

Corridor Analysis Technical Memorandum

Florida Department of Transportation - District VII

County Line Road (C.R. 578)
Project Development and Environment Study
From U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45)

Work Program Item Segment Number: 257298 1
Federal-Aid Program Number: 7822 001 S
Pasco and Hernando Counties, Florida

The proposed project involves improving County Line Road (C.R. 578) to a multi-lane facility from U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45) in Pasco and Hernando Counties, a distance of approximately 19.3 kilometers (12.0 miles). The project includes a segment of roadway along a new alignment. This segment is referred to as the Ayers Road Extension and extends from the interchange of C.R. 578 and the Suncoast Parkway to east of U.S. 41, a distance of approximately 5.6 kilometers (3.5 miles).



June 2000

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Prepared by:

URS Corporation Southern

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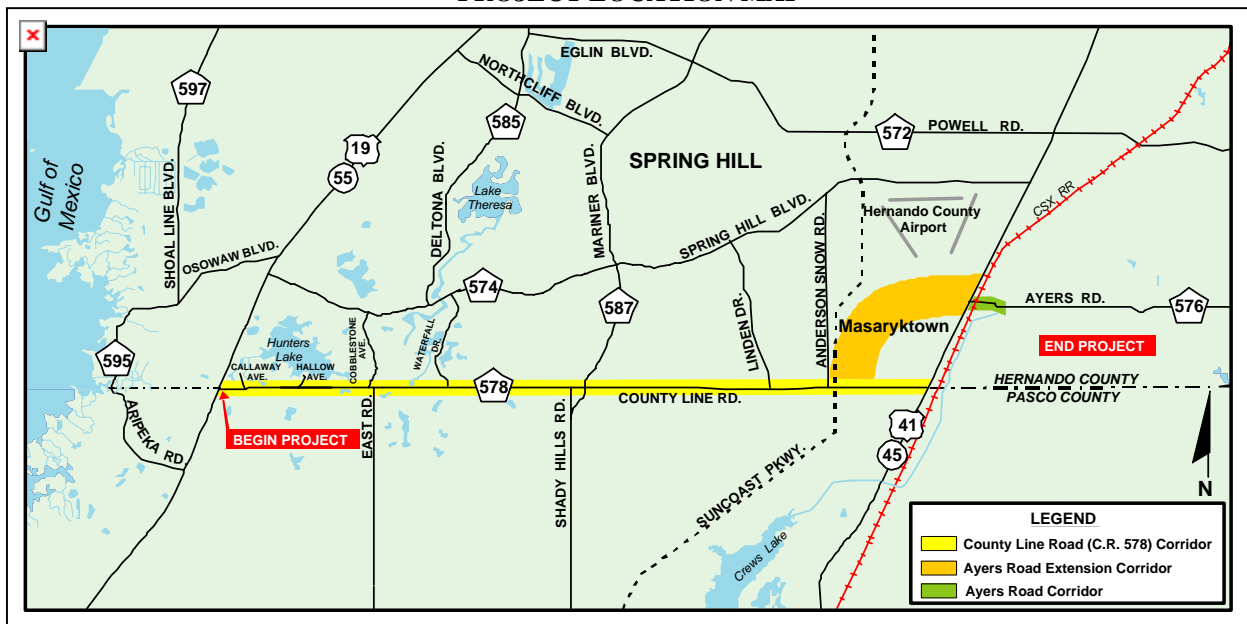
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Section 1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvement alternatives for County Line Road (C.R. 578) in Pasco and Hernando Counties, as shown in Figure 1-1. The proposed project involves improving C.R. 578 from a primarily two-lane roadway to a multi-lane facility from the vicinity of U.S. 19 (S.R. 55) to the vicinity of U.S. 41 (S.R. 45), a distance of approximately 19.3 kilometers (km) [12.0 miles (mi)]. A segment of roadway on new alignment, referred to as the Ayers Road Extension, is being evaluated as one of the alternatives from the C.R. 578/Suncoast Parkway interchange to the vicinity of U.S. 41 and Ayers Road (C.R. 576), a distance of approximately 5.6 km (3.5 mi). The Ayers Road Extension provides continuous travel to the east of U.S. 41 and would improve access to the Hernando County Airport.

FIGURE 1-1
PROJECT LOCATION MAP



1.1 PURPOSE

The objective of the PD&E Study is to provide documented environmental and engineering analyses that will assist the FDOT and the Federal Highway Administration (FHWA) in reaching a decision on the location and conceptual design for improvements to C.R. 578. This study will also comply with the requirements of the National Environmental Policy Act (NEPA) to qualify the transportation improvements for Federal-aid funding.

The purpose of this Corridor Analysis Technical Memorandum is to identify viable transportation corridors that could serve future travel demand within the C.R. 578 study area.

This report contains a description of potential corridors, an analysis and evaluation of each corridors' viability as an effective alternative, and a recommendation regarding the most feasible corridor(s) for further study.

The recommended corridor(s) will be advanced into the alternative alignment evaluation phase for refinement and cost/impact analyses.

1.2 PROJECT DESCRIPTION

The C.R. 578 corridor is an east/west facility with a functional classification of a major collector. The project is located within Sections 1 through 6 of Township 24 South, Range 17 East and Sections 1 through 6 of Township 24 South, Range 18 East in Pasco County, and Sections 31 through 36 of Township 23 South, Range 17 East; Sections 25, 26, 31 through 36 of Township 23 South, Range 18 East; and Section 30 of Township 23 South, Range 19 East in Hernando County.

C.R. 578 is currently a two-lane rural roadway from U.S. 19 to Callaway Avenue and from Hallow Avenue to U.S. 41. From the vicinity of Callaway Avenue to Hallow Avenue, C.R. 578 has been expanded to a four-lane divided suburban facility with an open drainage system. In addition, for 0.8 km (0.5 mi) west and east of the interchange at the Suncoast Parkway, C.R. 578 is currently under construction to be expanded to a four-lane divided facility. The existing posted speed limit along C.R. 578 ranges from 60 to 90 kilometers per hour (km/h) [40 to 55 miles per hour (mph)]. The existing right-of-way (ROW) width ranges from 15.24 meters (m) [50 feet (ft)] to 51.82 m (170 ft) except at the Suncoast Parkway interchange where the ROW width is 77.42 m (254 ft).

Primary land uses along C.R. 578 include numerous residential subdivisions, individual residence, commercial development, the Spring Hill Regional Hospital, the Suncoast Elementary School, the Hernando County Airport, and numerous religious facilities.

1.3 NEED FOR IMPROVEMENT

The portion of the project from U.S. 19 to Mariner Boulevard/Shady Hills Road is included in the *Pasco and Hernando County Metropolitan Planning Organizations (MPOs) 2020 Long Range Transportation Plans (LRTPs)*^{1,2} and is recommended to be improved to a four-lane divided facility. The portion of C.R. 578 from Mariner Boulevard/Shady Hills Road to U.S. 41 is not currently planned for expansion according to the *Pasco County and Hernando County LRTPs*^{1,2}. The proposed new roadway alignment, Ayers Road Extension, from the interchange of C.R. 578 and Suncoast Parkway to the vicinity of U.S. 41 and Ayers Road is identified in the Hernando County 2010 Interim Plan as a two-lane facility and in the *2020 LRTP*² as a four-lane facility.

In addition, the *Hernando County MPO's 2020 LRTP*² has designated a portion of C.R. 578, from east of the Suncoast Parkway to U.S. 41, as a constrained facility. This constraint is based on the existing scenic and aesthetic characteristics associated with this canopied roadway segment. Consideration for improvements along this roadway segment will consist of providing for pedestrian and bicyclists. No multi-lane improvements are considered for this segment.

The need for improvements along the C.R. 578 corridor is based primarily on the evaluation of the following conditions:

- Current substandard traffic operations within the study area;
- The expected future traffic demands along the C.R. 578 corridor, and the projected future socioeconomic growth in northwest Pasco and southwest Hernando counties;
- Substandard vertical sight distances;
- C.R. 578 is a designated evacuation route; and
- Need for adequate pedestrian and bicycle facilities.

The preliminary 2020 Average Annual Daily Traffic (AADT) volumes that were projected by the Tampa Bay Regional Planning Model (TBRPM) using the revised land use data for the Pasco County zones are provided in Table 1-1. Based on the magnitude of the preliminary 2020 AADT volumes, a four-lane roadway will be required for C.R. 578 from U.S. 19 to U.S. 41 to provide acceptable levels of service.

**TABLE 1-1
YEAR 2020 AVERAGE ANNUAL DAILY TRAFFIC (AADT) VOLUMES**

Roadway	Segment		2020 AADT Volumes (in vehicles/day)
	From	To	
C.R. 578	U.S. 19	Cobblestone Drive	35,100
C.R. 578	Cobblestone Drive	East Road	35,100
C.R. 578	East Road	Waterfall Drive	36,200
C.R. 578	Waterfall Drive	Mariner Boulevard	31,400
C.R. 578	Mariner Boulevard	Linden Drive	25,800
C.R. 578	Linden Drive	Anderson Snow Road	24,600
C.R. 578	Anderson Snow Road	Suncoast Parkway	29,000
C.R. 578	Suncoast Parkway	Ayers Road Extension	31,300
Ayers Road Extension	C.R. 578	U.S. 41	14,600
Ayers Road	U.S. 41	East of U.S. 41	7,600

Section 2.0

EXISTING CONDITIONS

2.1 ***EXISTING ROADWAY CHARACTERISTICS***

2.1.1 ***FUNCTIONAL CLASSIFICATION***

Based on the *Pasco County Comprehensive Plan*³ and the *Hernando County Comprehensive Plan*⁴ the existing facility is classified as a major collector. However, with the proposed improvements to this facility, the functional classification will be changed to an arterial.

