# **19th Avenue Preliminary Land Use** Assessment and Transportation Study

Development Pattern, Form, and Improved Infrastructure













# **Accommodation Statement**

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# Development Pattern, Form, and Improved Infrastructure

#### Introduction

The widening of 19<sup>th</sup> Avenue is a significant capital investment and has the potential to change the character of the community and the quality of life for residents of Ruskin, Waterset, and Sun City. Therefore, in order to further benefit the community, it is prudent to contextualize the corridor in terms of its relationship to the community. This allows us to leverage the transportation investment to build upon and carry forward the vision the community intended in the Community Plans, Comprehensive Plan, and other outreach efforts. This will enable the ultimate improvement to add value to and further the implementation of the community's vision.

The Existing and Future Land Uses along the corridor, along with various community plans, create five distinct nodes through which 19<sup>th</sup> Avenue corridor can be contextualized. These nodes are shown in Figure 1 and are, from west to east:

- 1. 19<sup>th</sup> Avenue @ US 41
- 2. 19<sup>th</sup> Avenue @ 24<sup>th</sup> Street
- 3. 19<sup>th</sup> Avenue @ 30<sup>th</sup> Street
- 4. 19<sup>th</sup> Avenue @ Cypress Village Boulevard; and
- 5. 19<sup>th</sup> Avenue @ Beth Shields way (The Civic Center)

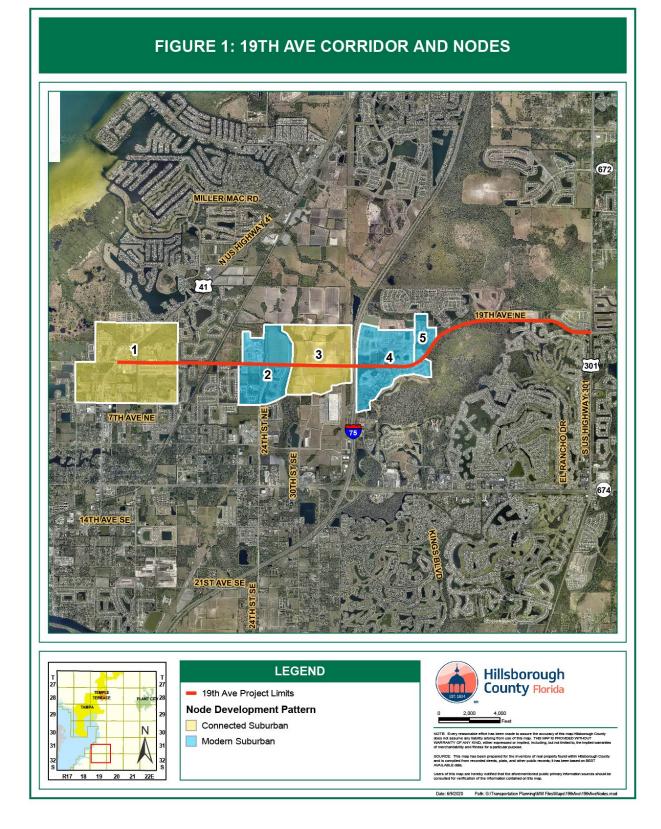
The 19<sup>th</sup> Avenue corridor currently traverses vacant land interspersed with subdivisions and shopping centers. Cypress Creek Elementary, Beth Shields Middle School, and the Southshore Regional Library form a cluster of civic uses east of Interstate 75. A review of Certificates of Capacity (subdivision/site plan approvals) and Developments of Regional Impact, however, shows that nearly all of the property fronting the roadway will be developed in the next ten years. In fact, with the exception of the nodes at US 41 and at 30<sup>th</sup> Street, the development pattern of the nodes is already set as modern suburban (a pattern that group large superblocks and single purpose pods into master planned communities physically separated from adjoining communities) through projects that are or will soon be under construction. Figure 2 shows the properties in the 19<sup>th</sup> Avenue Corridor that have either a Certificate of Capacity approved or a Master Utility Plan in place. The node at US 41 has significant development and redevelopment capacity, and the node at 30th Street will include the bulk of new retail and employment. 19<sup>th</sup> Avenue at US 301 is a built node for the purposes of this analysis, the planned land uses at this intersection are modern suburban subdivisions and do not provide destinations necessitating special multi-modal connectivity considerations in excess of what is provided in a context based roadway cross section. The majority of this analysis will focus on the nodes at US 41 and at 30th Street.

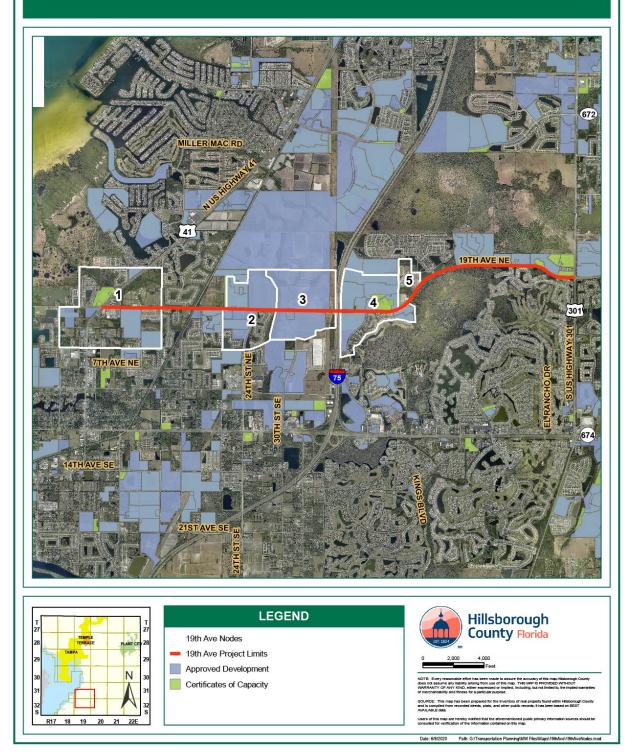
#### Key Findings

Key findings of the 19<sup>th</sup> Avenue study area include:

- The South Coast Greenway should be built on the south side of 19<sup>th</sup> Avenue to provide connection to the Ruskin Town Center, cross at 30<sup>th</sup> Street and be built on the north side from there east to provide connection to shopping and civic centers.
- The 19<sup>th</sup> Avenue at US 41 Node has the potential for development and redevelopment with connected roadway network patterns (Connected Suburban) that links to the planned Ruskin Town Center to the south.
- The 19<sup>th</sup> Avenue @ 24<sup>th</sup> Street Node will develop as a modern suburban neighborhood center
- The 19<sup>th</sup> Avenue @ 30<sup>th</sup> Street Node will be a connected suburban mixed use community center serving the larger Waterset community to the north, new subdivisions to the east and west and South Shore Corporate Park to the south
- The entire area east of Interstate 75 will develop in a modern suburban form, but local connections to the civic center are still possible.
- The Land Development Code delivers a modern suburban form as a default development pattern.

The recommendations are organized by nodes. Areawide recommendations are found on page 45.



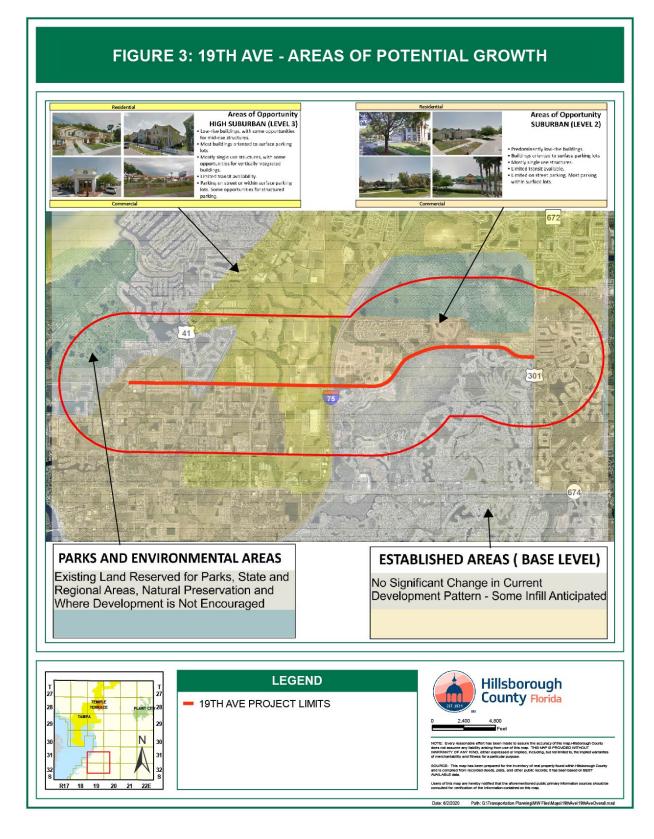


### FIGURE 2: 19TH AVE CORRIDOR APPROVED DEVELOPMENT

#### Nodes

The southern part of Hillsborough County is rapidly expanding and is the fastest growing area within the County. The areas of potential growth within the study area are shown in Figure 3 and are based on the Imagine 2040 Plan's *Areas of Potential Growth Levels* from the Hillsborough County Vision Map. *Areas of Potential Growth Levels* describe the location, intensity, and character of expect growth through the year 2040. The darker the color of the color scale, the higher the intensity and density. The LRTP Imagine 2040 Vision along 19<sup>th</sup> Avenue calls for suburban and high intensity suburban growth. It also recognizes the Wolf Branch Creek Nature Preserve and Bullfrog Creek Mitigation Area as environmental areas. Neighborhoods in Sun City and Apollo Beach are identified established areas that will not experience significant change.

