

HILLSBOROUGH COUNTY METROPOLITAN PLANNING ORGANIZATION

2035 Long Range Transportation Plan

Needs Assessment Segment Summary: West Shore to Pinellas County

Prepared for:

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1.0 INTRODUCTION

The Hillsborough County Metropolitan Planning Organization (MPO) is updating the Long Range Transportation Plan (LRTP) for 2035. This update will include a Problem Statement/Needs Assessment for nine potential rapid transit corridors in Hillsborough County. The nine corridors are:

- Downtown Tampa to University of South Florida
- University of South Florida to Wesley Chapel
- Downtown Tampa to Tampa International Airport
- Tampa International Airport to Carrollwood
- Busch Boulevard/Linebaugh Avenue Corridor West
- Busch Boulevard/Linebaugh Avenue Corridor East
- Brandon to Downtown Tampa
- West Shore to Pinellas County
- Downtown Tampa to South Tampa

The “Problem Statements” for these corridors will document current and future transportation system issues in each corridor, within the LRTP’s time horizon, providing information for future decision-making and conception of alternative solutions.

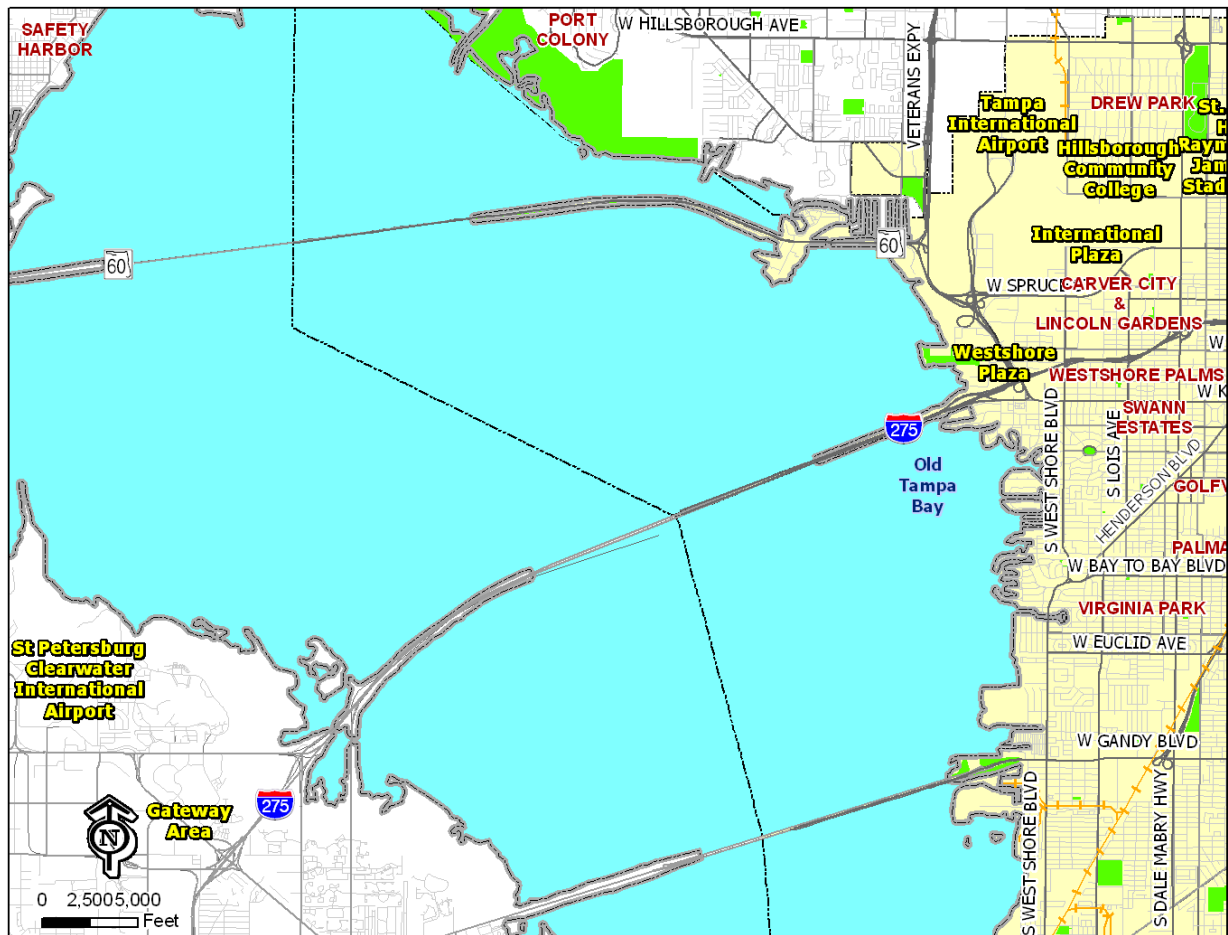
2.0 STUDY AREA DESCRIPTION

The West Shore to Pinellas County corridor is approximately 7 miles in length, with the termini separated by Old Tampa Bay (See Figure 1). Throughout the Tampa Bay region, central Hillsborough County exhibits the most congestion and opportunity for transit development. The study corridor is bounded by State Road (SR) 60 in the north, Dale Mabry Highway in the east, US 92 (Hillsborough Avenue) in the south, and Pinellas County in the west.

The study area includes generators such as the West Shore Business District, Tampa International Airport (TIA), the Rocky Point area, South Tampa, Raymond James Stadium, and surrounding areas of development on the Hillsborough County side. On the Pinellas County side the St. Petersburg-Clearwater International Airport, Gateway, Clearwater, Carillon, and the surrounding areas of development make up the primary generators.

Being separated by the Bay, the study corridor is traversed east-west by only three roadways – State Road (SR) 60/Courtney Campbell Causeway, US 92/Gandy Bridge/Gandy Boulevard, and I-275/Howard Frankland Bridge. In the West Shore area the major north-south roadways are West Shore Boulevard, N. Lois Avenue, and N. Dale Mabry Highway.

**Figure 1
Study Area**



The study corridor is traversed by major and minor streets and highways built and maintained by a variety of state and local government transportation agencies, including the Florida Department of Transportation (FDOT) District Seven, Hillsborough County, Florida Turnpike Enterprise, and the City of Tampa. The primary roadway system serving the study area is a mix of limited access freeways, divided and undivided arterial streets, and major collectors. These travel patterns, focused on major centers of commercial activity, generate substantial transportation demand within the study area, especially during peak hours.

