Alternative Corridor Evaluation Report

August 4, 2022

This planning product may be adopted into the environmental review process, pursuant to Title 23 USC §168, or the state project development process.

Alternative Corridor Evaluation Report (ACER)

Florida Department of Transportation

Florida's Turnpike Enterprise

Northern Turnpike Extension

Citrus, Levy, Marion, and Sumter Counties, Florida

Financial Management Number: 449743-2-22-01

ETDM Number: 14480

August 4, 2022

This planning product may be adopted into the environmental review process, pursuant to Title 23 USC §168, or the state project development process.

Table of Contents

List of Figures

List of Tables

Appendices

Northern Turnpike Extension

FPID: 449743-2-22-01

ETDM No.: 14480

Location: Citrus, Levy, Marion, and Sumter Counties, Florida

Project Limits: From the northern terminus of the Florida's Turnpike in Wildwood, FL to a logical and appropriate terminus as determined by FDOT.

Prepared by: Florida's Turnpike Enterprise

Date: August 4, 2022

Subject: Alternative Corridor Evaluation Report

The purpose of this Alternative Corridor Evaluation Report (ACER) is to document the evaluation and recommendations for the Northern Turnpike Extension (NTE) project. The Alternative Corridor Evaluation (ACE) process is used to consistently evaluate and relatively compare alternative corridors with respect to the project goals, potential impacts to key environmental resources, and engineering feasibility, including costs. The ACER also documents the public engagement program that allows agency and public input, which was considered throughout the ACE process. The ACER will be made available in the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST).

1. Introduction

Florida's Turnpike Enterprise (FTE), part of the Florida Department of Transportation (FDOT), has been conducting an Alternative Corridor Evaluation (ACE) to evaluate the extension of Florida's Turnpike (State Road [SR] 910 from its northerly terminus in Wildwood to a logical and appropriate terminus as determined by FDOT per Section 339.66(6), Florida Statutes (F.S.). This corridor is referred to as the Northern Turnpike Extension (NTE) and would be a limited-access toll highway.

The ACE process, as defined in the Project Development and Environment (PD&E) Manual and the Efficient Transportation Decision Making (ETDM) Manual, meets the intent of the Code of Federal Regulations (CFR), Title 23, Part 450 (Planning Regulations) and 23 U.S. Code (USC) §168 (Integration of Planning and Environmental Review) of streamlining the planning and environmental review process. The ACE for the NTE was conducted so that planning decisions can be directly incorporated into the National Environmental Policy Act (NEPA) / PD&E process. This Report, the Methodology Memorandum, and previous documents (used in developing the Methodology Memorandum) were made publicly available and disclosed the results and planning decisions in this Report.

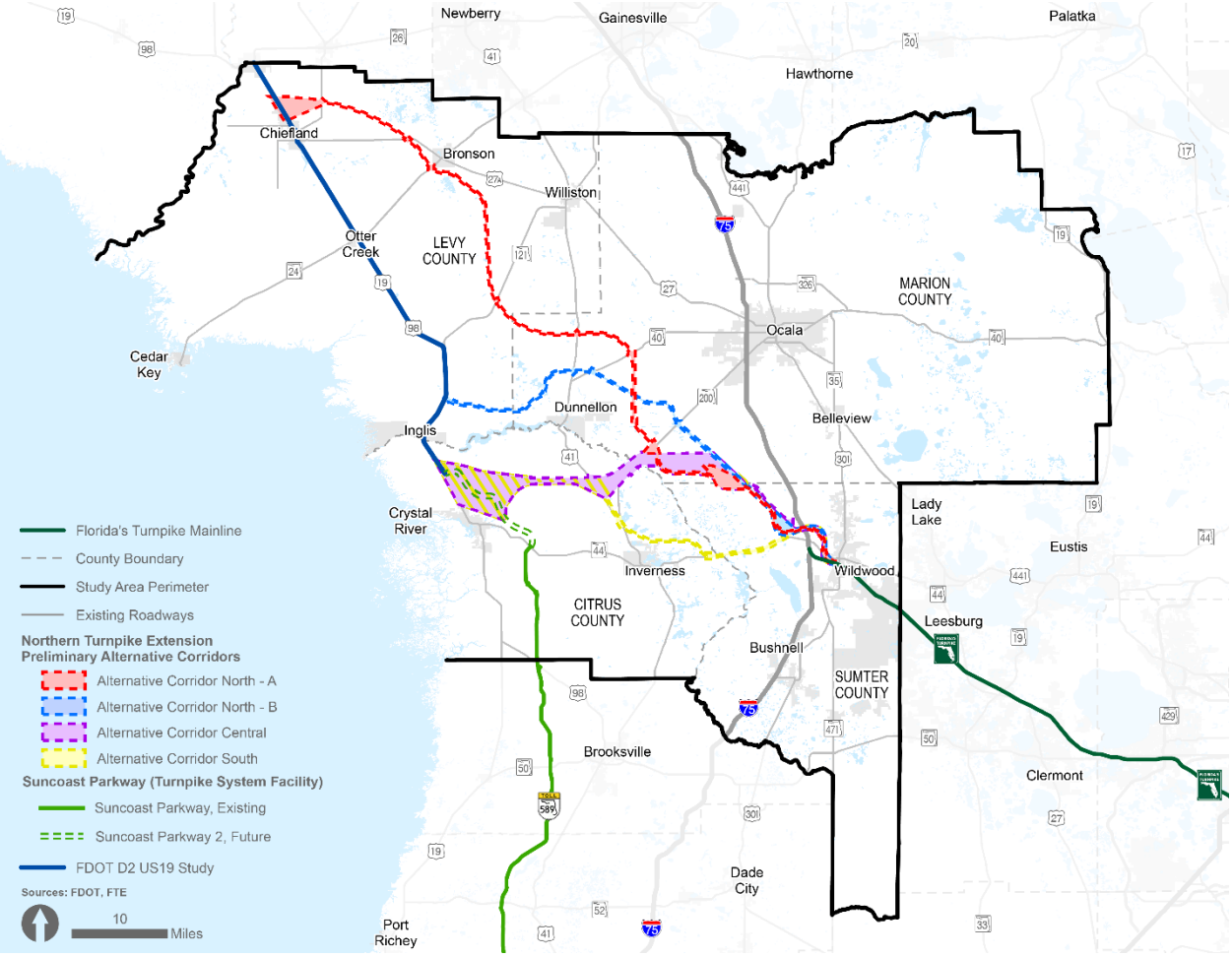
1.1. Goals and Intent of the Alternative Corridor Evaluation

The goal of the ACE process is to identify, evaluate, and eliminate alternative corridors based on meeting the project purpose and need; avoidance and/or minimization of potential impacts to environmental resources; engineering feasibility; a narrative assessment of the alternative corridors; and public, tribal, local government, and agency input. The ACE process ensures that the alternative corridors are evaluated consistently, in accordance with the approved Methodology Memorandum.

1.2. Background

1.2.1. ETDM Screening

The ETDM Programming Screen was initiated on October 21, 2021 (ETDM No. 14480, http://etdmpub.fla-etat.org), and the Preliminary Programming Screen Summary Report was published on January 24, 2022. Four initial alternative corridors (shown in **Figure 1**) were developed and screened to help identify sensitive resources that should be avoided, to the extent possible, and fatal flaws. A summary of the agency input is found in **Section 6** of this report.



Note: The initial alternative corridors are drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during a PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study.

Figure 1 | NTE Initial Alternative Corridors

1.2.2. Methodology Memorandum

A Methodology Memorandum outlining the methods for evaluating the initial alternative corridors was prepared. The Methodology Memorandum was submitted May 2, 2022, in the ETDM Environmental Screening Tool (EST) for a 30-day review period to receive comments from the Environmental Technical Advisory Team (ETAT). The comments received from the ETAT were published in the EST. The commenting agencies indicated that the Methodology Memorandum was understood; no methodology changes were requested. The ETAT approved the Methodology Memorandum on June 20, 2022.

1.2.3. Project Status

The NTE is currently in the Planning phase of the Project Development Process and is following the ACE process. The Planning phase began in October 2021. The ACE process is used to identify, evaluate, and eliminate alternative corridors on qualifying projects prior to a PD&E study.

1.3. Project Description

The NTE corridor will be part of the Strategic Intermodal System (SIS), which is Florida's high-priority network of transportation facilities important to the state's economy and mobility. The study area, shown in **Figure 2**, covers Citrus, Levy, Marion, and Sumter counties.

The Florida Legislature finds that the extension of Florida's Turnpike from its northern terminus in Wildwood is in the strategic interest of the State of Florida. The Legislature through Section 339.66(6) F.S. requires FDOT to conduct a PD&E study of the NTE and consider project configuration, alignment, cost, and schedule. Section 339.66(7) F.S. also requires FDOT to consider innovative concepts to combine right-of-way acquisition with the acquisition of lands or easements to facilitate environmental mitigation or ecosystem, wildlife habitat, or water quality protection or restoration.

Initial alternative corridors were developed to improve regional connectivity, reduce congestion, enhance safety, and improve hurricane evacuation and emergency response time.

The initial corridors included in ETDM Programming Screening were drawn with a minimum width of 1,000 feet to evaluate potential impacts to environmental resources and to allow flexibility for developing narrower corridor alignments during a PD&E study that would avoid or minimize impacts. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study.

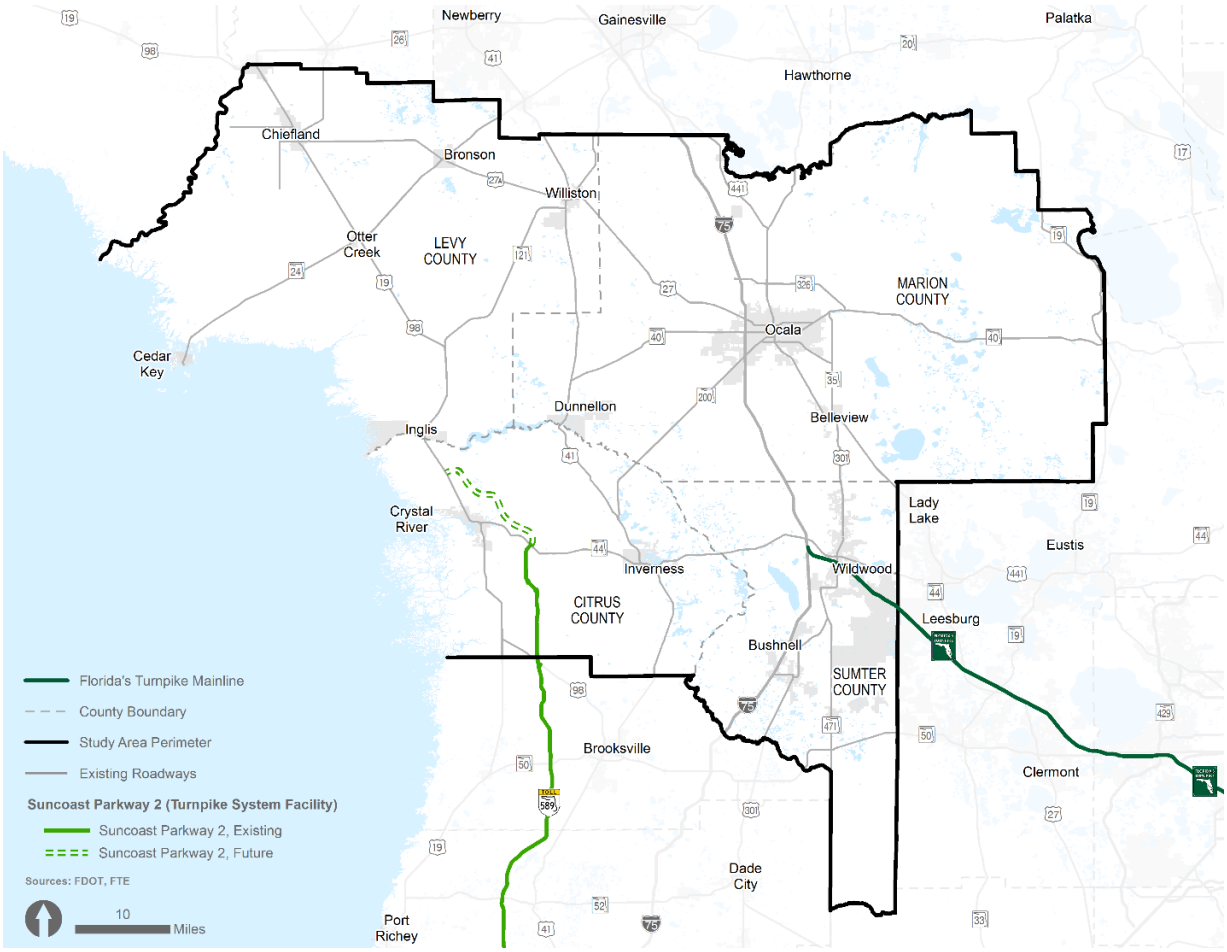


Figure 2 | Study Area

1.4. Related Regional Projects and Studies

There are several previous studies and current projects related to mobility in the region, as shown in **Figure 3**. The NTE was previously evaluated as the Northern Extension of Florida's Turnpike (NEFT) in a PD&E study with a State Environmental Impact Report (SEIR) approved in 1992. This SEIR recommended an alignment from the terminus of Florida's Turnpike in Wildwood to United States (US) 19/98 at Lebanon Station in Levy County. The purpose and need for NEFT was to address system linkage and capacity, social and economic demands, and safety.

A Supplemental SEIR for NEFT was completed in 1999, which reevaluated the segment between US 41 and US 19/98 and resulted in a modified preferred alignment that avoided the Goethe State Forest and red-cockaded woodpecker colonies within Levy County.

An ongoing related project in the study area involves US 19 in Levy County and portions of Citrus County. Section 339.67 F.S. requires FDOT to develop and include in the work program the construction of controlled access facilities as necessary to achieve free flow of traffic on US 19, beginning at the terminus of the Suncoast Parkway 2 Phase 3 north between the City of

Crystal River and the Town of Inglis, predominantly along US 19, to a logical terminus on I-10 in Madison County. This SIS facility is to be developed using existing roadway, or portions thereof, to ensure the free flow of traffic along the roadway by improvements, such as limited-access configuration to manage congestion points and retrofitting the existing roadway with a series of grade separations that provide alternatives to signalized intersections for through traffic.

Other projects in the vicinity of NTE include the Interstate-75 (I-75) Master Plan from Florida's Turnpike to County Road (CR) 234 in Alachua, Marion, and Sumter counties and Suncoast Parkway 2 Phases 1 through 3 in Hernando and Citrus counties. The I-75 Master Plan is evaluating short- and long-term improvements to the I-75 mainline and interchanges. Suncoast Parkway 2 is a new limited-access toll facility extending the existing Suncoast Parkway 1 in Hernando County north to connect with US 19 north of Crystal River in Citrus County. Construction of Suncoast Parkway 2, Phase 1 from US 98 to SR 44, was completed early 2022. Construction of Suncoast Parkway 2, Phase 2 from SR 44 to CR 486, is funded for construction in Fiscal Year (FY) 2023. The section of Suncoast Parkway 2, Phase 3, from CR 486 to US 19/98 is currently under design.

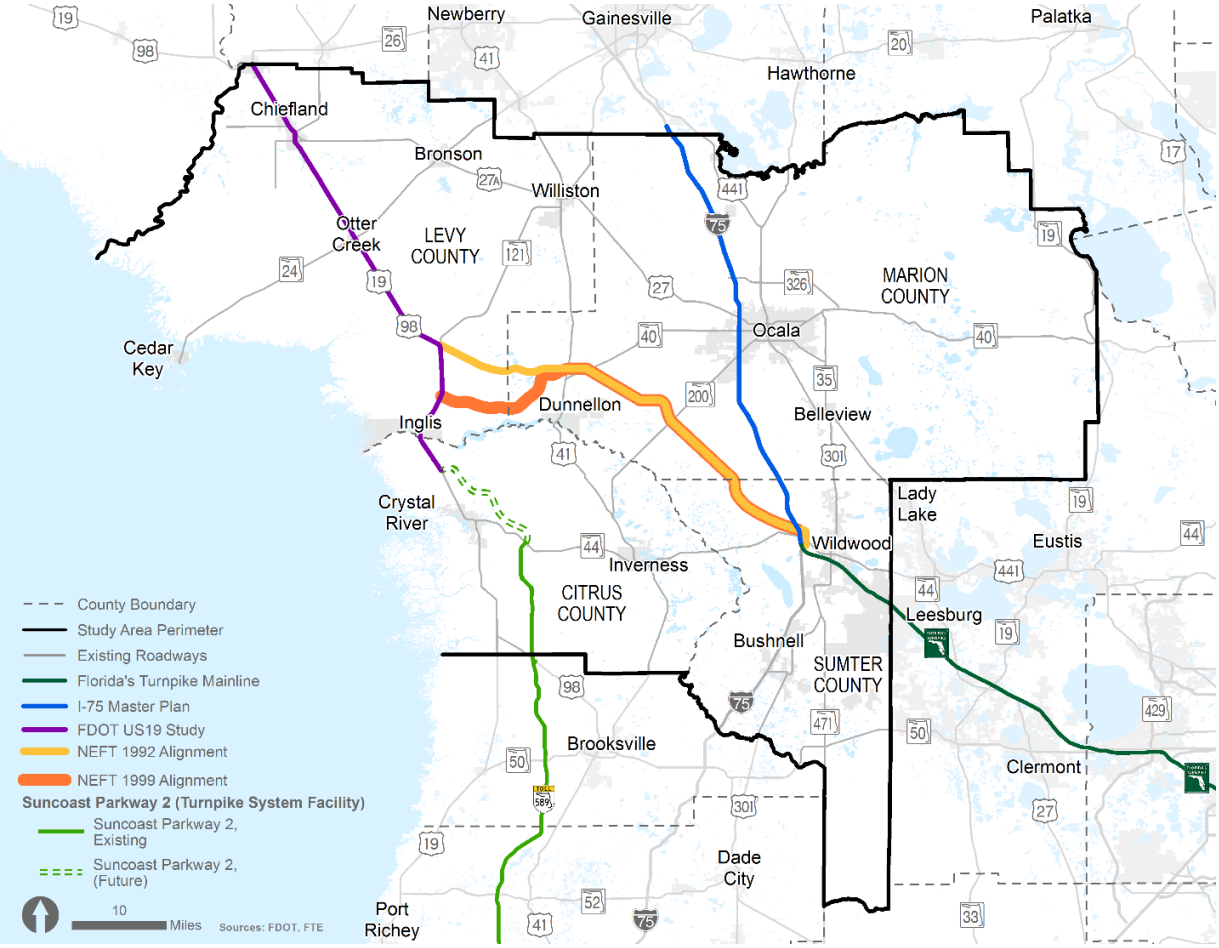


Figure 3 | Related Projects and Studies

2. Purpose and Need

The preliminary purpose and need of the NTE were developed based on the goals of the project, which are to:

- Enhance regional connectivity,
- Accommodate increased travel demand associated with projected population growth,
- Address regional congestion and safety issues, and
- Improve hurricane evacuation.

2.1. Purpose

The purpose of the NTE is to provide roadway linkage in the regional roadway network by extending Florida's Turnpike from its northern terminus in Wildwood northwest to a logical and appropriate terminus, as determined by FDOT per Section 339.66(6) F.S. The roadway linkage will improve connectivity, congestion, safety, and hurricane evacuation within and through the study area.

2.2. Needs

The needs for the project are:

- System Linkage
- Capacity
- Transportation Demand
- Safety
- Economic Development
- Hurricane Evaluation

2.2.1. System Linkage

There is a need to increase mobility and provide route choices for regional travelers within and through the study area. The existing transportation network in the study area is insufficient to support projected travel demand on major roadways.

Within the study area, there are currently no limited-access, east-west roadway facilities. The only existing limited-access facilities in the study area are I-75 and Florida's Turnpike, which ends at I-75 in Wildwood. Citrus and Levy counties are not currently served by any limited-access facilities other than Phase 1 of the Suncoast Parkway 2. Once completed, the Suncoast Parkway 2 will terminate at US 19/98 in Citrus County. It should be noted that FDOT's North I-75 Master Plan Summary Report, dated August 2017, which evaluated potential solutions for recurring and non-recurring congestion on the section of I-75 from Florida's Turnpike to I-10 interchanges, found that the existing parallel roadway network within the study area, including US 41 and US 301, cannot accommodate the recurring and non-recurring congestion. Connectivity is needed to relieve congestion on the arterial network in the study area between

major regional routes, such as US 41 and SR 200; municipalities in the study area; and major activity centers. Resident, commuting, transient, and freight users in the study area need additional route choices.

A limited-access, high-speed facility linking Florida's Turnpike with existing major north-south roadways in the study area is needed to provide connectivity for long-distance trips between southeast Florida, central Florida, Florida's Panhandle, Georgia, and Alabama, to shorten the travel time and distance of these trips; and to provide alternatives in the regional roadway network. A facility is also needed to improve connectivity between local activity centers and major urban centers outside the study area and to normalize travel time reliability for residents of smaller communities to reach destinations, such as healthcare facilities, educational institutions, airports, recreational destinations, and markets.

2.2.2. Capacity

Currently, the heaviest travel demand in the study area occurs on I-75, Florida's Turnpike, and segments of SR 44, SR 35, SR 40, SR 50, US 41, US 27, and US 301. This type of demand causes these roadways to operate below FDOT Level of Service (LOS) targets (LOS C for rural areas and LOS D for urban areas). Thus, there is a need for additional capacity to relieve the existing congested roadway network in the study area.

Congestion on the roadway network within the study area hinders local and regional mobility. Non-recurring congestion accounts for about 80 percent of the total congestion on I-75. Non-recurring congestion on I-75 is related to substantial increases in traffic during holidays, peak tourism seasons, weekends, and special events; and frequent closures occur because of incidents or weather. Recurring congestion is caused by routine traffic volumes operating in a typical environment above the roadway's capacity. Additionally, I-75 currently reaches an unacceptable LOS F for 134 days per year, on average. On average, it can be expected that all lanes of I-75 in both directions will be closed simultaneously at least once every nine days due to incidents (predominantly crashes), according to FDOT's North I-75 Master Plan Summary Report, dated August 2017. The existing roadways (SR 200, US 41, US 27, US 441, and US 301) that are used as alternative routes when I-75 is closed do not have adequate capacity to accommodate additional detour traffic. Alternative corridors for traffic diversion from I-75 are needed to address this non-recurring congestion and to alleviate future recurring congestion.