A study of Hillsborough County's approach to mixed-use development, "Mixed Use and Strip Commercial (MUSC) in Hillsborough County," was completed in 2014. This study recommended approaches that can facilitate delivering a more functional mixed-use development pattern in Hillsborough County's mixed-use land use categories. To understand mixed-use form, three prototype forms were identified – Modern Suburban, Connected Suburban, and Compact Urban. The vision of the Imagine 2040 plan is further refined in this report through the application of these place types within those suburban and high intensity suburban vision areas.



#### Compact Urban Pattern

Compact Urban development patterns support an interconnected network that is found in most downtown areas and pre-World War II neighborhoods and cities. A connected street grid offers users several routes to one or more destination points in a single trip. Commercial building fronts are typically at the edge of the sidewalk, with parking on the street or at the rear to support easy pedestrian access. A mix of land uses are present, including residential, with the highest density and intensity of uses.

According to the MUSC study, "In *compact urban* settings, the needs of all users – pedestrians, cyclists, drivers, and transit users – are balanced. Vehicles move more slowly so that cyclists can safely share the road and pedestrians can feel comfortable crossing and walking near the street. Design techniques for compact urban settings include on-street parking, narrower vehicle lanes, street trees, sharrows, frequent crosswalks, and wide sidewalks. On thoroughfares that must be wide (four lanes or more), a side access lane should be considered. This lane would include a slower-moving lane, on-street parking, and a wide sidewalk to provide a proper frontage for street-oriented buildings." Figure 4 depicts Boston's Newberry Street as an example of what Compact Urban development looks like in the built environment.



Figure 4: Newbury Street, in Boston Massachusetts. A compact urban development pattern. Source: Google Maps 2019.

#### Connected Suburban Pattern

This pattern of development supports a connected road network to access activity centers and community amenities, and offers neighborhood to neighborhood connections for all modes. A good local roadway network alleviates congestion on principal arterial roads by offering alternative corridors and routes to destinations which can be safely accessed by all users and modes. Mixed-use is encouraged in this development scenario, and a medium level of density is most prominent with some high-density commercial nodes. Access and traffic circulation within an activity center is interconnected and support safe bicycle and pedestrian movements. Figures 5 and 6 show how a Connected Suburban development pattern uses a local roadway network to link neighborhoods to activity centers and how mixed-use development can fit into the context of suburban design.



Figure 5. Belmar Shore Neighborhood, Tampa, FL a connected suburban development pattern. Source: Google Earth



Figure 6: Winthrop Village Town Center, Hillsborough County, Florida. A connected suburban commercial development pattern. Source: Google Earth 2019.

According to the study, "In *connected suburban* settings, the needs of all users are still accommodated, but more priority is given to vehicles because there is a greater separation of uses and more trips require a car. Vehicle lanes are slightly wider than in compact urban settings, and cyclists are typically accommodated in bike lanes rather than sharrows. On-street parking, if provided, can be located on a side access lane to allow vehicles to move unrestricted in center lanes. An interconnected network of sidewalks is provided, sized appropriately for adjacent land uses: wider in mixed-use settings and narrower in residential areas where pedestrian activity will be less.

#### Modern Suburban Pattern

This development pattern became popular in the late 20th century and supports suburban development patterns that group large superblocks and single purpose pods into master planned communities physically separated from adjoining communities. Cul-de-sac, gated community designs foster a single entry/exit point to each subdivision. Employment, shopping, and entertainment are reached by automobile using wide arterial roads or expressways which are not conducive to bicycle and pedestrian use. Most commercial uses have individual access from a main arterial roadway and do not offer connections within a development. Figure 7 illustrates both modern suburban residential and commercial development. It shows a lack of connectivity within the local road network and physical separations from adjacent neighborhoods, which is typical with this development pattern. Safe access for non-motorized transportation modes are rarely considered.



Figure 7: Lakewood Ranch, Manatee County, FL a modern suburban residential and commercial development pattern. Source: Google Earth 2019

According to the study, "In *modern suburban* settings, higher priority in street design is given to motorists, given the sparser road network and greater need for travel by car. Vehicular design speed is typically faster. Pedestrians and cyclists are often accommodated on multi-use trails, separated from traffic."

#### Corridor Capacity

The 19<sup>th</sup> Avenue corridor from US 41 to US 301 has been programmed by Hillsborough County for a PD&E study to widen 19<sup>th</sup> Avenue from a two-lane undivided road to a four-lane divided facility with enhanced pedestrian, bicycle, and bus facilities, including a multiuse trail.

Based on the review of existing land use, approved developments, and future land use, it was determined that the civic center and the future mixed use node at 30<sup>th</sup> Street will be the largest traffic generating nodes along the corridor. This analysis tests whether the Long Range Transportation Plan's recommendation for four lanes along the length of the corridor is necessary, or if only the portion serving those future nodes will need to be widened. The recommendation from this analysis is not solely based on the carry capacity of the roadway but also based on understanding the future travel patterns of users, land uses that surround this corridor, and impact to the community.

The analysis utilized existing and future volumes compared to the generalized Annual Average Daily (AADT) volumes from the 2013 FDOT Quality/Level of Service (LOS) Handbook. LOS values are classified from A to F, with A being free-flow conditions, and F being failing conditions. According to the Hillsborough County Comprehensive Plan, LOS on 19<sup>th</sup> Avenue is adopted at "D". The LOS values along with the context of the roadway were used to determine the improvements to the current roadway configuration.

#### Existing Year Analysis

Table 1 illustrates existing Annual Average Daily Traffic (AADT), the AM and PM Peak Hour traffic, maximum service volumes (MSVs), or capacities and v/c (volume to capacity) ratios for a two-lane facility.

Although all existing AADT volumes along the corridor are below the MSVs for a two-lane facility, the westbound movement in the AM Peak Hour from Cypress Village Boulevard to Cypress Creek Boulevard is greater than the MSV (v/c greater than 1.0), indicating a failing operating condition. This heavy movement is due to students being dropped off at Beth Shields Middle School and Cypress Creek Elementary School, which are located between these two intersections.

		Daily	AADT,	Pk Hr	AM Pk Hr	vol, (v/c)	PM Pk Hr vol, (v/c)	
FROM	то	Capacity <sup>(1)(2)</sup> 2L	(v/c)	Capacity <sup>(1)</sup>	EB	WB	EB	WB
US 41	24th Street NE	17,700	11,500 (0.65)	880	650 (0.74)	330 (0.38)	450 (0.51)	500 (0.57)
24th Street NE	30th Street SE	17,700	12,800 (0.72)	880	690 (0.78)	500 (0.57)	490 (0.56)	540 (0.61)
30th Street SE	Cypress Village Boulevard	17,700	13,000 (0.73)	880	560 (0.64)	620 (0.70)	520 (0.59)	540 (0.61)
Cypress Village Boulevard	Cypress Creek Boulevard	17,700	14,800 (0.84)	880	460 (0.52)	1,200 (1.36)	690 (0.78)	430 (0.49)
Cypress Creek Boulevard	US 301	17,700	12,900 (0.73)	880	470 (0.53)	680 (0.77)	540 (0.61)	470 (0.53)

#### Table 1 Existing two-lane Volume Analysis

(1) Maximum Service Volume

(2) Maximum Service Volume at LOS D for a 2-lane facility, Volumes greater (v/c>1.0) would be classified as F, Source: FDOT Q/LOS Handbook

#### **Future Year Analysis**

Traffic projections from the Tampa Bay Regional Planning Model (TBRPM) Version 9.0 2045 Cost Feasible Plan have been recently released. In the 2045 Cost Feasible Model, the entire length of 19<sup>th</sup> Avenue from US 41 to US 301 is shown as a four-lane facility. Consequently, much of the traffic that is projected on 19<sup>th</sup> Avenue is greater than the capacity of a two-lane road, implying the need for a four-lane facility. This would be an illustration of the phenomenon of *Induced Demand*, where trips are diverted to 19<sup>th</sup> Avenue simply because it's a less busy road than alternate routes.

An alternative analysis was conducted, starting with a select link analysis to understand the travel patterns along the corridor. The section of road between 24<sup>th</sup> Street and Cypress Creek Boulevard is the portion that will connect the residential area of Waterset to the north and the South Shore Corporate Park DRI to the south, as well as local traffic traveling to and from the schools and library on the corridor. A select link analysis on 19th Avenue west of I-75 was performed using the 2045 TBRPM Model. The figure below illustrates the travel patterns (by bandwidth and percentages) of traffic on this link. The select link analysis illustrates that much of the traffic in this section stays relatively local: accessing 24<sup>th</sup> Street, 30th Street, and Cypress Village Boulevard east of I-75, tapering off east of Cypress Creek Boulevard.

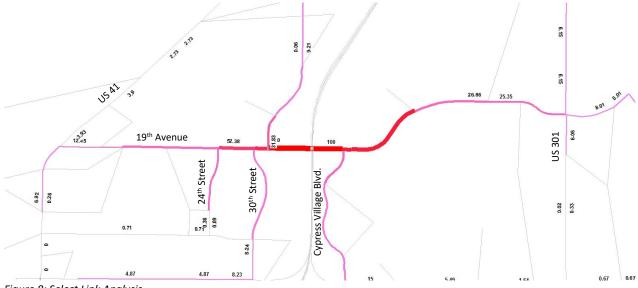


Figure 8: Select Link Analysis

Due to the phenomenon of induced demand described above, an alternative scenario was run that considered 19<sup>th</sup> Avenue as a four-lane facility, only from 24<sup>th</sup> Street to Cypress Creek Boulevard, the portion with the greatest amount of travel from the select link analysis. The traffic volume projections from that scenario are summarized below.