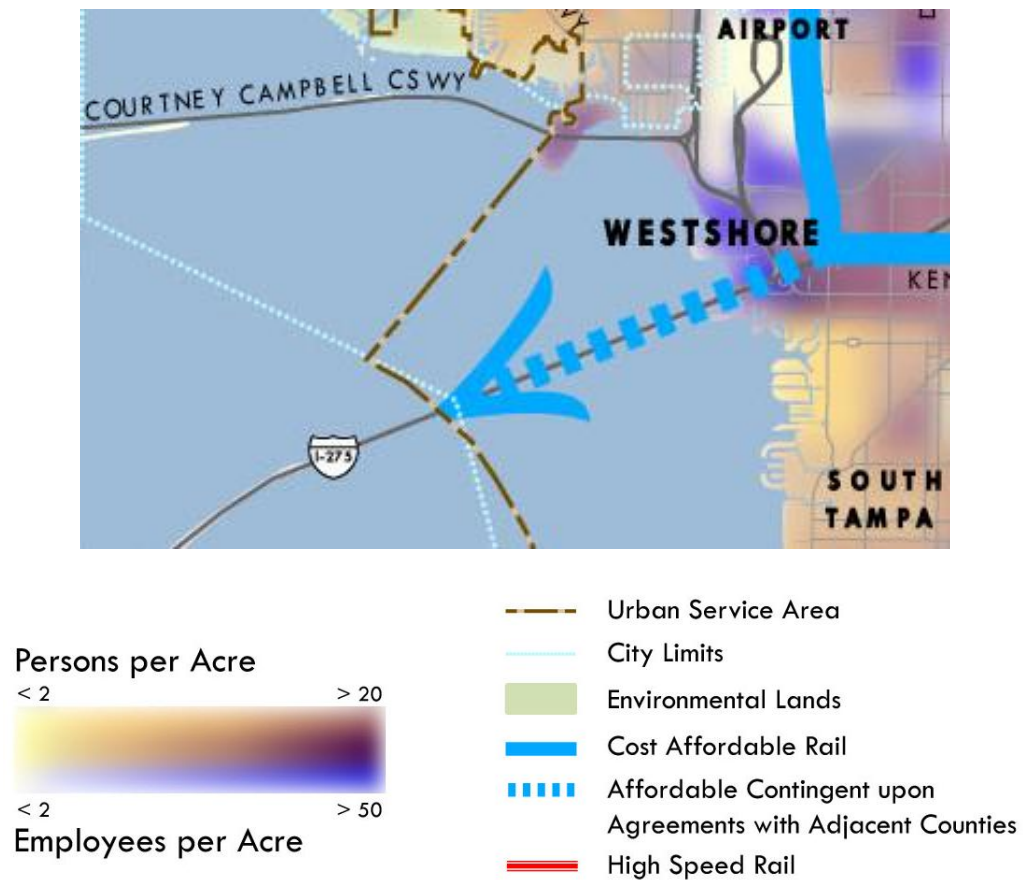
Because several significant roadways have been identified as “constrained” due to neighborhood, policy, right-of-way, and environmental constraints, flexibility in developing transit service expansions like bus lanes or station area infrastructure is limited. Other existing rights-of-way, such as existing rail rights-of-way, must be considered to facilitate premium transit opportunities that are precluded by roadway constraints.

Residential land use within the study area is mainly characterized by single- and multi-family homes. There is also an extensive amount of light commercial development, scattered heavy commercial development, light industrial, and public use. The West Shore and Rocky

Point areas are also each classified as activity centers in the Hillsborough County and City of Tampa Comprehensive Plans, listed as a Business Center. The West Shore area is classified as a regional activity center in the County Comprehensive Plan. The West Shore area is also designated as a Planning District with the specific purpose of supporting transit.

MPO projections indicate that Hillsborough County's population and employment numbers will increase by the year 2035 to 1.7 million and 1.2 million jobs respectively. The future landscape and concentration of the county's population and employment for the corridor in 2035 is shown in Figure 2. The corridor has high concentrations of employment in the West Shore and TPA areas. The southern portion of the study corridor transitions to primarily population concentrations south of Kennedy Boulevard.

Figure 2
2035 Long Range Transportation Plan (Excerpt)
Affordable Rail with Future Density of Population and Employment