Analysis of 2018 origin and destination (O-D) data from Streetlight Data showed that 1,627,542 daily trips on the local roadway network and the State Highway System (SHS) originated, ended, or passed through the study area. These trips will be affected because travel times along major corridors within the study area (SR 50, SR 471, US 301, SR 44, US 41, SR 200, US 27, SR 40, and SR 121) will continue to increase as these corridors become congested in the future. Travel delays on major corridors will add strain to the local roadway network as commuters also use these facilities as alternatives to other congested roads. The problem will be exacerbated when incidents occur on major arterials and drivers cannot find alternative routes.

2.2.3. Transportation Demand

According to FDOT's initial analysis of the 2050 statewide travel demand model, transportation demand within the study area will continue to increase as both population and employment grow. It is estimated that population and employment within the study area will grow from 2019 levels by 43 percent and 54 percent in 2050, respectively. Travel demand forecasts indicate that planned and committed improvements to existing local or regional corridors could be outpaced by the growth of future travel demand in the study area. Future growth is expected to increase the traffic demand by more than 50 percent by 2050 and, consequently, increase congestion on the roadway network in the study area. The forecasted growth in travel and freight demand will occur in urbanized areas and near activity centers and will substantially affect mobility for people and goods in the study area. Thus, there is a need to address growth in transportation demand to maintain mobility in the study area.

Based on the results of the FTE Statewide Travel Demand Model for the 2050 forecast year, daily traffic volumes on most segments of Florida's Turnpike, US 19/98, SR 44, SR 121, SR 200, US 301, CR 484, and SR 40 are projected to grow from 2019 levels by more than 60 percent by 2050. Travel demand forecasts indicate that planned and committed improvements to existing local or regional corridors could be outpaced by the growth of future travel demand in the study area.

Based on the O-D data from Streetlight Data, 73 percent (1,437,124 trips) of the study area trips start and end within the study area. These trips will be substantially affected because travel times along major corridors within the study area will continue to increase as these roadways become congested in the future. Travel delays on major roadways will add strain to the local roadway network as commuters use these facilities as alternatives to congested state roads.

The high truck volumes along the initial alternative corridors create situations where slow-moving truck traffic negatively affects desired speeds of passenger cars. Evaluation of 2019 traffic data within the study area showed that I-75 carries the largest volumes of truck traffic, ranging from 10,000 to greater than 19,000 annual average daily truck traffic (AADTT). The amount of truck traffic on I-75 as measured by the telemetered traffic count sites ranged from 20% to 24% of the total traffic. This is more than double the statewide average of 9% for transitioning uninterrupted flow freeways. It is also significantly higher than the statewide average for rural uninterrupted flow freeways of 12%, and more than 5 times the average for urbanized uninterrupted flow freeways (4%). Within the study area Florida's Turnpike carried an average of 8,400 AADTT in 2019. The percentage of truck traffic between 2018 and 2020 on Florida's Turnpike in the study area ranged from 17% to 21%, nearly twice the statewide average for a transitioning uninterrupted flow freeway.

2.2.4. Safety

Increased travel demand has resulted in safety concerns along major arterials in most urban areas, including entire segments of I-75, Florida's Turnpike, SR 40, and US 301. Review of five-year historical crash data from January 1, 2014, through December 31, 2018, showed there were 84,144 reported crashes in the SHS within the study area, of which almost 40 percent

were intersection-related resulting from congestion. Run-off-the-road crashes were more prevalent in rural areas. During the same five-year study period, there were 1,657 reported bicycle and pedestrian crashes in the study area. Congestion is prevalent on routes that are considered high crash corridors.

2.2.5. Economic Development

The growth in population, housing, and tourism in the study area indicates that economic development is on the rise. Thus, there is a need to accommodate increased travel, freight, and tourism demands to maintain the economic vitality of the study area. For approximately 85 percent of the jobs created by industries that serve markets beyond the immediate region where they are located in Florida, the same jobs are also located within five miles of a limited-access facility. Marion and Sumter counties are generally served by I-75 and Florida's Turnpike, while Citrus and Levy counties generally lack direct connections to limited-access, free-flow, high-speed facilities. Economic analysis of the study area conducted as part of this project showed that future Gross Domestic Product (GDP) growth in Citrus County is expected to be the second highest in the study area, and there will be several areas of relatively higher growth in employment anticipated over the next 30 years. Improved transportation access in Citrus County via the roadway network, multimodal network, or both is needed to enhance accessibility to many jobs in the region.

The study area largely relies on trucks for freight transportation (trucks transport approximately 90 percent of freight in the study area). At the county level, several major freight employers are located in Citrus County. Future freight flow volumes are expected to decline in Citrus County, while future volumes in Marion and Sumter counties are expected to grow.[1] Given the importance of the highway network to freight mobility, a major highway corridor in the region is needed to improve truck travel time reliability to facilitate just-in-time delivery across the study area, thus enhancing economic development.

A review of the current state of the tourism economy from Visit Florida's "Florida Visitor Estimates and Travel Industry Trend Indicators"[2] and Rockport Analytics "Contribution of Travel & Tourism to the Florida Economy"[3] showed tourism in the study area is one of the top four traded cluster employment sectors in the region. The study area benefits from agritourism and ecotourism with visitors spending between $625.4 million and $2.45 billion in the local economy annually. The study area has a combined regional GDP of approximately $16.8 billion. An expanded and connected transportation network with limited-access, high-speed facilities is needed to attract and maintain high levels of visitation from areas outside the study area that contribute to the economy.

[1] FDOT, Freight and Logistics Overviews, 2021
[2] "Florida Visitor Estimates and Travel Industry Trend Indicators", Visit Florida, February 15, 2021, Accessed at: https://visitflorida.app.box.com/s/yybwlayqp5ul95851p1vobhwjpsxr2cr
[3] "Picking up the Pace: Florida's Tourism Performance Jumps into a Higher Gear", Accessed at: https://www.visitflorida.org/media/30679/florida-visitor-economic-impact-study.pdf

2.2.6. Hurricane Evacuation

There is a need to improve hurricane evacuation clearance times and provide relief for the high demand on I-75 and other evacuation routes in the study area during evacuation events. I-75 north of the interchange with Florida's Turnpike is a major bottleneck that affects the effectiveness of evacuation plans. Additional northbound capacity is needed on the west side of the study area so that the broader geographic range may find relief for the existing evacuation routes and improved access to shelter locations. Additional capacity is needed on the transportation network to serve in-study-area evacuation trips; out-of-study-area evacuation trips; and evacuation trips from the central Florida, southwest Florida, and Tampa Bay regions. There is also a need to provide network redundancy to critical transportation facilities within the study area as a backup or an alternative route during emergency or disruptive events.

3. Existing and Future Conditions

Data contained within this section was based on the most current data available at the time of purpose and need preparation.

3.1. Environmental Setting

The majority of the study area features rural communities and natural features. **Figure 4** displays existing land uses in the study area. The existing land use categories for each of the four counties were reviewed and synthesized into common major categories at the county level; category designations within the towns and cities are not included. Future land use plans are geared towards controlling sprawl via growth/development boundaries and policies limiting development to areas with municipal services, which are described as follows:

- The Citrus County Comprehensive Plan, adopted in 2018, discourages sprawl through requiring new developments to connect to central water and sewer services.
- The Levy County Comprehensive Plan, adopted in 2017, discourages sprawl by limiting urban services to Municipal Service Districts, special districts, and urbanized and commercial areas.
- The Marion County Comprehensive Plan, adopted in 2019, discourages sprawl through an urban growth boundary.
- The Sumter County Unified Comprehensive Plan, adopted in 2019, specifies future development to be within the urban development boundary (includes areas that are or are expected to become urban by 2035) and in areas that can accommodate the development through existing or planned infrastructure, while protecting natural resources and maintaining rural and agricultural character.

Areas where growth is desired are near SR 44 and CR 486 in Citrus County; I-75, SR 200, US 301 and SR 35 in Marion County; and The Villages in Sumter County.

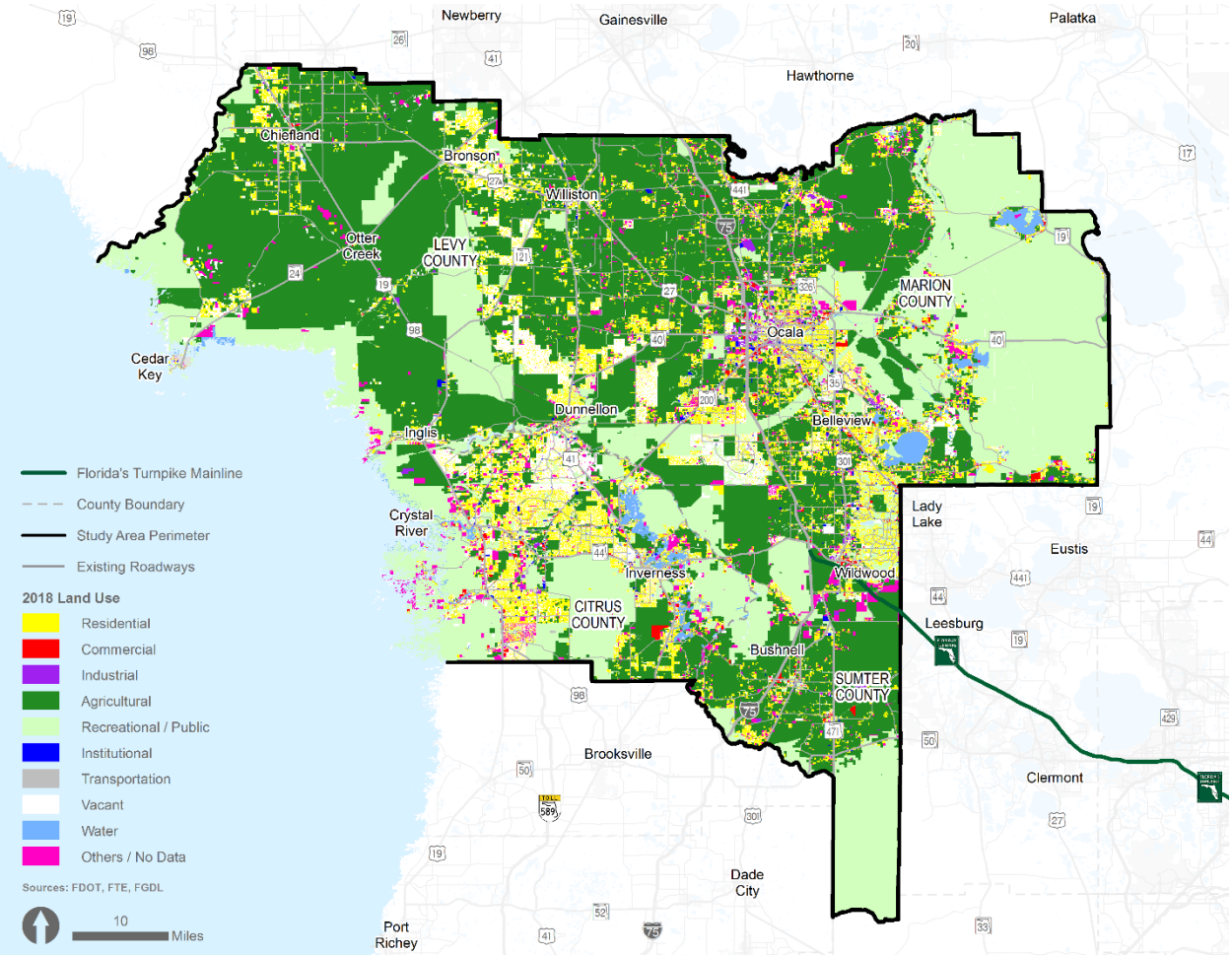


Figure 4 | Existing Land Uses

As shown in **Figure 5**, major tracts of managed lands within the study area include Hálpata Tastanaki Preserve, Ross Prairie State Forest, Potts Preserve, Half Moon Wildlife Management Area, Flying Eagle Preserve, Lake Panasoffkee Conservation Tract, Goethe State Forest, Withlacoochee State Forest, Green Swamp Wilderness Preserve, Ocala National Forest, Cedar Key Scrub State Reserve, Waccasassa Bay Preserve State Park, Crystal River Preserve State Park, and Cross Florida Greenway State Recreation and Conservation Area. There are also numerous areas targeted for acquisition by the Florida Forever Board of Trustees or identified as an optimum boundary by state forest/park management plans.

Potential cultural resources are present throughout the study area, with concentrations in the Community of Royal and near the Withlacoochee River crossing at SR 200. The Community of Royal has recently received concurrence from the State Historic Preservation Office (SHPO) that the Community of Royal is eligible for listing in the National Register of Historic Places (NRHP) as a historic district.

Although agricultural lands are distributed throughout the study area, as shown in **Figure 6**, these lands are primarily concentrated in northern Levy, western Marion, and central and

northern Sumter counties. Marion County's Farmland Preservation Area is located in the northwest portion of the county.

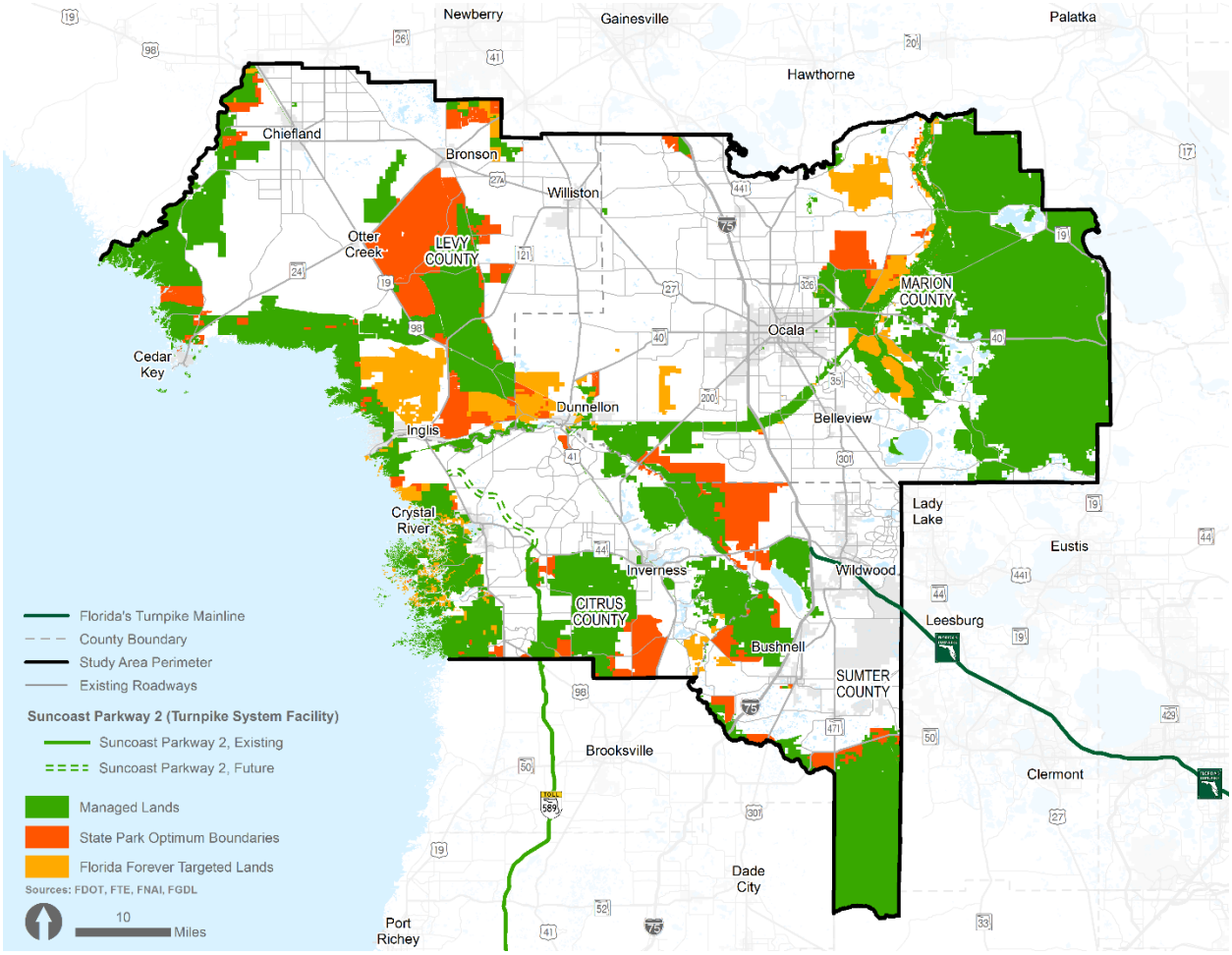


Figure 5 | Managed Lands

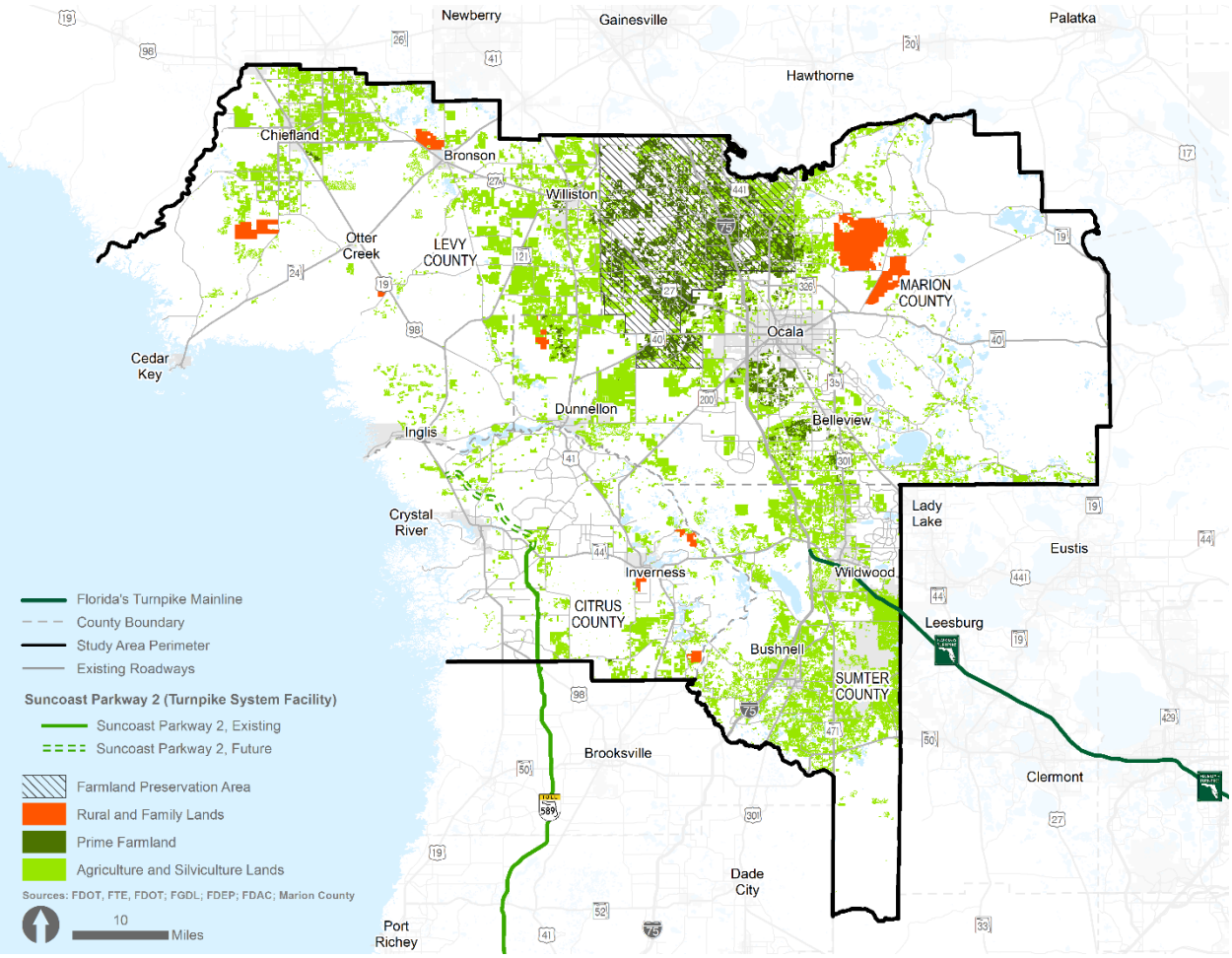


Figure 6 | Agricultural Lands

Surface water resources are well distributed throughout the study area and are important to agriculture and tourism. Major surface water resources within the study area include the Gulf of Mexico along coastlines of the Citrus and Levy counties; the Suwannee River along Levy County's northwest border; the Withlacoochee River separating Citrus County from Levy, Marion, and Sumter counties; Crystal River; Lake Panasoffkee; Lake Ocklawaha; and several springs. Springs are classified based on the discharge rate. There are 15 first magnitude springs, 43 second magnitude springs, and 44 third magnitude springs within the study area. **Figure 7** displays major surface water features in the study area.