FROM	то	AADT	Daily Capacity <sup>(1)</sup> 2L	Daily v/c 2L	Daily Capacity <sup>(1)</sup> 4L	Pk Hr Vol <sup>(2)</sup>	2L Pk Hr Capacity <sup>(1)</sup>	2L Pk Hr v/c	4L Pk Hr Capacity <sup>(1)</sup>
US 41	24th Street NE	7,600	17,700	0.43	39,800	350	880	0.40	2,000
24th Street NE	30th Street SE	19,100	17,700	1.08	39,800	880	880	1.00	2,000
30th Street SE	Cypress Village Boulevard	21,700	17,700	1.23	39,800	1,000	880	1.14	2,000
Cypress Village Boulevard	Cypress Creek Boulevard	23,400	17,700	1.32	39,800	1,070	880	1.22	2,000
Cypress Creek Boulevard	US 301	18,600	17,700	1.05	39,800	850	880	0.97	2,000

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Table 2. Future Volume	Analysis: 2045	Cost Feasible	, Alternate L	ane Scenario

(1) Maximum Service Volume

(2) Directional Design Hour Volume (DDHV)

Both projections of average annual daily traffic (AADT) and Directional Design Hour Volumes (DDHV) are summarized. Directional Design Hour Volumes (DDHVs) is the traffic volume expected to use a highway segment during the design hour of the design year in the peak direction. DDHVs were developed using a K-factor (I.e. design hour factor) of 0.09 (Based on the Standard K from the FDOT Project Traffic Forecasting Handbook) and the D (directional) factor of 0.51. This factor is calculated based on existing count data and also falls within the range accepted by the Project Forecasting Handbook based on the roadway classification

In the scenario developed and summarized above, traffic volume projections on the section from Cypress Creek Boulevard to US 301 are lower than those in the Cost Feasible scenario, indicating that maintaining a two-lane cross section may be sufficient through the year 2045.

Based on the traffic model projections and travel patterns, it is recommended that the portion of 19<sup>th</sup> Avenue between 24<sup>th</sup> Street and Cypress Creek Boulevard be widened to a four-lane divided roadway to accommodate the future increase in traffic volume caused by an increase in population and employment in the surrounding area along with the future travel patterns along the corridor. The segment 19<sup>th</sup> Avenue from US 301 to Cypress Creek Boulevard, and 24<sup>th</sup> Street to US 41 be improved to a two-lane divided roadway.

#### Development Pattern and Form

#### 19th Avenue at U.S. 41

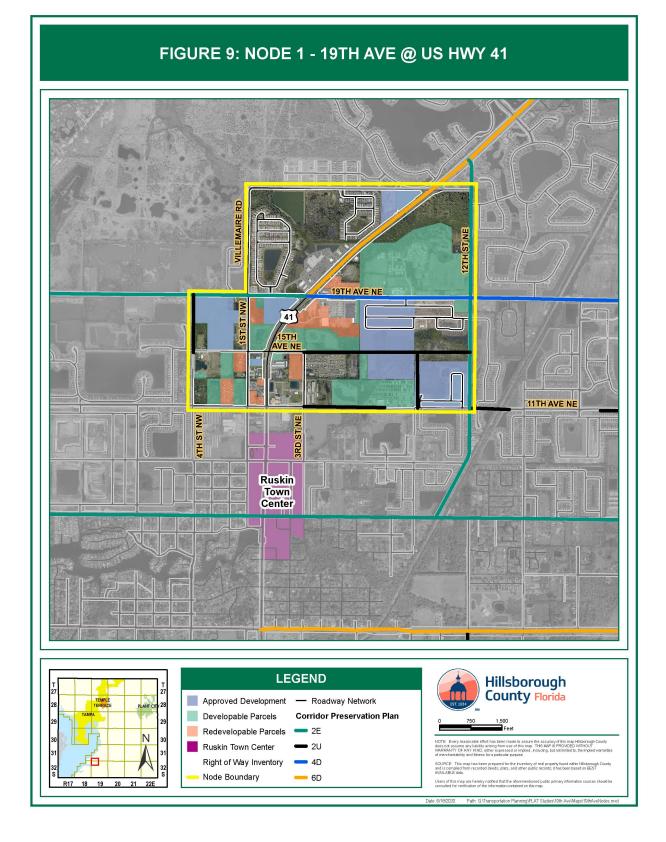
#### Existing Development Context

Future land use for the node around the US 41/19<sup>th</sup> Avenue intersection is Office/Commercial-20 at three quadrants (NW, SW, and SE) and Residential-12 at the remaining quadrant. The Residential-12 quadrant has taken advantage of locational criteria policies in the Comprehensive Plan to locate commercial development at the corner, with the remainder occupied by a recreational vehicle park. The Northwest quadrant is occupied by a modern suburban shopping center, the Southwest quadrant is vacant with potential future development of a charter school on a portion, and the Southeast quadrant is occupied by an underutilized shopping center. Future Land Uses surrounding the node are more suburban in nature (Residential-6 and Residential-4) with Residential-12 and Light Industrial Planned Future Land Uses adjacent to the south. The Ruskin Town Center, which is envisioned by the Ruskin Community Plan as a walkable, mixed-use commercial center, is located half a mile to the south of the node. The Ruskin Community Plan seeks to incentivize commercial development away from 19<sup>th</sup> Avenue toward the town center. The entire node is within the 100-year floodplain.

The current roadway cross section on 19<sup>th</sup> Avenue and US 41 is rural and does not provide adequate facilities for pedestrians and bicyclists. However, sidewalks are present along 19<sup>th</sup> Avenue, as well as in front of existing businesses on each corner in this node. Bicyclists use the unmarked, paved shoulder. There are no local roadway connections within the node itself, but the Ruskin Town Center has a connected suburban road network a quarter of a mile south of the intersection of 19<sup>th</sup> Avenue and US 41. Right of way varies from 100 ft on the west to about 80 ft on the east, with a portion in the middle measuring around 125 ft.

Average speeds on 19<sup>th</sup> Avenue approaching this node exceed 44 miles per hour for both the AM and PM peak hours (ClearGuide, Iteris data). The posted speed limits is 45 miles per hour.

Figure 9 shows the existing conditions for this node.



#### Potential Development Form

The Ruskin Community Plan seeks to build two-lane streets and retain those two-lane streets that now exist. It seeks to have a community that is safe and enjoyable for walking and bicycling, with a "pedestrian friendly downtown, accessible to the disabled. These strategies are associated with a compact urban or connected suburban pattern and include:

- 1. Develop 2<sup>nd</sup> Street and 3<sup>rd</sup> Streets as a local alternative to US 41 with direct connection to US 41,
- 2. Expand opportunities for biking and walking, and
- 3. Preserve and enhance the traditional "grid" pattern of roadways.

Strategies regarding the character of the 19<sup>th</sup> Avenue corridor include:

- Support implementation of the "Scenic Corridor" designation and design considerations for 19<sup>th</sup> Avenue NE, SR 674 and roadways in the South Shore Corridor Plan with the "Scenic Corridor" designation
- 2. 19<sup>th</sup> Avenue NE from US 41 to US 301 should not be designated as a truck route.

The 100-year floodplain will likely prevent the level of impervious development needed to support a compact urban development pattern, but will not inhibit a connected suburban pattern. The intersection of US 41 and 19<sup>th</sup> Avenue still has significant developable and redevelopable properties to achieve this pattern, as shown in Figure 9.

The Land Development Regulations, as currently written, are tilted toward a modern suburban default development pattern. If a private developer wishes to further the goals of the Ruskin Community Plan with a connected suburban development pattern, they must incur additional time and expense to ask for exceptions to the requirements. *Revisions to Access Management Regulations and Subdivision Regulations will be necessary to create a connected suburban default development pattern.* These will further the goals of the Ruskin Community Plan by ensuring a connected suburban development pattern in this area as a default development pattern. In addition, 3<sup>rd</sup> Street and 6<sup>th</sup> Street, as a local alternative to the widening of US 41, should be considered for inclusion in the Corridor Preservation Plan as two lane enhanced roads. This will ensure that the connected suburban pattern envisioned for this node as well as the alternatives to widening US 41 envisioned for the Ruskin Community Plan may be achieved.

US 41 is a four-lane divided arterial road at this location. This node is planned to be connected suburban, so a pedestrian refuge island (Figure 10) in the median of US 41 at the 19<sup>th</sup> Avenue intersection will reduce pedestrian accidents significantly. The Federal Highway Administration's Desktop Reference for Crash Reduction Factors shows a 56% reduction in crashes on intersections with this improvement. This intersection treatment should be *combined with a Rectangular Rapid Flashing Beacon (RRFB)* to maximize pedestrian safety.



Figure 10: Pedestrian refuge island. Source: https://nacto.org/publication/urban-street-design-guide/intersection-designelements/crosswalks-and-crossings/pedestrian-safety-islands/

The Hillsborough MPO 2040 LRTP Needs Plan indicates that 19<sup>th</sup> Avenue will need to be widened from two lanes to four lanes from US 301 to US 41. This analysis indicates that four lanes are only necessary beginning at the intersection of 24<sup>th</sup> Street with 19<sup>th</sup> Avenue. Therefore, *a two-lane cross section, as shown in Figure 11, should be provided for this node* to further the strategies of the Ruskin Community Plan.