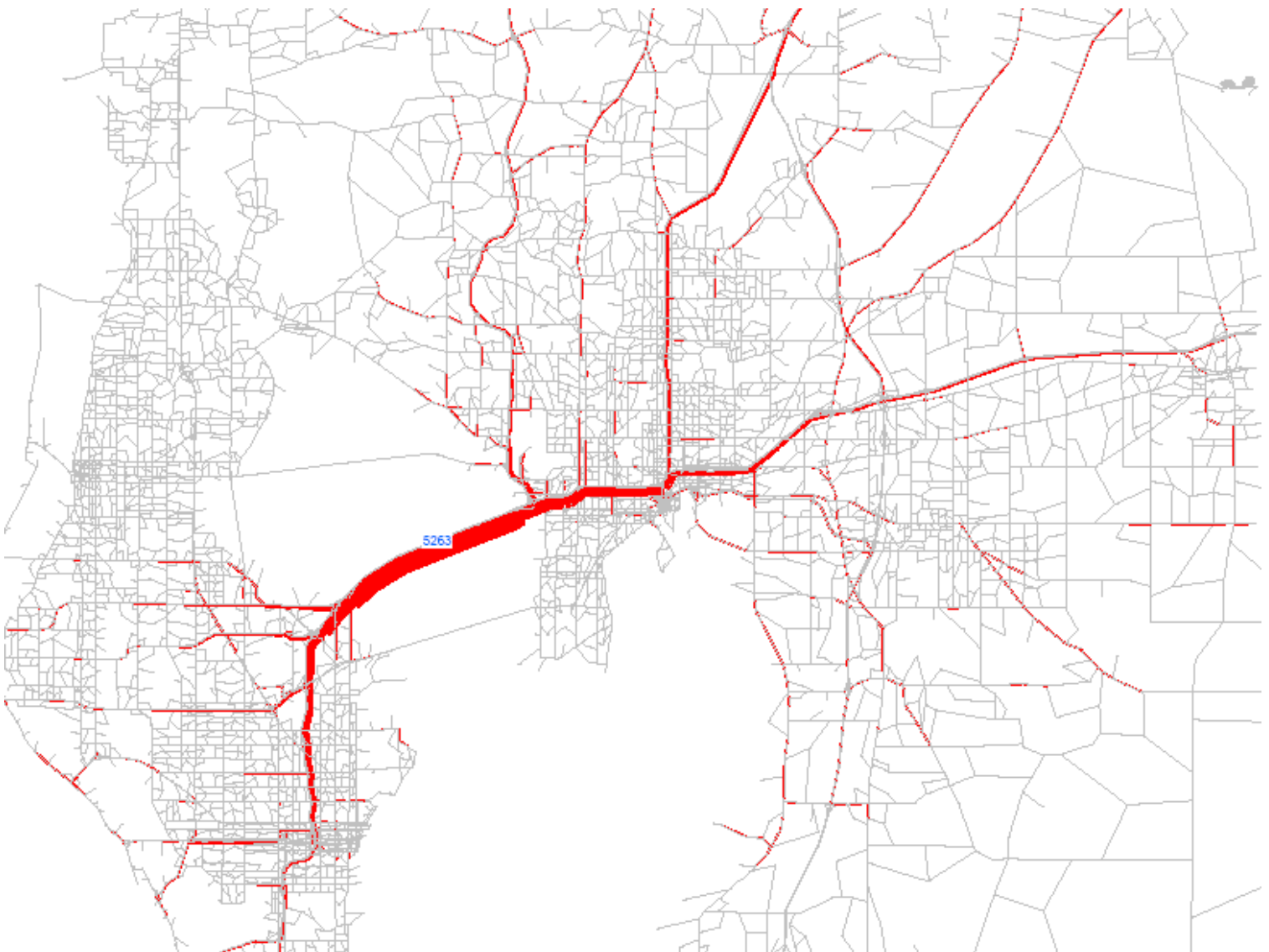
3.0 THE TRANSPORTATION PROBLEM

3.1 Travel Patterns

3.1.1 Select Link Analysis

An analysis of travel patterns was completed on chosen roadway segments in the corridor, using the Tampa Bay Regional Planning Model (TBRPM) Version 7 for a select link analysis. The select link analysis depicts trip patterns for vehicles using a particular 'link' in the roadway network to visualize the amount of traffic on the link, as well as where the trips' general origin and destination. The select link analyses for the chosen links in the corridor are summarized.

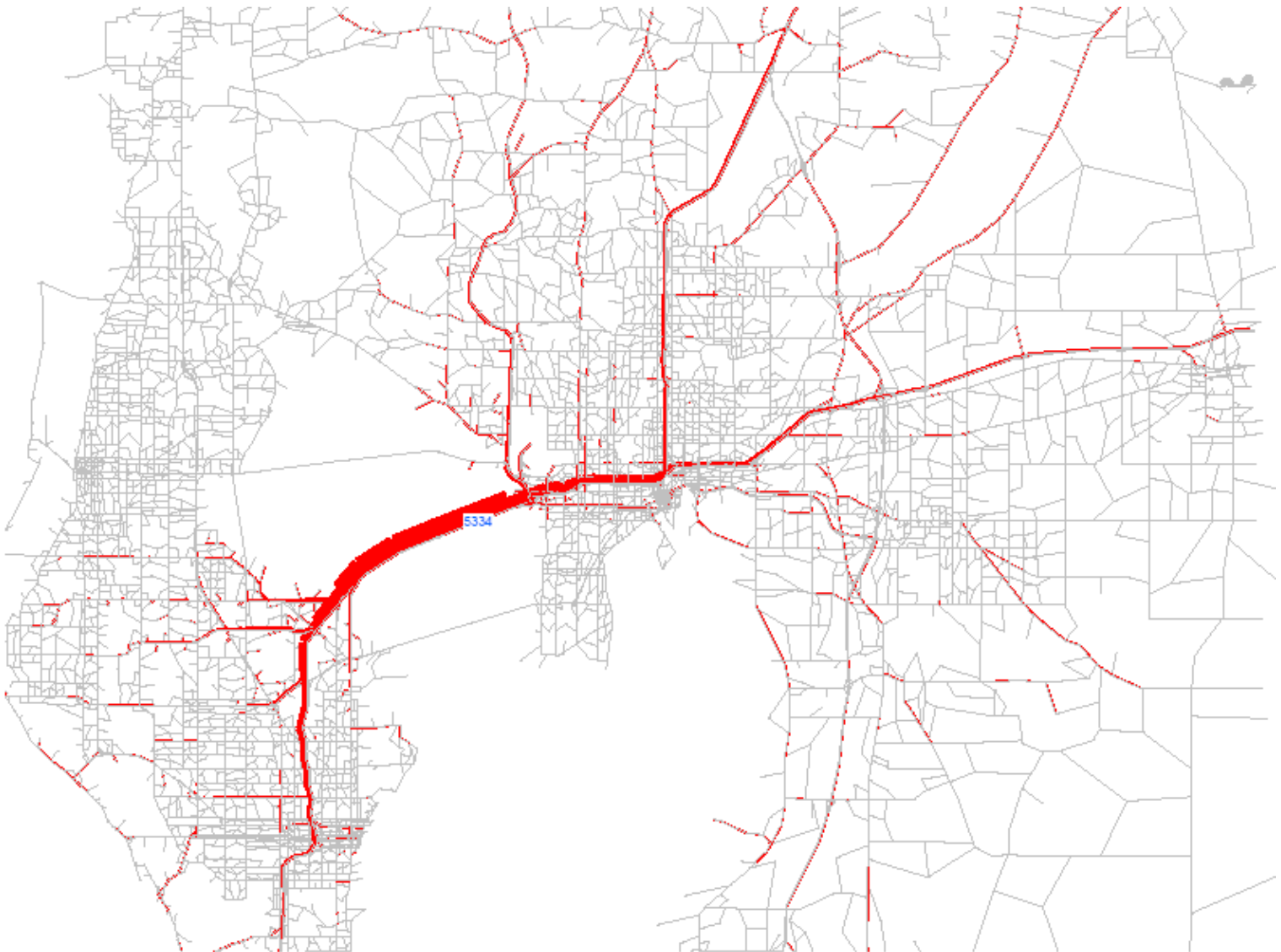
Figure 3. Select Link Analysis – I-275 Eastbound



I-275 serves mostly regional traffic associated with southern Pinellas County, all areas of Hillsborough County, and points south such as Manatee and Sarasota counties. Pinellas County trips account for the vast majority of trips on the link. Trip patterns are similar for the east and westbound directions.

Approximately 50 percent of the trips associated with this segment travel to, or originate from, the Westshore area. Less than half of the trips are associated with the greater Downtown Tampa area. Figure 3 and Figure 4 depict the select link analysis results.

Figure 4. Select Link Analysis – I-275 Westbound



3.1.2 Travel Demand

Travel patterns are measured as person trip flows between origin and destination points (O/D). These points are generally transportation analysis zones (TAZ) or predefined districts, which are modeled using a variety of supporting data.

