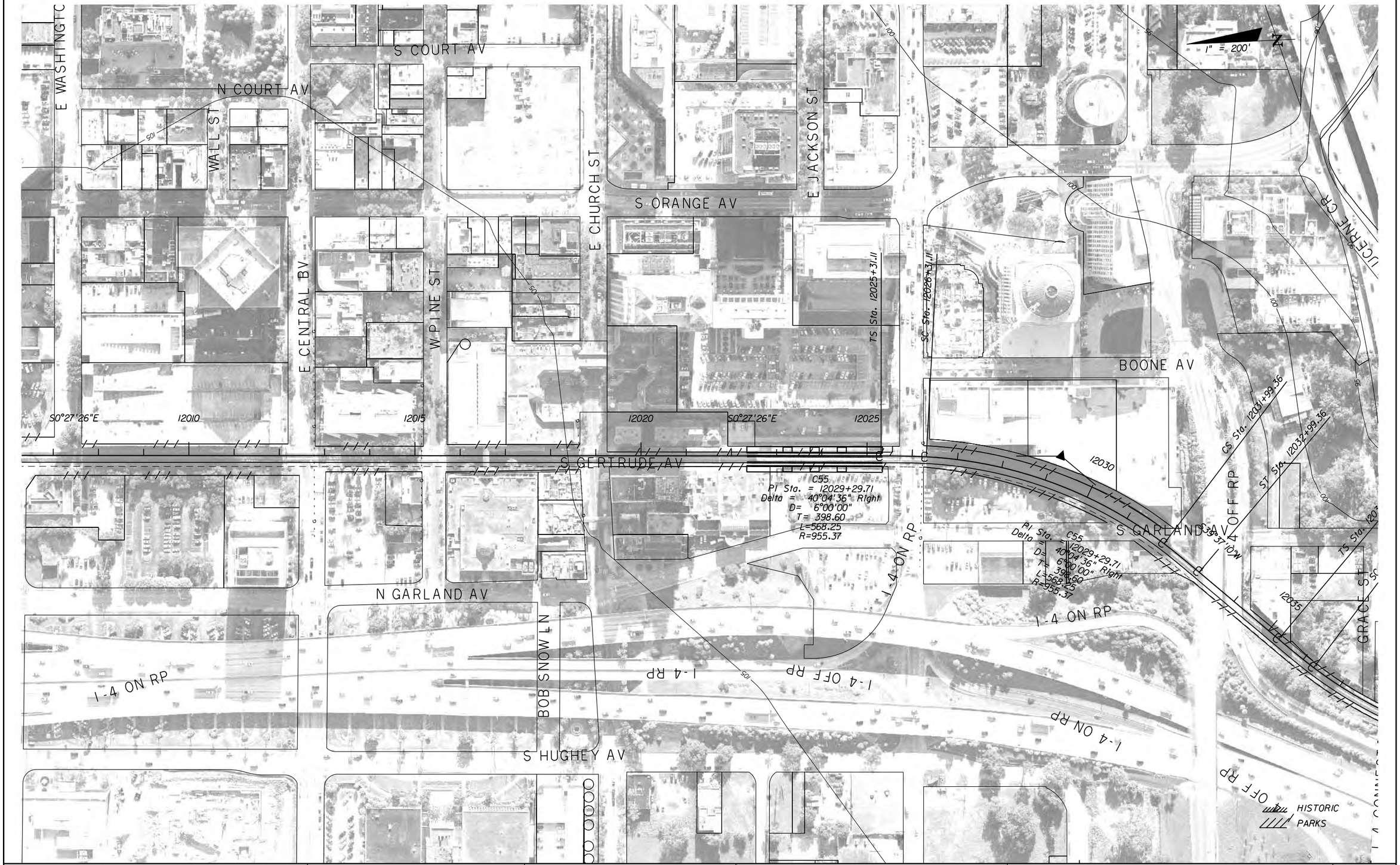

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

CHURCH STREET STATION CONCEPT PLAN

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

CHURCH STREET STATION CONCEPT PLAN

SHEET NO.

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

ORLANDO AMTRAK STATION CONCEPT PLAN

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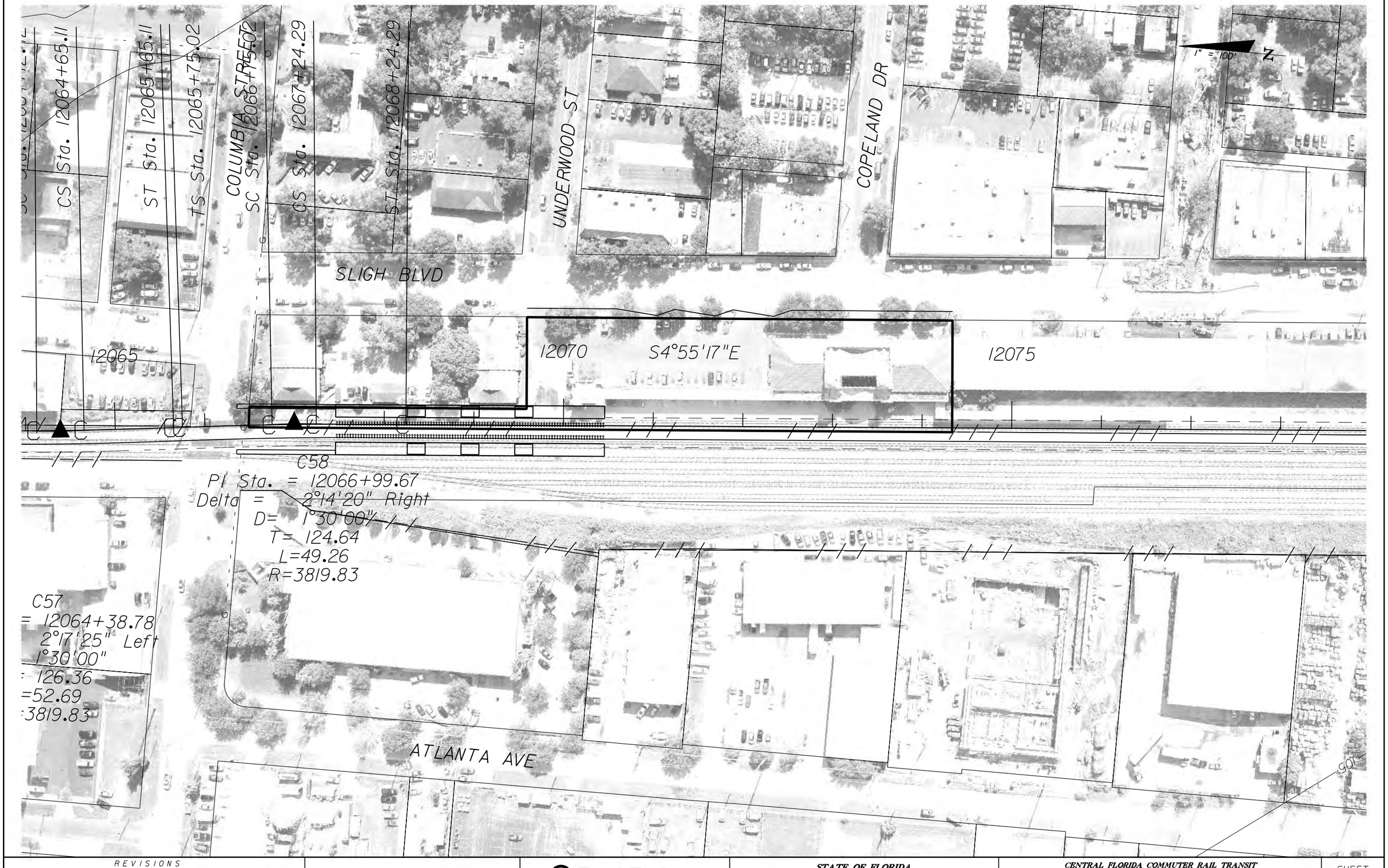

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

ORLANDO AMTRAK STATION CONCEPT PLAN

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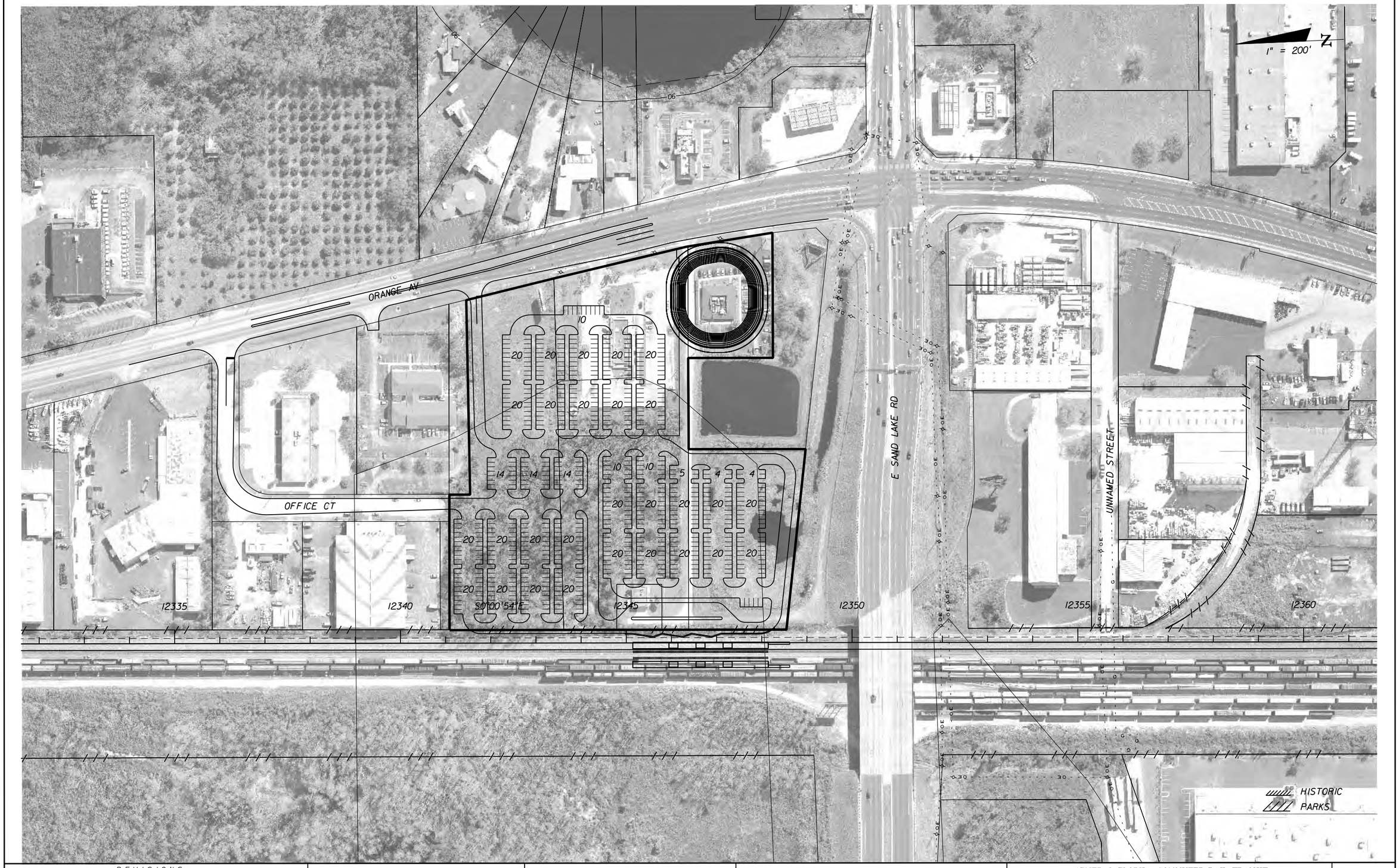

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SAND LAKE ROAD STATION CONCEPT PLAN

