Port Manatee
Piney Point Road Needs Assessment Study

FDOT District One
March 2020

FDOT DISTRICT 1

PORT MANATEE PINEY POINT ROAD NEEDS ASSESSMENT STUDY

Florida Department of Transportation | District 1

March 2020

Acknowledgments:

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LIST OF ACRONYMS

AADT - Average Annual Daily Traffic
BFE - Base Flood Elevation
COA - Classes of Action
CIP - Capital Improvement Plan
EIS - Environmental Impact Statement
ERP - Florida Environmental Resources Permit Program
FDEP - Florida Department of Environmental Protection
FDOT - Florida Department of Transportation
FEMA - Federal Emergency Management Agency
FIG - Florida International Gateway
FL-SOLARIS - Florida State Owned Lands and Records Information System
FMTP - Freight Mobility and Trade Plan
FPL - Florida Power and Light
FRA - Federal Rail Administration
FTZ - Foreign Trade Zone
HCS - Highway Capacity Software
LOS - Level of Service
LRTP - Long Range Transportation Plan
MPO - Metropolitan Planning Organization
O-D - Origin and Destination Data
PD&E - Project Development and Environment
PDEZ - Planned Development Encouragement Zone
PDPM - Planned Development Port Manatee District
SIS - Strategic Intermodal System
SSO - State Safety Office
TAZ - Traffic Analysis Zone
TIP - Transportation Improvement Program
TRB - Transportation Research Board
USDOT - U.S. Department of Transportation

INTRODUCTION

With more than 1 million annual gate transactions projected at Port Manatee by 2024, Piney Point Road, bears the weight of the vast majority of these trips. The ability of Piney Point Road to sustain current and future truck and vehicular traffic has a substantial impact on maximizing the strategic advantage of Port Manatee and future growth in the region. Enhancements to Piney Point Road will result in improvements to the flow of freight traffic and vehicle processing in-and-out of the Port, as well as improved safety for all roadway users. As such, the Florida Department of Transportation (FDOT) has undertaken the Port Manatee Piney Point Road Needs Assessment.

One of the first steps in the project development process is to prepare a purpose and need statement. This study is intended to provide the background and context in order to document the purpose and need for the project. This Needs Assessment defines the transportation problem(s) to be solved through the evaluation of existing information, projected future economic growth at Port Manatee, and the concurrent increase of vehicular traffic, particularly truck traffic, on Piney Point Road. This effort will support the Port's Capital Improvement Plan (CIP) and provide technical support for project inclusion within the MPOs TIP and FDOT's Five-Year Work Program.

Section One of this Piney Point Road Needs Assessment provides a project description, including the development of the logical termini for the study. Logical termini help to define the project in terms of geography, but also provides a framework for scoping any future action(s).

Section Two examines local existing conditions to provide an understanding of local zoning and proposed future land uses. This section also details other planning considerations, such as adjacent wetlands and other protected areas, flood zones, and locations of utilities.

Section Three defines the project purpose and need. These two critical elements are the basis for the development of reasonable alternatives related to advancing the project in the planning process.

The FDOT Project Development and Environment (PD&E) Manual states that a purpose identifies the primary goals of the project and guides the alternatives that will be considered and developed in response to the established need. This study identified both a primary and secondary purpose in regards to Piney Point Road improvements. The primary purpose identifies the fundamental reason for the project, while the secondary purpose is a desirable outcome, but not the core issue.

The project need represents the factual demonstration behind the development of the project purpose. Assessment of the project need yields the data and information necessary for creating and evaluating proposed alternatives. To fully understand the need for improvements to Piney Point Road, this study considers the following elements:

- Project status
- System linkage and modal interrelationships
- Capacity and transportation demand
- Legislation
- Social demands and economic development
- Safety
- Roadway deficiencies

SECTION I

PROJECT DEFINITION AND LOGICAL TERMINI DEVELOPMENT

SECTION 1: PROJECT DEFINITION AND LOGICAL TERMINI DEVELOPMENT

1.1 Project Description and Existing Facility

This project involves a 0.57 mile segment of Piney Point Road, extending southeast from Reeder Road to US 41 (Figure 1). Piney Point Road functions as the final approach to Port Manatee's North Gate from US 41 and is designated as part of FDOT's Strategic Intermodal System (SIS) as a Strategic Highway Connector. As such, Piney Point Road is critical to maximizing the Port's freight movement and handling capabilities, and is vital to the regional economic infrastructure.

Piney Point Road is a two-lane, undivided roadway with a total width of 24'. Two at-grade rail crossings (Port Manatee's shortline Railroad and CSXT) cross Piney Point Road between the Port Manatee North Gate and US 41. The intersection of Piney Point Road and US 41 has a stop sign controlling traffic on Piney Point Road prior to entry onto US 41, allowing users north and south-bound access to a four-lane section of US 41. Turning lanes are provided on US 41 to access Piney Point Road from both the north and south. To the west, Piney Point Road intersects Reeder Road twice, both west of the North Gate entrance from Piney Point Road to Port Manatee. The first intersection occurs approximately 0.07 miles west of the North Gate entrance and is controlled by a yield sign, slowing traffic entering Piney Point Road. A stop sign controls traffic movements from Reeder Road onto Piney Point Road at the second intersection, approximately 0.12 miles west of the North Gate entrance. An access gate restricts entry/exit from Reeder Road to-and-from Port property approximately 0.06 miles south of the intersection of Piney Point Road and Reeder Road. This gate remains closed and no other security functions occur at this access point. Limited access to the Port is provided via South Dock Street. The Port has recently improved portions of South Dock Street within its boundaries, and is planning to expand the South Gate facility in the future. A badging facility

Eastbound View of Piney Point Road at the Port Manatee Railroad Crossing

The portion of Piney Point Road included as part of this study currently has no bicycle or pedestrian accommodations. There are no public transit services offered at the study area site, or within the vicinity of the study area.

Piney Point Road recently underwent improvements due to of the significant number of trucks that use the road to gain access to Port Manatee. During peak hours, the Port's gate of entry (North Gate) becomes congested, causing trucks to queue on Piney Point Road. This improvement project did not involve major reconstruction of the roadway, but more temporary milling and resurfacing, to enhance Piney Point Road's current functionality. Improvements to Piney Point Road are required to ensure that trucks are able to enter into the facility, while other vehicles can safely maneuver around the waiting Port traffic.

Figure 1: Project Location Map

1.1.1 Project Limits (Location and Logical Termini)

A critical first-step in drafting a Needs Assessment is development of the project's logical termini. The FDOT PD&E Manual defines logical termini as the rational beginning and end points for a transportation project. These beginning and end points serve as the basis for the area of potential effect for environmental issues/resources to be evaluated during the PD&E Study. Logical termini are often located at major traffic generators, such as intersecting roadways.

Logical termini for this Piney Point Road Needs Assessment were determined in close coordination with the FDOT Project Manager. Ultimately, the project team identified a 0.57 mile segment of Piney Point Road located in Manatee County, Palmetto, FL, as shown in Figure 2. Logical termini boundaries extend from the intersection of Piney Point Road and Reeder Road (west) (Figures 3 and 4) to the intersection of Piney Point Road and US 41 (east) (Figures 5 and 6). This segment of Piney Point Road accommodates the substantial majority of the roadway's overall traffic, and nearly all of the roadway's freight/truck traffic.

Figure 2: Piney Point Road Needs Assessment Logical Termini

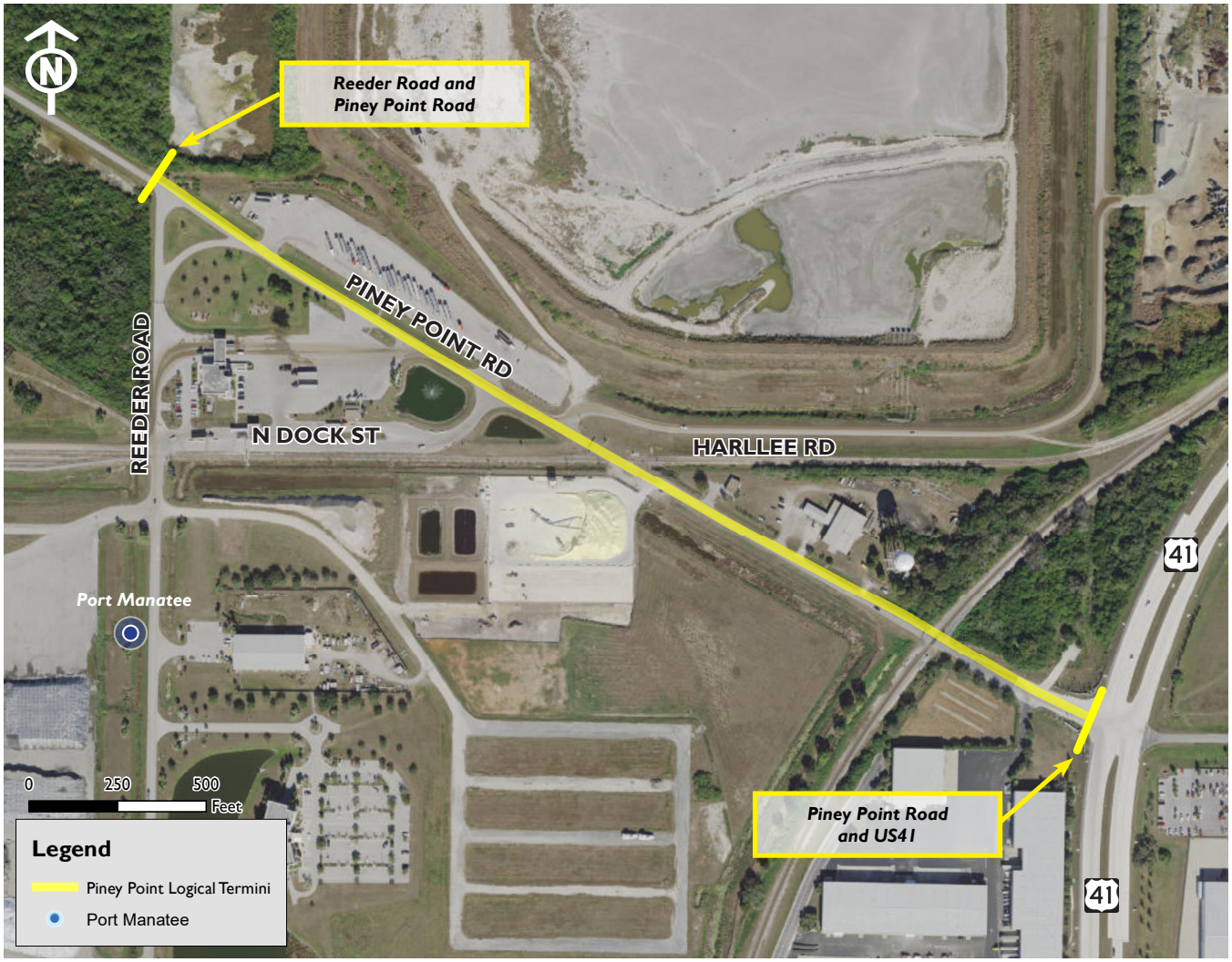


Figure 3: Intersection of Reeder Road and Piney Point Road

Figure 4: Intersection of Reeder Road and Piney Point Road

Figure 5: Intersection of US 41 and Piney Point Road

Figure 6: Intersection of US 41 and Piney Point Road

There are an additional two intersections of note within the boundaries of the logical termini. Piney Point Road intersection Harllee Road approximately 0.08 miles east of Port Manatee's North Gate entrance. Harllee Road is a two-lane road that runs east from its intersection at with Piney Point Road, and then continuing north. A stop sign controls traffic entering Piney Point Road from Harllee Road. The intersection is depicted in Figure 7 below. Piney Point Road also intersects North Dock Street approximately 0.05 miles east of the Port's North Gate entrance. North Dock Street functions as an exit for traffic leaving Port Manatee and entering Piney Point Road. A Do Not Enter sign is posted at the intersection, restricting entry from Piney Point Road. A Stop sign controls traffic entering Piney Point Road from North Dock Street. Figure 8 shows a northeast vantage point from North Dock Street, looking toward Piney Point Road, while Figure 9 depicts a westerly view of the gate on North Dock Street.

Figure 7: Intersection of Piney Point Road and Harllee Road

Figure 8: North Dock Street (East)

Figure 9: North Dock Street (West)

SECTION 2
EXISTING CONDITIONS

SECTION 2: EXISTING CONDITIONS

A study area comprising approximately two miles to the north, two and a half miles to the east, and three miles south of Port Manatee was developed for the purpose of examining existing conditions in the roadway's immediate vicinity. Identifying this existing framework helps provide a glimpse of current conditions and infrastructure in order to make informed decisions regarding future projects. This existing conditions section covers four primary areas of focus, including land use, civil infrastructure, natural areas, and community facilities.

2.1 Zoning and Future Land Use

Land use in the vicinity of Port Manatee and Piney Point Road is governed by the following plans and ordinances:

- Manatee County General Plan
- Manatee County Land Development Code
- Manatee County Northwest County Plan
- Plan Hillsborough
- Port Manatee Master Plan Update 2016

Current zoning in the vicinity of Piney Point Road is Planned Development-Port Manatee and Planned Development-Encouragement Zone with some Agricultural land to the north and Conservation land to the south. To the north in Hillsborough County the land is zoned as Public/Quasi-Public/Institutions (Figure 10).

The Agriculture District is intended to preserve agricultural lands, promote general agricultural economic activity, and allow for the co-existence of other uses generally consistent with agricultural activities. The Conservation District is intended to preserve and protect large areas of open space, vegetative habitat, natural drainage systems, aquifer recharge areas, soils, and wildlife habitats located on public property or on privately-held lands as desired by the property owner.

The Manatee County General Plan, a comprehensive plan for unincorporated Manatee County, is based on, and responds to the unique past, present, and preferred future characteristics of the unincorporated area of Manatee County.

The goals of this plan were developed in order to:

- Improve the physical environment of the community as a setting for human and natural resource activities;
- Protect the public health, safety, and welfare;
- Ensure that long-range considerations are included in the determination of short-range actions;
- Provide for fair and equitable consideration of private property rights while ensuring appropriate protection of the (more broadly-defined) public interest as determined by the Board of County Commissioners of Manatee County;
- Effect political cooperation and technical coordination by bringing professional and technical knowledge to bear on governmental decisions concerning the physical development of the community; and
- Promote a healthy, stable, and vigorous local economy which can satisfy the goods and service needs of the local community, can provide opportunities for economic activity exporting goods and services outside Manatee County, and offer the community an ample range of employment opportunities.