2.1.2 ***TYPICAL SECTIONS***

Within the project study area, C.R. 578 displays three different roadway typical cross sections.

- From U.S. 19 to Callaway Avenue and from Hallow Avenue to U.S. 41, C.R. 578 consists of a two-lane rural facility. These sections of roadway consist of 3.6 m (12 ft) travel lanes, no shoulders, and an open drainage system. In addition, Pasco and Hernando Counties are currently preparing construction plans from Mariner Boulevard/Shady Hills Road to west of the Suncoast Parkway to include 1.2 m (4 ft) paved shoulders and a 3.6 m (12 ft) left turn lane at designated intersections.
- From Callaway Avenue to Hallow Avenue, the roadway has been expanded to a four-lane divided suburban facility with a 6.6 m (22 ft) raised median, 3.6 m (12 ft) travel lanes, a 3.0 m (10 ft) outside shoulder with 1.2 m (4 ft) paved, and an open drainage system.
- For 0.8 km (0.5 mi) west and east of the interchange at the Suncoast Parkway, C.R. 578 is currently under construction to be expanded to a four-lane divided rural facility. This section of roadway consists of a 22.8 m (76 ft) depressed median, 3.6 m (12 ft) travel lanes, a 3.0 m (10 ft) outside shoulder with 1.5 m (5 ft) paved, and a 12.9 m (43 ft) border area with an open drainage system.

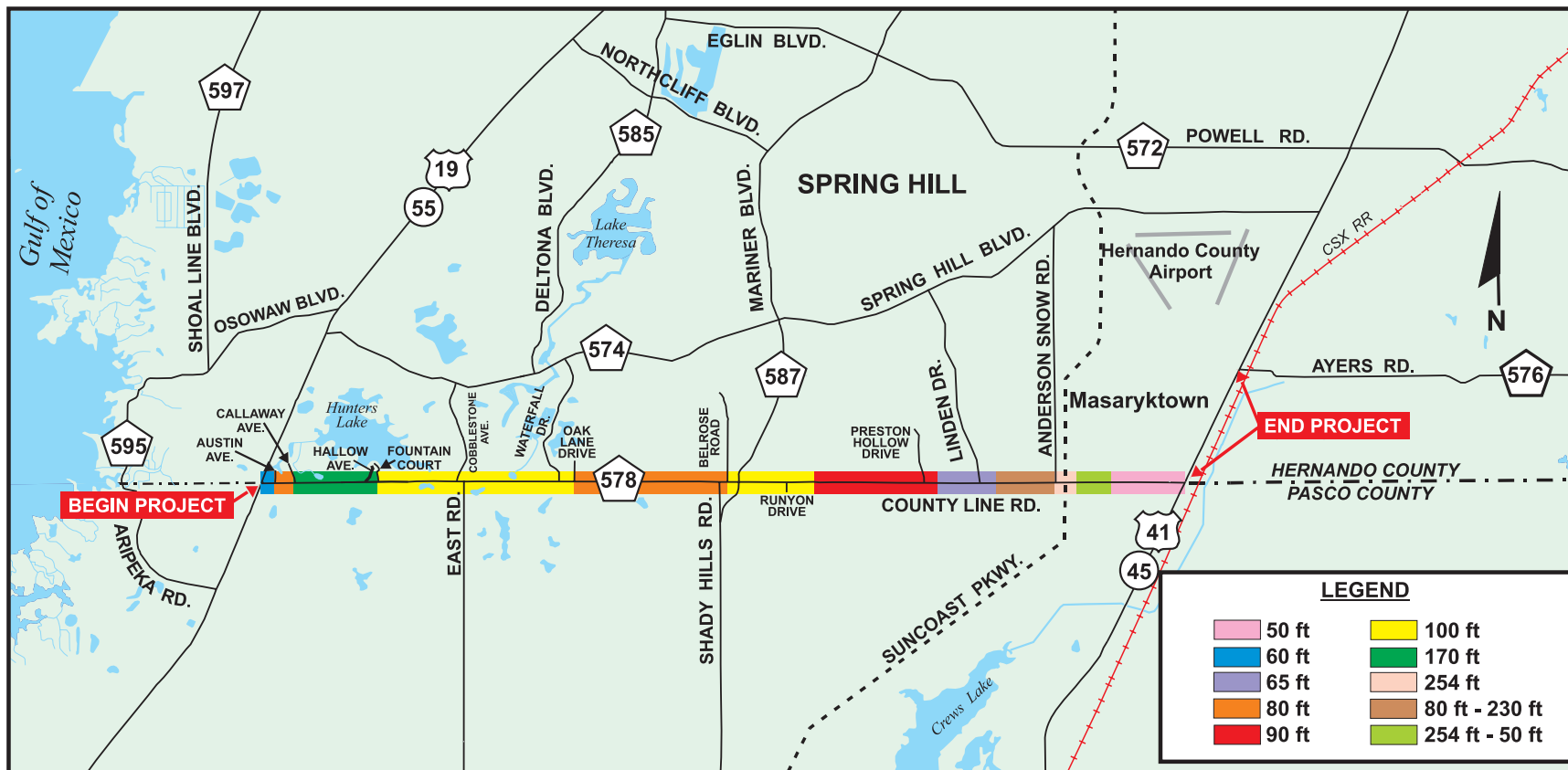
2.1.3 ***PEDESTRIAN AND BICYCLE FACILITIES***

There are currently no existing pedestrian or bicycle facilities along the project corridor.

2.1.4 ***RIGHT-OF-WAY***

The existing right-of-way (ROW) for C.R. 578 from U.S. 19 to U.S. 41 ranges from 15.24 m (50 ft) to 51.82 m (170 ft) except at the Suncoast Parkway interchange where the ROW width is 77.42 m (254 ft), as shown in Figure 2-1. Table 2-1 summarizes the existing ROW widths along the project corridor.

**FIGURE 2-1
EXISTING RIGHT-OF-WAY**



**TABLE 2-1
EXISTING RIGHT-OF-WAY**

Roadway Segment	Right-of-Way Width	
U.S. 19 to West of Austin Avenue	18.29 m	60 ft
West of Austin Avenue to Callaway Avenue	24.38 m	80 ft
Callaway Avenue to Fountain Court	51.82 m	170 ft
Fountain Court to Oak Lane Drive	30.48 m	100 ft
Oak Lane Drive to Belrose Road	24.38 m	80 ft
Belrose Road to 900 ft East of Runyon Drive	30.48 m	100 ft
274.32 m (900 ft) East of Runyon Drive to 152.40 m (500 ft) East of Preston Hollow Drive	27.43 m	90 ft
152.40 m (500 ft) East of Preston Hollow Drive to 609.60 m (2000 ft) West of Anderson Snow Road	19.81 m	65 ft
609.60 m (2000 ft) West of Anderson Snow Road to Anderson Snow Road	24.38 m to 70.10 m	80 ft to 230 ft
Anderson Snow Road to 213.36 m (700 ft) East of Suncoast Parkway	77.42 m	254 ft
213.36 m (700 ft) East of Suncoast Parkway to 201.17 m (660 ft) East of Service Road 6B	77.42 m to 15.24 m	254 ft to 50 ft
201.17 m (660 ft) East of Service Road 6B to U.S. 41	15.24 m	50 ft

Sources: State of Florida Right-of-Way Maps, Years 1966, 1970 and 1982
Hernando County Public Works Department, Year 1994

2.1.5 EXISTING DRAINAGE ISSUES

The existing roadway drainage system within the project limits consists predominantly of roadside grass swales and ditches, with numerous driveway culverts and cross drains. The project is located within the Coastal Rivers Basin and exhibits hydrogeologic characteristics associated with the Karst topography. Sinkholes and other depressed areas are prevalent throughout the project limits providing vast amounts of natural surface storage within numerous closed basins. Shallow lakes are also present, many of which may be connected directly to the underlying confined aquifer.

Stormwater runoff for most of the eastern portion of the project located between U.S. 19 and Mariner Boulevard/Shady Hills Road, a distance of approximately 6.9 km (4.3 mi), drains north and outfalls into Hunters Lake. Within this segment approximately 1,372 m (4,500 ft) of roadway was recently widened to four lanes. Stormwater management facilities (two retention ponds) have been provided on the south side of the roadway for this segment.

Stormwater runoff from the remainder of the project flows to closed basins and or sinkholes adjacent to the project corridor. Under normal conditions the closed basins are internally drained. However, during periods of high groundwater levels and extreme rainfall, excess runoff from some of these closed basins/depressional areas will flow overland following poorly defined shallow swales and ditches toward the Masaryktown canal.

The Pasco County and Hernando County Public Works Departments were contacted concerning any historic flooding problems within and adjacent to the project limits. No drainage problems along the existing roadways were reported other than erosion along the roadway shoulders. The worst areas were reported to be west of Mariner Boulevard/Shady Hills Road where steep

embankments were noted. These areas are adjacent to what appears to be old sinkholes or low-lying areas.

Examination of Flood Insurance Rate Maps (FIRMs) community panel numbers 120230-0020C, 120230-0050C, 120230-0075C, 120110-270B, 120110-300B, and 120110-325B indicate two distinct and relatively small portions of the C.R. 578 project limits encroach upon the 100-year Flood Zone.

The first floodplain encroachment is located approximately 4.2 km (2.6 mi) east of U.S. 19. Both the Pasco County FIRM (community panel 1200230 0050C) and Hernando County FIRM (community panel 1200110 300 B) show encroachment into Flood Zone A extending from Beach Drive eastward for a distance of approximately 274.3 m (900 ft) to Kelly Road.

