

westshore pedestrian plan ADDENDUM

Implementation Plan and Design Guidelines

March 2009



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Chapter 1 - Introduction



Framework

The Westshore Alliance initiated the Westshore Area Pedestrian System Plan Addendum (Addendum) in May of 2008. The Addendum identifies non-automotive transportation infrastructure projects (e.g., pedestrian/bicycle/transit network enhancements) within the Greater Westshore Area that are critical in improving the overall mobility and transportation environment of pedestrians, bicyclists, and transit users.

As part of the planning effort, the original study area was reassessed to ensure that consistent and strategic pedestrian-related infrastructure improvements will be proposed throughout the Greater Westshore Area. As such, the Addendum builds upon the recommendations presented in the approved 2005 Westshore Area Pedestrian System Plan (Plan) as well as focuses on those areas of the Westshore Special Services District that were not previously assessed during the development of the Plan. The Addendum also takes into account previous and ongoing transportation planning initiatives proposed for the Greater Westshore Area.

Prepared as a complementary document to the approved 2005 Plan, the Addendum serves as a blueprint for addressing the mobility needs of pedestrians, bicyclists, and transit users. As such, the Guiding Principles (adapted from the original Plan to fit the Addendum area and current needs) provide the foundation for the creation of a comfortable, accessible, and interconnected pedestrian/bicycle/transit network within the Greater Westshore Area. The Guiding Principles also work to create an attractive pedestrian-oriented environment that meets the mobility needs of the community while supporting economic opportunity within the area.

The Addendum additionally presents an implementation plan (which includes a list of specific, phased transportation infrastructure improvements with associated costs), strategies to implement the proposed projects, design guidelines, as well as recommended revisions to the Westshore Commercial Overlay District Development Standards and the original Plan.



Guiding Principles

The Guiding Principles of the Addendum are as follows:

- Enhance the visibility and accessibility of the pedestrian, bicycle, and transit network to improve safety;
- Create roadways that equally serve pedestrians, bicyclists, transit users, and motorists;
- Mitigate traffic congestion and expand travel choices for all ages and abilities by making walking, biking, and transit more comfortable, accessible, and reliable modes of travel;
- Provide seamless connections between complementary uses (i.e., offices, hotels, retail, residences, schools, etc.); and
- Connect and integrate pedestrian and bicycle facilities with transit, adjacent land uses, and activity centers.

Chapter 1 - Introduction

Study Area

Figure 1.1 presents the expanded study area, as well as the area previously studied in the original Plan. The geographic boundaries of the “new” study area expand east from Dale Mabry Highway to Himes Avenue (between Kennedy Boulevard and Hillsborough Avenue), north along Hillsborough Avenue (between Himes Avenue and the Veterans Expressway/Eisenhower Boulevard), south along the Veterans Expressway/Eisenhower Boulevard from Hillsborough Avenue to Memorial Highway, west on Memorial Highway from the Veterans Expressway/Eisenhower Boulevard to Dana Shores Drive, south and east along Dana Shores Drive to Eisenhower Boulevard, south along Eisenhower Boulevard to the south side of the Courtney Campbell Causeway, and west along the Courtney Campbell Causeway capturing both the north and south sides of the Rocky Point area and Ben T. Davis Beach. The study area does not include Drew Park, Tampa International Airport, and Dana Shores.



Plan Components

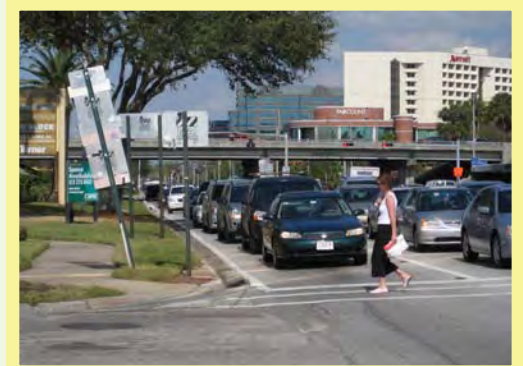
As part of the Addendum planning initiative, a detailed existing conditions inventory analysis was conducted for the Addendum area. The original study area was also reassessed to account for changes in the area since approval of the original Plan (2005). Plans and data sets pertaining to pedestrian, bicycle, and transit needs were reviewed under this effort. In addition, a comprehensive field review was conducted to verify the conditions of existing pedestrian, bicycle, and transit facilities; deficiencies, gaps, and barriers related to these facilities were documented as well. Aerial imagery was consulted to confirm the presence of the pedestrian-related features and facilities, particularly within the original study area. The Existing Conditions Technical Memorandum, which summarizes the observations of the various reviews, was finalized in August of 2008.

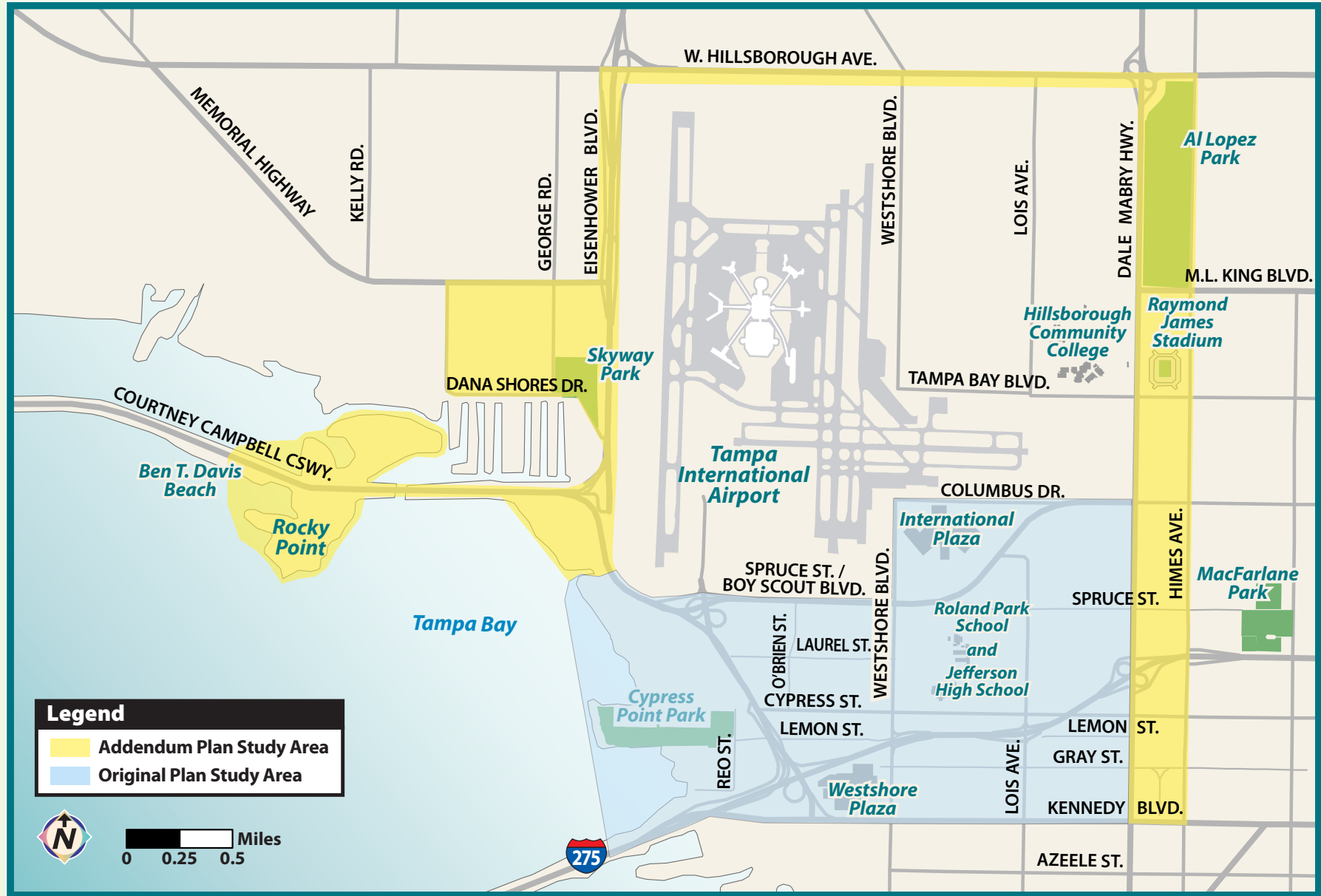
The findings of the Existing Conditions Technical Memorandum provide the foundation for the Needs Assessment Technical Memorandum in conjunction with the results generated from an on-line survey conducted for the study, existing policies and practices that affect walkability, stakeholder input, and a number of other key elements related to pedestrian/bicycle/transit activity.

In turn, the pedestrian mobility barriers and needs, desired pedestrian travel linkages and connections, and high pedestrian activity centers (identified under the existing conditions inventory analysis and needs assessment) serve as the basis for the project improvements that are identified within the Implementation Plan (**Chapter 2**). Costs for the proposed improvements as well as funding sources and leveraging options to implement the proposed projects are also presented.

Chapter 3 presents design guidelines and strategies recommended to set a uniform aesthetic for the Greater Westshore Area. The design guidelines and strategies focus specifically on those elements composing the pedestrian realm and streetscape, including sidewalks, paving types, furnishings, lighting, landscaping, signage, and public art.

The recommendations outlined in the Addendum are anticipated to be presented to the Westshore Alliance Board of Directors for approval in March 2009.





Overview

As stated previously, the Implementation Plan includes specific projects, a prioritized phasing plan to implement each of the proposed projects, and estimated project improvement costs. The Implementation Plan also identifies potential funding sources and leveraging options to transform the proposed projects into tangible enhancements. The projects presented in Chapter 2 address the needs and issues identified in the Needs Assessment Technical Memorandum and are prioritized based on input received from the general public (via the study survey) and various government entities. The recommended projects are classified by improvement type. The improvement categories are as follows:

- Sidewalk Enhancements,
- Intersection Enhancements,
- On-Road Bikeways,
- Off-Road Trails,
- Transit Stop Enhancements, and
- Areas of Emphasis.

The methodology used to prioritize the set of projects under each improvement category, along with the phased project implementation plan, are included within this chapter for each improvement type. The projects of each improvement category are divided into four implementation phases:

- Planned/Programmed Enhancements,
- Priority 1 Enhancements,
- Priority 2 Enhancements, and
- Priority 3 Enhancements.

It should be noted that one additional implementation phase is included under the Sidewalk Enhancements category (explained later in further detail).

Planned/Programmed Enhancements are based on previously defined mobility needs and are identified within planning documents (such as the Hillsborough County Capital Improvement Program, the Hillsborough County Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP), or the Hillsborough County MPO 2025 Long Range Transportation Plan (LRTP)) and/or are identified. Planned Enhancements are different from Programmed Enhancements in that these projects have no funds identified to date; Programmed Enhancements have funds identified for partial or complete implementation. As revenue is recognized, these projects should be considered for implementation with the various Priority Enhancements.

Priority 1 Enhancements include those projects that are to be implemented first based on the prioritization exercise. Accordingly, Priority 2 Enhancements are to be implemented second, and Priority 3 Enhancements are to be implemented last.

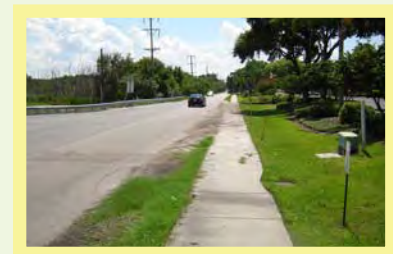
While it is recommended that projects listed as Priority 1 Enhancements be funded before Priority 2 Enhancements and so forth, it is important to understand that the projects within each implementation phase are **NOT** listed in any particular order (as are the Planned/Programmed Enhancements). In other words, the implementation of “project b” should not be precluded because “project a” was not completed first.

The majority of the proposed projects occur on streets within the Greater Westshore Area that are owned and maintained by the Florida Department of Transportation (FDOT) and the City of Tampa.

As the Hillsborough County MPO works to update the 2025 LRTP, it is anticipated that the projects recommended as part of the Addendum Implementation Plan will be incorporated into the amended LRTP and eventually into the FDOT’s Five-Year Work Program for future implementation. Since the projects also reflect long-term planning initiatives of the City of Tampa, it is additionally anticipated that some of the projects will be implemented through the City’s Capital Improvement Project Program as funding becomes available.

Specific costs are presented throughout the chapter for the recommended set of projects classified under each improvement category. General cost estimates for the range of recommended improvement projects are presented at the end of this chapter (refer to page 2-26). These cost estimates are based on a variety of sources. The sources include:

- “Other Roadway Related Costs” , Florida Department of Transportation, June 2008;
- Bicycle Facility Unit Cost Estimates, Hillsborough County 2008 Bicycle Plan Update; and
- www.walkinginfo.org.



Cypress Street Sidewalk Network

Sidewalk Enhancements

Sidewalks are perhaps the most significant component of a corridor’s streetscape. As such, sidewalks within the Greater Westshore Area were evaluated independently and prioritized for implementation preference. The following variables were specifically examined to assist with the prioritization of sidewalk improvements:

- Presence of school within half-mile of corridor (5 points)
- Presence of bus stops along corridor (5 points)
- High TAZ growth area (3 points)
- Community support - a corridor that was identified by the public, via the study survey, as needing the most improvements (3 points)

The corridors include:

- Boy Scout Boulevard
- Dale Mabry Highway
- Courtney Campbell Causeway
- Cypress Street
- Kennedy Boulevard
- O’Brien Street
- Reo Street
- Westshore Boulevard
- Street designation - a corridor designated within a plan (3 points)

The designations include:

- Constrained Roadway
- Priority Pedestrian Investment Street
- Pedestrian Improvement Corridor
- Pedestrian Level of Service of “C” or below (3 points)
- Vehicle speed of 40 mph or above (3 points)

- Annual Average Daily Traffic (AADT) volume: 25,000 vehicles per day or above (5 points), 5,000-25,000 vehicles per day (1 point)
- Presence of sidewalk on opposite side of street (5 points)
- Presence of sidewalk gap (15 points)

Drainage and space to construct/enhance were also accounted for in the prioritization of corridor enhancements as these two factors serve as the biggest challenges in improving the sidewalk network.

- Drainage - presence of swale/ditch (-5 points)
- Space to construct/enhance - presence of insufficient right-of-way, large vegetative buffer, topographical constraint (-5 points)

The intent of the exercise was to prioritize the installation of sidewalks where current gaps exist while still addressing the need for pedestrian facility improvements where the sidewalk network is complete. **Table 2.1** and **Figure 2.1** show the currently planned/programmed sidewalk enhancements within the Greater Westshore Area. **Table 2.2** and **Figure 2.2** present the recommended prioritized phasing plan of Westshore Area sidewalk gaps. These project enhancements are based upon an assessment of the listed variables. It should be noted that the project IDs shown next to each project within the tables correspond to the project IDs displayed in the figures.

Some of the major corridors within the Greater Westshore Area with complete sidewalks were also included in the analysis but received zero points regarding the “Presence of a Sidewalk Gap”. These corridors are also presented in Table 2.2 under the “Existing Sidewalk Network Upgrades” phase. Improvements to these corridors (such as repair of damaged sidewalks, upgrade sidewalks to meet ADA standards, widen sidewalks to meet Westshore Overlay District Development Standards, etc.) should be implemented as funding becomes available.

The cost estimate for each planned/programmed sidewalk enhancement project (displayed in Table 2.1) and each priority sidewalk enhancement project (displayed in Table 2.2) is based on the June 2008 cost prepared by the Florida Department of Transportation:

5’ wide sidewalk = \$45/linear foot.

This estimate only accounts for the Construction, Design, and CEI project phases; project-specific drainage and right-of-way issues are not included in the calculation.

According to the City of Tampa, approximately \$150,000 was recently spent to address stormwater issues for sidewalk construction on Manhattan Avenue (west side) from Green Street to Boy Scout Boulevard (0.3 miles in length). While this estimate could potentially be used to assess stormwater costs for other projects, drainage as well as right-of-way issues will need to be evaluated on an individual project basis.

Cost estimates for existing sidewalk network upgrades associated with sidewalk repair, sidewalk widening, etc. were not generated as these deficiencies will additionally need to be evaluated and addressed on a site by site basis.

Chapter 3 (Design Guidelines) discusses/illustrates the specific sidewalk dimensions and materials pertinent to the Greater Westshore Area.