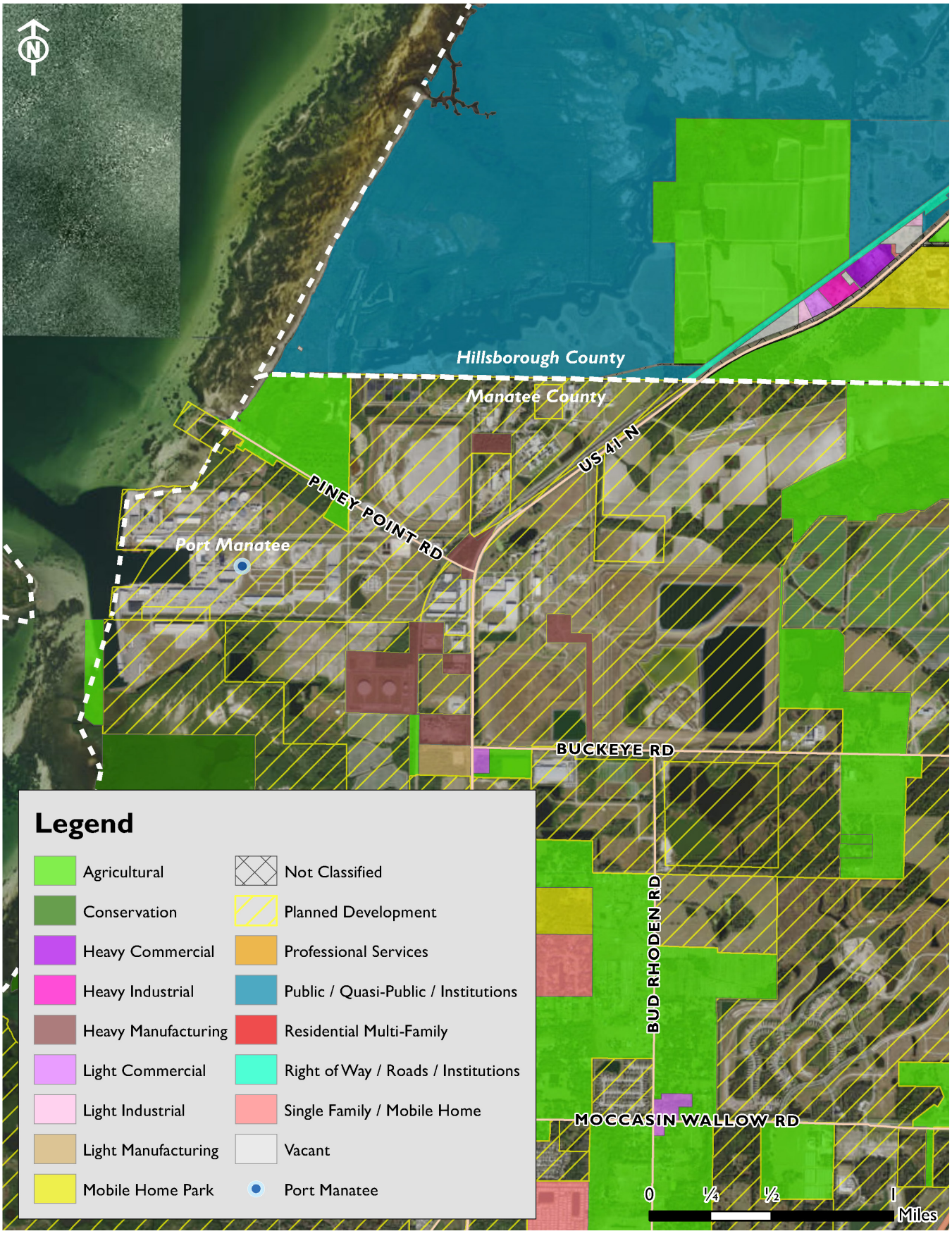
Future land use is governed by the Future Land Use Element of the Manatee County General Plan. Land uses distributed throughout unincorporated Manatee County limit urban sprawl, providing a predictable and functional urban form, encouraging development and redevelopment in existing urban core area, allowing public facilities and services to be provided in a relatively cost efficient manner.

Future land use designations for land surrounding Port Manatee (approximately two miles to the west; three quarters of a mile north; and two miles south, abutting mixed use and residential) within Manatee County, including the Port, is Heavy Industrial and Light Industrial. Further to the east and to the south are areas where the future land use designations are Residential and Mixed Use. Single family and multi-family residential units and commercial units are allowed in these designated areas.

Further to the north in Hillsborough County, land use is governed by Plan Hillsborough, a comprehensive plan for unincorporated Hillsborough County. The Future Land Use Element is the foundation for the plan, as it affects each Element within the plan through its designations and distribution of land uses. The basic concept plan, originally established in 1988, provides the physical structure to the comprehensive plan and the Future Land Use Element. The goal of the Future Land Use Element is to ensure that the character and location of land uses optimizes the combined potentials for economic benefit and the enjoyment and the protection of natural resources while minimizing the threat to health, safety and welfare posed by hazards, nuisances, incompatible land uses, and environmental degradation.

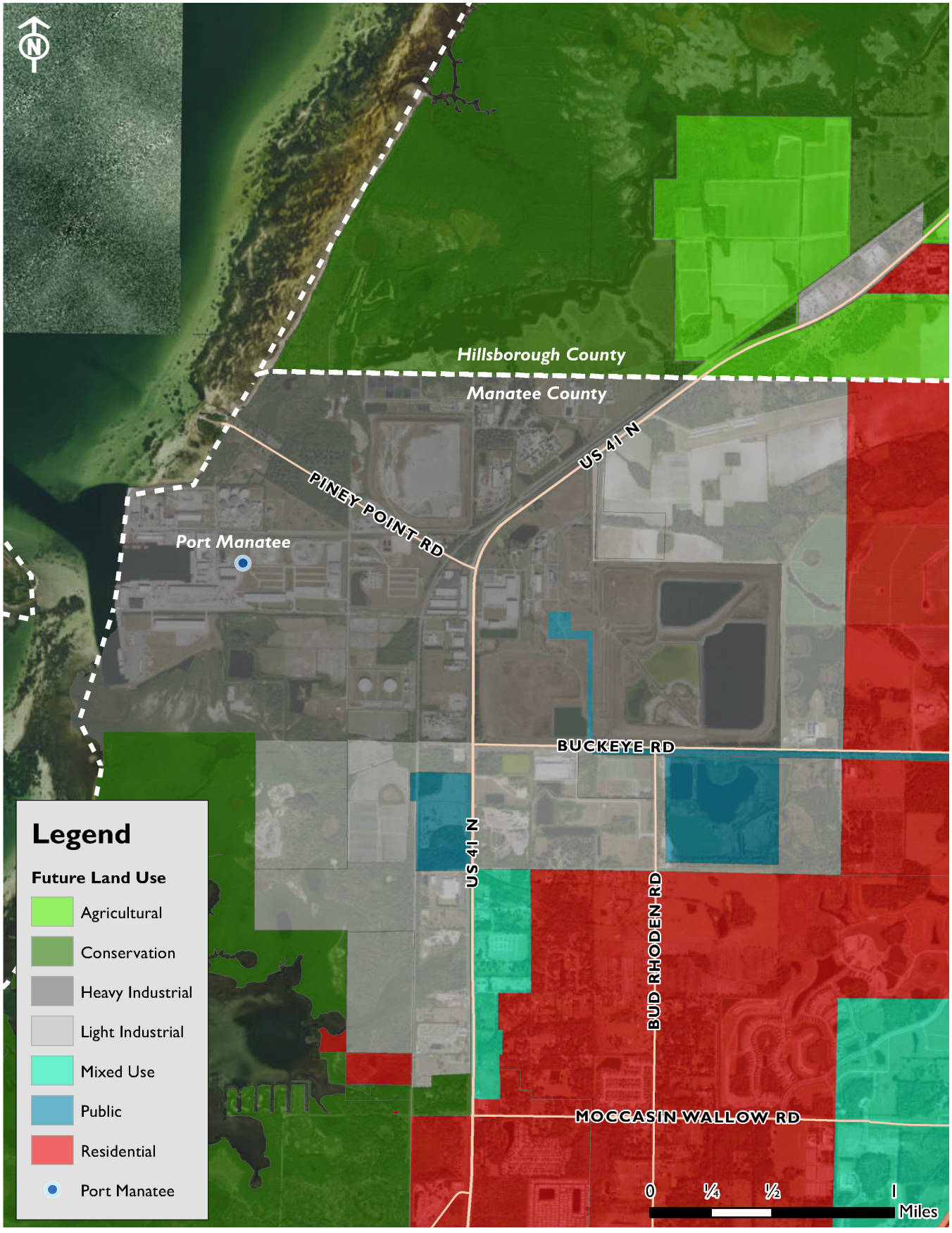
Future land use in Hillsborough County to the north of Piney Point Road is designated as Conservation and Agricultural (Figure 11). These future land use designations are consistent with the current land use in those areas.

Figure 10: Current Zoning Map



Source: Manatee County and Hillsborough County GIS Data

Figure 11: Future Land Use Map



Source: Manatee County and Hillsborough County GIS Data

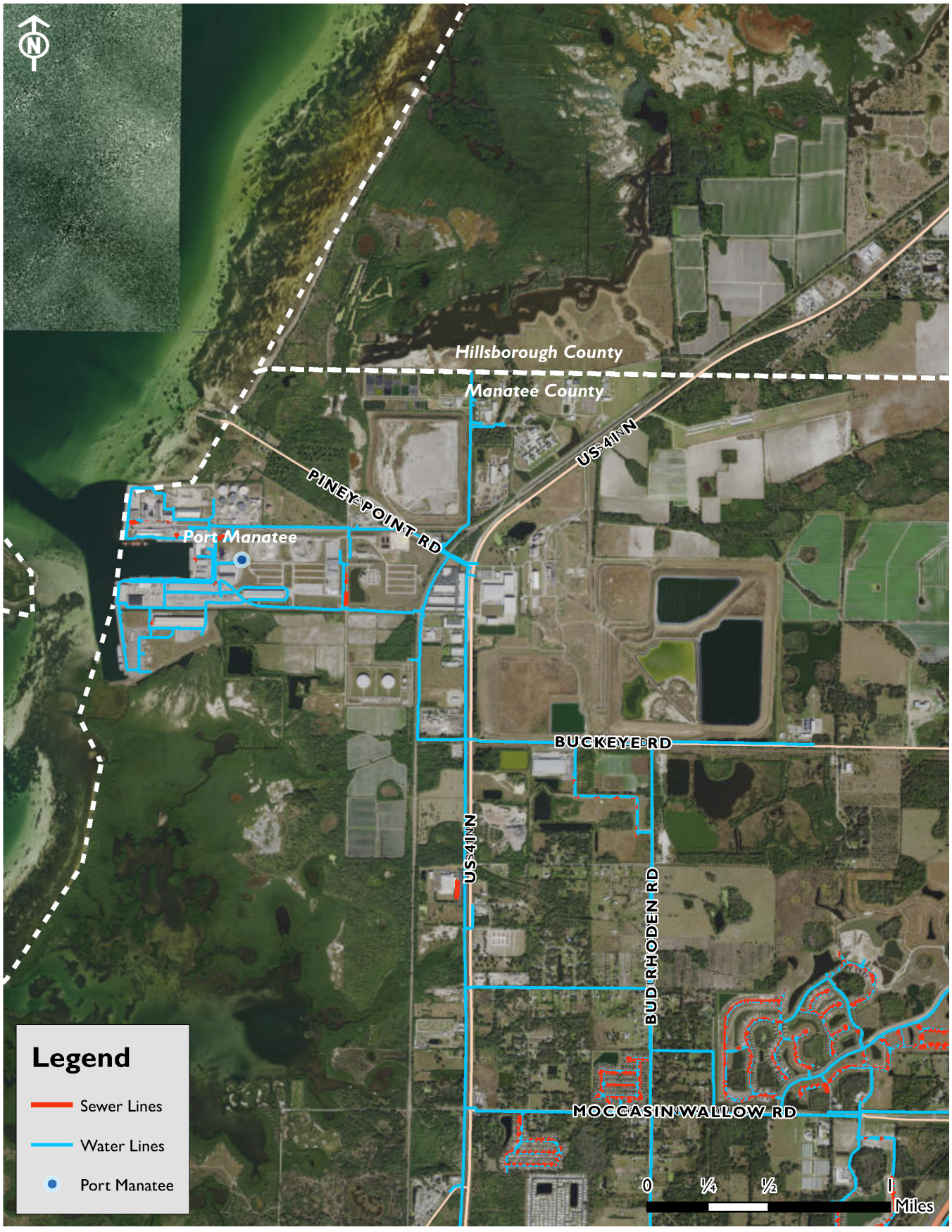
2.2 Civil Infrastructure

Figure 14 depicts the civil infrastructure currently in-place in-and-around Piney Point Road. GIS data was not available for Hillsborough County and was limited to water and sewer for Manatee County. Power and fiber optic GIS data was not readily available for either county. Above ground and underground utilities are present along Piney Point Road. Water and sewer service is provided in the project area by the Manatee County Utilities Department. Electrical service is provided by Florida Power and Light (FPL) and runs within an easement along Piney Point Road on overhead wires. Overhead wires run primarily east and west along the north side of Piney Point Road, as shown in Figure 12. A north-south overhead power line, headed onto Port property, crosses Piney Point Road just east of the Port Manatee Railroad crossing and is shown below in Figure 13.

Figure 12: East-West Power Line Along Piney Point Road

Figure 13: North-South Power Line Crossing Piney Point Road

Figure 14: Utilities Map



Source: Manatee County and Hillsborough County GIS Data

2.3 Natural Areas

Wetland Habitat along Piney Point Road - West of Reeder Road

Wetlands (Estuarine and Marine, Freshwater Emergent, and Freshwater Forested/Shrub) and conservation lands (Florida State Owned Lands and Records Information System (FL-SOLARIS) Conservation Owned Lands and Conservation Easements in the vicinity of Piney Point Road are shown on Figure 15. Development of wetland areas is regulated both by the state through the Florida Environmental Resources Permit (ERP) Program and the Florida Department of Environmental Protection, as well as the federal government through the US Army Corps of Engineers Section 404 Permit program. SOLARIS conservation lands are lands that were acquired for conservation or are currently managed for conservation, outdoor resource-based recreation, or archaeological, cultural or historical resources, geologic or natural features and native ecosystems. A SOLARIS conservation easement is a perpetual right or interest in real property that is appropriate to retaining land or water areas predominantly in their natural, scenic, open, agricultural or wooded condition.