The second floodplain encroachment is located immediately west of U.S. 41 and extends eastward to a point approximately 106.7 m (350 ft) west of Marianna Street. Pasco County community panel 1200230 0075 C shows 274.3 m (900 ft) of the C.R. 578 right-of-way as being in Flood Zone A. The northern half of the right-of-way within this same section of roadway is shown on the Hernando County FIRM (community panel 12001100 0325 B). This section of roadway is located in Flood Zone B.

There are no regulated floodways located within the project limits.

2.2 ENVIRONMENTAL CHARACTERISTICS

2.2.1 LAND USE DATA

2.2.1.1 Existing Land Use

Primary land uses along the C.R. 578 corridor include numerous residential subdivisions, individual residences, commercial and industrial development, numerous religious and community facilities, and undeveloped land. Existing land uses are similar on both the Pasco County and Hernando County sides of C.R. 578. The project corridor can be divided into two sections based on existing land use patterns: U.S. 19 to Mariner Boulevard/Shady Hills Road and Mariner Boulevard/Shady Hills Road to U.S. 41. Below is a description of the existing land use in each section.

The land uses in the western section of C.R. 578, between U.S. 19 and Mariner Boulevard/Shady Hills Road, consist of a mixture of medium density single-family residential, commercial, and several religious facilities. Residential development is made up of numerous individual residences directly adjacent to C.R. 578 as well as single-family subdivisions. Major residential subdivisions located along this section include Oakwood Village, Arlington Woods, Heritage Pines, Rolling Oaks Estates, and Oak Lake Estates. Numerous commercial uses are scattered along this section of the project corridor with the greatest concentrations being located at U.S. 19, Mariner Boulevard/Shady Hills Road, and the County Line Industrial Park. Major commercial centers include the UHL Plaza shopping center at U.S. 19 and C.R. 578 and the Publix Shopping Center and Seven Hills Business Park at Mariner Boulevard and C.R. 578. Other commercial uses consist of automotive service and sales establishments, retail stores, and

restaurants. The four churches located along this section of the project corridor are The Father's House, Church of the Nazarene Calvary Community, New Hope Baptist Church, and Faith Baptist Church.

The eastern section of the C.R. 578 project corridor, between Mariner Boulevard/Shady Hills Road and U.S. 41 is characterized by lower residential densities and undeveloped land. Land uses consist of a mixture of low and medium density single-family residential, commercial, industrial, community facilities, and undeveloped land. Residential uses are concentrated in the Preston Hollow subdivision, the Topics RV community, and in the southeast corner of Shady Hills Road and C.R. 578. Masaryktown, located north of C.R. 578, and west of U.S. 41, is an established residential community consisting of single-family residences and one church. Commercial land uses are concentrated in the vicinity of the Mariner Boulevard/Shady Hills Road intersection and consist of automotive service establishments, retail stores, and restaurants. Keys Concrete Industries, located on the south side of the project corridor between Mariner Boulevard/Shady Hills Road and the Suncoast Parkway, is the only industrial use located within this section. At the eastern terminus of the project corridor, commercial uses are scattered along U.S. 41 between C.R. 578 and Ayers Road and consist of retail sales and automotive service establishments. The Hernando County Airport, a regional general aviation facility, is located north of the proposed Ayers Road Extension and west of U.S. 41. Community facilities include the Spring Hill Regional Hospital, Suncoast Elementary School, Spring Hill Assisted Living Facility, VFW Post 8681, and Slovene National Benefit Society Lodge #778. The three religious facilities located in this section of the project corridor are Hosanna Assembly of God, Cornerstone Christian Center, and First Baptist Church of Masaryktown.

2.2.1.2 Future Land Use

The *Pasco and Hernando County Comprehensive Plans*^{3,4} indicate that future land uses within the project corridor will follow the established trends of the existing land uses.

The Pasco County Future Land Use Map indicates that land uses south of the project corridor are primarily designated as residential combined with scattered commercial uses. Approved future commercial development includes a Walgreens Drug Store at the intersection of Mariner Boulevard/Shady Hills Road and C.R. 578. The western half of the project corridor is characterized by medium residential densities while the eastern half of the project corridor is characterized by low residential densities.

According to the Hernando County Future Land Use Map, land uses north of the project corridor will continue to be designated as residential with scattered commercial uses at the major intersections. Additional commercial uses have been designated for the areas in the vicinity of the Suncoast Parkway Interchange. Approved future commercial development includes two assisted care living facilities on C.R. 578 east of Mariner Boulevard/Shady Hills Road. Land on the northwest corner of Mariner Boulevard/Shady Hills Road and C.R. 578 is part of the Seven Hills Development of Regional Impacts (DRI) and has been designated for future commercial development. Vacant land on the northeast corner of Mariner Boulevard/Shady Hills Road and C.R. 578 has also been designated for future commercial development. A 20.2 hectare (ha) [50 acre (ac)] site on C.R. 578 approximately 2.4 km (1.5 mi) east of Mariner Boulevard/Shady Hills Road is currently being considered as the site for a new Pasco/Hernando Community College

Campus. The Hernando County Board of County Commissioners will ultimately determine whether to locate the school on the C.R. 578 site or an alternate site in the Airport Industrial Park.

The *Hernando County Comprehensive Plan*⁴, calls for the creation of an Airport Planned Development District in order to “...maximize the use of the Hernando County Airport and surrounding lands by providing for aviation related activities, industrial uses, and other land use not incompatible with the airport.” Relevant policies associated with this airport planned development district include the identification of “runway approach surfaces at the end of each runway, which shall be protected from encroachment from residential development and other non-compatible land uses.”

2.2.2 CULTURAL FEATURES

2.2.2.1 Historic Resources Field Methods

A historic resources reconnaissance survey was conducted for the project corridor in October 1999. This reconnaissance included a windshield investigation to ensure that each pre-1951 building, structure, object, and cemetery within the corridors’ Area of Potential Effect (APE) was identified and properly mapped. All resources within the limits of the project corridor received a preliminary visual reconnaissance. Any property with features indicative of pre-1951 construction materials, building methods, or architectural styles was noted on aerial photography.

Each resource’s individual significance was then evaluated for its potential eligibility for listing in the *National Register of Historic Places*⁵ (NRHP). Historic physical integrity was determined from site observations, field data, and photographic documentation.

2.2.2.2 Archaeological Methods

A preliminary study of the project corridor was performed to identify previously recorded archaeological sites and areas of archaeological site potential. This included a search of the Florida Master Site Files (FMSF) to identify any previously recorded archaeological sites. In addition, environmental conditions and the cultural context of the project corridor as they relate to the prediction of the location of prehistoric and historic archaeological sites were reviewed.

The designation of site potential zones of archaeological site location was based on previous research conducted within the northern peninsular Gulf Coast archaeological region. Four environmental factors are typically employed in predicting site locations: soil type (soil drainage), distance to fresh (potable) water, distance to hardwood hammocks, and topography.

In central Florida, high site potential zones are defined as those areas of somewhat poorly to excessively well-drained upland locales within 201.2 m (660 ft) of a wetland or body of water (i.e., pond, creek, or sinkhole), and areas within 100.6 m (330 ft) of a hydric or mesic hardwood hammock, irrespective of the soil drainage. Moderate site potential zones are defined as those poorly to very poorly drained locales within 201.2 m (660 ft) of a wetland or body of water. Low site potential zones are defined as those areas of very poorly drained to excessively drained upland locales not otherwise designated as high or moderate site potential.

2.2.2.3 Preliminary Results

Historic Resources - During the historic resources reconnaissance survey for C.R. 578, no *NRHP*⁵ eligible resources were found within the project APE. Approximately 20 to 30 historic buildings were found within the project APE, including several 1920s Frame Vernacular residences. These resources are not individually eligible nor do they occur in significant concentrations to be considered as a historic district.

The State of Florida Division of Historical Resources (FDHR) was contacted about the location of known historic resources within or near the project location. A search of the FMSF revealed one previously recorded historic structure located adjacent to the project area, the Masaryk Hotel, 8HE65.

Located on the northeast corner of U.S. 41 and Wilson Street and outside of the project's APE, the previously recorded Masaryk Hotel, 8HE65, a two-story Frame Vernacular building, was considered potentially eligible for the *NRHP*⁵ when the original site file was completed. A field inspection found the hotel to be in good condition. It was also determined that the hotel still remains potentially eligible for *NRHP*⁵ listing.

In addition, Masaryktown was visually surveyed partially outside of the APE. The results of this survey found scattered historic Frame Vernacular buildings separated by infill housing built in the 1960s through the 1990s. These resources are not individually eligible nor do they occur in significant concentrations to be considered as a historic district.

Archaeological Resources - The FDHR was contacted about the location of known archaeological sites and historic structures within or near the project location. A search of the FMSF revealed two previously recorded archaeological sites located within the proposed corridor, while three more are adjacent to or near the proposed project corridor.

The two sites located within the project corridor consist of one prehistoric and one historic archaeological site. The prehistoric site, 8PA185, is a scatter of lithic waste flakes and ceramic sherds dating to the Woodland period. No subsurface testing was performed. However, the site was described as being severely disturbed or destroyed. Additional information is needed to determine the site's eligibility for listing in the *NRHP*⁵.

The second site, 8HE284, located within the proposed project corridor is a Spanish-American War period (1898-1916) town site. This site was identified by a local informant and was confirmed through remote sensing. No archaeological testing has been performed. This site is considered to be significant at the local level, but additional information is needed to determine its eligibility for listing in the *NRHP*⁵.