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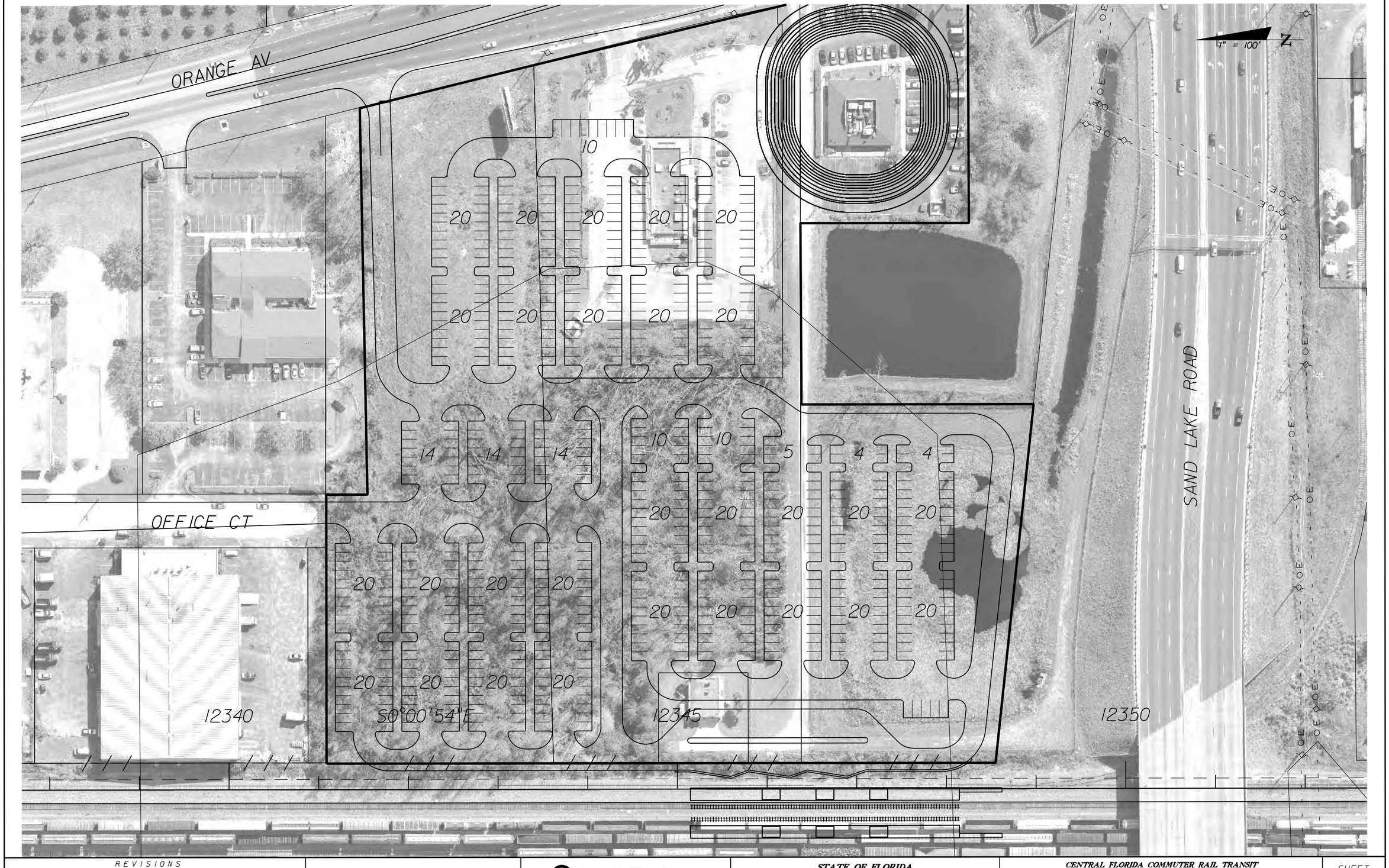

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SAND LAKE ROAD STATION CONCEPT PLAN

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

MEADOW WOODS STATION CONCEPT PLAN

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

MEADOW WOODS STATION CONCEPT PLAN

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

OSCEOLA PARKWAY STATION CONCEPT PLAN

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EarthTech
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ORLANDO, FL 32810

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

OSCEOLA PARKWAY STATION CONCEPT PLAN

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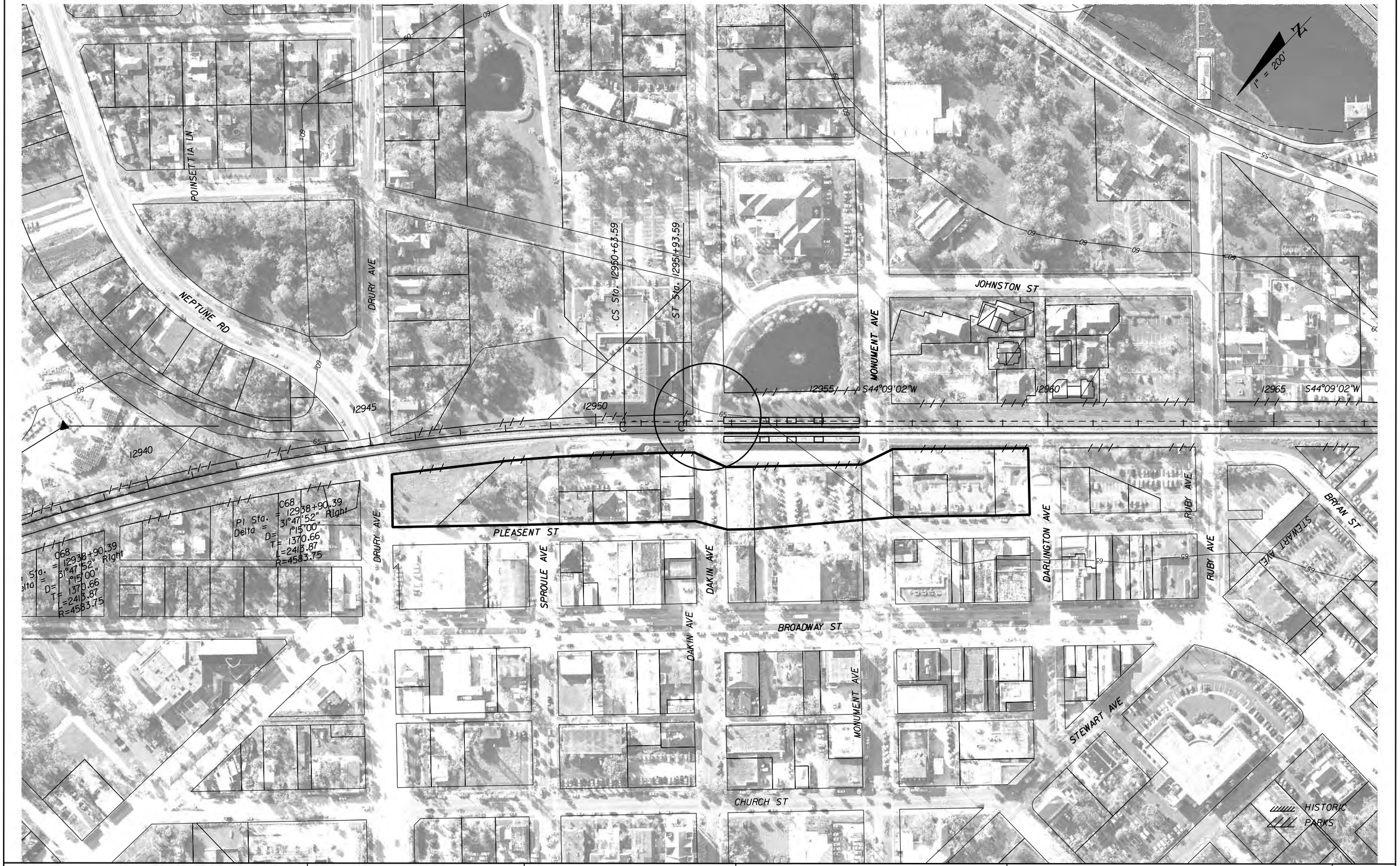

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	KISSIMMEE OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

KISSIMMEE AMTRAK STATION CONCEPT PLAN

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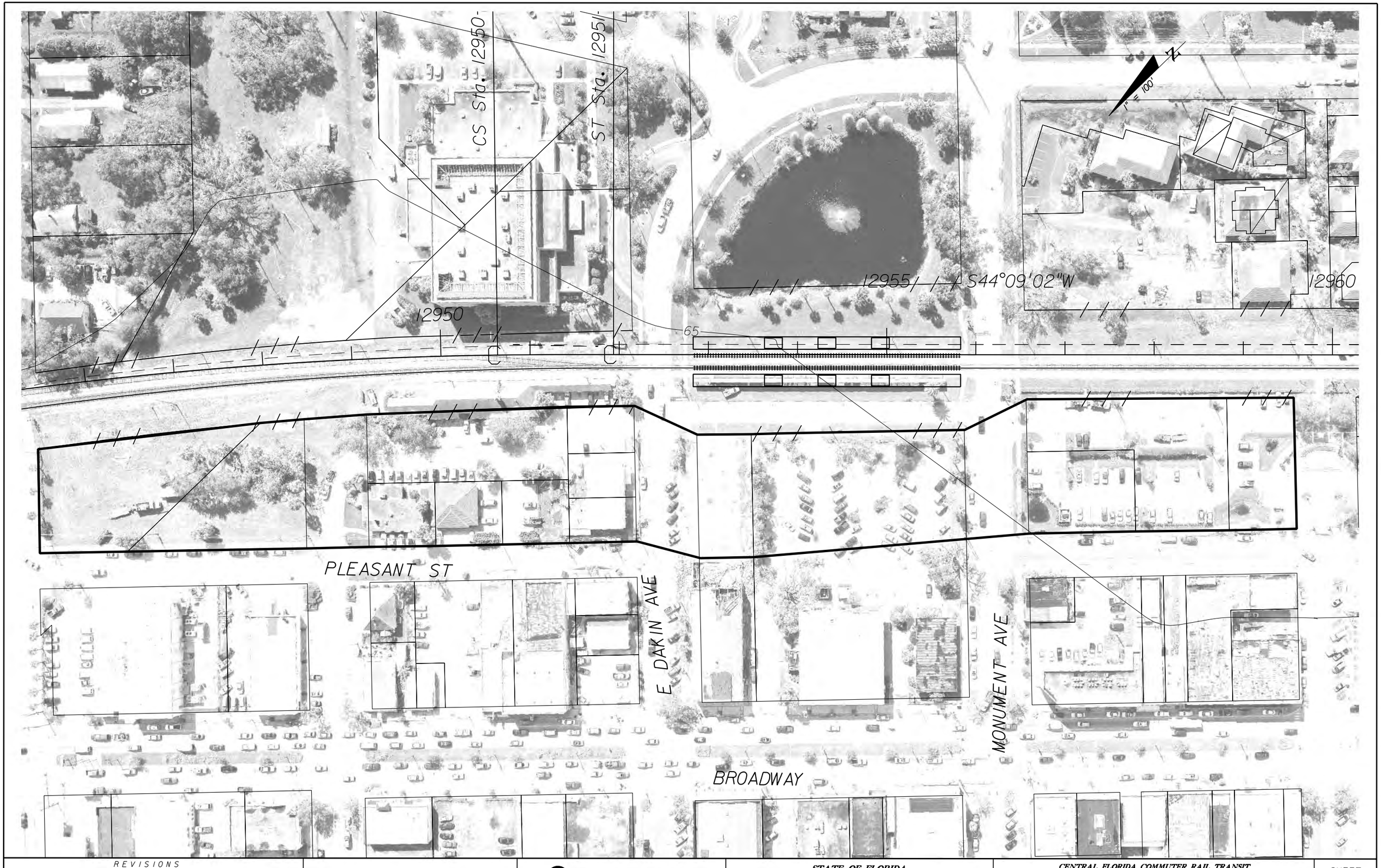

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	KISSIMMEE OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