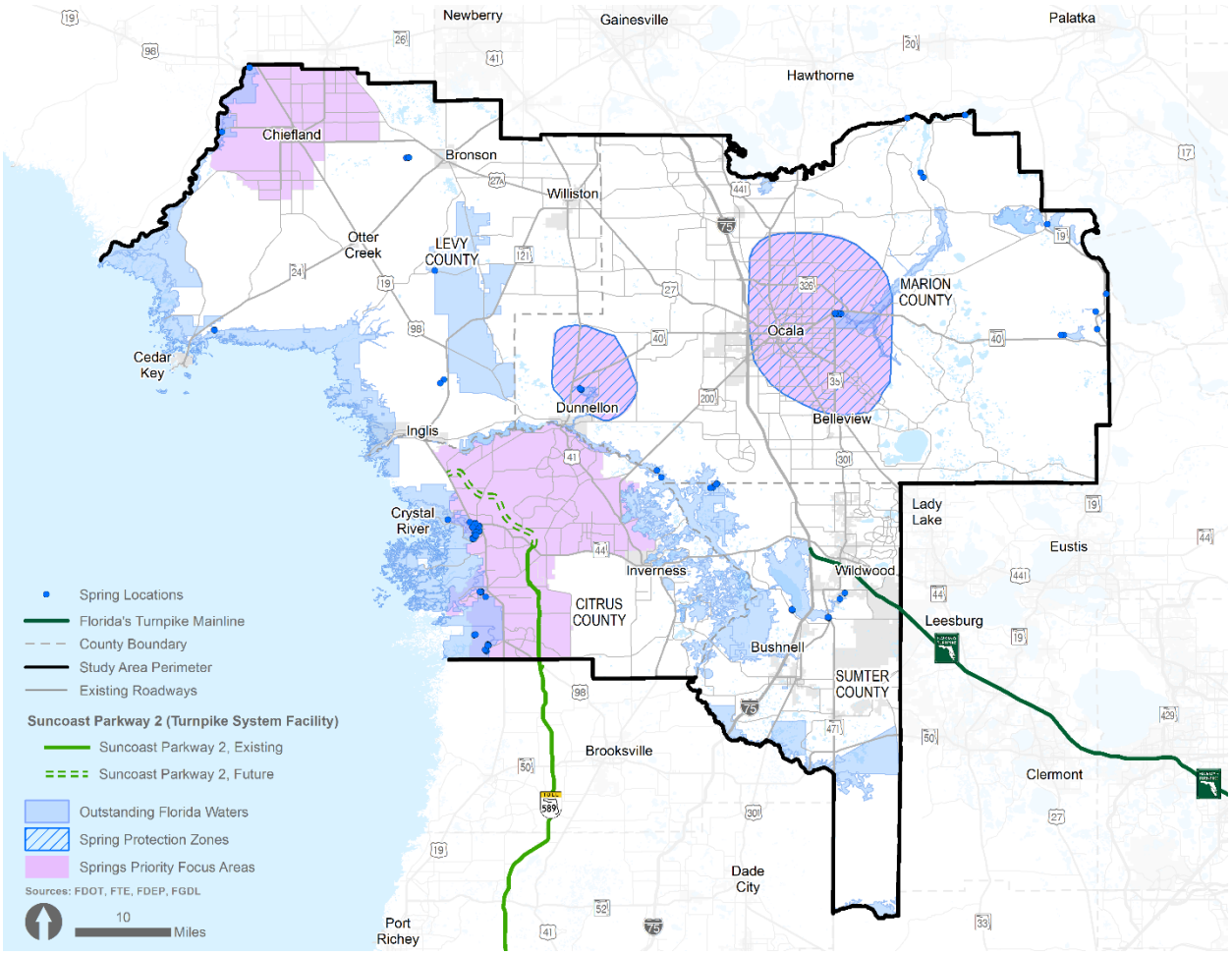


Figure 7 | Surface Water Resources

Wetlands and floodplains are present throughout the study area with concentrations along the coast and the Withlacoochee River.

Figure 8 displays wetlands and floodplains in the study area.

The geologic layering within the study area can be generalized as base karstic limestone, with overlying sediments ranging from sands, clayey sands, sandy clays, and clays with variable thickness, presence, and fines content. The karstic limestone formations present in this region comprise the Floridan Aquifer and are present at the ground surface at times as artesian flows in the form of numerous springs and seeps. Parts of the study area serve as primary recharge areas for the Floridan Aquifer.

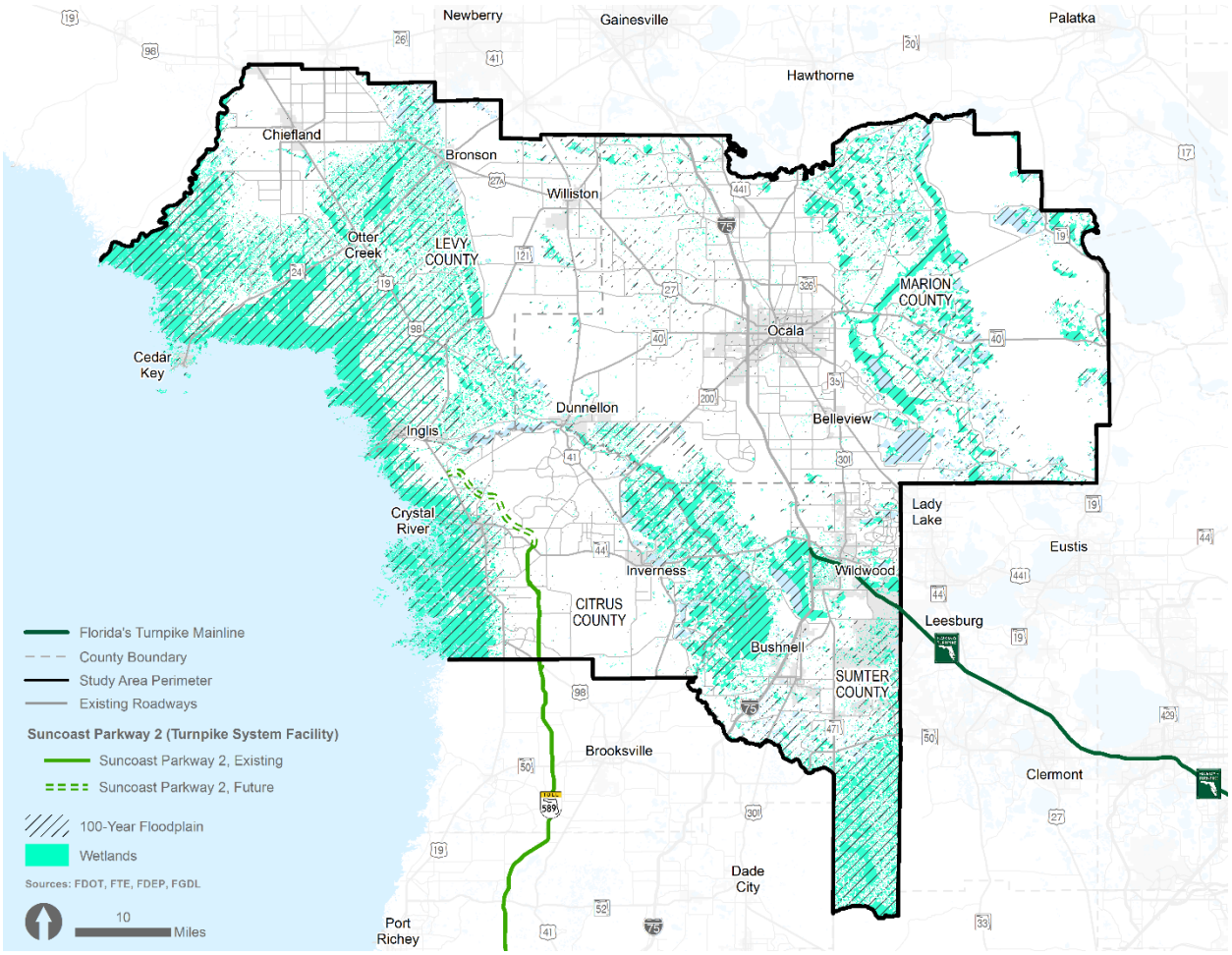


Figure 8 | Wetlands and Floodplains

3.2. Roadway Characteristics

The principal arterial system in the study area, which includes interstates, expressways and other principal arterials, like I-75, Florida's Turnpike, Suncoast Parkway 2, U.S. routes and State roads (as discussed below), has the highest traffic volumes within the study area transportation network and provides links between urbanized areas. I-75, Florida's Turnpike, and Suncoast Parkway 2 are the only expressways located within the study area. I-75 spans Sumter and Marion counties. Florida's Turnpike spans Sumter County with its northern terminus is at I-75. Suncoast Parkway 2 extends from the Hernando County/Citrus County boundary to SR 44, in Citrus County. Future phases of Suncoast Parkway 2 are in various stages of project development. Construction of Suncoast Parkway from SR 44 to CR 486 is funded for construction in FY 2023. Other major arterial roadways within the study area include portions of US 19, US 27, US 41, US 98, US 301, and US 441; and SR 24, SR 40, SR 44, and SR 200. US 19/US 98 and US 41 are major north-south roadways providing access to the study area counties and cities and carrying regional traffic between major cities in the state of Florida, such as Orlando, Tampa, Jacksonville, and Tallahassee. SR 44 and US 27 are the two major east-west roadways providing east-west connectivity between I-75, US 19, and US 41 through the

urban areas within the study area. In addition, SR 40, SR 200, SR 121, and SR 24 are important roadways in the study area providing access and mobility to the area land uses.

City and county roads form a collector roadway network that gathers traffic from local streets and disperses it onto arterial systems. The collector roadway network also provides access for alternative modes of travel to properties adjacent to arterials.

Typical sections of these facilities vary from two-lane undivided roadways to six-lane divided highways. Collector roadway networks typically have lower speed limits (35 miles per hour [mph] and less) while the arterial roadway system typically has higher speed limits. Posted speed limits on expressways are typically 70 mph. Some of the posted speed limits are higher than what is required for certain roadways under the current roadway context classification criteria.

Deficiencies in existing roadway features within the study area include sidewalk connectivity, sidewalk widths, posted speed limits, lane widths, structure and function of the bridges, and roadways with functional classifications that do not meet current criteria. Right-of-way constraints may limit the types of improvements that can be implemented on these facilities.

3.3. Traffic Characteristics

A review of traffic characteristics in the study area revealed there is inadequate capacity on the existing roadway network. Existing (2019) travel demand exceeded the capacity of some of the roadways in the SHS, leaving these roadways congested with increased traffic delays and unsafe driving conditions. Currently, the heaviest traffic demand is on I-75; Florida's Turnpike; and segments of SR 200, US 301, SR 50, US 41, and SR 40.

According to the North I-75 Master Plan, non-recurring congestion accounts for about 80 percent of the total congestion on I-75.[4] On average, once every nine days all lanes on I-75 are closed due to incidents, including crashes. The existing roadways that are used as alternative routes in case of I-75 closures do not have adequate capacity to serve additional detour traffic.

Review of travel patterns showed that a significant number of trips start and end within the study area, and the levels of congestion on the roadway network are expected to substantially grow due to increased travel and freight demand by 2050. By 2050 within the study area, traffic on the SHS is projected to increase by 51 percent from 2019 levels. It is also estimated that by 2050, the population and employment levels will grow from 2019 levels by 43 and 54 percent, respectively.

The forecasted growth in travel and freight demand will occur in urbanized areas and near activity centers and will significantly affect mobility for people and goods in the study area. As a result, the demand on many roadways in the study area is projected to grow by more than 50 percent. Travel forecasts also indicated that planned and committed improvements to existing

[4] FDOT (2017). North I-75 Master Plan Summary Report

local or regional corridors will be outpaced by the growth of future travel demand in the study area.

Travel times along the major corridors within the study area will continue to increase as they become congested in the future. Travel delays on the SHS will add strains to the local roadway network as drivers begin to use these roadways more and more as alternatives to congested ones. The consequences of increased levels of congestion include longer travel times on local roads, deterioration of safety and premature failure of the pavement. The problem will be exacerbated when incidents occur on major arterials and expressways as drivers will not find adequate capacity on alternate routes.

3.4. Crash Data

Five-year historical crash data from January 1, 2014, through December 31, 2018, was collected from Signal Four Analytics and the FDOT Crash Analysis Reporting System (CARS) database. The crash data was analyzed for crash frequency and crash types to identify locations with high crash frequencies. Land use context and physical characteristics of the roadway network were also considered in the analysis.

During the five-year study period, there were 84,144 reported crashes in the study area. Of the total reported crashes, 737 (less than 1 percent) were fatal crashes, 21,850 (26 percent) were injury crashes, and 59,754 (71 percent) were property damage only (PDO). Entire segments of I-75, Florida's Turnpike, SR 40, and US 301 in most of the urban areas have a high concentration of fatal and severe injury crashes. Almost 35 percent (29,329 crashes) of crashes were intersection related. Run-off-the-road crashes accounted for 12 percent of reported crashes.

During the five-year study period, there were 1,657 reported bicycle and pedestrian crashes in the study area. These crashes represent two percent of reported crashes. Most of the bicycle and pedestrian crashes occurred in the core of urban areas in Ocala, Wildwood, Inverness, and Crystal River. These are the areas within the study area that have relatively more pedestrian and bicycle activity.

A crash rate for each roadway segment and intersection was calculated and compared with statewide average crash rates for facilities with similar volumes and surrounding land uses. The data showed that most major roadways within the study area have segments or intersections with a higher crash rate than the statewide average. These are considered high crash locations. Additionally, almost the entire I-75 corridor within the study area experiences higher crash rates than the statewide average.

4. Alternative Corridors

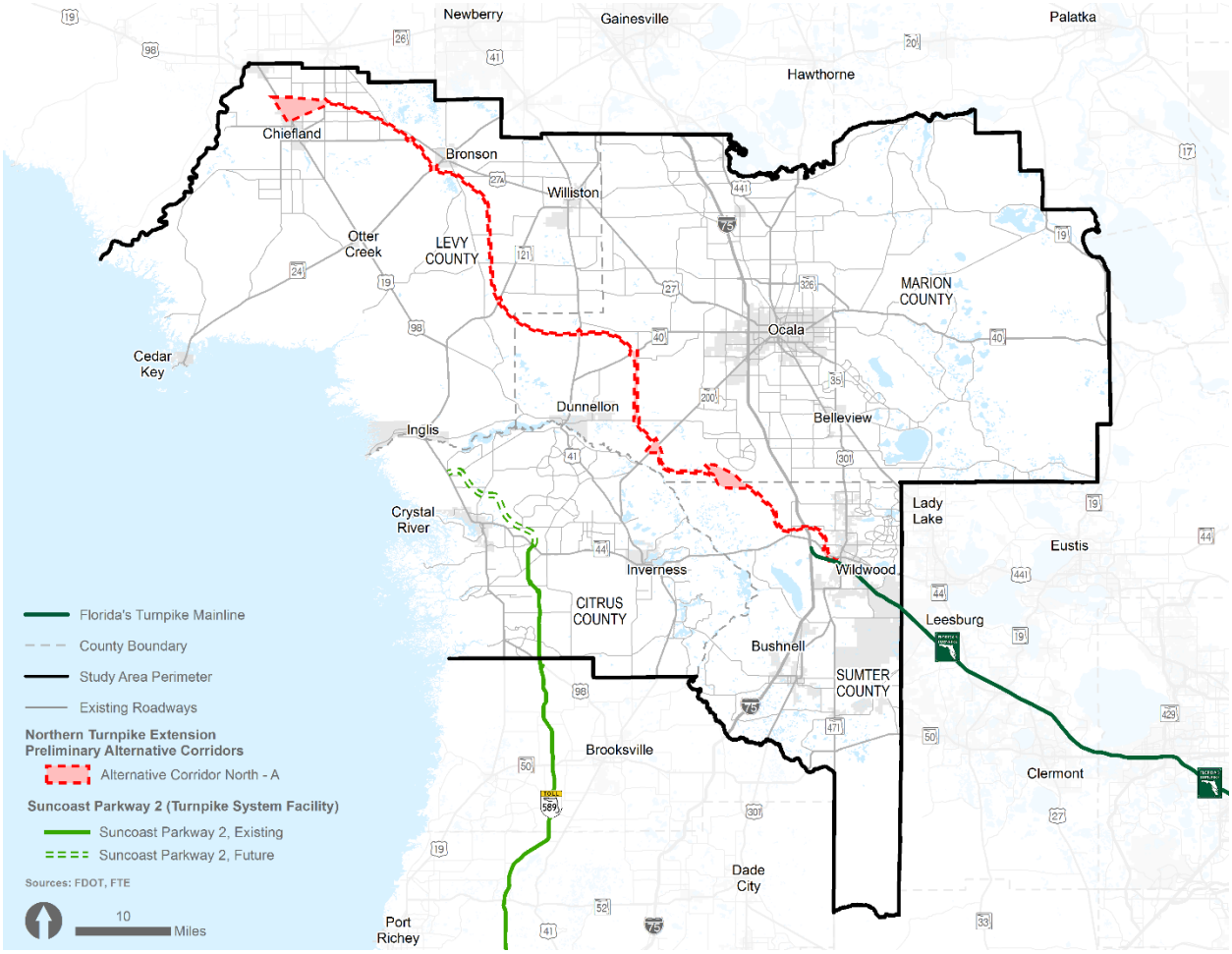
Initial alternative corridors were identified using GIS mapping considering project goals, previous studies (including the 1992 NEFT SEIR and 1999 NEFT Supplemental SEIR preferred alignments), environmental constraints, and potential for co-location with existing transportation and utility corridors.

As shown in **Figure 1**, four initial alternative corridors with a minimum of 1,000 feet wide were developed to evaluate potential impacts to environmental resources and to allow flexibility for developing narrower corridor alignments during a PD&E study that would avoid or minimize impacts. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study. Alternative Corridor North-A, Alternative Corridor Central, and Alternative Corridor South have several expanded areas due to environmental considerations and to provide flexibility for interchange connectivity at their western termini.

The initial alternative corridors begin at the northern terminus of Florida's Turnpike in Wildwood east of I-75 and head northwest to terminate at the future location of the Suncoast Parkway (SR 589) or US 19/98. The starting direction of the initial alternative corridor paths was restricted by the Lake Panasoffkee Wildlife Management Area (WMA) that lies along the eastern shore of Lake Panasoffkee west of I-75. To avoid impact to this WMA, the initial alternative corridor paths peel to the north side before crossing I-75. The initial alternative corridors are described in the sections that follow.

4.1. Alternative Corridor North-A

Alternative Corridor North-A, located in Levy, Marion and Sumter counties, is shown in red on **Figure 9**. This initial alternative corridor is approximately 81 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. Approximately three miles after it overpasses I-75, it runs parallel to and on the west side of a utility easement through a portion of Marion Oaks for approximately four miles. It continues northwest before crossing SR 200, SR 40, SR 41, SR 121, SR 24 south of Bronson, ending at US 19/98 north of Chiefland.

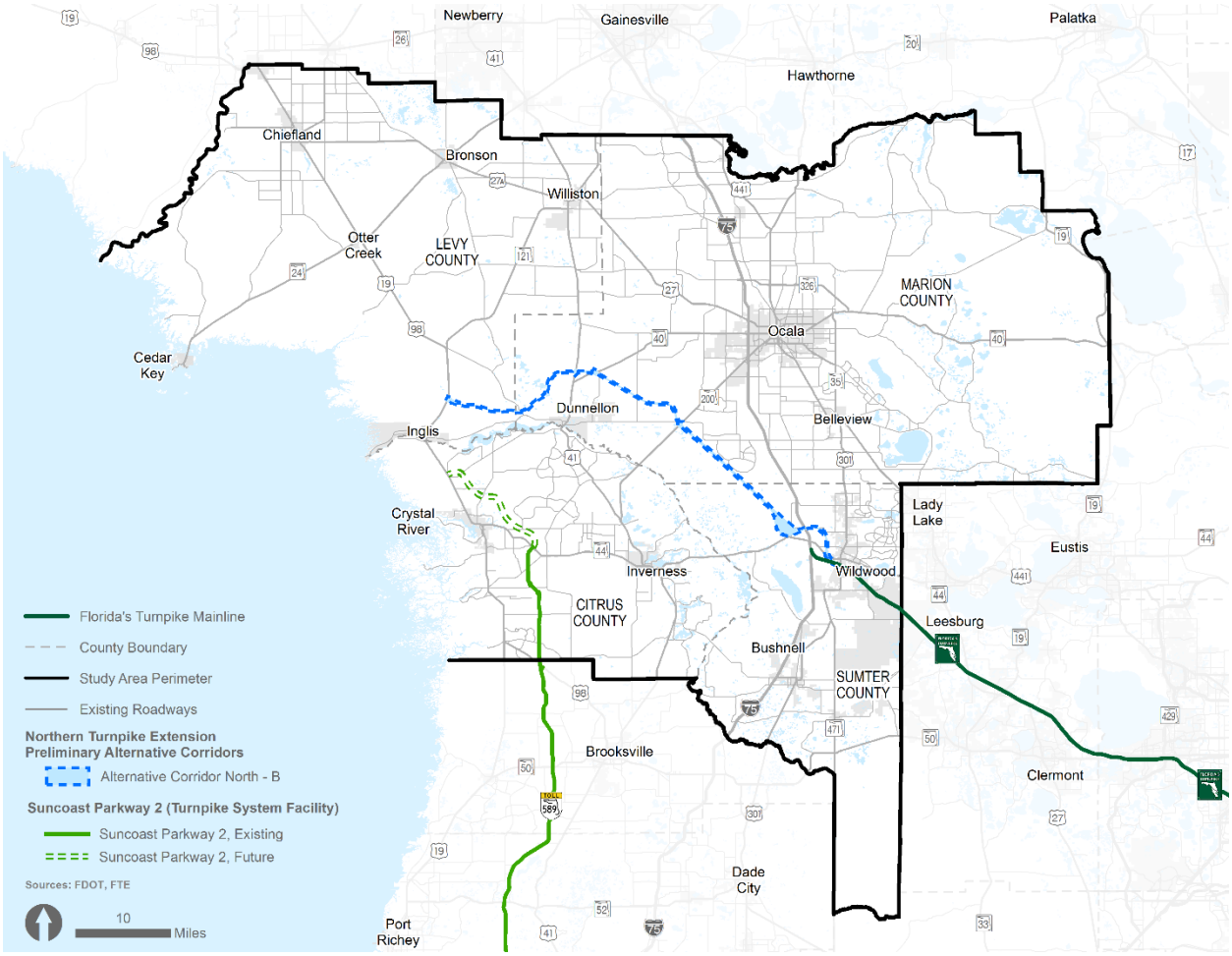


Note: The initial alternative corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during a PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study.