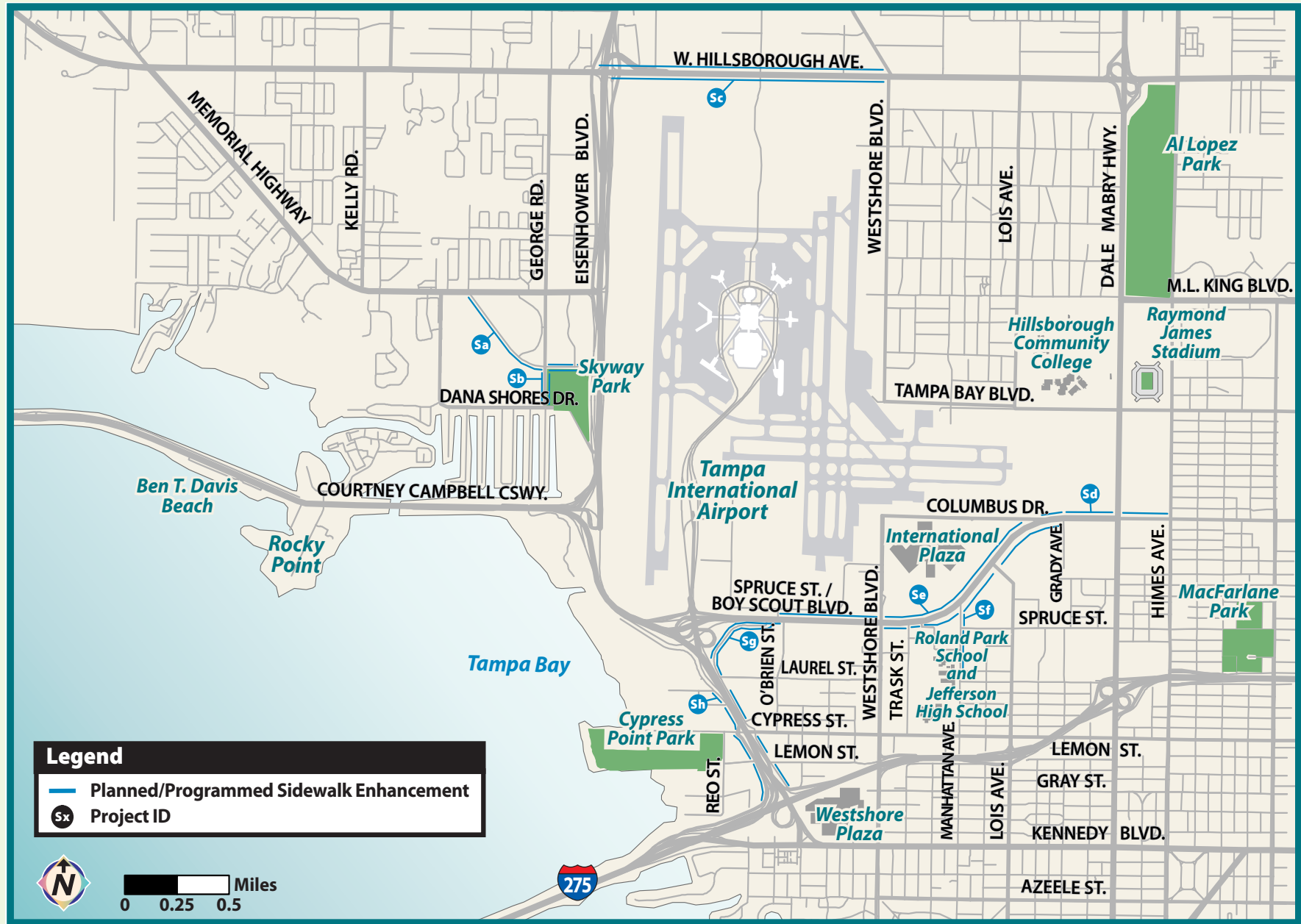
Project ID	Street Name	From	To	Segment Length (Miles)	Gap Limits	Enhancement Limits	Improvement	Improvement Length (Miles)	Improvement Length (Feet)	Total Corridor Enhancement Cost	Main Source
Planned/Programmed Enhancement											
Sa	Independence Parkway	Memorial Highway	George Road	0.57	west side		Add Sidewalk	0.57	3,010	\$135,432	LRTP
		George Road	Eisenhower Boulevard	0.22	north and south sides		Add Sidewalk	0.44	2,323	\$104,544	
Sb	George Road	Dana Shores Drive	Independence Parkway	0.19	west and east sides		Add Sidewalk	0.38	2,006	\$90,288	LRTP *
Sc	Hillsborough Avenue	Eisenhower Boulevard	Westshore Boulevard	1.36	north and south sides		Add Sidewalk	2.72	14,362	\$646,272	LRTP *
Sd	Columbus Drive	Grady Avenue	Himes Avenue	0.51	north side		Add Sidewalk	0.51	2,693	\$121,176	LRTP *
Se	Spruce Street/Boy Scout Boulevard	E Frontage Road	Grady Avenue	1.61	north side		Add Sidewalk	1.61	8,501	\$382,536	LRTP *
		E Frontage Road	O'Brien Street	0.08	south side		Add Sidewalk	0.08	422	\$19,008	
		Westshore Boulevard	Grady Avenue	1.06	south side		Add Sidewalk	1.06	5,597	\$251,856	
Sf	Manhattan Avenue (north of I-275)	Green Street	Boy Scout Boulevard	0.29	east side		Add Sidewalk	0.29	1,531	\$68,904	CCIP
Sg	E Frontage Road	Sherrill Street	South of Laurel Street	0.68	east side		Add Sidewalk	0.68	3,590	\$161,568	LRTP
		Laurel Street	Boy Scout Boulevard	0.44	north and south sides		Add Sidewalk	0.88	4,646	\$209,088	
Sh	W Frontage Road	I-275	La Salle Street	0.64	west side		Add Sidewalk	0.64	3,379	\$152,064	LRTP

5' Sidewalk Cost Per Linear Foot: \$45.00
 Estimates based on Construction, Design and CEI costs only.

* Drainage issues associated with project.
 Account for costs to address stormwater issues (approximately \$150,000 per 0.3 miles).
 Costs will ultimately depend on a project-specific evaluation of drainage and right-of-way issues.

The main source for each project is listed in the table above. These sources include:
 City of Tampa FY 2008/09 - FY 2012/13 Capital Improvement Projects (CCIP)
 Hillsborough County MPO 2025 Long Range Transportation Plan, Amended 2007. (LRTP)
 Please note that the listed project limits may vary from the source limits.

Other sources consulted include:
 FDOT June 2008 'Other Roadway Related Costs'
 Hillsborough County FY 2008/09 - FY 2012/13 Capital Improvement Program
 Hillsborough County MPO FY 2008/09 - FY 2012/13 Transportation Improvement Program
 Hillsborough County MPO 2025 Comprehensive Pedestrian Plan, 2004.
 Westshore Pedestrian Plan Addendum Field Review, August 2008.



Chapter 2 - Implementation Plan

Table 2.2 Priority Sidewalk Enhancements

Project ID	Street Name	From	To	Segment Length (Miles)	Gap Limits	Enhancement Limits	Improvement	Improvement Length (Miles)	Improvement Length (Feet)	Total Corridor Enhancement Cost
Priority One										
S1	Hillsborough Avenue	Westshore Boulevard	Lois Avenue	0.62	north and south sides		Add Sidewalk	1.24	6,547	\$294,624
		Church Avenue	Dale Mabry Highway	0.04	north side		Add Sidewalk	0.04	211	\$9,504
		Lois Avenue	Himes Avenue	0.76	south side		Add Sidewalk	0.76	4,013	\$180,576
S2	Boy Scout Boulevard	O'Brien Street	Westshore Boulevard	0.47	south side		Add Sidewalk	0.47	2,482	\$111,672
S3	Spruce Street	Manhattan Avenue	Himes Avenue	1.00	north side		Add Sidewalk	1.00	5,280	\$237,600
S4	Cypress Street	Cypress Point Park Entrance	Reo Street	0.37	north side		Add Sidewalk	0.37	1,954	\$87,912
		Hubert Avenue	Lois Avenue	0.12	north side		Add Sidewalk	0.12	634	\$28,512
		Lois Avenue	I-275	0.22	north and south sides		Add Sidewalk	0.44	2,323	\$104,544
		Dale Mabry Highway	Himes Avenue	0.24	north side		Add Sidewalk	0.24	1,267	\$57,024
S5	Lois Avenue (north of I-275)	Spruce Street	Boy Scout Boulevard	0.32	east side		Add Sidewalk	0.32	1,690	\$76,032
S6	Memorial Highway	Anchor Plaza Parkway	Eisenhower Boulevard	0.11	north side		Add Sidewalk	0.11	581	\$26,136
		Dana Shores Drive	Eisenhower Boulevard	0.79	south side		Add Sidewalk	0.79	4,171	\$187,704
Priority Two										
S7	Reo Street	Executive Drive	Cypress Street	0.38	west and east sides		Add Sidewalk	0.76	4,013	\$180,576
S8	Manhattan Avenue (north of I-275)	I-275	Cypress Street	0.08	west and east sides		Add Sidewalk	0.16	845	\$38,016
S9	Rocky Point Drive	Courtney Campbell Causeway	Road Terminus	0.37	west and east sides		Add Sidewalk	0.74	3,907	\$175,824
S10	Trask Street	North B Street	Gray Street	0.13	east side		Add Sidewalk	0.13	686	\$30,888
		Gray Street	I-275	0.12	west and east sides		Add Sidewalk	0.24	1,267	\$57,024
		Cypress Street	Chestnut Street	0.44	west side		Add Sidewalk	0.44	2,323	\$104,544
		Chestnut Street	Boy Scout Boulevard	0.06	west and east sides		Add Sidewalk	0.12	634	\$28,512
S11	Laurel Street	E Frontage Road	Westshore Boulevard	0.77	north and south sides		Add Sidewalk	1.54	8,131	\$365,904
		Manhattan Avenue	Grady Avenue	0.50	north side		Add Sidewalk	0.50	2,640	\$118,800
S12	O'Brien Street	Cypress Street	Nassau Street	0.12	west and east sides		Add Sidewalk	0.24	1,267	\$57,024
		Nassau Street	Laurel Street	0.13	west side		Add Sidewalk	0.13	686	\$30,888
		Laurel Street	Avion Park Development	0.15	west and east sides		Add Sidewalk	0.30	1,584	\$71,280
		Avion Park Development	Boy Scout Boulevard	0.11	east side		Add Sidewalk	0.11	581	\$26,136
Priority Three										
S13	Lemon Street	E Frontage Road	East of Sherrill Street	0.10	south side		Add Sidewalk	0.10	528	\$23,760
		East of Sherrill Street	Occident Street	0.30	north and south sides		Add Sidewalk	0.60	3,168	\$142,560
		Occident Street	Westshore Boulevard	0.12	south side		Add Sidewalk	0.12	634	\$28,512
		Trask Street	Lois Avenue	0.50	south side		Add Sidewalk	0.50	2,640	\$118,800
		I-275	Dale Mabry Highway	0.41	north and south sides		Add Sidewalk	0.82	4,330	\$194,832
S14	Eisenhower Boulevard	Memorial Highway	Hillsborough Avenue	1.00	west side		Add Sidewalk	1.00	5,280	\$237,600
S15	E Rocky Point Drive	Courtney Campbell Causeway	Northeast Road Terminus	0.48	south side		Add Sidewalk	0.48	2,534	\$114,048
S16	W Rocky Point Drive	Courtney Campbell Causeway	Northwest Road Terminus	0.21	south side		Add Sidewalk	0.21	1,109	\$49,896
S17	Manhattan Avenue (south of I-275)	Kennedy Boulevard	Lemon Street	0.38	west and east sides		Add Sidewalk	0.76	4,013	\$180,576
S18	Dana Shores Drive	Memorial Highway	George Road	1.01	east and north sides		Add Sidewalk	2.02	10,666	\$479,952
Existing Sidewalk Network Upgrades										
S19	Kennedy Boulevard	I-275	Himes Avenue	2.56		north and south sides				
S20	Westshore Boulevard	Kennedy Boulevard	Boy Scout Boulevard	1.02		east and west sides				
S21	Dale Mabry Highway	Kennedy Boulevard	Hillsborough Avenue	3.53		east and west sides				
S22	Himes Avenue	Kennedy Boulevard	Hillsborough Avenue	3.55		east and west sides				
S23	Tampa Bay Boulevard	Dale Mabry Highway	Himes Avenue	0.24		north and south sides				
S24	Lois Avenue (south of I-275)	Kennedy Boulevard	Lemon Street	0.38		west and east sides				
S25	Martin Luther King Jr. Boulevard	Dale Mabry Highway	Himes Avenue	0.25		north and south sides				

5' Sidewalk Cost Per Linear Foot: \$45.00

Estimates based on Construction, Design and CEI costs only.

Sources: FDOT June 2008 'Other Roadway Related Costs'

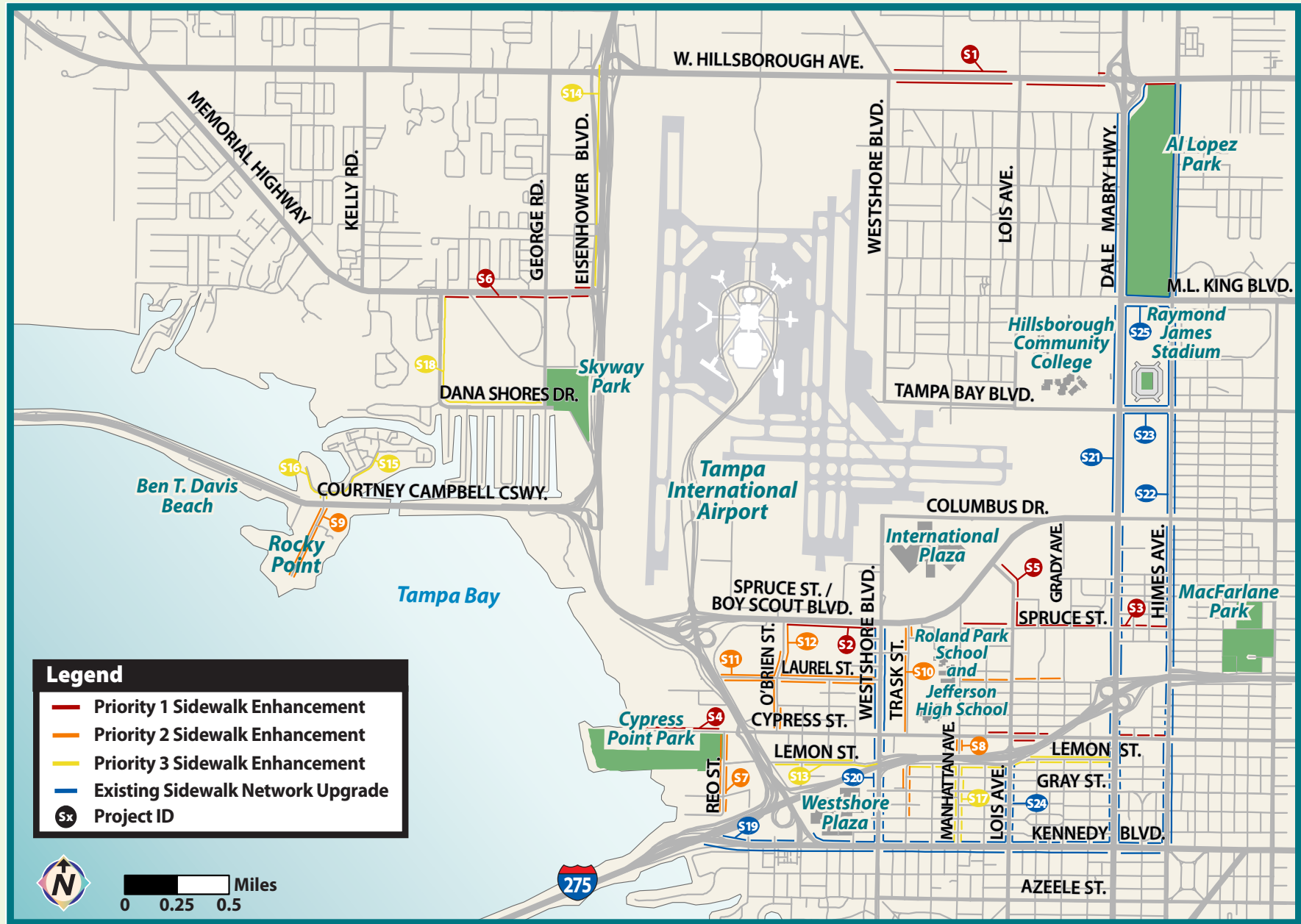
Hillsborough County MPO Sidewalk Inventory Data, 2008.

Westshore Pedestrian Plan Addendum Field Review, August 2008.

* Drainage issues associated with project.

Account for costs to address stormwater issues (approximately \$150,000 per 0.3 miles).

Costs will ultimately depend on a project-specific evaluation of drainage and right-of-way issues.



Intersection Enhancements

For the purposes of this study, intersection enhancements address a range of features including crosswalks, pedestrian crossing islands, and pedestrian signals/signal timing/signage.

Marked crosswalks facilitate safe pedestrian travel by (1) channeling pedestrians to designated roadway crossings at best sight locations, (2) providing a more predictable pattern of pedestrian actions and movements, and (3) assisting pedestrians to find their way across complex intersections.

Pedestrian crossing islands are painted or raised spaces used to provide a storage area for pedestrians waiting for an adequate gap in traffic to cross a street. Basically, these features allow pedestrians to handle one direction of traffic at a time as they cross a roadway. Pedestrian crossing islands may be placed at intersections (in the form of a triangular channelization island adjacent to right turn lanes), in the center of the street (as a median or cut-through), or at midblock crosswalks.

Pedestrian signal indications are used at traffic signals (except on highways) to create gaps in the flow of traffic to allow pedestrians to cross a street. These signals should be clearly visible to pedestrians at all times and include audible messages to accommodate individuals with vision impairments. In addition, signal times should be adjusted to allow shorter cycle lengths and longer walk intervals to better serve pedestrians and encourage signal compliance. Pedestrian related signage should also be placed at signals (as well as at unsignalized intersections), to warn motorists about unexpected pedestrian crossings.

To better understand the types of enhancements needed at intersections within the Greater Westshore Area, each signalized intersection was inventoried in terms of existing crossing conditions (i.e. crosswalk pattern present, presence of pedestrian crossing islands, etc.). Unsignalized intersections at defined area "Hot Spots" were also included in the evaluation.

Midblock crossings were assessed under this improvement category too due to the fact that a midblock crossing provides an additional crossing location for pedestrians where intersections are separated by a large distance. Based on the evaluation, no additional midblock crosswalks are recommended within the area at this time.

The following variables were assessed to propose the types of intersection upgrades needed and the phasing plan to implement each upgrade:

- Reported crash within 500' of intersection (5 points)
- Presence of school within half-mile of intersection (3 points)
- Designated "Hot Spot" as defined within this Addendum (2 points)
- High TAZ growth area (1 point)
- Number of lanes to cross at intersection: >8 lanes (3 points), 8 lanes (2 points), 6 lanes (1 point)

The planned/programmed intersection enhancements of the area are displayed in **Table 2.3** and **Figure 2.3**. **Table 2.4**, accompanied by **Figure 2.4**, present the prioritized list of recommended intersection enhancements.

Since the costs vary dramatically for the proposed upgrades, a general unit cost estimate for each recommended intersection feature is included in **Table 2.11** (page 2-26). Specific design elements pertaining to crosswalks, pedestrian crossing islands, and pedestrian signals/signal timing/signage are described within Chapter 3.