The three archaeological sites that are adjacent to or near the proposed project corridor consist of two prehistoric and one historic archaeological sites. One of the prehistoric sites, 8PA66, was a Safety Harbor period (AD 900-1513) burial mound which has been completely destroyed by development. It lies just west of the western end of the project corridor. If the project were to

impact this site, testing would be recommended to ensure that no portion of the site remained undisturbed. If this were so, the site may be eligible for listing in the *NRHP*⁵.

The other prehistoric site, 8HE34, is a large midden (or refuse mound) that lies just north of the western end of the project corridor. Information on this site is limited. If the project were to impact this site, further research and, perhaps, testing would be recommended to determine the site's eligibility for listing in the *NRHP*⁵.

The historic archaeological site, 8HE298, is a Spanish-American War period (1898-1916) habitation site. It lies north of the project corridor. This site was evaluated as significant at the local level. However, there was insufficient information to determine if the site is eligible for listing in the *NRHP*⁵.

Areas of moderate and high archaeological site potential were identified along the length of the proposed project corridor. The excessively drained soils and the presence of numerous, though small, sources of fresh water would have made this area extremely attractive to prehistoric and early historic peoples. The presence of sinkhole lakes in areas of excessively drained soils provides for a dry, comfortable place to live next to a permanent fresh water source. Several areas along the project corridor are considered to have high archaeological site potential due to this combination of environmental variables. In addition, the western end of the project area is especially sensitive due to the proximity of the transition between the excessively drained uplands and the swamps and wetlands of the coastal lowlands, where fresh water, animals, and edible plants are abundant. This area will be tested with greater intensity to ensure the identification of all archaeological resources in the project area.

2.2.3 NATURAL FEATURES

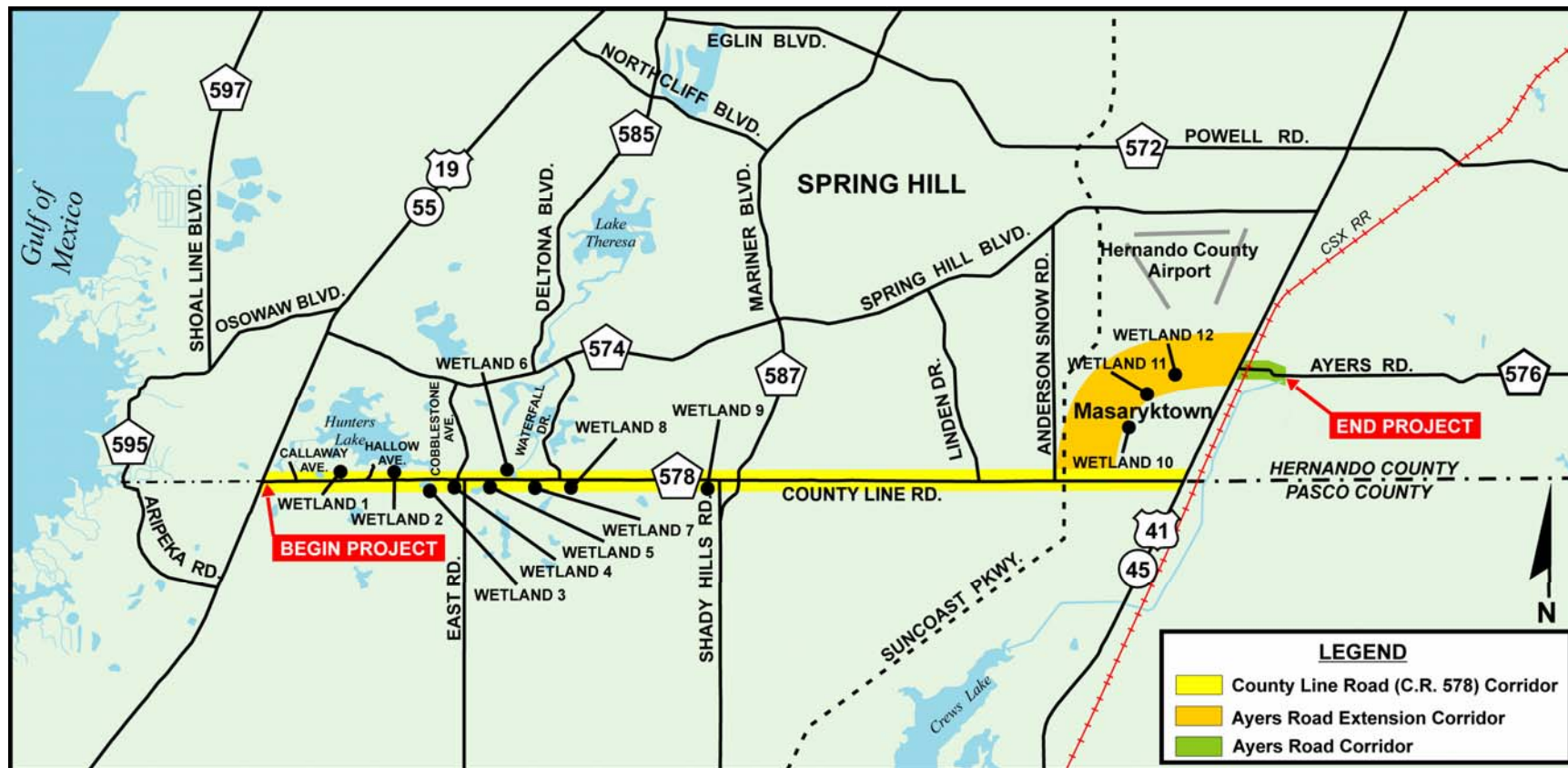
C.R. 578 and the Ayers Road Extension project was reviewed on October 18, 19, and 20, 1999, to identify, quantify, and map wetland and natural upland communities which are located within or adjacent to the proposed project boundaries. Figure 2-2 identifies the location of the wetlands along the project corridor.

During field investigations, each community within the project study corridor was walked and visually inspected. Many of the wetlands were found to be small isolated pond systems that allowed for a complete perimeter survey. Attention was given to identifying plant species composition for each wetland and upland community type. Exotic plant infestations, shifts in historical plant communities, and any other disturbances such as soil subsidence, cattle, off-road vehicle disturbances, canals, and power lines were noted. Attention was also given to identifying wildlife and signs of wildlife usage at each community type.

Seven vegetative upland community types were found within the project corridor consisting of Xeric Oak, Improved Pasture, Longleaf Pine-Xeric Oak, Pine-Mesic Oak, Live Oak, Citrus Groves, and Open Land.

Three wetland community types were identified within the project corridor consisting of Open Water Lake or Pond, Marsh Wetland, and Forested Wetland.

FIGURE 2-2
WETLAND LOCATIONS



2.2.4 THREATENED AND ENDANGERED SPECIES

In accordance with Section 7 of the Endangered Species Act of 1973 and its amendments, the C.R. 578 study corridor was evaluated for the potential occurrences of federal and state listed threatened and endangered plant and animal species.

Field reviews of the study corridor were conducted on October 18, 19, and 20, 1999. Field reviews started each day at approximately 9:00 a.m. and ended at approximately 4:00 p.m.

The protected species listed in Tables 2-2 and 2-3 were compiled from information obtained from various agencies and during site field investigations. These tables also provide the U.S. Fish and Wildlife Service (USFWS) and Florida Fish and Wildlife Conservation Commission (FFWCC) protection status for each species and the probability of occurrence of each species within the study corridor.

Field reviews of the project study area resulted in the identification of a known bald eagle's nest approximately 548.6 m (1,800 ft) west of U.S. 19 in Aripeka. In addition, multiple active Gopher Tortoise burrows were found through out the project study area. Impacts to the gopher tortoises and their habitats will require permitting through the FFWCC. In addition, due to the presence of a high number of gopher tortoises within the study area, there is a high probability for the presence of such species as the eastern indigo snake.

**TABLE 2-2
PROTECTED FLORAL SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT CORRIDOR**

Scientific Name	Common Name	Habitat Preference	Habitat Presence	USFWS Designation	FFWCC Designation	Probability of Occurrence
<i>Nolina brittoniana</i>	Britton's beargrass	Xeric Pine	Yes	E	E	Low
<i>Campanula robinsiae</i>	Brooksville bellflower	Brooksville Ridge Seepage Slope	No	E	E	Low
<i>Justicia cooleyi</i>	Cooley's waterwillow	Brooksville Ridge Seepage Slope	No	E	E	Low

Designated status based on "Florida's Endangered Species, Threatened Species and Species of Special Concern Official Lists, August 1, 1997", Florida Fish and Wildlife Conservation Commission.

- E = Endangered
- SSC = Species of Special Concern
- T = Threatened
- T(S/A) = Threatened/Similarity of Appearance
- NL = Not Listed
- NO = Not Observed

Note: List of potentially occurring species was compiled from literature review, field observations, and wildlife agency coordination.