KISSIMMEE AMTRAK STATION CONCEPT PLAN

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ORLANDO, FL 32810

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

POINCIANA INDUSTRIAL STATION CONCEPT PLAN

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

POINCIANA INDUSTRIAL STATION CONCEPT PLAN

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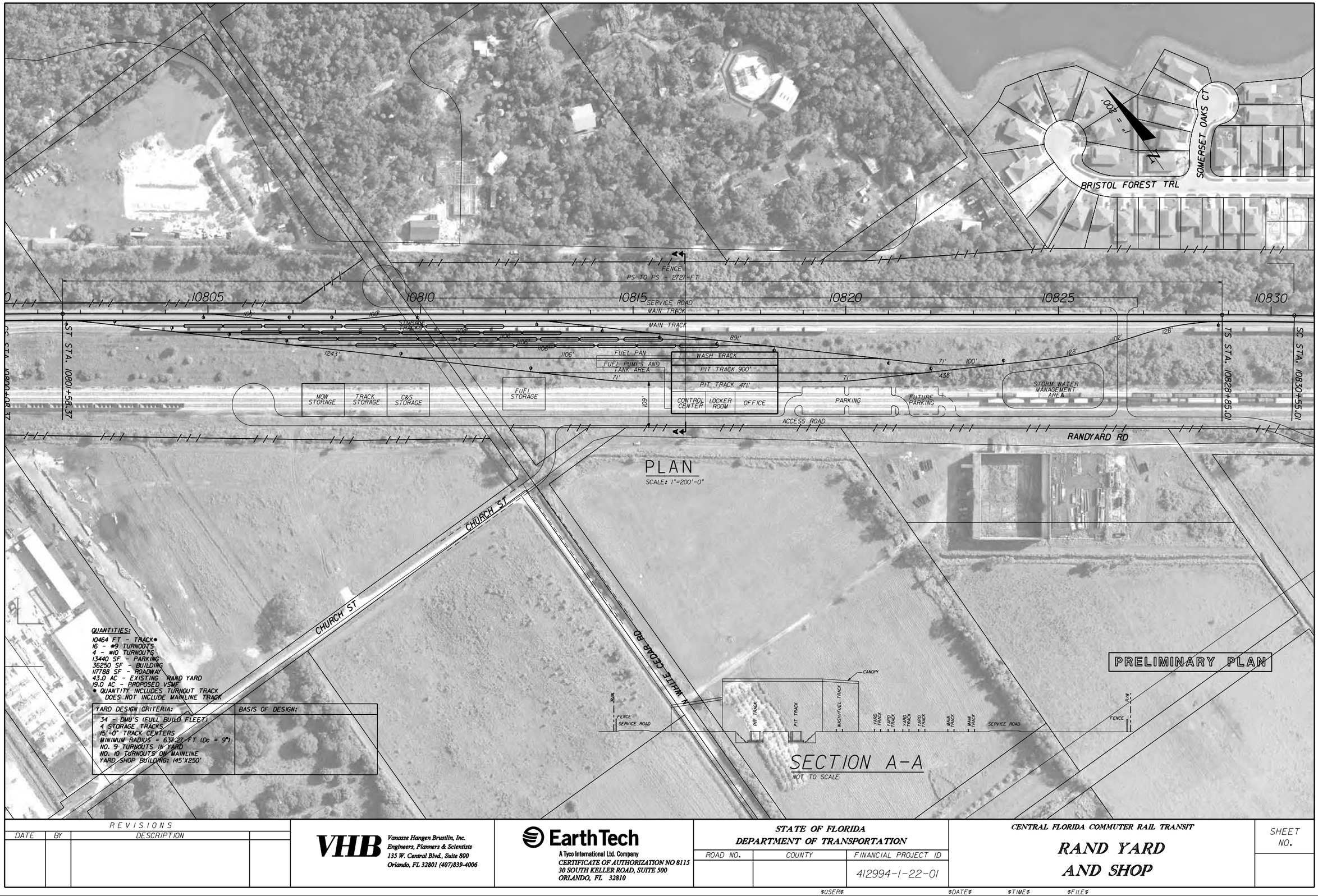

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

RAND YARD AND SHOP

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EarthTech
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ORLANDO, FL 32810

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED VOLUSIA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

SAXON BLVD LAYOVER CONCEPT PLAN

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ORLANDO, FL 32810

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORLANDO ORANGE	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

ORLANDO AMTRAK LAYOVER CONCEPT PLAN

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ORLANDO, FL 32810

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	UNINCORPORATED OSCEOLA	412994-1-22-01

CENTRAL FLORIDA COMMUTER RAIL TRANSIT

POINCIANA LAYOVER CONCEPT PLAN

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APPENDIX L

IMPACTED PARCELS AND POTENTIAL RELOCATIONS

APPENDIX L – IMPACTED PARCELS AND POTENTIAL RELOCATIONS

Station	Parcel ID	Street Adress	Owner's Name
Altamonte Springs	18-21-30-508-0000-0190	1001 436 E	ADVANCED MEDICAL CARE CORP
Altamonte Springs	12-21-29-5BE-0000-4030	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	12-21-29-5BE-0000-4060	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00A0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00B0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00C0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00D0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00E0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00F0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00G0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00H0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0000-00I0	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-518-0C00-0000	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Altamonte Springs	18-21-30-508-0000-0420	MARKER ST	ALTAMONTE TOWING SERVICE INC
Altamonte Springs	18-21-30-508-0000-0760	955 LEONARD ST	BARNES PAULINE L
Altamonte Springs	18-21-30-508-0000-0470	MARKER ST	BOB HATTAWAY INV CORP
Altamonte Springs	18-21-30-508-0000-0710	145 MARKER ST	FLANAGAN SCOTT K
Altamonte Springs	18-21-30-508-0000-0160	1009 ALTAMONTE DR E	FREEMAN THOMAS G
Altamonte Springs	18-21-30-508-0000-0790	925 LEONARD ST	LAWS PAUL LIFE EST
Altamonte Springs	18-21-30-508-0000-0840	LEONARD ST	LAWS PAULINE &
Altamonte Springs	18-21-30-508-0000-0220	2741 RONALD REAGAN BLVD S	MC INTOSH B D JR & DOSKOCZ
Altamonte Springs	18-21-30-508-0000-0860	LEONARD ST	NICARRY J WINIFRED
Altamonte Springs	18-21-30-508-0000-0680	WILLIAM ST	UNITED STATES POSTAL SERVICE
Altamonte Springs	12-21-29-5BE-0000-3890		UNITED TELEPHONE CO OF FLA
Altamonte Springs	18-21-30-508-0000-0730	147 MARKER ST	WILSON ANTHONY L & JANICE L
Altamonte Springs	18-21-30-508-0000-0740	7 MARKER ST	WILSON ANTHONY L & JANICE L
Altamonte Springs	18-21-30-508-0000-0750	LEONARD ST	WILSON ANTHONY L & JANICE L
DeBary Saxon Boulevard Extension	20-18-30-00-00-0020		FLA POWER CORP
DeBary Saxon Boulevard Extension	21-18-30-00-00-0012		FLORIDA POWER CORP
Deland AMTRAK	13-17-29-05-07-0010		DELAND COMMERCIAL CLUB
Deland AMTRAK	13-17-29-05-01-0010	460 S GRAND AV	HUNTER KATIE ELIZABETH NIELSON
Deland AMTRAK	40-17-29-02-02-0071		NEILSON ELIZABETH B TRUSTEE
Deland AMTRAK	13-17-29-04-00-0050		
Florida Hospital	13-22-29-0000-00-004	601 E ROLLINS ST	ADVENTIST HEALTH SYSTEM/SUNBELT
Kissimmee AMTRAK	22-25-29-2170-0020-0065	PLEASANT ST	BLAIN THOMAS K
Kissimmee AMTRAK	22-25-29-2170-0020-0080	324 PLEASANT ST	BLAIN THOMAS K
Kissimmee AMTRAK	22-25-29-2170-0019-0050	PLEASANT ST	CITY OF KISSIMMEE
Kissimmee AMTRAK	22-25-29-2170-0019-0060		CITY OF KISSIMMEE
Kissimmee AMTRAK	22-25-29-2170-0019-0080	104 E MONUMENT AVE	CITY OF KISSIMMEE
Kissimmee AMTRAK	22-25-29-2170-0020-0070	320 PLEASANT ST	HASELDEN PHILIP H JR &
Kissimmee AMTRAK	22-25-29-2170-0026-0030	110 E DAKIN AVE	OSCEOLA COUNTY INVESTMENTS INC
Kissimmee AMTRAK	22-25-29-2170-0026-0010	198 BROADWAY	PARSONS TRUST
Kissimmee AMTRAK	22-25-29-1460-0020-0010	101 E DAKIN AVE	PARSONS TRUST THE
Kissimmee AMTRAK	22-25-29-1460-0020-0030	103 E DAKIN AVE	PARSONS TRUST THE

Station	Parcel ID	Street Adress	Owner's Name
Lake Mary	09-20-30-300-016A-0000	2120 RONALD REAGAN BLVD	QUALITY REAL EST DEV CORP
Lake Mary	09-20-30-505-0000-0080	1008 HIGHPOINT LP	ALVES FERNANDO & ANA
Lake Mary	09-20-30-505-0000-00D0	2649 REAGAN TRAIL	ANDERSON REGINALD D & VICTORIA
Lake Mary	09-20-30-505-0000-00A0	152 PALMETTO AVE	ELLIOTT SUSAN H
Lake Mary	09-20-30-506-0000-0010	156 PALMETO ST	HAHN KATHI S
Lake Mary	09-20-30-505-0000-0010	142 PALMETTO ST	KING KEVIN P
Lake Mary	09-20-30-505-0000-0030	143 PALMETTO ST	KING KEVIN P
Lake Mary	09-20-30-300-0200-0000	144 RAILROAD AVE	MARTIN ROBIN D
Lake Mary	09-20-30-505-0000-00D1		REFERENCE ONLY
Lake Mary	09-20-30-505-0000-0090	113 W CRYSTAL LAKE AVE	SCHWEICKERT MILDRED M
Lake Mary	09-20-30-300-0180-0000	1101 E 1ST ST	SEMINOLE B C C
Lake Mary	09-20-30-300-0190-0000	1101 E 1ST ST	SEMINOLE B C C
Lake Mary	09-20-30-505-0000-00B0	1101 E 1ST ST	SEMINOLE B C C
Lake Mary	09-20-30-505-0000-0060	132 PALMETTO ST	WEART JAMES C
Lake Mary	09-20-30-300-0210-0000	140 RAILROAD AVE	WILLIS ELIZABETH A
Lake Mary	09-20-30-505-0000-00A1		
Longwood Street	31-20-30-5AU-00U2-0000	279 E JESSUP AVE	ADAMS WILLIAM E &
Longwood Street	31-20-30-5AU-0000-5040	206 Palmetto ave E	Benjamin Magaldino
Longwood Street	31-20-30-5AU-0000-4330	235 LONGWOOD ST N	BLUE OX LAND SERVICES INC
Longwood Street	31-20-30-5AU-0000-4350	267 LONGWOOD ST E	ELGIN ROBERT O & MARY E
Longwood Street	31-20-30-5AU-0000-1770	103 CHURCH AVE E	GODINHO VIRGIL TRUSTEE
Longwood Street	31-20-30-5AU-0000-5030	202 E PALMETTO AVE	GRIFFIN DEENA M E
Longwood Street	31-20-30-5AU-0000-1920	CHURCH AVE E	HARRISON RICKY W & SONYA R
Longwood Street	31-20-30-5AU-0000-4470		LEMBRICH RALPH
Longwood Street	31-20-30-5AU-0000-1840	201 CHURCH AVE E	PRESCOTT LOLA E
Longwood Street	31-20-30-5AU-0000-1870		PRESCOTT LOLA E
Longwood Street	31-20-30-5AU-0000-1930	JESSUP AVE E	PRESCOTT LOLA E
Longwood Street	31-20-30-5AU-0000-4380	LONGWOOD AVE	RSK VENTURES INC
Longwood Street	31-20-30-5AU-0000-4450		RSK VENTURS
Longwood Street	31-20-30-5AU-0000-5080	210 PALMETTO AVE	SUTHERLAND JOE
Longwood Street	31-20-30-5AU-0000-4510	JESSUP AVE	TIITF / STATE OF FLA
Longwood Street	31-20-30-5AU-0000-4420	JESSUP AVE	TIITF/STATE OF FLA
LYNX Central	26-22-29-2263-00-011	95 W LIVINGSTON ST	CENTRAL FLORIDA REGIONAL
LYNX Central	26-22-29-2263-00-040	401 N GARLAND AVE	CENTRAL FLORIDA REGIONAL
Meadow Woods	24-24-29-0000-00-004	12201 S ORANGE AVE	LANDSTAR DEVELOPMENT CORP
Meadow Woods	24-24-29-0000-00-005	13909 S ORANGE AVE	ORANGE COUNTY BCC
Meadow Woods	24-24-29-0000-00-015		ORANGE COUNTY BCC
Meadow Woods	24-24-29-0000-00-017		SAATHOFF DWIGHT D TR
Meadow Woods	24-24-29-0000-00-016		
Orlando AMTRAK/ ORMC	35-22-29-1558-10-010	1400 SLIGH BLVD	SEABOARD COAST LINE R R COMPANY
Osceola Parkway	02-25-29-1448-0001-0030		DART ROAD LIMITED PARTNERSHIP
Osceola Parkway	02-25-29-1448-0001-0020		P & N KISSIMMEE I LLC
Poinciana Industrial Park	25-26-28-6182-00DD-0020		NAT RAILROAD PASS CORP
Sand Lake Road	25-23-29-0000-00-122		BEDFORD REALTY LLC
Sand Lake Road	25-23-29-0000-00-016	8076 S ORANGE AVE	DENNYS INC
Sand Lake Road	25-23-29-0000-00-105		DOT/STATE OF FLORIDA
Sand Lake Road	25-23-29-0000-00-061	8060 S ORANGE AVE	MCDONALDS CORP
Sand Lake Road	25-23-29-0000-00-007		ORANGE COUNTY BCC
Sand Lake Road	25-23-29-0000-00-012	8032 S ORANGE AVE	REES MARIA VICTORIA TR
Sand Lake Road	25-23-29-0000-00-015	8068 S ORANGE AVE	WINDSOR JOAN VARONIKA
Sanford SR-46	27-19-30-300-0010-0000	WAYNE DENSCH INC	1ST ST W SANFORD 32771
Sanford SR-46	27-19-30-300-0070-0000		FLORIDA LAND & COLONIZATION CO
Sanford SR-46	27-19-30-300-001A-0000	2720 1ST ST W	GABFT LLC
Sanford SR-46	22-19-30-5AD-0000-0460		

