

DRAFT
PRELIMINARY ENGINEERING REPORT

**Florida Department of Transportation
District One
SR 29 Project Development and Environment (PD&E) Study
from Oil Well Road to SR 82
Collier County, Florida**

Financial Management Number: 417540-1-22-01
ETDM Project No.: 3752

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016, and executed by FHWA and FDOT.

_____/_____/_____
Date

William G. Howell, P.E.
P.E. No. 37284

PROFESSIONAL ENGINEER CERTIFICATE

I hereby certify that I am a registered professional engineer in the State of Florida practicing with **H. W. Lochner, Inc.**, and that I have supervised the preparation of, and approved the analysis, findings, opinions, conclusions, and technical advice reported in:

REPORT: Draft Preliminary Engineering Report

PROJECT: SR 29 PD&E Study from Oil Well Road to SR 82

LOCATION: Collier County

WPI SEGMENT NO.: 417540-1

CLIENT: Florida Department of Transportation – District One
District Environmental Management Office

The following duly authorized engineering business performed the engineering work presented by this report:

H. W. Lochner, Inc.
4350 W. Cypress Street, Suite 800
Tampa, Florida 33607
Telephone: (813) 357-3750
Florida Certificate of Authorization: 894

This *Preliminary Engineering Report* contains detailed engineering information that fulfills the purpose and need for the proposed improvements of SR 29 from Oil Well Road to SR 82 in Collier County, Florida.

I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through design standards and criteria set forth by the federal, state, and local regulatory agencies as well as professional judgement and experience.

Name: William G. Howell, P.E.

Signature: _____

P.E. Number: 37284

Date: _____

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1.0

PROJECT SUMMARY

1.1 Project Description

The Florida Department of Transportation (FDOT) District One is conducting a Project Development and Environment (PD&E) Study, in accordance with the National Environmental Policy Act (NEPA), to assess the need for capacity and traffic operational improvements along a two-lane undivided section of SR 29 extending 15.6 miles from Oil Well Road [southern terminus] to SR 82 [northern terminus] in unincorporated Collier County, Florida. **Figure 1.1** Project Location Map shows the location of the project.

The PD&E Study for this project commenced in 2007. The PD&E Study provides documented environmental and engineering analyses to assist FDOT in reaching a decision on the location and conceptual design for improvements to SR 29. Additional products of the PD&E Study include preliminary engineering conceptual plans, environmental studies, a public outreach program, and other information that can be referred to during the final design of the project.

SR 29 is classified as a rural principal arterial from Oil Well Road to south of Farm Worker Way and from north of Westclox Street/New Market Road W (CR 29A) to SR 82. Classification for SR 29 is designated as an urban principal arterial from south of Farm Workers Way to north of Westclox Street/New Market Road W (CR 29A). SR 29 is also designated as a Strategic Intermodal System (SIS) Emerging Highway Corridor.

The project study area includes the unincorporated community of Immokalee, which is surrounded by agricultural and undeveloped lands, much of which is primary and secondary habitat for the Florida panther. The Immokalee Regional Airport is a predominant feature of the area.

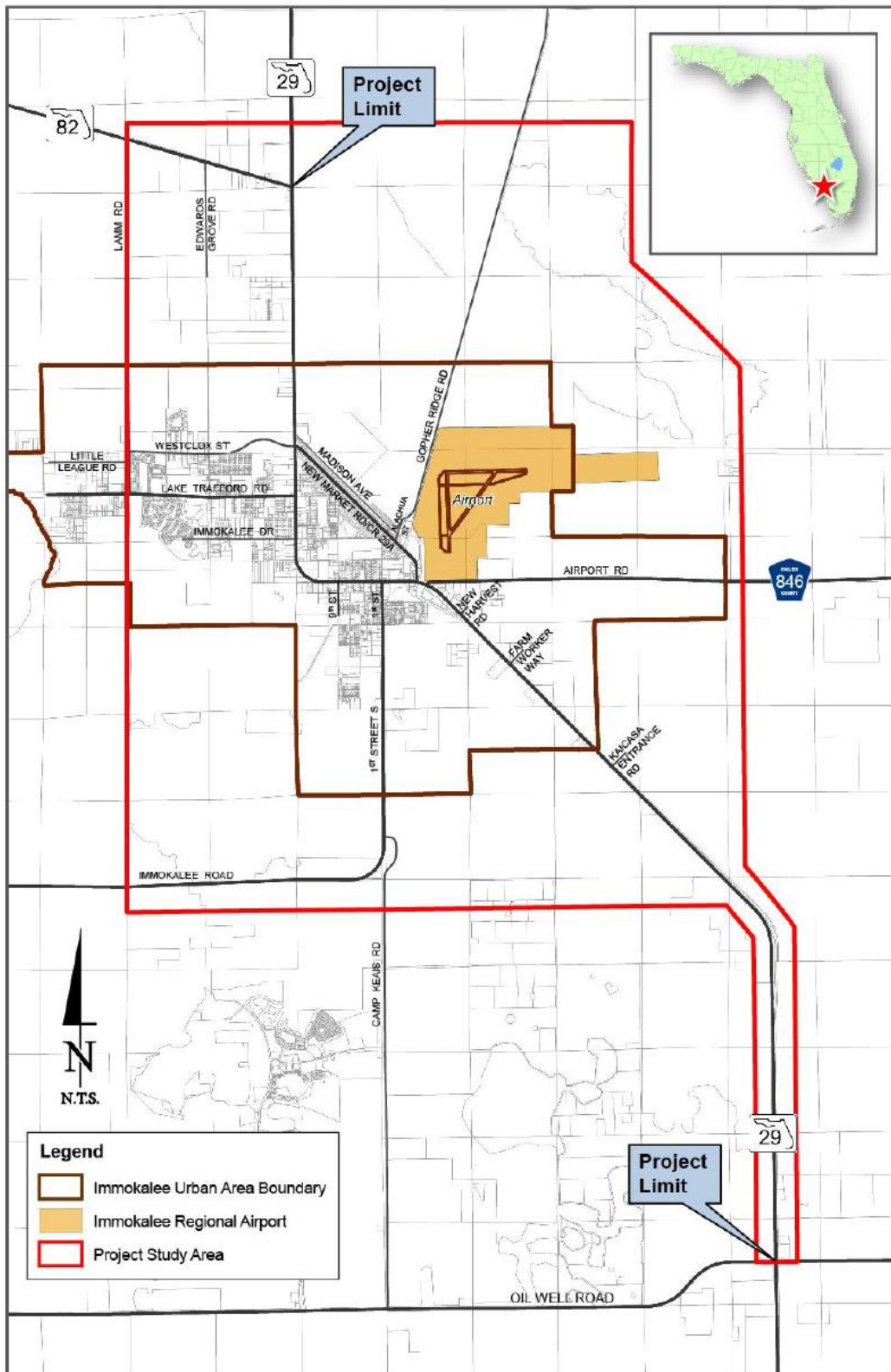
1.2 Purpose and Need

The purpose of this project is to improve traffic operational conditions along the SR 29 corridor between Oil Well Road and SR 82 to meet the following needs:

Accommodate Future Growth

Significant growth is anticipated to take place within the greater Immokalee area as indicated by the presence of the Town of Ave Maria Development of Regional Impact and number of Planned Unit Developments. Based on 2010 U.S. Census Bureau data and projections developed for Collier County as part of the Collier Metropolitan Planning Organization's (MPO) 2040 Long Range Transportation Plan (LRTP), population within Collier County is projected to grow from

Figure 1.1



316,739 in 2010 to 497,702 in 2040 (57.1% increase). Likewise, Collier County employment is projected to grow from 170,862 in 2010 to 241,111 in 2040 (41.1% increase). According to the 2018 Design Traffic Technical Memorandum prepared for the project, the majority of the SR 29 corridor operates at or above the FDOT Levels of Service (LOS) C and D adopted for the roadway; only a small segment of the project corridor [from New Market Road to SR 82] operates below the adopted standard. However, if no improvements occur to the roadway, the majority of the SR 29 corridor is anticipated to operate under deficient conditions [with most segments operating at LOS F] by the 2045 design year. The improvement will:

- Enhance traffic operations and preserve operational capacity to accommodate projected travel demand spurred by increased growth as well as freight and commuter traffic [specifically truck traffic].
- Enhance the projected 2045 LOS for the corridor [with the exception of one segment that is anticipated to remain deficient].