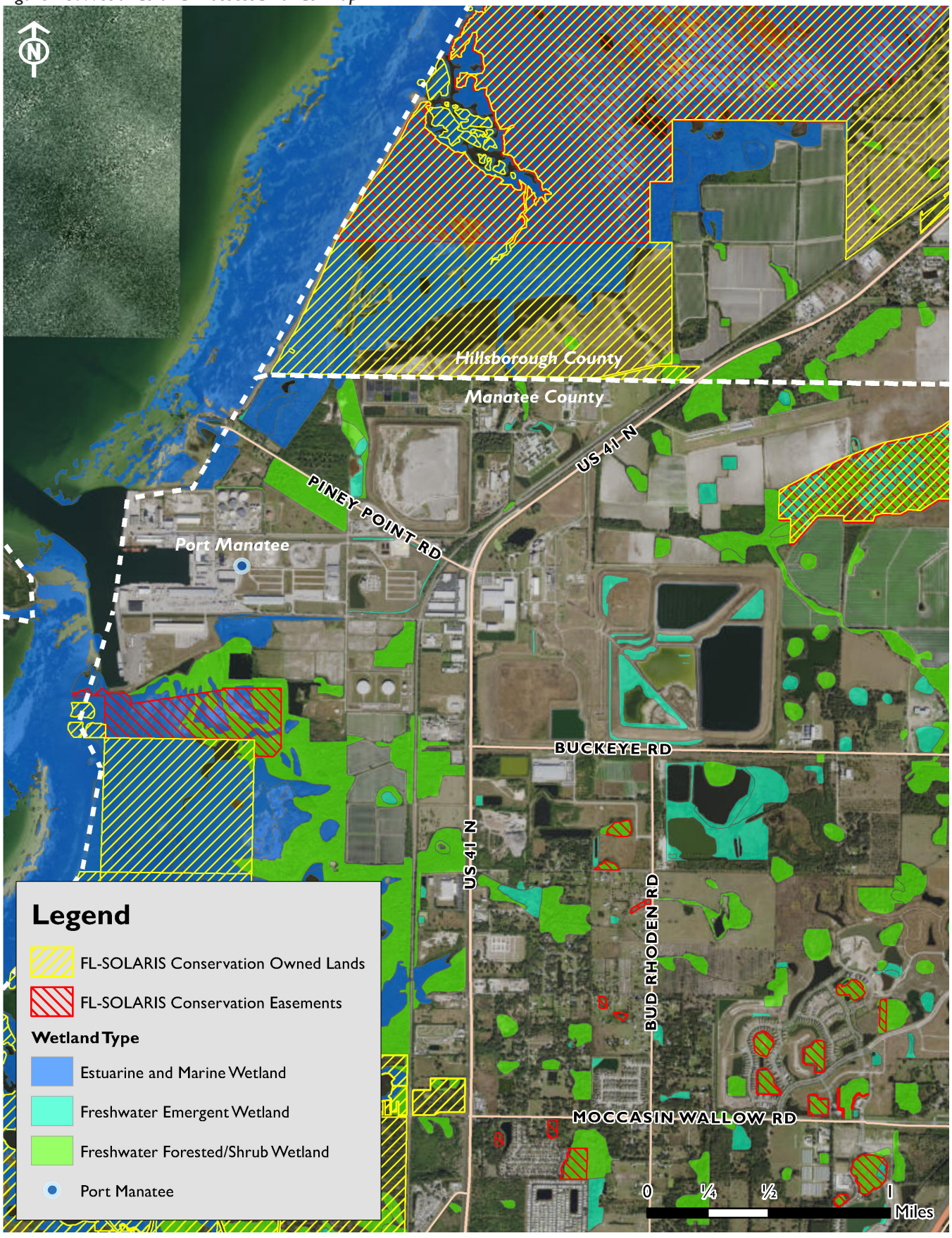
Most of Piney Point Road and the surrounding area is within Flood Zone AE (Special Flood Hazard Area) that has a 1 percent annual chance of flooding in the 100-year storm event, which is considered a high risk for flooding, as depicted on Figure 16. The eastern end of Piney Point Road near US 41 is within Flood Zone X, a low risk area.

All private development within Flood Zone AE is regulated with the goal of ensuring the protection of life and property for those who are situated in these areas. Permits are required to demonstrate that proposed new construction will be safe from flooding Zone AE has an established Base Flood Elevation (BFE), the computed elevation to which floodwater is anticipated to rise during the base flood. The BFE is the regulatory requirement for the elevation or flood-proofing of structures. Structures within Flood Zone AE are also required to have flood insurance. The relationship between the BFE and a structure's elevation determines the flood insurance premium. There are no such requirements for construction within Flood Zone X.

2.4 Community Facilities

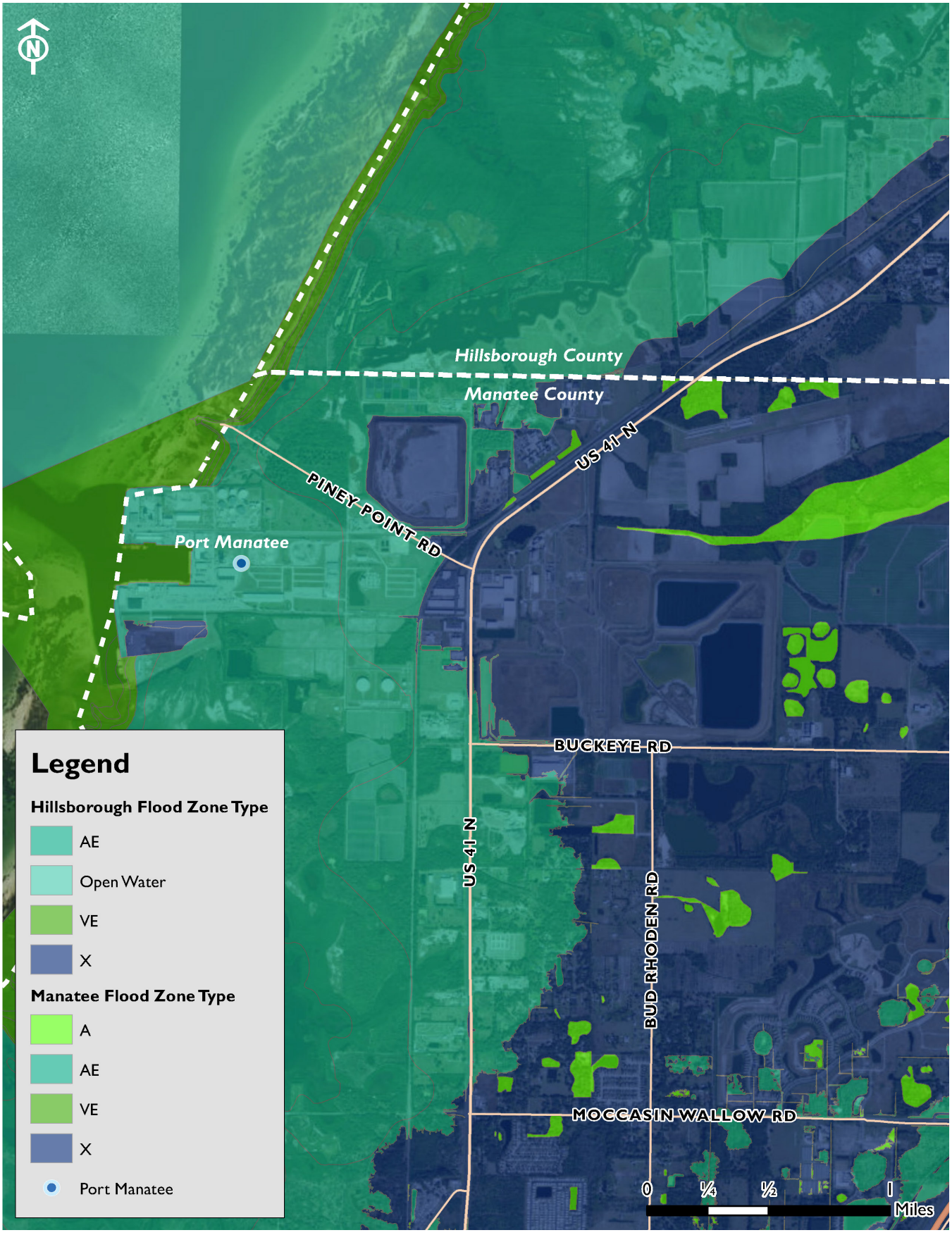
A query of schools, churches, police and fire stations, and civic spaces was performed within the immediate vicinity of Piney Point Road. No community facility infrastructure was located within the study area based on available GIS information.

Figure 15:Wetlands and Protected Lands Map



Source: FDEP GIS Data

Figure 16: Flood Zone Map



Source: FEMA NFHL Viewer

SECTION 3
PURPOSE AND NEED DEVELOPMENT

SECTION 3: PURPOSE AND NEED DEVELOPMENT

According to the regulations for implementing the National Environmental Policy Act, specifically 40 CFR Part 1502.13 Purpose and Need, the purpose and need statement for a project "….shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action". Per the guidance of the PD&E Manual, the purpose and need for a project is a basis for the development of the range of reasonable alternatives required in an Environmental Impact Statement (EIS), or identification of the build alternative(s) for other Classes of Action (COAs). The purpose and need for the project also assists the Lead Federal Agency in the evaluation and selection of alternatives.

3.1 Purpose

The PD&E Manual states that "the purpose identifies the primary goals of the project and guides the alternatives that will be considered and developed in response to the established need. It should be broad enough to encompass a reasonable range of alternatives for an Environmental Impact Statement (EIS) and not be so narrow as to preclude a range of alternatives that could reasonably meet the defined objectives."

3.1.1 Primary Purpose

The primary purpose of the project is to improve Piney Point Road so that it can provide reliable access that meets current traffic demands while accommodating projected future growth in terms of regional population, as well as increased throughput at Port Manatee.

3.1.2 Secondary Purpose

The secondary purpose of the project is to enhance safety on Piney Point Road for all roadway users.

3.2 Need

The PD&E Manual states that "the need for the project arises from deficiencies, issues, and/or concerns that currently exist or are expected to occur within the project area. The need serves as the foundation for the proposed project and establishes the rationale for pursuing the action. The need should consist of a factual, objective description of the specific transportation problem supported by data and analysis."

In order to determine and describe the need for improvements on this identified segment of Piney Point Road, the remainder of this study will explore several topic areas, including project status, stakeholder coordination, capacity and transportation demand, legislation, social demands and economic development, and safety and roadway deficiencies. By providing a detailed analysis of the aforementioned, this study seeks to convey a factual and objective view of the current and projected conditions on Piney Point Road, and the corresponding effect(s) on future growth at Port Manatee.

3.2.1 Project Status

FDOT District One's Freight Mobility and Trade Plan (FMTP) steers freight planning and policy development to enhance the efficiency of freight mobility throughout the District. Objective 1 of the FDOT District One FMTP identifies capitalizing on the freight transportation advantages of Florida through collaboration on economic development, trade, and logistics program. Table 1 describes the strategy and action items of the FMTP towards meeting this objective. Improvements and enhancements to Piney Point Road are all salient examples of the action items provided in the FMTP.

Table 1: FDOT District One FMTP Chapter 3 - Implementation Guide (Objective 1)

Objective 1: Capitalize on the Freight Transportation Advantages of Florida through Collaboration on Economic Development, Trade, and Logistics Program.

"Characterize and highlight the strategic strengths of Florida's freight transportation system, specifically in District One, including hubs like seaports, airports, and intermodal logistics centers collaboratively with industry, and with other agencies and states, to establish Florida as the international gateway for trade."

Strategy: Maximize the strategic advantage of District One's transportation hubs for trade logistics.	**Action Items:**	1. Collaborate with Port Manatee in highlighting the unique strengths of this facility.
		2. Support both Port Manatee and District One airports in determining criteria for strategic investments in tandem with private investments to respond to market needs in trade logistics development. In particular, assist airports in District One in identifying logistics market opportunities that leverage the capabilities and resources readily available as well as those that can be realized with FDOT funding assistance.
		3. Provide guidance involving the determination of the operating characteristics of transportation hubs to improve the connecting distribution/transportation system to match their logistic needs and opportunities.
		4. Support a comprehensive plan to expand international exports, and intrastate and interstate commerce.

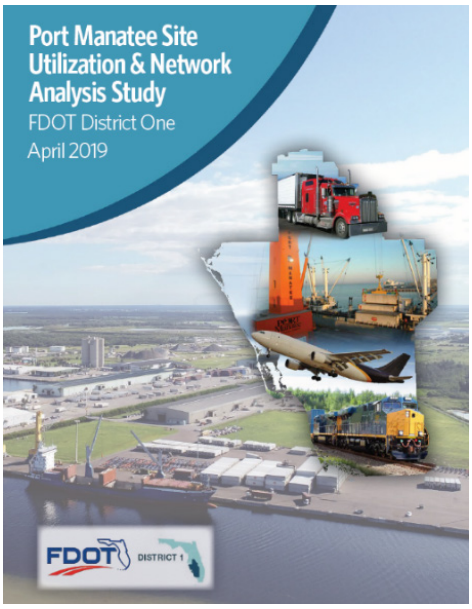
Piney Point Road is located within the planning purview of the Sarasota Manatee Metropolitan Planning Organization (MPO). Links are provided herein to the MPO's FY 2019/2020 – 2023/2034 Transportation Improvement Program (TIP), as well as the 2040 Long Range Transportation Plan (LRTP).

The Freight Mobility section of the Sarasota Manatee MPO's 2040 LRTP identifies two important projects in the cost feasible plan that improve major freight corridors and improve access to Port Manatee. Both projects are relevant to enhancing Piney Point Road, and include the Port Manatee Connector and EZ Flyover / East-West Connector. Taken from the Manatee County Northwest County Plan, the text below provides a high-level description of both of the aforementioned projects:

- The **Port Manatee Connector** is a proposed high-speed connection linking Port Manatee to Interstate 75 and a new or improved interchange on I-75 with potential improvements to local roads in the area to provide necessary infrastructure to aid in the development of the port.
- The **EZ Flyover / East-West Connector** is a proposed flyover/grade separated roadway across US 41 linking Port Manatee and the Port Manatee Encouragement Zone. This will eliminate trucks having to leave and re-enter the port security area and the breaking down of loads to conform to weight restriction on US 41. This will expedite truck movement and reduce the cost of handling shipments through the County.

In addition, future improvements to Piney Point Road meet the MPO's stated LRTP Goal #3 of *Promoting Economic Vitality and Viability through Regional Coordination of Intermodal System* as well as the subsequent Objective #3.1 of strengthening regional access to the region's economic engines, including Port Manatee.

FDOT District One completed the Port Manatee Site Utilization and Network Analysis Study in April of 2019 (Port Manatee Study). A traffic analysis of the Port's surrounding transportation network was conducted as part of this study. From this analysis, Piney Point Road was identified as requiring further study. In the Roadway Recommendations section, the study stated that "based on the extent of the damage and current condition of Piney Point Road, redesign and reconstruction of the road is advised. Smaller projects for patching and asphalt overlay may be applicable in the short term; however, these should only be used as temporary fixes during planning for full reconstruction."



3.2.1.1 Stakeholder Coordination

FDOT engaged multiple stakeholders throughout the development of this Needs Assessment for Piney Point Road. The following text provides a description of these coordination efforts:

An in-person meeting was held with George Isiminger (Senior Director of Planning, Engineering, and Government Affairs) of Port Manatee on Thursday, September 12, 2019 at the FDOT District 1 Office (801 N Broadway Ave, Bartow, FL 33830) to discuss the Port's perception of the current state of Piney Point Road and its impact on the Port's ability to move freight in-and-out of the Port. The Port emphasized the role that Piney Point Road played in regards to Port operations and the movement of goods to-and-from the Port. The Port also mentioned the eventuality of using S. Dock Street for the processing of trucks. A timeline for this project is currently undefined and is contingent upon the availability of funding. The Port also mentioned potential long-term development plans west of Reeder Road that include expansion of the Port for both waterside and upland infrastructure improvements. A timeline for this action is currently unknown and depends on economic development trends and tenant acquisition opportunities.

A teleconference was held with Brian Martineau (Project Manager) of Manatee County Public Works on Friday, September 27, 2019 to discuss the County's Piney Point Road resurfacing project. Project limits for resurfacing were Reeder Road (west) to the pavement change (asphalt to concrete) occurring east of the CSXT tracks, prior to the intersection of Piney Point and US 41, traveling east. At the time of the conference call, all work had been completed with the exception of striping. As of early-October 2019, the project was 100 percent complete.

An in-person meeting was held with Leigh Holt (Planning Assistant) of the Sarasota-Manatee MPO on Monday, October 21, 2019 at the MPO (8100 15th St E, Sarasota, FL 34243) to ensure inter-agency coordination on efforts related to Piney Point Road. The MPO, having identified expanding freight capacity at Port Manatee within its State Legislative Priorities (2018), is fully-aware of the vital role that Piney Point Road serves in the movement of freight to-and-from the region. The MPO's "call for projects" is occurring concurrently with the drafting of this report. FDOT will coordinate with the MPO for inclusion of Piney Point Road within the MPO's future planning efforts. The MPO has provided access to StreetLight data to assist in this needs assessment effort.