Figure 9 | Alternative Corridor North-A

4.2. Alternative Corridor North-B

Alternative Corridor North-B, located in Levy, Marion, and Sumter counties, as shown in blue on **Figure 10**. This initial alternative corridor is approximately 48 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. It generally follows the NEFT corridor that was evaluated in the 1999 Supplemental SEIR. The southern portion follows the same route as Alternative Corridor North-A, overpassing I-75, then following parallel to and on the west side of a utility easement through Marion Oaks for approximately eight miles, and continuing northwest. It then crosses SR 200, SR 40, and SR 41 north of Dunnellon's city limits. After crossing SR 41, it turns southwest and traverses the area between the Goethe State Forest and Lake Rousseau before terminating at US 19/98 approximately three miles north of Inglis.

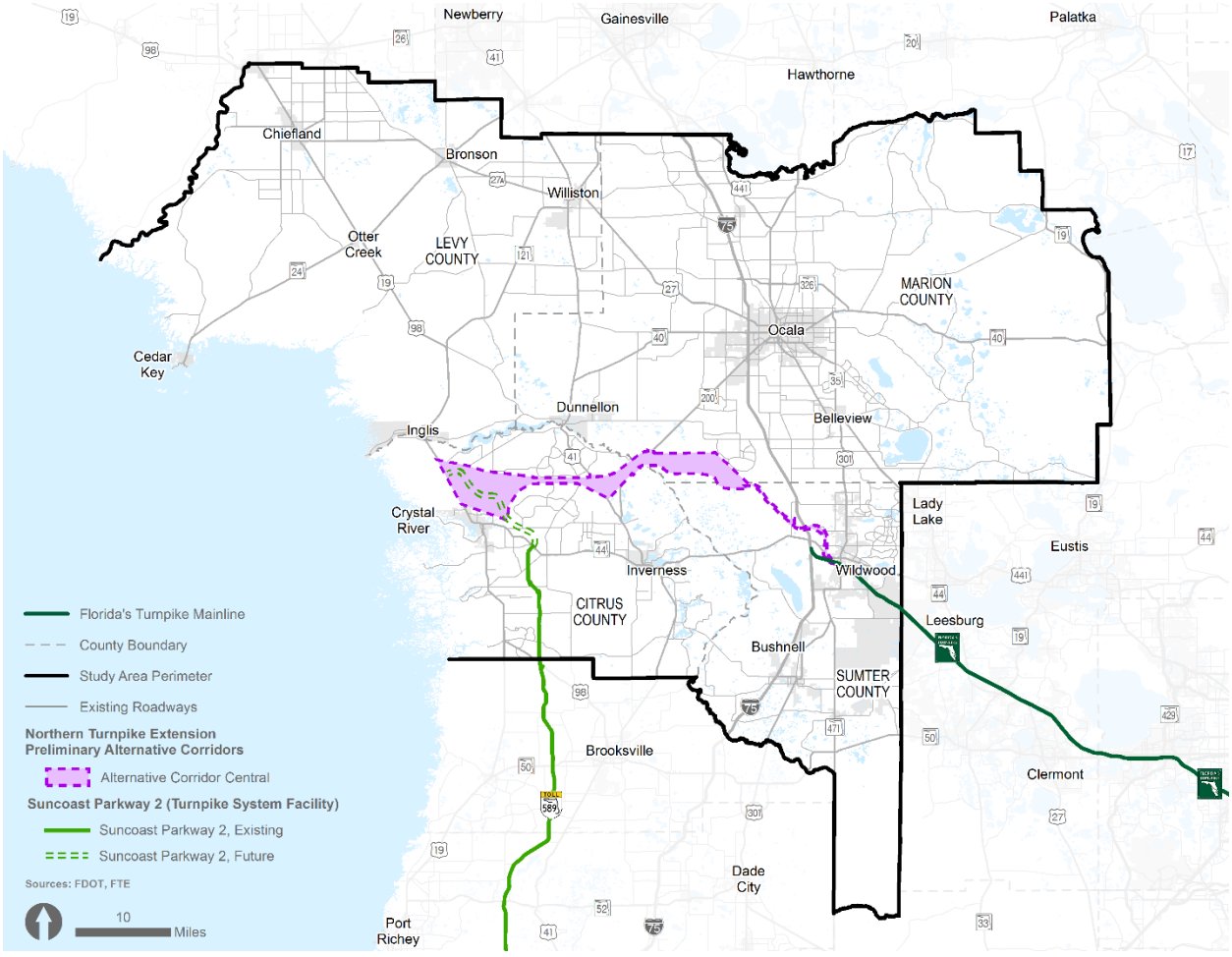


Note: The initial alternative corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during a PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study.

Figure 10 | Alternative Corridor North-B

4.3. Alternative Corridor Central

Alternative Corridor Central, located within Citrus, Marion, and Sumter counties, is shown in purple on **Figure 11**. This initial alternative corridor is approximately 42 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. The southern portion of this initial alternative corridor follows the same route as the Alternative Corridor North-A and Alternative Corridor North-B, overpassing I-75, then follows parallel to and on the east side of a utility easement in the northwest direction through Marion Oaks for approximately 11 miles. It turns west and intersects with SR 200 and then follows the SR 200 alignment for approximately five miles south, after which it follows a utility easement encompassing both sides of the easement as it crosses US 41 and terminates at the intersection with US 19/98, or the future location of the Suncoast Parkway 2, north of Crystal River.

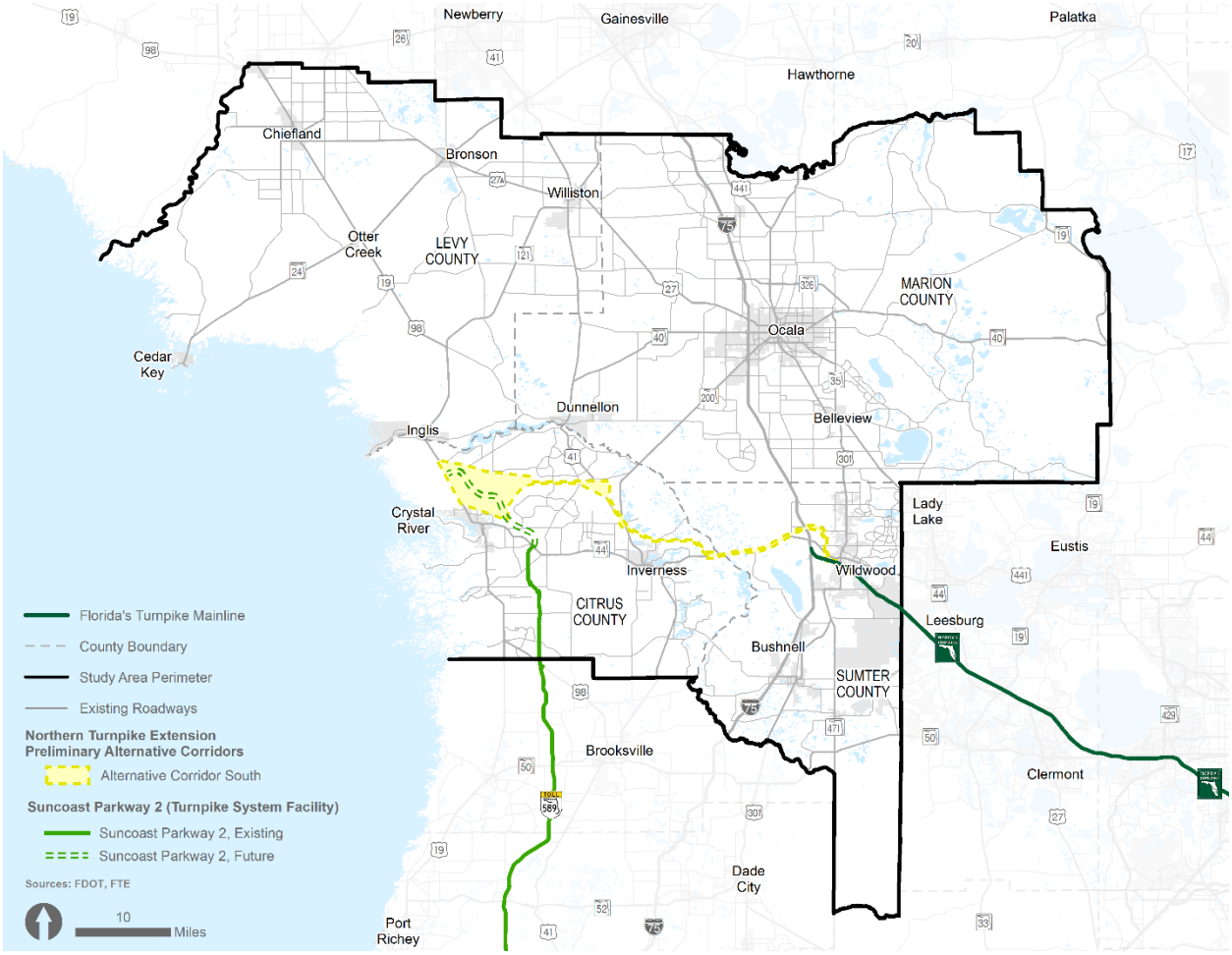


Note: The initial alternative corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during a PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study.

Figure 11 | Alternative Corridor Central

4.4. Alternative Corridor South

Alternative Corridor South, located within Citrus and Sumter counties, is shown in yellow on **Figure 12**. This initial alternative corridor is approximately 42 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. After it overpasses I-75, the initial alternative corridor turns southwest to follow SR 44 in Sumter County until just west of the Withlacoochee River in Citrus County. Here it heads northwest to a utility easement near US 41 and follows the utility easement, encompassing both sides of the easement, until it terminates at the intersection with US 19/98, or at the future location of the Suncoast Parkway 2, north of Crystal River.



Note: The initial alternative corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during a PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in a PD&E study.

Figure 12 | Alternative Corridor South

5. Alternative Corridor Evaluation Methodology

A Methodology Memorandum was developed based on ETDM Programming Screen comments of the initial alternative corridors from the ETAT in conjunction with other stakeholders and technical considerations. The Methodology Memorandum describes the process to develop and evaluate the initial alternative corridors for NTE. Additionally, the memorandum provides the goals of the evaluation, the methodology to be used, how coordination with stakeholders was to occur, and the basis for decision-making. The ETAT approved the Methodology Memorandum on June 20, 2022 and is included as Appendix A to this Report.

5.1. Data Collection

The data used to evaluate the potential social and economic, cultural, natural, and physical environmental impacts of the initial alternative corridors was derived from various Geographic Information Systems (GIS) datasets housed within the EST, supplemented with additional GIS data sources, listed in **Table 1**. The ETAT used EST data to review the initial alternative corridors during the ETDM Programming Screen.

Table 1 | Supplement GIS Data Sets

GIS Data Layer	Source	Year
Social and Economic		
Business Locations	ESRI Demographics (Infogroup)	2020
Developments of Regional Impact (DRI)	Florida Department of Economic Opportunity (FDEO)	2021
Employment by industry	ESRI Demographics (Infogroup)	2020
Opportunity Zones	FDEO	2018
Parcels	Florida Department of Revenue (FDOR)	2021
Planned Unit Development (PUD)	University of Florida GeoPlan Center	2009
Top Industrial Employers	Florida Department of Transportation (FDOT)	2019
Natural Environment		
Florida Element Occurrence (FLEO)	Florida Natural Areas Inventory (FNAI)	2022
Skink Habitat (elevation above 82 ft)	University of Florida GeoPlan Center	2013
State Park Optimum Boundaries	Florida State Parks	2021
Physical Environment		
AC Ports	University of Florida GeoPlan Center	2019
Powerlines	University of Florida GeoPlan Center	2017

GIS Data Layer	Source	Year
Roadway Characteristics Inventory (RCI Rail Crossing)	FDOT	2021
Sabal Trail Gas Pipeline	Gulf Restoration Network	2016
Strategic Intermodal System (SIS) Hubs	FDOT	2021
SIS Rail Facilities	FDOT	2021

5.2. Identifying Environmental Constraints

GIS data were used to identify environmentally sensitive resources for which impacts need to be avoided and minimized. The data sources included in **Table 1** were used to locate social, cultural, natural, and physical constraints within the study area.

5.3. ACE Methodology Memorandum Comments

During ETAT's review of the Methodology Memorandum, the Southwest Florida Water Management District (SWFWMD) requested FDOT to consider another alternative corridor that does not bisect SWFWMD-owned conservation lands or otherwise sever SWFWMD-owned conservation lands from other existing conservation lands.

The Florida Forest Service provided FDOT an updated GIS data layer regarding agency lands and facilities. FDOT used the latest data received from the Florida Forest Service in the alternative corridor evaluation.

6. Public, Tribal, Local Government, and Agency Considerations

As discussed in this section, input from the ETAT, project stakeholders, and the general public received during the screening process is used to refine the purpose and need and to determine alternative corridor constraints. Public access to project information is made available through the project website[5], and the FDOT ETDM[6] for project number 14480.

6.1. ETDM Programming Screen

Table 2 summarizes ETAT comments received during the ETDM Programming Screen. The following agencies commented during the ETDM Programming Screen: Florida Department of Agriculture and Consumer Services (FDACS), Florida Department of Environmental Protection (FDEP), FDEP Division of Recreation and Parks, Florida Department of State (FDOS), Florida Fish and Wildlife Conservation Commission (FWC), National Marine Fisheries Service (NMFS),

[5] https//floridasturnpike.com/turnpike-projects/featured-projects/northern-turnpike-extension/
[6] https:///etdmpub.fla-etat.org/est/

National Park Service (NPS), SWFWMD, U.S. Coast Guard (USCG), U.S. Environmental Protection Agency (USEPA), and U.S. Fish and Wildlife Service (USFWS). The Seminole Nation of Oklahoma also commented. None of the parties assigned a potential dispute. A Summary Degree of Effect was assigned to each initial alternative corridor for each resource based on the highest (least favorable) degree of effect assigned by an agency. The Summary Degree of Effect was identical for all four initial alternative corridors for all resources evaluated, except for Recreational and Protected Lands, as shown in **Table 2**.

Table 2 | Summary of ETAT Comments

Issue Area		Summary Degree of Effect	Organizations Commenting
Social Environment	Land Use	Moderate	None
	Social	Moderate	U.S. Environmental Protection Agency (USEPA)
	Relocation	Moderate	None
	Economic	Enhanced	None
	Mobility	Enhanced	None
Cultural Environment	Section 4(f)	Not Applicable	None
	Recreational and Protected Lands	Alternative Corridor North-B: Substantial Remaining alternative corridors: Moderate	Florida Department of Environmental Protection (FDEP), National Park Service (NPS), Southwest Florida Water Management District (SWFWMD)
	Historic and Archaeological	Moderate	SWFWMD, State Historic Preservation Office (SHPO), Seminole Nation of Oklahoma
Natural Environment	Coastal and Marine	Moderate	National Marine Fisheries Service (NMFS), SWFWMD
	Water Resources	Substantial	FDEP, SWFWMD, USEPA
	Protected Species and Habitat	Moderate	Florida Department of Agriculture and Consumer Services (FDACS), Florida Fish and Wildlife Conservation Commission (FWC), SWFWMD, U.S. Fish and Wildlife Service (USFWS)
	Wetlands and Surface Waters	Substantial	FDEP, NMFS, SWFWMD, USEPA, USFWS
	Floodplains	Minimal	SWFWMD

Issue Area		Summary Degree of Effect	Organizations Commenting
Physical Environment	Navigation	None	U.S. Coast Guard (USCG)
	Air	Minimal	USEPA
	Contamination	Substantial	SWFWMD, USEPA
	Infrastructure	Alternative Corridor North-B: Minimal Remaining alternative corridors: Moderate	SWFWMD
	Farmland	None	None
	Aesthetics	Minimal	None
	Noise	Minimal	None
Special Designations	Outstanding Florida Waters	Alternative Corridor North-B: None Remaining alternative corridors: Minimal	SWFWMD, USEPA
	Aquatic Preserves	None	None
	Wild and Scenic Rivers	Alternative Corridors North-A and North-B: None Alternative Corridors Central and South: Minimal	NPS
	Sole Source Aquifers	None	None

6.2. Public, Local Government, and Other Stakeholder Engagement

Table 3 lists the public and agency outreach and coordination that have occurred to date. Throughout the Planning phase of the NTE, which began in October 2021, FDOT has participated in and responded to numerous phone calls, emails, and letters in response to public questions and comments regarding the project.

Table 3 | Public/Agency/Tribal Outreach and Coordination Conducted to Date

Coordination Type	Date	Organization	Description
Stakeholder Coordination	11/30/2021 3/30/2022	Sierra Club	Stakeholder meetings were held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	12/16/2021	Ocala Metro Chamber & Economic Partnership (CEP) Executive Board	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	12/21/2021 4/26/2022 5/3/2022	Levy County	Meetings and presentations were given to the County either through publicly-noticed board meetings or one-on-one sessions with elected and/or appointed officials.
	1/4/2022 3/15/2022 4/20/2022	Audubon Florida	Stakeholder meetings were held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	1/28/2022	Citrus Leadership Summit (Citrus County, Citrus County School Board, City of Inverness, City of Crystal River)	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	2/9/2022	Longhammock Ranch	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	2/17/2022	University of Florida – Department of Astronomy	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	2/17/2022	Horse Farms Forever	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.

Coordination Type	Date	Organization	Description
Stakeholder Coordination	2/21/2022	Sumter County and City of Wildwood	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	2/26/2022 5/19/2022	Florida Transportation Plan (FTP) Environmental Partners Working Group	Stakeholder meetings were held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	2/21/2022	City of Crystal River	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	2/28/2022 5/19/2022	Community of Royal	Stakeholder meetings were held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	3/1/2022 5/3/2022 5/17/2022	City of Inverness	Meetings and presentations were given to the municipality either through publicly-noticed board meetings or one-on-one sessions with elected and/or appointed officials.
	3/7/2022	City of Dunnellon	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	4/18/2022	Ash Marwah, Candidate for Florida State Representative (District 52)	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	5/12/2022	Leadership Citrus	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.

Coordination Type	Date	Organization	Description
Stakeholder Coordination	5/19/2022	Panasoffke Preserve	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	5/24/2022 6/27/2022	Citrus County	Meetings and presentations were given to the County either through publicly-noticed board meetings or one-on-one sessions with elected and/or appointed officials.
	5/25/2022	Hernando/Citrus Metropolitan Planning Organization (MPO) Technical Advisory Committee	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	5/25/2022	Hernando/Citrus Metropolitan Planning Organization Citizen Advisory Committee	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	5/26/2022	Levy Residents Small Group Meeting	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	6/1/2022	Peanut Farmers, and University of Florida Institute of Food and Agricultural Sciences (UF/IFAS)	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	6/2/2022	Hernando/Citrus MPO Board	A stakeholder meeting was held to introduce the project and provide an opportunity for input into the project's purpose and need and on the initial corridors.
	3/3/2022 4/28/2022	Marion County	Meetings and presentations were given to the County either through publicly-noticed board meetings or one-on-one sessions with elected and/or appointed officials.

Coordination Type	Date	Organization	Description
Public Outreach	• 12/7/2021 - Virtual • 12/7/2021 – In-person, Levy County • 12/9/2021 – In-person, Citrus County	Public Kickoff Meeting	To introduce the project, set expectations for the ACE process and project study, and present the project schedule. Combined attendance of over 1,300 attendees.
	11/1/2021	Newsletter	To introduce the project, set expectations for the ACE process and project study, and present the project schedule.
	4/1/2022	Fact Sheet	To provide an update on the project status, schedule, and accurate information.
Project Website	October 2021 to present		The project website provides an accurate and up-to-date source of information regarding the project status, schedule, and hosts information related to public meetings and events.
ETDM Programming Screen	10/20/2021	ETAT Briefing	A virtual meeting was held with the ETAT to introduce the project, the project's purpose and need, and initial corridors, and to discuss the schedule for the ETDM Programming Screen.

6.3. Local Government, Agency, and Other Stakeholder Organizations Letters and Resolutions

This section summarizes letters and resolutions received by FDOT from local governments, agencies, and other stakeholder organizations regarding the project as of the commencement of the Planning phase of the NTE, which began in October 2021. In addition to these letters and resolutions, FDOT has received and responded to numerous phone calls, emails, as well as letters from individuals regarding the project.

1000 Friends of Florida

In a letter dated December 1, 2021, from 1000 Friends of Florida, 1000 Friends of Florida expressed concern with the two initial alternative corridors that traverse the Cross Florida Greenway and other conservation lands, including the Goethe State Forest. 1000 Friends of Florida stated they believe the law's requirement that FDOT consider the Northern Turnpike Corridor Task Force recommendations should rule out both these routes from any further study. Their letter also cites provisions from Section 339.66(7) F.S., including avoiding conservation lands "to the greatest extent feasible" and following "any existing applicable requirements" for FDOT or Florida's Turnpike Enterprise in planning highway projects, including determining need and financial feasibility, assessing environmental impacts, and seriously considering a no-build option.

Citrus County Board of County Commissioners

The Citrus County Board of County Commissioners (BoCC) passed a No Build resolution on June 27, 2022 (Resolution 2022-055). As stated in the resolution, the Citrus County BoCC adopted a No Build resolution for the NTE project to protect the county's environmental resources, habitat for plants and wildlife, rural lands, fishing industry, and the quality of life and values of Citrus County citizens. The Citrus County BoCC supports continued study of improvement or expansion of existing roadways, including all feasible improvements to I-75.

Citrus County Chamber of Commerce, Ocala Metro County Chamber & Economic Partnership, and Dunnellon Chamber & Business Association

FDOT received a joint letter from Citrus County of Chamber of Commerce, Ocala Metro County Chamber & Economic Partnership, and Dunnellon Chamber & Business Association, dated May 6, 2022, requesting partnership to help FDOT through this process, and expressing common concerns regarding farmland preservation areas, existing conservation lands, Rainbow Springs, karst regions, and other environmentally sensitive areas; wildlife habitat preservation and safe access corridors; existing residential neighborhoods and schools; existing business / industrial areas; and local comprehensive and strategic plans.