Central Florida Commuter Rail Transit		1	2	3
Property Type	Station	Parcel ID	Street Address	Owner's Name
Business	Altamonte Springs	18-21-30-508-0000-0190	1001 436 E	ADVANCED MEDICAL CARE CORP
Parking Lot	Altamonte Springs	12-21-29-5BE-0000-4030	225 NEWBURYPORT AVE	ALTAMONTE SPRINGS CITY OF
Business	Altamonte Springs	18-21-30-508-0000-0420	4718 EDGEWATER DRIVE	ALTAMONTE TOWING SERVICE INC
Residence	Altamonte Springs	18-21-30-508-0000-0760	955 LEONARD ST	BARNES PAULINE L
Residence	Altamonte Springs	18-21-30-508-0000-0710	145 MARKER ST	FLANAGAN SCOTT K
Residence	Altamonte Springs	18-21-30-508-0000-0160	1009 ALTAMONTE DR E	FREEMAN THOMAS G
Residence	Altamonte Springs	18-21-30-508-0000-0790	925 LEONARD ST	LAWS PAUL LIFE EST
Residence	Altamonte Springs	18-21-30-508-0000-0220	2741 RONALD REAGAN BLVD S	MC INTOSH B D JR & DOSKOCZ
Business	Altamonte Springs	12-21-29-5BE-0000-3890	NEWBURYPORT AVE	UNITED TELEPHONE CO OF FLA
Residence	Altamonte Springs	18-21-30-508-0000-0730	147 MARKER ST	WILSON ANTHONY L & JANICE L
Residence	Lake Mary	09-20-30-505-0000-00A0	152 PALMETTO AVE	ELLIOTT SUSAN H
Residence	Lake Mary	09-20-30-506-0000-0010	156 PALMETO ST	HAHN KATHI S
Residence	Lake Mary	09-20-30-505-0000-0010	142 PALMETTO ST	KING KEVIN P
Residence	Lake Mary	09-20-30-505-0000-0030	143 PALMETTO ST	KING KEVIN P
Residence	Lake Mary	09-20-30-300-0200-0000	144 RAILROAD AVE	MARTIN ROBIN D
Residence	Lake Mary	09-20-30-505-0000-0090	113 W CRYSTAL LAKE AVE	SCHWEICKERT MILDRED M
Residence	Lake Mary	09-20-30-505-0000-0060	132 PALMETTO ST	WEART JAMES C
Warehouse	Lake Mary	09-20-30-300-0210-0000	140 RAILROAD AVE	WILLIS ELIZABETH A
Business	Longwood Street	31-20-30-5AU-0000-5040	206 PALMETTO AVE E	Benjamin Magaldino
Business	Longwood Street	31-20-30-5AU-0000-4330	235 LONGWOOD ST N	BLUE OX LAND SERVICES INC
Residence	Longwood Street	31-20-30-5AU-0000-4350	267 LONGWOOD ST E	ELGIN ROBERT O & MARY E
Residence	Longwood Street	31-20-30-5AU-0000-5030	202 E PALMETTO AVE	GRIFFIN DEENA M E
Residence	Longwood Street	31-20-30-5AU-0000-1870	201 E CHURCH ST	PRESCOTT LOLA E
Business	Longwood Street	31-20-30-5AU-0000-5080	210 PALMETTO AVE	SUTHERLAND JOE
Business	Sand Lake Road	25-23-29-0000-00-016	8076 S ORANGE AVE	DENNYS INC
Business	Sand Lake Road	25-23-29-0000-00-061	8060 S ORANGE AVE	MCDONALDS CORP
Business	Sanford SR-46	27-19-30-300-001A-0000	2720 1ST ST W	GABFT LLC

APPENDIX M

NOISE IMPACT LOCATION KEY MAPS

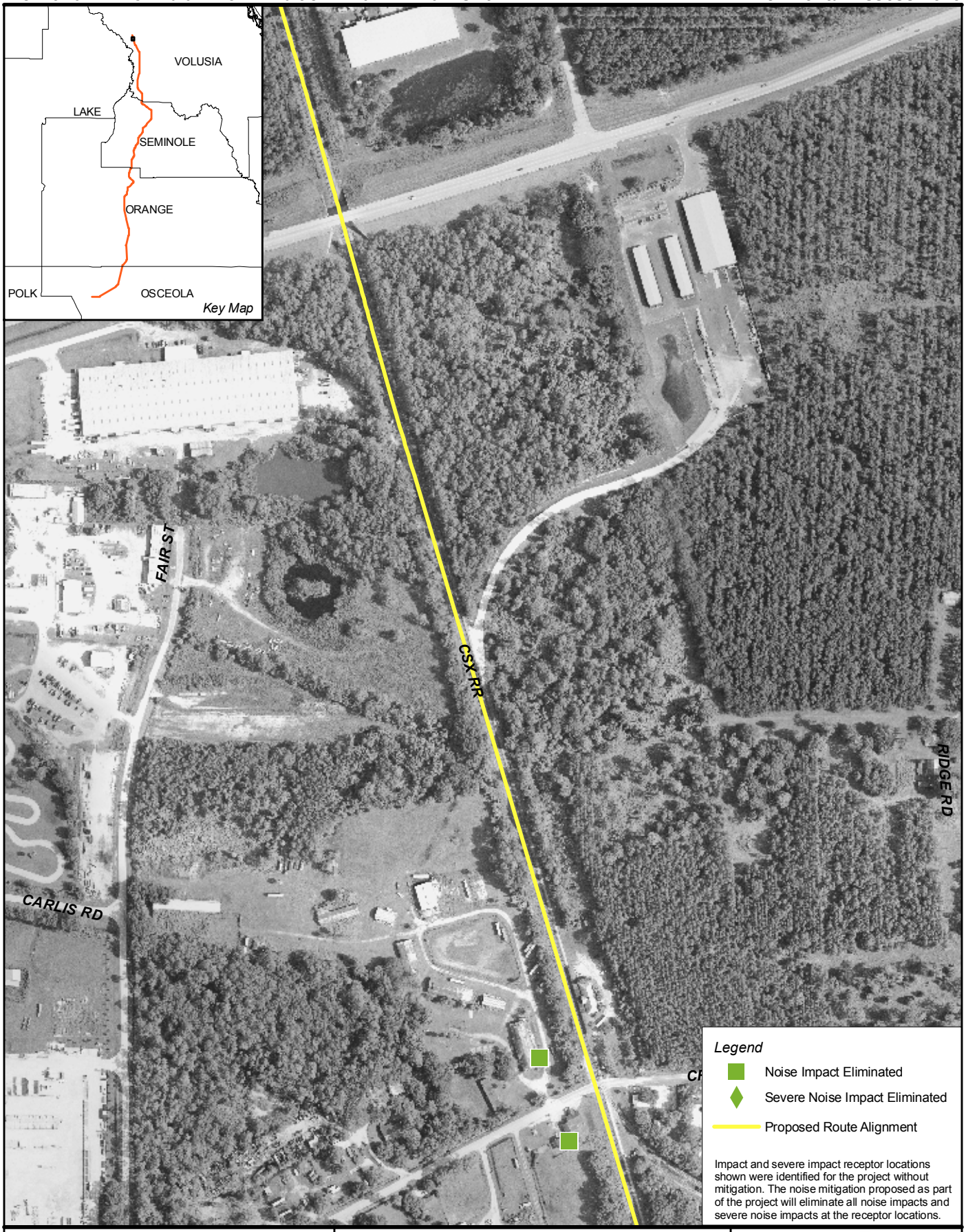

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Figure A4 - 1
Noise Impact Locations
(With Mitigation)
Sheet 1 of 19

Central Florida Commuter Rail Transit ...we take you places.
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

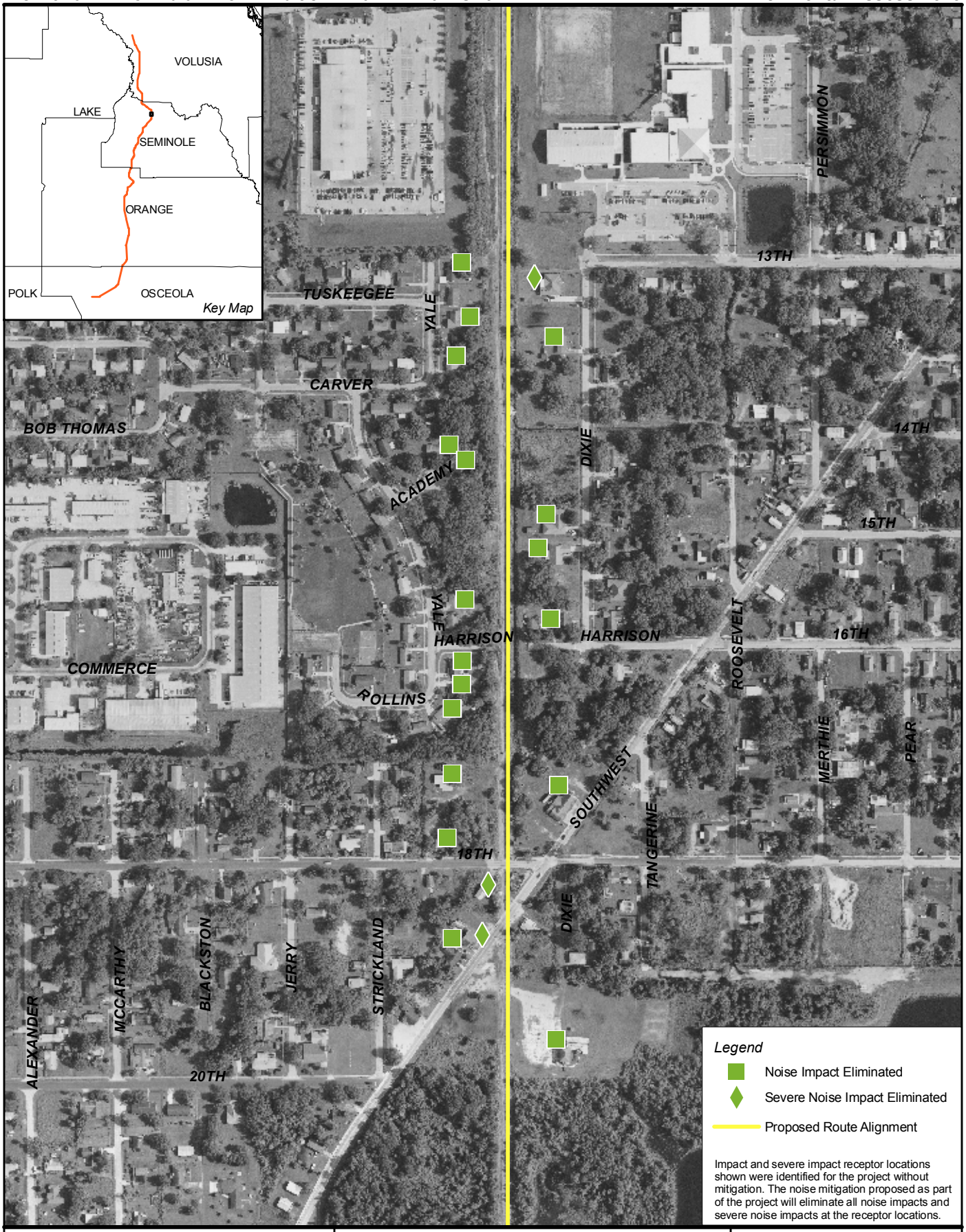

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Figure A4 -2
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(With Mitigation)
Sheet 2 of 19