3.2.2 System Linkage and Modal Interrelationships

Florida's SIS Policy Plan establishes the policy framework for planning and managing Florida's Strategic Intermodal System, the high priority network of transportation facilities important to the state's economic competitiveness. The SIS comprises a statewide network of high priority transportation facilities and services, including the state's largest and most significant commercial service airports, spaceports, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways and highways. The SIS is intended to enhance Florida's economic competitiveness by focusing limited state resources on transportation facilities that are critical to Florida's economy and quality of life.

This freight-critical 0.57 mile segment of Piney Point Road is designated as part of FDOT's Florida's Strategic Intermodal System (SIS) network as a Strategic Highway Connector, and functions as the primary entry/exit roadway for Port Manatee traffic. Piney Point Road is the conduit to the regional movement of goods, linking an SIS Seaport (Port Manatee) to a Strategic Highway Connecter (US 41) and two SIS Highway Corridors (I-75 and I-275). US 41 is a major north-south highway that traverses from Miami to the Upper Peninsula of Michigan and provides vehicular access from Port Manatee to I-75 and I-275, allowing trucks to gain access to the interstate highway

systems for long-haul routes. Figure 17 displays Piney Point Road's interaction with the regional SIS network.

There are two at-grade rail crossings that intersect Piney Point Road, as shown in the rail crossing map in Figure 18. Both railways are components of the SIS network, designated as SIS Railway Corridors. The CSXT rail corridor crossing occurs 0.10 miles west of the intersection of Piney Point Road and US 41, as shown in Figure 19. Figure 20 displays the Port Manatee's short-line railroad, crossing Piney Point Road approximately 0.28 miles from the intersection at US 41. The CSXT crossing contains warning lights and a single arm in each direction while the Port Manatee Railroad crossing only contains warning lights.

To assist in determining the amount of activity occurring at each at-grade crossing, a crossing inventory was utilized for both the Port Manatee crossing and the CSXT crossing. This data was accessed using the U.S. Department of Transportation (USDOT) Federal Rail Administration Crossing Inventory Forms, included as Appendix A. On average, a total of 18 daily crossings occur on the Port Manatee line. These include two train crossings between 6:00am and 6:00pm and 16 crossings from 6:00pm to 6:00am, which includes two switching trains. The typical speed range for trains over this crossing is 5-10mph. The CSXT crossing experiences significantly less traffic, with only one switching train per day, on average. The typical speed range over the CSXT crossing is 40mph.

Given the amount of activity occurring on the Port Manatee rail line over Piney Point Road, any future study of this corridor should include an evaluation of enhanced safety and signaling equipment for the Port Manatee at-grade crossing.

Figure 17: Regional SIS Network

Figure 18: Rail Crossing Map

Source: FDOT Transportation and Data Analytics Office

Figure 19: CSXT Rail Line At-Grade Crossing Over Piney Point Road

Figure 20: Port Manatee Rail Line At-Grade Crossing Over Piney Point Road

3.2.3 Capacity and Transportation Demand

This Needs Assessment collected and analyzed data related to current and future conditions experienced on Piney Point Road to illustrate roadway capacity and transportation demand. Current conditions were assessed by collecting Port Manatee gate transaction data and Average Annual Daily Traffic (AADT), as well as calculating the level of service (LOS) for Piney Point Road. In addition, this study also incorporated StreetLight data, provided by the Sarasota-Manatee MPO, to develop an understanding of origin and destination patterns, as well as traffic flow and congestion patterns.

Future conditions on Piney Point Road were derived via methods used in the Port Manatee Study that consider future growth at Port Manatee, as well as projected population growth in the region. Based on the calculations provided in the Port Manatee Study, the projected growth of freight traffic at the Port is 8.3 percent per year and vehicular traffic is projected to grow at a rate of 2.97 percent per year.

3.2.3.1 Piney Point Road Current Conditions

Port Manatee Gate Counts

Port Manatee has experienced a steady increase in gate transactions (entry and exit) over the past several years. Table 2 shows a breakdown of inbound and total transactions, as well as the percent increase over the previous year. The partial-year data provided for 2019 indicates a total number of transactions that will continue the trend of exceeding the previous years' total. Further, the 2019 data does not reflect transactions occurring between October and December 31. Historically, this time period experiences the Port's heaviest traffic of the year, coinciding with melon season.

Port Manatee's North Gate

Based on an assumed 8.3 percent growth rate, as cited in the Port Manatee Study, gate transactions will exceed 1 million per year by 2024. With Piney Point Road being the collector roadway for this inbound and outbound gate traffic, the increase in volume further illustrates the need for modifications and improvements to the roadway facility.

Table 2: Port Manatee Gate Transactions by Year (2016-2019)

Year	Inbound Gate Transactions	Total Gate Transactions	Percent Increase Over Previous Year
2016	299,407	598,814	-
2017	311,977	623,954	4%
2018	332,627	665,254	6.7%
2019	262,927*	714,460*	7.4%

Source: Port Manatee

**The Port experienced a database failure from 4/23/19 to 7/23/19. Gate transaction data is not available for this time period. Actual gate data for 2019 reflects 262,927 inbound transactions and 535,845 gate transactions, and does not include the period of time during the database failure. The Port estimates these totals represent 75 percent of total transactions and provided 714,460 as a final, estimated gate transaction total for 2019.*

AADT

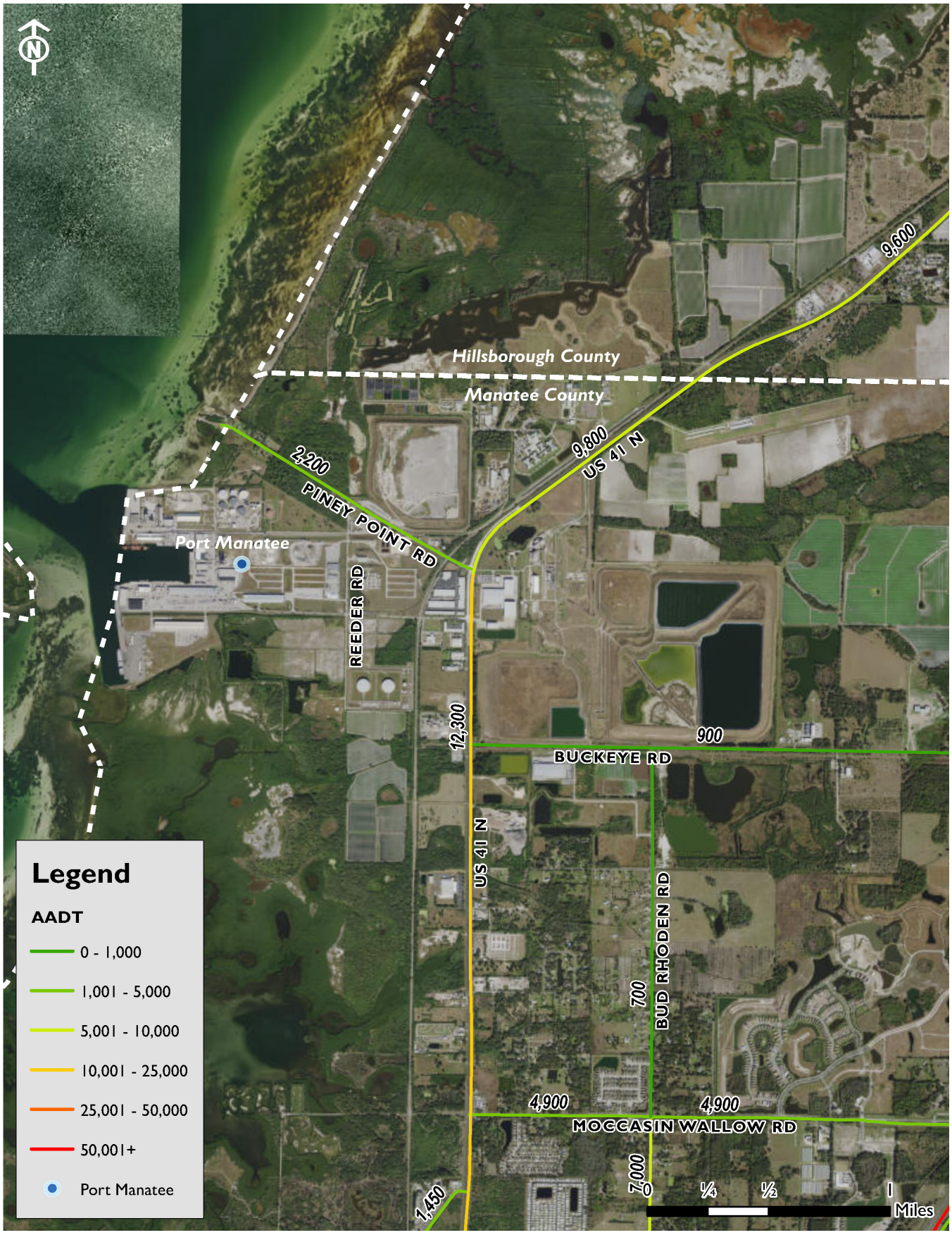
Using data derived from the FDOT Transportation Data and Analytics Office, Piney Point Road was determined to have an AADT of 2,200 (Figure 21). AADT directly attributed to truck traffic was measured at 792 (Figure 22). 2019 Port Manatee gate counts were used as comparison to provide the most recently available dataset. Based on the gate count information provided above, Port Manatee had 714,460 gate transactions during 2019. Using the

Port's assumption that 90 percent of these transactions were trucks, this equates to an average of approximately 1,761 trucks per day, based on operating seven days per week (displayed in Table 3). Based on this calculation, there is a difference of greater than 70 percent between the 2017 FDOT truck AADT figure and the 2019 Port Manatee daily truck estimate. The variance between the two data sets (AADT and Port Manatee gate transactions) can be explained, in part, by factors such as the limited data collection period for AADT, AADT collection not occurring during peak seasons for the Port, and throughput and truck traffic growth from 2017 to 2019.

Table 3: Piney Point Road AADT and Truck AADT Comparison with Port Manatee Daily Gate Transactions and Truck Estimates

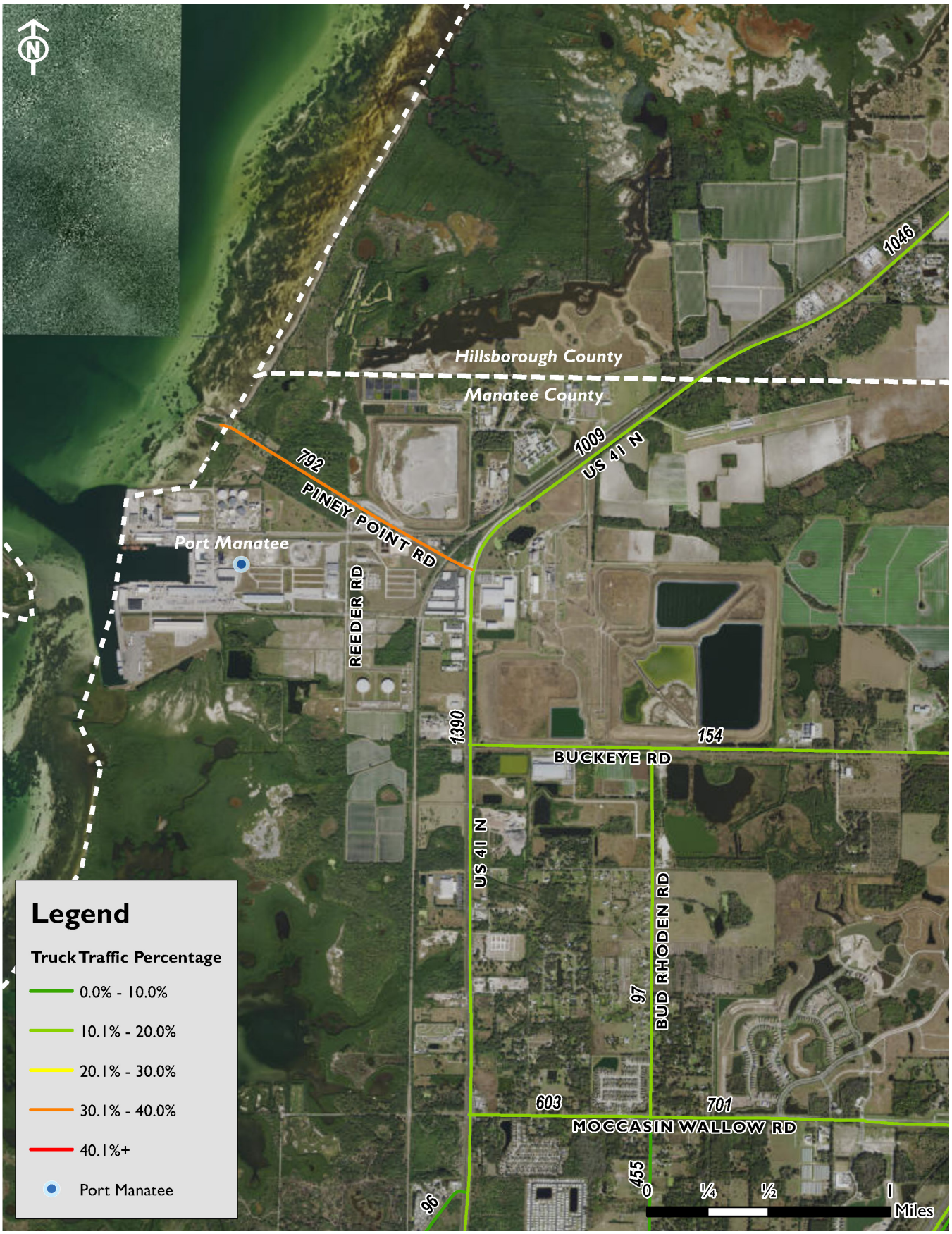
FDOT AADT (2017)	FDOT Truck AADT (2017)	Port Manatee Daily Gate Transactions (2019)	Port Manatee Daily Truck Estimate (2019)
2,200	792	1,957	1,761

Figure 21: Network AADT (2017)



Source: FDOT Transportation and Data Analytics Office

Figure 22: Network Truck Traffic AADT and Percentage (2017)



Source: FDOT Transportation and Data Analytics Office

Roadway Level of Service

The data collection effort performed as part of the Port Manatee Study informs this needs assessment regarding LOS conditions experienced on Piney Point Road. As part of the Port Manatee Study, peak hour capacity analysis was conducted for Piney Point Road using Highway Capacity Software (HCS 7). Peak design hour volumes were determined using the 2017 FDOT AADT. The peak design hour K-Factor, directional distribution (D-Factor), and other data were developed based on the Transportation Research Board (TRB) Highway Capacity Manual 6th Edition (HCM 6). Based on these guidelines, the directional split of traffic for Piney Point Road is assumed to be 60/40, meaning 60 percent of two-way hourly traffic travels in one direction, and the remaining 40 percent in the opposite direction.

While Piney Point Road currently functions at LOS B, as shown in Table 4, these calculations do not take into account train crossing movements, slower movements attributed to deteriorated roadway infrastructure, or potential traffic back-up on Piney Point Road caused by security processing and subsequent queuing at Port Manatee's North Gate. It's also important to note that LOS data is affected by limited data collection periods for AADT, AADT collection not occurring during peak seasons for the Port, and throughput and truck traffic growth from the last collection period in 2017.