The South Coast Greenway Trail is a planned regional trail system that will include a connection that runs along the 19<sup>th</sup> Avenue Corridor from US 41 to US 301, a connection that extends from the Manatee County line, through Ruskin and Waterset, to the Tampa Bypass Canal Trail, and a connection that extends from the Manatee County line along US 301, through Sun City, to 19<sup>th</sup> Avenue. To better connect bicyclists and pedestrians to the overall trail network, the Ruskin Town Center, and connected suburban nodes to the east, *the cross section should incorporate the South Coast Greenway on the south side.* In order to compliment the regional trail system in the area, and to further the intent of the Ruskin Town Center by providing multimodal connectivity to the nodes on 19<sup>th</sup> Avenue, *any future improvements to US 41 should incorporate the trail/multi-use path geometry described throughout this report.* 

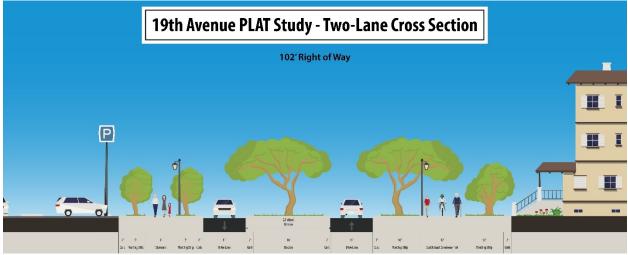


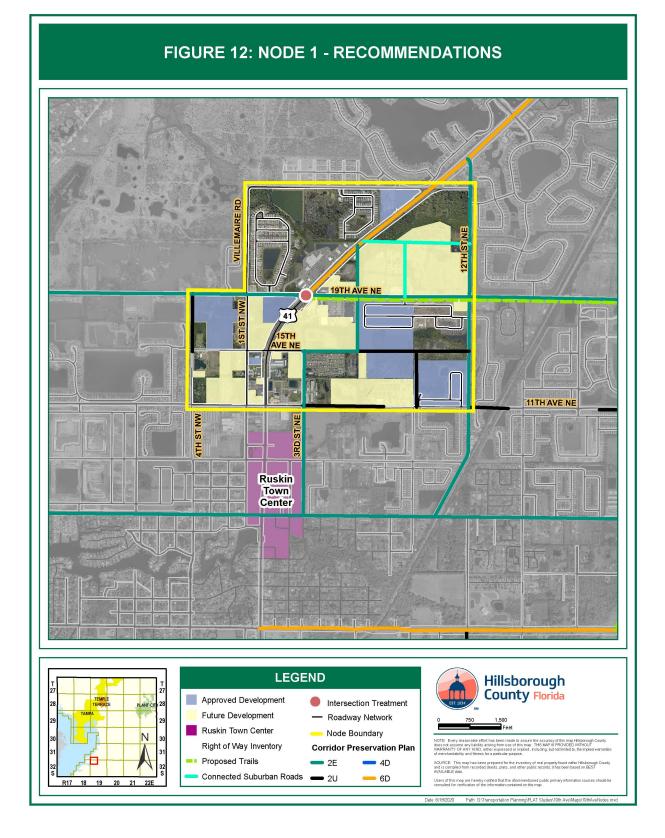
Figure 11: 19th Avenue @ US 41 Node cross section

#### Summary Recommendations

In summary, a connected suburban development pattern can be achieved through:

- 1. Traffic volume projections do not support a four-lane cross section through this node, improve 19<sup>th</sup> Avenue as a two-lane divided road.
- 2. To better connect bicyclists and pedestrians to the overall trail network, the Ruskin Town Center, and connected suburban nodes to the east, the cross section should incorporate the South Coast Greenway Trail on the south side.
- 3. Install an intersection Pedestrian Refuge Island and Rectangular Rapid Flashing Beacon on US 41.
- 4. 3<sup>rd</sup> Street and 6<sup>th</sup> Street, as a local alternative to the widening of US 41, should be considered for inclusion in the Corridor Preservation Plan.
- 5. Future improvements on US 41 should incorporate a shared-use path in order to provide safe and comfortable multimodal connections between this node and the Ruskin Town Center.

These recommendations are shown in Figure 12.



#### 19<sup>th</sup> Avenue @ 24<sup>th</sup> Street

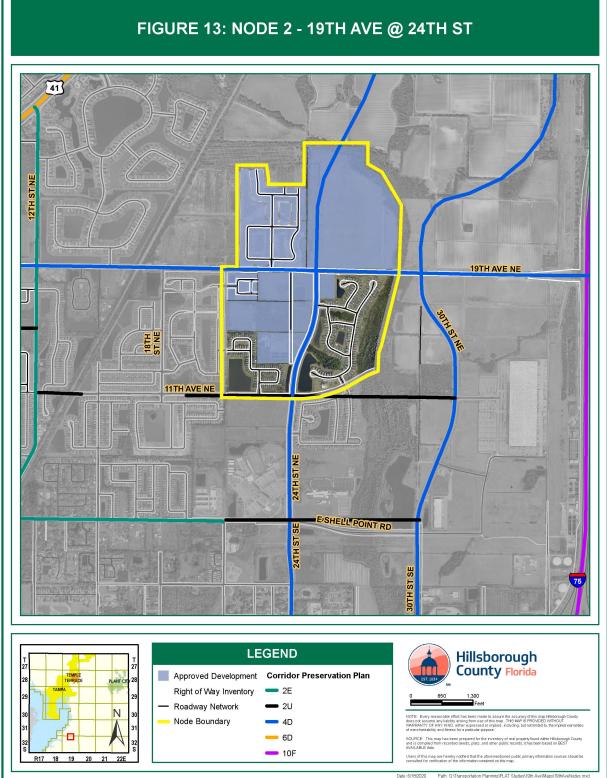
#### Existing Development Context

Future land use for the node around the US 41/24<sup>th</sup> Street intersection is Suburban Mixed Use-6. The Suburban Mixed Use-6 category allows up to six dwelling units per gross acre, provided the project demonstrates a clustered, planned development utilizing open space which ensures the preservation of the natural and scenic qualities of open lands. Typical uses also include suburban scale neighborhood commercial, office uses, research corporate park, light industrial multi-purpose, and mixed-use projects which meet appropriate criteria for each location. Apart from the northeast quadrant, this node is fully developed or will soon be developed in a modern suburban pattern. The northeast quadrant is part of the Waterset DRI and is planned for up to 160,000 square feet of commercial uses and single family residential.

19<sup>th</sup> Avenue is currently a two-lane road with paved shoulders and open drainage through this node. Portions of the South Coast Greenway will be built on the south side of this node, just west of Wolf Creek. Right of way varies from 115 ft on the west to about 80 ft on the east. HART Route 31 runs through the activity center on 24<sup>th</sup> Street, along 19<sup>th</sup> Avenue to 30<sup>th</sup> Street, past the Amazon Distribution Center before returning to Shell Point Road and tracing its path back to US 41. Headways are between 1-hour and 1.5 hours.

Average speeds on 19th Avenue approaching this node exceed 34 miles per hour for both the AM and PM peak hours in the eastbound direction and exceed 40 miles per hour for both the AM and PM peak hours in the westbound direction. The posted speed is 45 miles per hour.

Figure 13 shows the existing conditions for this node.



#### Potential Development Form

The node at 19<sup>th</sup> Avenue and 24<sup>th</sup> Street is developed or will be developed into a modern suburban pattern. With Wolf Branch Creek surrounding it, the remaining undeveloped northeast quadrant has limited potential for connections to the surrounding community, and will likely also develop into a modern suburban pattern.

An Access Management Analysis report was completed for the South Shore Corporate Park DRI in 2018. The findings of the report support the expansion of capacity of 19<sup>th</sup> Avenue in the vicinity of the South Shore Corporate Park (from 24<sup>th</sup> Street to 30<sup>th</sup> Street).

The report determined that additional improvements at the intersections of 24<sup>th</sup> Street and 30<sup>th</sup> Street were required to allow the intersections to operate at LOS D with future traffic volumes. Based on this analysis, the following improvements are recommended at each of the intersections at 24<sup>th</sup> Street and 30<sup>th</sup> Street:

- Signalize
- Add Eastbound through lane
- Add Westbound through lane
- Add Eastbound left turn lane
- Add Southbound left turn lane
- Add Southbound through/right lane
- Add Northbound through lane (30<sup>th</sup> Street SE only)
- Add Southbound through lane (30<sup>th</sup> Street SE only)

Improvements for 19<sup>th</sup> Avenue at 24<sup>th</sup> Street NE as well as at 30<sup>th</sup> Street SE are illustrated in Figure 14 below.