**TABLE 2-3
PROTECTED FAUNAL SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT CORRIDOR**

Scientific Name	Common Name	Habitat Preference	Habitat Presence	USFWS Designation	FFWCC Designation	Probability of Occurrence
Mammals						
<i>Sciurus niger shermani</i>	Sherman's fox squirrel	Longleaf Pine, Turkey Oak	Yes	NL	SSC	Low
<i>Ursus americanus</i>	Florida black bear	Dense Swamps & Forests	No	NL	T	Low
<i>Podomys floridanus</i>	Florida mouse	Sand Pine, Xeric Pak	Yes	NL	SSC	Moderate
Birds						
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	Xeric Oak, Sand Pine Scrub	Yes	T	T	Moderate
<i>Grus canadensis pratensis</i>	Florida sandhill crane	Wet Prairie, Lake Edges	Yes	NL	T	Low
<i>Falco sparverius paulus</i>	American kestrel	Open Habitats	Yes	NL	T	Low
<i>Mycteria americana</i>	Wood stork	Cypress Swamp, Marsh, Ditches	Yes	E	E	Low
<i>Haliaeetus leucocephalus</i>	Bald eagle	Coastal Wetlands, Lakes, Rivers	Yes	T	T	Low
<i>Speotyto cunicularia</i>	Burrowing owl	Open Grasslands	Yes	SSC	NL	Moderate
Fish						
Reptiles						
<i>Alligator mississippiensis</i>	American alligator	Wetland Habitats	Yes	T	SSC	Moderate
<i>Gopherus polyphemus</i>	Gopher turtle	Xeric Habitats	Yes	NL	SSC	High
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	Xeric Habitats	Yes	NL	SSC	Moderate
<i>Dymarchon corais couperi</i>	Eastern indigo snake	Various Habitat, Gopher Tortoise Burrows	Yes	T	T	High
<i>Stilosoma extenuatum</i>	Short-tailed snake	Longleaf Pine, Turkey Oak	Yes	NL	T	Moderate
Amphibians						
<i>Rana capito</i>	Gopher frog	Xeric Habitats	Yes	NL	SSC	Moderate

Designated status based on "Florida's Endangered Species, Threatened Species and Species of Special Concern Official Lists, August 1, 1997", Florida Fish and Wildlife Conservation Commission.

- E = Endangered
- SSC = Species of Special Concern
- T = Threatened
- T(S/A) = Threatened/Similarity of Appearance
- NL = Not Listed
- NO = Not Observed

Note: List of potentially occurring species was compiled from literature review, field observations, and wildlife agency coordination.

2.2.5 **POTENTIAL HAZARDOUS MATERIALS AND PETROLEUM PRODUCTS CONTAMINATED SITES**

A preliminary contamination survey was conducted for the project area in accordance with Part 2, Chapter 22 of the *Project Development and Environment Manual*⁶ (PD&E Manual). The purpose of the evaluation was to identify properties or businesses that use, store, or distribute petroleum products, hazardous materials, or hazardous wastes that are located within the project corridor.

There is no single comprehensive source of information available that identifies known or potential sources of environmental contamination along the C.R. 578 corridor. Therefore, to identify and evaluate sites containing hazardous materials, petroleum products, or other sources of potential environmental contamination in these areas, the following tasks were conducted:

- In-the-field surveys were conducted in November 1999, from accessible rights-of-way adjacent to the corridor.
- Government Databases Computer Search - VISTA Information Solutions, Inc. (VISTA). This screening tool maps the locations of sites with known or potential environmental liabilities based on information contained in various federal and state government databases. These databases include:
 - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
 - Emergency Response Notification System (ERNS);
 - National Priorities List (NPL);
 - Resource Conservation and Recovery Information System (RCRIS);
 - Facility Index System (FINDS);
 - No Further Remedial Action Planned (NFRAP);
 - RCRIS Handlers with Corrective Action (CORRACTS);
 - Toxic Release Inventory System (TRIS);
 - RCRA registered large and small quantity generators of hazardous waste (GNRTR);
 - RCRA violations/enforcement actions (RCRA Viol);
 - Solid Waste Facilities (SWLF);
 - Stationary Tank Inventory Systems (UST);
 - Petroleum Contamination Tracking System (LUST);
 - Florida State Priority List (SPL); and
 - Florida State CERCLIS List (SCL).
- Review of historical aerial photographs dated 1966, 1979, 1982, 1984, 1988, and 1995 of the C.R. 578 corridor for any indication of properties or businesses in the project area that might have been involved with potential environmental contamination.

- Telephone interviews regarding solid waste landfills were conducted with knowledgeable personnel within the Hernando County Government-Developmental Services Department.

2.2.5.1 Potential Impacts and Preliminary Findings

A total of 33 sites located during this survey have been identified as having the potential for contamination impacts to the rights-of-way for C.R. 578 in Hernando and Pasco Counties. Of these sites, 15 may primarily involve hazardous materials, 10 may primarily involve petroleum, and 8 may involve a combination of the two. Additionally, of the 33 sites, 5 have been ranked as having a “HIGH” potential for contamination, 4 ranked “MEDIUM”, and 8 ranked “LOW”.

Section 3.0

CORRIDOR ANALYSIS

3.1 CORRIDOR EVALUATION

In an effort to identify potential alternate corridors that could serve the future travel demand of the C.R. 578 corridor, the following options were considered.

- Improvement of a parallel west-to-east roadway within the region;
- Development of a new corridor; or
- Roadway improvements to the existing C.R. 578 corridor.

The typical sections described in Sections 3.1.1 and 3.1.2 of this report were developed in conjunction with the FDOT, Pasco County, and Hernando County and were used in evaluating potential alternative corridors.

3.1.1 RURAL TYPICAL SECTION

This typical section is a four-lane divided rural facility, with travel lanes 3.6 m (12 ft) wide, a 19.2 m (64 ft) depressed grass median with 2.4 m (8 ft) inside shoulders, 3.0 m (10 ft) outside shoulders with 1.5 m (5 ft) of the shoulder paved, and 12.0 m (40 ft) borders to accommodate the open roadside ditches. The proposed design speed for this typical section is 110 km/h (70 mph). This typical section will require a minimum of approximately 63.6 m (212 ft) of ROW as shown in Figure 3-1. This typical section would be evaluated in the area of the Ayers Road Extension as shown in Figure 3-2.

**FIGURE 3-1
RURAL TYPICAL SECTION**

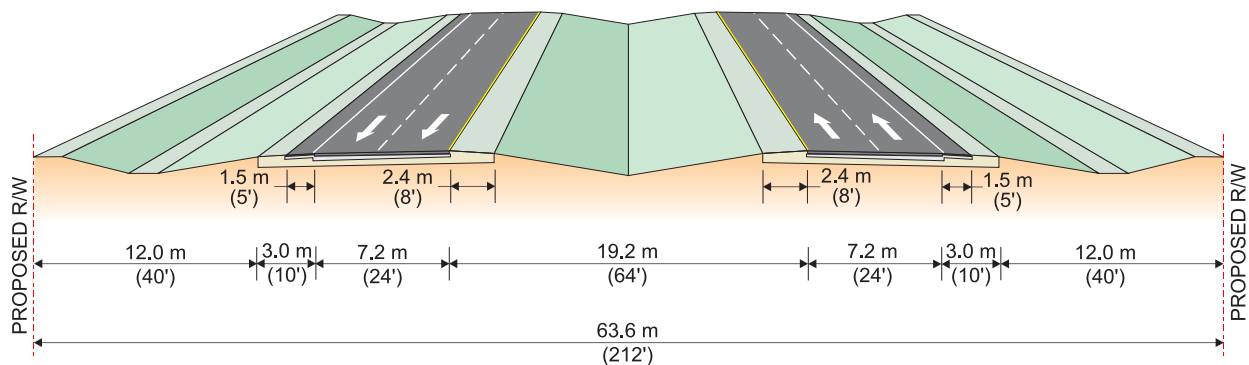
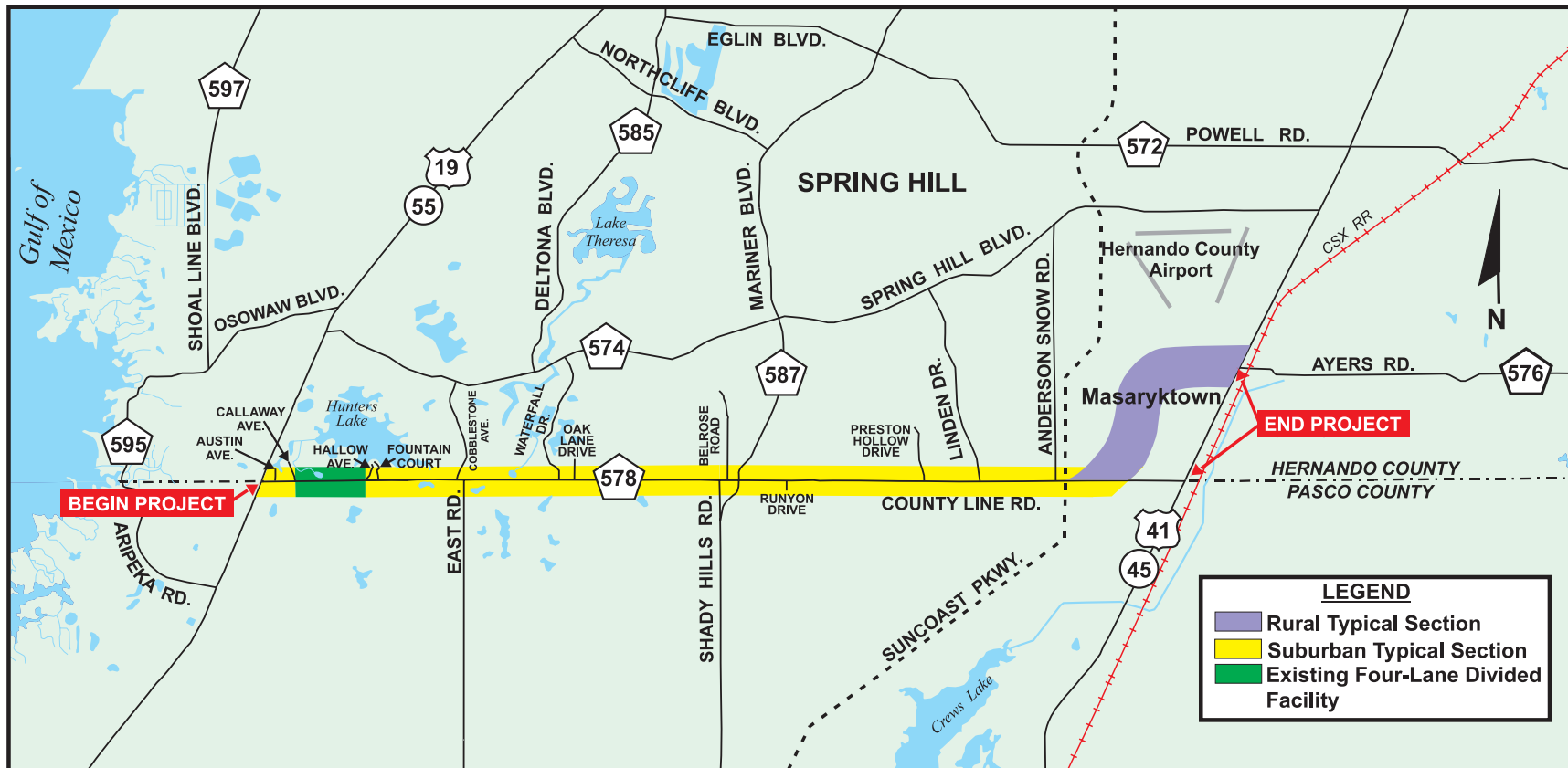