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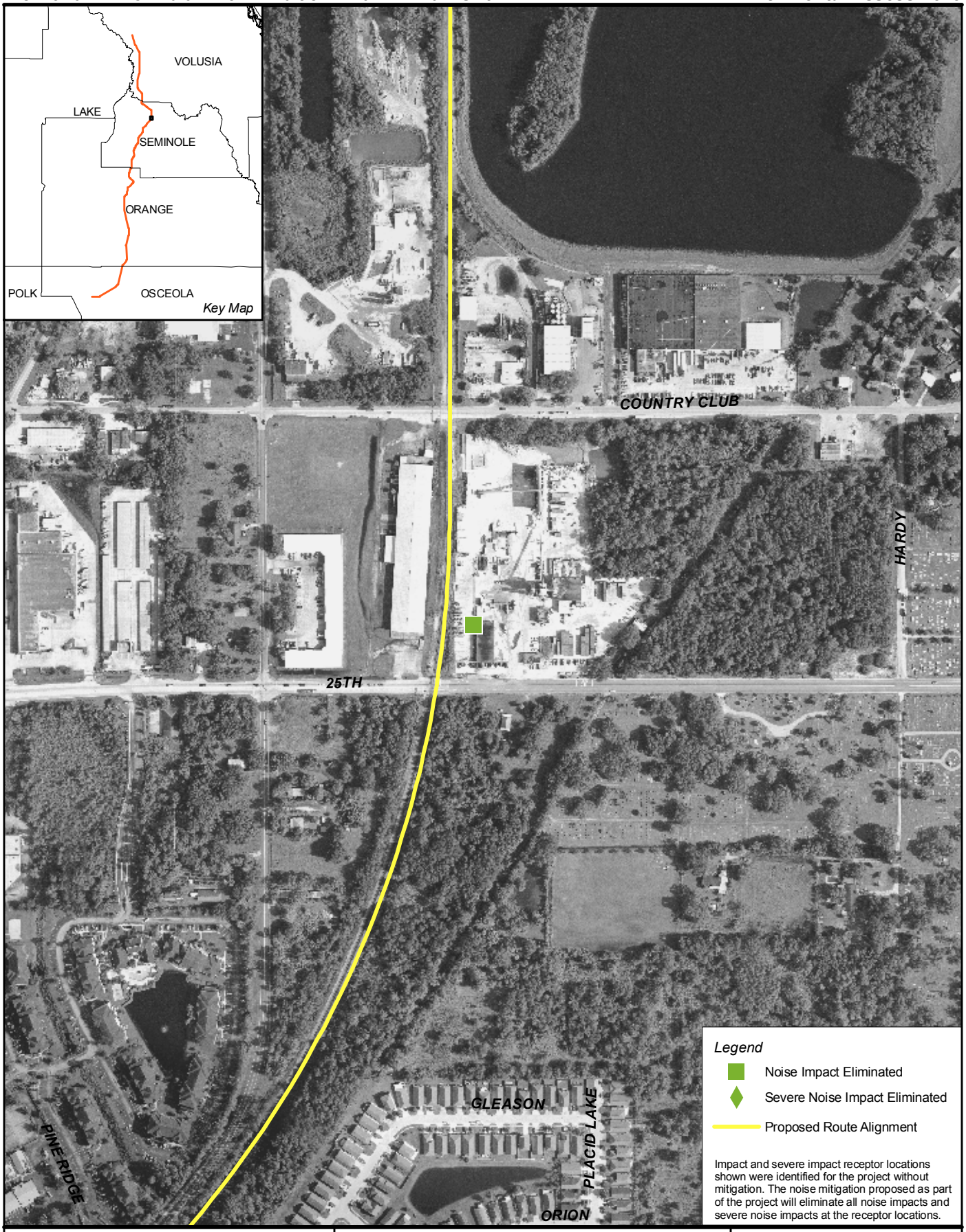

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Figure A4 -3
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(With Mitigation)
Sheet 3 of 19

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...we take you places.

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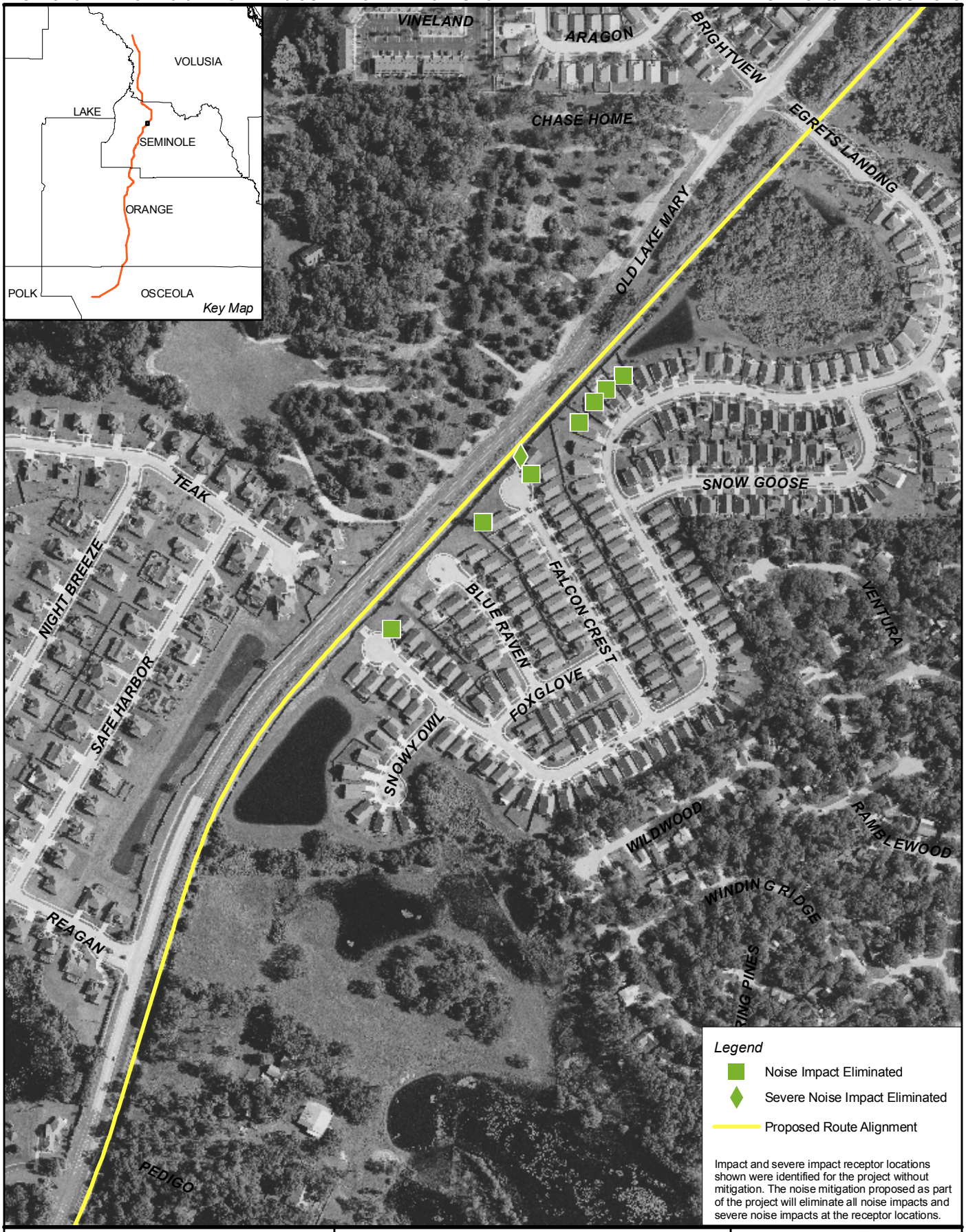

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Figure A4 -4
Noise Impact Locations
(With Mitigation)
Sheet 4 of 19

Central Florida Commuter Rail Transit ...we take you places.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

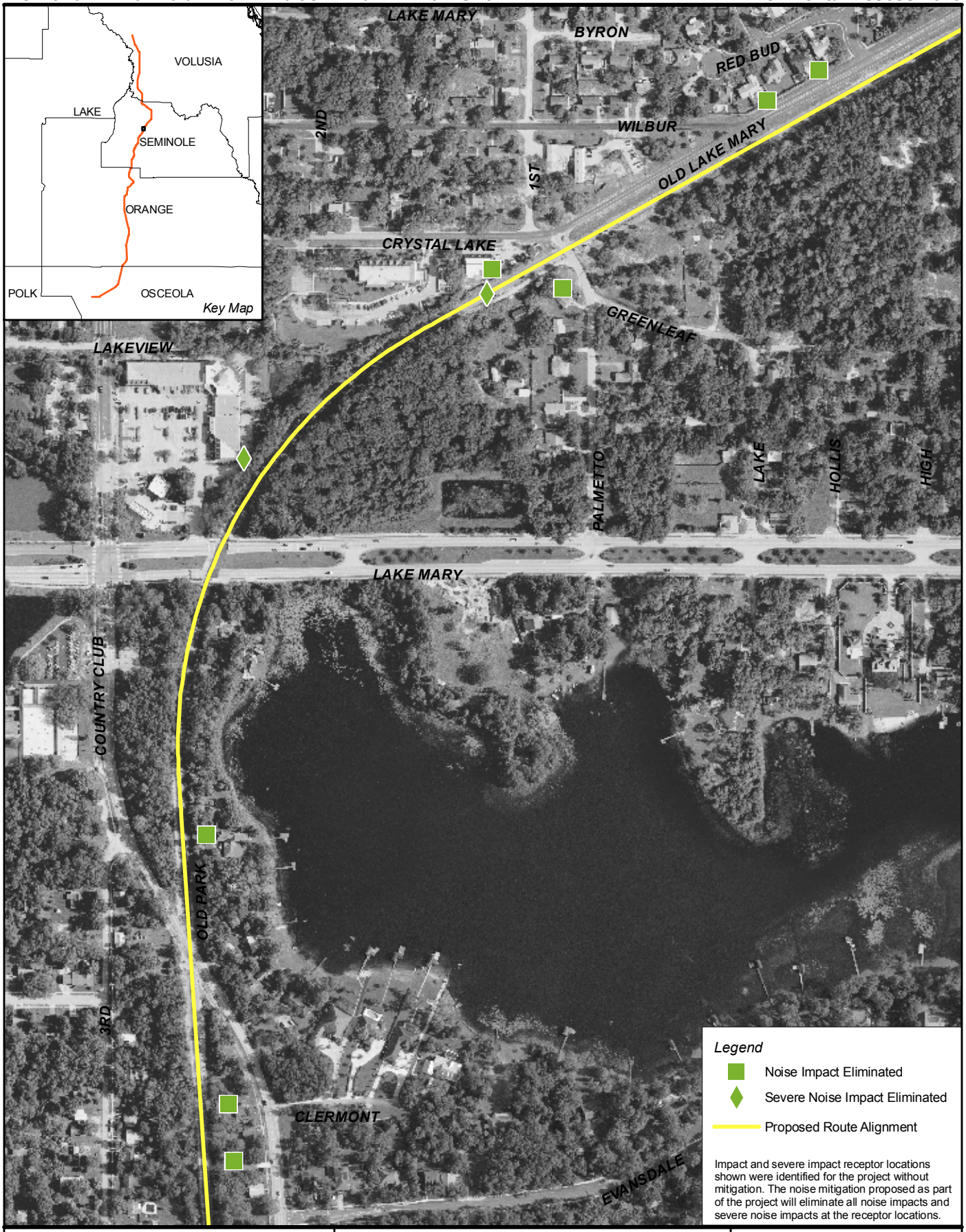

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Figure A4 -5

Noise Impact Locations

(With Mitigation)

Sheet 5 of 19

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Figure A4 -6
Noise Impact Locations
(With Mitigation)
Sheet 6 of 19