City of Dunnellon

On December 20, 2021, the City of Dunnellon passed Resolution RES2021-26 supporting a No Build option for the NTE Project to protect Dunnellon's environmental resources, habitat for plants and wildlife, rural lands, the agriculture industry, and the quality of life and values of the City's citizens. A letter was also received from the Dunnellon City Council on March 24, 2022, requesting that FDOT hold a Kick-off Meeting or an Update Meeting somewhere within Dunnellon or the surrounding area of Marion County.

City of Inverness

The City of Inverness passed Resolution 22-05 on May 17, 2022, supporting a No Build option for the NTE project and requesting that the current study give further consideration and resources to alternatives associated with the expansion of I-75.

City of Wildwood and Sumter County

FDOT received a letter from the City of Wildwood and Sumter County, dated February 14, 2022, supporting a modified Alternative Corridor Central, as well as formally rejecting the other initial alternative corridors. The modifications required by the City of Wildwood and Sumter County to support the Alternative Corridor Central include eliminating any part of the extension north of SR 44 while east of I-75, and maintaining a parallel corridor on the west side of I-75 in close proximity to CR 475 north of SR 44 to CR 245E to the Marion County line before transitioning to the west for the balance of the Alternative Corridor Central. These modifications were requested to reduce impacts to the Community of Royal, to eliminate the impact of the existing business operations east of I-75, and provide a westerly parallel alignment of I-75.

Community of Royal

The initial alternative corridors begin at the northern terminus of Florida's Turnpike in Wildwood east of I-75. The four initial alternative corridors received stakeholder comments regarding potential impacts to the Community of Royal in Sumter County (**Figure 13**), including a letter dated April 5, 2022, from the Community of Royal. In the April 5, 2022, letter, the Community of Royal states that they cannot support the proposed alternative routes since they would bisect the Community of Royal and sever the residents from each other. The Community of Royal also expressed concerns with the NTE project's potential impacts to unmarked cemeteries (**Figure 13**), dating back before 1940, which are believed to exist but have yet to be found. In a separate letter, also dated April 5, 2022, the Community of Royal proposed two alternate corridors—the first to not cross SR 44 until at least 1.5 miles west of CR 475; the second is to utilize I-75 until at least 1.5 miles north of CR 466. The Community of Royal, as a potential historic district, was not identified by the EST or the GIS analysis, is unincorporated, and does not fall within census block groups identified as low income or minority. During public and stakeholder coordination, the Community of Royal informed FTE that the community prepared a Cultural Resources Assessment Survey (CRAS) in 2017 to explore the possibility of nominating the Community of Royal into the NRHP. Digital Heritage Interactive, LLC (DHI) completed the 2017 CRAS and supplemental documentation in early 2022. As indicated in the 2017 CRAS and discussed with community representatives, the Community of Royal is an African American community founded by formerly enslaved people during Reconstruction, with land patents dating to the 1870s. Current residents of the Community of Royal include descendants of the original nineteenth century African American landowners.

DHI recommended the Community of Royal as eligible for listing in the NRHP in 2017. In a letter dated April 4, 2022, SHPO concurred with the eligibility recommendation for the Community of Royal as a historic district (a rural historic landscape, specifically). As a historic district, the Community of Royal is eligible for listing in the NRHP for its historic significance in the areas of Exploration/Settlement, Community Planning and Development, and Ethnic Heritage-Black. Contributing resources identified in the community include buildings, farmsteads, one known cemetery, and seven archaeological resources. Development of the NRHP nomination is ongoing as of July 2022. While the Community of Royal is not yet listed in the NRHP, its designation as eligible for listing in the NRHP qualifies it a historic property. SHPO recommends any future development plans should be sensitive to avoiding potential adverse impacts.

The location of the initial alternative corridors roughly bisects the historic district as delineated in 2017. SHPO has recommended shifting the southern boundary of the historic district as proposed in 2017 to exclude areas along SR 44 that no longer retain historic integrity. The final boundaries of the historic district have not yet been determined.

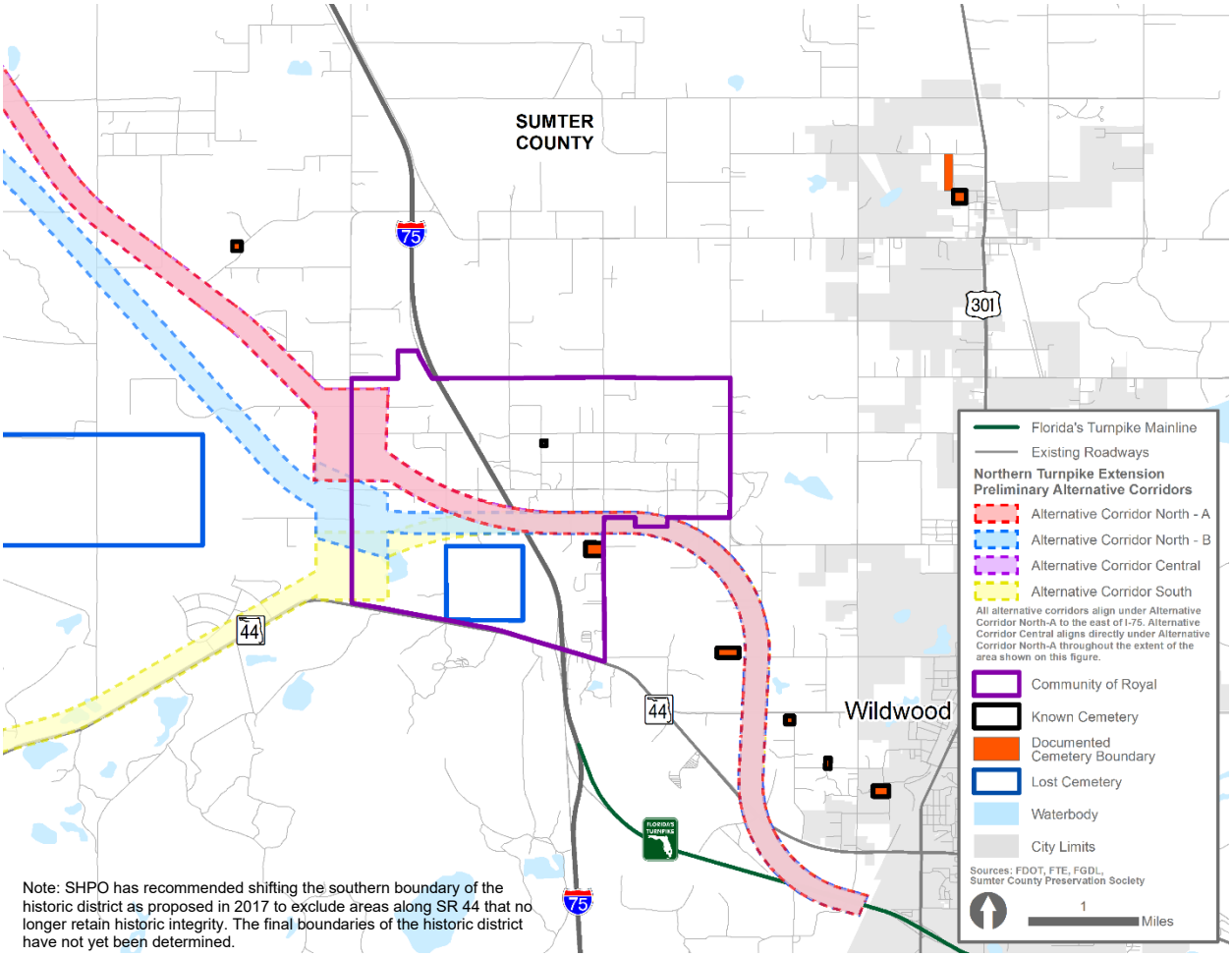


Figure 13 | Community of Royal and Unmarked Cemeteries

Defenders of Wildlife

As stated in a letter dated December 21, 2021, Defenders of Wildlife does not support the development of NTE and recommend that the No Build alternative be thoroughly evaluated. The letter also discusses previous recommendations made by the former Northern Turnpike Corridor Task Force.

Levy County Board of County Commissioners

FDOT received a letter from the Levy County BoCC, dated November 17, 2021, stating that the Levy County BoCC has received considerable citizen input expressing the desire for a No Build option. As per Levy County Resolution 2021-151, passed on December 21, 2021, the Levy County BoCC requests the selection of a No Build option for the NTE project. In addition, the

resolution states that if the project must move forward, the Levy County BoCC requests meaningful public input processes and that all concerns of the Levy County BoCC and Levy County residents are addressed for any proposed corridor or route that would bisect Levy County. The Levy County BoCC also requests that a County Commissioner or the County Coordinator (or his designee) be appointed to serve on the ETAT for the project or any other FTE or limited access roadway project that is proposed within Levy County. The Levy County BoCC also expressed that any such State projects that move forward do not result in diminished or withheld Small County Outreach program (SCOP) or Small County Road Assistance Program (SCRAP) funding.

As stated in a letter from the Levy County BoCC, dated February 23, 2022, the Levy County BoCC continues to receive citizen input expressing the desire for a No Build option due to concern over negative impacts on Levy County, its environmental assets, its rural neighborhoods, its ecotourism industry and its way of life. The letter also states that many citizens have expressed concern regarding Alternative Corridor North-A and Alternative Corridor North-B. The Levy County BoCC expressed that resources allocated for the NTE project should be reallocated to directly service the non-transportation needs of the public and the maintenance of existing roads and bridges. The Levy County BoCC requests that portions of the NTE not traverse through Levy County.

Marion County Board of County Commissioners

FDOT received a letter from the Marion County BoCC, dated December 21, 2021, reminding FDOT that the Marion County adopted comprehensive plan protects the Farmland Preservation Area (FPA) regarding the development of expressways or toll roads. The Marion County BoCC encouraged FDOT to consider the following while developing the final alignment: demonstrating how this extension will enhance the traffic flow on I-75 and other major corridors in southwest Marion County, such as CR 484, SR 200, and SR 40, including their related interchanges; further examine and evaluate MCORES' recommendations; make every effort to avoid impact to existing developed residential subdivisions and mitigate any and all environmental impacts.

National Wildlife Federation

In a letter dated December 6, 2021, the National Wildlife Federation (NWF) recommends a No Build option for all suggested initial alternative corridors in the study area. As per NWF, the proposed corridors raise strong concerns about habitat fragmentation and ecosystem degradation in Sumter, Marion, Citrus and Levy counties, and would cause significant impacts to wildlife and their habitat. NWF urges FDOT to address the need for and to evaluate the economic, environmental, hurricane evacuation, and land use impacts of the specific corridor, and to incorporate the previous recommendations made by the former Northern Turnpike Corridor Task Force.

Pine Ridge Property Owners Association, Inc.

In a letter dated April 27, 2022, the Pine Ridge Property Owners Association requested FDOT to adopt a No Build option for the Northern Turnpike Extension Study.

SWFWMD

As stated in a letter from SWFWMD, dated February 14, 2022, SWFWMD cannot support alternative corridors that bisect SWFWMD-owned conservation lands or otherwise severs SWFWMD-owned conservation lands from other existing conservation lands.

Tall Timbers Research Station

In a letter dated January 24, 2022, from Tall Timbers Research Station, Tall Timbers calls attention to specific Northern Turnpike Corridor Task Force report guiding principles and providing comments on each.

Town of Inglis

The Town of Inglis passed Resolution RI-22 on February 8, 2022, supporting a No Build option, to protect Inglis's environmental resources, habitat for plants and wildlife, rural lands, the agriculture industry, and the quality of life and values of the Town's citizens.

7. Evaluation and Conclusion

The initial alternative corridors were screened through the FDOT Efficient Transportation Decision Making (ETDM) process from October 2021 through December 2021 (ETDM No. 14480), during which regulatory agencies and other members of the Environmental Technical Advisory Team (ETAT) provided comments on the initial alternative corridors. A draft Methodology Memorandum, outlining the evaluation parameters for the initial alternative corridors, was developed and uploaded to the FDOT Environmental Screening Tool (EST) for review by the ETAT from May 2022 to June 2022. A public kickoff (both in-person and virtually) was held in December 2021. Additional small group meetings and agency presentations were also held.

Over the course of the study process, FDOT received considerable feedback from the public, local agencies and stakeholders regarding the need to prioritize I-75 improvements as a critical enhancement to regional mobility and reliability within the study area. Current data also illustrates high projected growth in the vicinity of I-75, especially northbound I-75 at SR-44, north of the Sumter/Marion County line to north of Ocala, and Alachua County limits. Additionally, local communities within the study area have expressed a need for more robust coordination and collaboration with FDOT to further minimize environmental impacts and to preserve and protect community character.

Improvements to I-75 are a critical component to the success of any extension of Florida's Turnpike Mainline. Therefore, this study's evaluation is complete without making a specific recommendation of a corridor for continuation of the Project Development and Environment, or PD&E, phase. As the prioritized improvements to I-75 progress, this study's recommendation is for FDOT to initiate a regional study of need and include an emphasis on complementing I-75 and other regional transportation improvements within the study area. Future activities should include an enhanced public engagement program to coordinate with communities in advance of any project development, and to avoid communities and other resources that have substantial cultural, historic, or other significance.

Appendix A | Methodology Memorandum

Alternative Corridor Evaluation

Methodology Memorandum

May 2022

This planning product may be adopted into the environmental review process, pursuant to Title 23 USC §168, or the state project development process.

Alternative Corridor Evaluation Methodology Memorandum

Florida Department of Transportation

Florida's Turnpike Enterprise

Northern Turnpike Extension

Citrus, Levy, Marion, and Sumter Counties, Florida

Financial Management Number: 449743-2-22-01

ETDM Number: 14480

May 2022

This planning product may be adopted into the environmental review process, pursuant to Title 23 USC §168, or the state project development process.

Table of Contents

List of Figures

List of Tables

Methodology Memorandum

Northern Turnpike Extension

FPID: 449743-2-22-01

ETDM No.: 14480

Location: Citrus, Levy, Marion, and Sumter Counties, Florida

Project Limits: From the northern terminus of the Florida's Turnpike in Wildwood, FL to a logical and appropriate terminus as determined by FDOT.

Prepared by: Florida's Turnpike Enterprise

Date: May 2, 2022

Subject: Alternative Corridor Evaluation Methodology Memorandum

The purpose of this Methodology Memorandum is to describe the process to be used to evaluate, eliminate, and then recommend alternative corridor(s) for further analysis in the Project Development and Environment (PD&E) Study for the Northern Turnpike Extension (NTE). The memorandum provides the goals of the evaluation, the screening and evaluation criteria, and the basis for decision-making. The methodology also documents stakeholder coordination and public engagement that will be conducted throughout the evaluation process. The evaluation of the alternative corridors will be documented in the Alternative Corridor Evaluation Report (ACER).

1. Background

The background section of this memorandum provides contact information for the corridor study, a summary of project goals, a description of the project, and a summary of the project's purpose and need.

1.1. Contact Personnel

William Burke, PLA
Project Manager for Florida's Turnpike Enterprise (HDR)
(407) 264-3142
William.Burke@dot.state.fl.us

Henry Pinzon, P.E., FTE Environmental Management Engineer
Florida's Turnpike Enterprise
(407) 264 3802
Henry.Pinzon@dot.state.fl.us

1.2. Project Description

Florida's Turnpike Enterprise (FTE), part of the Florida Department of Transportation (FDOT), is conducting an Alternative Corridor Evaluation (ACE) to evaluate the extension of Florida's Turnpike [State Road (SR) 91] from its northerly terminus in Wildwood to a logical and appropriate terminus as determined by FDOT per Section 339.66(6), Florida Statutes (F.S.). This corridor is referred to as the Northern Turnpike Extension (NTE) and would be a limited access toll highway. The NTE corridor will be part of the Strategic Intermodal System (SIS), which is Florida's high priority network of transportation facilities important to the state's economy and mobility. The study area, shown in **Figure 1**, covers Citrus, Levy, Marion, and Sumter counties.

The Florida Legislature finds that the extension of Florida's Turnpike from its northern terminus in Wildwood is in the strategic interest of the state of Florida. The Legislature through Section 339.66(6) F.S. requires FDOT to conduct a Project Development and Environment (PD&E) study of the NTE and consider project configuration, alignment, cost, and schedule. Section 339.66(7) F.S. also requires FDOT to consider innovative concepts to combine right-of-way acquisition with the acquisition of lands or easements to facilitate environmental mitigation or ecosystem, wildlife habitat, or water quality protection or restoration.

During the ACE process, future traffic conditions within the existing roadway network will be analyzed. Alternative corridors have been developed to further regional connectivity, reduce congestion, further safety, and improve hurricane evacuation. The evaluation will include a comparative analysis of the engineering and environmental feasibility of each alternative corridor, including potential interchange locations. It will recommend viable corridor(s) for further

evaluation during the PD&E study, which is the next phase of the overall project development process.

The initial corridors included in the Efficient Transportation Decision Making (ETDM) screening were drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Alternative corridors near potential interchanges and areas with more development are wider than 1,000 feet to provide flexibility in the design of alignments that conform to current FDOT design requirements and allow flexibility to connect existing and future transportation facilities.

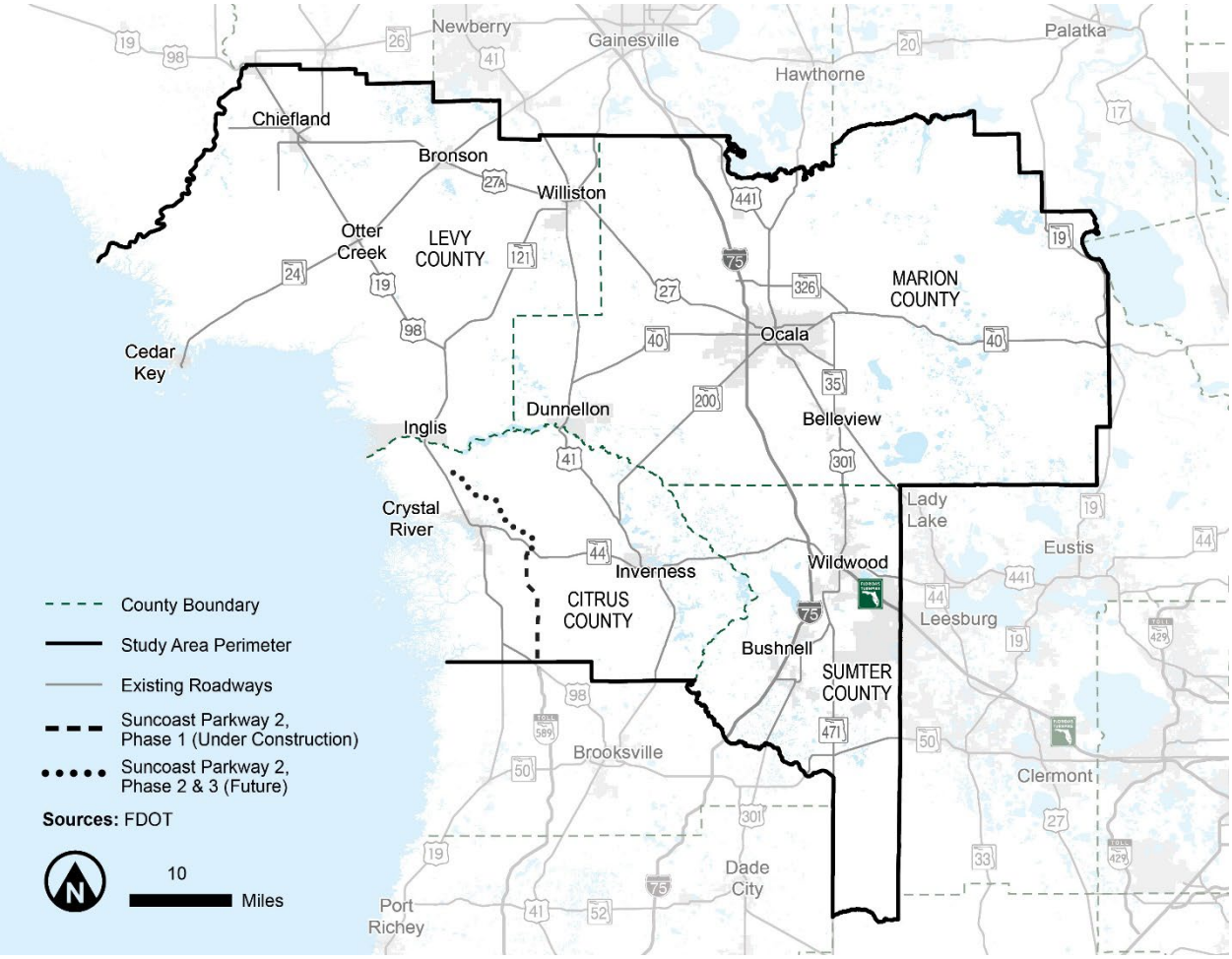


Figure 1 | Study Area

1.2.1. Related Regional Projects and Studies

There are several previous studies and current projects related to mobility in the region as shown in **Figure 2**. The NTE was previously evaluated as the Northern Extension of Florida's Turnpike (NEFT) in a PD&E study with a State Environmental Impact Report (SEIR) approved in 1992. This SEIR recommended an alignment from the terminus of Florida's Turnpike in Wildwood to US 19/98 at Lebanon Station in Levy County. The purpose and need for NEFT was to address system linkage and capacity, social and economic demands, and safety.

A Supplemental SEIR for NEFT was completed in 1999 (1999 PD&E) which reevaluated the segment between US 41 and US 19/98 and resulted in a modified preferred alignment that avoided the Goethe State Forest and red-cockaded woodpecker colonies within Levy County.

An ongoing related project in the study area involves US 19 in Levy County and portions of Citrus County. Section 339.67 F.S. requires FDOT to develop and include in the work program the construction of controlled access facilities as necessary to achieve free flow of traffic on US 19, beginning at the terminus of the Suncoast Parkway 2 Phase 3 north between the cities of Crystal River and Inglis, predominantly along US 19, to a logical terminus on Interstate 10 in Madison County. This SIS facility is to be developed using existing roadway, or portions thereof, to ensure the free flow of traffic along the roadway by improvements, such as limited access alignments to manage congestion points and retrofitting the existing roadway with a series of grade separations that provide an alternative to a signalized intersection for through traffic.