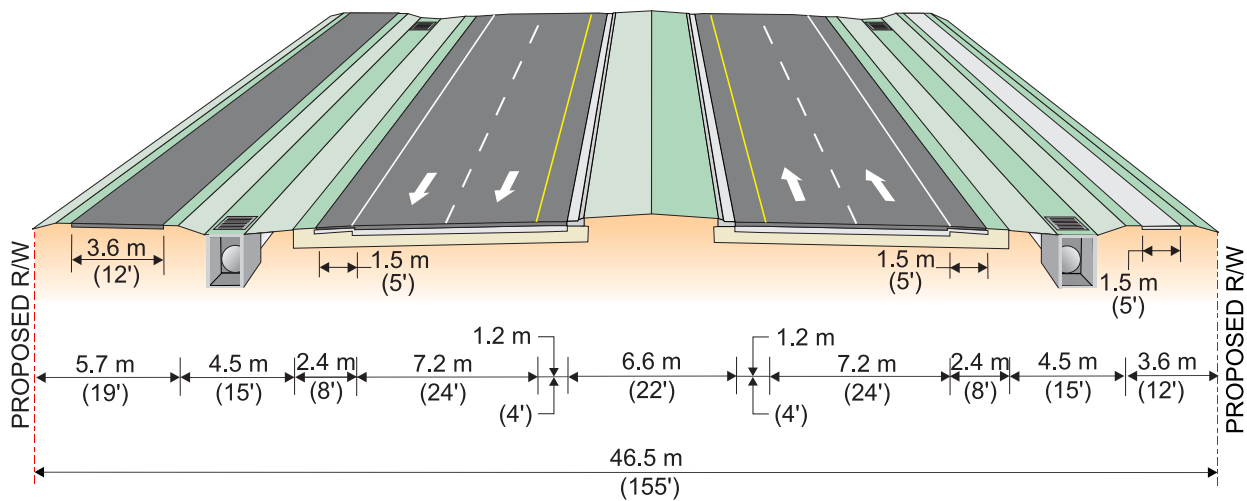
FIGURE 3-2
TYPICAL SECTION MAP



3.1.2 SUBURBAN TYPICAL SECTION

This typical section is a four-lane divided suburban facility, with travel lanes 3.6 m (12 ft) wide, a 6.6 m (22 ft) raised median with 1.2 m (4 ft) inside shoulders, 2.4 m (8 ft) outside shoulders with 1.5 m (5 ft) of the shoulder paved, 4.5 m (15 ft) drainage swales, and a 3.6 m (12 ft) pathway on the north side of the roadway and a 1.5 m (5 ft) sidewalk on the south side of the roadway. The proposed design speed for this typical section is 90 km/h (55 mph). This typical section will require a minimum of approximately 46.5 m (155 ft) of ROW, as shown in Figure 3-3. This typical section would be evaluated from U.S. 19 to west of the Suncoast Parkway, as shown in Figure 3-2.

**FIGURE 3-3
SUBURBAN TYPICAL SECTION**



3.2 IMPROVEMENT OF A PARALLEL ROADWAY

A review of the existing roadway network both north and south of the immediate vicinity of C.R. 578 reveals the presence of one west-to-east parallel roadway, C.R. 574 (Spring Hill Boulevard), located approximately 2.4 km (1.5 mi) north of C.R. 578, as shown in Figure 1-1.

Spring Hill Boulevard is currently a four-lane divided minor arterial between U.S. 19 and Finland Drive [approximately 9.7 km (6.0 mi) in length] and from Anderson Snow Road to U.S. 41. Between Finland Drive and Anderson Snow Road, the existing facility is currently a two-lane undivided roadway. The Hernando County MPO Five Year Transportation Improvement Program (TIP) includes the portion of Spring Hill Boulevard from Finland Drive to Anderson Snow Road and proposes that it be improved to a four-lane divided facility.

Spring Hill Boulevard currently provides access to several large residential communities both on the north-side and south-side of the existing roadway. The Hernando County MPO's 1996 LRTP update analyzed the possible expansion of Spring Hill Boulevard to a six-lane facility as an alternative to four-laning C.R. 578. This analysis concluded that expanding Spring Hill Boulevard was not a viable alternative due to the following reasons:

- The Hernando County MPO has designated two segments of Spring Hill Boulevard as constrained facilities due to significant ROW impacts. The segments are located from U.S. 19 to Deltona Boulevard, approximately 4.0 km (2.5 mi) in length and from Mariner Boulevard to the Suncoast Parkway, approximately 6.4 km (4.0 mi) in length.
- The Hernando County MPO has also indicated that while these two facilities are parallel, they handle different types of traffic.
- Expansion of Spring Hill Boulevard would not provide a direct evacuation access connection inland without detouring south along U.S. 41 to Ayers Road.

Improvement to Spring Hill Boulevard will not address the projected traffic demand along C.R. 578, since portions of Spring Hill Boulevard have been identified as constrained and will only be improved to a four-lane facility. Therefore, improvement of Spring Hill Boulevard, in lieu of improving C.R. 578 is not considered a viable alternative corridor.

3.3 DEVELOPMENT OF A NEW CORRIDOR

In evaluating the development of a new corridor, the project limits were divided into two segments. The first segment is from U.S. 19 to the Suncoast Parkway and the second segment is from the Suncoast Parkway to U.S. 41.

3.3.1 U.S. 19 TO SUNCOAST PARKWAY

The existing land uses along C.R. 578 from U.S. 19 to the Suncoast Parkway consist of a mixture of medium density single-family residential, commercial, and several religious facilities.

Residential development is made up of numerous individual residences and single-family subdivisions. Major residential subdivisions located along this section include Oakwood Village, Arlington Woods, Heritage Pines, Rolling Oaks Estates, Oak Lake Estates, Seven Hills, Preston Hollow subdivision, and the Topics RV community. Community facilities include the Spring Hill Regional Hospital, Suncoast Elementary School, Spring Hill Assisted Living Facility, VFW Post 8681, and Slovene National Benefit Society Lodge #778.

The provision for a new corridor either south or north of C.R. 578 from U.S. 19 to the Suncoast Parkway would pass through predominantly developed residential communities, a golf course north of C.R. 578 and Mariner Boulevard/Shady Hills Road, and established commercial properties in the northwest quadrant at C.R. 578 and Mariner Boulevard/Shady Hills Road. The disadvantages associated with the development of a new corridor from U.S. 19 to the Suncoast Parkway include:

- Significant relocations.
- The new corridor would divide existing established residential communities.
- Introduces heavy traffic in residential communities.
- Would require long transitions to reconnect to existing C.R. 578.

In addition, the development of a new corridor with a typical section width of 46.5 m (155 ft) from U.S. 19 to the Suncoast Parkway would require approximately 74.0 ha (183.0 ac) of new ROW. However, by utilizing the existing corridor and evaluating alignments that widen to the south, center or north of the existing ROW on C.R. 578, the proposed improvements would require approximately 36.8 ha (91.0 ac) of additional ROW and the effects to the human and natural environment would be minimized.

In addition, a new corridor from U.S. 19 to the Suncoast Parkway is not consistent with the Pasco and Hernando County Metropolitan Planning Organizations (MPOs) 2020 Long Range Transportation Plans (LRTPs)^{1,2}. Therefore, the development of a new corridor from U.S. 19 to the Suncoast Parkway is not considered a viable alternative corridor.

3.3.2 SUNCOAST PARKWAY TO U.S. 41

As noted in Section 1.3 of this report, the *Hernando County MPO's 2020 LRTP*² has designated the portion of C.R. 578, from east of the Suncoast Parkway to U.S. 41, as a constrained facility. This constraint was based on the existing scenic and aesthetic characteristics associated with the canopied roadway. Therefore, widening the existing alignment at this location is not considered viable.

However, as part of the PD&E process, several alternative corridors for the Ayers Road Extension were identified and evaluated for comparison from the interchange of the Suncoast Parkway to U.S. 41. This corridor study area is defined as C.R. 578 on the south from the interchange of C.R. 578 and Suncoast Parkway to the vicinity of U.S. 41 and from the Suncoast Parkway to the intersection of U.S. 41/Ayers Road to the north.