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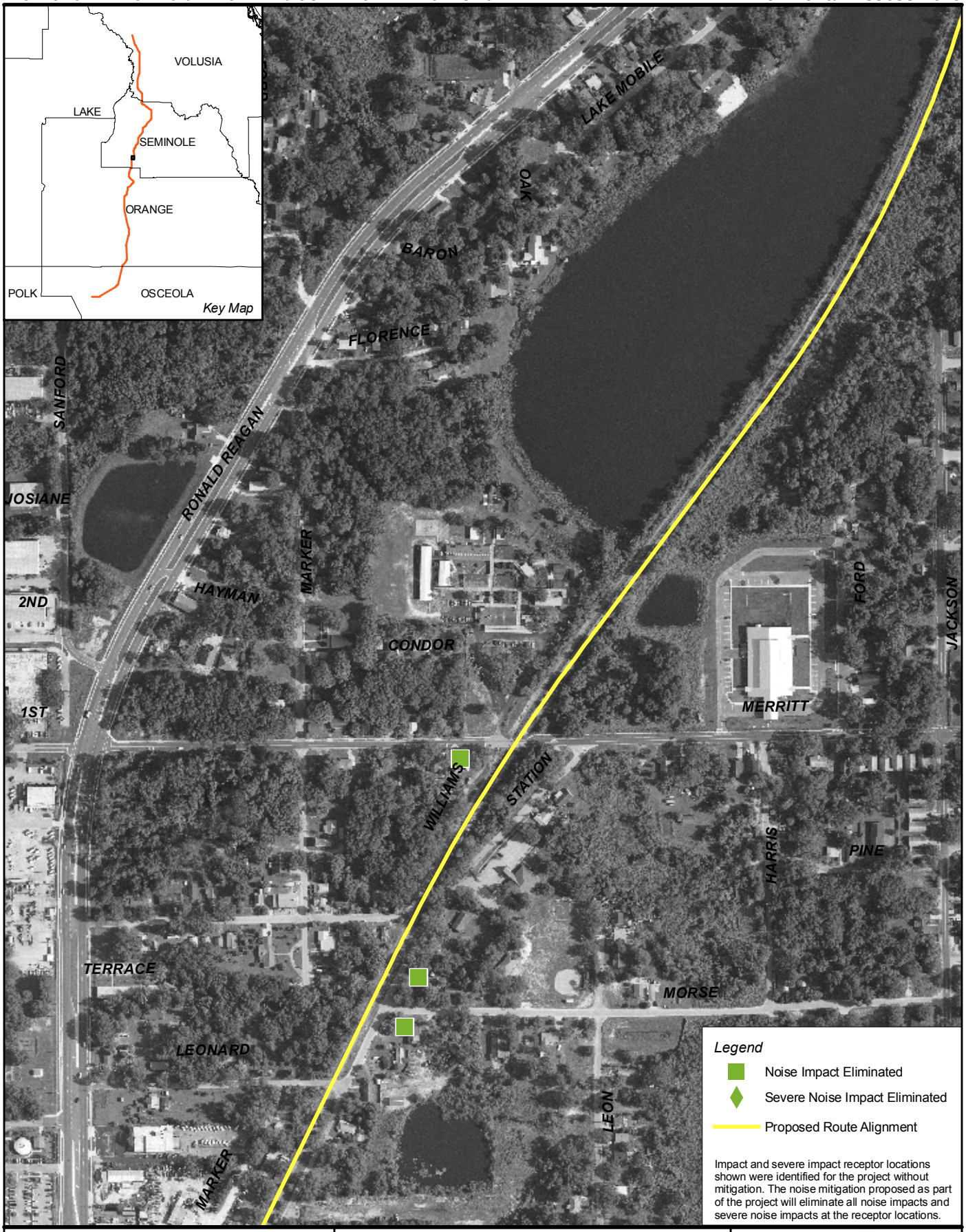

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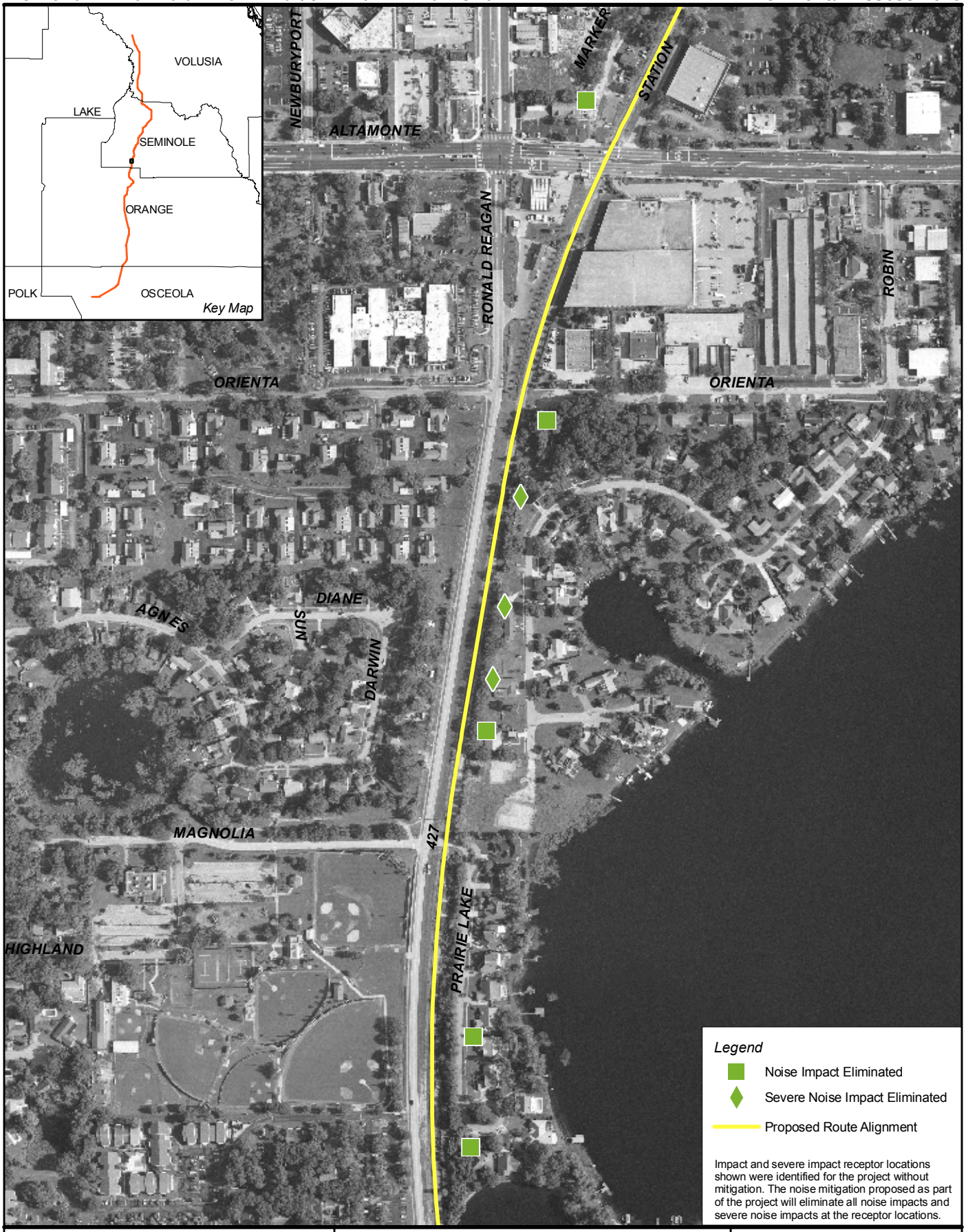

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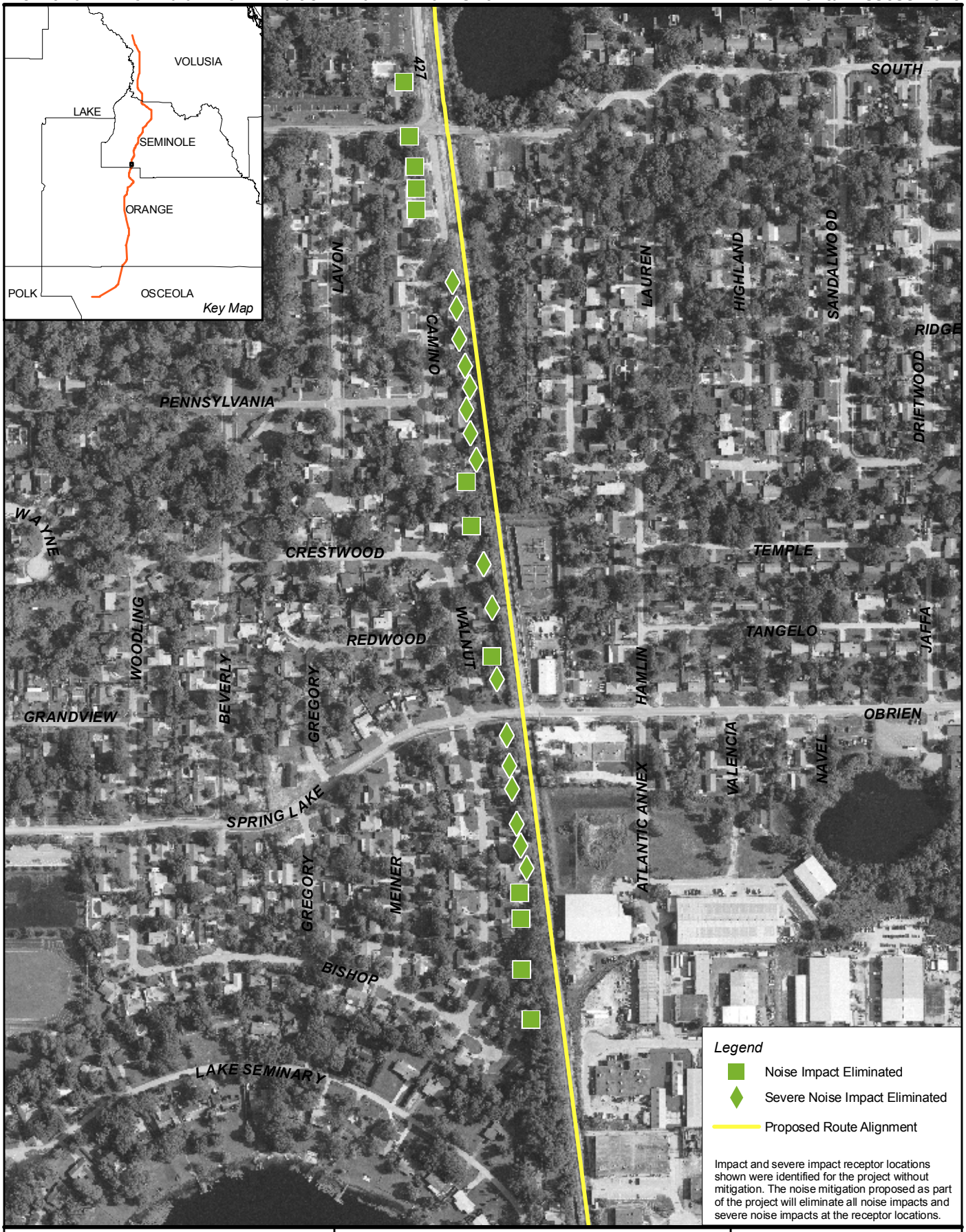