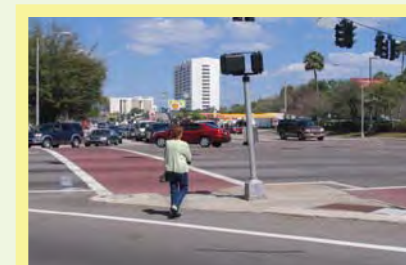
It is important to note that the recommended Intersection Enhancements will likely be examined in further detail through traffic engineering studies. As such, these projects are anticipated to be modified based on the results of each traffic study.



Standard crosswalk pattern at Spruce Street and Dale Mabry Highway



Continental crosswalk pattern on George Road

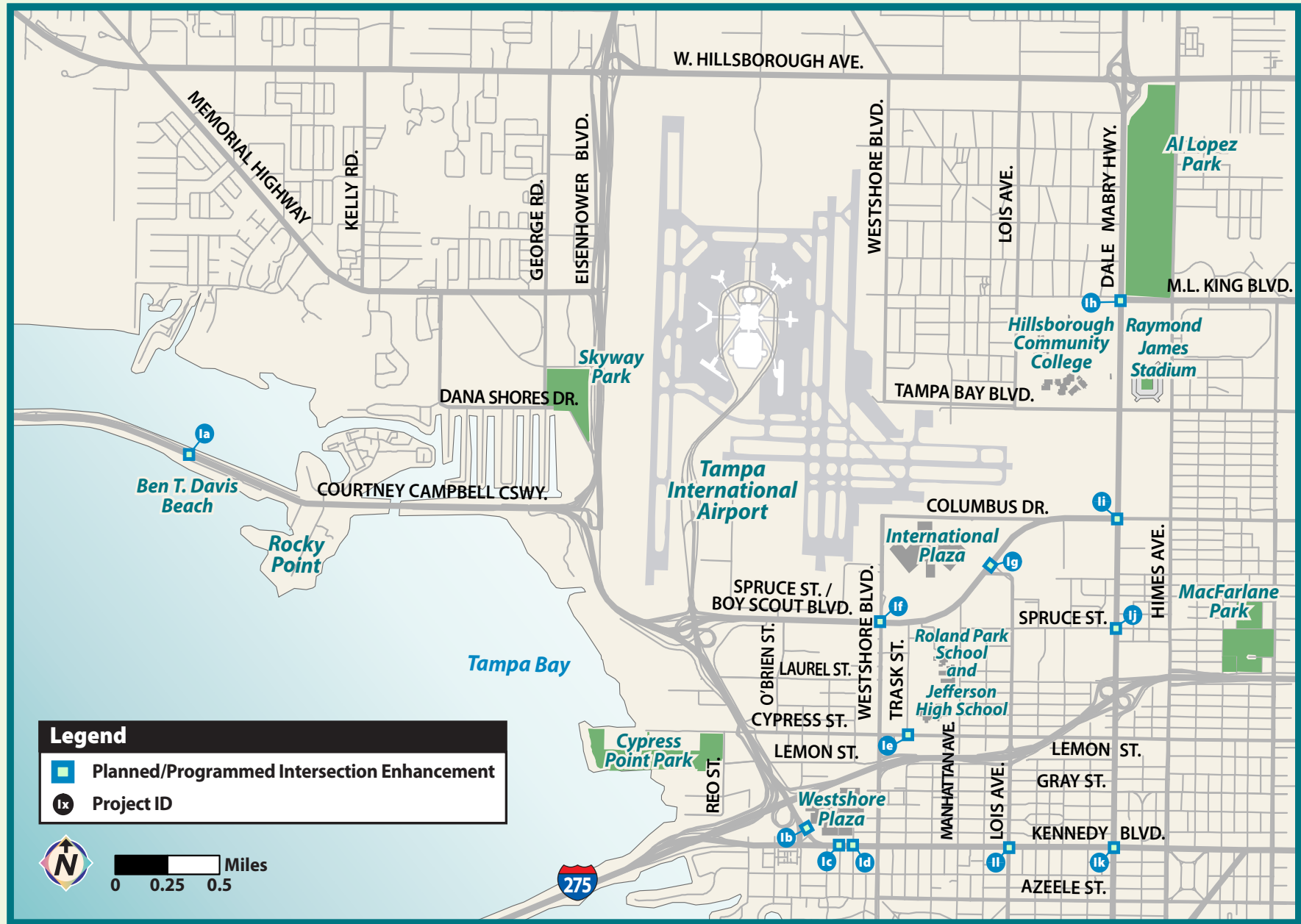


Enhanced crosswalks and pedestrian island at Kennedy Boulevard and Westshore Boulevard

Project ID	Signalized Intersection	Existing Conditions	Type of Enhancement	Main Source
Planned/Programmed Enhancement				
la	Main Entrance to Ben T. Davis Beach	No Striping	Continental Striping Pattern	CCC
lb	Memorial Highway and Kennedy Boulevard	Standard Striping Pattern (2 legs - north and west sides)	Stamped Asphalt Upgrade	CCIP
lc	Kennedy Boulevard and Gardenia Avenue	Standard Striping Pattern (2 legs - south and east sides)	Stamped Asphalt Upgrade	CCIP
ld	Kennedy Boulevard and Occident Street	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade	CCIP
le	Cypress Street and Trask Street	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade	Plan
lf	Boy Scout Boulevard and Westshore Boulevard	Continental Striping Pattern (3 legs), one raised pork chop (SE corner)	Stamped Asphalt Upgrade/ Construction of four crossing islands / Flashing pedestrian sign / Signal timing adjustments	CCIP
lg	Boy Scout Boulevard and Lois Avenue	Continental Striping Pattern (2 legs), one raised pork chop (SE corner)	Stamped Asphalt Upgrade/ Construction of three crossing islands	CCIP
lh	Dale Mabry Highway and Martin Luther King Jr. Boulevard	Continental Striping Pattern (4 legs), one raised pork chop (SE corner)	Stamped Asphalt Upgrade/ Construction of two crossing islands	CCIP
li	Dale Mabry Highway and Columbus Drive	Standard Striping Pattern (4 legs), four raised pork chops	Stamped Asphalt Upgrade	CCIP
lj	Dale Mabry Highway and Spruce Street	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade/ Construction of one crossing island	CCIP
lk	Dale Mabry Highway and Kennedy Boulevard	Standard Striping Pattern (4 legs), two raised pork chops (NE and NW corners)	Stamped Asphalt Upgrade/ Construction of one crossing island	CCIP
ll	Kennedy Boulevard and Lois Avenue	Standard Striping Pattern (3 legs - north, south, and west sides)	Stamped Asphalt Upgrade	Plan

The main source for each project is listed in the table above. These sources include:
 City of Tampa FY 2008/09 - FY 2012/13 Capital Improvement Projects (CCIP)
 SR 60 (Courtney Campbell Causeway) Multi-Use Trail Feasibility Study, December 2008. (CCC)
 Westshore Area Pedestrian System Plan, 2005. (Plan)

Other sources consulted include:
 FDOT June 2008 'Other Roadway Related Costs'
 Hillsborough County FY 2008/09 - FY 2012/13 Capital Improvement Program
 Hillsborough County MPO FY 2008/09 - FY 2012/13 Transportation Improvement Program
 Hillsborough County MPO 2025 Comprehensive Pedestrian Plan, 2004.
 Hillsborough County MPO 2025 Long Range Transportation Plan, Amended 2007. (LRTP)
 Westshore Pedestrian Plan Addendum Field Review, August 2008.

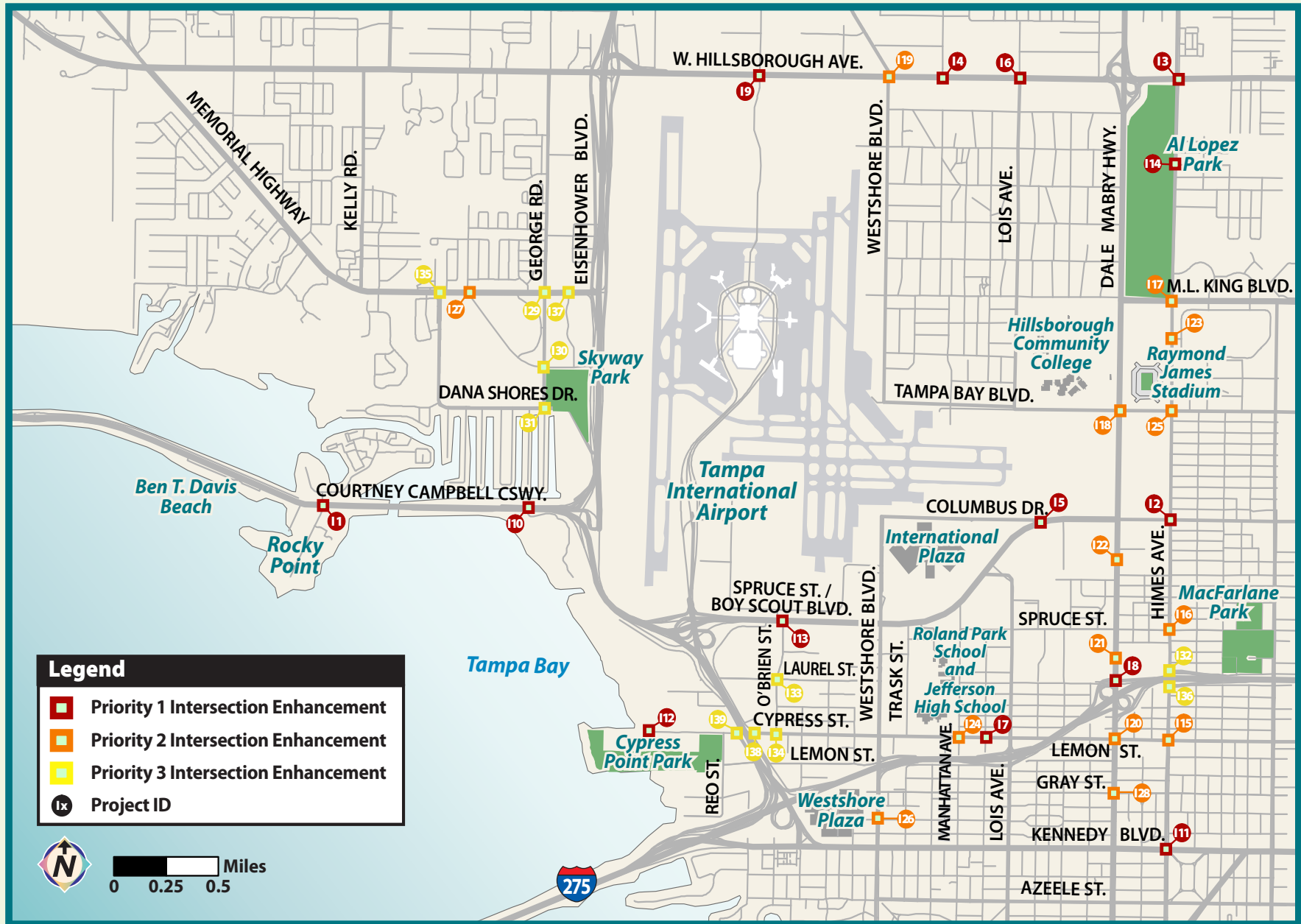


Chapter 2 - Implementation Plan

Table 2.4 Priority Intersection Enhancements

Project ID	Signalized Intersection	Existing Conditions	Type of Enhancement
Priority One			
I1	Rocky Point Drive and SR 60	Continental Striping Pattern (2 legs - north and west sides), one painted pork chop	Stamped Asphalt Upgrade/ Construction of two pork chops / Flashing pedestrian sign / Signal timing adjustments
I2	Himes Avenue and Columbus Drive	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I3	Himes Avenue and Hillsborough Avenue	Standard Striping Pattern (4 legs)	Pavement Installation/ Construction of one crossing island
I4	Hillsborough Avenue and Hesperides Street	No Striping	Continental Striping Pattern
I5	Boy Scout Boulevard and Jim Walter Boulevard	No Striping	Continental Striping Pattern
I6	Hillsborough Avenue and Lois Avenue	Standard Striping Pattern (2 legs - north and west sides)	Stamped Asphalt Upgrade/ Construction of two crossing islands (SW and NW corners)
I7	Cypress Street and Hubert Avenue	Standard Striping Pattern (2 legs - south and west sides)	Continental Striping Upgrade
I8	Dale Mabry Highway and Laurel Street	Standard Striping Pattern (1 leg - north side)	Installation of crosswalks on west and north sides/ Continental Striping Upgrade
I9	Hillsborough Avenue and Hoover Boulevard	Standard Striping Pattern (2 legs - north and east sides)	Stamped Asphalt Upgrade/ Construction of four crossing islands
I10	SR 60 and Bayport Drive	Under Construction - No Striping Present To Date	Installation of crosswalks on north, south, and east sides/ Continental Striping Upgrade
I11	Himes Avenue and Kennedy Boulevard	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I12	Main Entrance to Cypress Point Park	No Striping	Continental Striping Pattern / Flashing pedestrian sign
I13	O'Brien Street and Boy Scout Boulevard	Standard Striping Pattern (2 legs - south and east sides)	Continental Striping Pattern / Flashing pedestrian sign / Signal timing adjustments
I14	Himes Avenue and New Orleans Avenue	No Striping	Continental Striping Pattern / Flashing pedestrian sign
Priority Two			
I15	Himes Avenue and Cypress Street	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I16	Himes Avenue and Spruce Street	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I17	Himes Avenue and Martin Luther King Jr. Boulevard	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade/ Construction of three crossing islands (NW, SW, and SE corners)
I18	Dale Mabry Highway and Tampa Bay Boulevard	Continental Striping Pattern (4 legs), four raised pork chops	Stamped Asphalt Upgrade
I19	Hillsborough Avenue and Westshore Boulevard	No Striping, two painted pork chops (NE and NW corners)	Stamped Asphalt Upgrade/ Construction of three crossing islands (NE, NW, and SW corners)
I20	Dale Mabry Highway and Cypress Street	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I21	Dale Mabry Highway and Target/Walmart Entrance	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade/ Construction of three crossing islands
I22	Dale Mabry Highway and Sweetbay/Days Inn entrance	Standard Striping Pattern (3 legs - north, east, and west sides)	Continental Striping Upgrade
I23	Himes Avenue and Sears Drive	Continental Striping Pattern (2 legs - north and east sides)	Continental Striping Pattern (south side)
I24	Cypress Street and Manhattan Avenue	Standard Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I25	Himes Avenue and Tampa Bay Boulevard	Continental Pattern striping (4 legs), two painted pork chops (NW and SW corners)	Stamped Asphalt Upgrade/ Construction of two crossing islands
I26	Westshore Boulevard and North B Street	Standard Striping Pattern (2 legs - north and south sides)	Stamped Asphalt Upgrade
I27	Memorial Highway and Independence Parkway	Standard Striping Pattern (2 legs - north and east sides)	Continental Striping Pattern
I28	Dale Mabry Highway and Gray Street	Standard Striping Pattern (4 legs)	Continental Striping Pattern
Priority Three			
I29	Memorial Highway and George Road	Standard Striping Pattern (4 legs)	Continental Striping Upgrade
I30	Independence Parkway and George Road	Standard Striping Pattern (4 legs)	Continental Striping Upgrade
I31	Dana Shores Drive and George Road	Continental Striping Pattern (1-leg - east side)	Continental Striping Pattern (south side)
I32	Himes Avenue and Green Street	Standard Striping Pattern (1 leg - north side)	Continental Striping Upgrade
I33	Laurel Street and O'Brien Street	Standard Striping Pattern (1 leg - east side)	Continental Striping Pattern (four sides)
I34	Cypress Street and O'Brien Street	Continental Striping Pattern (4 legs)	Stamped Asphalt Upgrade
I35	Memorial Highway and Dana Shores Drive	Standard Pattern Striping (2 legs - south and west sides)	Continental Striping Upgrade
I36	Himes Avenue and Laurel Street	Standard Pattern Striping (2 legs - south and east sides)	Continental Striping Upgrade
I37	Memorial Highway and Anchor Plaza Parkway	No Striping	Continental Striping Pattern
I38	Cypress Street and E Frontage Road	Standard Striping Pattern (2 legs - west and south sides)	Continental Striping Upgrade (four sides)
I39	Cypress Street and W Frontage Road	Standard Striping Pattern (2 legs - west and east sides)	Continental Striping Upgrade (four sides)

Source: Westshore Pedestrian Plan Addendum Field Review, August 2008.



On-Road Bikeways

The on-road bikeways recommended as part of this Addendum reflect those projects identified within the Hillsborough County 2008 Comprehensive Bicycle Plan Update, as well as the recent amendments to the adopted City of Tampa Greenways and Trails Master Plan.

The approach for determining the demand for on-road bikeways in Westshore, leading to the resulting recommendations, was taken from the Hillsborough County 2008 Comprehensive Bicycle Plan Update. Within the Bicycle Plan Update, an inventory was performed county-wide to assess bicycle facility needs. Each road segment that lacked a bicycle facility was evaluated and ranked (based on an applied weight) through guidance provided by the Hillsborough County Metropolitan Planning Organization Bicycle and Pedestrian Advisory Committee (BPAC) and the following criteria:

- Future connection(s) to the following: Existing on- or off-road facility (1 point), major activity center (1 point), intermodal center (1 point) – weight 21 points
- Number of crashes near or at intersection: More than three crashes (3 points), two or three crashes (2 points), one crash (1 point) – weight 15 points
- Bicycle Level of Service “E” or “F” (3 points), “C” or “D” (2 points), “A” or “B” (1 point) – weight 11 points
- Congestion reduction: Highway Level of Service “E” or “F” (3 points), “C” or “D” (2 points), “A” or “B” (1 point) - weight 4 points

- Community support - destinations and/or corridors most mentioned by citizens as to where bicycle facilities are desired: high number of mentions (3 points), medium number of mentions (2 points), low number of mentions (1 point) - weight 11 points
- Support by implementing agency: Funded for ROW acquisition (3 points), funded for preliminary engineering (2 points), funded for project development and environment study (1 points) - weight 10 points
- Regional effect: Included on regional road network (2 points), connects to adjacent county (1 point) - weight 10 points
- Supports adopted plan: Project in cost affordable plan (3 points) - weight 9 points
- Latent demand - Gravity model calculation: high score (3 points), medium score (2 points), low score (1 point)

The planned/programmed on-road bikeways of the Greater Westshore Area are displayed in **Table 2.5** and **Figure 2.5**.