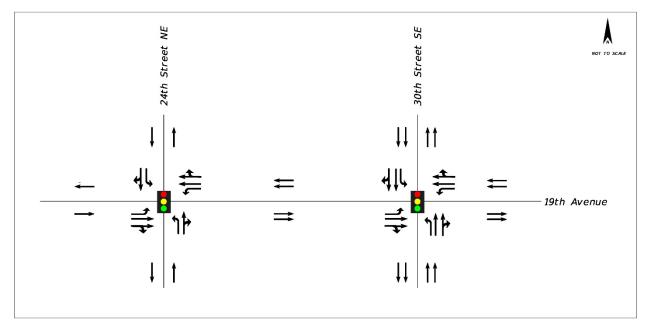
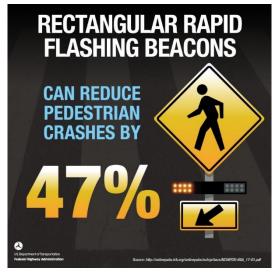


Figure 14: 24th Street NE & 30th Street SE Improvements

19<sup>th</sup> Avenue will transition from a two-lane to a four-lane cross section in this node. The modern suburban development pattern will involve limited access points to 19<sup>th</sup> Avenue, with subdivisions and commercial development occurring in separate development pods. *The cross sections, show in figures 15 and 16 should incorporate the South Coast Greenway on the south side* to connect bicyclists and pedestrians to the overall trail network and to the connected suburban destinations to the east and west. Due to the increased laneage as well as the addition of turn lanes, pedestrian *refuge islands with RRFBs should be incorporated into the intersection design* to reduce pedestrian accidents.



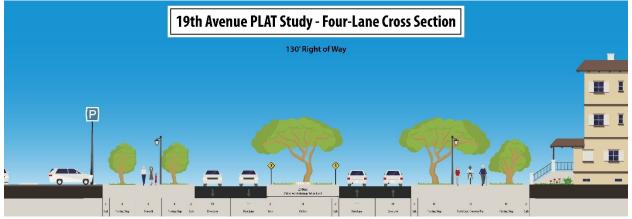


Figure 15: Four lane cross section for 19<sup>th</sup> Avenue with a pedestrian refuge island.

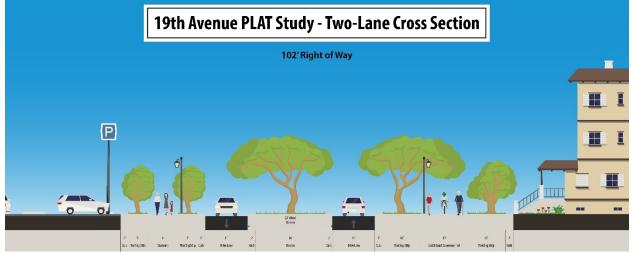
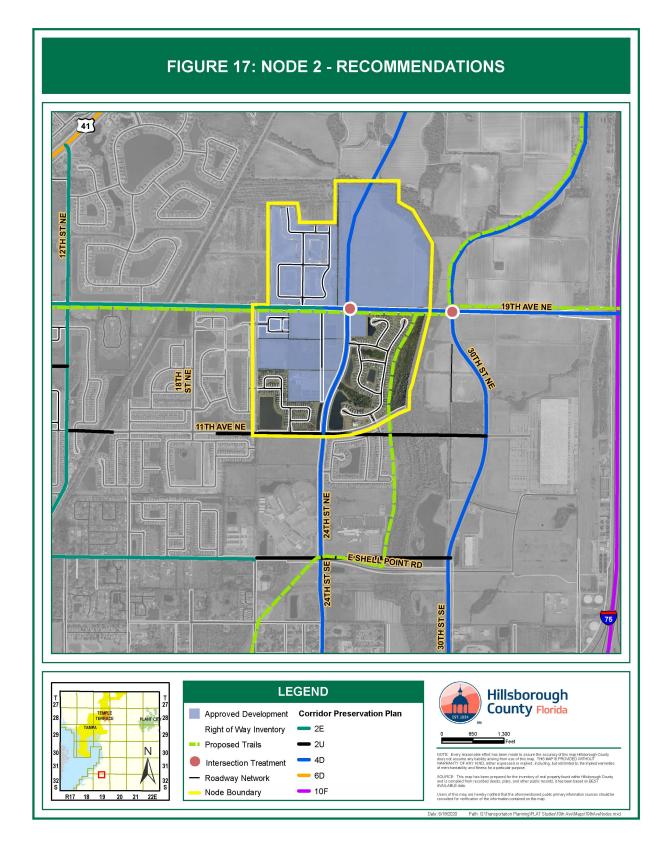


Figure 16: Two lane cross section for 19th Avenue.

#### Summary Recommendations

- 1. Utilize rectangular rapid flashing beacons and pedestrian refuge islands at four-lane crossings
- 2. To better connect bicyclists and pedestrians to the overall trail network and Connected suburban nodes to the east and North-South section of the South Coast Greenway in this node, the cross section should incorporate a twelve-foot shared-use path on the south side.

These recommendations are shown in Figure 17.



#### 19<sup>th</sup> Avenue @ 30<sup>th</sup> Street

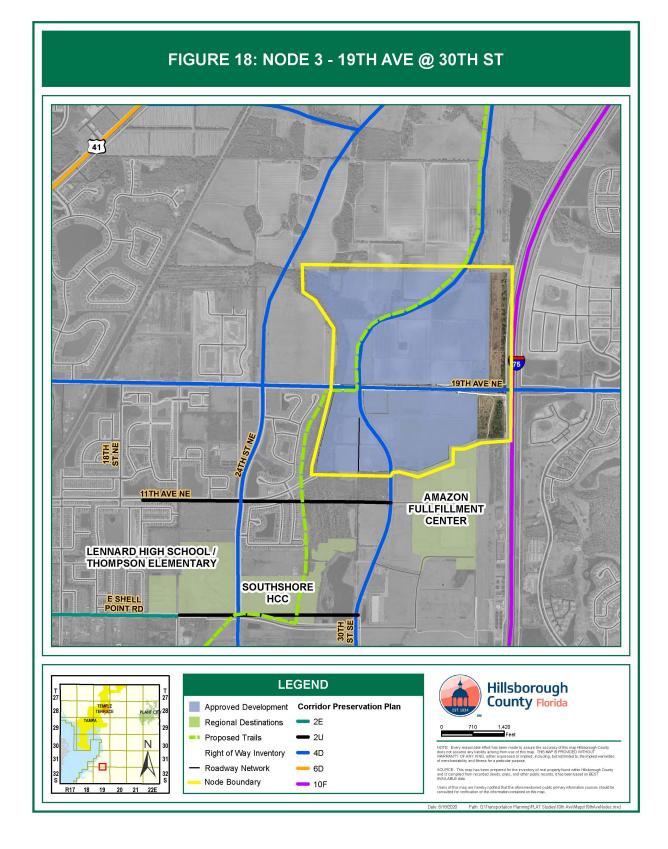
#### Existing Development Context

Future land use for the 19<sup>th</sup> Avenue/30<sup>th</sup> Street node is Suburban Mixed Use-6. The Suburban Mixed Use-6 category allows up to six dwelling units per gross acre, provided the project demonstrates a clustered, planned development utilizing open space which ensures the preservation of the natural and scenic qualities of open lands. Typical uses also include suburban scale neighborhood commercial, office uses, research corporate park, light industrial multi-purpose, and mixed-use projects which meet appropriate criteria for each location. The northern half of this node is a mixed-use center within the Waterset Development of Regional Impact (DRI) and the southern half is an employment focused mixed use section of the South Shore Corporate Park DRI. The Waterset DRI includes entitlements for 197,800 square feet of office or retail, 88,900 square feet of office, 589 single family attached units, and 750 multi-family units. The South Shore Corporate Park DRI includes remaining entitlements for 2,500,000 square feet of light industrial, 550,000 square feet of office, 239 single family units, and 772 multi-family units.

HART Route 31 runs through the activity center along 19<sup>th</sup> Avenue to 30<sup>th</sup> Street, past the Amazon Distribution Center before returning to Shell Point Road and tracing its path back to US 41. Headways are between 1-hour and 1.5 hours. According to the 2018 SouthShore Transit Study Reevaluation, the proposed roads were not considered for future bus service because of uncertainty in construction scheduling and the density and land use of the surrounding area. However, the study does recommend reevaluating route configurations as new roadways are constructed or existing corridors are widened.

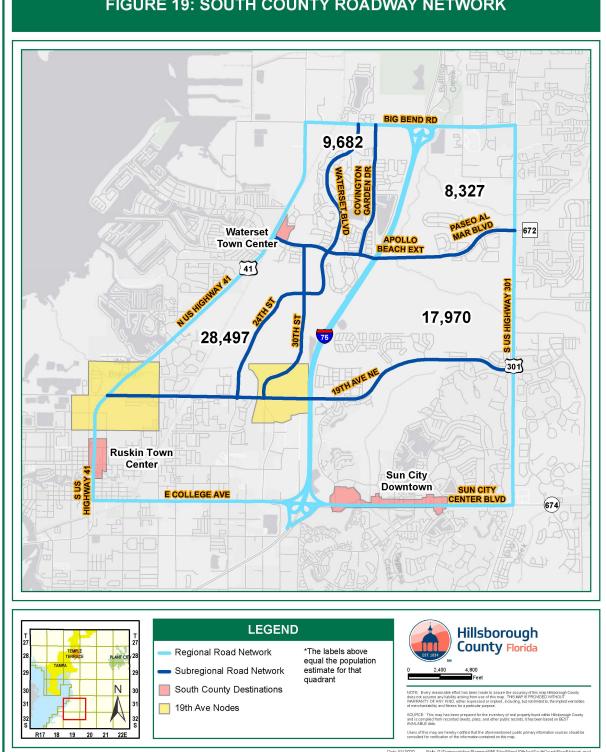
As part of Hillsborough County's Congestion, Safety, and Network Work Plan "Safe Routes to School" (SRTS) projects have been identified as part of Hillsborough County's 2020 Surtax Project Plan. These SRTS projects will include new and improved pedestrian and bicycle facilities, safety lighting, and school circulation routes. They were identified and prioritized based on the Hillsborough MPO School Safety Study, completed in 2018. The study considered safety, walkability, school demographics, and the number of students who walk to school. The projects were further screened to include schools located in unincorporated Hillsborough County. These schools were then prioritized based on highest risk to safety. These projects will improve safety, walkability, and accessibility with the implementation of safer walking routes to Hillsborough County schools within an established two-mile area of public schools. There are an initial 15 priority school safety projects identified within Hillsborough County, and one is located near this activity center at Lennard High School.