Certain advantages would be associated with the development of the Ayers Road Extension, including:

- Direct evacuation access connection inland from U.S. 19 to Spring Lake Highway (C.R. 41) approximately 14.5 km (9.0 mi) east of U.S. 41. Currently the traffic has to stop (no signal control) at U.S. 41, make a left onto U.S. 41 and then turn right onto Ayers Road. Therefore, the development of the Ayers Road Extension would provide a direct connection to C.R. 41 for evacuation to I-75 via Cortez Boulevard (U.S. 98) or Blanton Road.
- The Hernando County Airport has prepared plans that would provide a new connection to the Hernando County Airport from the proposed Ayers Road Extension.
- The Ayers Road Extension is identified in the Hernando County 2010 Interim Plan as a two-lane facility and in the 2020 LRTP as a four-lane facility.

Disadvantages associated with the development of the Ayers Road Extension, include:

- The Ayers Road Extension would divide existing land tracts.
- Increased ROW requirements.
- Increased environmental effects.

As shown in Figure 3-4, the Ayers Road Extension corridors were developed to avoid or minimize effects to the human and natural environment. A review of the land use, environmental components and geometrics to the east of the Suncoast Parkway indicates that three new corridors could be developed for the evaluation of the Ayers Road Extension.

A comparison of the effects of each evaluated alternative corridor is shown in Table 3-1. Table 3-1 was prepared using quantifiable criteria from categories including socioeconomic, environmental, cultural, hazardous material/petroleum contamination, and construction cost. The data were developed utilizing GIS databases and field verifications. A corridor band width of 183.0 m (600 ft) was utilized for the three corridors developed. In estimating the construction cost of each corridor, a cost of \$1.9 million/mile was used for new construction of a rural facility. However, only approximately 63.6 m (212 ft) of ROW will be needed within the corridor.

**TABLE 3-1
AYERS ROAD EXTENSION CORRIDOR MATRIX**

Evaluation Factor		Corridor 1	Corridor 2	Corridor 3
Type of Facility		Rural	Rural	Rural
Length		2.71 miles	2.91 miles	2.74 miles
Parcels Affected	Pasco	9	12	14
	Hernando	74	58	79
	Total	83	70	93
Right-of-Way Area hectares (acres) ¹		28.2 (69.6)	30.3 (74.8)	28.5 (70.4)
Number of Archaeological sites within the corridor	Previously Recorded	0	1	0
	Moderate Probability	2	5	2
	High Probability	1	2	1
Potential Threatened and Endangered Species Involvement		Yes	Yes	Yes
Wetland Area hectares (acres)		0.07 (0.18)	0.02 (0.06)	0.00 (0.00)
Contamination sites		2	2	2
Estimated Construction Cost (millions)		\$5.15	\$5.53	\$5.21

(1) Corridors 1, 2, and 3 will require the acquisition of approximately 212 ft of ROW

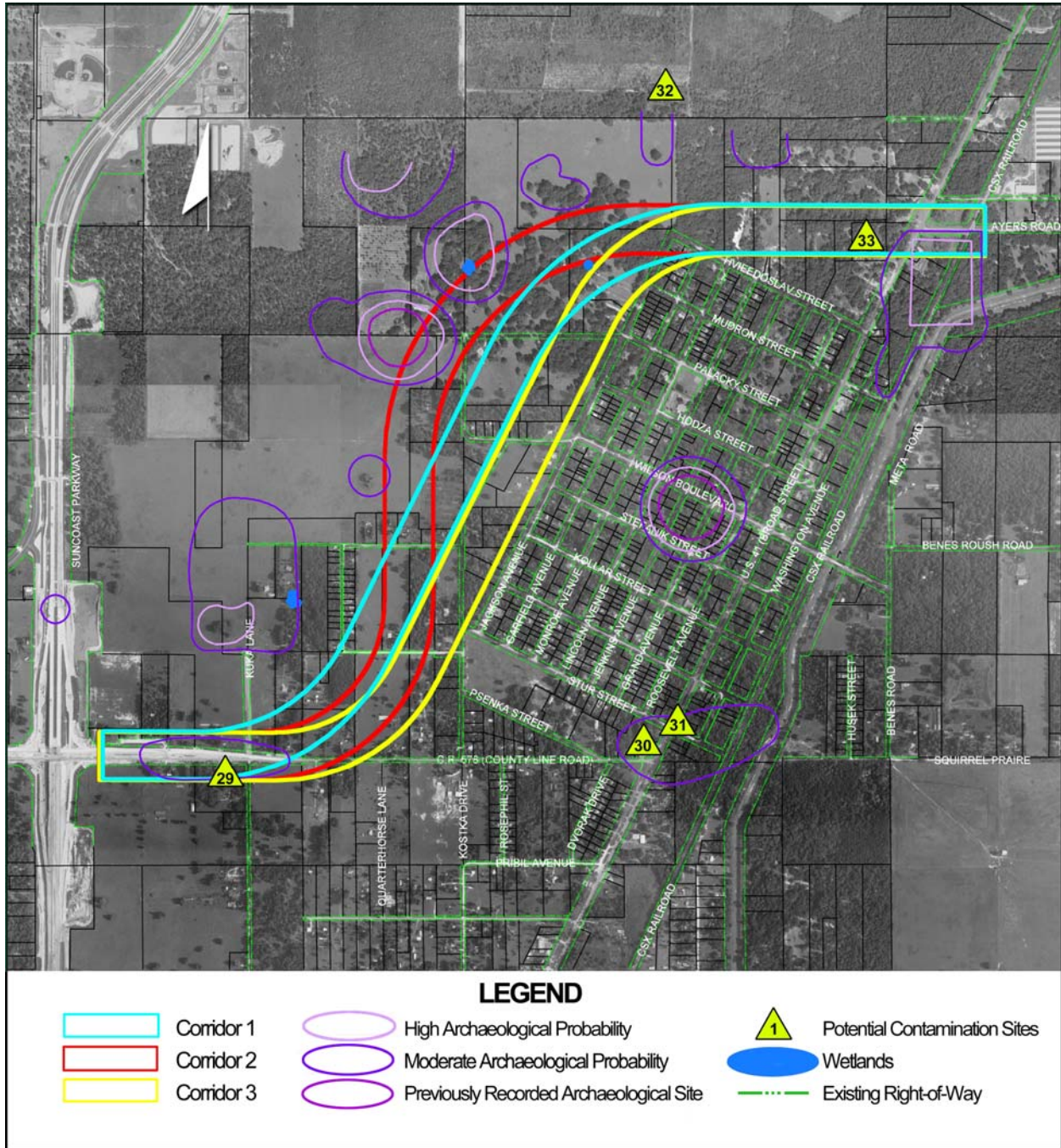
Based on the evaluation of the three alternative corridors developed for the Ayers Road Extension, the effects were found to be similar within each corridor and are compared below:

- Corridor 2 has the least number of parcels (70); and Corridor 3 has the greatest number of parcels (93).
- Corridor 2 has the highest number of Archaeological Site probability occurrence than either Corridors 1 or 3.
- Corridor 3 has the least involvement with wetland areas, 0.00 ha (0.00 ac) versus 0.07 ha (0.18 ac) for Corridor 1, which has the greatest wetland acreage.
- Corridor 2 has the highest construction cost, \$5.53 million versus \$5.15 million for Corridor 1, which has the least cost.

However, Corridor 2 would require sharper degrees of curvature than Corridors 1 and 3. Therefore, due to the high travel speed along this new facility, Corridors 1 and 3 would be more preferable since the proposed degrees of curvature are flatter.

Therefore, from the evaluation criteria in Table 3-1 and the Corridor alignments shown on Figure 3-4, Corridors 1 and 3 are recommended as viable options for further alignment development. Furthermore, it is recommended that Corridor 2 be eliminated as a viable alternative corridor.

**FIGURE 3-4
AYERS ROAD EXTENSION CORRIDORS**



3.4 IMPROVEMENT OF THE EXISTING CORRIDOR

As identified in Sections 3.2 and 3.3 of this report, improvement to a parallel corridor and the development of a new corridor from U.S. 19 to the Suncoast Parkway were not considered viable options. Therefore, utilizing the existing corridor from U.S. 19 to the Suncoast Parkway is the most viable corridor since adverse effects to residential communities would be minimized. However, accommodations of a four-lane divided facility will require additional ROW along the project corridor since there is not sufficient ROW along the majority of the project to construct the proposed improvements. In addition, improvement of this corridor is consistent with the *Pasco and Hernando County Metropolitan Planning Organizations (MPOs) 2020 Long Range Transportation Plans (LRTPs)*^{1,2}.

As noted in Sections 1.3 and 3.3 of this report, the *Hernando County MPO's 2020 LRTP*² has designated the portion of C.R. 578, from east of the Suncoast Parkway to U.S. 41, as a constrained facility. Therefore, no major improvements will be made to this existing facility.

3.5 CONCLUSION

The corridor analysis forms the basis for the selection of the viable corridors to be carried forward for detailed engineering, environmental and cost evaluation in developing alternative alignments.

Based on the analysis detailed in Sections 3.2, 3.3.1, and 3.4 of this report, improvement of the existing corridor from U.S. 19 to the Suncoast Parkway is the only viable corridor. Development of a left, right, and center alignment will be evaluated during the alternative analysis phase of the PD&E Study and will be presented to the public at the Public Information Workshop for comments.

As noted in Section 3.3.2 of this report, Corridors 1 and 3 for the Ayres Road Extension were deemed the most viable options for further development. The alternative analysis phase of the PD&E Study will develop an alignment in each corridor that will minimize adverse effects on the human and natural environment.