Reduce Truck Traffic in Downtown Immokalee

Truck traffic currently represents 16.0% of the total volume of daily traffic along the SR 29 project segment. The Design Hour Truck is 8.0%; this is the percentage of trucks expected to use a highway segment during the 30th highest hour of the design year [2045]. Truck traffic in the corridor is projected to increase as a result of growth in the area. The project improvement will:

- Provide an alternative route for regional truck traffic trips.
- Enhance the livability of downtown Immokalee by reducing the conflicts between pedestrians/bicyclists and trucks, creating a more pedestrian friendly environment.
- Enhance the economic viability of downtown Immokalee.

Correct Current Design Deficiencies

The design of existing SR 29 is deficient given the present use of the roadway and current FDOT standards. The deficiencies include excessive access points, substandard curves limiting sight distances and design speeds, and locations with substandard shoulders and turn lanes. The proposed improvements will:

- Update the roadway to current design standards, increasing overall safety by reducing the potential exposure to conflict points associated with deficient existing design and access issues.
- Increase sight distances along the roadway.
- Provide sidewalks and bicycle lanes where none currently exist.

Improve Mobility and Connectivity within the Regional Transportation Network

SR 29 is a major central Florida interregional highway corridor as it traverses Collier, Hendry, and Glades Counties providing access to US 41 and I-75 to the south and SR 82, SR 80, and US 27 to the north. Through the southern portion of the state, SR 29 primarily runs parallel to other major north-south transportation facilities [I-75 and US 27]. In addition to I-75 and SR 82, SR 29 is part

of Florida's SIS network serving fast growing economic regions and a Rural Area of Opportunity. SR 29 is also one of four designated Freight Mobility Corridors in Collier County providing a north-south connection between I-75 and regional freight activity centers. The project improvements proposed along SR 29 are intended to:

- Complement plans to widen other sections of the SR 29 corridor to the north and south thereby 1) providing a continuous four-lane connection from I-75 to US 27 in Glades County, 2) alleviating a potential traffic bottleneck that could occur if no improvements take place on SR 29 from Oil Well Road to SR 82, and 3) improving the viability of SR 29 to serve as a parallel north-south alternative to north-south portions of I-75 and US 27.
- Enhance the circulation and movement of goods between existing and emerging freight facilities in south-central Florida. The SR 29 project improvements are an essential component of a unified approach that addresses the critical freight needs of the overall SR 29 corridor.
- Enhance access to major north-south facilities [I-75 and US 27] and connections to major east-west transportation corridors [SR 82], as well as residential and employment centers throughout Collier County.

Enhance Economic Competitiveness

On January 26, 2001, Immokalee was designated by Executive Order 04-250 as a Rural Area of Critical Economic Concern (now titled Rural Area of Opportunity). In addition to the Immokalee area being targeted for growth by Collier County, the area surrounding Collier County Immokalee Regional Airport is defined as a Primary Freight Activity Center as it supports industrial activities and agricultural packing and processing functions. A 60-acre portion of this area is a designated Foreign Trade Zone, a designation used to encourage activity and add value at facilities in competition with foreign companies. SR 29 also serves as an Emerging Strategic Intermodal System (SIS) highway corridor carrying high volumes of truck traffic and connecting to other SIS facilities [I-75 and SR 82]. This project will:

- Enhance the economic viability of the area by providing the infrastructure needed to bring additional businesses and employers into the area.
- Improve the circulation of goods as SR 29 serves as a key intrastate freight corridor providing access to local agricultural and ranching operations, as well as to fast growing economic regions located in central Florida and the populated coastal areas.

Improve Emergency Evacuation Capabilities

SR 29 is designated as a hurricane evacuation route by the Florida Division of Emergency Management. This facility is critical in evacuating residents of the eastern portion of Collier County. The project improvement will:

- Increase the capacity of traffic that can be evacuated during an emergency event.
- Enhance emergency response times.

- Enhance connections to other major arterials designated on the state evacuation route network, including SR 82 and north to US 27.

1.3 Commitments

The FDOT is committed to the following measures to minimize impacts to the human and natural environment:

- The most recent version of the FWS' *Standard Protection Measures for the Eastern Indigo Snake* will be adhered to during the construction of the proposed project.
- A wildlife crossing will be incorporated into the proposed roadway design. Currently FDOT anticipates a crossing near the Owl Hammock curve based upon prior coordination with the FWS. Details of this crossing will be developed as part of Section 7 consultation with FWS during the design and permitting phase of the project.
- The FDOT will follow the FDOT *Supplemental Standard Specification 7-1.4.1 Additional Requirements for the Florida Black Bear* to minimize human-bear interactions associated with construction sites during project construction.
- Based on coordination with the FWS, to comply with Section 7 of the Endangered Species Act of 1973, as amended, the FDOT will reinitiate consultation with the FWS for the Florida scrub jay and Florida panther, and all other species for which a MANLAA determination has been made, during the design and permitting phase of the project. At this time, the FDOT will provide additional information, as needed, that will allow the FWS to complete their analysis of the project's effects on these species and complete consultation on the project.
- A land use review will be conducted during the design phase to identify noise sensitive sites that may have received a building permit subsequent to the noise study but prior to the Date of Public Knowledge (i.e., the date that the environmental document has been approved by the FDOT Office of Environmental Management). If the review identifies noise sensitive sites that have been permitted prior to the Date of Public Knowledge, then those sensitive sites will be evaluated for traffic noise and abatement considerations.

Additional commitments may be included in the final edition of this report, following completion of agency coordination and the Public Hearing.