Table 4: Piney Point Road Level of Service Summary (2017)

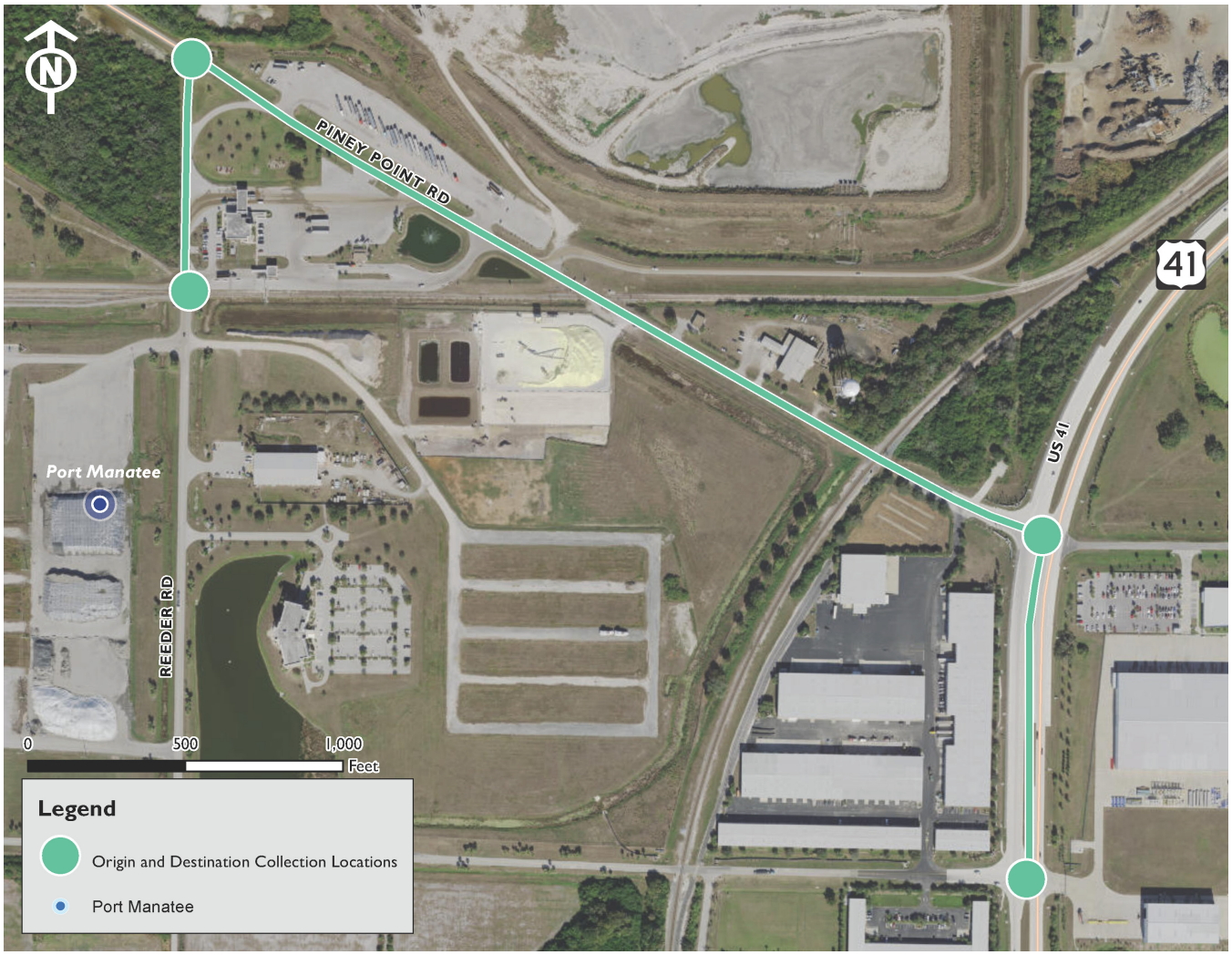
Roadway Segment	Truck %	K-Factor	D-Factor	Peak Hour Volume	LOS
Piney Point Road (AADT Analysis)	36%	15.1%	60%	335	B

Origin and Destination Analysis

To better inform this transportation demand section, origin and destination (O-D) data from StreetLight has been provided by the MPO and analyzed below.

A set of O-D data collection zones were developed to represent the study area. These zones can be any line or polygon that encompasses the specific area or segment being analyzed. The data collection zones provided for this analysis closely resemble the study's logical termini, but also incorporate the intersections of Reeder Road and N. Dock Street, as well as US 41 and S. Dock Street. The O-D data collection zone boundaries are shown below in Figure 23. O-D data is summarized from two different perspectives using the Piney Point Road O-D data collection zones as both a point of origin, as well as the destination. Shaded areas shown on the maps within Figures 24-28 represent traffic analysis zones (TAZ). TAZ are delineated by state and/or local transportation officials for compiling traffic-related data, including this type of O-D collection effort. A TAZ usually consists of one or more census blocks, block groups, or census tracts.

Figure 23: Piney Point Road O-D Data Collection Zone



Considering the Piney Point Road O-D data collection zones as the point of origin, Figure 24 depicts the destinations for all modes of traffic departing from the study area. The most common destinations include those counties adjacent to the study area; however, route patterns also emerge along the I-4 corridor to Orlando and the I-75 corridor, extending north of Albany, GA, and Savannah, GA. A separate origin analysis was conducted specific to truck traffic departing from the Piney Point Road data collection zones, as shown in Figure 25. This dataset also reflects trip patterns to adjacent local counties and along the I-75 and I-4 corridors, but also reflects destinations along the west coast of Florida, into the Florida Panhandle, and west to south Lake Okeechobee.

To better understand trips that ultimately terminate in the Piney Point Road data collection zones, a destination analysis has also been conducted. Converse to the origin analysis described above, this destination dataset provides an understanding of the source of traffic arriving within the Piney Point Road data collection zones. Destination analysis has been performed for all modes (excluding trucks) (Figure 26), as well as those trips specific to truck traffic (Figure 27). Destination analysis data for all modes mirrors the patterns reflected in the origin analysis; however, as it relates to truck trips, destination data captures many more trips from Central and South Florida and the Florida Turnpike and I-95 corridors.

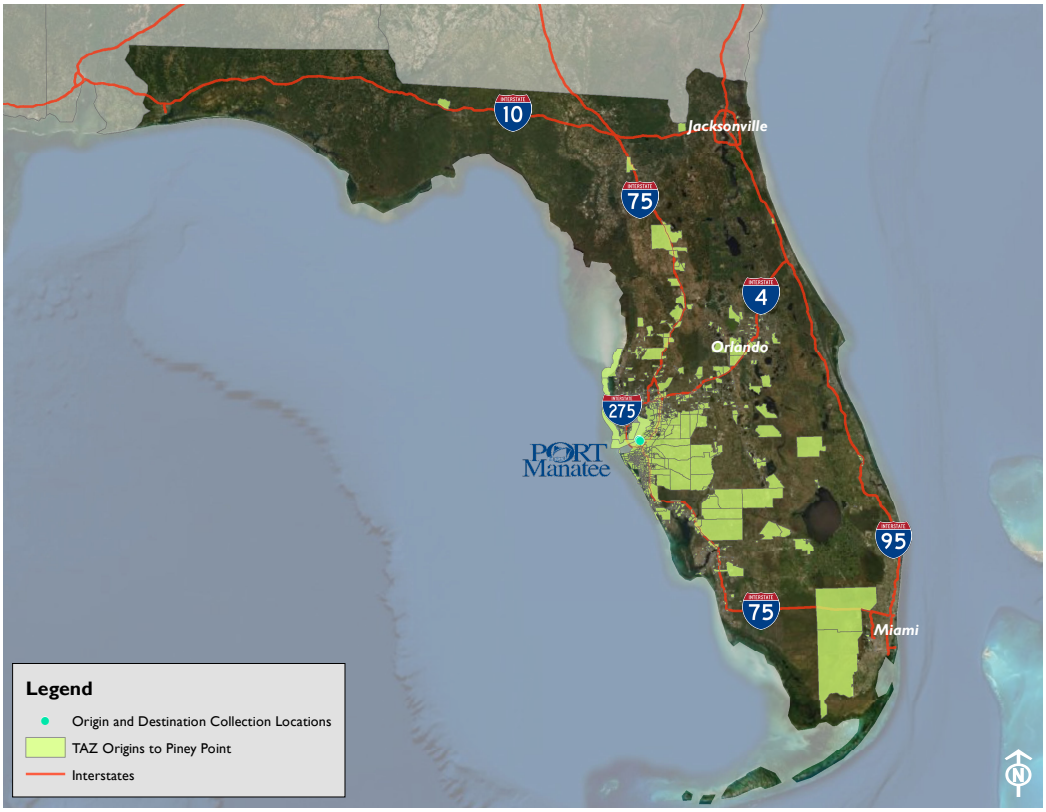
Figure 24: Piney Point Road Origin Analysis (All Modes)

Source: StreetLight InSight

Figure 25: Piney Point Road Origin Analysis (Trucks)

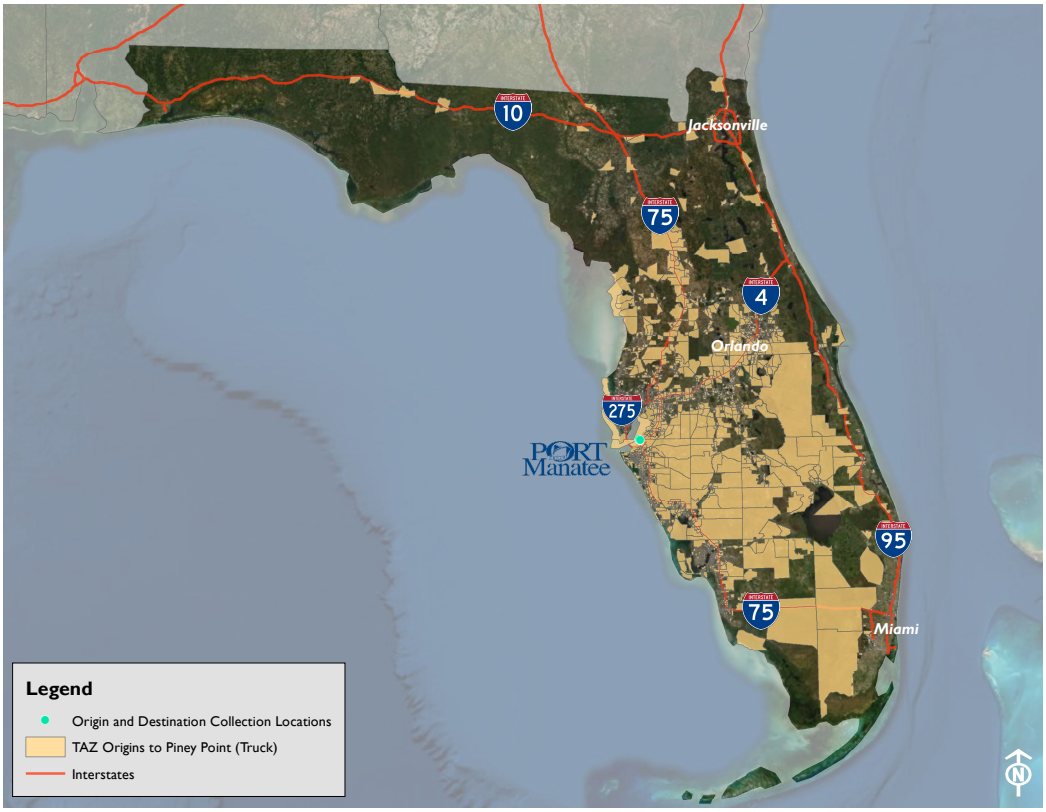
Source: StreetLight InSight

Figure 26: Piney Point Road Destination Analysis (Modes Excluding Trucks)



Source: StreetLight InSight

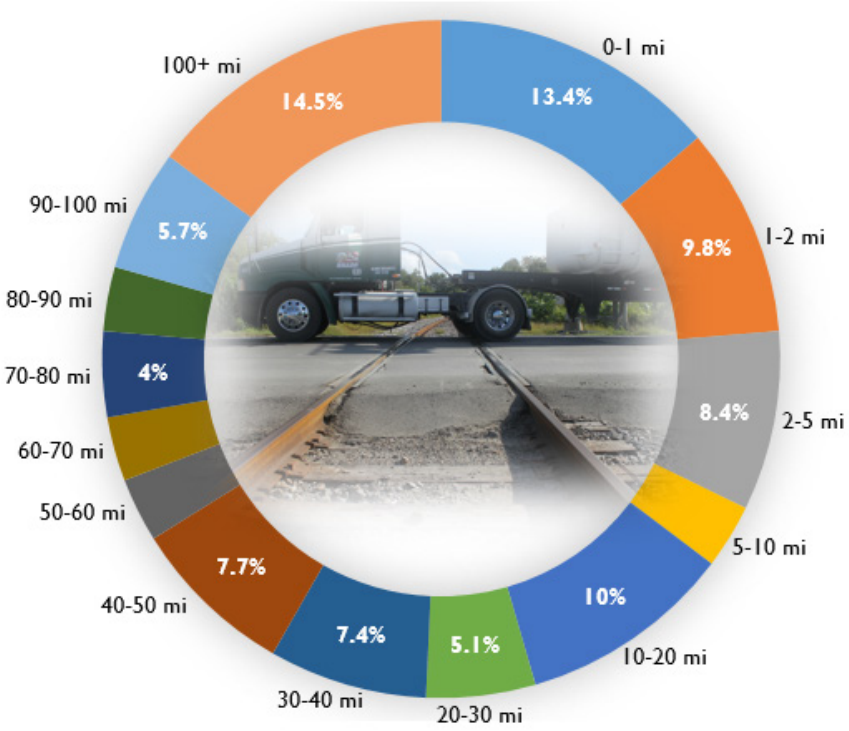
Figure 27: Piney Point Road Destination Analysis (Trucks)



Source: StreetLight InSight

Figure 28 displays the trip length for vehicles whose origin or destination is Port Manatee. Trip length is derived from the average miles for trips starting at the origin zones and ending at the destination zones. Predominant occurrences for trip length fall within the 0-1 mile, 10-20 miles, and 100+ miles classifications. Approximately 36 percent of trips exceed 50 miles in length, while the remaining 64 percent are shorter than 50 miles. Quantifying short distance trips (0-1 mile in length) may become increasingly important in the future should industrial and warehousing development increase within nearby economic development zones.

Figure 28: Trip Length with Port Manatee as an Origin or Destination



Source: StreetLight InSight

Zone Analysis

In order to better understand the volume of truck traffic in the vicinity of Piney Point Road, this report incorporates a zone analysis as part of its data collection effort. Figure 29 depicts the zone created for the purposes of conducting this analysis. According to the StreetLight data, the zone's total truck traffic volume during 2018 was 100,556. This number is limited to truck trips with Port Manatee as an origin or destination, and does not include those trips that are simply passing through the area.

Figure 29: Piney Point Road Zone Analysis Data Collection Zone

For this zone analysis, truck trips have been separated into medium and heavy class truck categories to identify the high-volume peak times and days (highlighted in red). Both datasets are shown below in Tables 5 and 6. Per StreetLight's specifications, column totals stand alone and are not interconnected. Also, the numbers below are based on averages, thus reflecting lower totals for All Days (Mon. – Sun.) when compared to Weekdays (Mon. – Thurs.). These figures are limited to truck trips with Port Manatee as an origin or destination, and do not include trips that are simply passing through the area.