Table 2.6 and **Figure 2.6** present the proposed prioritized phasing plan of Westshore Area on-road bikeways based upon the methodology presented within the Hillsborough County 2008 Comprehensive Bicycle Plan Update.

Table 2.6 also shows costs for two types of treatments to provide an on-road bicycle facility. The costs are based on figures found within the Bicycle Plan Update. The treatment types with unit costs are as follows:

- Re-stripping of existing pavement (\$18,654/mile)
- Add 4’ paved shoulders as part of resurfacing (\$200,000/mile)

It is generally recommended that the implementation of on-road bicycle facilities be in conjunction with roadway resurfacing or expansion projects. Each on-road bikeway project will need to be evaluated individually to determine the best design/implementation strategy.



Bicyclists on Hillsborough Avenue



Examples of On-Road Bikeways

Project ID	Street Name	From	To	Length (miles)	Total On-Road Bikeway Cost (Low)	Total On-Road Bikeway Cost (High)
Planned/Programmed Enhancement						
ORa	Independence Parkway	Memorial Highway	George Road	0.55	\$10,260	\$110,000
ORb	Independence Parkway	George Road	Eisenhower Boulevard	0.22	\$4,104	\$44,000
ORc	Veterans Expressway Frontage Road	Courtney Campbell Causeway	Skyway Park	0.32	\$5,969	\$64,000
ORd	Veterans Expressway Frontage Road	Courtney Campbell Causeway	E Frontage Road	1.30	\$24,250	\$260,000
ORe	George Bean Parkway	Spruce Street	TIA Terminal	0.45	\$8,394	\$90,000
ORf	E Frontage Road	Cypress Street	Boy Scout Boulevard	0.76	\$14,177	\$152,000
ORg	Cypress Point Park Loop	N/A	N/A	N/A	N/A	N/A
ORh	Gray Street	Reo Street	Road Terminus	0.18	\$3,358	\$36,000
ORi	Reo Street	Gray Street	Cypress Street	0.29	\$5,410	\$58,000
ORj	Cypress Street	Cypress Point Park Entrance	Himes Avenue	2.50	\$46,635	\$500,000
ORk	Lemon Street	E Frontage Road	Occident Street	0.39	\$7,275	\$78,000
ORl	Trask Street	Cypress Street	Boy Scout Boulevard	0.51	\$9,514	\$102,000
ORm	Gray Street	Westshore Boulevard	Hesperides Street	0.25	\$4,664	\$50,000
ORn	North B Street	Westshore Boulevard	Himes Avenue	1.44	\$26,862	\$288,000
ORo	Lois Avenue	Kennedy Boulevard	Boy Scout Boulevard	1.34	\$24,996	\$268,000
ORp	Waterman Avenue	North B Street	Grady Avenue	0.20	\$3,731	\$40,000
ORq	Hale Avenue	Kennedy Boulevard	North B Street	0.10	\$1,865	\$20,000
ORr	Himes Avenue	Kennedy Boulevard	Hillsborough Avenue	3.53	\$65,849	\$706,000
ORs	Martin Luther King Jr. Boulevard	Dale Mabry Highway	Himes Avenue	0.24	\$4,477	\$48,000
ORt	Columbus Drive	Dale Mabry Highway	Himes Avenue	0.25	\$4,664	\$50,000

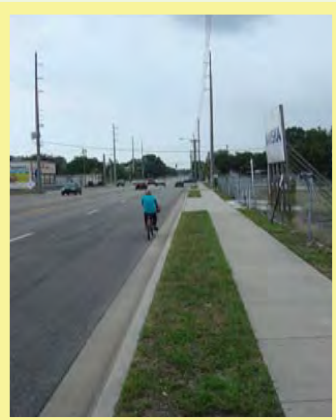
N/A - Not Available

On-Road Bikeway Per Unit Mile (Low) = \$18,654

On-Road Bikeway Per Unit Mile (High) = \$200,000

Sources: City of Tampa Greenways and Trails Master Plan Amendments
Hillsborough County 2008 Comprehensive Bicycle Plan Update





Bicyclists on Himes Avenue



Bicyclist Crossing Dale Mabry Highway

Project ID	Street Name	From	To	Length (miles)	Total On-Road Bikeway Cost (Low)	Total On-Road Bikeway Cost (High)
Priority One						
OR1	W Frontage Road	I-275	Boy Scout Boulevard	1.00	\$18,654	\$200,000
OR2	Dale Mabry Highway	Golden Triangle Place	Columbus Drive	0.13	\$2,425	\$26,000
OR3	Dale Mabry Highway	Spruce Street	Golden Triangle Place	0.37	\$6,902	\$74,000
OR4	Dale Mabry Highway	I-275 E Ramp	I-275 W Ramp	0.17	\$3,171	\$34,000
OR5	Dale Mabry Highway	Cypress Street	I-275 E Ramp	0.11	\$2,052	\$22,000
OR6	Dale Mabry Highway	Kennedy Boulevard	Gray Street	0.26	\$4,850	\$52,000
OR7	Dale Mabry Highway	Gray Street	Cypress Street	0.25	\$4,664	\$50,000
Priority Two						
OR8	Columbus Drive	Grady Avenue	Dale Mabry Highway	0.27	\$5,037	\$54,000
OR9	Spruce Street	Dale Mabry Highway	Himes Avenue	0.25	\$4,664	\$50,000
OR10	Spruce Street	Lois Avenue	Dale Mabry Highway	0.50	\$9,327	\$100,000
OR11	Trask Street	Kennedy Boulevard	Lemon Street	0.37	\$6,902	\$74,000
OR12	Tampa Bay Boulevard	Dale Mabry Highway	Himes Avenue	0.24	\$4,477	\$48,000
OR13	Westshore Boulevard	Gray Street	I-275 N Ramp	0.10	\$1,865	\$20,000
OR14	Westshore Boulevard	North B Street	Gray Street	0.13	\$2,425	\$26,000
Priority Three						
OR15	Westshore Boulevard	Laurel Street	Boy Scout Boulevard	0.26	\$4,850	\$52,000
OR16	Westshore Boulevard	Cypress Street	Laurel Street	0.25	\$4,664	\$50,000
OR17	Westshore Boulevard	I-275 S Ramp	Cypress Street	0.13	\$2,425	\$26,000
OR18	Westshore Boulevard	I-275 N Ramp	I-275 S Ramp	0.09	\$1,679	\$18,000
OR19	Westshore Boulevard	Kennedy Boulevard	North B Street	0.13	\$2,425	\$26,000
OR20	SR 60/Memorial Highway	Kennedy Boulevard	I-275	0.28	\$5,223	\$56,000

On-Road Bikeway Per Unit Mile (Low) = \$18,654

On-Road Bikeway Per Unit Mile (High) = \$200,000

Sources: City of Tampa Greenways and Trails Master Plan Amendments
Hillsborough County 2008 Comprehensive Bicycle Plan Update

Off-Road Trails

The need, feasibility, and prioritization of off-road trails within the Greater Westshore Area was determined through the methodology used as part of the Hillsborough County 2008 Comprehensive Bicycle Plan Update. As such, the off-road trail enhancements presented within this chapter reflect projects of the Hillsborough County 2008 Comprehensive Bicycle Plan Update, as well as those identified as part of the amended City of Tampa Greenways and Trails Master Plan.

Off-road trails are expensive capital outlays. Construction of these facilities will require significant financial leveraging from multiple sources beyond the Westshore Special Assessment.

The off-road trails proposed within the Greater Westshore Area, along with preliminary costs, are presented in **Table 2.7** and **Figure 2.7**. It should be noted that while all of these projects are classified as “Planned/Programmed”, only one has associated funding - SR 60 (Courtney Campbell Causeway) Multi-Use Trail.

Due to the importance of off-road trails to the area, as reflected through support provided by various entities, each project should be treated as a Priority 1 Enhancement.

The cost estimates shown for each project are based on the June 2008 costs prepared by the Florida Department of Transportation:

12’ wide multi-use trail = \$80.00/linear foot.

It is recommended that each project be evaluated individually to determine the best design/implementation strategy.

Transit Stop Enhancements

The Hillsborough Area Regional Transit Authority (HART) has a number of stops and two transfer facilities within the Addendum area. The transit stop enhancements recommended as part of this plan are based on the examination of factors assessed by HART as part of the Bus Stop and Facility Accessibility Study conducted in 2008. Such factors that were reviewed, included: general site conditions (accounting for sidewalk connections to bus stops, curb ramps at sidewalks, etc.); route ridership, and available right-of-way to correct existing deficiencies. In most instances, the estimated number of passenger boardings had the greatest influence in determining whether a shelter should be considered for installation at a bus stop.

In keeping with this approach, all bus stops within the study area were evaluated based on the average number of passenger boardings per day. Suggested boarding levels used to decide when to install a shelter (by land use classification) are listed below. The values represent a composite of prevailing practices:

<u>Land Use</u>	<u>Passenger Boardings</u>
Rural	10 boardings per day
Suburban	25 boardings per day
Urban	50 to 100 boardings per day

All stops with existing shelters were first eliminated. Given the urban nature of the Greater Westshore Area, stops with equal to or fewer than 25 passenger boardings per day were eliminated from further enhancement consideration. All remaining bus stops were given point values depending on the range of average number of boardings per day.

- 26-35 Passenger boardings per day = 0 points
- 36-55 Passenger boardings per day = 10 points
- 56 + Passenger boardings per day = 20 points

Next, distance to other shelters was examined and awarded points as follows:

- Stops within half-mile of an existing shelter = -5 points
- Stops beyond half-mile of an existing shelter = 5 points

Finally, route service was taken into account. HART routes that currently operate within the Greater Westshore Area include: 7, 10, 15, 30, 32, 34, 36, 45, 85, 89 and two express routes. The three routes within the area that are most utilized (to date) include: 30, 34, and 36. The three routes identified as serving key growth areas include: 15, 32, and 34. HART is in the process of extending service hours on Routes 7, 15, 30, 32, 34, and 36. Based on the information presented above, points were assigned to the bus stops as follows:

- Bus stop along popular route (Routes 30,34, or 36) = 2 points
- Bus stop along route serving key growth area (Routes 15, 32, and 34) = 2 points
- Bus stop along route with extended service hours (Routes 7, 15, 30, 32, 34, and 36) = 2 points

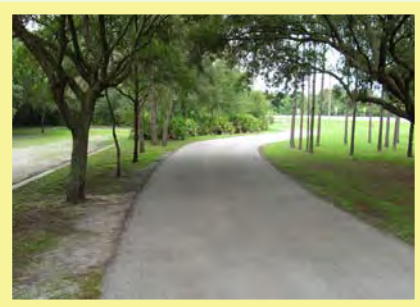
Table 2.8 and **Figure 2.8** display the three transit stop enhancement projects that are planned/programmed within the area. **Table 2.9** and **Figure 2.9** show the transit stop enhancement projects and recommended prioritized phasing plan from the analysis results. Cost estimates for these projects were not generated as the improvements will need to be determined on a site by site basis.

Project ID	Trail Name	From	To	Segment Length (Miles)	Improvement Length (Feet)	Total Off-Road Trail Cost
Planned/Programmed Enhancement						
OF1	SR 60 (Courtney Campbell Causeway) Multi-Use Trail	McMullen Booth Road	Veterans Expressway/Eisenhower Boulevard	8.00		(See Below)
OF2	SR 60/Memorial Highway	Cypress Point Park	Courtney Campbell Causeway	1.29	6811.2	\$544,896.00
OF3	Skyway Park - Causeway Connection	Courtney Campbell Causeway	Dana Shores Drive	0.63	3326.4	\$266,112.00
OF4	George Road	Independence Parkway	Memorial Highway	0.35	1848	\$147,840.00
OF5	Independence Parkway	George Road	Veterans Expressway/Eisenhower Boulevard	0.23	1214.4	\$97,152.00
OF6	Dana Shores Drive/Eisenhower Boulevard	Dana Shores Drive	Memorial Highway	1.17	6177.6	\$494,208.00
OF7	E Frontage Road	Lemon Street	Cypress Street	0.16	844.8	\$67,584.00
OF8	Lemon Street	Occident Street	Westshore Boulevard	0.12	633.6	\$50,688.00
OF9	Westshore Boulevard	Gray Street	Cypress Street	0.26	1372.8	\$109,824.00
OF10	Cypress Street	Westshore Boulevard	Trask Street	0.13	686.4	\$54,912.00
OF11	Spruce Street	Trask Street	Lois Avenue	0.51	2692.8	\$215,424.00
OF12	Hesperides Street	Gray Street	Carmen Street	0.06	316.8	\$25,344.00
OF13	Carmen Street	Hesperides Street	Lois Avenue	0.38	2006.4	\$160,512.00
OF14	Lois Avenue	Spruce Street	Boy Scout Boulevard	0.34	1795.2	\$143,616.00
OF15	Lois Avenue	Carmen Street	Cypress Street	0.19	1003.2	\$80,256.00
OF16	Boy Scout Boulevard	Lois Avenue	Grady Avenue	0.41	2164.8	\$173,184.00
OF17	Columbus Drive	Grady Avenue	Dale Mabry Highway	0.27	1425.6	\$114,048.00
OF18	Cypress Street / South of Grace Street / Along I-275	Lois Avenue	Church Avenue	0.38	2006.4	\$160,512.00
OF19	Church Avenue	Arch Street	Laurel Street	0.11	580.8	\$46,464.00
OF20	Laurel Street / Along I-275	Church Avenue	Himes Avenue	0.38	2006.4	\$160,512.00
OF21	Dale Mabry Highway	Columbus Drive	Martin Luther King Jr. Boulevard	1.02	5385.6	\$430,848.00
OF22	Dale Mabry Highway	Nassau Street	Laurel Street	0.16	844.8	\$67,584.00
OF23	Along I-275 / Arch Street	Dale Mabry Highway	Himes Avenue	0.26	1372.8	\$109,824.00
OF24	Himes Avenue	Martin Luther King Jr. Boulevard	Hillsborough Avenue	1.00	5280	\$422,400.00
OF25	Himes Avenue	Arch Street	Green Street	0.15	792	\$63,360.00

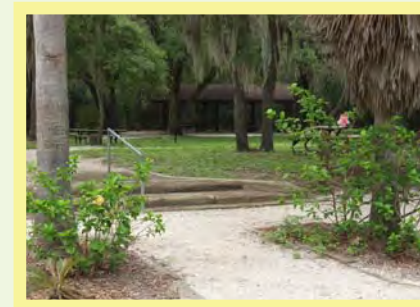
Off-Road Trail Unit Cost (Linear Foot) = \$80.00

Sources: City of Tampa Greenways and Trails Master Plan Amendments
Hillsborough County 2008 Comprehensive Bicycle Plan Update

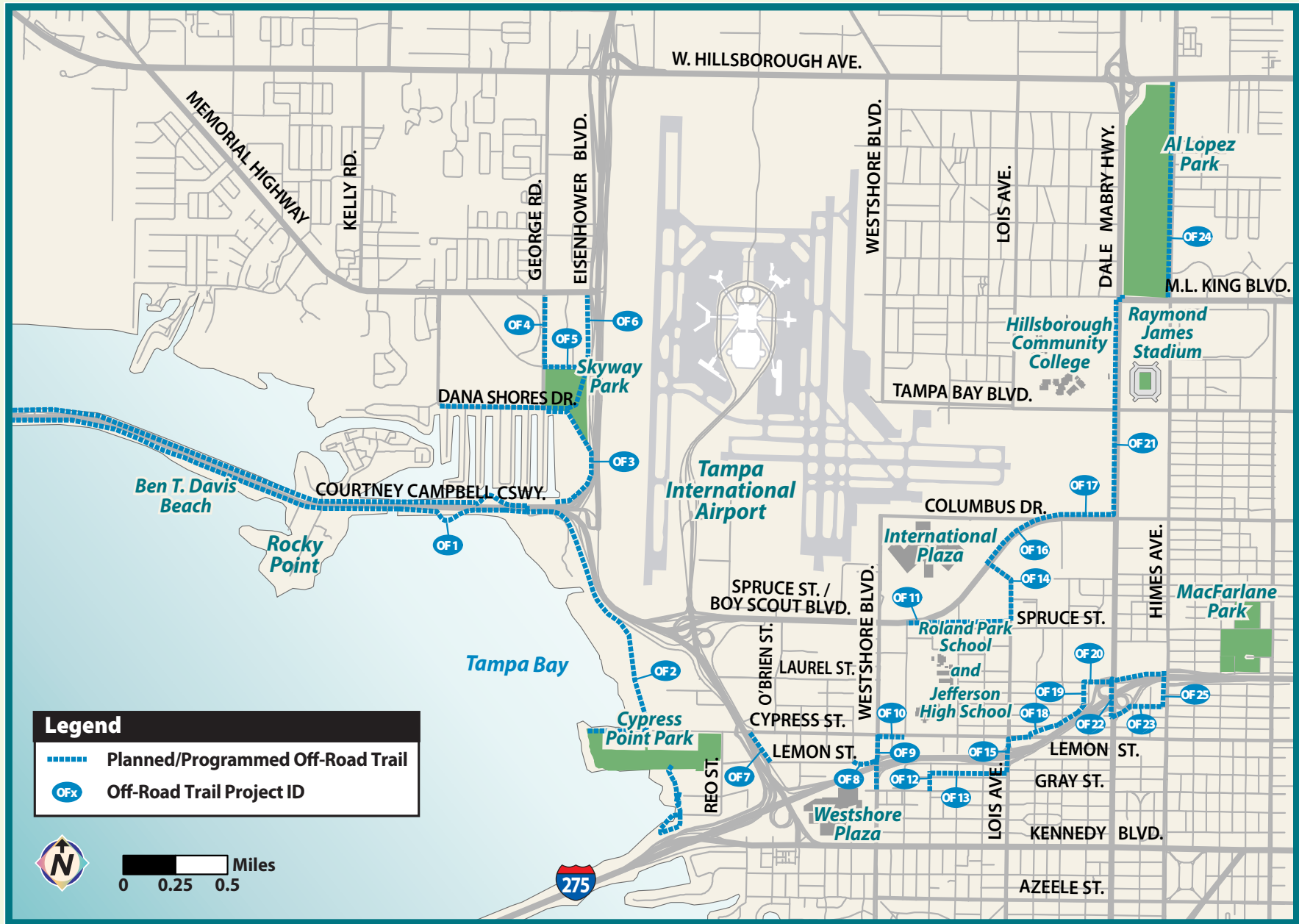
Costs for Project OF1 are based on costs included in the SR 60 (Courtney Campbell Causeway) Multi-Use Trail Feasibility Study prepared by FDOT District 7. These costs are as follows:
Alternative N1 = \$60.8 million / Alternative N2 = \$30.9 million / Alternative S1 = \$63.2 million / Alternative S2 = \$33.3 million (Please refer to feasibility study for further details.)