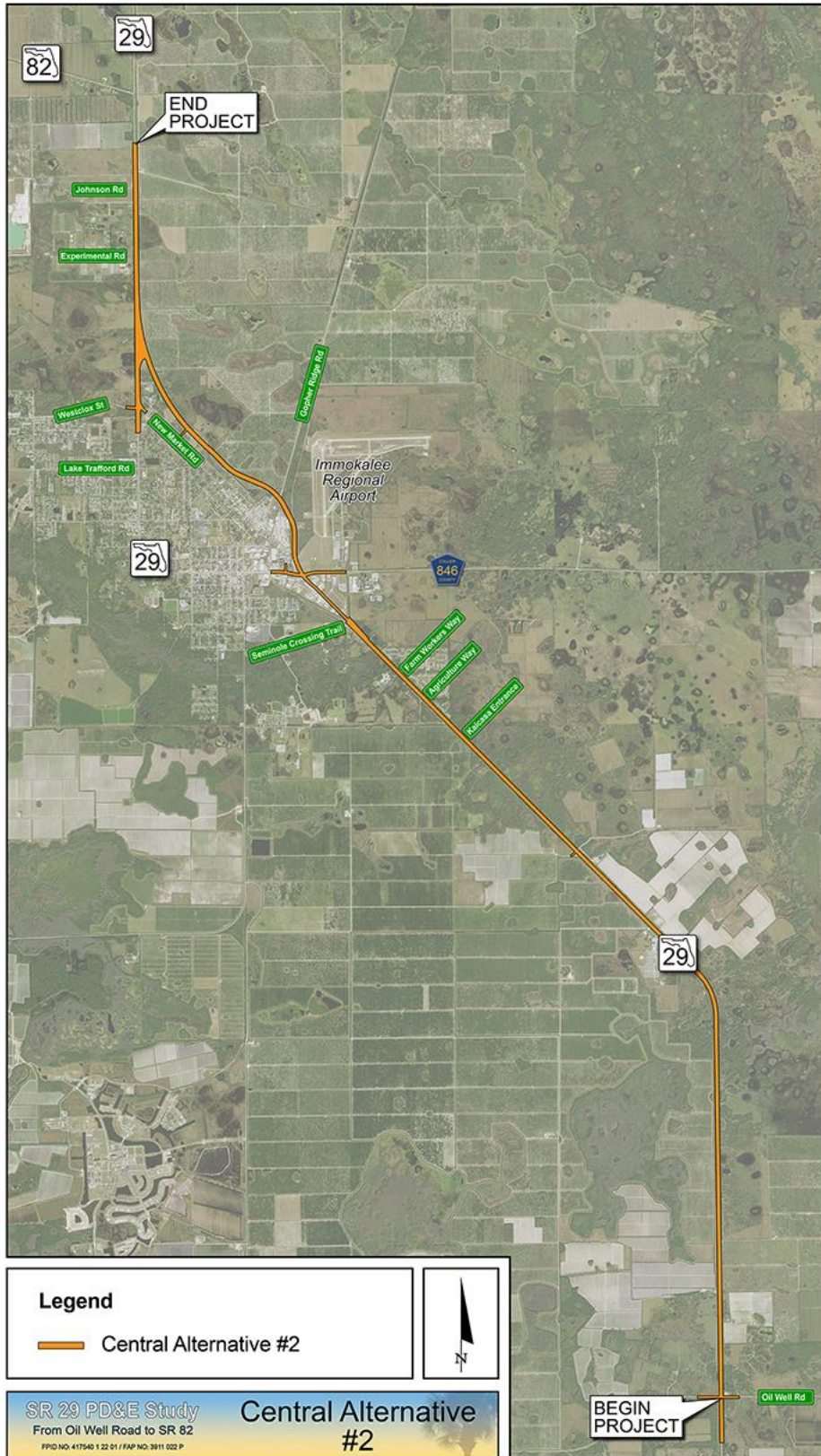
1.4 Description of Recommended Alternative

The Recommended Alternative is Central Alternative #2. It provides a 4-lane divided typical section with travel lanes varying between 11 feet and 12 feet wide. Right of way (ROW), median type and width, and bicycle and pedestrian accommodations vary along the build alternatives. Central Alternative #2 follows the existing SR 29 from the start of the project at Oil Well Road to north of Seminole Crossing Trail. From this point, Central Alternative #2 travels north from SR 29 on new alignment along the west side of the Immokalee Regional Airport to avoid the

commercial/industrial areas of Immokalee and the State Farmers Market to the west. The alternative then turns to the northwest just past Gopher Ridge Road to parallel Madison Avenue and New Market Road. It then travels along the east side of Collier Health Services Medical Center and the Florida State University College of Medicine before reconnecting to SR 29 north of Westclox Street/New Market Road W. Central Alternative #2 follows the existing alignment of SR 29 from north of Westclox Street/New Market Road to the project terminus near SR 82. A partial two-lane roundabout is proposed at SR 29 and Westclox Street/New Market Road W.

Figure 1.2 shows the location of Central Alternative #2. **Table 1.1** provides the evaluation matrix for the Recommended Alternative. Conceptual roadway plans are included in **Appendix A**. The signed typical section package is provided in **Appendix B**.

**Figure 1.2
Recommended Alternative**



**Table 1.1
Recommended Alternative Evaluation Matrix**

Evaluation Criteria	No-Build Alternative	Central Alternative #2
Design Features		
Length (miles)	15.59 miles	16.38 miles
Traffic Control Measures	Stop Control and Traffic Signals	Traffic Signals & Roundabout
Travel Lane Width (feet)	12 feet	11 to 12 feet
Posted Speed - Subject to change pending speed study after construction	35 to 60 miles per hour (MPH)	40 to 60 (MPH)
ROW Impacts		
Area of ROW to be Acquired for Roadway (acres)	0	77.82
Area of ROW to be Acquired for Stormwater Ponds/Floodplain Compensation Sites (acres)	0	104
Business Impacts		
Number of Business Relocations	0	1
Number of Parcels Impacted	0	4
Residential Impacts		
Number of Residential Relocations	0	0
Number of Parcels Impacted	0	0
Environmental Impacts		
Number of Historical Sites Impacted (National Register of Historic Places (NRHP) Listed/Eligible)	0	0
Number of Archaeological Sites Impacted (NRHP Listed/Eligible)	0	0
Number of Public Recreational Facilities/ Parks Impacted	0	1
Area of Wetlands – Roadway (acres)	0	14.33
Area of Surface Waters – Roadway (acres)	0	15.41
Area of Floodplain Encroachment (acres)	0	25.36
Potential Threatened and Endangered Species Impacts (none, low, medium, high)	None	Medium
Number of Potential Petroleum or Hazardous Materials Contaminated Sites	0	67 (31 Medium or High Risk)
Number of Receivers Potentially Impacted By Noise	0	2
Estimated Total Project Costs (2018 cost)		
Engineering Design (15% of Construction Cost)	\$0	\$16,386,000
Wetland Mitigation	\$0	\$1,800,000
Wildlife Habitat Mitigation	\$0	\$4,396,000
Utilities Relocation	\$0	\$0
Intelligent Transportation Systems (ITS)/Advanced Traffic Management Systems (ATMS) Relocation	\$0	\$227,000
ROW Acquisition	\$0	\$18,300,000
Construction	\$0	\$109,241,000
Construction Engineering and Inspection (15% of Construction Cost)	\$0	\$16,386,000
Preliminary Estimate of Total Project Cost	\$0	\$166,736,000

TBD = To Be Determined

2.0

EXISTING CONDITIONS

Existing roadway conditions described in the following section of this report were derived from available as-built plan sets, aerial photography, and site visits along SR 29 within the project limits, and along New Market Road from SR 29 (East Main Street) to SR 29 (North 15th Street). New Market Road is included as it provides a potential corridor for a SR 29 Bypass.

2.1 Functional Classification

The functional classification according to the FDOT Straight Line Diagram for SR 29 (Roadway Identification Number 03080000) is Rural Principal Arterial Other from Oil Well Road to approximately 0.43 miles south of Agriculture Way and from Westclox Street/New Market Road to SR 82. From approximately 0.43 miles south of Agriculture Way to Westclox Street/New Market Road, SR 29 is Urban Principal Arterial Other. SR 29 is owned and maintained by FDOT and is designated as an Emerging SIS Highway Corridor throughout the study area.

The functional classification according to the FDOT Florida Transportation Information 2016 for New Market Road (Roadway Identification Number 03580000) is Urban Major Collector from SR 29 (East Main Street) to SR 29 (North 15th Street). New Market Road (CR 29A) is owned and maintained by Collier County.