Figure 18 shows the existing conditions for this node.



This node represents one of four major retail destinations within two miles, the others being at Interstate 75 and College Avenue, the Ruskin Town Center to 19<sup>th</sup> Avenue, and the Waterset Town Center/Apollo Beach Boulevard intersection. These destinations are situated on the regional south county road network that includes US 41, 30<sup>th</sup> Street, Interstate 75, US 301, College Avenue, 19<sup>th</sup> Avenue, Apollo Beach Boulevard, and Big Bend Road. Figure 18 shows the regional and subregional road network along with major shopping destinations. The population in 2045, indicated in black numbers on Figure 19, will be over 46,000 people along 19<sup>th</sup> Avenue on either side of this node. 28,000 of those people will likely access this node using primarily 30<sup>th</sup> Street.

30<sup>th</sup> Street will be completed as a four-lane collector road from 19<sup>th</sup> Avenue to the Apollo Beach Boulevard Extension. This will complete north south connections between Big Bend Road and College Avenue. The completion of the Apollo Beach Boulevard extension will complete the subregional road network. The geometry of 19<sup>th</sup> Avenue as it approaches the Interstate 75 overpass limits the ability to safely provide a dense network of cross streets. Right of way varies from 90 ft on the west to about 245 ft as it crosses Interstate 75 on the east.



## FIGURE 19: SOUTH COUNTY ROADWAY NETWORK

#### Potential Development Form

The Waterset DRI includes entitlements for 197,800 square feet of office or retail, 88,900 square feet of office, 589 single family attached units, and 750 multi-family units. The South Shore Corporate Park DRI includes remaining entitlements for 2,500,000 square feet of light industrial, 550,000 square feet of office, 239 single family units, and 772 multi-family units. Situated midway between the Waterset Town Center, Ruskin Town Center, and Sun City Center, this mix of uses is appropriate for a connected suburban development pattern in which residents will have opportunities for employment, recreation, and shopping within a short distance. The existing entitlements and a lack of connectivity to roads outside of the Waterset/Ruskin/Sun City markets limit the scale of the center to community, rather than regional.

The potential future development of the Waterset and South Shore Corporate Park DRIs includes complementary development programs. In order to encourage future coordinated development within this node and to promote pedestrian and bicycle permeability across 19<sup>th</sup> Avenue, this future connected suburban development should be oriented toward 30<sup>th</sup> Street. The Waterset Development of Regional Impact anticipates access from the mixed-use center to 19<sup>th</sup> Avenue east of 30<sup>th</sup> Street. This access should be built as a connected suburban road rather than a driveway in order to enhance pedestrian and bicycle circulation and minimize driveway connections to 19<sup>th</sup> Avenue. The Land Development Code will require new development to access via the collector road rather than the arterial road. It will not, however, require building orientation toward 30<sup>th</sup> Street. With appropriate building placement and street design, 30<sup>th</sup> Street can provide safe and comfortable pedestrian access between the two parts of the node. With land uses in place that may necessitate revision to transit routes and schedules, provisions for enhanced transit access should also be considered. Connected suburban Land Development Code amendments, discussed on page 4 will further this strategy.

The current Land Development Code delivers a modern suburban pattern. Revisions to Access Management Regulations and Subdivision Regulations will be necessary to create a connected suburban default development pattern. Revisions should concentrate on building placement and orientation coupled with street design and spacing to deliver a connected suburban pattern. Street design must support lower speeds to improve safety and comfort for pedestrians and bicyclists.

With the future proximity of residents, employment, and shopping, transportation infrastructure in this node must include multimodal options that allow movement from home to shopping and work without reliance on the regional road network. Connectivity limitations caused by the approach to the Interstate 75 overpass along with a need to support more regional traffic movement with four lanes will limit the ability to create pedestrian and bicycle permeability between the more residential and shopping oriented mix of uses north of 19<sup>th</sup> Avenue and the more employment focused mix of uses on the south. Destinations south of 19<sup>th</sup> Avenue also include the Amazon Distribution Center, Lennard High School, and the Hillsborough Community College South Shore Campus.

An access management analysis report was completed for the South Shore Corporate Park DRI in 2018. The findings of the report support the expansion of capacity of 19<sup>th</sup> Avenue in the vicinity of the South Shore Corporate Park (from 24<sup>th</sup> Street to 30<sup>th</sup> Street).

The report determined that additional improvements at the intersections of 24<sup>th</sup> Street and 30<sup>th</sup> Street were required to allow the intersections to operate at LOS D with future traffic volumes. Based on this

analysis, the following improvements are recommended at each of the intersections at 24<sup>th</sup> Street and 30<sup>th</sup> Street:

- Signalize
- Add Eastbound through lane
- Add Westbound through lane
- Add Eastbound left turn lane
- Add Southbound left turn lane
- Add Southbound through/right lane
- Add Northbound through lane (30<sup>th</sup> Street SE only)
- Add Southbound through lane (30<sup>th</sup> Street SE only)

Improvements for 19<sup>th</sup> Avenue at 24<sup>th</sup> Street NE as well as at 30<sup>th</sup> Street SE are illustrated in Figure 20 below.

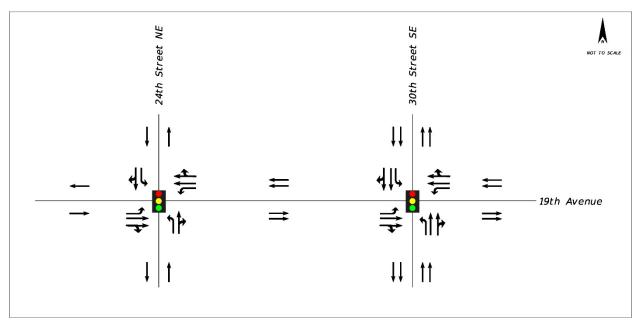


Figure 20: 24<sup>th</sup> Street NE & 30<sup>th</sup> Street SE Improvements

The roadway cross section should incorporate viable non-motorized passage between the destinations on the south side of the road and the residents on the north side. The South Coast Greenway Trail will connect north from 19<sup>th</sup> Avenue along the four-lane continuation of 30<sup>th</sup> Street, eventually connecting north to Big Bend Road. This linkage to the overall trail network will provide the viable connections among the residential, recreational, community, and cultural uses on either side of the road. *The cross section should take advantage of the Greenway's crossing of 19<sup>th</sup> Avenue, to move the South Coast Greenway Trail from the south to the north side of the road to connect bicyclists and pedestrians to the overall trail network and to the connected suburban destinations to the north and south. This will also facilitate connections among the neighborhoods and civic center further east. South Shore Corporate Park stakeholders support a multi-purpose trail connection if future multi-modal design along 19<sup>th</sup> Avenue and 30<sup>th</sup> Street.* 

With the potential for four lanes of through traffic as well as turn lanes, the cross section should incorporate *pedestrian friendly intersection treatments at 19<sup>th</sup> Avenue and 30<sup>th</sup> Street. Pedestrian refuge islands should be incorporated at this intersection along with a raised crosswalk, RRFBs, and varied material such as brick or stone pavers. This combination will provide prominence to the pedestrian activity in the area, improving safety for what will be the most active pedestrian and bicycle crossing of 19<sup>th</sup> Avenue. It will also help establish a sense of place for this community scale activity center.* 

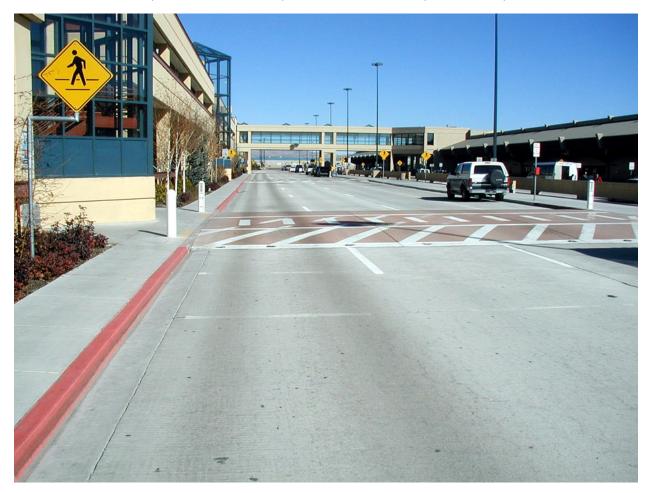


Figure 21: A raised crosswalk with brick paver treatment in Reno, NV. Source: pedbikeimages.org/Dan Burden