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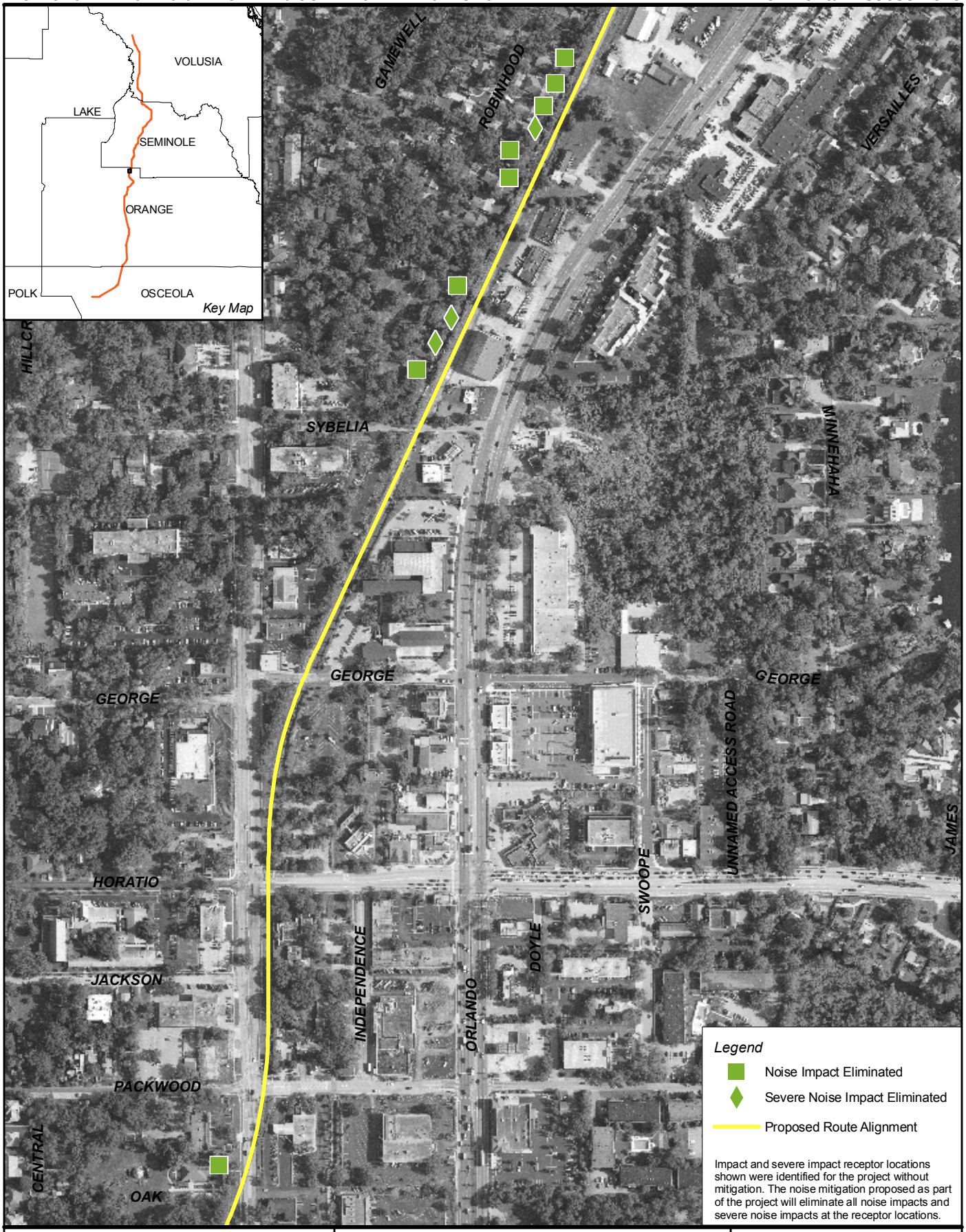

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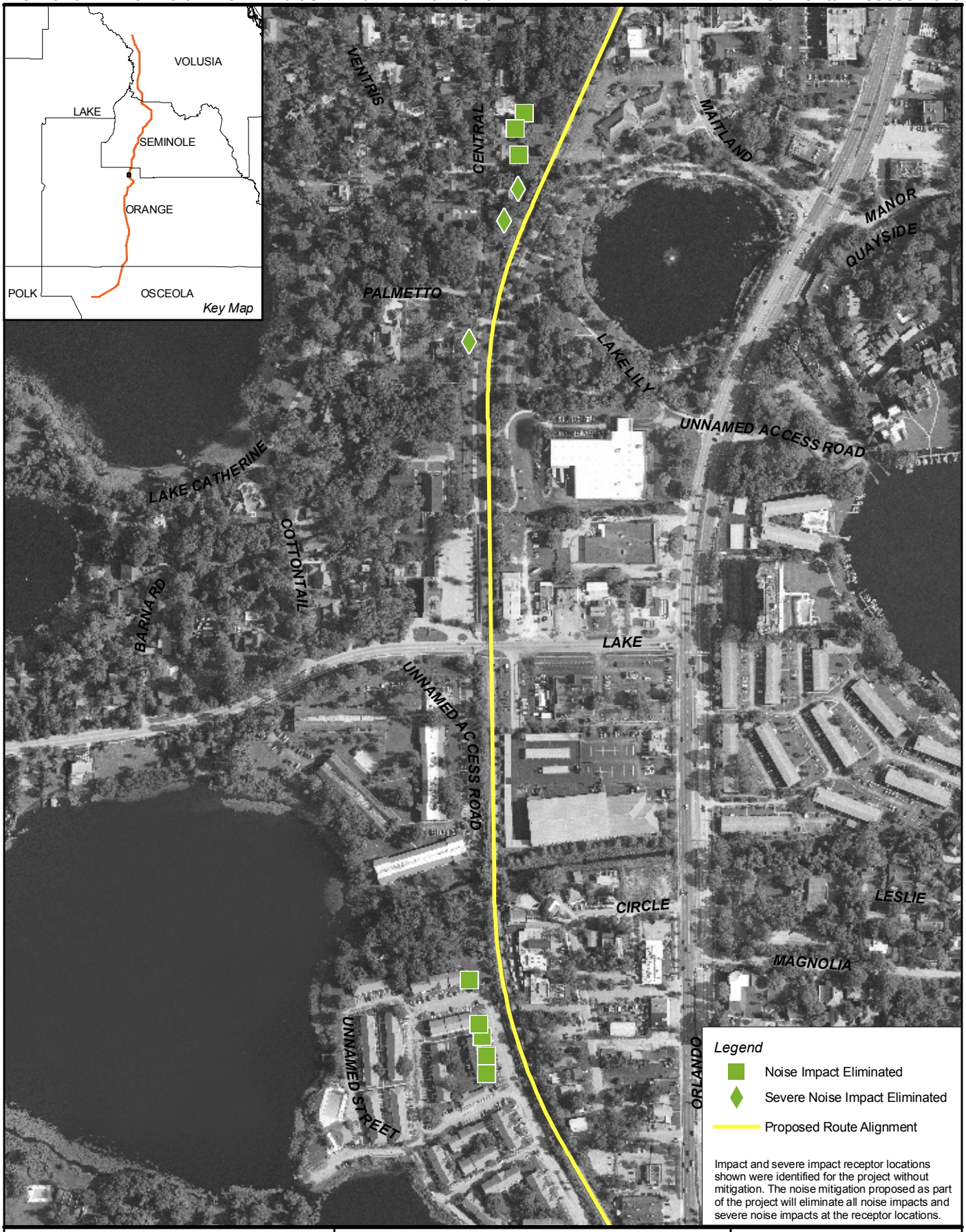

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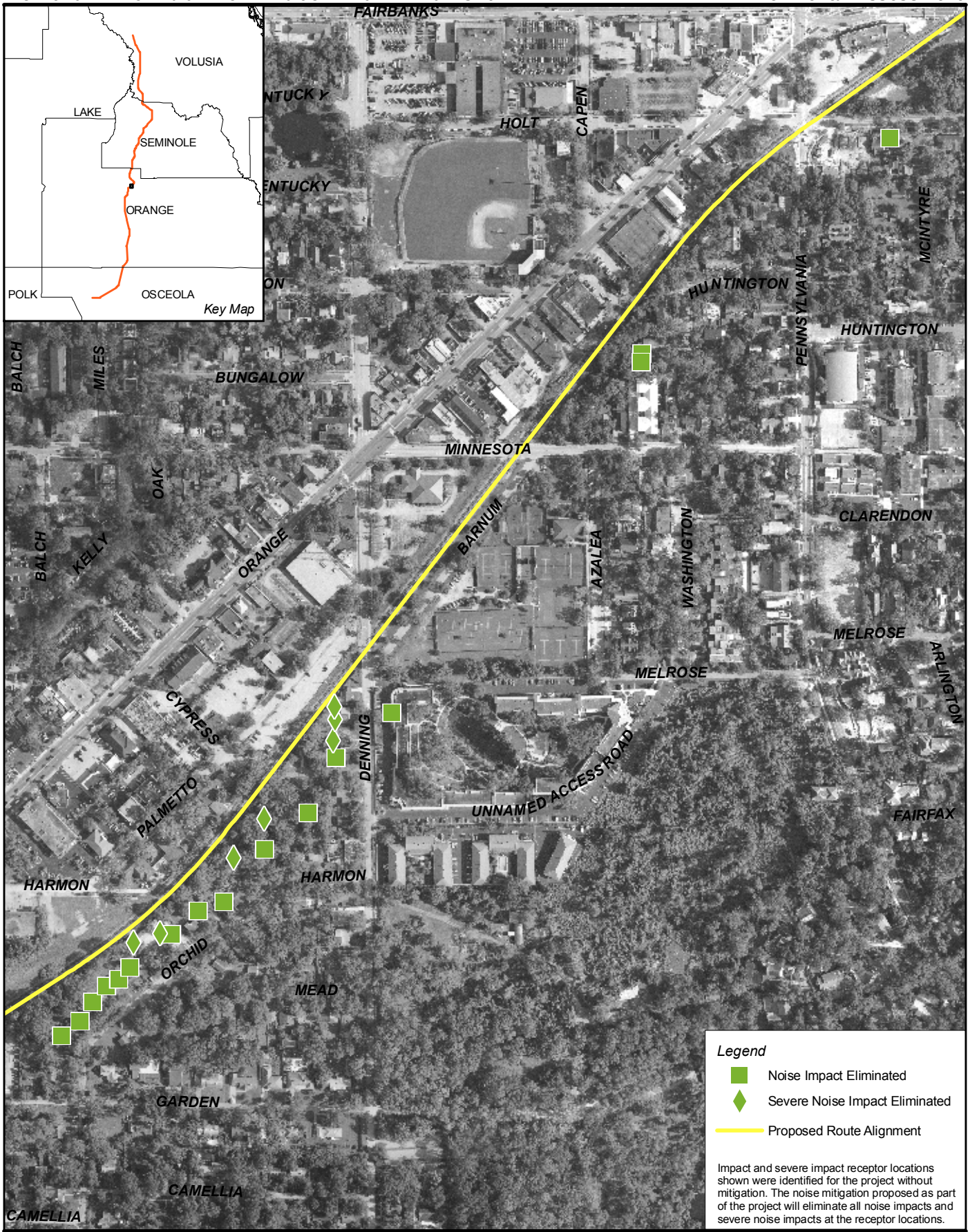

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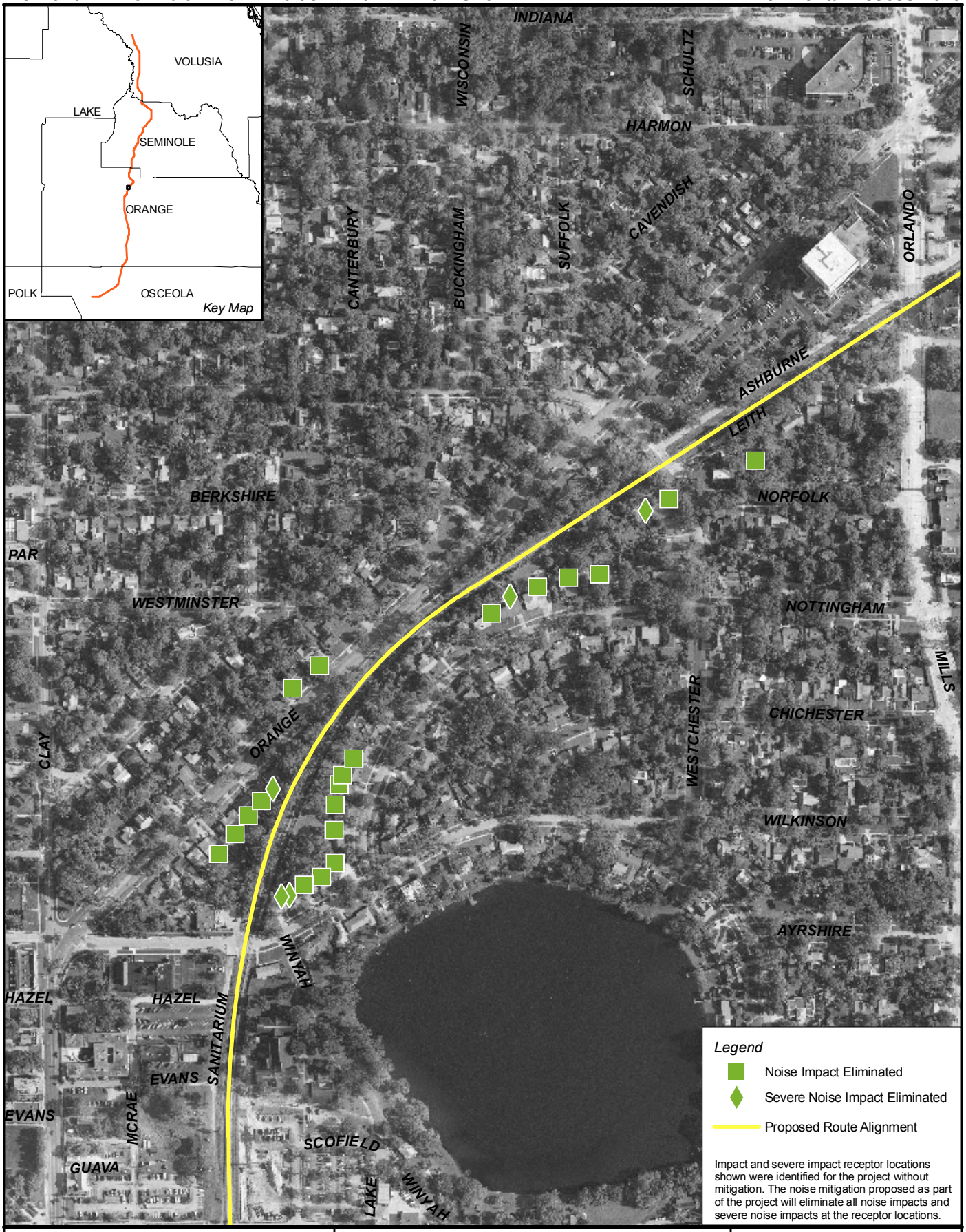