2.2 Access Management Classification

The existing access classification along SR 29 from Oil Well Road (Milepost 27.208) to New Harvest Road (Milepost 36.243) is Access Class 4.

The existing access classification along SR 29 from New Harvest Road (Milepost 36.243) to Hancock Street (Milepost 37.934) is Access Class 7.

The existing access classification along SR 29 from Hancock Street (Milepost 37.934) to Westclox Street/New Market Road (Milepost 39.819) is Access Class 5.

The existing access classification along SR 29 from Westclox Street/New Market Road (Milepost 39.819) to SR 82 (Milepost 42.798) is Access Class 3.

New Market Road does not have an access classification, as it is an off-system roadway.

2.3 Land Use

Existing Land Use

Agricultural land uses (consisting mostly of pasture land, citrus groves, and cultivated row crops) are predominant north and south of the urban boundary of Immokalee along the SR 29 project corridor. Agricultural land also exists on the east side of the project limits. Land activities primarily within the core of Immokalee include residential (fixed single family dwelling units), industrial, and commercial with pockets of institutional uses. The commercial and industrial activities are located in the project area near the Immokalee Regional Airport. Land along existing SR 29 within the Immokalee area consists of residential (a mix of low, medium, and high density dwelling units) and commercial uses. A number of PUD's additionally exist within the project vicinity. The Town of Ave Maria Development of Regional Impact is located southwest of the project corridor. Further, the Seminole Tribe of Indians Immokalee Reservation is located to the west of the SR 29 project corridor within the Immokalee urban boundary.

Other notable land use designations within the project area include:

- Big Cypress Area of Critical State Concern – located to the east of the southern portion of the SR 29 project corridor,
- Collier County Rural Lands Stewardship Area Overlay – the entire project corridor is within this overlay with the exception of the project segment that traverses Immokalee,
- Front Porch Community – South Immokalee Neighborhood – located south of CR 846/Main Street east of Hancock Street and west of the project corridor, and
- State of Florida designated Enterprise Zone [Immokalee (Collier County) EZ-1101] and a United States Department of Housing and Urban Development (HUD) designated Empowerment Zone/Enterprise Community (Empowerment Alliance of Southwest Florida Enterprise Community).

Future Land Use

As indicated through the 2012-2025 Future Land Use Map of the Collier County Growth Management Plan, with the exception of the project segment that traverses Immokalee, the remaining portion of the project will continue to occur within the Collier County Rural Lands Stewardship Area Overlay.

In 2012, the Community Redevelopment Agency (CRA) led the effort to gain input from stakeholders, residents, and businesses, which ultimately established a vision for the future of Immokalee. The currently proposed Future Land Use Map (that resulted from this effort) indicates that the area of Immokalee adjacent to the SR 29 Build Alternatives will continue to support residential, industrial, and commercial uses. Mixed commercial uses will be maintained along the existing SR 29 facility.

2.4 Typical Sections and Right of Way

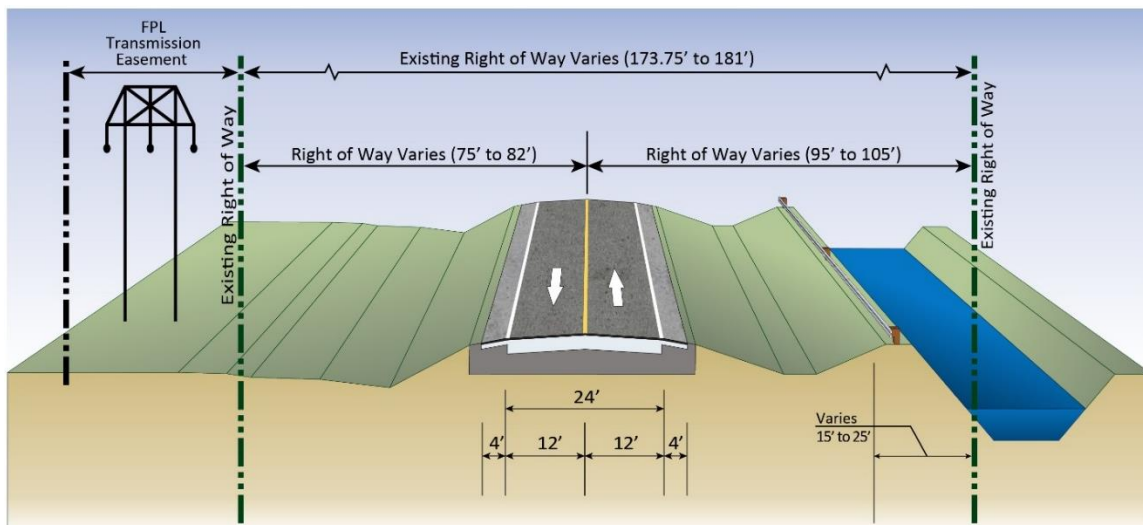
2.4.1 SR 29

Within the project limits, SR 29 can be divided into the following six typical sections:

From Oil Well Road to Farm Worker Way

SR 29 is a two-lane undivided roadway with one 12-foot lane in each direction and 4-foot shoulders on either side of the roadway. There is an open drainage system and the existing ROW varies from 173.75 feet to 181 feet. The posted speed limit along SR 29 from Oil Well Road to the proposed Kaicasa Entrance is 60 mph. The posted speed then decreases to 55 mph and then to 45 mph south of Agriculture Way. **Figure 2.1** depicts this typical section.

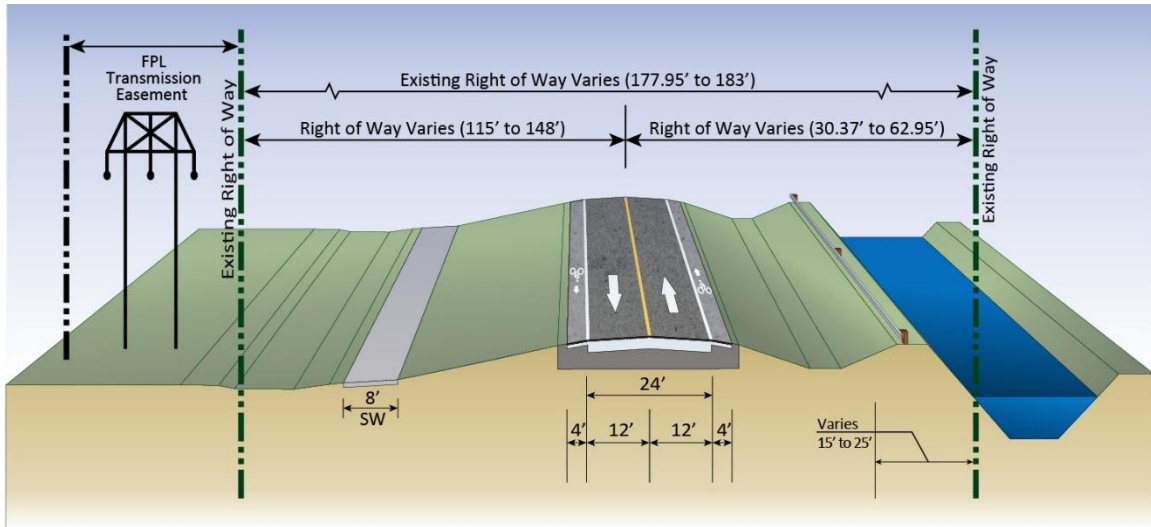
Figure 2.1
SR 29 Existing Typical Section from Oil Well Road to Farm Worker Way



From Farm Worker Way to Seminole Crossing Trail

SR 29 is a two-lane undivided roadway with one 12-foot lane in each direction, 4-foot shoulders on either side of the roadway designated as bike lanes, and an 8-foot sidewalk on the west side of the roadway. There is an open drainage system and the existing ROW varies from 177.95 feet to 183 feet wide. The posted speed limit is 45 mph. **Figure 2.2** depicts this typical section.