Example of Off-Road Trail



Example of Off-Road Trail





Transit Stop on Boy Scout Boulevard

Project ID	Transit Stop Name	Route Service #
Planned/Programmed Enhancements		
Ta	Tampa International Airport Main Terminal	30
Tb	Tampa International Airport Transfer Center	30
Tc	Avion Park	30

Source: HART Bus Stop and Facility Accessibility Study, January 2008

Table 2.9 Priority Transit Stop Enhancements



Transit Stop on Hillsborough Avenue

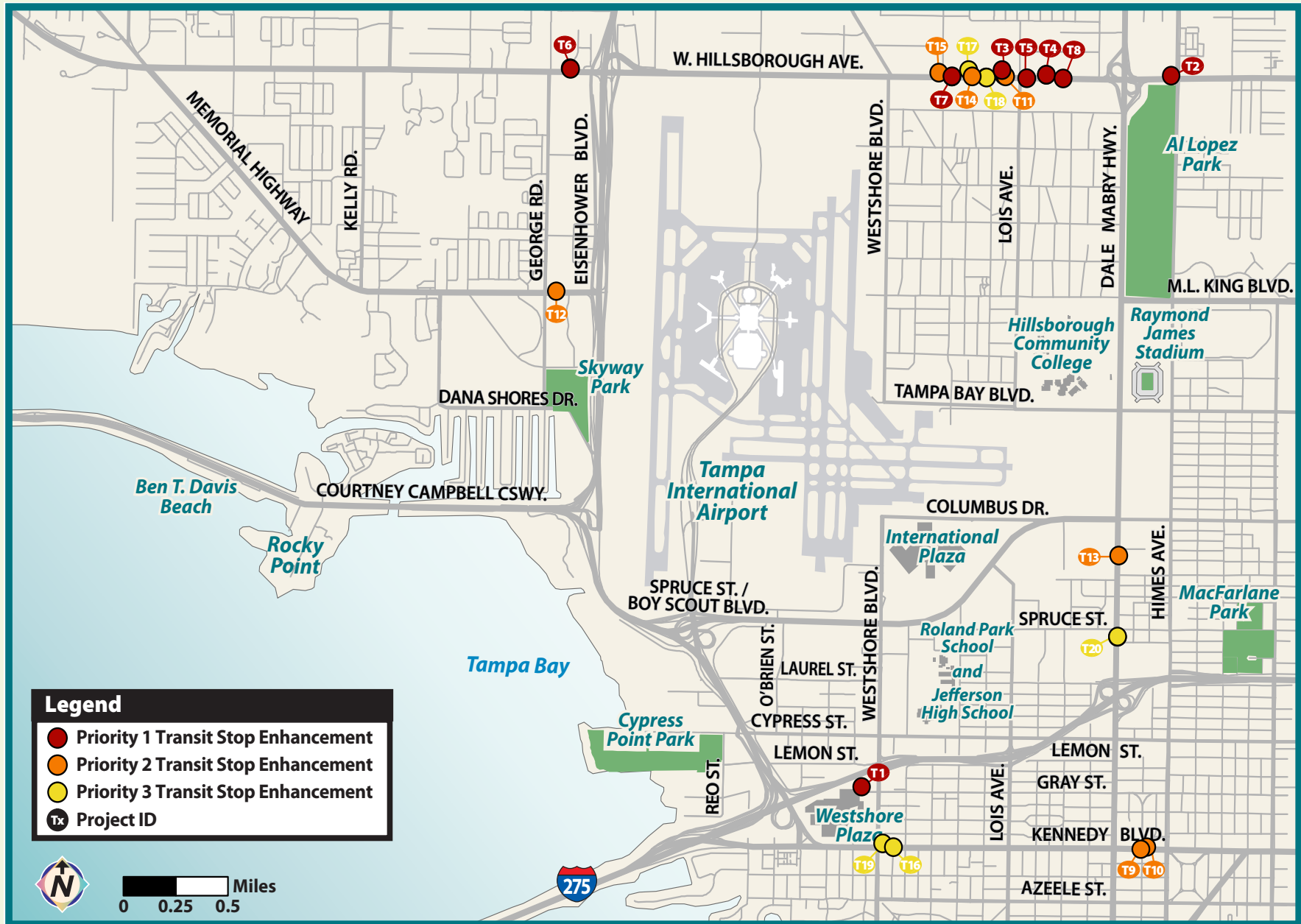


Transit Stop on Hillsborough Avenue

Project ID	Transit Stop Name	Route Service #
Priority One		
T1	Westshore Plaza	15
T2	Hillsborough Avenue and Himes Avenue	34
T3	Hillsborough Avenue and Lois Avenue	34
T4	4021 Hillsborough Avenue	34
T5	Hillsborough Avenue and Lois Avenue	34
T6	Hillsborough Avenue and Beaumont Center Boulevard	34
T7	Hillsborough Avenue and Hesperides Street	34
T8	3902 Hillsborough Avenue	34
Priority Two		
T9	Kennedy Boulevard and Sterling Avenue	30
T10	Kennedy Boulevard and Sterling Avenue	30
T11	Hillsborough Avenue and Lois Avenue	7
T12	Memorial Highway and George Road	30
T13	Dale Mabry Highway and Palmetto Street	36
T14	Hillsborough Avenue and McDonald's	34
T15	Hillsborough Avenue and Hesperides Street	34
Priority Three		
T16	Kennedy Boulevard and Renellie Drive	30
T17	Hillsborough Avenue and Mc Donald's	7
T18	Hillsborough Avenue and Bally Total Fitness	34
T19	Kennedy Boulevard and Westshore Boulevard	30
T20	Dale Mabry Highway and Spruce Street	36

Source: HART Bus Stop and Facility Accessibility Study, January 2008





Areas of Emphasis

For the purposes of this Addendum, “Areas of Emphasis” are defined as gateways, gateway corridors, and underpasses. These features include points or spatial sequences that trigger a sense of arrival into an area, in particular, the Greater Westshore Area.

Gateways

Gateways announce the significance of an area to motorists and convey the unique character of an area through design features such as unique street lighting, landscaping, and signage. Gateway treatments welcome residents and visitors into an area and naturally slow vehicles making pedestrian crossings safer and more visible.

Original Plan Gateway Locations:

- Boy Scout Boulevard and Westshore Boulevard
- Boy Scout Boulevard and Lois Avenue
- Kennedy Boulevard and Westshore Boulevard
- Kennedy Boulevard and Dale Mabry Highway

Recommended Additional Gateway Locations:

- Courtney Campbell Causeway and Rocky Point Drive
- Columbus Drive and Dale Mabry Highway
- Martin Luther King Jr. Boulevard and Dale Mabry Highway
- Hillsborough Avenue and Himes Avenue

Gateway Corridors

Gateway Corridors function the same as Gateways, however, features defining the identity of an area are pronounced along the length of the street as opposed to a single point. The gateway corridors identified as part of the Addendum facilitate both significant pedestrian and/or vehicular movement as they connect the area’s key destinations.

Underpasses

In the original Plan, “Enhanced Underpasses” are defined as enhanced streetscape treatments that provide comfortable, well-lit connections where interstate overpasses create divisions within the Westshore Area.

These features are intended to 1) facilitate non-vehicular movement at interstate/highway underpasses, 2) link the northern and southern portions of the Greater Westshore Area, and 3) improve the area’s general appearance and attractiveness. Enhanced underpasses also serve as vehicular gateways into the Greater Westshore Area.

Original Plan Enhanced Underpass Locations:

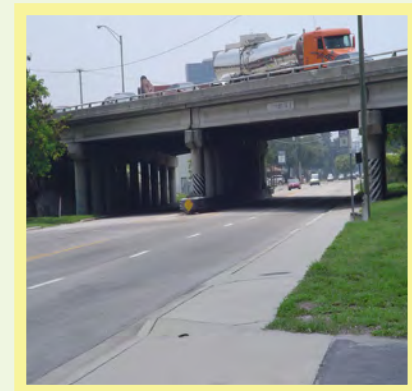
- Cypress Street and Memorial Highway
- Cypress Street and I-275
- Westshore Boulevard and I-275
- Lois Avenue and I-275
- Dale Mabry Highway and I-275

Recommended Enhanced Underpass Locations:

- Dale Mabry Highway and Hillsborough Avenue
- Memorial Highway and Veterans Expressway
- Spruce Street and Memorial Highway

Table 2.10 presents various elements to be considered and incorporated in the design of the gateways, gateway corridors, and underpasses identified within the Greater Westshore Area. The recommended locations of these features are illustrated in **Figure 2.10**.

The unit costs for the recommended design elements to be considered for each feature are presented in **Table 2.11**.



Underpass at Cypress Street and I-275



Courtney Campbell Causeway and Rocky Point Drive Gateway

Project #	Intersection	General Description	Enhancement Type							
			Enhanced Plantings/Plant Maintenance	Aesthetic Crosswalk Enhancements	Public art	Pedestrian-Scale Lighting Elements	Supplemental Motion-Activated Lighting	Masonry Veneer	Street Furniture	Bicycle Racks Near Transit Stops/High Activity Centers
1	Courtney Campbell Causeway and Rocky Point Drive	Gateway	√	√	√					
2	Boy Scout Boulevard and Westshore Boulevard	Gateway	√	√	√					
3	Boy Scout Boulevard and Lois Avenue	Gateway	√	√	√					
4	Columbus Drive and Dale Mabry Highway	Gateway	√	√	√					
5	Dale Mabry Highway and Kennedy Boulevard	Gateway	√	√						
6	Kennedy Boulevard and Westshore Boulevard	Gateway	√	√	√					
7	Dale Mabry Highway and Martin Luther King Jr. Boulevard	Gateway	√	√	√					
8	Hillsborough Avenue and Himes Avenue	Gateway	√	√	√					
9	Courtney Campbell Causeway	Gateway Corridor	√	√		√			√	√
10	Cypress Street	Gateway Corridor	√	√		√			√	√
11	I-275	Gateway Corridor	√			√				
12	Himes Avenue	Gateway Corridor	√	√		√			√	√
13	Kennedy Boulevard	Gateway Corridor	√	√		√			√	√
14	Lois Avenue	Gateway Corridor	√	√		√			√	√
15	Spruce Street	Gateway Corridor	√	√		√			√	√
16	Westshore Boulevard	Gateway Corridor	√	√		√			√	√
17	Cypress Street and Memorial Highway	Underpass	√				√	√		
18	Cypress Street and I-275	Underpass	√				√	√		
19	Dale Mabry Highway and I-275	Underpass	√				√	√		
20	Dale Mabry Highway and Hillsborough Avenue	Underpass					√	√		
21	Lois Avenue and I-275	Underpass	√				√	√		
22	Memorial Highway and the Veterans Expressway	Underpass	√				√	√		
23	Spruce Street and Memorial Highway	Underpass					√	√		
24	Westshore Boulevard and I-275	Underpass	√				√	√		

Source: Westshore Pedestrian Plan Addendum Field Review, August 2008.



General Unit Cost Estimates

Table 2.11 and **Table 2.12** present general unit costs for the range of project types recommended within this plan. These cost estimates are based on a variety of sources.

The sources include:

- “Other Roadway Related Costs”, Florida Department of Transportation, June 2008;
- Bicycle Facility Unit Cost Estimates, Hillsborough County 2008 Bicycle Plan Update;
- Hillsborough Area Regional Transit Authority; and
- www.walkinginfo.org.

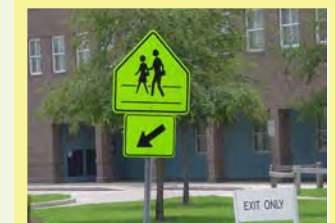
Table 2.11 General Unit Cost Estimates

Item	Description	Unit Measurement	Unit Price
Sidewalk	5' wide, 4" thick	LF	\$45
Sidewalk (Chemical Stain)	Colored / Textured concrete (chemical stain)	LF	\$50
Curb Ramp	Slope of no more than 1:12 or a maximum grade of 8.33%	each	\$800 - \$1,500
Crosswalk	Patterned / Textured pavement (FDOT Standard Specification 523)	SF	\$14
Pedestrian Crossing Island	Varies with type; the cost of an asphalt island or one without landscaping is less than the cost of installing a raised concrete pedestrian island with landscaping	each	\$4000 - \$30,000
Pedestrian Signal		each	\$20,000 - \$40,000
On-Road Bikeway	Add 4' wide paved shoulder as part of resurfacing	mile	\$200,000
	Re-striping existing pavement	mile	\$18,654
	Add 4' wide bicycle lane as retrofit, curb and gutter	mile	\$729,118
	Resurface over existing gravel shoulder	mile	\$114,898
	Signed route	mile	\$7,364
Multi-Use Trail	Off-Road, 12' width	LF	\$80
Turn-Lane Conversion (into median)	Does not include landscape costs	mile	\$730,000
Signs	Advanced pedestrian warning sign	each	\$50 - \$150 + \$150 (installation)
	No Turn on Red	each	\$30 - \$150 + \$200 (installation)
Utility Burial		mile	\$1,250,000
Pedestrian Lighting	Varies with the type of luminaires, brackets, and poles selected	each/year	\$20
Bike Rack		each	\$750
Bench		each	\$900
Water Fountain	Includes water meter and fountain piping	each	\$2,000
Waste Receptacle		each	\$900
Understory Tree		each	\$250
Shade Tree		each	\$600
Shrub		each	\$6

Table 2.12 Costs for Transit Amenities

Cost Item	Cost Estimate
Design Cost (shelter pad)	\$4,000 - \$9,000 / site
Survey Cost	\$1,800 - \$2,500 / site
Landing Pad Construction	\$2,500 - \$10,000
Shelter Pad Construction	\$10,000 - \$15,000
Bus Bays (includes design)	\$35,000 - \$50,000
Slimline Shelter Installation	\$8,770*
4' Perforated Bench	\$450*
Trash Receptacle	\$520*
Information Kiosk	\$585*
Solar Light	\$4,235*

* Turnkey cost for shelter and accessories = \$14,560 (August 2008) - exclusive of design, construction, and access.



Potential Funding Sources

A number of sources exist for funding the pedestrian, bicycle, and transit projects recommended as part of this plan. These funds stem from a variety of sources including government programs and private sector initiatives.

Table 2.13 presents an overview of the potential federal and state funding sources that may be used to implement the variety of recommended pedestrian, bicycle, and transit projects. The table also provides guidance in terms of identifying the most appropriate funding category for the types of improvements recommended. It should be noted that many of the funding sources have eligibility restrictions that limit their use to specific types of projects. A brief description of the eligibility requirements related to each funding category are presented within this section. In general, the listed federal programs require state and local governments to provide a 20% match to the federal share (80%).

Federal and State Funding Sources

The primary sources of funding for bicycle and pedestrian projects are from programs started in the early 1990's under the Intermodal Surface Transportation Equity Act (ISTEA) that have continued in subsequent federal transportation acts. These programs are as follows:

National Highway System - Funds may be used to construct bicycle and pedestrian facilities within National Highway System (NHS) corridors, including projects within Interstate rights-of-way.

Surface Transportation Program - Projects under this program include on-road facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. Modification of sidewalks to comply with ADA requirements is also an eligible activity.

Congestion Mitigation and Air Quality Improvement Program - Projects must be located in areas that are designated as a non-attainment area Section 107(d) of the Clean Air Act and must be likely to contribute to the attainment of national ambient air quality standards (or the maintenance of such standards where this status has been reached). Projects may include the construction of bicycle and pedestrian facilities.

Recreational Trails Program - Funds may be used for the following activities related to the development and maintenance of recreational trails and trail facilities:

- Maintenance and restoration of existing trails,
- Development and rehabilitation of trailside and trailhead facilities/linkages,
- Purchase and lease of trail construction and maintenance equipment,
- Construction of new trails,
- Acquisition of easements or property for trails, and
- Operation of educational programs to promote safety and environmental protection related to trails.

National Scenic Byways Program - Funds may be spent on the following activities along a scenic byway: construction of a facility for pedestrians and bicyclists, rest area, turnout, highway shoulder improvement passing lane, overlook, or interpretive facility. Projects must be associated with a National Scenic Byway, All-American Road, or a State Scenic Byway.

Safe Routes to Schools Program - The planning, design, and construction of projects that will improve the ability of students to walk and bicycle to school are eligible under this program.

Such activities may include:

- Sidewalk improvements,
- Traffic calming and speed reduction improvements,
- Pedestrian and bicycle crossing improvements,
- On-road bicycle facilities,
- Off-road bicycle and pedestrian facilities,
- Secure bicycle parking, and
- Traffic diversion improvements in the vicinity of schools (within ~2 miles).

Each state must also set aside no less than 10% of the program apportionment to fund non-infrastructure related activities to encourage walking and bicycling to school.

Transportation Enhancement Activities - Ten percent (10%) of the Surface Transportation Program apportionment allocated to each state must be set aside to fund activities that enhance surface transportation or the intermodal transportation system. Eligible activities include:

- Provision of facilities for pedestrians and bicyclists,
- Provision of safety and educational activities for pedestrians and bicyclists, and
- Preservation of abandoned railroad corridors (including the conversion and use thereof for pedestrian or bicycle trails).

Transit Enhancement Activities - One percent (1%) of Urbanized Area Formula Grants apportioned to urban areas containing a population of at least 200,000 is set aside to fund transit enhancements. Eligible activities include the provision of (1) pedestrian access/walkways and (2) bicycle access, including the installation of bicycle storage facilities and equipment to transport bicycles on mass transportation vehicles.