Table 5: Medium Truck Class Traffic Volume

Time of Day	All Days (Mon. – Sun.)	Weekday (Mon. – Thurs.)	Weekend (Sat. – Sun.)
All Day (12am-12am)	11,129	14,607	2,154
Early AM (12am-6am)	1,624	1,914	776
Peak AM (6am-10am)	2,629	3,459	333
Mid-Day (10am-3pm)	5,045	6,909	508
Peak PM (3pm-7pm)	1,517	1,941	369
Late PM (7pm-12am)	315	381	169

Source: StreetLight InSight

Table 6: Heavy Truck Class Traffic Volume

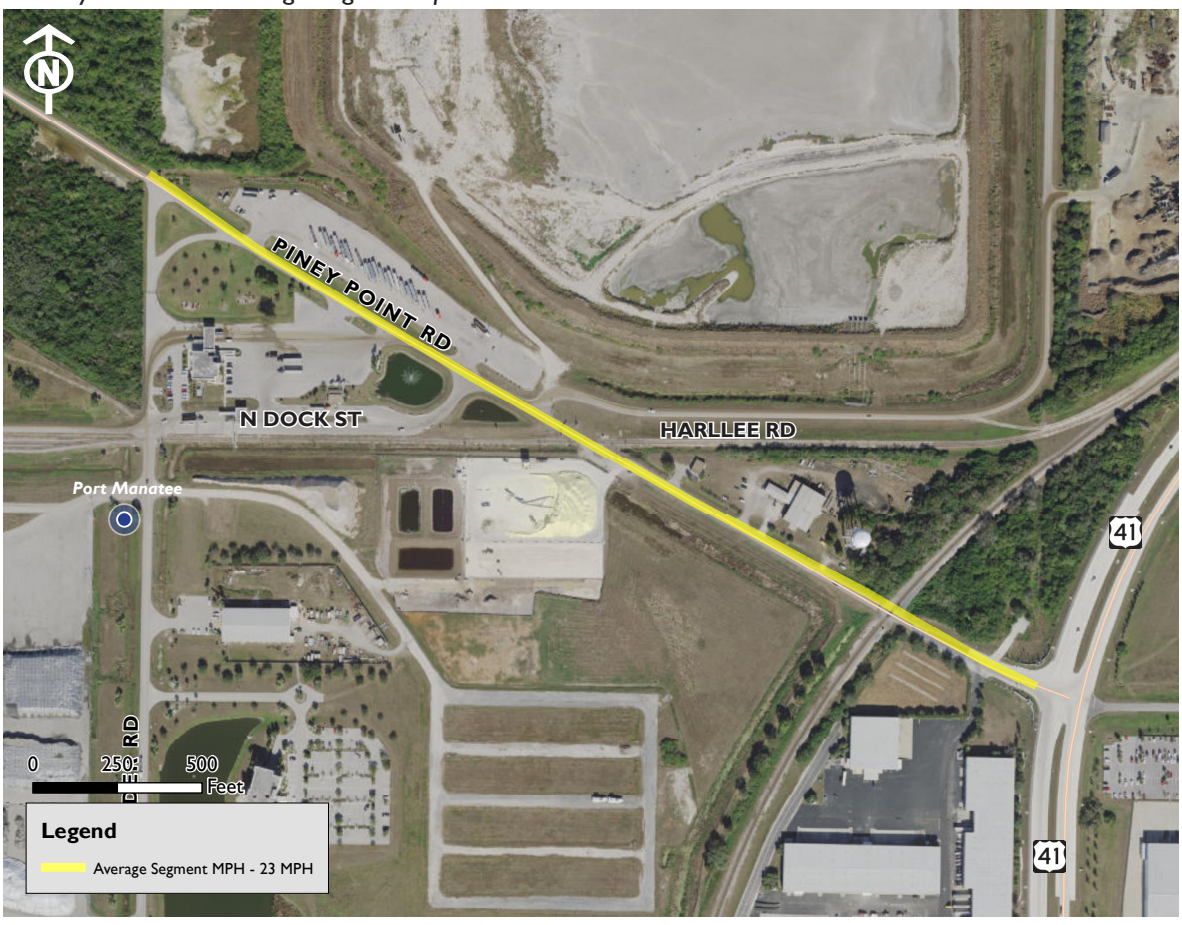
Time of Day	All Days (Mon. – Sun.)	Weekday (Mon. – Thurs.)	Weekend (Sat. – Sun.)
All Day (12am-12am)	89,427	97,834	63,272
Early AM (12am-6am)	15,550	15,867	14,254
Peak AM (6am-10am)	18,204	20,506	11,392
Mid-Day (10am-3pm)	27,556	31,940	14,728
Peak PM (3pm-7pm)	14,560	15,668	10,366
Late PM (7pm-12am)	13,556	13,853	12,531

Source: StreetLight InSight

Segment Analysis

Performing a segment analysis aids in the understanding of how trips move through a particular corridor. Using StreetLight data, a road segment mirroring this study's logical termini, was evaluated in terms of congestion and average segment speed. Both measures account for truck (commercial) trips only. Trips are analyzed through both the start and end points of the segment. The average segment speed for commercial vehicles traveling between the study's logical termini is 23 mph, as shown in Figure 30. Peak congestion periods on Piney Point Road are shown in Table 7 (data for some reporting periods was not available from StreetLight). According to the table, peak congestion within the boundaries of the logical termini occurs Monday-Thursday during the mid-day (10am-3pm) timeframe, when the segment is 31.25 percent congested. Average weekday congestion for Piney Point Road is approximately 24 percent. While these figures do not indicate an extraordinary level of congestion, it is important to consider the effects of further degradation of the roadway over time, and the resulting impact on overall function.

Figure 30: Piney Point Road Average Segment Speed



Source: StreetLight InSight

Table 7: Piney Point Road Segment Peak Congestion Periods

Time of Day	All Days (Mon. – Sun.)	Weekday (Mon. – Thurs.)	Weekend (Sat. – Sun.)
All Day (12am-12am)	17.5%	23.9%	No Data
Early AM (12am-6am)	No Data	No Data	No Data
Peak AM (6am-10am)	14.1%	23.4%	No Data
Mid-Day (10am-3pm)	22.6%	31.25%	No Data
Peak PM (3pm-7pm)	14.1%	19.3%	No Data
Late PM (7pm-12am)	No Data	1.5%	No Data

Source: StreetLight InSight

3.2.3 Piney Point Road Future Conditions

As established within the Port Manatee Study, future conditions for Piney Point Road are estimated considering future growth at Port Manatee, as well as the projected population growth in the region. Specifically, the projected growth of freight traffic is 8.3 percent annually, and vehicular traffic is projected to grow at a rate of 2.97 percent annually. It is important to note that the estimated growth at Port Manatee does not include the potential of any new tenants at the Port; in which case, a higher volume of truck traffic would be assumed.

Using 2017 AADT data obtained from the FDOT Transportation Data and Analytics Office as a baseline, AADT was projected for Piney Point Road in the year 2025, as shown in Table 8. As displayed in Table 5, overall AADT is projected to increase on Piney Point Road from 2,200 to 3,278 by the year 2025, an increase of 49 percent. By 2025, almost half of the vehicular traffic on Piney Point Road will be truck traffic. A roadway LOS comparison was also prepared as part of the Port Manatee Study and shown below in Table 9. Again, the baseline year is 2017, and projections are provided for 2025. Over this planning horizon, LOS for Piney Point Road is expected to fall from a current level of "B" to "C".

Table 8: Piney Point Road Projected AADT Comparison (2017-2025)

Piney Point Road	**2017 Conditions**			**2025 Projections**		
	Truck AADT	AADT	% Truck Traffic	Truck AADT	AADT	% Truck Traffic
	792	2,200	36%	1,499	3,279	46%

Table 9: Piney Point Road Projected LOS Comparison (2017-2025)

Roadway	**Truck %**		**Peak Hour Volume**		**LOS**	
	2017	2025	2017	2025	2017	2025
Piney Point Road (AADT Analysis)	36%	46%	335	495	B	C

3.2.4 Legislation

The current iteration of the Sarasota/Manatee MPO State Legislative Priorities (2018), published September 8, 2017, identified expanding Port Manatee freight capacity among its four Transportation Projects, as shown in Appendix A.

The MPO's objective is to invest in Port Manatee projects that increase cargo capacity and support intermodal connections to the port. Piney Point Road serves a vital intermodal connection with a direct link to increased cargo capacity at Port Manatee. Initiating planning processes relevant to the improvement of Piney Point Road allows for the proactive evaluation of alternatives in anticipation of increased growth occurring at Port Manatee, thus advancing the MPO's stated legislative priorities.

3.2.5 Social Demands and Economic Development

Port Manatee is spread across 1,100 acres on Florida's west coast; where the Gulf of Mexico and Tampa Bay meet. The Port is supported by nearly 5,000 acres of mostly undeveloped land located within economic development and foreign trade zones offering incentivized development opportunities. Port Manatee supports more than 24,000 direct and indirect jobs and generates more than $2.3 billion in annual economic impacts for the region.

Aerial View of Port Manatee

During FY 2019, Port Manatee established new highs in total tonnage, containerized cargo units and tons and liquid and dry bulk tonnage. The Port handled a record 57,255 TEUs of containerized cargo during fiscal year 2019, up 49.3 percent over the preceding 12-month span. Container tons rose more than 40 percent, to an all-time peak of 535,176. Port Manatee cargo tonnage for FY19 reached a record 10,081,743, representing a 6.2 percent gain over fiscal 2018. The Port's largest sector, liquid bulk, including petroleum products and juice concentrates, saw a 5 percent boost, to a peak of 6,514,807 tons. Dry bulk tonnage was up 13.7 percent, to a record 2,239,965. Granite and limestone led the dry bulk surge, rising 28.9 percent to 824,199 tons *(source: Port Manatee press release 10/15/2019).*

The record-breaking numbers experienced at Port Manatee highlight the critical role that Piney Point Road occupies as part of the regional and state economies. As the demands placed on this critical piece of SIS infrastructure increase, so too are the need for roadway improvements.

Special Designation and Economic Development Zones

Several plans and policies exist that encourage business development in-and-around Port Manatee. As mentioned previously, economic development and foreign trade zones offering incentivized development opportunities have been established in the vicinity of Piney Point Road. Since Piney Point Road is the primary access road to the Port, future business development that supports Port Manatee is likely to contribute to an increase in traffic on Piney Point Road.

Container Operations at Port Manatee

The Florida International Gateway Improvement District is located on Tampa Bay and includes Port Manatee east to I-75 extending from the Manatee County line in the north to Buckeye Road to the south. The district generates revenues for the Port area from tax increment financing. The Florida International Gateway (FIG) is an area within the Florida International Gateway Improvement District that encompasses nearly 5,000 acres of largely undeveloped land adjacent to Port Manatee. Through cooperation with the Manatee County Port Authority, Manatee County government and the State of Florida, land within the district offers an array of incentives, effectively leveling the economic development playing field with neighboring states.

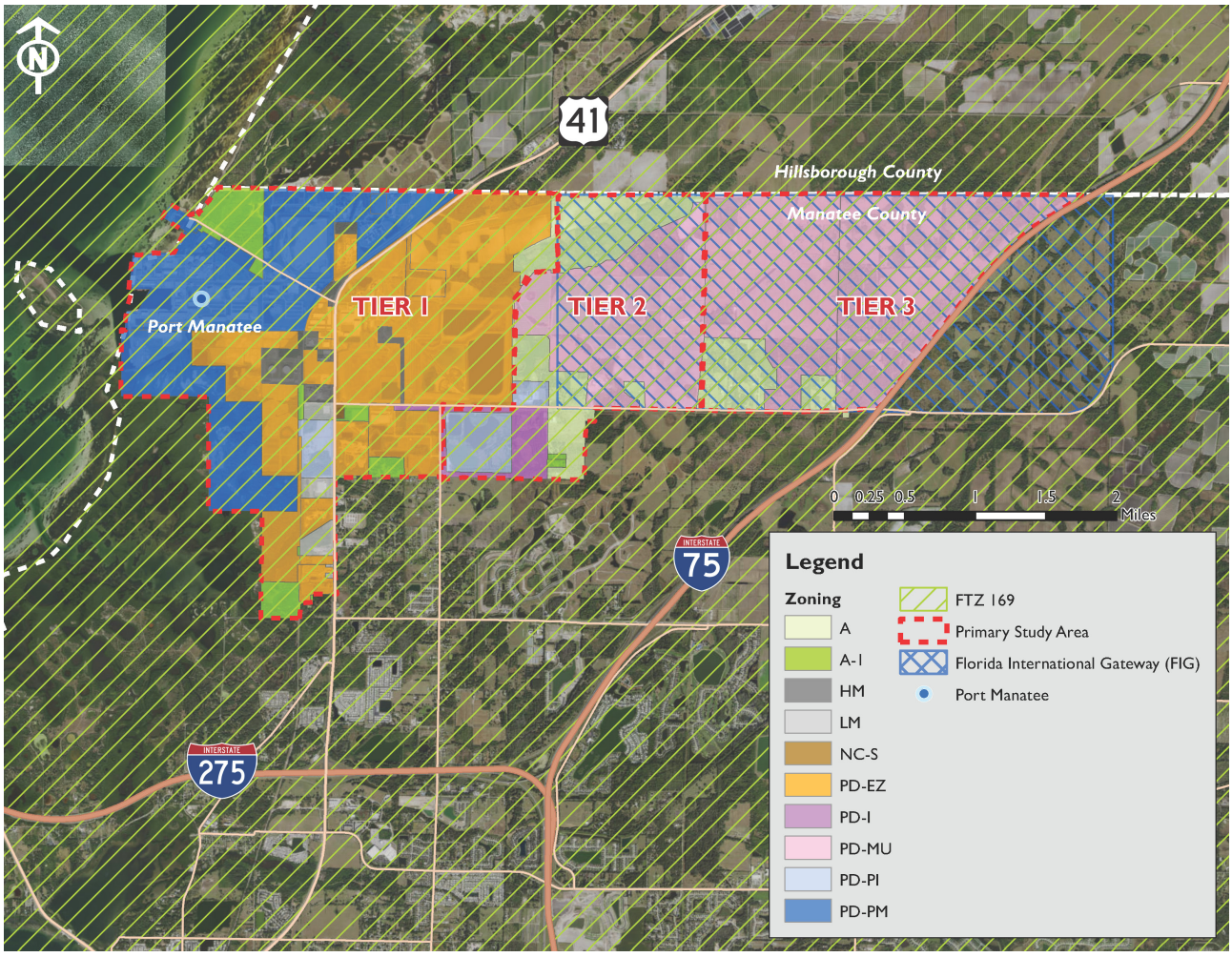
Foreign Trade Zones (FTZ) are areas where foreign and domestic merchandise located in the zone are generally considered to be in "international commerce." Port Manatee is FTZ #169. Unlike most other ports, the entire port is considered a Foreign Trade Zone. Companies and tenants benefit from FTZs as this trade status provides an opportunity to reduce certain operating costs associated with a U.S. location that are avoided when operating from a foreign site. FTZ's can be used to defer, reduce or even eliminate customs duties altogether.

Most of the area west of US 41 in northwest Manatee County is within the Planned Development Port Manatee (PDPM) District. The PDPM district is intended to provide land for intermodal transportation, terminal and other seaport uses to locate and operate, including waterborne commerce, business services, commercial, industrial, manufacturing and product assembly uses customarily associated with seaports, ports of entry and foreign trade zones. The district is intended to accommodate seaport related activities in a manner which is compatible with surrounding uses, to protect land within this district from the encroachment of incompatible uses and to guide development within this district in a manner that complies with the Manatee County Comprehensive Plan and the Port Manatee Master Plan.