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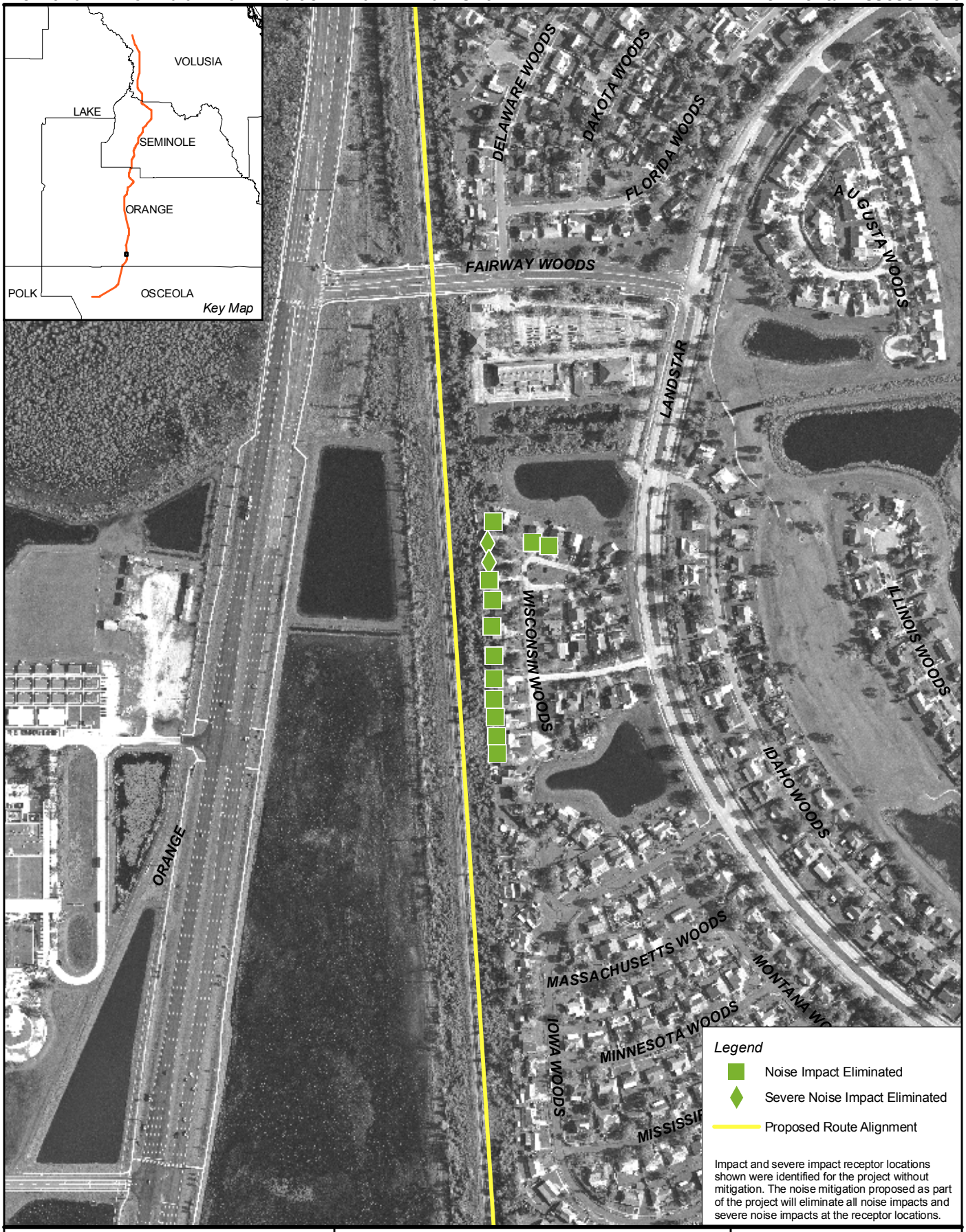

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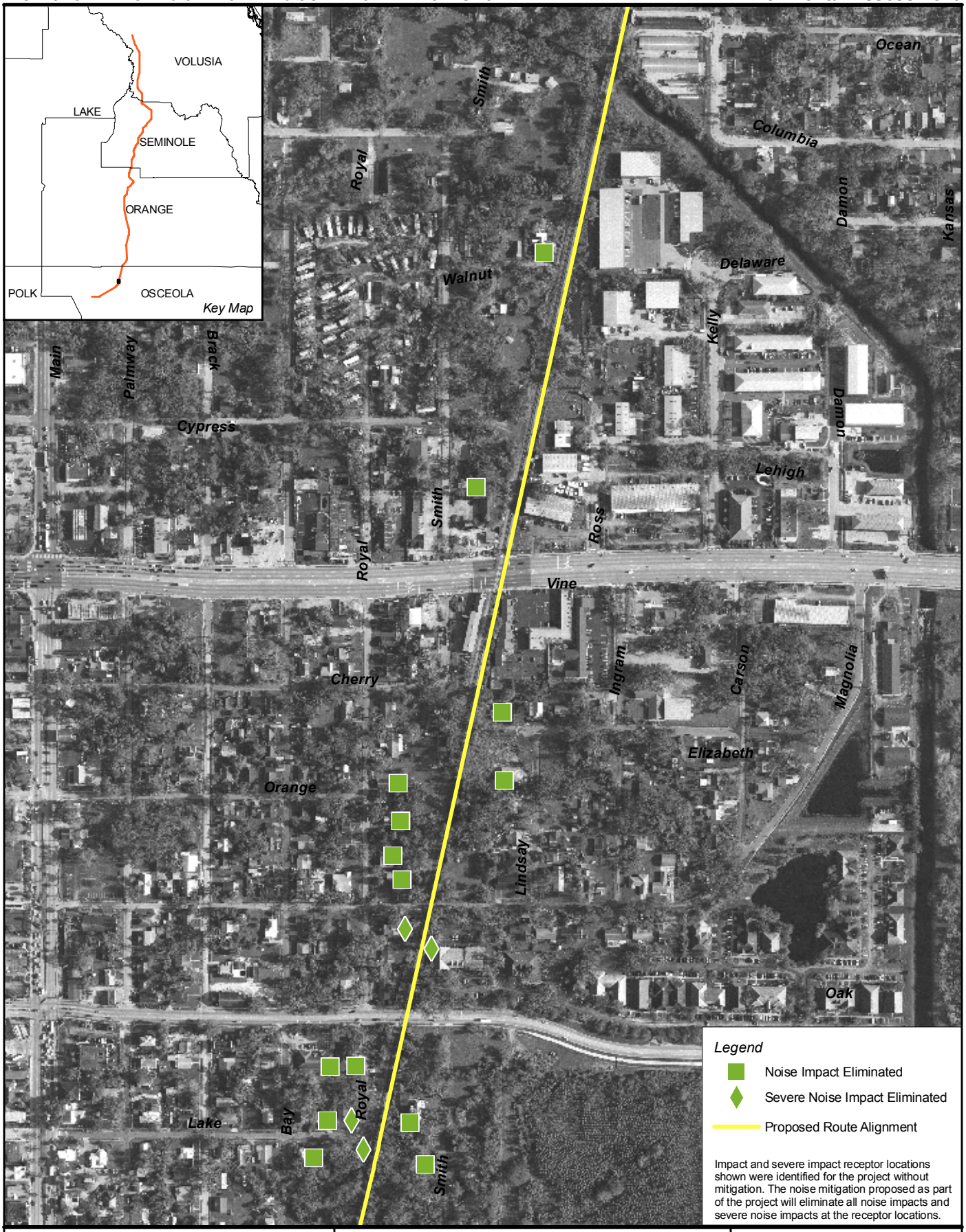

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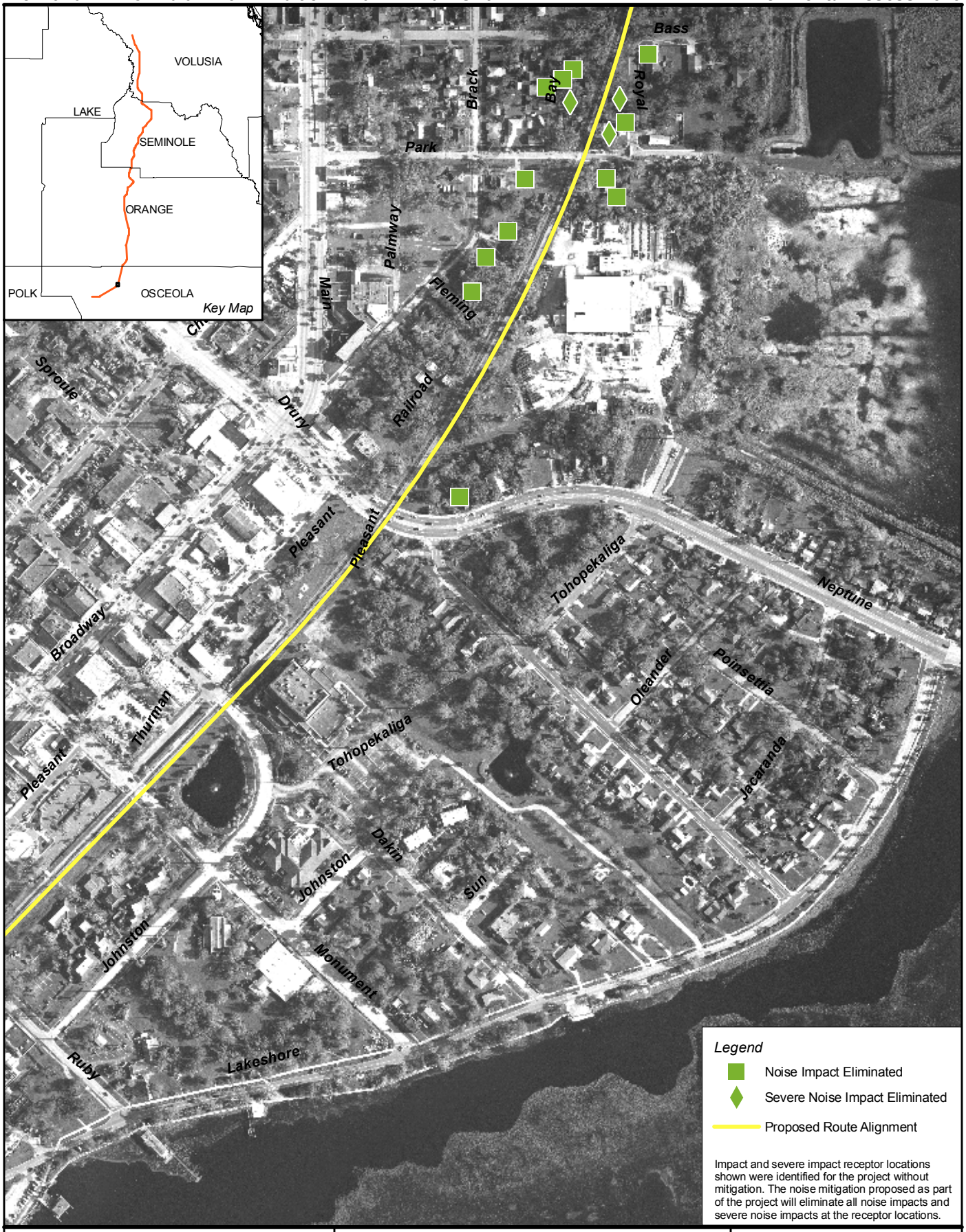

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