Table 2.13 Potential Federal and State Funding Sources

Improvement Type	National Highway System	Surface Transportation Program	Congestion Mitigation and Air Quality Improvement Program	Recreational Trails Program	National Scenic Byways Program	Safe Routes to Schools Program	Transportation Enhancement Activities	Transit Enhancement Activities
Sidewalks, New or Retrofit	*	*	*		*	*	*	*
Crosswalks, New or Retrofit	*	*	*		*	*	*	*
Pedestrian Refuge Islands			*			*	*	
Signal Improvements	*	*	*			*	*	
Pedestrian Signal Heads			*			*	*	
Pedestrian Signs			*			*	*	
Curb Cuts / Ramps / ADA facilities	*	*	*			*	*	*
Traffic Calming / Streetscaping		*	*			*	*	
Bicycle Lanes on Roadway	*	*	*		*	*	*	*
Paved Shoulders	*	*	*		*	*	*	
Signed Bicycle Route	*	*	*		*	*	*	
Shared-Use Path / Trail	*	*	*	*	*	*	*	
Bicycle Racks on Buses		*	*				*	*
Bicycle Parking Facilities		*	*		*	*	*	*
Bicycle Storage Facilities		*	*			*	*	*
Sidewalks to Bus Stops			*				*	*
Bus Stop / Shelter Enhancements			*					*

Local Funding Sources

Local governments participate in funding pedestrian projects through dedicated funding sources as well as annual set-asides of department budgets. The local funding sources to potentially be used to implement the proposed projects of the Addendum are presented in **Table 2.14**.



Table 2.14 Potential Local Funding Sources

Improvement Type	Westshore Non-Ad Valorem Assessment	City of Tampa Sidewalk Program	City of Tampa Local Option Gas Tax	City of Tampa Community Investment Tax	City of Tampa Utility Tax	City of Tampa Transportation Impact Fee
Sidewalks, New or Retrofit	*	*	*	*	*	X
Crosswalks, New or Retrofit	*	*	*			X
Pedestrian Refuge Islands	*	*	*			X
Signal Improvements	*		*	*		X
Pedestrian Signal Heads	*		*	*		X
Pedestrian Signs	*	*	*	*		X
Curb Cuts / Ramps / ADA facilities	*	*	*	*		X
Traffic Calming / Streetscaping	*			*	*	X
Bicycle Lanes on Roadway			*	*		X
Paved Shoulders			*	*		X
Signed Bicycle Route				*		
Shared-Use Path / Trail	*				*	
Bicycle Racks on Buses						
Bicycle Parking Facilities	*				*	
Bicycle Storage Facilities	*				*	
Sidewalks to Bus Stops	*	*	*			*
Bus Stop / Shelter Enhancements			*			*

X = improvement type funded in conjunction with roadway widening or capacity improvement project

Westshore Non-Ad Valorem Assessment - In 2007, the City Council of Tampa approved the levy of a non-ad valorem assessment on certain properties in the Westshore Business District to provide funding for improvements and services in the area. This resolution authorizes the City of Tampa to enter into an agreement with the Westshore Alliance to facilitate the implementation of the said improvements/services within the special assessment area. To date, the Westshore Alliance has predominantly used this money to implement enhancements to the pedestrian environment such as crosswalks, pedestrian signs, etc. The annual funding amount is approximately \$400,000.

City of Tampa Sidewalk Program - The City of Tampa annually funds a program for new sidewalk construction. The funding amounts to approximately \$680,000 annually. The criteria considered for these funds include:

- Proximity to a school,
- Documented pedestrian activity,
- Major roadway or thoroughfare,
- Mass transit route, and
- Neighborhood interest.

The City of Tampa also funds approximately \$600,000 annually for the repair and replacement of existing sidewalks. The criteria considered for these funds include:

- The severity of the sidewalk damage or deflection,
- Neighborhood interest, and
- Proximity to a large number of other sidewalks requiring repair.

City of Tampa Local Option Gas Tax, Community Investment Tax, and Utility Tax - Local governments have the option to raise additional revenue by levying taxes on fuel, utilities, vehicle registrations, etc. as reflected through the local option gas tax, community investment tax, and utility tax. These sources, along with bonds and grants, may be used to fund various improvements related to pedestrian and bicycle activities.

City of Tampa Impact Fee - The City of Tampa Ordinance 9362A imposes an impact fee on land development in the city. Fees are based upon the type of development, the development capacity or other traffic trip generation measure created by the development, and the district in which the development resides. Revenues from the fee are used to provide roadway improvements and related infrastructure necessitated by new development. It should be noted that the impact fee ordinance was recently revised to provide 50% of the collected revenue to the Hillsborough Area Regional Transit Authority for transit enhancements.

Opportunities

Several strategies exist that may be used as part of the overall process to implement the proposed pedestrian, bicycle, and transit projects. Some of these strategies are presented below.

Strategy #1 - Perhaps the most important strategy is the recommended modification of the City of Tampa's impact fee ordinance to redefine "capacity" projects to include pedestrian/bicycle/transit improvements. The modification will allow pedestrian, bicycle, and transit-related projects to be funded independently of roadway capacity projects, thus, enabling quicker implementation of these facilities.

As development occurs, motorized vehicle trips are generated. By improving access to pedestrian and bicycle networks/facilities, access to transit stops and the overall transit network will be enhanced. Improvements to these networks will, in turn, enhance access to developments in the area and reduce motorized vehicle trips. Thus, the basis for using impact fees to implement the recommended Addendum pedestrian and bicycle network enhancements is presented.

Strategy #2 - Use Westshore non-ad valorem assessment or other monies allocated to the Westshore Alliance to match or supplement existing funds to implement Addendum projects.

For example, in 2013, the Westshore Alliance will receive approximately \$53,000 for sidewalk/pedestrian improvements as identified within the Hillsborough County MPO FY 2008/09 - 2012/13 TIP. An opportunity exists for the Westshore Alliance to use this allocation (or a portion of) to match FDOT monies to implement the design phase of the Courtney Campbell Causeway Multi-Use Trail, segments of the trail, or other pedestrian/bicycle facility improvements recommended within the Addendum along the corridor.

Strategy #3 - Partner with HART and the City of Tampa to implement recommended Addendum sidewalk improvements (such as those connecting to transit stops).

An opportunity exists to implement some of the proposed sidewalk enhancements by dividing the tasks and funding responsibilities among agencies. For instance, HART could pay for the sidewalk drainage/engineering support, the City of Tampa could address and remedy any potential stormwater issues, and the Westshore Alliance could fund the construction of the sidewalk segment.

Strategy #4 - Partner with the City of Tampa and local businesses to implement proposed Addendum enhancements.

An opportunity exists for the City of Tampa and the Westshore Alliance to work with businesses around Cypress Point Park to improve access to the park by implementing the proposed sidewalk and intersection enhancements.

In addition, the City and the Westshore Alliance could work with HART and the developers to fund sidewalks connecting to transit stops, as well as recommended transit stop enhancements. These improvements will ultimately enhance access to businesses within the Greater Westshore Area.

Strategy #5 - Enter maintenance agreements with the FDOT and the City of Tampa to implement/fund aesthetic improvements at proposed Gateways, Underpasses, and along Gateway Corridors. The FDOT will install landscaping; however, the FDOT is requiring local jurisdictions to maintain the landscaping projects. The Westshore Alliance could partner with the City of Tampa to share the maintenance responsibility.

Strategy #6 - Implement proposed Addendum improvements during scheduled roadway resurfacing projects.

For instance, the resurfacing of SR 60 from the Pinellas County/Hillsborough County Line to East of Rocky Point Drive is scheduled to begin in 2010 within the FDOT FY 2010 - FY 2014 Work Program. This resurfacing project presents an opportunity to incorporate the proposed sidewalk, intersection, and off-road trail enhancements recommended as part of the Addendum.

Chapter 3 - Design Guidelines

Purpose

Prepared under the original Plan, the Design Guidelines were revisited and updated to address the Addendum area and to account for current design issues. The Design Guidelines were developed to:

- Create design standards that promote the use of attractive, efficient, cost-effective corridor amenities that are easy to maintain;
- Ensure a unified final design that reflects and enhances the character of the Greater Westshore Area as a whole;
- Coordinate design elements to assure aesthetic consistency and quality;
- Maximize the use of feasible amenities given right-of-way constraints within the area; and
- Help to enforce code during site reviews.

Since individual design improvements are likely to be implemented at discrete points in the future as funding becomes available, it is beneficial to provide a set of uniform aesthetic design criteria/strategies for the Greater Westshore Area. These criteria/strategies will set the vision for the area while maintaining the unity and integrity of transportation infrastructure improvements as a whole.

The aesthetic criteria/strategies presented in this chapter are unique to the Greater Westshore Area. As such, the review and enforcement of these design standards should be given special consideration. It should additionally be noted that the original Design Guidelines were incorporated into the Westshore Commercial Overlay District Development Standards (Overlay). It is anticipated that the Overlay will be amended to include the suggested guideline revisions.

Existing Standards

As previously stated, the street classifications and elements of the original Design Guidelines have been incorporated into the Overlay standards. Each street type defined within the guidelines has specific, applied design standards. Pedestrian improvements vary by street type due to each type's unique traffic function and role in the pedestrian network. Four street types are identified based on function and potential to enhance pedestrian mobility. The four street types include:

- Priority Pedestrian Investment Streets,
- Regional Corridors,
- Local Commercial Streets, and
- Neighborhood Streets.

Priority Pedestrian Investment Streets

Priority Pedestrian Investment Streets serve as the core of the pedestrian network. These streets facilitate significant pedestrian movement as they connect the area's key destinations and reinforce public transit routes and stop locations. Due to their important role in linking the pedestrian network, projects recommended on these streets are, for the most part, classified as Priority 1 Enhancements (presented in Chapter 2). These projects should receive funding first for pedestrian infrastructure improvements. The original standards associated with this street type are presented below.

Overlay Streetscape Standards:

- Building setback: Ten (10) feet minimum to twenty (20) feet maximum;
- Public sidewalk width: Six (6) feet minimum to ten (10) feet maximum; and
- Streetscape trees planted within the right-of-way at thirty-foot intervals.

Overlay Priority Pedestrian Investment Streets:

- Cypress Street,
- Lois Avenue,
- Spruce Street, and
- Westshore Boulevard.

Regional Corridors

Designed for high-speed travel across the region, Regional Corridors serve as important entry gateways into the Greater Westshore Area. These corridors contain significant office and commercial development, thereby containing a high amount of associated pedestrian traffic. Regional Corridors must allow direct vehicular access into the Greater Westshore Area while providing safe pedestrian connections between land uses.

Overlay Streetscape Standards:

- Building setback: Ten (10) feet minimum to twenty (20) feet maximum;
- Public sidewalk width: Six (6) feet minimum to ten (10) feet maximum; and
- Streetscape trees planted within the right-of-way at thirty-foot intervals.

Overlay Regional Corridors:

- Boy Scout Boulevard,
- Dale Mabry Highway, and
- Kennedy Boulevard.

Chapter 3 - Design Guidelines

Local Commercial Streets

Local Commercial Streets intersect Regional Corridors and provide strong internal connections within the Greater Westshore Area. While these streets foster interaction between pedestrians and vehicles due to their small scale, improvements on these streets work to separate pedestrians from vehicular traffic by defining a visible zone for pedestrian activity.

Overlay Streetscape Standards:

- Building setback: Ten (10) feet minimum to twenty (20) feet maximum;
- Public sidewalk width: Five (5) feet minimum to ten (10) feet maximum; and
- Streetscape trees planted within the right-of-way at thirty-foot intervals.

Overlay Local Commercial Streets:

Remaining roadways classified as “arterial,” “collector,” or “neighborhood collector.”

Neighborhood Streets

Neighborhood Streets naturally support pedestrian activity due to their small scale and associated slow speeds. These narrow streets compose a grid network, forming the fabric of the pedestrian realm as they serve residential areas within the Greater Westshore Area.

Overlay Streetscape Standards:

- Building setback: Per underlying zoning district;
- Public sidewalk width: Five (5) feet minimum to eight (8) feet maximum; and
- Streetscape trees planted within the right-of-way at thirty-foot intervals.

Overlay Neighborhood Streets:

Remaining roadways within residential areas.

Recommended Additional Standards

The additional streetscape design standards, presented in this chapter, are intended to 1) update aspects of the original Design Guidelines and 2) address elements of the original Design Guidelines that were not formerly defined. These elements are as follows:

- Sidewalks,
- Crosswalks,
- Pedestrian Signals and Signage,
- Curb Cuts,
- On-Road Bikeways and Off-Road Trails,
- Transit Stops, and
- Areas of Emphasis.

Street Types

The additional standards recommended for each street type, along with the additional suggested street designations, are also presented within this chapter.

Figure 3.1 presents both the original street designations adopted in the Overlay standards and the additional proposed designations.



Pedestrian on Westshore Boulevard

Priority Pedestrian Investment Streets

Recommended Additional Standards:

- Sidewalk separation from roadway: 6’ minimum;
- On-road bikeways (no street parking): 4’ minimum;
- On-road bikeways (street parking): 5’ minimum; and
- Pedestrian-scale light fixtures at 120’ intervals, preferably with signature banners.

Recommended Additional Priority Pedestrian Investment Street:

- Himes Avenue.

Regional Corridors

Recommended Additional Standards:

- Sidewalk separation from roadway: 6’ minimum;
- On-road bikeways (no street parking): 4’ minimum;
- On-road bikeways (street parking): 5’ minimum; and
- Pedestrian-scale light fixtures at 120’ intervals, preferably with signature banners.

Recommended Additional Regional Corridors:

- Courtney Campbell Causeway, and
- Hillsborough Avenue.

Local Commercial and Neighborhood Streets

No additional standards or designations for these two street types are proposed at this time.



Chapter 3 - Design Guidelines

Sidewalks

Sidewalks are a critical component of every corridor's streetscape as they serve as the backbone of the pedestrian network. The installation of sidewalks where current gaps exist is one of the primary focuses of this plan so as to promote better district-wide connectivity in the near-term. It should be noted that as development occurs, new sidewalk construction will need to comply with the adopted Overlay standards.

Sidewalk widths and roadway barriers, in conjunction with continuous sidewalks, contribute to a high pedestrian network level of service as these features can improve the overall safety and walking experience of pedestrians.

Sidewalk width serves as a major factor in determining the type of activity that can be supported along a roadway corridor. Wider sidewalks are recommended where increased pedestrian capacity is needed or where a more diverse range of pedestrian activity is desired.

Roadway buffers are defined as the area between the sidewalk and the adjacent roadway. The need for roadway buffers often varies per roadway facility type and land use setting. In other words, large buffer widths tend to be present along busy arterials and/or in commercial settings as opposed to along neighborhood streets within residential areas. Buffers may consist of the following features: on-street parking, bike lanes, planting strips, and space hosting light poles and street furnishings.

Sidewalks serve as the pedestrian realm and benefit both pedestrians and motorists by creating separate, distinct travel paths between pedestrians and vehicles. By providing a comfortable, accessible, and continuous sidewalk network, walking and pedestrian safety/comfort are anticipated to be enhanced.



Sidewalk Network on Himes Avenue

Sidewalk Materials

Standard concrete is currently used throughout the Greater Westshore Area for existing and new sidewalks. While the use of this material is acceptable in meeting Overlay standards, the use of recycled material for sidewalks is encouraged. Many new pavement materials on the market are cost effective, as well as environmentally friendly. Rubbersidewalks, for example, are composed of high-density, interlocking paving tiles made from recycled crumbled California tire rubber; the tire rubber is combined with polyurethane binder and colorant. Rubbersidewalks are strong, durable, comply with ADA standards, and meet all requirements of sidewalk-worthiness. These paving systems are cost-effective and serve as a LEED (Leadership in Energy and Environmental Design) accredited alternative to concrete sidewalks and pathways.

In addition, rubbersidewalks have been known to (1) significantly reduce injury and costly claims for trip and fall accidents, (2) help preserve the urban forest by eliminating the need for tree removal, and (3) are easily-maintained and long-lasting. Rubbersidewalks are currently being incorporated into City streetscapes around the country, including Chicago and Seattle.



Rubbersidewalk



New Sidewalk on O'Brien Street

Chapter 3 - Design Guidelines

Recommendations

It is recommended that a minimum of five-foot sidewalks (with the exception of Priority Pedestrian Investment Streets and Regional Corridors which require six-foot sidewalks) be included on at least one side of the street in all locations within the Greater Westshore Area that are deemed to be “constructible” by the City of Tampa Public Works Department. At a minimum, new sidewalk construction should comply with the adopted Overlay standards, including those guidelines established within the original Plan and Addendum.

The recommended design standards are as follows:

- Sidewalk width: 5’ minimum
- Separation from roadway: 4’ minimum
- ADA requirements: Grade, width, and curb ramps of sidewalks must meet ADA standards. In addition, all street amenities, including benches, trash receptacles, trees, etc., should be located beyond the extent of the sidewalk so as not to create obstacles or barriers to pedestrian movement.

It is also recommended that the sidewalk programs, implemented by both the City of Tampa and Hillsborough County, be reviewed to determine how to appropriately integrate the proposed projects and design guidelines of the Addendum into the established programs.

Such programs include:

Hillsborough County

- Sidewalk Retrofit Program
- Sidewalk Gap Construction Program
- ADA Curb Ramp Transition Program
- Community Development Block Grant Program
- New Developer-Constructed Sidewalks
- School Safety Program
- Sidewalk Maintenance, Repair, and Replacement

City of Tampa

- Sidewalk Program-work is contracted annually for new sidewalk construction and repair/replacement of damaged sidewalk.

Additional recommendations involve amendments to the current Overlay standards. Policies addressing sidewalks within the Overlay standards are as follows:

(3) (j) Continuous sidewalks shall be provided along the entire length of street frontage, and shall be aligned with and connected to that of adjacent and contiguous properties.