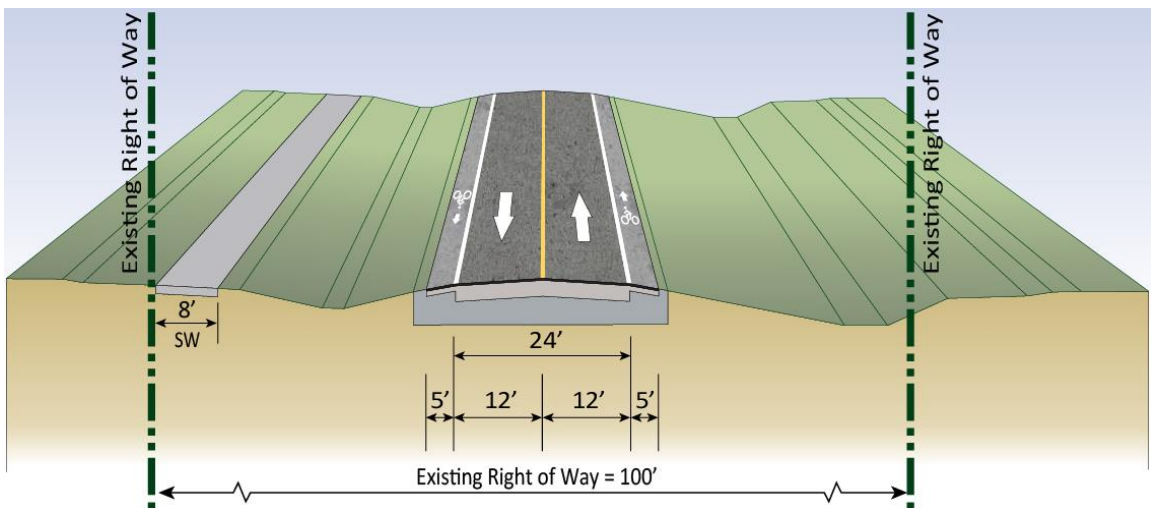
Figure 2.2
SR 29 Existing Typical Section from Farm Worker Way to Seminole Crossing Trail



From Seminole Crossing Trail to 13th Street

SR 29 is a two-lane undivided roadway with one 12-foot lane in each direction, 5-foot shoulders on either side of the roadway designated as bike lanes, and an 8-foot sidewalk on the west side of the roadway. There is an open drainage system and the existing ROW is 100 feet wide. The posted speed limit begins at 45 mph, then decreases to 35 mph at 13th Street. **Figure 2.3** depicts this typical section.

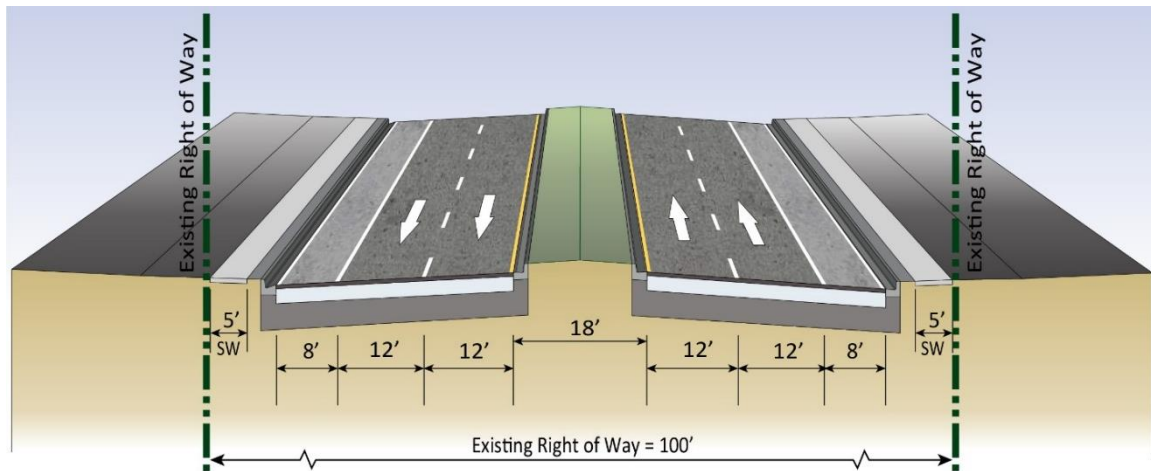
Figure 2.3
SR 29 Existing Typical Section from Seminole Crossing Trail to 13th Street



From 13th Street to North 9th Street

SR 29 is a four-lane divided roadway with two 12-foot through lanes and 8 feet of on-street parking on each side of the roadway, an 18-foot median, and 5-foot sidewalks on each side of the roadway. There is a closed drainage system with curb and gutter and the existing ROW is 100 feet wide. The posted speed limit is 35 mph. **Figure 2.4** depicts this typical section.

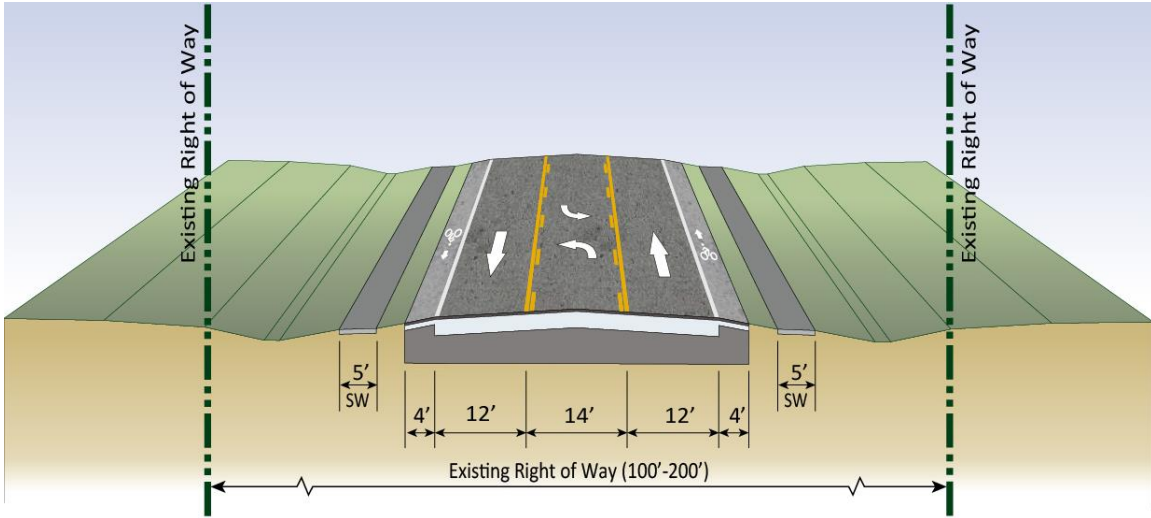
Figure 2.4
SR 29 Existing Typical Section from 13th Street to North 9th Street



From North 9th Street to Westclox Street/New Market Road W

SR 29 is a two-lane divided roadway with one 12-foot lane in each direction, 4-foot shoulders on either side of the roadway designated as bike lanes, a 14-foot bidirectional left turn lane, and 5-foot sidewalks on each side of the roadway. There is an open drainage system and the existing ROW varies from 100 feet to 200 feet wide. At North 9th Street, the posted speed limit on SR 29 is 40 mph. The posted speed limit increases again to 45 mph at 7th Avenue. **Figure 2.5** depicts this typical section.