Other projects in the vicinity of NTE include the I-75 Interstate Master Plan from Florida's Turnpike to CR 234 in Alachua, Marion, and Sumter counties and Suncoast Parkway 2 Phases 1 through 3 in Hernando and Citrus counties. The I-75 Master Plan is evaluating short- and long-term improvements to the I-75 mainline and interchanges and is anticipated to be complete by Fall 2022. Suncoast Parkway 2 is a new limited access toll facility extending the existing Suncoast Parkway 1 in Hernando County north to connect with US 19 north of Crystal River in Citrus County. Construction of Suncoast Parkway 2, Phase 1 from US 98 to SR 44 is underway. Construction of Suncoast Parkway 2, Phase 2 from SR 44 to CR 486 is funded for construction in Fiscal Year (FY) 2023. The section of Suncoast Parkway 2, Phase 3 from CR 486 to US 19/98 is currently under Design.

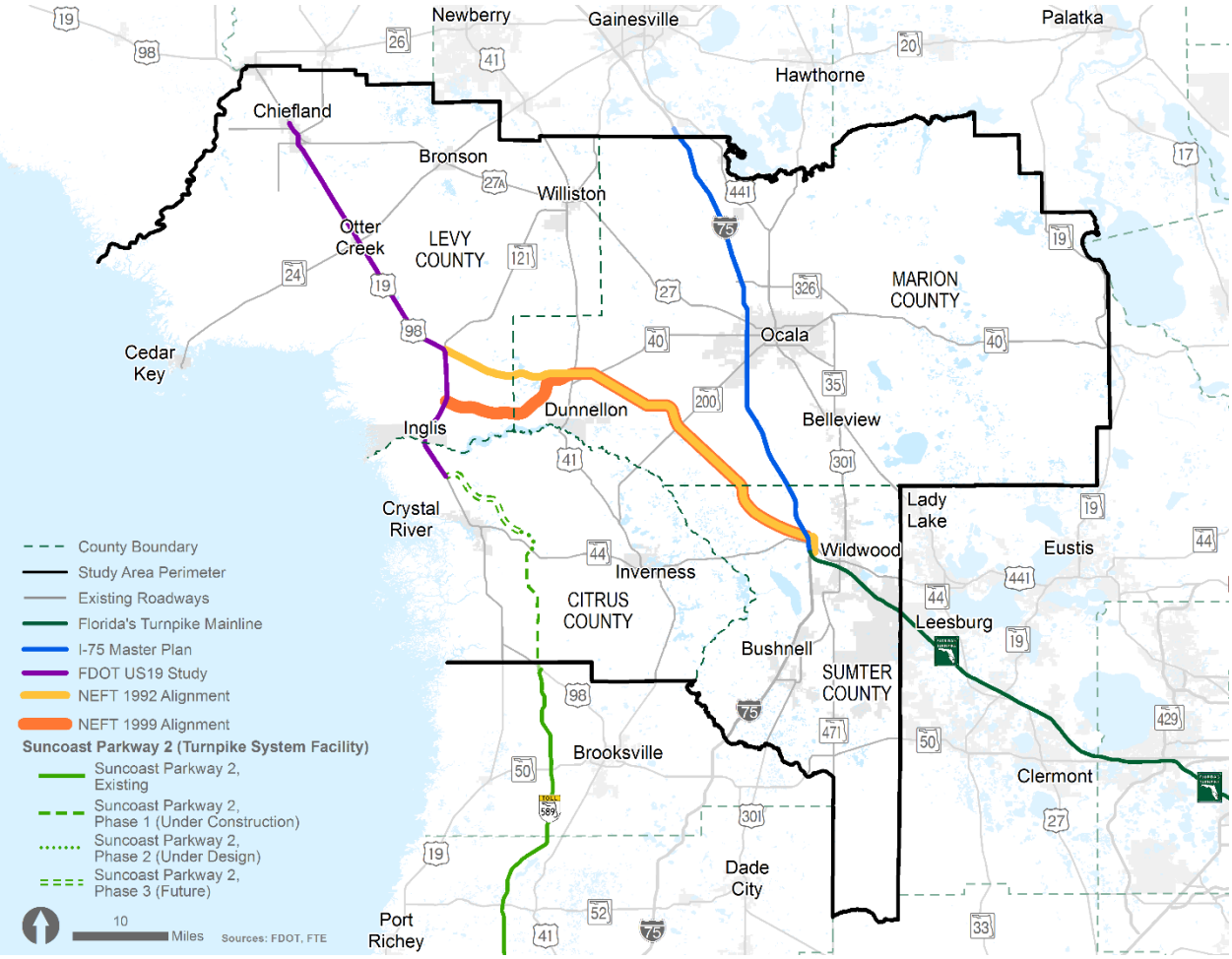


Figure 2 | Related Projects and Studies

1.3. Purpose and Need

1.3.1. Purpose

The purpose of the NTE is to provide roadway linkage in the regional roadway network by extending Florida's Turnpike from its northern terminus in Wildwood northwest to a logical and appropriate terminus as determined by FDOT per Section 339.66(6) F.S. The roadway linkage will improve connectivity, congestion, safety, and hurricane evacuation within and through the study area.

The goals of the NTE are to:

- Enhance regional connectivity,
- Accommodate increased travel demand associated with projected population growth,
- Address regional congestion and safety issues, and
- Improve hurricane evacuation.

1.3.2. Needs

The needs for the project are the following:

1.3.2.1. Project Status

The NTE has been included in the State Transportation Improvement Program (STIP) and is anticipated to be incorporated into the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIP), Long-Range Transportation Plans (LRTP), and local government comprehensive plans when the alignment is defined. The purpose of the NTE is generally consistent with the goals, objectives, and policies of the Florida Transportation Plan (FTP), Hernando/Citrus MPO, Lake~Sumter MPO, and the Ocala/Marion Transportation Planning Organization. As the project is developed, FTE will coordinate with MPOs and local governments to incorporate the project into their plans.

1.3.2.2. System Linkage

There is a need to increase mobility and provide route choices for regional travelers within and through the study area. The existing transportation network in the study area is insufficient to support projected travel demand on major roadways.

Within the study area, there are currently no limited-access east-west roadway facilities. The only existing limited access facilities in the study area are I-75 and Florida's Turnpike, which ends at I-75 in Wildwood. Citrus and Levy counties are not currently served by any limited access facilities. The Suncoast Parkway 2 will terminate at US 19/98 in Citrus County. It should be noted that the North I-75 Master Plan, which evaluated potential solutions for recurring and non-recurring congestion on the section of I-75 from Florida's Turnpike to I-10 interchanges found that the existing parallel roadway network within the study area, including US 41 and US 301, cannot accommodate the recurring and non-recurring congestion. Given the expected travel growth, modifications to I-75 north of Wildwood would not adequately address the need across the study area for a limited-access, free-flow, high-speed facility connecting people and goods to other major transportation facilities and urban areas in central and north Florida. Connectivity is needed between major regional routes such as US 41 and SR 200, municipalities in the study area, and major activity centers to relieve congestion on the arterial network in the study area. Resident, commuting, and transient users alike in the study area need additional route choices.

A limited-access, high-speed facility linking Florida's Turnpike with existing major north-south roadways in the study area is needed to provide connectivity for long-distance trips between southeast Florida, central Florida, Florida's Panhandle, Georgia, and Alabama, to shorten the travel time and distance of these trips; and to provide alternatives in the regional roadway network. A facility is also needed to improve connectivity between local activity centers and major urban centers outside the study area and normalize travel time reliability for residents of smaller communities to reach destinations, such as healthcare facilities, educational institutions, airports, recreational destinations, and markets.

1.3.2.3. Capacity

Currently, the heaviest travel demand in the study area occurs on I-75, Florida's Turnpike, and segments of SR 44, SR 35, SR 40, SR 50, US 41, US 27, and US 301. This type of demand causes these roadways to operate below FDOT Level of Service (LOS) targets (LOS C for rural areas and LOS D for urban areas). Thus, there is a need for additional capacity to relieve the existing congested roadway network in the study area.

Congestion on the roadway network within the study area hinders local and regional mobility. Non-recurring congestion accounts for about 80 percent of the total congestion on I-75. Non-recurring congestion on I-75 is related to substantial increases in traffic during holidays, peak tourism seasons, weekends, and special events, and frequent closures occur because of incidents or weather. Recurring congestion is caused by routine traffic volumes operating in a typical environment above the roadway's capacity. Additionally, I-75 currently reaches an unacceptable LOS F for 134 days per year, on average. On average, it can be expected that all lanes of I-75 in both directions will be closed simultaneously at least once every nine days due to incidents (predominantly crashes) according to FDOT's North I-75 Master Plan Summary Report, dated August 2017. The existing roadways (SR 200, US 41, US 27, US 441, and US 301) that are used as alternative routes when I-75 is closed do not have adequate capacity to accommodate additional detour traffic. Alternative corridors for traffic diversion from I-75 are needed to address this non-recurring congestion and to alleviate future recurring congestion.

Analysis of 2018 origin and destination (O-D) data from Streetlight Data showed that 1,627,542 daily trips on the local roadway network and the State Highway System (SHS) originated, ended, or passed through the study area. These trips will be affected because travel times along major corridors within the study area (SR 50, SR 471, US 301, SR 44, US 41, SR 200, US 27, SR 40, and SR 121) will continue to increase as these corridors become congested in the future. Travel delays on major corridors will add strain to the local roadway network as commuters also use these facilities as alternatives to other congested roads. The problem will be exacerbated when incidents occur on major arterials and drivers cannot find alternative routes. The consequences of increased levels of congestion include worsening travel times on local roads, deterioration of safety, and premature failure of the pavement.

1.3.2.4. Transportation Demand

According to FDOT's initial analysis of the 2050 statewide travel demand model, transportation demand within the study area will continue to increase as both population and employment grow. It is estimated that population and employment within the study area will grow from 2015 levels by 53 percent and 72 percent in 2050, respectively. Travel demand forecasts indicate that planned and committed improvements to existing local or regional corridors could be outpaced by the growth of future travel demand in the study area. Future growth is expected to increase the travel and freight demand by more than 50 percent by 2050 and, consequently, increase congestion on the roadway network in the study area. The forecasted growth in travel and freight demand will occur in urbanized areas and near activity centers and will substantially affect mobility for people and goods in the study area. Thus, there is a need to address growth in transportation demand that is affecting mobility in the study area.

Based on the results of the FTE Statewide Travel Demand Model for the 2050 forecast year, daily traffic volumes on Florida's Turnpike, US 19/98, US 41, SR 121, SR 200, and SR 40 are projected to grow from 2018 levels by more than 100 percent by 2050. Travel demand forecasts indicate that planned and committed improvements to existing local or regional corridors could be outpaced by the growth of future travel demand in the study area.

The high truck volumes along the corridor create situations where slow-moving truck traffic negatively affects desired speeds of passenger cars. Evaluation of 2018 traffic data within the study area showed that I-75 carries the largest volumes of truck traffic, ranging from 10,000 to greater than 15,000 truck annual average daily traffic (AADT). The segment of I-75 between Florida's Turnpike and SR 326 carries the heaviest truck volumes at more than 20 percent truck traffic volume. Florida's Turnpike carries between 6,000 and 10,000 truck AADT. Roadway segments with greater than 2,500 truck AADT include segments of SR 44 and US 41 in Inverness, US 301 in Marion and Sumter counties, and US 441 and SR 40 in Marion County.

Based on the O-D data from Streetlight Data, 73 percent (1,437,124 trips) of the study area trips start and end within the study area. These trips will be substantially affected because travel times along major corridors within the study area will continue to increase as these roadways become congested in the future. Travel delays on major roadways will add strain to the local roadway network as commuters use these facilities as alternatives to congested state roads.

1.3.2.5. Safety

Increased travel demand has resulted in safety concerns along major arterials in most urban areas, including entire segments of I-75, Florida's Turnpike, SR 40, and US 301. Review of five-year historical crash data from January 1, 2014, through December 31, 2018, showed there were 84,144 reported crashes in the SHS within the study area, of which almost 40 percent were intersection-related resulting from congestion. Run-off-the-road crashes were more prevalent in rural areas. During the same five-year study period, there were 1,657 reported bicycle and pedestrian crashes in the study area. Congestion is prevalent on routes that are considered high crash corridors.

1.3.2.6. Economic Development

The growth in population, housing, and tourism in the study area indicates that economic development is on the rise. Thus, there is a need to accommodate increased travel, freight, and tourism demands to maintain the economic vitality of the study area. Approximately 85 percent of the jobs created by industries that serve markets beyond the region in which they are located in Florida are within five miles of a limited-access facility. Marion and Sumter counties are generally served by I-75 and Florida's Turnpike, while Citrus and Levy counties generally lack direct connections to limited-access, free-flow, high-speed facilities. Economic analysis of the study area conducted as part of this project showed that future Gross Domestic Product (GDP) growth in Citrus County is expected to be the second highest in the study area, and there will be several areas of relatively higher growth in employment anticipated over the next 30 years. Improved transportation access in Citrus County via the roadway network, or multimodal network, or both is needed to enhance accessibility to many jobs in the region.

The study area largely relies on trucks for freight transportation (trucks transport approximately 90 percent of freight in the study area). At the county level, several major freight employers are located in Citrus County. Future freight flow volumes are expected to decline in Citrus County, while future volumes in Marion and Sumter counties are expected to grow.[1] Given the importance of the highway network to freight mobility, a major highway corridor in the region is needed to improve truck travel time reliability to facilitate just-in-time delivery across the study area, thus enhancing economic development.

A review of the current state of the tourism economy from Visit Florida's "Florida Visitor Estimates and Travel Industry Trend Indicators"[2] and Rockport Analytics "Contribution of Travel & Tourism to the Florida Economy"[3] showed tourism in the study area is one of the top four traded cluster employment sectors in the region. The study area benefits from agritourism and ecotourism with visitors spending between $625.4 million and $2.45 billion in the local economy annually. The study area has a combined regional GDP of approximately $16.8 billion. An expanded and connected transportation network with limited-access, high-speed facilities is needed to attract and maintain high levels of visitation from areas outside the study area that contribute to the economy.

1.3.2.7. Hurricane Evacuation

There is a need to improve hurricane evacuation clearance times and provide relief for the high demand on I-75 and other evacuation routes in the study area during evacuation events. I-75 north of the interchange with Florida's Turnpike is a major bottleneck that affects the effectiveness of evacuation plans. Additional northbound capacity is needed on the west side of the study area so that the broader geographic range may find relief for the existing evacuation routes and improved access to shelter locations. Additional capacity is needed on the transportation network to serve in-study-area evacuation trips; out-of-study-area evacuation trips; and evacuation trips from the central Florida, southwest Florida, and Tampa Bay regions. There is also a need to provide network redundancy to critical transportation facilities within the study area as a backup or an alternative route during emergency or disruptive events.

A hurricane evacuation analysis was performed by FDOT as part of this project to determine an initial estimate of evacuation demand to be served by a potential NTE corridor during specific intensity and track scenarios. The analysis showed the greatest evacuation demand for the roadway network in the study area is generated by a paralleling west coast Category 5 storm (Evacuation Level E). Such a storm would generate a demand of 94,000 vehicles evacuating from the four counties in the study area. Many of these vehicles would try to use an already overburdened I-75.

The analysis showed that about 3,000 vehicles per hour could clear the NTE corridor within 3 to 31 hours, depending on the scenario (storm track and intensity) and public response. A high-speed, high-capacity corridor is needed to provide net positive results on the statewide

[1] FDOT, Freight and Logistics Overviews, 2021
[2] "Florida Visitor Estimates and Travel Industry Trend Indicators", Visit Florida, February 15, 2021, Accessed at: https://visitflorida.app.box.com/s/yybwlayqp5ul95851p1vobhwjpsxr2cr
[3] "Picking up the Pace: Florida's Tourism Performance Jumps into a Higher Gear", Accessed at: https://www.visitflorida.org/media/30679/florida-visitor-economic-impact-study.pdf

hurricane evacuation efforts and relieve the high evacuation traffic demand on I-75 for many hurricane scenarios.

2. Goals and Objectives of the Alternative Corridor Evaluation

2.1. Goals and Intent of the Alternative Corridor Evaluation

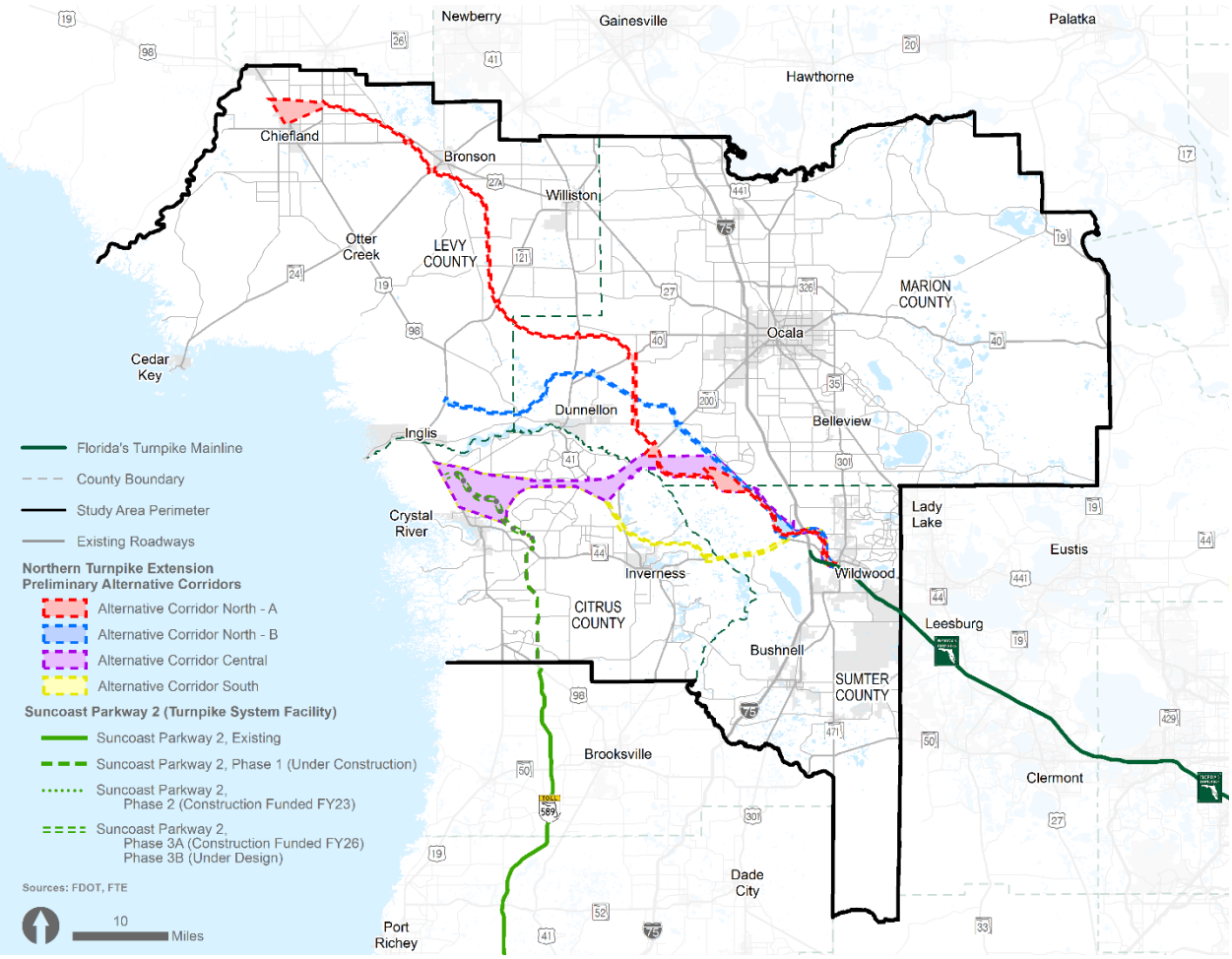
The goal of the ACE process is to identify, evaluate, and eliminate alternative corridors based on meeting the project purpose and need, avoidance and/or minimization of potential impacts to environmental resources, engineering feasibility, a narrative assessment of the corridors, and agency/public input. The ACE process ensures that all alternative corridors are evaluated consistently.

The ACE process, as defined in the PD&E Manual and ETDM Manual, meets the intent of the Code of Federal Regulations (CFR), Title 23, Part 450 (Planning Regulations) and 23 U.S. Code (USC) §168 (Integration of Planning and Environmental Review) of streamlining the planning and environmental review process. It is the intent to conduct the ACE for the NTE so that planning decisions can be directly incorporated into the National Environmental Policy Act (NEPA)/PD&E process.

2.2. Status in Project Delivery

The ETDM Programming Screen was initiated on October 20, 2021 (ETDM No. 14480, http://etdmpub.fla-etat.org). As shown in **Figure 3**, four alternative corridors were developed for the purpose of the ETDM Programming Screen. The ETDM Programming Screen review period was scheduled to end on December 7, 2021, but the review of the alternative corridors was completed on December 20, 2021 after a 15-day review period extension was requested by the Environmental Technical Advisory Team (ETAT)..

The four alternative corridors entered in the ETDM Programming Screen were developed using Geographic Information Systems (GIS) datasets and the Environmental Screening Tool (EST) GIS analysis. Through the ETDM Programming Screen, the four alternative corridors were screened to help identify sensitive resources that should be avoided, to the extent possible, and any fatal flaws. The naming of each alternative corridor will remain consistent throughout the ACE process and be carried through the PD&E study.



Note: The corridors are drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in the PD&E study.