(3) (k) For properties with multiple tenants and/or multiple structures on site, pedestrian circulation shall be provided between tenants and/or structures through the use of a sidewalk or other suitable pedestrian connection, not less than five feet wide and where applicable, shall align with and connect to that of adjacent and contiguous properties. Sidewalk paving or other pedestrian connections, where applicable, must continue uninterrupted across the mouth of all curb cuts, subject to Section 22-315 of the City of Tampa Code of Ordinances.

(3) (n) All buildings shall have pedestrian access oriented toward the public sidewalk adjacent to the street.

The current Overlay standards should be revisited and modified to emphasize the importance of internal pedestrian network connectivity/access within large commercial/office/retail complexes (i.e. International Plaza, Westshore Plaza, etc.).

As suggested in the Hillsborough County 2025 Comprehensive Pedestrian Plan, the City of Tampa should consider modifying the Overlay standards to include development review policies that encourage a pedestrian and bicycle accessibility audit to be conducted of the site as part of the development proposal/site plan submittal. Essentially, the applicant would identify pedestrian desire lines (e.g., to transit stops, commercial uses, schools, etc.) within a ¼- to ½-mile of the project site, and identify supporting facilities and any potential barriers/deficiencies that may reduce optimal access. Specific implementation incentives to encourage developer mitigation of deficiencies could relate to density bonuses, relief from transportation concurrency, or other mechanisms that support city and county growth management objectives.

It is further recommended that the Overlay standards be enforced to the maximum degree possible.

Chapter 3 - Design Guidelines

Crosswalks

Crosswalks are a critical element in the creation of a safe pedestrian environment, particularly in areas with high vehicle and pedestrian traffic such as the Greater Westshore Area.

Marked crosswalks indicate preferred locations as to where pedestrians should safely cross a roadway and help motorists yield to pedestrians by defining pedestrian right-of-way. Crosswalks are often installed at signalized intersections, as well as at selected midblock locations.

The Manual of Uniform Traffic Control Devices (MUTCD) directs that: "crosswalks should be marked at all intersections where there is substantial conflict between vehicular and pedestrian movements." Placement of crosswalks should be based on the location of activity centers, nature of the roadway to be crossed, and distance between crossing opportunities. It is recommended that crosswalks be placed at all signalized intersections and include timed countdown displays before and after traffic signal changes. In addition, crosswalks should include audio for the visually impaired.

The guidelines of the American Association of State Highway and Transportation Officials (AASHTO) indicate that excessive roadway crossing distances and limited crossing opportunities increase the potential for vehicle-pedestrian conflict. Pedestrian crossing islands and midblock crossings are recommended under AASHTO guidelines to enhance pedestrian network connections across roadways.

As indicated previously, pedestrian crossing islands are beneficial to pedestrians as they provide a protected area for pedestrians to wait for acceptable gaps in the flow of traffic before completing a street crossing. These features may function as 1) triangular islands placed adjacent to right turn lanes or as 2) raised or painted longitudinal spaces in medians.

Midblock crossings provide pedestrians with more frequent roadway crossing opportunities as these facilities are generally placed where large distances exist between intersections.



Pedestrian Crossing Island



Midblock Crossing

Crosswalk Materials

Durability, retroreflectivity, and cost are the three criteria frequently used to evaluate the effectiveness of crosswalk materials. Durability essentially measures the product's service life while retroreflectivity measures the ability of the markings to be visible at night or in low light conditions. Cost accounts for the capital and maintenance expenditures associated with the material and installation.

The materials most commonly used for crosswalk markings include: paint, epoxy resin, thermoplastics, and inlay tape. Of these materials, inlay tape is a particularly attractive option for Westshore. Inlay tape is a retroreflective, skid-resistant paint polymer pavement marking material. It is highly reflective, long-lasting, slip-resistant, and does not require a high level of maintenance. Although inlay tape has a high initial expense, it is the most durable of available materials. Inlay tape, however, can only be applied on new or repaved roadways. Where rougher pavement surfaces exist, the use of thermoplastic, (which is also durable, slip-resistant, and reflective) is recommended.



Inlay Tape

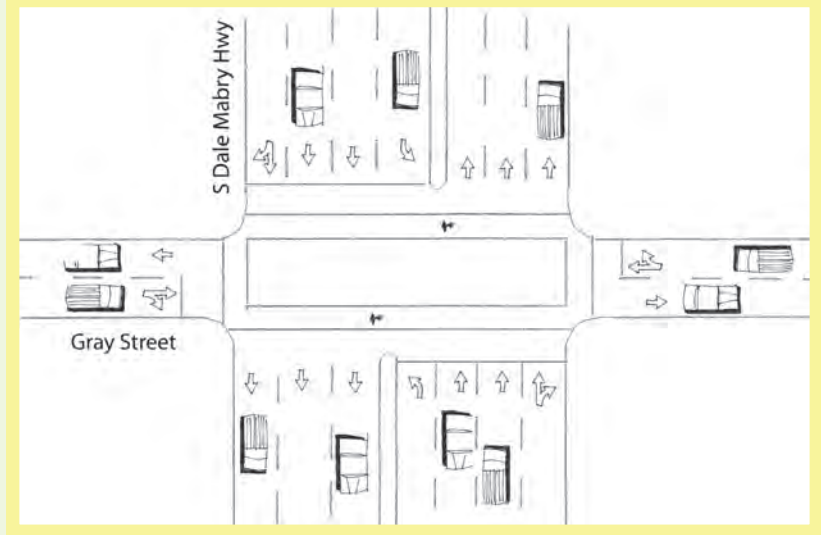
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Crosswalk Layouts

The standard layout is the most basic option for a marked crosswalk. It can be observed at a majority of the intersections within the Greater Westshore Area. The markings are commonly 12 inches wide, perpendicular to the roadway, and spaced at least 6 feet apart. While the standard layout is the simplest design to implement, it is also the least visible to motorists. The most visible layout (aside from stamped asphalt) is the continental layout, which consists of a ladder pattern without traverse lines. To reduce maintenance costs, the longitudinal lines can be spaced to avoid wheel paths. As such, the use of the continental pattern is preferred.



Standard Crosswalk Layout in Westshore



Existing Standard Crosswalk Pattern at the Intersection of Dale Mabry Highway and Gray Street

Crosswalk Enhancements

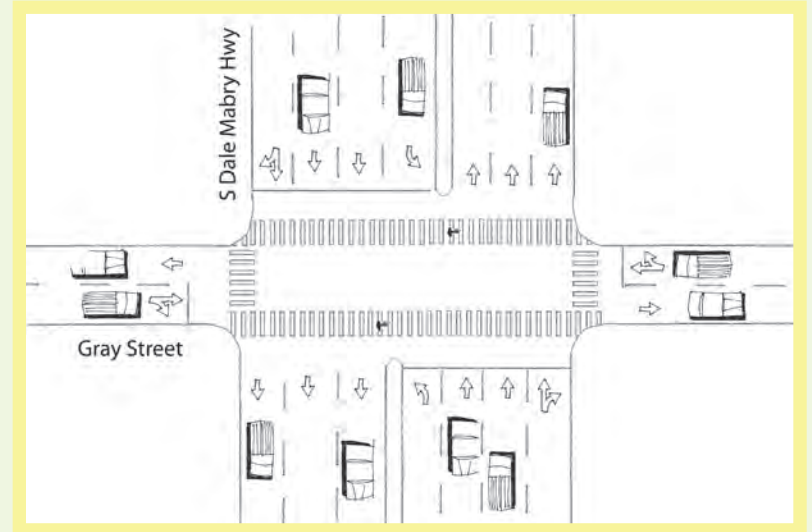
Decorative paving offers the opportunity to introduce distinctive enhancements to the ground plane at roadway crossing locations. Paving colors and textures that contrast from the roadway provide visual indicators of "pedestrian zones" to motorists and help to distinguish safe areas for pedestrians to cross. To make standard crosswalks more visible, the area between the standard crosswalk lines may be enhanced with pavers or other aesthetic treatments. Such aesthetic treatments involve stamping the asphalt with a pattern and often colorizing it. An imprinted crosswalk consists of a resin-based synthetic bituminous compound that is applied to the roadway while hot. It is imprinted with a mold and comes in a variety of colors. The most common mold simulates brick pavers. Imprinted crosswalks are well-suited for high traffic areas. Other techniques applied to asphalt surfaces, such as Streetprint or Stamped Asphalt, are less expensive than Imprint, but do not provide the same level of durability.



Continental Crosswalk Layout in Westshore



Enhanced Crosswalk Layout in Westshore - Intersection of Kennedy Boulevard and Westshore Boulevard



Proposed Continental Crosswalk Pattern at the Intersection of Dale Mabry Highway and Gray Street

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Recommendations

Where high pedestrian volumes meet high traffic volumes, the AASHTO guidelines recommend the placement of highly visible crosswalk markings at signalized intersections, in conjunction with raised/wide crossing islands, in order to 1) increase safety and comfort benefits to pedestrians and 2) provide greater detectability by motorists.

Given the fact that many of the roadways within the area are wide (6 lanes or greater) and facilitate large traffic volumes, stamped asphalt crosswalks and raised pedestrian crossing islands are recommended district-wide. Other aesthetic criteria to be considered for the placement/installation of enhanced crosswalks are as follows:

- Enhanced, marked crosswalks should be provided within two feet of all street intersections specified within the Addendum to promote enhanced pedestrian visibility.
- Marked crosswalks should be installed at all 4 legs of signalized intersections to encourage pedestrians to cross at the signal and discourage encroachment by motorists into the crossing area.
- A two-foot wide vehicle stop bar should be provided at a minimum distance of ten feet from the crosswalk area. The stop bar should be marked with white inlay tape for high visibility to prevent vehicles from entering the crosswalk area upon stopping at traffic lights.
- Decorative paving materials and patterns that are selected should be in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and approved by the City of Tampa prior to Final Design.

- Preferred Enhanced Crosswalk Treatment: Red brick pattern imprinted asphalt with white inlay tape banding the outer edge. Each crosswalk should be, at a minimum, 14 feet wide.

Alternate Enhanced Crosswalk Treatment: Red brick streetprint or stamped asphalt with white reflective paint banding the outer edge.
- Where the use of the preferred imprinted asphalt is not technically feasible, the use of a continental pattern layout is preferred over a standard pattern layout.

Pedestrian Signals and Signage

The majority of crosswalks within the area have associated pedestrian signals. These signals create gaps between traffic flows which allow pedestrians to cross a street. While these signals have well-signed pushbuttons and indicate appropriate pedestrian crossing times, a variety of traffic signal enhancements are available that may benefit pedestrian mobility within the Greater Westshore Area. Such enhancements include:

- Automatic pedestrian detectors - these devices automatically activate the red traffic signal and WALK signal when pedestrians are detected at the roadway intersection. These devices may also be used to extend crossing time for slower moving pedestrians in the crosswalk.
- Larger pedestrian signals - pedestrian signals should be clearly visible at all times at crosswalks to pedestrians and motorists.

- Countdown signals - provide pedestrians with information about the time remaining in a crossing interval; may be designed to begin counting down at the beginning of the walk phase (preferred).
- Pedestrian signals should indicate the crossing interval by visual, audible, and/or tactile means to accommodate pedestrians with vision or hearing impairments.
- Pushbuttons should be well-signed and within easy reach for all pedestrians (including those in wheelchairs and with vision impairments). Pedestrian signals should be programmed to quickly respond to pedestrians using provided pushbuttons.

The MUTCD identifies a “normal” pedestrian walking speed of four feet per second. Upon consultation with City of Tampa traffic engineers, it is recommended that pedestrian crossing signals within the Greater Westshore Area remain at or be set at four feet per second.

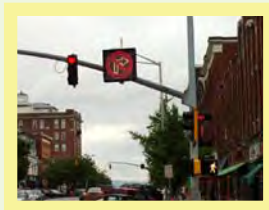
In general, fixed signal timing and exclusive pedestrian phasing work best to provide optimal pedestrian service. These timing/phasing strategies are most appropriate at locations with high pedestrian volumes, high turning movement conflicts, or high roadway speeds as these intervals stop traffic in all directions and allow for consistent pedestrian crossing opportunities. Pedestrian signal timing adjustments should be considered, through further study, at the locations recommended in Chapter 2 (page 2-8).

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Right turn on red restrictions should also be considered at locations where there are high pedestrian volumes or where there are proven conflicts between motorists and pedestrians. Although the Right Turn on Red law requires motorists to come to a complete stop and yield to cross-street traffic and pedestrians prior to turning on red, many motorists do not fully comply with the regulation. Motorists often hinder pedestrian crossing movements as they 1) block crosswalks while waiting for a gap in traffic and 2) fail to look for pedestrians approaching on their right as they look left for breaks in approaching traffic.

Prohibiting right turn on red is a simple, low cost measure that should be considered for implementation (possibly during the busiest times of the day) at high motorist-pedestrian conflict locations within the area.

The use of signs should additionally be considered at locations where crossings may be less visible or are generally not expected by motorists (particularly at midblock crossings). Warning signs can provide helpful information to both motorists and pedestrians, especially to those who are unfamiliar with an area. Signs should be checked periodically to assure that they are in good condition (free from graffiti and still standing), reflective at night, and continue to serve a purpose. The placement of pedestrian signs should be considered at the locations recommended in Chapter 2 (page 2-8).



No Right Turn on Red Sign

Curb Cuts

Curb cuts (locations where driveways cross sidewalks) introduce conflicts between motorists and pedestrians as these features basically allow motorists and pedestrians to share the same space. These features often lack design elements that help facilitate pedestrian safety (such as crosswalks, crossing lights, etc.). Moreover, curb cuts are unsightly and contribute to a sense that “the space is for cars, not people”.

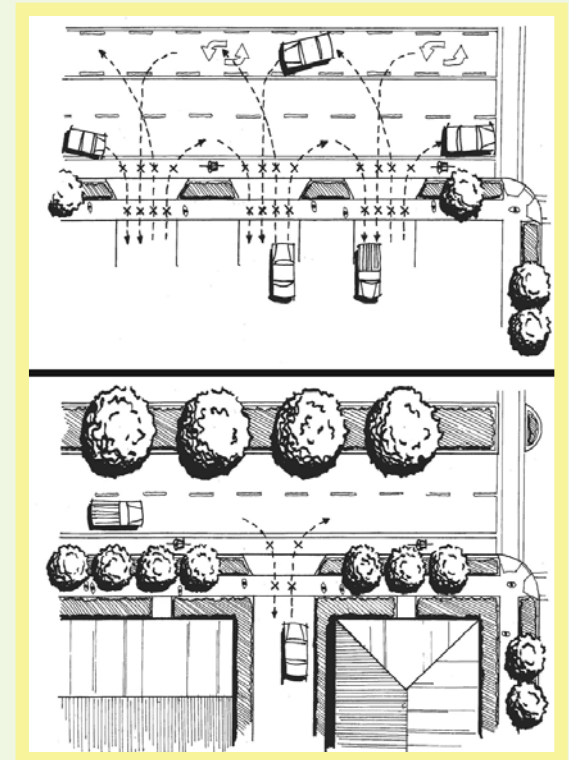
Recommendations

Overall, the Greater Westshore Area is in need of better access management strategies. The following Westshore Commercial Overlay District Development Standards address curb cuts:

(4) (b) Vehicle access shall have minimal impact on pedestrian circulation. Sidewalk paving must continue uninterrupted across the mouth of all curb cuts, subject to section 22-315 of the City of Tampa Code of Ordinances. Decorative pavers, other textured material, or similar permanent delineations shall be used across the mouth of all curb cuts to provide a pedestrian conveyance.

(6) (h) Requests for additional curb cuts, for existing development, will only be considered in instances of public safety issues. In cases where such a curb cut is approved, the petitioner shall be solely responsible for any off-site or site specific improvements which are necessary to facilitate the design of the driveway or curb cut, including but not limited to signalization, turn lanes, and acceleration/deceleration lanes.

While curb cuts provide access for individuals with disabilities, as well as access to businesses, it is important to keep in mind that the number of curb cuts and their proximity to one another will have a direct effect on the quality of the pedestrian environment. It is recommended that the Overlay standards be revisited to include language regarding consolidated driveway points to reduce the potential for motorist-pedestrian conflict. It is also recommended that the Overlay standards be enforced to the maximum degree possible.



Top Figure: Existing Area Curb Cuts

Bottom Figure: Proposed Curb Cut (Consolidated Access Points)

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On-Road Bikeways

On-road bikeways support non-motorized travelers. On-road bikeways may be included as part of a roadway corridor through new bicycle lane construction, restriping within existing right-of-way to provide a bicycle lane, and proper marking and signing to identify a bikeway. The inclusion of bike lanes may require vehicle lane reductions, or the prohibition of parking to accommodate non-motorized travelers.

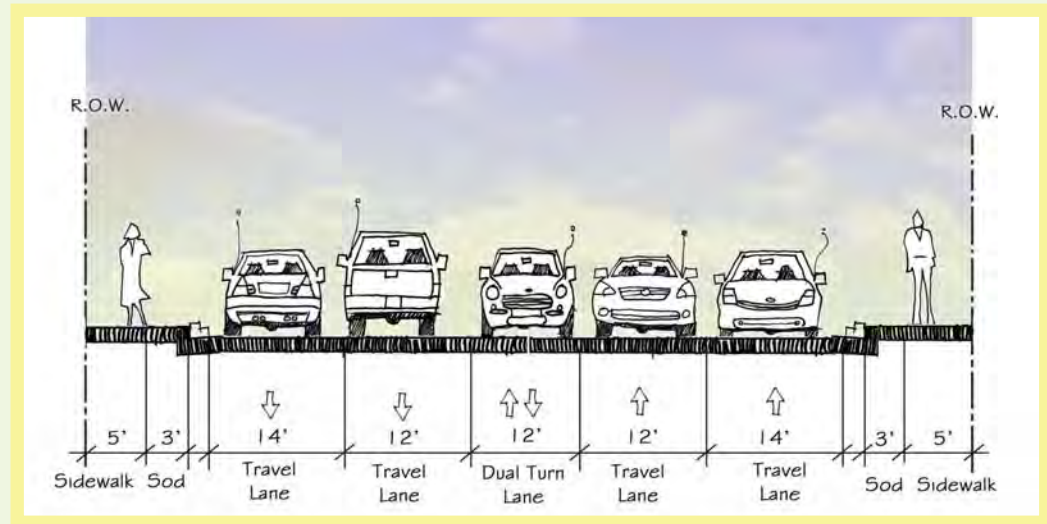
The best practice principles to position a bike lane include:

- Placement of a bike lane on the right side of the roadway to move bicyclists in the same direction as motorists in the adjacent travel lane, and
- Location of a bike lane between the parking lane (if applicable) and the travel lane.