Manatee County's Land Development Code also established a Planned Development Encouragement Zone (PDEZ) which encourages port-compatible development on vacant lands in the vicinity of Port Manatee. This could include manufacturing, warehouses, distribution centers and a range of other light and heavy industrial uses. Four areas totaling over 1,000 acres have been rezoned to the new PDEZ district and additional parcels are being considered for PDEZ zoning. The PDEZ provides the ability for a landowner to get advance approval for a variety of port-related uses. Once the PDEZ re-zoning is approved and the list of the various potential uses with the rezone, the property owner can then market their property for the list of available uses. Once a decision is made to develop the property, the process will be administrative.

The FIG Improvement District, PDPM District, PDEZ District, and FTZ 169 are depicted on Figure 31.

Figure 31: Port Manatee Special Designation/Economic Development Zones



Growth forecasts are also predicting steady, but moderate growth in container trade and general cargo imports, a continued reduction in total dry bulk exports, and a buildup in terms of volume related to new dry bulk import commodities.

The tonnage moving over Port Manatee's berths is forecast to increase at an annual average rate of 8.3 percent through 2025. This projection is derived from the 2016 Port Manatee Master Plan, and confirmed with the Port staff in March 2019. The increases in projected import cargoes through 2025 are primarily led by liquid and dry bulks, followed by general cargo and containers. Export cargo over the same forecast period show substantial container growth, some growth in liquid bulks, but reductions in general cargoes and dry bulks.

Contributing factors include, but are not limited to:

- An announced and planned increase in tank farm activity at Port Manatee is projected to result in a nearly 500 percent increase in liquid bulk import tonnage.
- The emergence of new import commodities, such as fly ash and sulphur, expected to exhibit annual average volume gains of 7.5 percent through 2025.
- Exports are expected to continue to decrease in tonnage; however, historically, Port Manatee experiences a cyclical pattern in export volumes.
- Del Monte and World Direct Shipping are the two major container shippers located at Port Manatee. Fiscal year 2019 volumes of nearly 58,000 TEUs was the largest annual container throughput in the Port's history.
- New business opportunities would have an impact on container growth for the Port. Opportunities previously sited include exports to Cuba, a pilot program for cold-treated fruit from South America, a shift from refrigerated cargo "reefers", to containers, and a new liner service to account for regional growth.

Given the favorable state and local land use policies and regulations pertaining to Port Manatee and its surrounding area and the positive economic outlook exhibited by the Port for future growth, it is reasonable to assume that Port activity will see moderate growth over the next decade. This growth will translate into increased traffic, particularly truck traffic, on Piney Point Road, the primary access road to the Port.

3.2.6 Safety

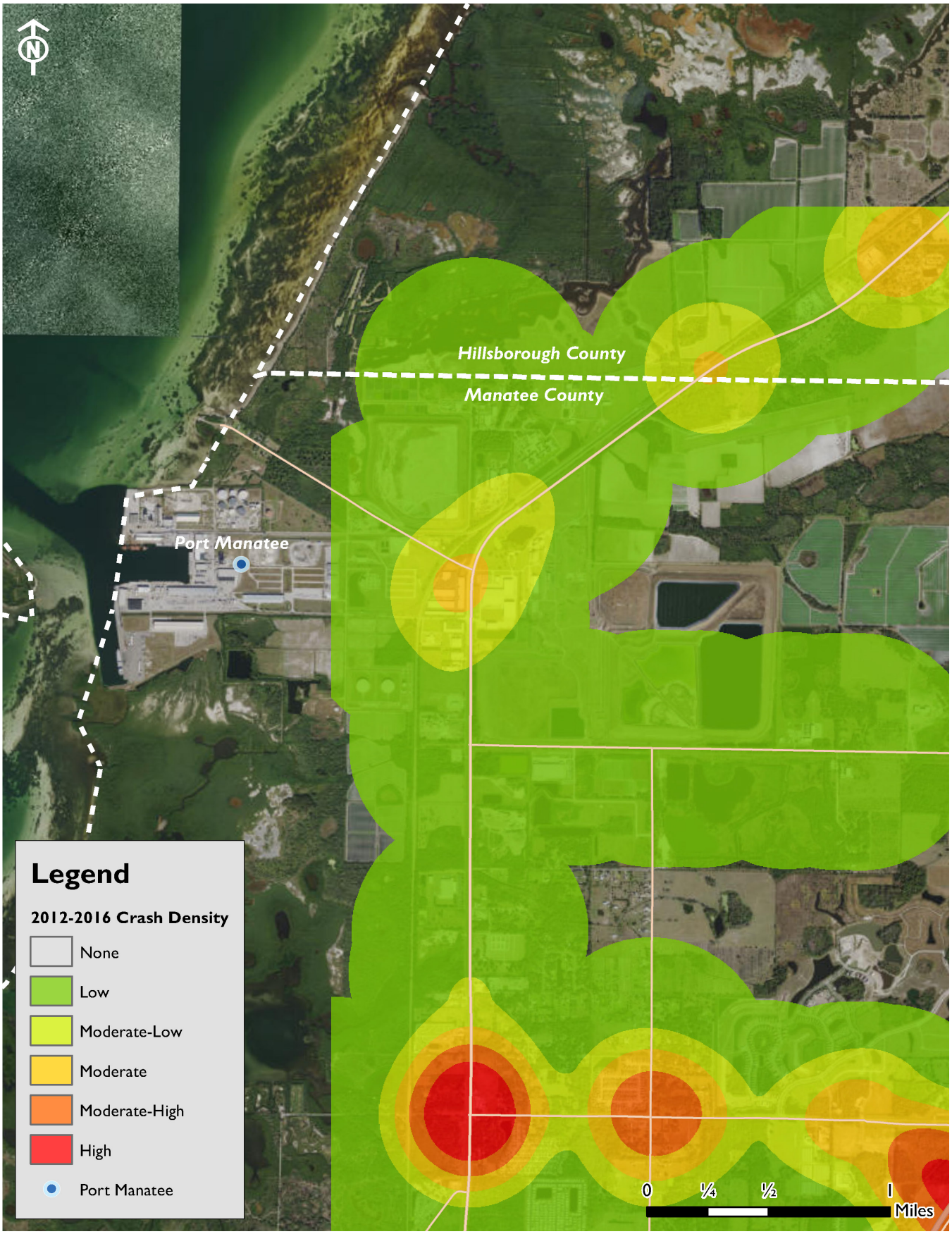
Potential safety issues may arise from the rail crossing infrastructure currently in place at the Port Manatee Railroad at-grade crossing of Piney Point Road. According to a USDOT FRA accident/incident report search (Appendix C), the last recorded accident at this crossing occurred in November of 2004. This accident involved a truck-trailer being struck by a light locomotive heading west at an estimated speed of four mph. The report indicates that the driver of the truck-trailer failed to stop at the crossing. As mentioned previously, this crossing is signaled only with warning lights, and given the average number of crossings occurring here on a daily basis, further study is warranted related to upgrading this safety/crossing infrastructure, as part of any future upgrades to the roadway.

Some hazardous materials are transported through the Port including fuels and fertilizer, which if spilled due to an accident, could present a hazard to human health or the environment. Also, many of the trucks traveling to and from Port Manatee carry extra heavy loads that could make them more prone to tipping or weaving because of their load size.

The State Safety Office (SSO) Crash File data was queried to access crash data for Piney Point Road. Figure 32 depicts the crash density analysis for the period of 2012 to 2016. Piney Point Road experienced a low crash density in the years 2012 to 2016 with only a single accident reported. Data for that accident reports normal conditions, no injuries, and no other vehicle involved. Although the crash density appears to increase to moderate-low on Piney Point Road as you get closer to the intersection with US 41, no additional crashes were reported. Five crashes were reported at the intersection of Piney Point Road and US 41, all of which were due to driver error (running a stop sign, failing to yield, and careless driving).

As both population and port-related business/activity rise, subsequent increased demand and congestion on the facility has the potential to cause an uptick in the number of incidents occurring on both Piney Point Road and at the US 41 intersection. Upgrading Piney Point Road to current design standards should improve safety conditions for all roadway users.

Figure 32: Crash Density Analysis (2012-2016)



Source: FDOT Unified Basemap Repository

3.2.7 Roadway Deficiencies

Based on the findings of the Port Manatee Study, conditions within the project's logical termini on Piney Point Road are deficient in a number of areas. Deficiencies experienced on Piney Point Road include, but are not limited to substandard geometrics, poor pavement condition, insufficient drainage, and inadequate SIS roadway design standards. At the time of the Port Manatee Study, Piney Point Road was observed and described as raveling, disintegrating, and rutting in several areas by the study, as shown in Figures 33-40.

- **Raveling** is the deterioration or loss of the pavement surface course. It can be caused by improper construction leading to insufficient adhesion between the asphalt binder and the aggregate. If untreated, the pavement will continue to deteriorate as the larger aggregate in the base course will break away, leading to disintegration. Recommendations for raveling to this magnitude typically entail an asphalt overlay to protect the base course and reapply an adequate surface course.
- **Disintegration** is the progressive breaking of the pavement layers into smaller and smaller pieces until the pavement is fully deteriorated. If left untreated, the subgrade will expose and the pavement section will need to be fully reconstructed. Recommendations for disintegration to this magnitude typically entail installing a section of full pavement for reconstruction.
- **Rutting** is the compression or displacement of one or more layers of pavement. It is caused when a layer is too weak for the loading that it experiences and a movement within the pavement layer occurs, creating a rut or channel in the pavement. Rutting occurs in high stress areas and is usually accompanied by pavement cracking. Rutting can be caused by a failure in the surface course, base course, or the subgrade. Current conditions reflect a surface with sectional base failure. Reclaiming or milling off the surface course and overlaying with additional asphalt surface and full depth patching is recommended, but a complete reconstruction may be necessary. Fatigue cracking, seen in the rutting areas, is caused by a failure of the surface course layer by continually over-loading the pavement, or fatiguing it. Block cracking, seen outside of the rutting areas, is caused when transverse cracks and longitudinal cracks intersect. Block cracking is usually caused by an inadequate compaction within the pavement layers or within the subgrade layer. If cracking is only observed in the surface layer, a mill and overlay can be utilized to repair the failing surface layer. If the cracks transverse through all layers, that indicates a poorly compacted subgrade where the subgrade will settle and the pavement will become unsupported causing cracking. If this occurs, a full pavement reconstruction will be required.

Manatee County Public Works conducted a surface treatment of Piney Point Road from Reeder Road east for approximately 2,500 feet to just west of US 41 (Figures 41-48). This project involved installing a new wearing surface and bridging reflective gaps and was completed in October 2019. No changes to geometrics were made. The project will improve the surface roadway condition temporarily until a more permanent solution is implemented. It is the opinion of this study that the type of deficiencies witnessed on Piney Point Road, prior to resurfacing, will reemerge as a result of the roadway's base and subbase failing and current asphalt pavement not being thick enough to support the volume and load-size of local truck traffic. Concrete is likely a preferred alternative for use in future improvements.

Figure 33: Piney Point Road (3/7/2019)

Figure 34: Piney Point Road (3/7/2019)

Figure 35: Piney Point Road (3/7/2019)

Figure 36: Piney Point Road (3/7/2019)

Figure 37: Piney Point Road (3/7/2019)

Figure 38: Piney Point Road (3/7/2019)

Figure 39: Piney Point Road (3/7/2019)

Figure 40: Piney Point Road (3/7/2019)

Figure 41: Piney Point Road (10/27/2019)

Figure 42: Piney Point Road (10/27/2019)

Figure 43: Piney Point Road (10/27/2019)

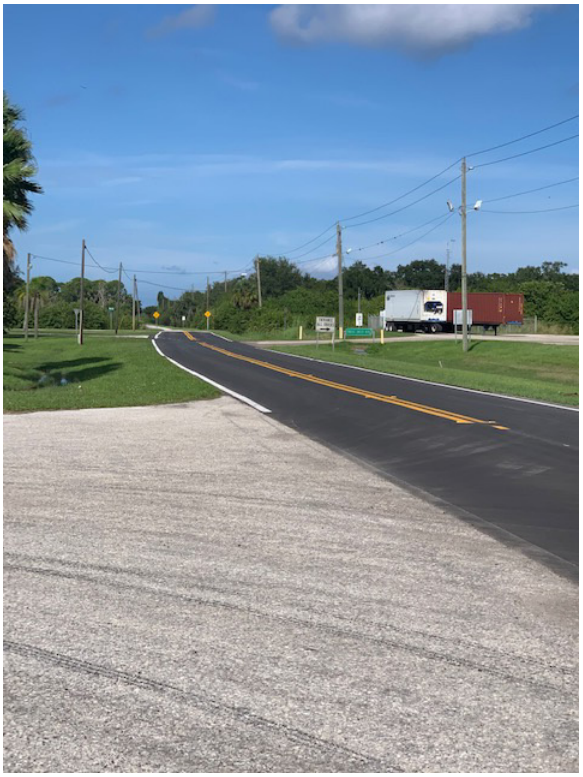


Figure 44: Piney Point Road (10/27/2019)

Figure 45: Piney Point Road (10/27/2019)

Figure 46: Piney Point Road (10/27/2019)

Figure 47: Piney Point Road (10/27/2019)

Figure 48: Piney Point Road (10/27/2019)

CONCLUSION AND FINDINGS OF NEED

CONCLUSION AND FINDINGS OF NEED

Piney Point Road is a critical piece of SIS infrastructure classified as a Strategic Highway Connector, servicing the SIS Seaport, Port Manatee. Piney Point Road provides freight traffic with quick access to another Strategic Highway Connector (US 41) and two SIS Highways (I-75 and I-275). In addition, two SIS railways cross at-grade over Piney Point Road (CSXT and Port Manatee Railroad).

As Port Manatee continues to experience year-over-year growth, the importance of planning for the enhancement of Piney Point Road becomes increasingly evident. To guide future planning efforts, this study has developed a purpose and need for the project. Based on the findings and recommendations of the Port Manatee Study, field observations, stakeholder coordination, and data collection and analysis, a primary and secondary purpose have been established for improving Piney Point Road:

Primary Purpose

- ***The primary purpose of the project is to improve Piney Point Road so that it can provide reliable access that meets current traffic demands while accommodating projected future growth in terms of regional population as well as increased throughput at Port Manatee.***

Secondary Purpose

- ***The secondary purpose of the project is to enhance safety on Piney Point Road for all roadway users.***

To focus data collection and define the project study area, logical termini were developed and encompass the portion of Piney Point Road extending east and west from Reeder Road to US 41. This critical step in defining purpose and need allows for detailed evaluation of existing conditions and potential effects, resulting from the project. As part of the existing conditions, this study considered current zoning, future land use, existing utilities, protected areas and wetlands, and flood zones. These areas of focus provide context and background for the evaluation of alternatives.