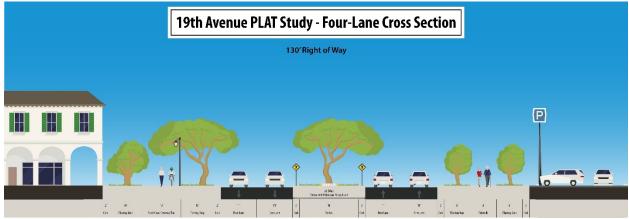


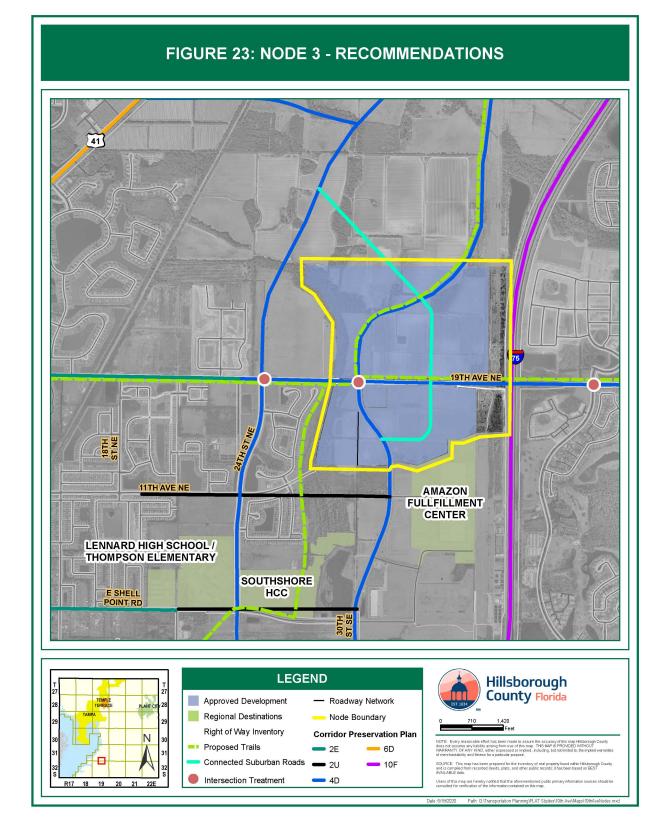
Figure 22: Four lane cross section for 19<sup>th</sup> Avenue with a pedestrian refuge island.

#### Summary Recommendations

In summary, a connected suburban development pattern can be achieved through:

- 1. The Incorporation of pedestrian friendly intersection treatments at 19<sup>th</sup> Avenue and 30<sup>th</sup> Street, including pedestrian refuge islands along with a raised crosswalk, RRFBs and material such as brick or stone pavers.
- 2. The South Coast Greenway crossing at 30<sup>th</sup> street should be utilized to move the trail from the south side to the north side of 19<sup>th</sup> Avenue.

These recommendations are shown in Figure 23.



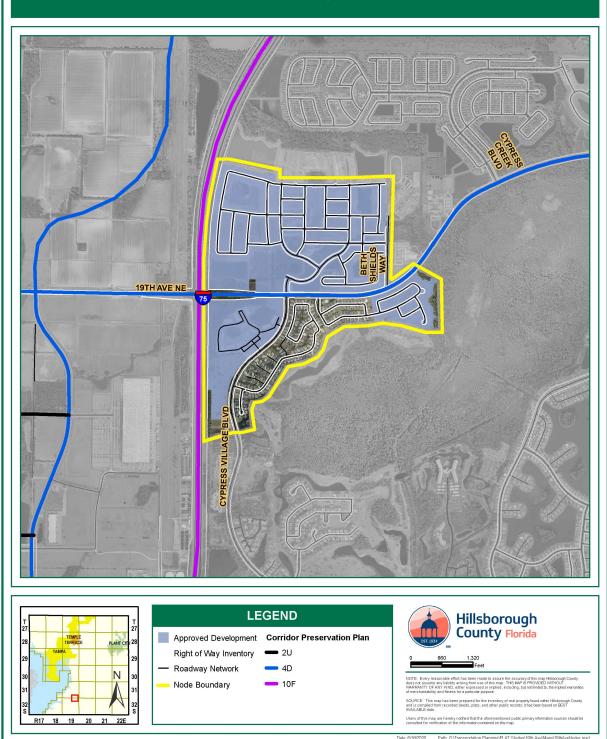
#### 19<sup>th</sup> Avenue @ Cypress Village Boulevard

#### Existing Development Context

Future land use for the node around the US 41/30<sup>th</sup> Street node is Suburban Mixed Use-6. The Suburban Mixed Use-6 category allows up to six dwelling units per gross acre, provided the project demonstrates a clustered, planned development utilizing open space which ensures the preservation of the natural and scenic qualities of open lands. Typical uses also include suburban scale neighborhood commercial, office uses, research corporate park, light industrial multi-purpose, and mixed-use projects which meet appropriate criteria for each location. The entire node is within the Sun City Center Planned Development, and is fully developed or has Certificates of Capacity for future development. The southwest quadrant is developed with a modern suburban apartment complex, the southeast and northeast with modern suburban single family neighborhoods, and the northwest is planned to be developed with a modern suburban neighborhood shopping center.

19<sup>th</sup> Avenue is currently a two-lane road with paved shoulders and open drainage through this node. Sidewalks are present within some of the residential communities north and south of 19<sup>th</sup> Avenue. A bike lane is also present along 19<sup>th</sup> Avenue, just east of the Interstate 75 overpass, yet does not continue east for long. There is one Countywide Trails project from Hillsborough County's 2020 Surtax Project Plan that is along the entire 19<sup>th</sup> Avenue corridor in the study area. Cypress Village Boulevard provides connection to Sun City Center, a community scale shopping center to the south. Right of way varies from 215 ft at Interstate 75 on the west to about 110 ft on the east.

Figure 24 shows the existing conditions for this node.

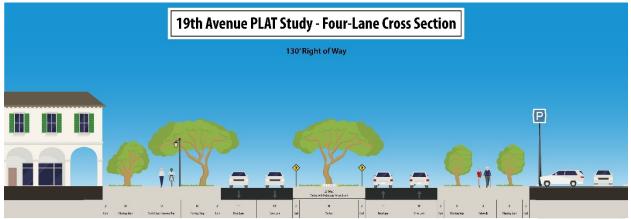


# FIGURE 24: NODE 4 - 19TH AVE @ CYPRESS VILLAGE BLVD

#### Potential Development Form

There is no development or redevelopment potential within this node. The modern suburban development pattern will be prominent here for the foreseeable future.

19<sup>th</sup> Avenue will continue a four-lane cross section in this node. The modern suburban development pattern will involve limited access points to 19<sup>th</sup> Avenue, with subdivisions and commercial development occurring in separate development pods. *The cross section should continue the South Coast Greenway trail on the north side* to connect bicyclists and pedestrians to the overall trail network and to the connected suburban destinations to the west and civic center to the east. Due to the width of a four-lane cross section and potential turning lanes, *pedestrian refuge islands should be incorporated at 19<sup>th</sup> Avenue and Cypress Village Boulevard*.

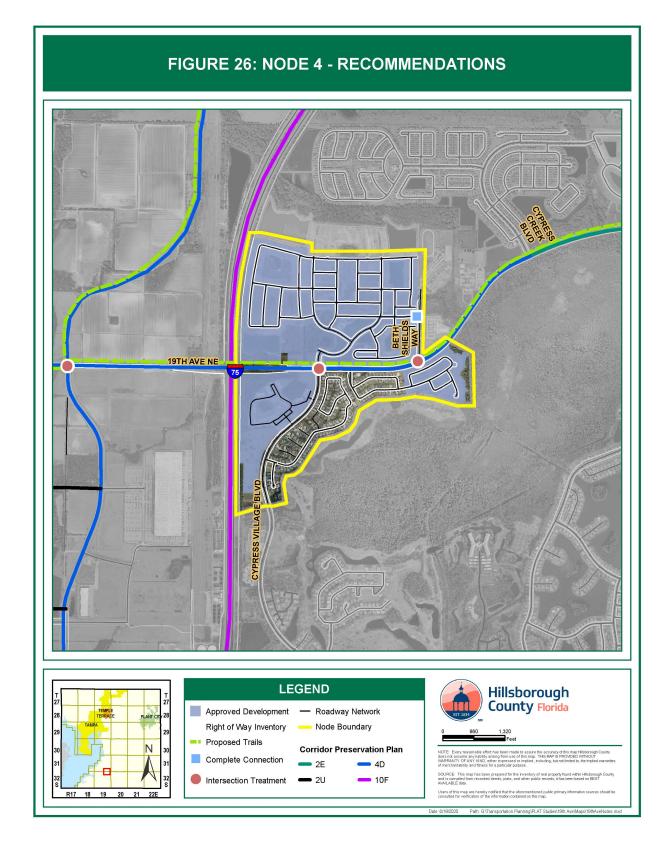


*Figure 25: Four lane cross section for 19*<sup>th</sup> *Avenue with a pedestrian refuge island.* 

#### Summary Recommendations

- 1. Continue a four-lane cross section with South Coast Greenway trail on the north.
- Incorporate a pedestrian refuge island into the intersection of 19<sup>th</sup> Avenue and Cypress Village Boulevard.

These recommendations are shown in Figure 26.



#### The Civic Center

#### Existing Development Context

This node has a Future Land Use of Public/Quasi Public and is characterized by modern suburban civic uses, including Beth Shields Middle School, Cypress Creek Elementary School, and the South Shore Regional Library. There is a five-acre undeveloped parcel at the corner of Beth Shields Way and 19<sup>th</sup> Avenue. The Sun City Center Planned Development only allows for civic uses at this location.