An analysis of travel demand conducted for the Tampa Bay Area Regional Transportation Authority's (TBARTA) Master Plan looked at person trip flows between "super districts" (large land areas) in 2035 and 2050. The analysis showed that in 2035, over 1.5 million trips were destined to the West Shore/Southwest Hillsborough district, while 414,466 trips were bound for the Tampa CBD. Specifically between Hillsborough and Pinellas Counties, the modeling showed that for 2035, 166,115 trips were destined to the West Shore/Southwest Hillsborough area from Pinellas County districts (Clearwater/North Pinellas, Central Pinellas, St. Petersburg/South Pinellas, Clearwater CBD, and St. Petersburg CBD). 67,634 trips were made from the West Shore/Southwest Hillsborough County district to the Pinellas districts.

By 2050, the Pinellas districts' trips to the Westshore/Southwest Hillsborough district increase to 176,107, a 6 percent increase. The Westshore/Southwest Hillsborough district to Pinellas districts trips increase to 75,447, an 11 percent increase.

TBARTA's analysis also forecast future ridership demand for a proposed regional network of rail and bus services. Figure 5 depicts strong demand in 2035 for transit service in this corridor, with regional connections. Sections of this corridor are among the highest in the eight-county regional network, in terms of demand for transit service.

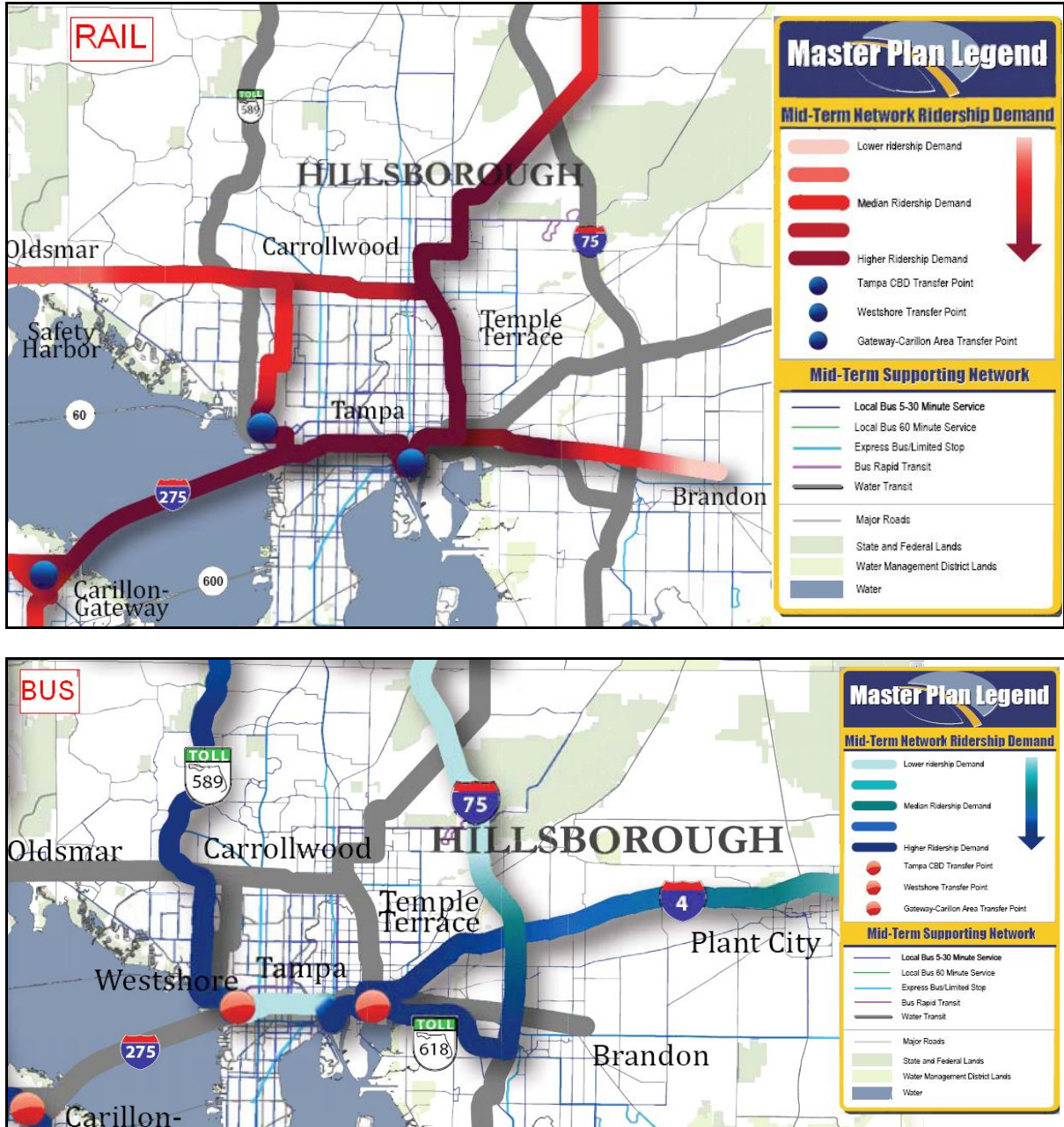
3.1.3 Travel Markets

The following areas have been identified as critical travel markets for the corridor in response to the existing and future travel patterns, land use patterns, and demographic trends. Due to high levels of traffic and a strong capacity for future growth, the following areas will likely benefit from fixed-guideway transit facilities in this corridor.

- *Western Residential Areas* include Oakford Park, West Pines Park, Bon Air, West Shore Palms, Swann Estates, and Beach Park. These areas experience large amounts of congestion, especially along W. Kennedy Boulevard (SR 60) and I-275. The stop-and-go traffic along W. Kennedy Boulevard creates heavy congestion during peak hours, and the mixed-use development along the corridor attracts residents and customers at all times of the day. Traffic to and from TPA and the West Shore Business District contributes to the extreme delays on I-275 at almost all times of day.
- *West Shore Business District*, located on the west-upper side of the Tampa Peninsula just south of TIA, is a major center for employment. High-capacity office buildings, West Shore Plaza, International Plaza, several restaurants, and hotels generate traffic within this region. TIA traffic, employment center patrons, and commercial activity create many traffic problems within this corridor. Movement throughout this region is stifled by daily congestion and a walkable pedestrian environment is obstructed by wide, busy roads. There are many planning and zoning efforts targeted for this district.

- *Tampa International Airport*, located at the southeast end of the Veterans Expressway, is a very busy center of activity, drawing about 40,000 trips to and from its area each day. Travelers and professionals throughout the Tampa Bay Region utilize Tampa International Airport for various traveling purposes, creating more movement along interstates. The airport is under jurisdiction of the Hillsborough County Aviation Authority (HCAA).

Figure 5
TBARTA Ridership Demand for Rail and Bus Service 2035 – Hillsborough County



The MPO's 2025 LRTP Highway Needs Assessment lists I-275/Howard Frankland Bridge to be expanded from eight lanes to 12 lanes within Hillsborough County. US 92 and SR 60 are not listed in the LRTP.