Figure 3 | NTE Alternative Corridors

3. Alternative Corridor Evaluation Methodology

3.1. Data Collection

The data used to evaluate the alternative corridors' potential social and economic, cultural, natural, and physical environmental impacts will be derived from GIS, literature, and field reviews, where appropriate. Various GIS datasets housed within the EST and the Florida Geographical Data Library (FGDL), supplemented with GIS data from relevant counties and municipalities will be used as data sources. A preliminary list of GIS data layers that may be used in the assessment of the study area is provided in **Table 1**. The ETAT used EST data to review the corridors during ETDM Programming screen

Table 1 | Potential GIS Layers

GIS Data Layer	Source	Year
Social and Economic		
Public and Private Schools	FGDL	2020
Religious Centers	FGDL	2015
Health Facility Parcels	FGDL	2010
Fire Department and Emergency Facilities	FGDL	2018
Government Buildings	FGDL	2016
Law Enforcement Facilities	FGDL	2018
Cemeteries	FGDL	2019
Minority and Low-Income Population	US Census American Community Survey (ACS)	2019
Farmland	FGDL	2018
Existing Land Use	FDOR, County Property Appraiser, FGDL	2021
Future Land Use	Citrus County, Levy County, Marion County, Sumter County	2021
Public Lands	FGDL	2011
Marion County Farmland Preservation Area	Marion County	2019
Military Installations	Multiple Sources	2010
Airports	FAA	2017
Hospitals	GeoPlan	2017
Correctional Facilities	GeoPlan	2017
Cultural Resources		

GIS Data Layer	Source	Year
State Parks	FGDL	2019
American Indian Lands	FGDL	2017
Historic Sites, Railroads, Structures & Districts	FGDL/ Bureau of Archaeological Research	2021
Local Parks	FGDL	2019
National Register of Historic Places	NPS	2021
State Historic Preservation Officer (SHPO) Bridges	FGDL/ Bureau of Archaeological Research	2021
SHPO Cemeteries	FGDL/ Bureau of Archaeological Research	2021
SHPO Resource Groups	FGDL/ Bureau of Archaeological Research	2021
SHPO Structures	FGDL/ Bureau of Archaeological Research	2021
Soils	NRCS	2020
Recreational Facilities/Sites	FGDL/SWFWMD/SRWMD	2019
Tribal Lands	GeoPlan	2017
Trails	FGDL	2019
Natural Environment		
Aquatic Preserve Boundaries	FGDL/FDEP	2019
Bald Eagle Nesting Territories	FGDL/FDEP	2017
Bear Kill Locations	FGDL/FWC	2018
FDEP Ecosystem Management Areas	FGDL/FDEP	1999
FDEP Mitigation Banks	FDEP	2021
FEMA Flood Hazard Zones	FGDL	2020
FNAI Managed Conservation Areas	FGDL/FNAI	2020
Managed Conservation Lands	FNAI	2019
Florida Forever Acquired Lands	FNAI	2019
Aquatic Preserves	FDEP	2011
Coastal Avoidance Areas	FDEM	2020
Gulf Sturgeon Critical Habitat	USFWS	2003
High Risk Coastal Areas	FEMA	2018
Lakes	FDEP	2019

GIS Data Layer	Source	Year
Red Cockaded Woodpecker Habitat	FGDL/FWC	2005
Outstanding Florida Waters	FDEP	2019
State Forests	Florida Forestry Service	2016
Springheads	FDEP	2016
Wetlands	NWI	2020
Wetlands and Water Land Uses	SWFWMD/SRWMD	2018
Wildlife Observations	FGDL/FWC	2015
Wastewater Facilities	FDOH	2019
Public Water Supply Plants	FDEP	2015
Certified Power Plants	FDEP	2013
National Wildlife Refuge	USFWS	2017
Physical Environment		
Brownfields	FGDL	2019
EPA RCRA Regulated Facilities	FGDL	2020
Hazardous Materials Generator Sites	FDEP	2021
Landfills	FGDL	2021
Petroleum Contamination Monitoring Sites	FGDL	2020
Solid Waste Facilities	FGDL	2021
Storage Tanks Contamination Monitoring	FGDL	2021
Superfund Sites	FGDL	2020
Sabal Trail Gas Pipeline	Gulf Restoration Network	2016

3.2. Study Area

The study area consists of Citrus, Levy, Marion and Sumter counties. Alternative corridors have been established as the basis for the ETDM Programming Screen. As the ACE process continues, corridors may be refined or added within the study area.

3.3. Identifying Environmental Constraints

GIS data were used to identify environmentally sensitive resources for which impacts need to be avoided and minimized. The data sources included in **Table 1** were used to locate social, cultural, natural, and physical constraints within the study area.

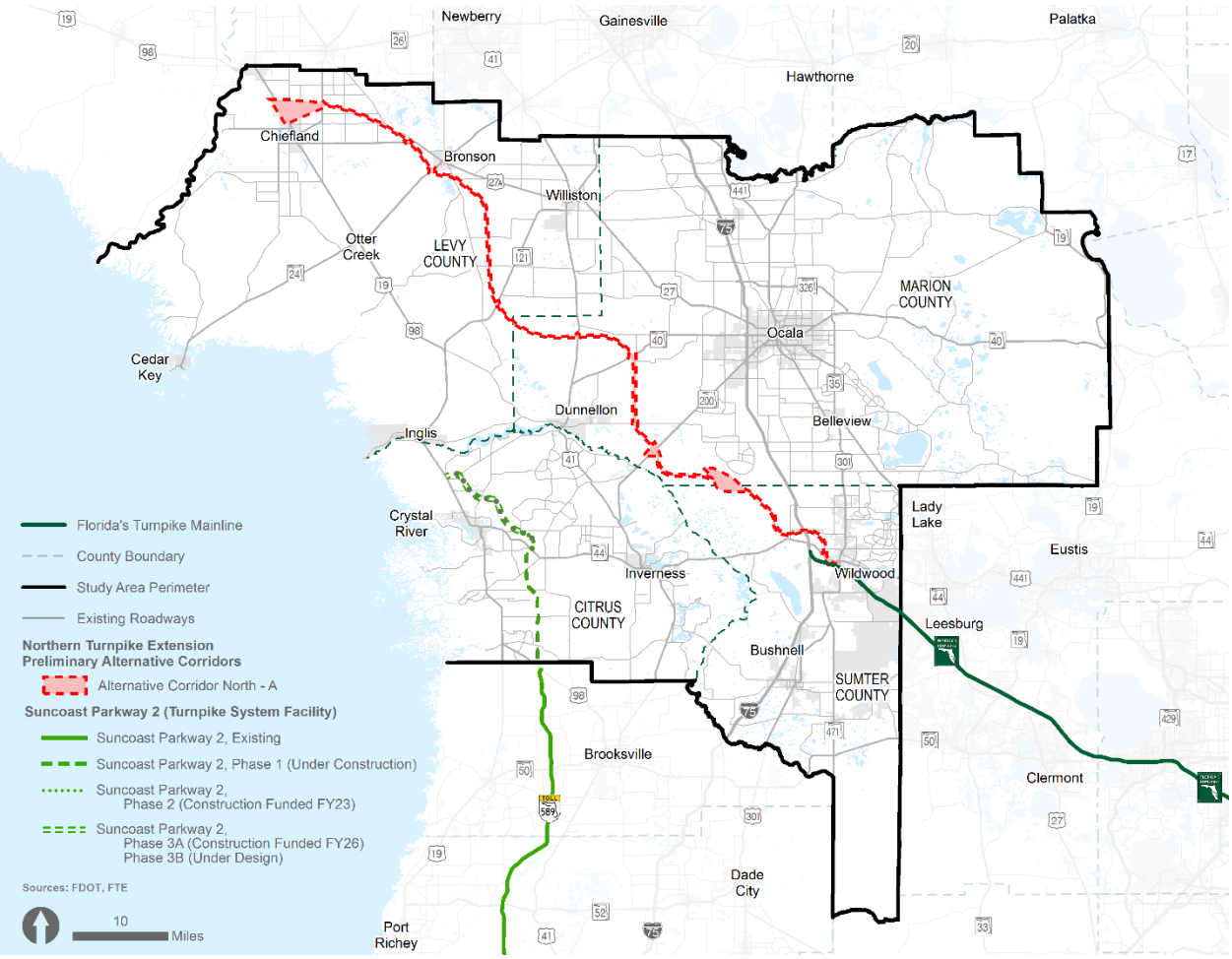
3.4. Alternative Corridors

Alternative corridors were identified using GIS mapping of environmental constraints and of existing transportation and utility corridors, which could provide opportunity to co-locate or build an adjacent or parallel facility. As shown in **Figure 3**, four alternative corridors a minimum of 1,000 feet wide were developed for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in the PD&E study. Alternative Corridor North-A, Alternative Corridor Central, and Alternative Corridor South have several expanded areas due to environmental considerations and to provide that flexibility at interchange locations, particularly at their western termini.

The corridors begin near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and head northwest to terminate at the future location of the Suncoast Parkway or US 19/98, following the routes described below:

3.4.1. Alternative Corridor North-A

Alternative Corridor North-A is located in Levy, Marion and Sumter counties, as shown in red on **Figure 4**. This corridor is approximately 81 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. Approximately 3 miles after it overpasses I-75, it runs parallel to and on the west side of a utility easement through a portion of Marion Oaks for approximately 4 miles. It continues northwest before crossing SR 200, SR 40, SR 41, SR 121, SR 24 south of Bronson, ending at US 19/98 in the area of Chiefland.

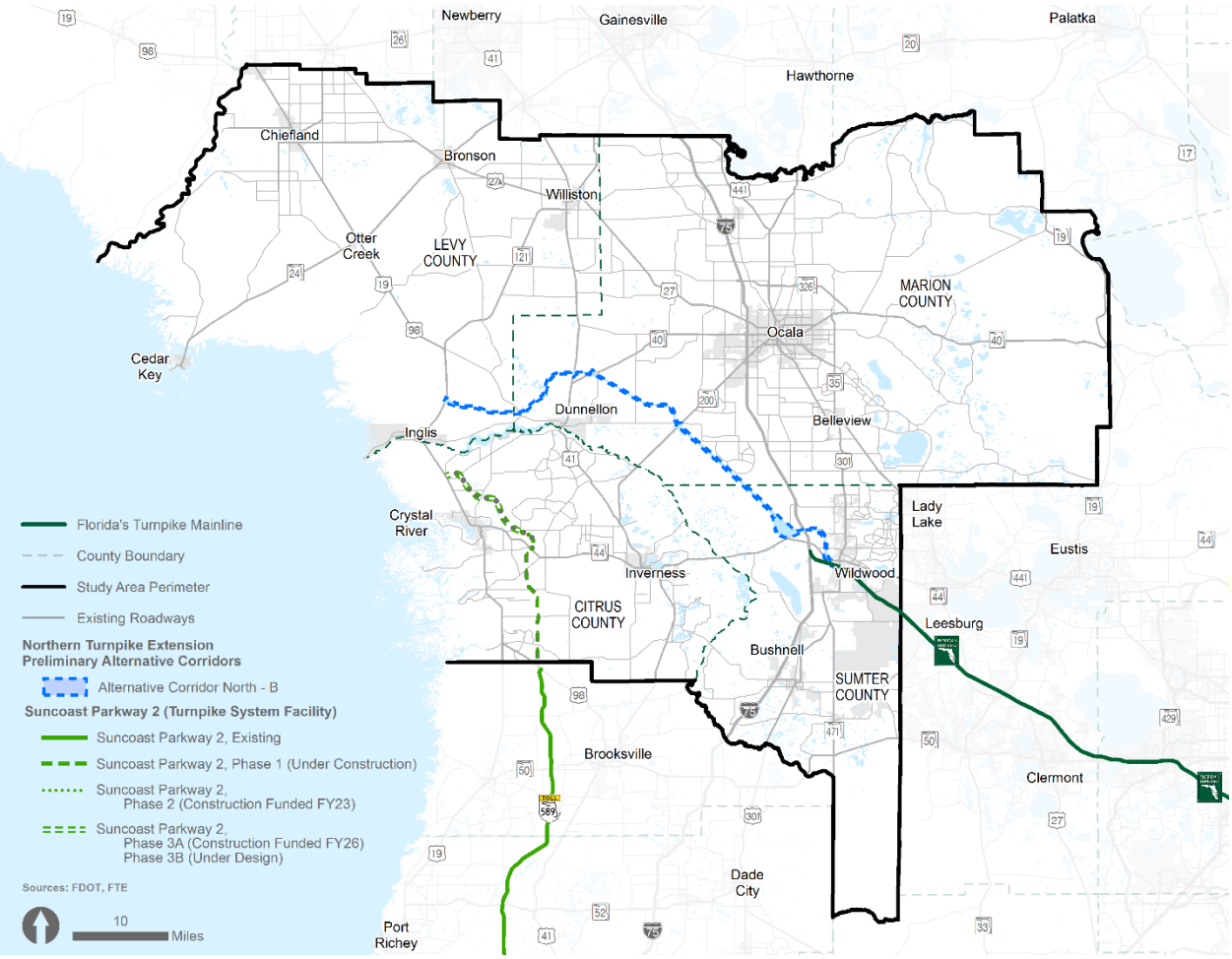


Note: The corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in the PD&E study.

Figure 4 | Alternative Corridor North-A

3.4.2. Alternative Corridor North-B

Alternative Corridor North-B is located in Levy, Marion, and Sumter counties, as shown in blue on **Figure 5**. This corridor is approximately 48 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. It generally follows the corridor that was evaluated in the 1999 Supplemental SEIR as the NEFT. The southern portion follows the same route as Alternative Corridor North-A, overpassing I-75, then following parallel to and on the west side of a utility easement through Marion Oaks for approximately 8 miles, and continuing northwest. It then crosses SR 200, SR 40, and SR 41 north of Dunnellon's city limits. After crossing SR 41, it turns southwest and traverses the area between the Goethe State Forest and Lake Rousseau before terminating at US 19/98, approximately 3 miles north of Inglis.

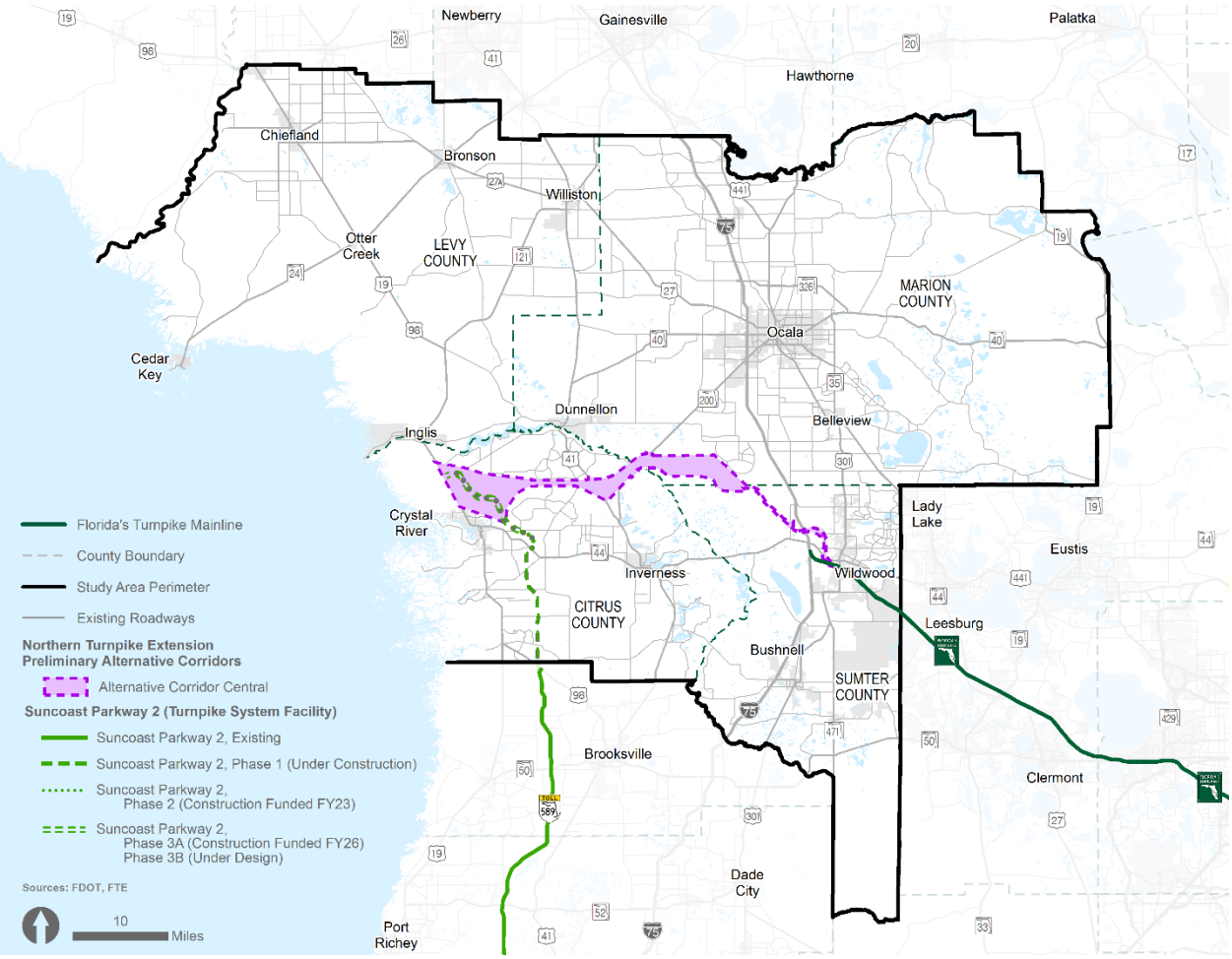


Note: The corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in the PD&E study.

Figure 5 | Alternative Corridor North-B

3.4.3. Alternative Corridor Central

Alternative Corridor Central is located within Citrus, Marion, and Sumter counties, as shown in purple on **Figure 6**. This corridor is approximately 42 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. The southern portion of this corridor follows the same route as the Alternative Corridor North-A and Alternative Corridor North-B, overpassing I-75, then following parallel to and on the east side of a utility easement in the northwest direction through Marion Oaks for approximately 11 miles. It turns west and intersects with SR 200 and then follows the SR 200 alignment for approximately 5 miles south, after which it follows parallel to both sides of a utility easement crossing US 41 and terminates at the intersection with US 19/98 or the future location of the Suncoast Parkway 2, north of Crystal River.



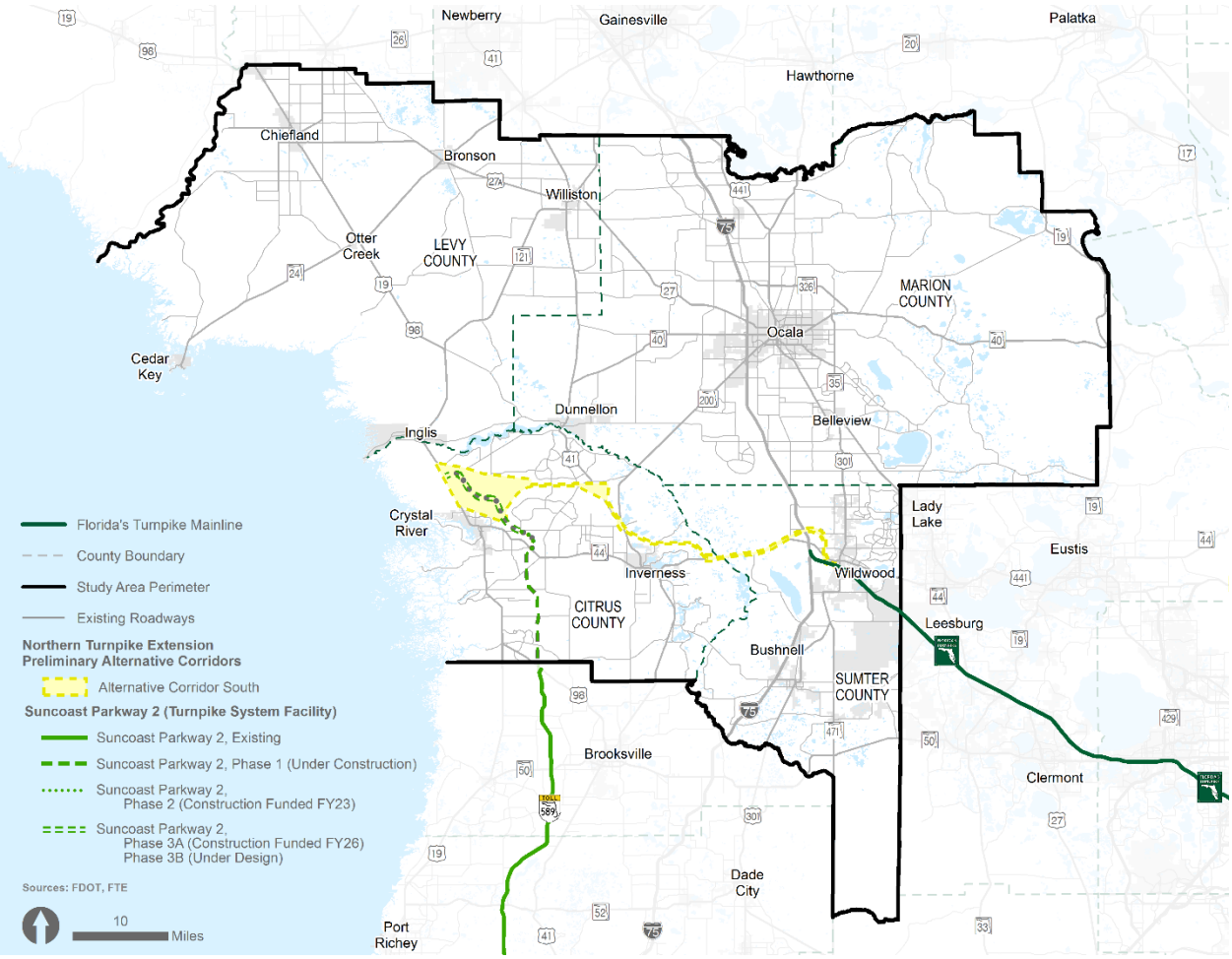
Note: The corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in the PD&E study.

Figure 6 | Alternative Corridor Central

3.4.4. Alternative Corridor South

Alternative Corridor South is located within Citrus and Sumter counties, as shown in yellow on **Figure 7**. This corridor is approximately 42 miles long and begins near the northern terminus of Florida's Turnpike in Wildwood east of I-75 and heads northwest to US 19/98. After it overpasses I-75, the corridor turns southwest to follow SR 44 in Sumter County until just west of the Withlacoochee River in Citrus County, then heads northwest to a utility easement near US 41 and continues paralleling both sides of the utility easement. It terminates at the intersection with US 19/98 or the future location of the Suncoast Parkway 2, north of Crystal River.