To determine the project need, this study examined several areas of focus in order to provide qualitative and quantitative support of the project purpose. The project need was derived from the following:

- Review of relevant planning documents, such as the FDOT District 1 FMTP, the Sarasota Manatee MPO TIP and LRTP, Port Manatee Master Plan, and the Port Manatee Study as well as coordination with project stakeholders.
  - » ***Improving Piney Point Road helps in meeting the objectives of the FDOT FMTP, considers the Port Manatee Master Plan, MPO legislative priorities and LRTP planning efforts, and addresses the relevant findings and recommendations of the FDOT Port Manatee Study. Further study of the roadway for eventual improvement will assist both agencies in meeting the stated policy objectives, as described above.***

- System linkage and modal interrelationships were identified to reinforce the vital role of Piney Point Road in the movement of goods throughout the region and state.
  - » ***Given the roadways designation as part of the SIS network and the importance it plays to regional commerce and the movement of goods to-and-from Port Manatee, it is apparent that Piney Point Road should be evaluated further, with the ultimate goal of improving the roadway to accommodate the projected increase in truck and vehicular traffic.***

- Capacity and demand were studied by analyzing Port Manatee gate counts, roadway AADT and LOS, trip origin and destination, and congestion traffic flow patterns.
  - » ***Port Manatee gate counts demonstrate sustained annual growth and are projected to reach 1 million gate transactions for year 2024.***
  - » ***Both AADT and Port Manatee gate transaction data reflect a significant number/ percentage of truck traffic utilizing Piney Point Road. 2018 Port Manatee gate data***

estimates approximately 1,640 truck trips per day.

- » ***Roadway LOS on Piney Point Road is projected to decrease from its current level of "B", to level "C" by 2025.***

- This study also considers Port Manatee growth trends and forecasts and local land use/development incentives in the surrounding vicinity to determine project impacts on regional economic development and social demands.
  - » ***During FY 2019, Port Manatee established new highs in total tonnage, containerized cargo units and tons and liquid and dry bulk tonnage. The Port handled a record 57,255 TEUs of containerized cargo during fiscal year 2019, up 49.3 percent over the preceding 12-month span. Container tons rose more than 40 percent, to an all-time peak of 535,176. Port Manatee cargo tonnage for FY19 reached a record 10,081,743, representing a 6.2 percent gain over fiscal 2018. The Port's largest sector, liquid bulk, including petroleum products and juice concentrates, saw a 5 percent boost, to a peak of 6,514,807 tons. Dry bulk tonnage was up 13.7 percent, to a record 2,239,965. Granite and limestone led the dry bulk surge, rising 28.9 percent to 824,199 tons.***
  - » ***The record-breaking numbers experienced at Port Manatee highlight the critical role that Piney Point Road occupies as part of the regional and state economies. As the demands placed on this critical piece of SIS infrastructure increase, so too are the need for roadway improvements.***
  - » ***Several land use designations that are favorable to industrial and warehousing growth are currently in-place in close proximity to Piney Point Road, including the FIG Improvement District, PDPM District, PDEZ District, and FTZ 169. Considering future development occurring as a result of the aforementioned designations, the roadway's role in the regional movement of goods will become increasingly vital.***
  - » ***It is imperative that Piney Point does not hinder, but supports the climate of growth being experienced at Port Manatee, given the economic incentives and SIS infrastructure access afforded by this location.***

- Safety conditions were evaluated based on available crash data for the study area and roadways within its immediate vicinity.
  - » ***Given the weight and types of loads being transported to-and-from Port Manatee via Piney Point Road, including some hazardous materials, it is important that the roadway reflects current design standards, capable of safely supporting all load-types.***
  - » ***Improving Piney Point Road also provides the opportunity to evaluate and potentially upgrade the at-grade rail crossing infrastructure currently in-place over Piney Point Road, most specifically, the Port Manatee Railroad crossing.***

- Roadway deficiencies were identified and described within the findings of the Port Manatee Study as well as additional field observations, both before and after a recently completed roadway resurfacing project by Manatee County.
  - » ***Even following the recent resurfacing project on Piney Point Road, deficient conditions still exist on the roadway, including substandard geometrics, insufficient drainage, and inadequate SIS roadway design. This resurfacing project provides a temporary solution to enhance current roadway conditions while the planning process for further, more permanent improvements is underway.***

APPENDIX A:

USDOT FRA CROSSING INVENTORY FORMS

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
06 / 28 / 2017	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	624745N

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
CSX Transportation [CSX]	FLORIDA	MANATEE

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☐ In ☒ Near PALMETTO	PINEY POINT RD (Street/Road Name) | (* Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☐ Yes ☒ No If Yes, Specify RR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None JACKSONVILLE	☐ None PALMETTO	☒ None	AZA | 0906.340 | (prefix) | (nnnn.nnn) | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
904670	GILLETT	☒ N/A	☒ N/A

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☐ Number Per Day 0

23. Type of Land Use
☒ Open Space ☐ Farm ☐ Residential ☐ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 27.6346000	(WGS84 std: -nnn.nnnnnnn) -82.5413333	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use *
30.D. Railroad Use *	31.D. State Use *
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) *

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-232-0144	904-359-1650	850-414-4500

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
0	0	1	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2017	3.A. Maximum Timetable Speed (mph) 40 3.B. Typical Speed Range Over Crossing (mph) From 40 to 40

4. Type and Count of Tracks
Main 1 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☐ Constant Warning Time ☒ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
06/28/2017		624745N

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☒ None
0	0	0	☐ W10-1 ____ ☐ W10-3 ____ ☐ W10-11 ____ ☐ W10-2 ____ ☐ W10-4 ____ ☐ W10-12 ____

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☐ No	☒ Yes ☐ No

2.J. Other MUTCD Signs	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
☐ Yes ☒ No Specify Type ____ Count ____ Specify Type ____ Count ____ Specify Type ____ Count ____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 4	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 2 ☐ Incandescent Not Over Traffic Lane 0 ☒ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	8

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
____/____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* ____/____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☐ None	Count 0 Specify type ____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☐ No Storage Distance * ____ Stop Line Distance * ____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☐ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☐ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☐ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* ____/____ Width * ____ Length * ____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☐ 4 Concrete ☐ 5 Concrete and Rubber ☒ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* ____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* 500	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☒ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☒ (0) Rural ☐ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☐ Yes ☒ No 5. Linear Referencing System *(LRS Route ID)* * 6. LRS Milepost *	30 MPH ☒ Posted ☐ Statutory

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 2007 AADT 002783	00 %	☐ Yes ☒ No Average Number per Day 0	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by ____ Organization ____ Phone ____ Date ____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
09 / 27 / 2011	☐ Railroad ☐ Transit ☒ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	624748J

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Port Of Manatee [MAUP]	FLORIDA	MANATEE

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☐ In ☒ Near PALMETTO	PINEY POINT RD (Street/Road Name) | * (Block Number)	

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☐ Yes ☒ No If Yes, Specify RR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None JACKSONVILLE	☐ None PALMETTO	☐ None SPUR AZA	(prefix) | 0906.10 (nnnn.nnn) | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
AZA	GILLETT	☐ N/A	☐ N/A MAUP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☐ Freight ☐ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☐ Number Per Day 0

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☒ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☐ N/A	(WGS84 std: nn.nnnnnnn) 27.6359667	(WGS84 std: -nnn.nnnnnnn) -82.5441000	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
PORT MANATEE RAILROA	
30.B. Railroad Use *	**31.B. State Use ***
30.C. Railroad Use *	**31.C. State Use ***
30.D. Railroad Use *	**31.D. State Use ***
32.A. Narrative (Railroad Use) *	**32.B. Narrative (State Use) ***

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-232-0144	941-722-6621	850-414-4500

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
2	14	2		

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
	3.A. Maximum Timetable Speed (mph) 10 3.B. Typical Speed Range Over Crossing (mph) From 5 to 10

4. Type and Count of Tracks
Main 1 Siding ____ Yard ____ Transit ____ Industry ____

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
09/27/2011		624748J

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☒ None
2	0		☐ W10-1 ____ ☐ W10-3 ____ ☐ W10-11 ____ ☐ W10-2 ____ ☐ W10-4 ____ ☐ W10-12 ____

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count____)* ☒ No	☐ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☐ No	☒ Yes ☐ No

2.J. Other MUTCD Signs	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
☐ Yes ☒ No Specify Type ____ Count ____ Specify Type ____ Count ____ Specify Type ____ Count ____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 0 Pedestrian ____	☐ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 2 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☐ LED ☐ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
____/____ ☐ Not Required	☐ Yes Installed on *(MM/YYYY)* ____/____ ☐ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☐ None	Count 0 Specify type ____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☐ No Storage Distance * ____ Stop Line Distance * ____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☐ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☐ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* ____/____ Width * ____ Length * ____
☐ 1 Timber ☒ 2 Asphalt ☐ 3 Asphalt and Timber ☐ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* ____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* 200	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☒ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☒ Yes ☐ No 5. Linear Referencing System *(LRS Route ID)* * 6. LRS Milepost *	30 MPH ☒ Posted ☐ Statutory

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 2008 AADT 002700	12 %	☐ Yes ☒ No Average Number per Day 0	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by ____ Organization ____ Phone ____ Date ____

APPENDIX B:

SARASOTA MANATEE MPO STATE LEGISLATIVE PRIORITIES (2018)

7632 15th Street East|Sarasota|FL 34243| 941 359 5772 | MyMPO.org

2018 Sarasota/Manatee MPO State Legislative Priorities

TRANSPORTATION PROJECTS

- Support Transportation Project Priorities:
    - DeSoto Bridge Replacement: Expediting replacement of the bridge can also facilitate increased north/south capacity on the US 41 corridor. The Desoto Bridge, constructed in 1957, is at the end of its service life and maintenance costs continue to rise.
    - River Road Expansion: Increase capacity to a six-lane divided arterial roadway, including bike lanes, pedestrian walkways and transit accessibility features, will provide a new evacuation route for Sarasota and Charlotte Counties.
    - Barrier Island Mobility Improvements: Advance funding for implementation of immediate and long term recommendations identified in the Barrier Island Mobility Study to address significant seasonal traffic issues.
- Expand Port Manatee Freight Capacity: Invest in port projects to increase cargo capacity and support intermodal connections to the port.

TRANSPORTATION FUNDING

- Monitor Local, Regional, and State Funding: Ensure equitable funding allocations for local and regional transportation priorities and support federal legislation that provides equity between states.
- Encourage Innovative Transportation Alternatives: Invest in multimodal improvements including public transportation; bicycle, pedestrian and trail facilities; and intelligent transportation system technologies (ITS).
- Expand Local Revenue Sources for Transportation: Support legislation that preserves existing funding sources and explore new local and state revenue options to fund transportation facilities and operations.
- Protect Transportation Trust Funds and Programs: Allocate all funds received for transportation projects as defined in authorizing legislation including the State Transportation Trust Fund, the Transportation Disadvantaged Trust Fund, the Transportation Regional Incentive Program (TRIP) and County Incentive Grant Program (CIGP).

Sarasota/Manatee Metropolitan Planning Organization

Coordinated transportation planning for

Anna Maria / Bradenton / Bradenton Beach / Holmes Beach / Longboat Key / Manatee County / North Port Palmetto / Port Manatee / Sarasota / Sarasota County / Sarasota Bradenton International Airport / Venice

9-8-17

CHAIR
Commissioner Willie Shaw
City of Sarasota

VICE CHAIR
Commissioner Vanessa Baugh
Manatee County

FDOT DISTRICT 1
Secretary L.K. Nandam

MPO EXECUTIVE DIRECTOR
David Hutchinson

For more information on the Sarasota/Manatee MPO 2018 Legislative Priorities Please contact:

Leigh Holt, Strategic Planning Manager
Sarasota/Manatee
Metropolitan Planning Organization
Office (941) 359-5772
Cell (321) 302-5848
leigh@mympo.org
www.mympo.org

MPO BOARD

City of Bradenton
Vice Mayor Patrick Roff
Councilmember Gene Brown

Island Transportation Organization
Mayor Dan Murphy, Anna Maria
Representing Anna Maria, Holmes Beach, and Bradenton Beach

Town of Longboat Key
Commissioner Jack Daly

Manatee County
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Sarasota Bradenton Airport Authority
Commissioner Carlos Beruff

Sarasota County
Commissioner Paul Caragiulo
Commissioner Alan Maio
Commissioner Nancy Detert

City of Venice
Councilman Bob Daniels

APPENDIX C:

USDOT FRA ACCIDENT/INCIDENT REPORT

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Port Of Manatee [MAUP]	1a. MAUP	1b. 11102004
2. Other Railroad Involved in Train Accident/Incident		2a.	2b.
3. Railroad Responsible for Track Maintenance	Port Of Manatee [MAUP]	3a. MAUP	3b. 11102004

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
624749R	11/10/04	10:15 AM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
PORT MANATEE	SYSTEM	MANATEE	12	FL

11. City *(if in a city)* PALMETTO — 12. Highway Name or No. REEDER RD & NORTH DO — ☐ Public ☑ Private

Highway User Involved

13. Type — A. Auto B. Truck C. Truck-trailer D. Pick-up truck E. Van F. Bus G. School Bus H. Motorcycle J. Other Motor Vehicle K. Pedestrian M. Other *(specify)* — Code: C

14. Vehicle Speed *(est. mph at impact)*: 10

15. Direction *(geographical)* 1. North 2. South 3. East 4. West — Code: 2

16. Position 1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped — Code: 3

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)* A. Train pulling- RCL B. Train pushing- RCL C. Train standing- RCL — Code: 6

18. Position of Car Unit in Train: 1

19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: 1

20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State the name and quantity of the hazardous material released, if any

21. Temperature *(specify if minus)*	22. Visibility *(single entry)* 1. Dawn 2. Day 3. Dusk 4. Dark — Code	23. Weather *(single entry)* 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code
75 °F	2	1

24. Type of Equipment Consist *(single entry)* 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Main./inspect. car A. Spec. MoW Equip — Code	25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry — Code	26. Track Number or Name
8	2	REEDER RD X-ING

27. FRA Track Class	28. Number of Locomotive Units	29. Number of Cars	30. Consist Speed *(Recorded if available)* R. Recorded E. Estimated — Code	31. Time Table Direction 1. North 2. South 3. East 4. West — Code
1	1	0	4 mph E	4

32. Type of Crossing Warning 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None	33. Signaled Crossing Warning	34. Whistle Ban 1. Yes 2. No 3. Unknown — Code
Code(s): 08 07		2

35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach — Code	36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown — Code	37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown — Code
1	2	1

38. Driver's Age	39. Driver's Gender 1. Male 2. Female — Code	40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown — Code	41. Driver 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* — Code
70	1	2	3

42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown — Code	43. View of Track Obscured by *(primary obstruction)* 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed — Code
2	8

Casualties to:	Killed	Injured	44. Driver was 1. Killed 2. Injured 3. Uninjured — Code	45. Was Driver in the Vehicle? 1. Yes 2. No — Code
			3	1
46. Highway-Rail Crossing Users	0	0	47. Highway Vehicle Property Damage *(est. dollar damage)*	48. Total Number of Highway-Rail Crossing Users *(include driver)*
			$1,000	1
49. Railroad Employees	0	0	50. Total Number of People on Train *(include passengers and crew)*	51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No — Code
52. Passengers on Train			2	2

53a. Special Study Block — 53b. Special Study Block

54. Narrative Description

NO DAMAGE TO TRACKAGE. LOCOMOTIVE SUSTAINED MINOR DAMAGE OF ABOUT $200.00 FOR MATERIALS AND HOURS OF LABOR. FORM 6180.54 DOES NOT HAVE TO BE FILLED OUT. NO INJURIES TO ANY PARTIES. TRUCK SAYS HE DID NOT HEAR OR SEE THE LOCO ENGINE. $1,000 EST. DAMAGE TO TRUCK.

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57 * NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A