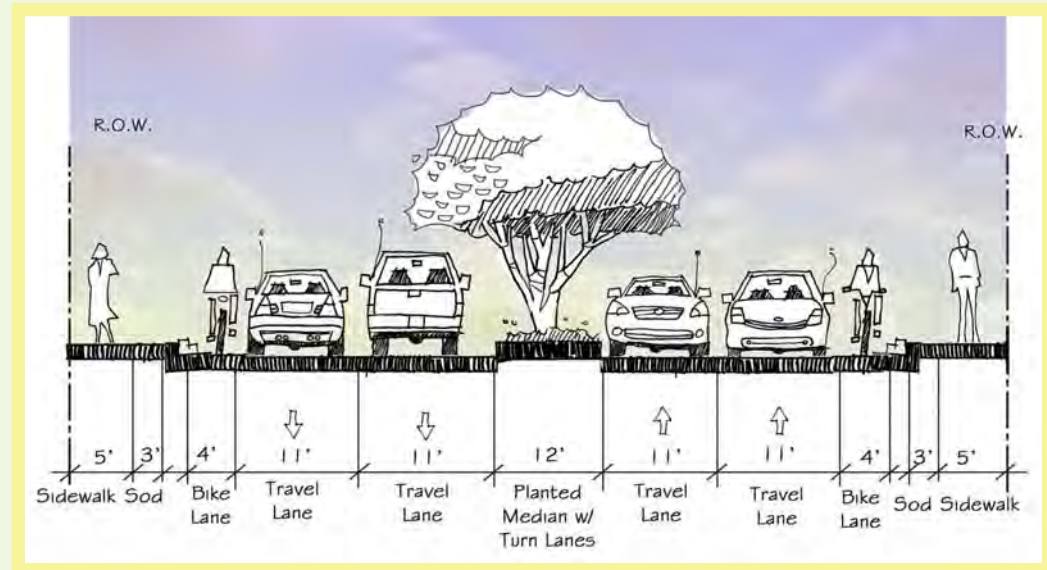
A short-term strategy appropriate for urban areas with constrained roads/limited right-of-way and a well-developed street grid (such as Westshore) is to identify streets that may be re-striped to include a 4- or 5-foot bicycle lane. This recommendation may be accomplished by:

- Using a wide outside lane to mark/stripe a 4- or 5-foot bicycle lane,
- Narrowing standard 12-foot traffic lanes to create space for a 4- or 5-foot bicycle lane, or
- Eliminating a lane for motorized traffic to create space for a 4- or 5-foot bicycle lane.

It is most cost efficient to create bicycle lanes during street reconstruction or street resurfacing. The cost of installing a bicycle lane can vary significantly depending on the condition of the pavement, the need to adjust signalization, the need to use a private contractor, and the need to acquire additional right-of-way and/or realign the roadbed.



Existing Typical Roadway Section within the Greater Westshore Area



Opportunity to Include a Bike Lane and a Planted Median with Lane Shifting

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Recommendations

The Overlay standards should be modified to incorporate language regarding the inclusion of bicycle lanes during street reconstruction and/or resurfacing. The on-road bikeways should be designed and built to follow adopted state and local standards.

It should be noted that mode transition points are a critical link in sustaining a multimodal transportation system. The ease with which travelers can transition from one mode of transportation to another impacts an individual's willingness to utilize diverse travel options. The provision of storage facilities for bicycles is one of the most basic improvements to facilitate the movement of travelers from one mode of transportation to another. The Bikes on Buses program, initiated by the Hillsborough Area Regional Transit Authority (HART), is highly successful and underscores the need for coordinating bicycle improvements with transit stops. As such, the Overlay standards should incorporate language about the need to site bicycle storage facilities near/at transit stops, major activity centers, and large developments.

Off-Road Trails

The number of off-road trails specified within the Greater Westshore Area by the Hillsborough County 2008 Comprehensive Bicycle Plan Update and the City of Tampa Greenways and Trails Master Plan is limited most likely due to right-of-way constraints.

An off-road trail is a paved facility separated from vehicle lanes that may run parallel to a roadway or function as part of a greenway system linking adjacent neighborhoods and land uses.

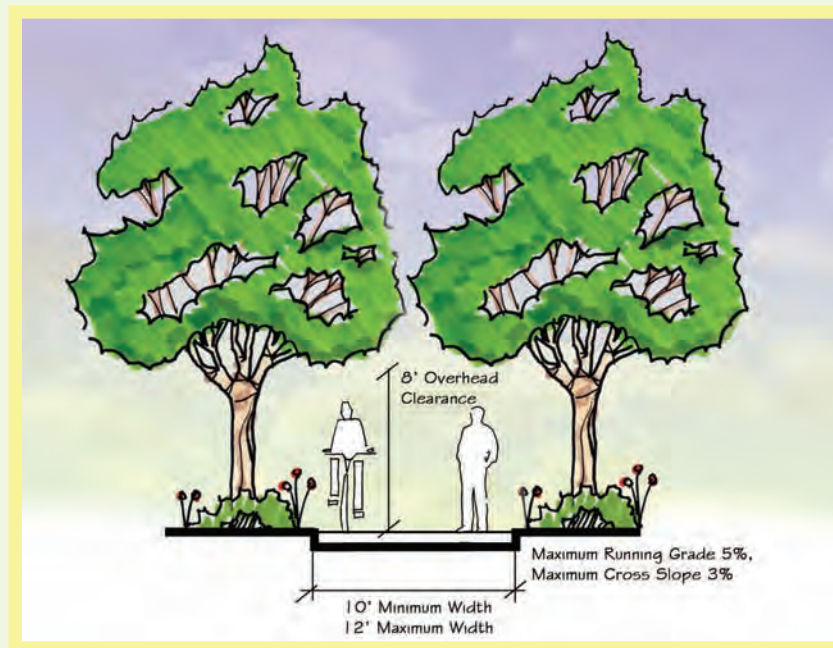
Recommendations

Off-road trails should be twelve-feet (12') wide (at a minimum) to accommodate bi-directional traffic and consist of material to support multiple activities (such as walking, cycling, roller blading, etc.). Space for the addition of trees, landscape buffers and recovery zones should also be included in the design of these facilities.

It is recommended that the Overlay standards be revised to include the consideration of off-roads as a prioritization for construction along roadways that exhibit the following characteristics:

- Connect major attractors such as schools, parks, historical and cultural points of interest, and provide access to public waterfront property;

- Connect existing off-road trail segments forming a more complete connection;
- Accommodate locations specifically cited in the Hillsborough County 2008 Comprehensive Bicycle Plan Update, Long Range Transportation Plan, and/or the City of Tampa Greenways and Trails Master Plan; and
- Address locations deemed unsafe for pedestrians/bicyclists as reported via crash data.



Typical Off-Road Trail Section

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Transit Stops



Transit Stop at Cypress Point Park

This Addendum seeks to promote linkages and enhance the comfort of transit users within the Greater Westshore Area. As such, it is important for bus stops within the area to be conveniently positioned to reinforce access and use. These two factors may be measured by an individual's general willingness to walk to or from a transit stop. Reasonable walking distance (to/from a stop), thus corresponds to approximately ¼- to ½-mile; however, this distance varies based on topography, weather, sense of safety and security, and presence of activity. For the most part, stops within the Greater Westshore Area are placed 400-800 feet apart along transit-served corridors.

As stated in Chapter 3, the recommended transit stop enhancements focus on those stops with high passenger boardings that lack shelters and/or sidewalk connections. The intent of the improvements is to ensure that individuals can access the stop from adjacent developments and facilities. This, in turn, results in the notion that various entities must work collaboratively to improve overall transit access.

HART is primarily responsible for bus stop installation and the provision of improvements at individual stops. Such improvements include:

- Shelter relocation or refurbishment;
- Installation of other physical infrastructure (benches, bicycle racks, etc.);
- Placement or repair of bus stop signage;
- Construction or repair of boarding/alighting area;
- Installation of shelter lighting;
- Connecting boarding/alighting area to sidewalk; and
- Correcting HART bench obstructions.



Transit User Boarding Bus on Hillsborough Avenue

It is the responsibility of the state and local jurisdictions, as well as private entities and property owners, to address the following items regarding transit stops:

- Presence and condition (width, firmness, cross slope, etc.) of connecting sidewalk;
- Presence and condition (width, slope, depth, detectable warning, etc.) of curb ramps; and
- Correcting obstructions caused by private benches, utility boxes, newspaper racks, etc.

Minimum Bus Stop Elements

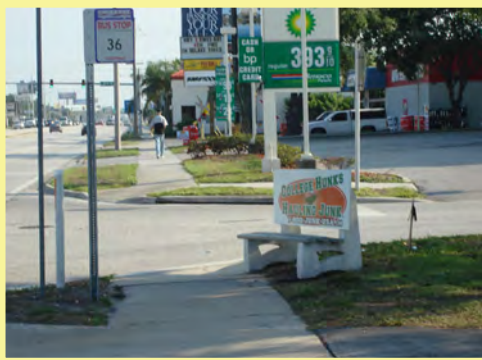
Landing Area: Bus stop sites should be chosen such that, to the maximum extent practicable, lifts or ramps can be deployed on a firm, stable surface so as to permit a wheelchair or mobility aid user to maneuver safely onto or off the bus. The landing area must be firm, stable, and slip-resistant. Concrete is the preferred surface for the landing area.

Pedestrian Connections: To be fully useable, a landing area of 5 feet in width and 8 feet in length (ADAAG, 10.2.1) must be connected to a sidewalk of at least four (4) feet in width, of a sufficient condition for a person in a wheelchair to use (ADAAG 4.3, 4.5).

Signage: Each bus stop must be marked with a sign indicating the transit operator(s) that serve(s) the stop. Bus stop signs indicate to passengers and drivers where buses stop, as well as publicize the availability of the service. The sign must be easily visible to the approaching bus driver, placed (ideally) within 4 feet of the edge of the street. The bus stop sign should neither block nor be blocked by other jurisdictional signs.

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Lighting: Bus stops that are served after dark should be lit to promote passenger safety and security and to improve visibility of waiting passengers to approaching bus drivers. Ideally, bus stops should be located to take advantage of existing street lights or other outside facility lighting. Alternately, installation of new lighting at the bus stop should be considered.



Typical Area Bus Stop

Recommendations

A significant number of bus stops within Westshore do not currently meet these standards, particularly regarding landing areas and pedestrian connections. Stops that are most deficient, however, tend to have the fewest number of boardings.

HART is currently working to increase the number of on-street bus stops that provide clean, safe and comfortable waiting areas for bus patrons and are fully accessible to individuals of all abilities. For the past few years, HART has started to install two styles of shelters, "Slimline" and "Palladium". Two factors determine the type of shelter selected: amount of right-of-way available and patrons' needs at the site.

A Slimline shelter is covered by a 4-foot x 12-foot barrel-style roof with two-foot-wide tempered glass walls. The shelter is outfitted with seating, an information kiosk, and a trash receptacle. Most of the Slimline shelters are placed in urban conditions where street lighting is good. It should be noted, however, that HART is currently placing supplemental solar lighting in shelters where extra lighting is needed.

The Palladium shelter is 5 feet x 10 feet with a hipped roof that has a 14-inch dripline overhang. Seating, an information kiosk, a trash receptacle, and solar lighting are also provided.

Both styles feature the tempered glass panels with a decorative Victorian ceramic pattern that allow maximum visibility.



Slimline Shelter



Palladium Shelter

The following Westshore Commercial Overlay District Development Standards address transit stop provisions:

(3) (a) Pedestrian amenities shall be provided next to areas used by the public, including but not limited to: shade trees, public open space, water features, sitting areas, and mass transit stops.

(6) (g) Wherever possible, development within the Westshore Overlay District shall be designed to maximize the efficiency of mass transit. The developer shall coordinate with the City of Tampa and the Hillsborough Area Regional Transit Authority to determine if the site warrants transit stop improvements such as easement dedication or transit shelters. These improvements may be considered for justification for the reduction of up to ten (10) percent of the required parking spaces.

Due to the fact that all transit riders are pedestrians for at least part of their trip, an accessible transit system is an important component in enhancing pedestrian mobility. As such, it is recommended that upgrades on highly utilized transit stops be prioritized first for funding. Coordination with HART will be required to position bus shelters at stops identified within Chapter 2 (page 2-20).

It is additionally recommended that the Overlay standards be amended to 1) emphasize the critical relationship between the pedestrian and transit networks and 2) strongly encourage the integration of transit enhancements as part of the development/site plan review process.

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Areas of Emphasis

For the purposes of this Addendum, "Areas of Emphasis" are defined as gateways, underpasses, and gateway corridors. Due to the fact that these features indicate points or spatial sequences that trigger a sense of arrival into an area, addressing the design elements/aesthetics of these areas and corridors is an essential part of creating a cohesive Westshore district.

PRIVATE REALM

There are many techniques for creating gateways using private realm architecture, site layout, and building design. Preferably, larger scale architectural detail and careful consideration of building form and profile should be considered near logical district gateways. Buildings should address the street to create a sense of enclosure along the route and destination at the eventual gateway. Bold architecture can be used to create local landmarks/points of reference. This particular issue is addressed within the Westshore Commercial Overlay District Development Standards. It is anticipated that the character of Westshore will continue to evolve with future development under the guide of the Overlay standards.



New Avion Park Development at Boy Scout Boulevard and O'Brien Street

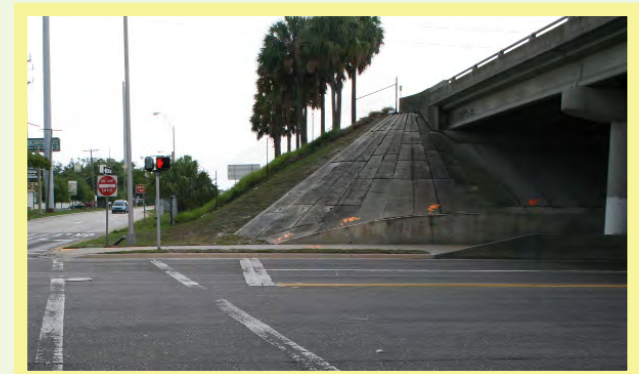
PUBLIC REALM

Enhancements to the public realm should be used to reinforce the design of the private realm. A variety of enhancements are feasible, depending on the existing conditions of the gateway and the amount of space within the right-of-way. The following section describes some potential upgrades that should be considered, particularly in circumstances where leveraging opportunities with other entities exist.

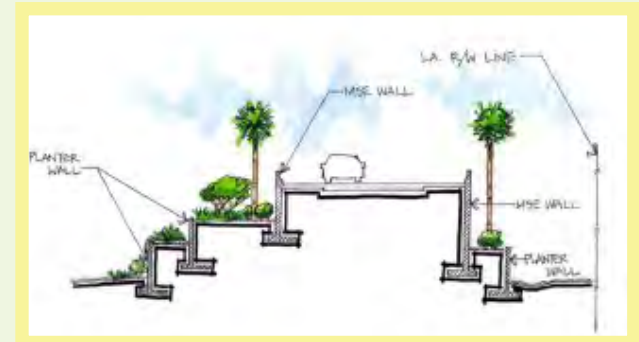
Enhanced Plantings - Tiered MSE walls create a pedestrian scale to overpasses by providing visual appeal through design and additional space for plantings. Where the finished grade of the underpass makes the installation of tiered walls infeasible, plantings (preferably those requiring little maintenance) should be considered.

Masonry Veneer - Manufactured stone and brick veneers that realistically mimic non-manufactured products at a fraction of the cost. In addition, they are relatively easy to install along a variety of surfaces, such as concrete. The use of veneers is recommended to aesthetically upgrade underpass gateways within Westshore.

Supplemental Motion-Activated Lighting - Similar to other types of lighting, motion-activated lighting enhances feelings of safety. Installation is recommended at underpasses to encourage pedestrian movement.



Underpass along Lois Avenue



Tiered Walls



Manufactured Stone Veneer

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Pedestrian Scale Lighting - Pedestrian lighting (standing structures or lights mounted 13 to 16 feet above the sidewalk) can aesthetically improve an area/corridor as well as enhance feelings of safety in the evening and night time hours. It is one facet of a larger strategy to reduce crime through design elements.

Installation, on-going maintenance, and operation costs should be assessed for the selected light fixtures before the new lighting is installed. In general, pedestrian scale lighting should be strongly considered where one or more of the following criteria has been met:

- Where there are reported visibility problems and where there is an active citizen watch group that will make use of the light to watch over the area;
- Along corridors that connect to major destination points and/or transportation facilities;
- Where there are existing sidewalks, or sidewalks planned in conjunction with the lighting upgrade;
- Reported accidents; and
- At a significant community gateway/entrance.

It should be noted that while the local area electricity provider, Tampa Electric Company, does not provide typical pedestrian scale lighting features, the company does provide other feasible options at a reasonable cost. It is recommended that these options be explored by the Westshore Alliance for incorporation in the area's corridor streetscapes.

Aesthetic Crosswalk Enhancements - Crosswalk enhancements are recommended at each of the major intersection gateways. In part, these enhancements will help visually tie the area together.

Public Art - In the future, increased emphasis on public art is recommended as a means of promoting a positive, cohesive Westshore identity by enhancing buildings and public open spaces. Public art, as discussed here, is intended to encompass a wide range of art forms which could include mosaics, paintings, sculptures, lighting, landscape designs, textiles, glasswork, video installation, ceramics and performance art.

Street Furniture - As stated within the Plan, street furnishings should be used as unifying elements of the streetscape. To avoid visual clutter, furnishings should maintain a consistent style and color. Additionally, sidewalk furnishings must not disrupt or severely limit the effective width of sidewalks.



Enhanced Crosswalk at Kennedy Boulevard and Westshore Boulevard



Street Furniture



Pedestrian Scale Lighting



Public Art