These four alternative corridors that were screened through the ETDM Programming Screen will be further developed to allow a planning-level corridor evaluation as part of this ACE. The naming of each alternative corridor will remain consistent throughout the ACE process and be carried through the PD&E study.



Note: The corridor is drawn with a minimum width of 1,000 feet for the purpose of evaluating potential impacts and allowing flexibility for development of narrower corridor alignments that will avoid or minimize impacts during the PD&E study. Areas near potential interchange locations and areas with more development are wider than 1,000 feet to provide flexibility and allow evaluation of different geometry and interchange configurations in the PD&E study.

Figure 7 | Alternative Corridor South

3.5. Alternative Corridor Analysis and Evaluation Criteria

The alternative corridors will be evaluated based on meeting the project purpose and need, avoidance and minimization of potential impacts to environmental resources, engineering factors, a narrative assessment of the corridors, and agency/public input. Width of all alternative corridors described in **Section 3.4** will be refined to 1,000 feet to allow identical comparison of potential impacts and benefits. Areas near potential interchange locations and the corridor termini will be wider than 1,000 feet to accommodate ramp tie-ins.

The evaluation process is discussed below. It should be noted, there may be as yet unidentified issues or impacts that emerge during the ACE process. Should this occur, the new issue or impact will be included in the appropriate evaluation category for analysis.

The evaluation matrix tables in this section are examples to demonstrate how they may look in the ACER.

3.5.1. Purpose and Need Evaluation

Each corridor will be evaluated on its ability to meet the project's purpose and need. Each alternative corridor will be assigned a yes or no for its ability to meet the purpose and need.

Table 2 will be completed based on this evaluation. An alternative corridor that does not satisfy the stated purpose and need will be eliminated. Remaining viable corridors will be evaluated using environmental, engineering, and cost considerations.

Table 2| Purpose and Need Screening

Alternative Corridor	System Linkage	Capacity	Transportation Demand	Safety	Economic Development	Hurricane Evacuation
North-A						
North-B						
Central						
South						

3.5.2. Evaluation Score

For those alternative corridors that meet the project's purpose and need, the evaluation score will be determined based on the order of magnitude estimates for:

- The potential environmental impacts within an alternative corridor, and
- The engineering considerations for each alternative corridor.

Because there are different scenarios on how a criterion may be evaluated and scored, for clarity and comparative purposes, the evaluation criteria will be converted to a numerical score. The numerical score ranges from 0 to 4, or the total number of alternative corridors analyzed. When an alternative corridor will not involve a criterion, it will be assigned a score of 0. When one or more alternative corridors are assigned a score of 0, the highest score will be equal to the number of alternative corridors which do involve the criterion. For each criterion, a score of 1 represents the alternative corridor having the best performance (least impact, most benefit, etc.), and the highest score represents the worst performance of the alternative corridors evaluated. Alternative corridors with equal impacts or benefits (alternative corridors that are tied) will be scored the same. In the event of a two-way tie, the next best alternative would be scored two higher than the tied alternatives. For example, if two alternative corridors are scored 1, the next best alternative would score 3. In the event of a three-way tie, the next best alternative would be scored three lower than the tied alternatives. If there is a tie for last place, the highest value being one less than the number of alternatives evaluated. Should additional alternative corridors require analysis, the highest numerical score would be increased to represent the total number of alternative corridors and the evaluation criteria would be converted according to that

new numerical range (i.e. two additional corridors would require a numerical range of 0 to 6). Following the evaluation of all the criteria in an evaluation category, the criteria scores for each alternative corridor will be summed to determine the alternative corridor's overall evaluation category score, and the highest score represents the alternative corridor performing the worst.

3.5.3. Environmental Evaluation

For each alternative corridor that meets the project's purpose and need, potential environmental effects will be considered. **Table 3** is an example of the evaluation matrix that will be populated with quantifiable values for social, cultural, natural, and physical constraints using the GIS layers identified in **Table 1**. An initial screening was conducted to determine what impact categories were not applicable to the alternative corridors and therefore do not warrant further evaluation in the ACE. These categories consist of:

- Farmlands: The NTE is a state-funded project and therefore is exempt from the Farmland Preservation Policy Act. Local and state farmlands will be evaluated as part of the Land Use criteria. All alternative corridors fall outside of the Marion County Farmland Preservation Area.
- Section 4(f): Pursuant to Part 2, Chapter 7 of the FDOT PD&E Manual, Section 4(f) of the Department of Transportation Act of 1966 is not applicable on non-federally funded projects.
- Coastal and Marine: The alternative corridors are not located within a coastal area or near marine resources.
- Air Quality: The alternative corridors are not expected to create adverse impacts on air quality because they are located within an attainment area for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.
- Navigation: The alternative corridors would not impact navigation.
- Aquatic Preserves: The alternative corridors are not located within an Aquatic Preserve.

In addition, resources that are applicable to more than one category were evaluated once. For example, residences and community facilities are noise-sensitive receptors. However, these were evaluated under social resources.

Criteria descriptive of the applicable social, cultural, natural, and physical environment and quantifiable measures include the following:

3.5.3.1. Social

Impacts to social resources will be assessed as follows:

- Land use will be measured by the acres of potential land use conversion to transportation with specific focus on incompatible land uses including agricultural, residential, vacant, public/semi-public, and farmlands of local importance.

- Consistency with county land use plans will be measured by the distance in roadway miles from a proposed interchange to the nearest urban area.
- Relocation potential will be measured by the anticipated number of residences and non-residential relocations within the alternative corridor.
- Community facilities impacts will be measured by the number of community facilities within the alternative corridor.
- Special populations will be measured by the percentage of minority or low-income communities within the alternative corridor.
- Economic benefit will be measured by the number of intermodal facilities including ports, rail, and freight generators within 5 miles.
- Improved access to jobs will be measured by the number of businesses within ½ mile of potential interchanges.
- Proximity to proposed Developments of Regional Impact (DRI) or Planned Unit Developments (PUD) will be measured by the number of them within ½ mile of potential interchanges.
- Various economic metrics, such as employment, established industries, location quotients, and vacant land area, will be assessed. These metrics will help indicate which alternative corridor has the most potential for economic development.

3.5.3.2. Cultural

Impacts to cultural resources will be assessed as follows:

- Historic and archaeological resources impact will be measured by the number of historic standing structures, historic cemeteries, resource groups, archaeological or historic sites, sites listed or eligible for listing on the National Register of Historic Places, and structures 50 years old or older by 2030 within the alternative corridor.
- Recreation areas impact will be measured by the number of acres within the alternative corridor of the following resources: Florida Forever Board of Trustees projects, managed areas, and state park/forest optimum boundaries; and by the number of the following resources: local Florida parks and recreational facilities, and existing trail crossings.

3.5.3.3. Natural

Impacts to natural resources will be assessed as follows:

- Wetlands and surface waters will be measured by acres of non-forested wetlands, forested wetlands, and surface waters within the alternative corridor.
- Water quality and quantity will be measured by the number of Outstanding Florida Waters, Outstanding Florida Springs, Springs Priority Focus Areas, and verified

impaired waters crossed by the alternative corridor; the acres of aquifer recharge within the alternative corridor; and the potential increase in impervious area created by the alternative corridor.

- Floodplains will be measured by the acres of floodplains within the alternative corridor.
- Habitat will be measured by the percentage of Priority 1 Habitat based on the Aggregated Critical Lands and Waters Identification Project (CLIP) Priorities.
- Species with consultation areas will be measured by the acres of consultation area within the alternative corridor. This includes, but is not limited to, Florida scrub jay (*Aphelocoma coerulescens*), red-cockaded woodpecker (*Picoides borealis*), and Everglade snail kite (*Rostrhamus sociabilis plumbeus*).
- Sand skink (*Neoseps reynoldsi*) habitat will be measured by the acres with elevations 82 feet above sea level or higher and suitable soil types within the alternative corridor.
- Bald Eagles (*Haliaeetus leucocephalus*) will be measured by the number of nests within 660 feet of the alternative corridor.
- Other federal or State Listed, protected or candidate species known to occur within each alternative corridor will be measured in acres of occurrence area based on FNAI element occurrence polygon GIS data.

3.5.3.4. Physical

Impacts to physical resources will be assessed as follows:

- Contamination will be measured by the number of potentially contaminated sites within the alternative corridor.
- Utilities will be measured by the number of utilities crossed by the alternative corridor including power, water and sewer facilities.
- Railroads will be measured by the number of railroad crossings.
- Airports will be measured by the number of airports within the alternative corridor.

Table 3 | Environmental Evaluation Screening Criteria

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Social Environment										
Potential Land Use Changes										
	Agricultural	Agricultural Acres Converted to R/W within corridor								
	Residential	Residential Acres Converted to R/W within corridor								
	Vacant	Vacant Acres Converted to R/W within corridor								
	Public/semi-public	Public/semi-public Acres converted to R/W within corridor								
	Farmlands of Local Importance	Acres								
	Potential for Smart Growth	Roadway Miles from interchanges to nearest urban area								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Social/Economic/ Relocation Potential	Potential Residential Relocations	Number within alternative corridor								
	Potential Non-residential Relocations	Number within alternative corridor								
	Community Facilities	Number within alternative corridor								
	Special Populations	Percent of households below poverty level								
	Special Populations	Percent minority								
	Intermodal Facilities	Number of intermodal facilities (ports, rail, freight generators) within 5 miles								
	Improve Access to Jobs	Number of businesses within ½ mile								
	Proximity to Proposed DRI or PUD	Number within ½ mile								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
	Economic Development Potential	Scoring based on Various economic indicators								
Social Environment Evaluation Score										
Cultural Resources										
Historic and Archaeological Resources	Historic Standing Structures	Number								
	Historic Cemeteries	Number								
	Historic Bridges	Number								
	Resource Groups	Number								
	Archaeological or Historic Sites	Number								
	Sites listed or eligible for listing on National Register of Historic Places	Number								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
	Structures 50 years old or older by 2030	Number								
Recreation Areas	Potential Impacts to Florida Forever Board of Trustees (BOT) projects	Acres								
	Potential Impacts to Other Managed Areas	Acres								
	Potential Impacts to Trail Connectivity	Number of existing trails crossed								
	Local Florida Parks and Recreational Facilities	Number								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
	State park/forest optimum boundaries	Acres								
	Cultural Environment Evaluation Score									
Natural Environment										
Wetlands and Surface Waters	Non-forested Wetlands	Acres								
	Forested Wetlands	Acres								
	Surface Waters	Acres								
Water Quality and Quantity	Outstanding Florida Waters	Number								
	Outstanding Florida Springs	Number								
	Springs Priority Focus Area	Number								
	Verified Impaired Waters	Number								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
	Aquifer Recharge Area	Acres								
	Potential Increase in Impervious Areas	Acres								
Floodplains										
	Floodplains	Acres								
Wildlife and Habitat	Aggregated CLIP Priorities	% Priority 1 habitat within corridor								
	Scrub Jay	Acres within consultation area within corridor								
	Red-Cockaded Woodpecker	Acres within consultation area within corridor								
	Sand Skink	Acres with elevations 82 feet above sea level or higher								
	Eagle	Number of nests within a 660' of corridor								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
	Everglade snail kite	Acres within consultation area within corridor								
	Other Listed or candidate species occurring within alternative corridor	Acres of Occurrence area within corridor								
	Natural Environment Evaluation Score									

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Physical Environment										
Contamination	Potential Contamination Sites	Number								
Infrastructure	Utilities (power, water, sewer)	Number of major utilities impacted								
	Railroads	Number of crossings								
	Airports	Corridor within a one (1) mile radius of airport								
Physical Environment Evaluation Score										
Environmental Evaluation Score										

3.5.4. Engineering Considerations

For each alternative corridor that meets the project's purpose and need, engineering factors will be considered. **Table 4** is an example of the evaluation matrix that will be populated with quantifiable values for the engineering considerations used to screen the alternative corridors.

3.5.4.1. Enhance Regional Connectivity

The need to enhance regional connectivity is discussed in Sections 1.3.2.2 System Linkage and 1.3.2.3 Capacity. The following evaluation measures will be used.

- Network performance will be measured by reduction in vehicle miles traveled (VMT) and vehicle hours traveled (VHT) in the study area compared to the No Build Alternative.
- Regional connectivity will be measured by the reduction in travel time (minutes from Wildwood to Chiefland, Crystal River, Dunnellon, Inglis, and Inverness) using the Turnpike Statewide Model.

3.5.4.2. Accommodate Increased Travel Demand Associated with Projected Population Growth

The need to accommodate increased travel demand associated with population growth is discussed in Sections 1.3.2.4 Transportation Demand and 1.3.2.6 Economic Development. The following evaluation measures will be used.

- Addressing travel demand will be measured by the travel demand served by the new corridor traffic using the Turnpike Statewide Model.
- Traffic conditions will be measured by the percent change in weighted AADT on major roads within the study area including I-75, US 41, SR 40, US 27, SR 200, SR 44, and US 19. Weighted AADT is based on the VMT divided by segment length.
- The ability to address increased freight mobility within the study area will be assessed by:
    - New corridor annual average daily truck traffic (AADTT),
    - Percent change in volume of truck traffic on I-75,
    - Percent change in truck VHT on I-75, and

3.5.4.3. Address Regional Congestion and Safety Issues

The need to address regional congestion and safety issues is discussed in Section 1.3.2.5 Safety. The following evaluation measures will be used.

- Safety performance will be measured by the percent reduction in predicted crashes.
- System deficiency will be measured by reduction in the percentage of existing roads linear miles over capacity, as well as vehicle hours of delay (VHD) compared to the No Build Alternative.
- Regional congestion is addressed in Section 3.5.2.1.

3.5.4.4. Improve Hurricane Evacuation

The need to improve hurricane evacuation is discussed in Section 1.3.2.7 Hurricane Evacuation. The following evaluation measures will be used.

- Improved evacuation clearance time will be measured by hours of travel time using the TIME model.

3.5.4.5. Construction Costs

Estimated construction, right-of-way, wetland mitigation costs, and other project-related costs will be provided for each alternative corridor as demonstrated in **Table 4**. Construction costs will be developed utilizing FDOT Long Range Estimates (LRE). For this level of analysis, construction costs are estimated by:

- Roadway – cost per mile based on the typical section times number of miles,
- Interchanges – cost per interchange,
- Structures (not including interchanges) – cost per structure,
- Technology – cost per mile to account for ITS and tolling equipment, and

Right-of-way costs will be estimated based on general costs of land and buildings in the study area by land use type and unit right-of-way costs obtained from FDOT. Wetland mitigation costs will be based on the average mitigation bank costs within the study area. Other project related costs are based on a percentage of the construction cost: 12.5 percent for design and post-design and 10 percent for construction, engineering, and inspection (CEI).

Table 4 | Engineering Screening Criteria

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Enhance Regional Connectivity										
Network Performance	Vehicle Miles Traveled (VMT)	Change in VMT (millions of miles)								
	Vehicle Hours Traveled (VHT)	Change in VHT (hours)								
Regional Connectivity	Wildwood to Chiefland	Change in Travel Time (Minutes)								
	Wildwood to Crystal River	Change in Travel Time (Minutes)								
	Wildwood to Dunnellon	Change in Travel Time (Minutes)								
	Wildwood to Inglis	Change in Travel Time (Minutes)								
	Wildwood to Inverness	Change in Travel Time (Minutes)								
	Total Change in Travel Time (Minutes)									
Enhance Regional Connectivity Score										

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Accommodate Increased Travel Demand Associated with Population Growth										
Traffic Demand	New Corridor	AADT								
	I-75	% Change in weighted AADT								
	US 41	% Change in weighted AADT								
	SR 40	% Change in weighted AADT								
	US 27	% Change in weighted AADT								
	SR 200	% Change in weighted AADT								
	SR 44	% Change in weighted AADT								
	US 19	% Change in weighted AADT								

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Freight Growth	New Corridor Truck Traffic	AADTT								
	Truck Traffic on I-75	% Change in volume								
	Truck Traffic on I-75	% Change in Truck VHT								
Increased Travel Demand Score										
Address Regional Congestion and Safety Issues										
Safety	% Reduction in Crashes	% Reduction								
System Deficiency	System Deficiency	% Existing roads (miles) over capacity								
	Vehicle Hours Of Delay (VHD)	Change in VHD (hours)								
Regional Congestion and Safety Issues Score										
Improve Hurricane Evacuation										
Hurricane Evacuation	Improve Evacuation Clearance Time	Hours of travel time								
Hurricane Evacuation Score										

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Construction Cost										
Construction Cost	Roadway Cost	Miles of segment x cost per mile based on typical section ($ millions)								
	Potential Interchanges Cost	Cost per interchange ($ millions)								
	Structures Cost	Cost per crossing ($ millions)								
	Technology Cost (ITS and Tolling Equipment)	Cost per mile ($ millions)								
Construction Cost Score										

Category	Evaluation Criteria	Unit of Measure	Alternative Corridor							
			North-A		North-B		Central		South	
			Quantity	Score	Quantity	Score	Quantity	Score	Quantity	Score
Other Project Related Cost										
Other Project Related Cost	Right-of-Way Acquisition	Cost ($ millions)								
	Wetland Mitigation Cost	Cost per acre ($ millions)								
	Design and Post-Design Cost	12.5% of Construction Cost ($ millions)								
	Construction, Engineering, Inspection (CEI) Cost	10% of Construction Cost ($ millions)								
Other Project Related Cost Score										
Engineering Evaluation Score										

3.5.5. Narrative Assessment

Based on the alternative corridor evaluation process described above, a narrative discussion and assessment of each alternative corridor will be prepared in compliance with elements and issues contained in 23 U.S.C. §168(c). This narrative will describe for each corridor the affected environment, its advantages and limitations,. Input received from the ETAT, project stakeholders, and the general public will be summarized in the narrative. The narrative assessment will also consider guidance and recommendations of previous studies and reports, as required by Section 339.66(6) F.S.

3.5.6. Public and Agency Considerations

Input from the ETAT, project stakeholders, and the general public received during the screening process have been used to refine the purpose and need and to determine alternative corridor constraints and evaluation criteria for the ACE process. A complete description of the opportunities for public and agency input into the process is provided in Section 7.

The results documented in the ACER will be made available to the stakeholders through the ETDM EST for a 30-calendar day period. Agency meetings to explain the results of the ACER will be scheduled as necessary.

3.6. Approach to Eliminating Unreasonable Alternative Corridors

The ACE process ensures that alternative corridors are evaluated consistently and that unreasonable alternative corridors are eliminated. First, an alternative corridor that does not meet the purpose and need for the project will be eliminated from further consideration upon FTE approval. Next, the remaining corridors will be compared using both quantitative and qualitative environmental and engineering evaluation criteria, as follows:

- Environmental impacts (quantitative and qualitative),
- Engineering factors and associated cost estimates (technical feasibility) (quantitative),
- Narrative assessment (advantages and limitations) (qualitative), and
- Public support including plan consistency and controversy potential (qualitative).

Based on the results of the comparative analysis and public and stakeholder input, alternative corridors will be eliminated or added, with FTE concurrence. At the conclusion of the ACE process, the alternative corridor having the best performance (least impact, most benefit, etc.) will be carried forward into the PD&E study.

3.6.1. Summary of Alternative Corridor Evaluation

For those alternative corridors that meet the project's purpose and need, the environmental and engineering evaluations for each alternative corridor will be summarized in a matrix similar to **Table 5**. The columns for Environmental, and Engineering will contain scoring based on the lowest to highest evaluation scores. The Overall Score will be based on the summation of the

scores for the Environmental and Engineering evaluations. The intent of the matrix is to facilitate an overall comparison of the alternative corridors.

Table 5 | Summary of Alternative Corridor Evaluation

Alternative Corridor	Evaluation Criteria		Overall Score	Recommended for Further Consideration
	Environmental	Engineering		
North-A				
North-B				
Central				
South				

3.7. Alternative Corridor Evaluation Report

The results of the ACE process for the NTE will be summarized in the ACER. This report will be submitted to the ETAT and interested stakeholders through the EST for a review period of 30 calendar days. The appropriate decision-making matrices will be included in the ACER to substantiate findings, provide reasons for eliminating alternative corridors, and to identify the alternative corridor(s) that will be carried forward into the PD&E study. A weblink to the ACER will be included in the republished Programming Screen Summary Report.

4. Stakeholder Coordination

Stakeholder outreach during the initial stages of the project's development has and will continue to be used to engage stakeholders to identify community values and concerns that may affect the development and evaluation of the alternative corridors.

A briefing was held on October 20, 2021, to introduce the project to the ETAT representatives with jurisdiction in the study area and inform them of the initiation of the ETDM Programming Screen for this project.

Public outreach conducted as part of the ACE process will be used to engage stakeholders to identify community values and concerns that may affect the development and evaluation of the alternative corridors. **Table 6** lists the public and agency events that either have occurred or are planned to take place.

Table 6 | Planned Public Meetings

Meeting	Purpose	Schedule
Briefing to ETAT	Introduce the project and study area.	October 20, 2021
Public Kick-Off Meeting	To introduce the project, set expectations for the ACE process and project study, and present the project schedule	• December 7, 2021 – Virtual • December 7, 2021 – In-person, Levy County • December 9, 2021 – In-person, Citrus County
Stakeholder Meetings (as needed)	To receive input on the project (as needed)	Ongoing
Alternatives Public Information Meeting	To present the conceptual project alternatives being considered in the PD&E Study, and to obtain comments from the general public.	To be determined
Public Hearing	To allow persons an opportunity to express their views concerning the location, conceptual design, and social, economic and environmental effects of the proposed improvements.	To be determined

5. Conclusion

In conclusion, the purpose of this methodology memo is to document the ACE methodology to be conducted for the NTE. The memorandum details the goals of the evaluation, the methodology to be used, how coordination with stakeholders will occur, and the basis for decision-making. The evaluation of the alternative corridors will be detailed in the ACER. The results will identify the reasonable alternative corridor(s) for the PD&E Study.