3.2 Traffic Congestion

Congestion can be measured using a volume to capacity (v/c) ratio, a method used to determine how many cars are actually using the road, compared to the road's intended capacity. A summary of 2035 v/c ratios at roadway links within the study area is provided in Table 1. By 2035 these roadways will all carry more vehicles than their intended design capacity (i.e. v/c ratios greater than 1.0), as shown in Figure 6. These roadways are projected to experience overcapacity conditions, illustrating the travel demand growth within the study area. Increased travel demand and decreased road capacity will lead to high levels of congestion on these roads.

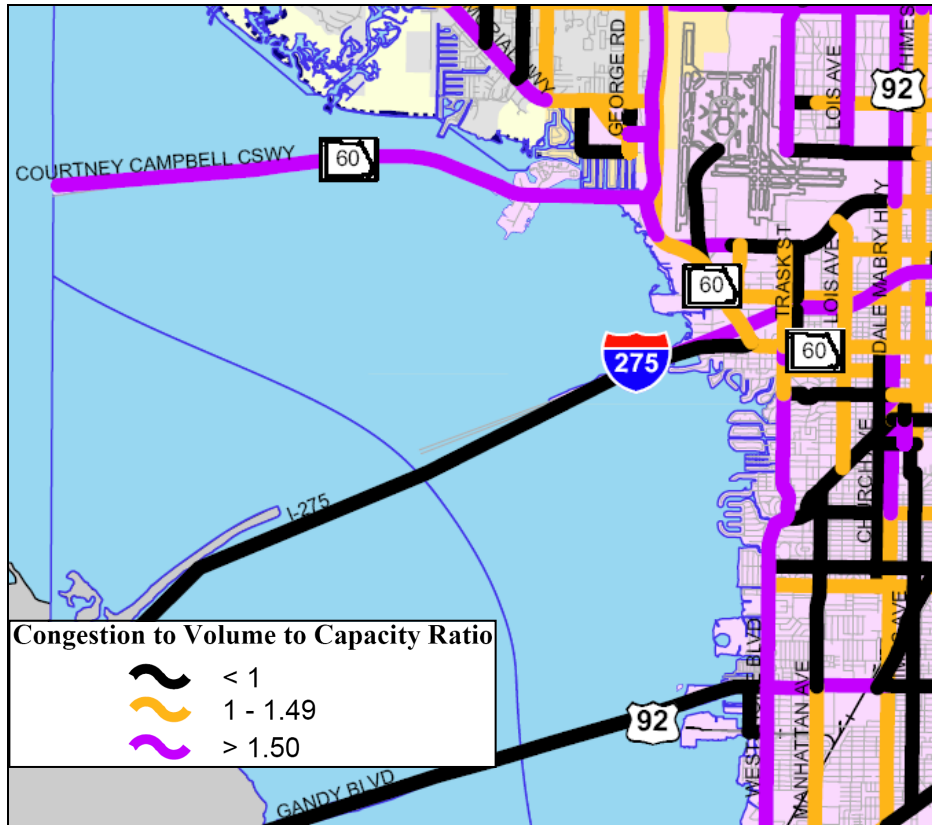
**Table 1
Volume to Capacity Ratios**

Roadway	2035 V/C
SR 60 – Eisenhower Boulevard to Rocky Point Drive	3.67
SR 60 – Eisenhower Boulevard to Rocky Point Drive	2.57
I-275 – West Shore Boulevard to Pinellas County	0.83
I-275 – Dale Mabry Highway to Lois Avenue	2.27
US 92 (Gandy Boulevard) – West Shore Boulevard to Pinellas County	0.87
West Shore Boulevard – Cypress Street to Laurel Street	1.31
Average	1.92

In addition, a few of the major roadways in the corridor cannot be widened further due to a variety of constraints. I-275 and US 92 are both identified as deficient roadways on the Hillsborough County's MPO's 2025 Deficient Roads map. SR 60 is identified as being deficient and constrained, being constrained due to policy and environmental issues. With roadways overburdened by large volumes of vehicles and little opportunity to expand their capacity, transportation options must be expanded in order to accommodate future populations of commuters and residents.

Within the study corridor, SR 60 exhibits a level of service (LOS) of F for 2035, including existing and committed improvements; I-275 exhibits a LOS D; and US 92 is anticipated to have a LOS of D and C.

Figure 6
2035 Congestion with Existing and Committed Improvements – Corridor Area



3.3 Travel Times

As part of the 2035 Long Range Transportation Plan, the MPO analyzed and compared travel times in this corridor for current bus service (based on HART schedules), potential rail transit, and 2035 driving time at an average daily congested speed. Rail was assumed to travel in separate right-of-way, such as in the right-of-way of I-275. Auto and bus were also assumed to use I-275. Endpoints were in the Gateway District of Pinellas County (vicinity of Ulmerton Boulevard & Roosevelt Boulevard) and a station on Westshore Boulevard in Tampa.

West Shore to Pinellas County

By Rail	12 minutes	
By Auto, 2035	20 minutes	67% faster by rail

Current Bus Service *Service not available between these destination points*

Driving times are at average daily congested speed between Westshore and the Gateway District of Pinellas County, forecast for 2035 using Tampa Bay Regional Planning Model Cost-Affordable Network. Current bus service is based on published HART and PSTA bus