19<sup>th</sup> Avenue is currently a two-lane road with paved shoulders and open drainage through this node. The South Coast Greenway is planned along the 19<sup>th</sup> Avenue corridor in this node. Streets in the single family subdivision to the west provide for future connection to Beth Shields Way.

Average speeds on 19<sup>th</sup> Avenue in the eastbound direction approaching this node are 43.4 mph in the AM peak hour and 27.8 mph in the PM peak hour. Average speeds in the westbound direction are 41.5 mph in the AM peak hour and 44.9 mph in the PM peak hour. The posted speed limit is 45 miles per hour.

Table 3 below is a summary of crashes in the vicinity of the civic center for the most recent three year period (2017 to 2019).

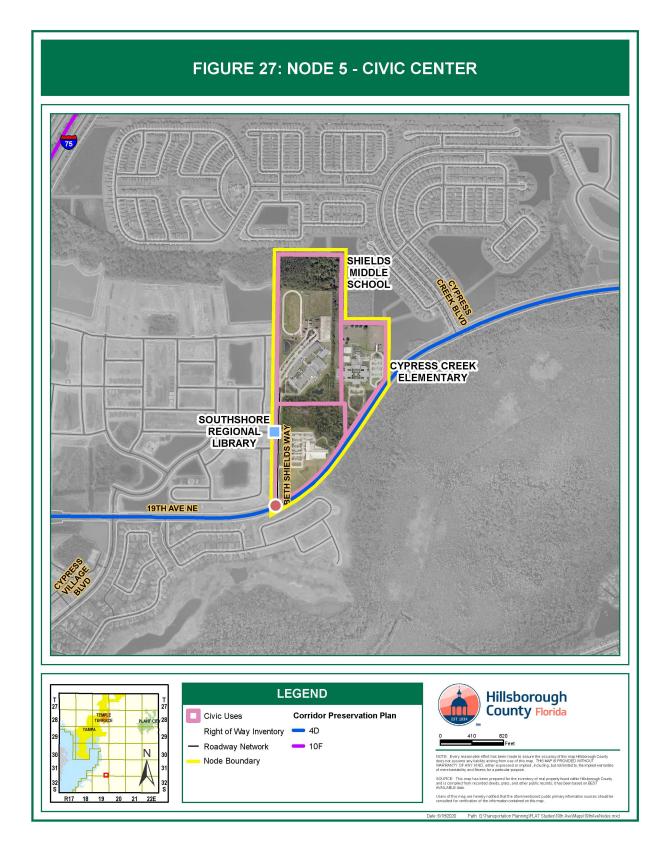
Vaar			Fatalitias	Iniuriaa			
Year	Rear End	Angle	Left Turn	Sideswipe	Other	Fatalities	Injuries
2017	22	14	1	2	9	0	36
2018	13	5	2	0	6	0	10
2019	19	1	3	1	2	0	14
Total	54	20	6	3	17	0	60
Average	18	6.7	2	1	5.7	0	20

Table 3. Crash Summary: Cypress Village Boulevard to US 301

There was an average of over 33 crashes per year. The most common crashes were rear ends, followed by angle crashes.

Based on the speed data summarized above, higher speeds may be a contributing factor to the crashes through this section. Design considerations such as a divided median may reduce future crashes by calming speeds through this corridor.

Figure 27 shows the existing conditions for this node.



#### Potential Development Form

The modern suburban development pattern will be prominent here for the foreseeable future. The existence of commercial development to the west means that remaining parcels within the Civic Center will have limited development potential, with residential or civic uses likely being most viable.

The traffic analysis supports reducing the cross section from four lanes to two lanes at Cypress Creek Boulevard. Speed is a contributing factor to crashes in this node, so *the two lane section of the road should be a divided road*.

Beth Shields Middle School, Cypress Creek Elementary School, and the Southshore Regional Library, the predominant uses in the civic center, attract non-motorized users. A painted crosswalk, like the "Crosswalks to Classrooms" program in City of Tampa, should be implemented at the crossing of the Southcoast Greenway trail and Beth Shields Way and at the entrance to Cypress Creek Elementary. This treatment will help define the civic center by highlighting the student focus of the node while alerting drivers of the presence of vulnerable pedestrians.

The cross section should incorporate South Coast Greenway Trail on the north side to connect bicyclists and pedestrians to the overall trail network and to the destinations to the west. *Beth Shields Way should be connected to the Cypress Mill neighborhood via Camp Island Avenue to allow safer local road alternatives for students* attending Beth Shields Middle School or residents visiting the South Shore Regional Library. This can also provide some relief to congestion on 19<sup>th</sup> Avenue by removing morning school trips from the regional road network and putting them on the local network.



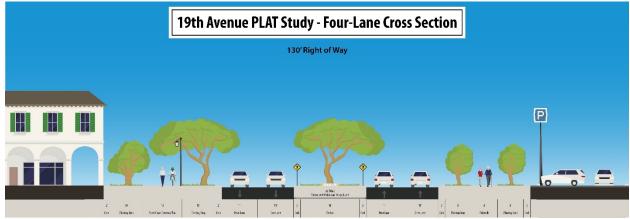
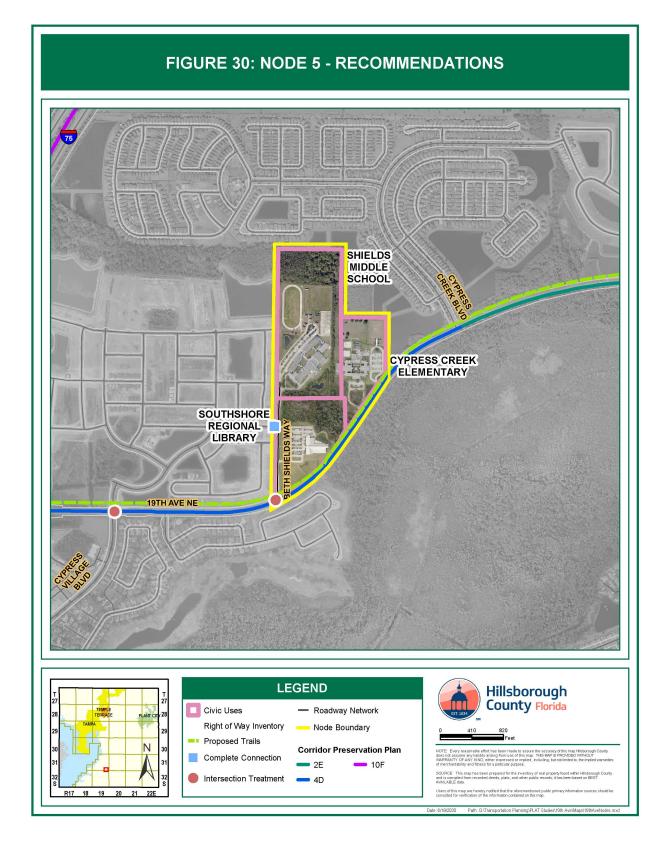


Figure 29: Four lane cross section for 19<sup>th</sup> Avenue with a pedestrian refuge island.

#### Summary Recommendations

- 1. Transition from a four-lane divided road to a two-lane divided road at Cypress Creek Boulevard.
- 2. Continue the South Coast Greenway Trail on the north side of the road.
- 3. Utilize themed, painted crosswalks on Beth Shields Way and at the Entrance to Cypress Creek Elementary.
- 4. Connect Camp Island Avenue to Beth Shields Way.

These recommendations are shown in Figure 30.



## Areawide Recommendations

Adopt a context-based classification plan into the comprehensive plan to address community context on all county roads. Update the Land Development Code based upon the context classification plan to provide for connected suburban development patterns through regulations or incentives that:

- 1. *Place more emphasis on building form and placement* than on use.
- 2. Provide roadway design, access management, and subdivision standards that supports connectivity and lower speeds, as applicable to the activity center and desired development pattern

## Stakeholder Engagement

Recognizing the importance to engage the development community within the study area, one-on-one meetings were held with representatives from Newland Communities and South Shore Corporate Park. The purpose of the meetings was to inform these stakeholders about the study, gain insight and knowledge regarding currently constructed, planned and future employment centers, businesses and developments, and identify opportunities they saw within the 19<sup>th</sup> Avenue corridor.

The stakeholders identified issues that were important to them, as well as shared their expectations for the future:

- 1. Connectivity to the Gulf Coast Trail, including a connector trail to 19<sup>th</sup> Avenue to accommodate future residential growth, is important since it is part of the statewide trail system
- 2. Prioritize bicycle and pedestrian accommodations and connectivity in the corridor
- 3. Important to keep options open for local trips within the corridor
- 4. The trip purposes and destinations at 19<sup>th</sup> Avenue and 24<sup>th</sup> Street will be changing
- 5. The development community expects a large commercial destination at 19<sup>th</sup> Avenue and 30<sup>th</sup> Street

Stakeholders expressed great interest in the potential of the 19<sup>th</sup> Avenue corridor becoming more urban in the future. A summary of information collected from the stakeholders include:

- 1. The Waterset community and Amazon area could become a high activity area
- 2. Local connections to 19<sup>th</sup> Avenue from the developments north and south are paramount
- 3. Auto users drive at unsafe speeds when approaching the Interstate 75 overpass from the east; agreement about safety concerns

The development community along the 19<sup>th</sup> Avenue corridor acknowledges the importance of continuous coordination with one another, as well as Hillsborough County, in order to put development and redevelopment synergies in sync.