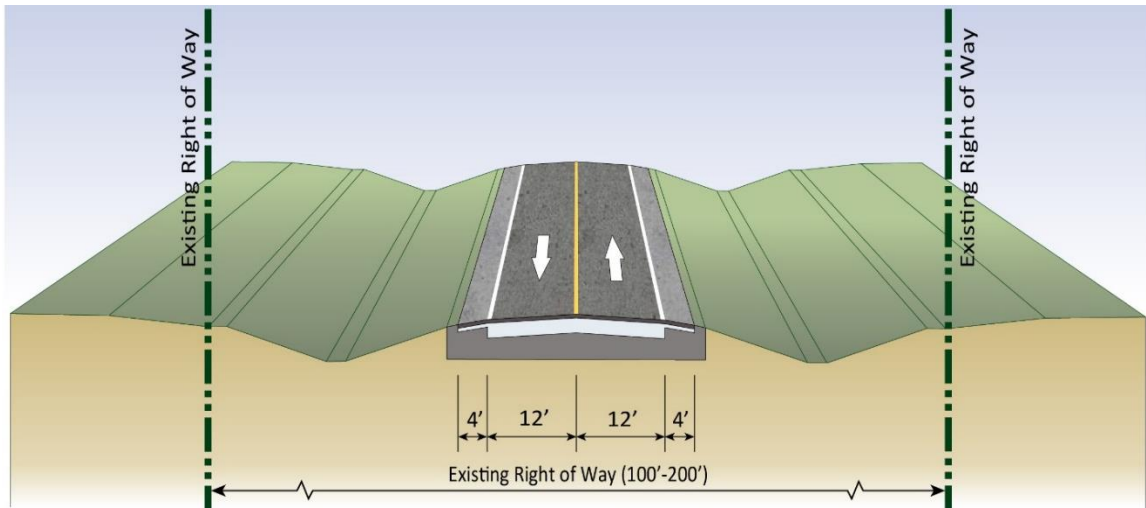
Figure 2.5
SR 29 Existing Typical Section from North 9th Street
to Westclox Street/New Market Road W



From Westclox Street/New Market Road W to South of SR 82

SR 29 is a two-lane undivided roadway with one 12-foot lane in each direction and 4-foot shoulders on either side of the roadway. There is an open drainage system and the existing ROW is 200 feet wide. The posted speed limit begins at 45 mph, then increases to 55 mph and 60 mph north of Westclox Street/New Market Road W and remains at 60 mph to SR 82. **Figure 2.6** depicts this typical section.

Figure 2.6
SR 29 Existing Typical Section from Westclox Street/New Market Road W
to South of SR 82



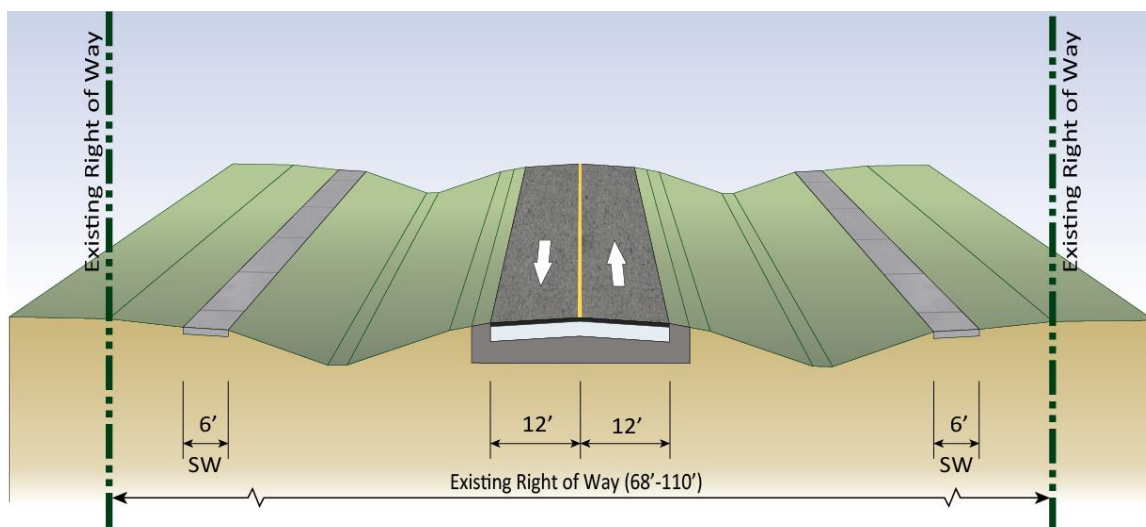
2.4.2 New Market Road

Within the project limits, New Market Road contains the following typical section:

From SR 29 South to SR 29 North

New Market Road is a two-lane undivided roadway with one 12-foot lane and a 6-foot concrete sidewalk in each direction, with no paved shoulders. There is an open drainage system. The ROW varies from 68 feet to 110 feet. The posted speed limit along New Market Road (CR 29A) from SR 29 South to Hendry Street is 35 mph and is 40 mph north of Hendry Street to SR 29 North. **Figure 2.7** depicts this typical section.

Figure 2.7
New Market Road Existing Typical Section from SR 29 South to SR 29 North



2.5 Pavement Conditions

According to the FDOT *All System Pavement Condition Forecast for Collier County* dated June 10, 2018, the 2018 Cracking Ratings for both the northbound and southbound lanes of SR 29 (Roadway ID 03080000) within the project limits are in good condition. Any rating less than 6.0 indicates that the pavement is deficient. **Table 2.1** identifies the existing pavement condition ratings for SR 29 from Oil Well Road to SR 82. Pavement conditions are not available for New Market Road.

Table 2.1
Pavement Condition Survey Results

Location	Direction	Beginning Mile Post	Ending Mile Post	Condition Category	Year 2018 Rating (0-10)
Oil Well Rd to MP 28.731	Northbound and Southbound	27.208	28.731	Cracking	10.0
				Ride	8.2
MP 28.731 to MP 34.341	Northbound and Southbound	28.731	34.341	Cracking	10.0
				Ride	8.0
MP 34.341 to Airport Rd	Northbound and Southbound	34.341	36.822	Cracking	10.0
				Ride	8.3
Airport Rd to S 9 th St	Northbound	36.822	37.846	Cracking	9.0
				Ride	7.7
Airport Rd to S 9 th St	Southbound	36.822	37.846	Cracking	8.5
				Ride	7.8
S 9 th St to Lake Trafford Rd	Northbound and Southbound	37.846	39.140	Cracking	10.0
				Ride	7.7
Lake Trafford Rd to CR 29A	Northbound and Southbound	39.140	39.954	Cracking	9.0
				Ride	7.8
CR 29A to SR 82	Northbound and Southbound	39.954	42.798	Cracking	8.5
				Ride	8.0

2.6 Vertical and Horizontal Alignment

There are a total of five horizontal curves within the study limits, as shown in **Table 2.2**. All of these curves along SR 29 meet the required minimum curve length as described in the *FDOT Design Manual (FDM)*, Chapter 210, Table 210.8.1. Though New Market Road is an off-system roadway, it is being considered as a potential corridor for a SR 29 Bypass. As such, it should be noted that the curves along New Market Road do not meet the required minimum curve length as described in the FDM, Chapter 210, Table 210.8.1 and would require reconstruction if utilized as part of a SR 29 Bypass.