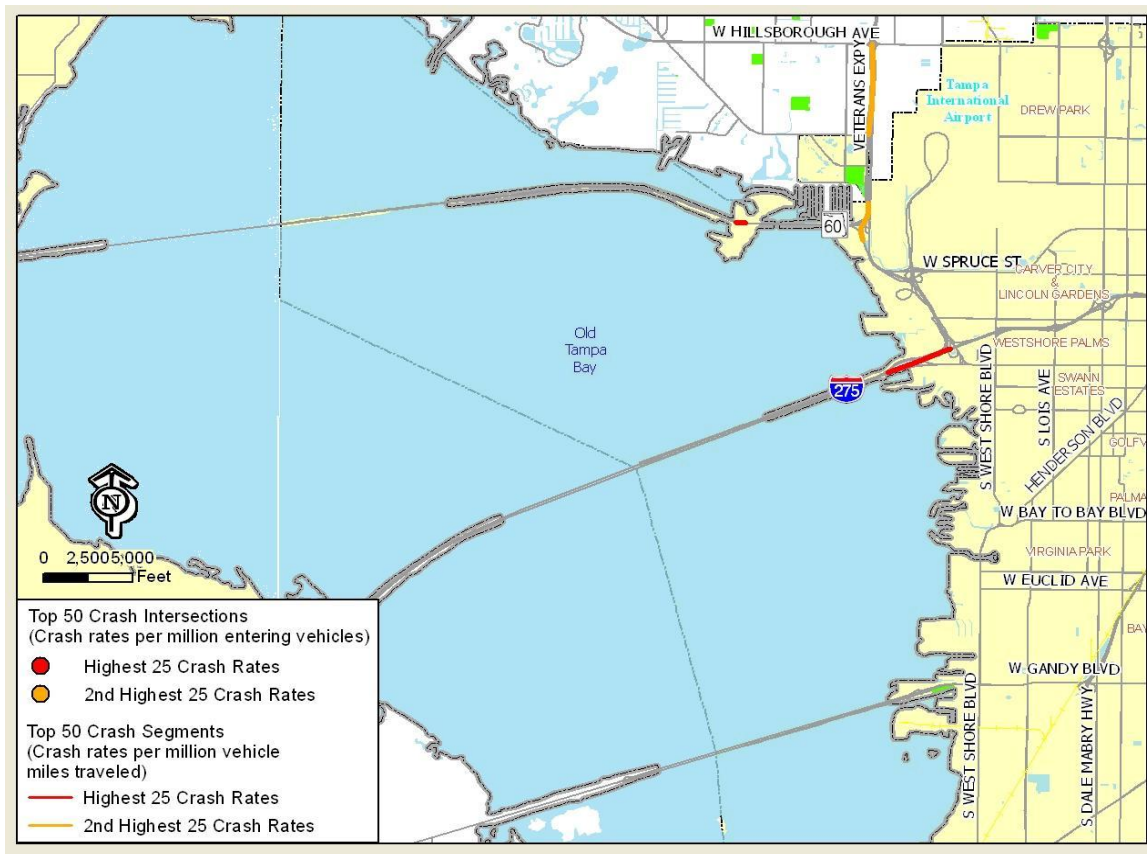
schedules and Google Transit. Times are between the closest major bus stops, and may be an average of the travel time in each direction. Rail travel times are based on analyses prepared for TBARTA Master Plan, provided courtesy of TBARTA and FDOT.

3.4 Safety & Security

Between 1995 and 2007, Hillsborough County had a higher crash rate (per million vehicle miles traveled (VMT)) and injury rate (per VMT) than the state of Florida.

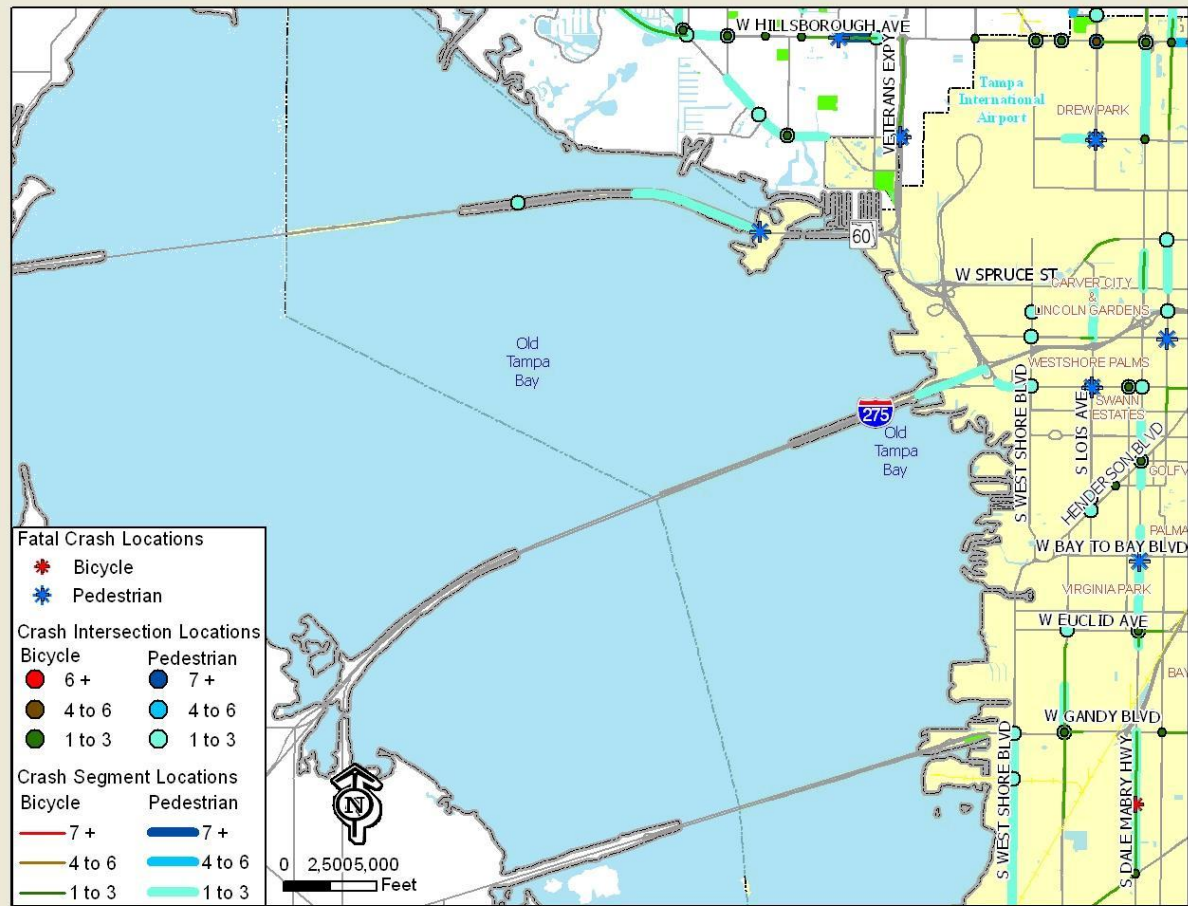
The study corridor possesses none of the top 50 crash intersections and three of the top 50 crash segments within the county (See Figure 7).

Figure 7
Top 50 Crash Locations – Intersections and Segments



Within the study corridor, crash rates for bicycles and pedestrians trend average to slightly above average compared to the county (See Figure 8).

Figure 8
Crash Locations – Pedestrian and Bicycle



The Safety Technical Memo prepared for the MPO’s LRTP offers a variety of recommendations to improve the safety of the most dangerous intersections and roadway segments in the county. Recommendations address many major issues common among all intersections and segments, including red light running, speeding and aggressive driving, bicycle and pedestrian safety, sight distance, roadway geometry, and incidence management, among others.