Section 4.0

AMENDMENT

Subsequent to the publication of the *Corridor Analysis Technical Memorandum, June 2000*, for C.R. 578, the FDOT, Pasco County, and Hernando County met to reevaluate the corridors recommended for the Ayers Road Extension. A meeting was held on August 7, 2000, to address the project and the potential impacts associated with the Ayers Road Extension. As a result of that meeting, several steps were identified that could potentially reduce impacts associated with the Ayers Road Extension. In addition, the eastern limit of the project along Ayers Road was extended to a point approximately 0.80 km (0.5 mi) east of the U.S. 41/Ayers Road intersection.

The first step in the development of additional corridors was to identify areas where the new alignment would have the least impact to the community. This process identified two new corridors, Corridors 4 and 5. Corridor 4 is located approximately along the same alignment as Corridor 1, but has been modified slightly to reduce impacts to residences and parcels. Corridor 5 is located west of the previously developed corridors, through less developed lands, to reduce the potential impacts. Both new corridors are shown on Figure 4-1.

To further reduce impacts, Corridors 4 and 5 were developed using the suburban typical section described in section 3.1.2 of this report, instead of the rural typical section used for Corridors 1, 2, and 3. As shown in Figure 3-2, the suburban typical section requires approximately 46.5 m (155 feet) of ROW as compared to the rural typical section in Figure 3-1, which requires approximately 63.6 m (212 ft) of ROW. By comparison, the suburban typical section will minimize impacts to the community by approximately 37 percent.

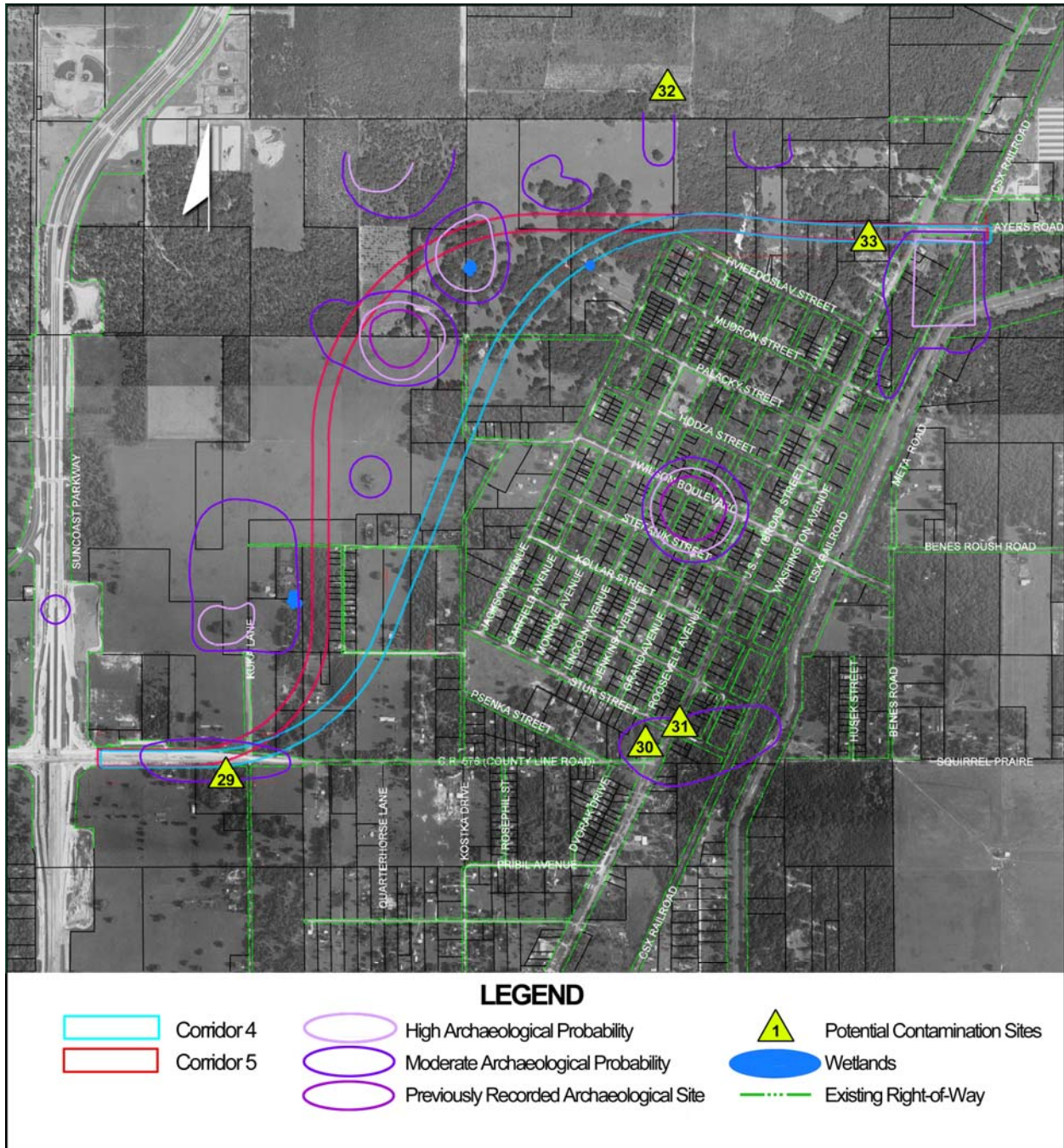
4.1 CORRIDORS 4 AND 5 EVALUATION

Like Corridors 1, 2, and 3, Corridors 4 and 5 were evaluated using the same quantifiable socioeconomic, environmental, cultural, contamination, and construction cost criteria. The evaluation data were developed using GIS databases with field verification. Due to the use of the smaller suburban typical section, the corridor bandwidth used to evaluate Corridors 4 and 5 was approximately 122.0 m (400 ft) rather than 183.0 m (600 ft). In estimating the construction cost for Corridors 4 and 5, a cost of \$2.9 million per mile was used for the construction of a suburban facility.

A comparison of the impacts and costs associated with Corridors 4 and 5 is shown in Table 4-1. Based on the evaluation of the two new corridors developed for the Ayers Road Extension, the effects were found to be similar within each corridor and are compared below:

- Corridor 4 is slightly shorter in length than Corridor 5.
- Corridor 4 affects fewer parcels (46) versus (52) for Corridor 5.

**FIGURE 4-1
AYERS ROAD EXTENSION CORRIDORS 4 AND 5**



- Corridor 4 requires less ROW than Corridor 5.
- Corridor 4 has a lower probability of archaeological site occurrence.
- Corridor 4 has a lower construction cost (\$10.2 million versus \$10.8 million).

- Corridor 5 incorporates slightly sharper degrees of curvature than Corridor 4, resulting in a more due-north/south alignment and a more westerly location.
- Corridor 5 results in no wetland impacts, while Corridor 4 impacts approximately 0.04 ha (0.11 ac).

**TABLE 4-1
AYERS ROAD EXTENSION CORRIDORS 4 AND 5 EVALUATION MATRIX**

Evaluation Factor		Corridor 1	Corridor 2
Type of Facility		Suburban	Suburban
Length		3.52 miles	3.73 miles
Parcels Affected	Pasco	6	5
	Hernando	40	47
	Total	46	52
Right-of-Way Area (hectares (acres)) ¹		18.9 (46.6)	21.6 (53.3)
Number of Archaeological Sites Within the Corridor	Previously Recorded	0	0
	Moderate Probability	3	5
	High Probability	1	2
Potential Threatened and Endangered Species Involvement		Yes	Yes
Wetland Area (hectares (acres))		0.04 (0.11)	0.00 (0.00)
Contamination Sites		2	2
Estimated Construction Cost (millions)		\$10.20	\$10.81

(1) Corridors 4 and 5 will require the acquisition of approximately 155 ft of ROW.

Based on a comparison to Corridors 1, 2, and 3, shown in Table 3-1, Corridors 4 and 5 compare favorably. Corridors 4 and 5 result in reduced parcel impacts, reduced ROW acquisition, and fewer wetland impacts. However, due to their suburban typical sections and extended length to the east of U.S. 41, Corridors 4 and 5 have higher estimated construction costs.

4.2 AMENDMENT TO CONCLUSION

As stated previously, the corridor analysis forms the basis for the selection of the viable corridors to be carried forward for detailed engineering, environmental, and cost evaluation in developing alternative alignments.

Based on the evaluation results documented in Table 4-1, both Corridors 4 and 5 result in fewer overall impacts than Corridors 1, 2, and 3. However, due to their suburban typical sections and greater project length, they result in higher estimated construction costs. Based on the reduction of parcel, relocation, and wetlands impacts associated with Corridors 4 and 5, Corridors 1, 2, and 3 have been dropped from further consideration.

Corridors 4 and 5 will be carried forward as the most viable options for further refinement and development. The alternatives analysis phase of the C.R. 578 PD&E Study will develop alignments within each corridor that will minimize adverse effects on the human and natural environments.

Section 5.0

REFERENCES

1. *Pasco County Metropolitan Planning Organizations (MPOs) 2020 Long Range Transportation Plan*; Pasco County.
2. *Hernando County Metropolitan Planning Organizations (MPOs) 2020 Long Range Transportation Plan*; Hernando County.
3. *Pasco County Comprehensive Plan*; Pasco County Board of County Commissioners, Pasco County Planning Commission, Pasco County Administrator and Florida Land Design & Engineering, Inc.; Pasco County, Florida; Amended April 1995.
4. *Hernando County Comprehensive*, Hernando County Planning Department; Hernando County, Florida; Amended December 22, 1998.
5. *National Register of Historic Places*; Division of Archives, History and Records Management; Tallahassee, Florida.
6. *Project Development and Environment Manual*; Florida Department of Transportation; Tallahassee, Florida; August 1996.