The topography in the study corridor is relatively flat for the entirety of the project limits.

**Table 2.2
Existing Horizontal Alignment**

Horizontal Curve Station			Radius (ft.)	DELTA (Deflection Angle)	DELTA (RT or LT)	Degree of Curve	Tangent Length (ft.)	Length (ft.)	Design Speed (MPH)	Min Length Per FDM (ft.)	Is FDM Min Length Met?
P.C.	P.I.	P.T.									
SR 29											
213+64.98	227+06.10	239+09.94	3,305.54	44° 07' 10"	LT	1° 44' 00"	1,341.12	2,543.96	60	900	Yes
514+08.18	526+06.74	536+73.30	2,864.80	45° 22' 00"	LT	2° 00' 00"	1,198.56	2,265.12	45	675	Yes
589+79.70	625+64.82	615+45.78	1,637.03	89° 45' 30"	RT	3° 30' 00"	3,585.12	2,566.08	40	600	Yes
New Market Road											
19+72.31	22+35.84	24+72.10	637.50	44° 55' 11"	LT	8° 59' 15"	263.54	499.80	35	525	No
123+34.40	124+41.96	125+38.38	260.00	44° 57' 00"	LT	22° 02' 13"	107.56	203.98	45	675	No

2.7 Intersection Layout

There are six (6) signalized and four (4) stop controlled study intersections with the study limits. All intersections are at-grade. **Figure 2.8** shows the lane geometry of each of the study intersections along SR 29 and New Market Road.

The signal control design for each of the six (6) signalized intersections are described as follows:

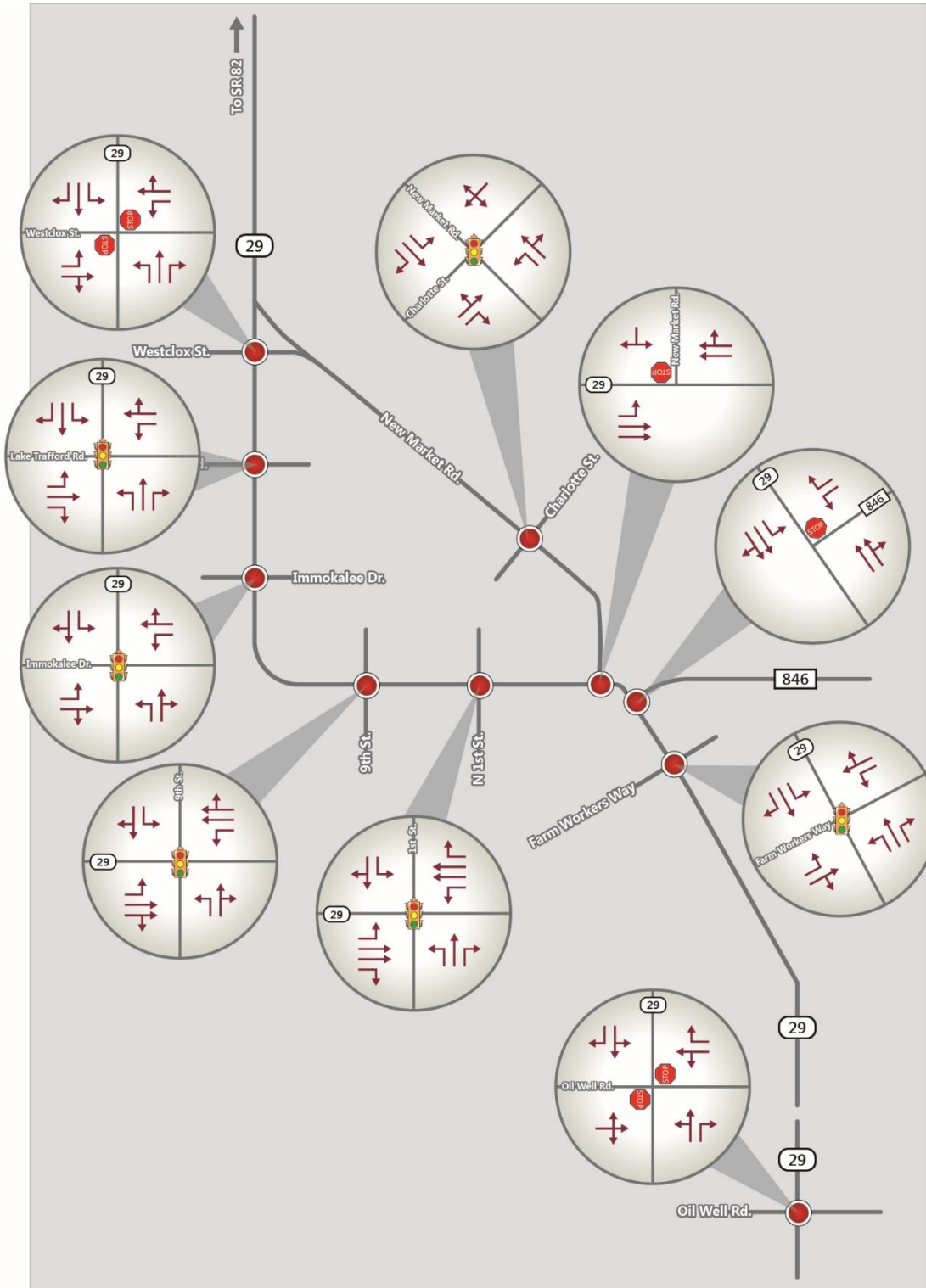
The intersection at SR 29 and Farm Worker Way is a conventional signalized intersection. All left turn movements are permitted. The intersection has a span wire crossing from the northwest corner to the southeast corner of the intersection. All approaches have two signal heads.

The intersection at SR 29 and North 1st Street is a conventional signalized intersection. All left turn movements are protected and permitted. The intersection has four single mast arm signal poles. The northbound and southbound approaches have two signal heads and the eastbound and westbound approaches have three signal heads.

The intersection at SR 29 and North 9th Street is a conventional signalized intersection. The northbound left turn movement is protected and permitted and all other left turn movements are permitted. The intersection has four single mast arm signal poles. All approaches have two signal heads.

The intersection at SR 29 and Immokalee Drive is a conventional signalized intersection. All left turn movements are permitted. The intersection has four span wires, one crossing each approach leg. All approaches have two signal heads.

Figure 2.8
Existing (2017) Intersection Layout



 N.T.S.
 Intersection Geometry

The intersection at SR 29 and Lake Trafford Road is a conventional signalized intersection. The northbound left turn movement is protected and permitted and all other left turn movements are permitted. The intersection has four span wires, one crossing each approach leg. All approaches have two signal heads.

The intersection at New Market Road and Charlotte Street is a conventional signalized intersection. All left turn movements are permitted. The intersection has four single mast arm signal poles. All approaches have two signal heads.