The Tampa Bay Regional Planning Council completed the “Tampa Bay Region Hurricane Evacuation Study” in 2006. When estimating evacuation clearance times, roadway segments with the highest volume ratios were considered as a “critical link” in the roadway system. These segments are not only carrying evacuees, but also the emergency responders and non-evacuees. While congestion would be widespread throughout the area during an evacuation, the study lists several locations where congestion would control the overall traffic flow for the area. In the study corridor, SR 60/Courtney Campbell Causeway is classified as a “critical link.” SR 60/Courtney Campbell Causeway, US 92/Gandy Bridge/Gandy Boulevard, and I-275/Howard Frankland Bridge are classified as evacuation routes.

3.5 Modal Interrelationships

3.5.1 Hillsborough Area Regional Transit Authority

The corridor today is served by 14 routes that are destined to, or travel within the corridor. Table 2 highlights HART ridership comparisons between fiscal year 2006 and year-to-date 2009.

Table 2
HART Ridership Trends

HART Service: Complete FY	2006	2007	2008	2009*	% Increase
Weekday Average Ridership	35,959	37,311	39,974	39,777	10.6%
Weekday Average Express Bus Ridership	758	937	1,071	936	23.5%
Saturday Ridership	16,979	17,856	19,019	18,951	11.6%
Sunday Ridership	8,495	9,656	10,715	10,261	20.8%
Total	62,191	65,760	70,779	69,925	12.4%

*Year-to-Date Ridership April 2009

As part of the LRTP update, the MPO evaluated transit level of service (TLOS) for all roads where public bus service is operated in Hillsborough County. TLOS reflects transit service levels (bus frequency and daily hours of service) and transit accessibility (spatial coverage and transit versus auto travel time).

Many parts of the corridor are considered to be a transit supportive density today, at 4.5 households or 4 jobs per acre, as shown in Figure 9.

Though some service is provided to the transit supportive areas, many of the major roadways in the corridor exhibit low levels of service. Areas with basic service (averaging wait times greater than 30 minutes) or peak-hour focused service include:

- Several north-south routes in the corridor
- SR 60 (Courtney Campbell Causeway)
- I-275

Figure 9
Existing Local Transit Level of Service – Corridor Area



3.5.2 Pinellas Suncoast Transit Authority

The Pinellas Suncoast Transit Authority provides service to the southern areas of West Shore, via Gandy Boulevard, on Route 100X during weekdays. Headways are 30 minutes during the peak hours.

3.5.3 Tampa Bay Area Regional Transportation Authority

TBARTA has developed a Regional Transportation Master Plan for the greater Tampa Bay region – from Citrus County to Sarasota County – for the Mid-Term (2035) and a Long-Term (2050).

The TBARTA Master Plan’s Mid-Term Vision proposes a regional short-distance rail corridor between West Shore and Pinellas County along I-275. Via this segment, travelers would have the ability to continue on rail into other portions of Pinellas County, central and northern Hillsborough and Pasco Counties to the north, and eastern Hillsborough and Polk Counties to the east. Other transit mode connections – express bus, long distance rail –are possible at various planned stations. The plan also calls for increased local transit service to feed the rail segment.

3.5.4 Florida Strategic Intermodal System

In 2003, the Florida Governor and Legislature created the Strategic Intermodal System (SIS) to efficiently serve the mobility of Florida, and to help Florida become an economic leader,

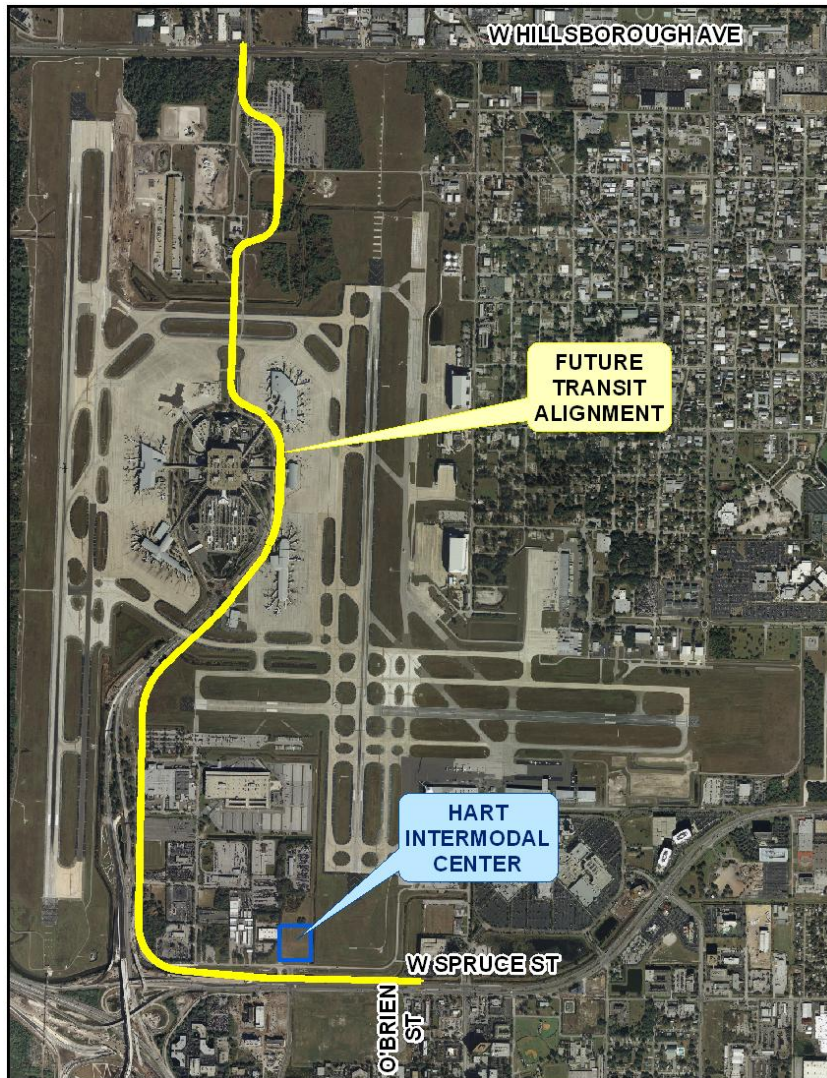
enhance economic prosperity and competitiveness, enrich the quality of life, and reflect environmental stewardship. The SIS is made up of state/regional significant facilities (roadways, ports, rail, waterways) and services that move both people and goods and integrates facilities, services, and modes into a comprehensive system.

The study corridor contains elements identified in the SIS including I-275, TPA, and SR 60 (W. Kennedy Boulevard). These facilities receive priority status for limited state transportation funds due to their regional and national importance.

3.5.5 Tampa International Airport

The most important intermodal link in the corridor is the Tampa International Airport (TPA), which handled over 19 million passengers in 2007 ranking it as the 27th busiest airport in North America.

Figure 10
Tampa International Airport – Future Transit Corridor



The TPA Master Plan identifies a future transit corridor to serve the airport's employees and passengers. In 2007, the Hillsborough County Aviation Authority (HCAA) completed a study to identify both at-grade and aerial transit alignments and potential station locations for the existing landside terminal and the future northern terminal (See Figure 10). HCAA has also provided land at the southern end of the airport, adjacent to Spruce Street to HART for a transit intermodal center (See Figure 10).

The hub will connect existing and future transit services, including HART local and limited express routes, cross-bay express service operated by Pinellas Suncoast Transit Authority (PSTA), and future Bus Rapid Transit (BRT) and circulator services.

3.6 Economic Development

Transit-oriented development (TOD) around stations served by high-capacity transit can generate significant economic return in terms of development and increased tax revenue. Examples include:

- Dallas Area Rapid Transit (DART) light rail:
 - \$4.26 billion in total projects attributable to DART presence
 - \$127 million in state and local tax revenue once all projects around stations are completed
- Santa Clara Valley Transportation Authority (VTA) light rail:
 - \$4 per square foot increase in land values surrounding stations (23 percent)
 - \$25 per square foot increase in land values surrounding CalTrain commuter rail stop (125 percent above mean property value)
- Portland Streetcar:
 - \$2.28 billion of investment within two blocks of streetcar alignment
- METRO Light Rail, Phoenix:
 - \$3.5 billion in private investment around light rail
- HealthLine BRT, Cleveland:
 - \$4.3 billion in current and anticipated development along route
- Other studies have shown that along a new rail line, values for:
 - home values can increase 17 percent
 - commercial values can increase 30 percent
 - ad-valorem revenues can increase 10 to 191 percent

The Hillsborough County City-County Planning Commission's 2025 land use map and the Pinellas countywide future land use map include:

- West Shore contains some of the most dense land use in the area with large sections of land devoted to regional mixed use (3.5 Floor Area Ratio (FAR)).
- TPA is considered public/semi-public with airport compatible and light industrial uses at its periphery.

- Pinellas County, on the western shore of Tampa Bay, is preserved open space with industrial uses more inland. As the corridor approaches St. Petersburg, land is primarily devoted suburban residential with mixed use along major roadways. A significant portion of land in southeastern Pinellas County is designated as a redevelopment area.

The MPO had an assessment of TOD real estate development potential conducted in support of the LRTP and the Hillsborough County City-County Planning Commission's preparation of TOD-supportive comprehensive plan amendments. This assessment forecasted the development potential within a one-half mile radius around select station areas for 2035, one of which is included in this corridor: West Shore. This corridor has high development potential due to the West Shore Business District and the areas surrounding St. Petersburg in southeastern Pinellas County. Further development in West Shore is possible given the abundance of surface parking lots and underdeveloped parcels, and southeastern Pinellas County is designated as a redevelopment area for commercial, residential, and mixed use. The study found the potential for:

- West Shore Station Area:
 - 1,400 to 1,500 multi-family units
 - 1.7 to 2.0 million square feet of office space

3.7 Potential Effects on Natural and Socio-Cultural Resources

The construction of a passenger rail facility serving this corridor was evaluated for potential effects on natural and socio-cultural resources, using the State of Florida's Efficient Transportation Decision-Making (ETDM) Process. Through this process, agency representatives serving on an Environmental Technical Advisory Team (ETAT) reviewed a summary of the proposed project, and identified avoidance and minimization issues. The ETAT members consist of representatives from agencies which have statutory responsibility for issuing permits or conducting consultation under NEPA, and representatives of participating Native American tribes. The issues identified by the ETAT will be explored further through environmental impact studies and alternatives analyses.

This review process evaluates twenty resources and issue areas and identifies a degree of effect (DOE) that construction of a passenger rail facility may have on each. The DOE levels are characterized in the following table.

Degree of Effect	Possible effects that the transportation action has on environmental and community resources
Enhanced Degree of Effect	Project concept has positive effect on the ETAT resource or can reverse a previous adverse effect leading to environmental improvement. b) Project concept has positive effect on community. Affected community supports the proposed project.
Minimum Degree of Effect	Project concept has little adverse effect on ETAT resources. Low cost options are available to address concerns. Permit issuance or consultation involves routine interaction with the agency. b) Project concept has minimum adverse effect on elements of the affected community. There is minimum community concern about the planned project. Little or no mitigation is needed.
Moderate	Natural or cultural resources are affected by the proposed project, but avoidance and

Degree of Effect	minimization measures are available and can be addressed during project development with a moderate amount of agency involvement and moderate cost impact. b) Project concept has adverse effect on some elements of the affected community. There is moderate community concern about the planned project. Public involvement is needed to seek alternatives more acceptable to the community. Moderate community involvement is required during project development. Some mitigation or minimization is needed to gain support from the community.
Substantial Degree of Effect	The project concept has substantial adverse effects, but ETAT understands the project need and is able to seek avoidance, minimization or mitigation measures during project development. Substantial interaction is required during project development and permitting. b) Project concept has substantial adverse effects on the affected community and faces substantial community opposition. Intensive community interaction with focused public involvement is required during project development to address community concerns. Project will need substantial mitigation to gain public acceptance.
Potential Dispute	Project concept may be contrary to a state or federal resource agency's program, plan or initiative. Project concept may have significant environmental cost. Reasons for indicating a potential dispute are contained in Agency Operating Agreements. Project concept may not be permissible. Reference Section 4.6, Process to Resolve Potential Dispute. b) Project concept is not in compliance with approved Local Government Comprehensive Plans, or may involve significant adverse effects on adjacent community.

For the Westshore to Pinellas Corridor, the potential effects were considered substantial in the categories of **Coastal & Marine, Floodplains, Infrastructure, Special Designations, Water Quality & Quantity, Wetlands, and Mobility**. A full report summarizing the ETAT's comments is available through the Hillsborough MPO or as ETDM #12736. A summary of the ETAT's recommendations for Degree of Effect in all categories is provided below.

Affected Resource	Degree of Effect (DOE)
Air Quality	Enhanced
Coastal and Marine	Substantial
Contaminated Sites	Moderate
Farmlands	None
Floodplains	Substantial
Infrastructure	Substantial
Navigation	Moderate
Special Designations	Substantial
Water Quality and Quantity	Substantial
Wetlands	Substantial
Wildlife and Habitat	Moderate

Historic and Archaeological Sites	Moderate
Recreation Areas	Minimal
Section 4(F)	Moderate
Aesthetics	Minimal
Economic	Enhanced
Land Use	Moderate
Mobility	Substantial
Relocation	Minimal
Social	Minimal
Secondary & Cumulative Effects	Moderate