2.8 Multimodal Accommodations

2.8.1 Pedestrian and Bicycle Facilities

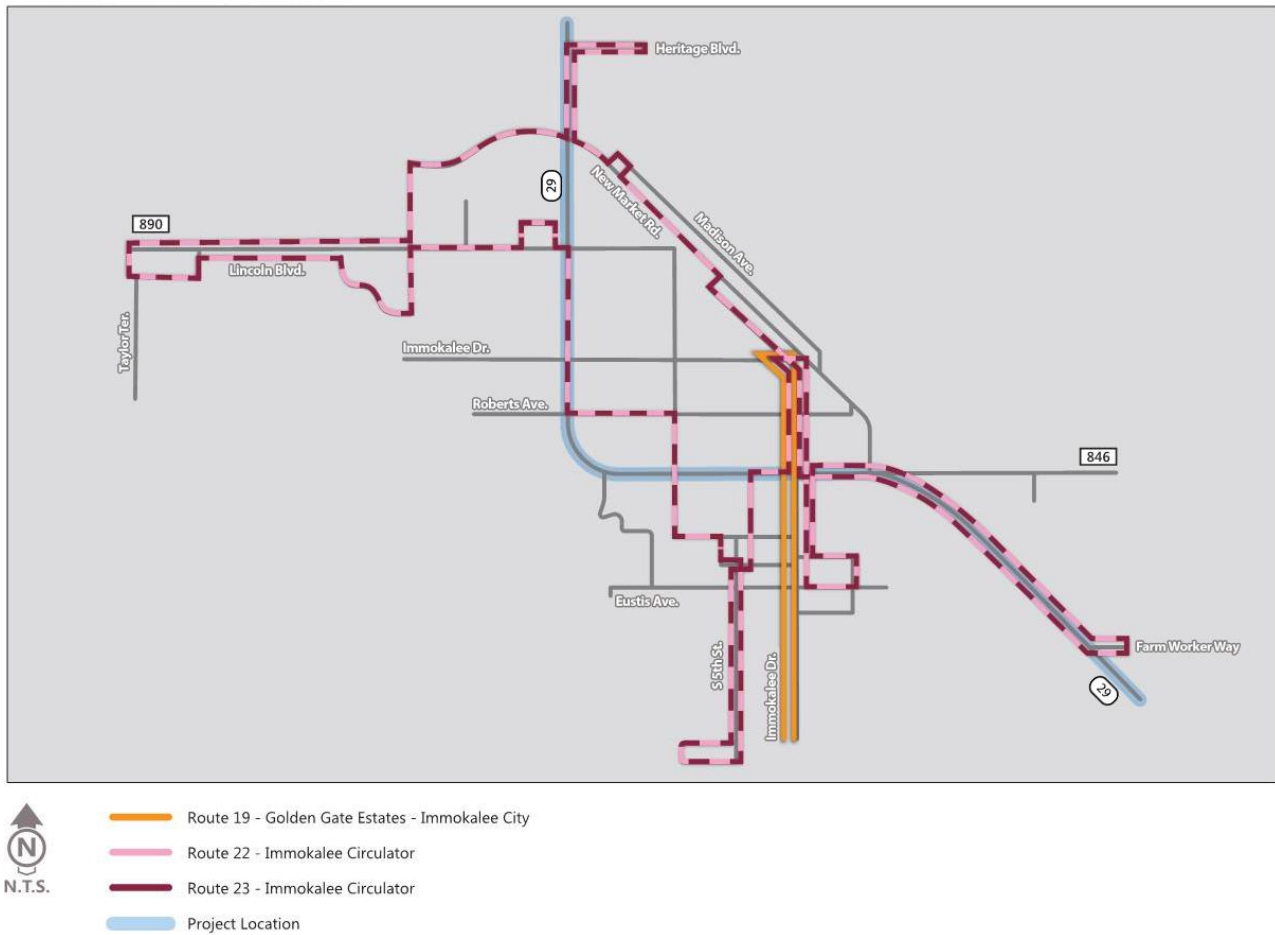
Within the rural sections of SR 29, from Oil Well Road to south of Farm Worker Way and from north of Westclox Street/New Market Road W to SR 82, there are no pedestrian accommodations. At SR 29 and Farm Worker Way, there is a grade-separated pedestrian bridge to accommodate students traveling to/from Village Oaks Elementary School. Along SR 29 from Farm Worker Way to New Market Road, there is a continuous sidewalk on the west side of the corridor. Along SR 29 from New Market Road to Westclox Street/New Market Road and along the entirety of New Market Road, there are continuous sidewalks on both sides of the corridors. Along the majority of SR 29 and New Market Road, the sidewalks vary from five to eight feet wide and have a continuous grass buffer or on-street parking buffer. There are crosswalks at each of the signalized intersections along SR 29 and New Market Road within the study area. Also, there are three midblock crossings along SR 29 from North 1st Street to North 9th Street.

Within the rural sections of SR 29, from Oil Well Road to south of Farm Worker Way and from north of Westclox Street/New Market Road W to SR 82, a paved shoulder of five feet exists on either side of the roadway. There are no bicycle accommodations along the entirety of New Market Road or along SR 29 from North 1st Street to North 9th Street. Along SR 29 from south of the Farm Worker Way to 13th Street and from North 9th Street to north of Westclox Street/New Market Road W, there are designated four to five foot bicycle lanes on either side of the roadway.

2.8.2 Transit Facilities

Collier Area Transit (CAT) is the transit service provider for Collier County. CAT Routes 19, 22, and 23 travel along SR 29 and/or New Market Road through some portion of the study area. **Figure 2.9** shows the CAT bus routes along and around SR 29 and New Market Road within the study corridor.

**Figure 2.9
CAT Bus Routes**



2.9 Drainage System Inventory

2.9.1 Floodways/Floodplains

The Federal Emergency Management Agency (FEMA) has designated locations of the 100-year base floodplain within the project corridor. The entire project is within Zone AH, which is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from detailed hydraulic analyses are shown at selected intervals within this zone. The base flood elevation ranges from an elevation of 19 feet just south of Oil Well Road to an elevation of 36.5 feet at SR 82.

There are no FEMA regulatory floodways located within the project limits.

2.9.2 Existing Drainage Conditions

The topography along SR 29 is relatively flat with elevations ranging from a low of approximately 20 feet at the beginning of the study area at Oil Well Road to a high of approximately 40 feet in the vicinity of SR 82.

The SR 29 study is within the South Florida Water Management District (SFWMD). The corridor traverses three major watersheds within the project study area, Okaloacoochee Watershed, Cocohatchee-Corkscrew, and the Caloosahatchee River Watershed. Within these watersheds, there are four regional drainage basins. Within the Okaloacoochee Watershed, the project is located within the Silver Strand Basin (Water Body Identification (WBID) 3278W) as defined by the Florida Department of Environmental Protection (FDEP) and the Immokalee Basin (WBID 3278L). Within the Cocohatchee-Corkscrew Watershed, the project is located within the Cow Slough Basin (WBID 3278E); and, within the Caloosahatchee River Watershed, the project is located within the Townsend Canal Basin (WBID 3235L). Silver Strand (WBID 3278W) is verified as impaired for dissolved oxygen and Townsend Canal (WBID 3235L) is verified as impaired for nutrients on the current FDEP 303(d) Impaired Waters List. The project study area was further subdivided into forty-one (41) roadway basins. There are no Outstanding Florida Waters (OFW) within the project limits.

For SR 29 and New Market Road, drainage along the most of the existing roadway is accomplished through collection and conveyance by open roadside ditches, side drains, ditch bottom inlets and cross drains. Ditches and depressional areas provide some degree of attenuation and water quality treatment. The runoff in the ditches is co-mingled with offsite runoff and ultimately conveyed to the outfall. From 13th Street to North 9th Street, runoff is collected by curb and gutter and conveyed to the outfall by a storm drain system.

A portion of SR 29 was permitted under SFWMD ERP Modification Number 11-00968-S, issued on March 14, 1996. The limits of this ERP begin approximately 1.5 miles north of Oil Well Road and extend north approximately 2.4 miles to just south of CR 846. This ERP was obtained due to the widening of SR 29 under State Project Nos. 03080-3517, 03080-3529 and 03080-3530. Water quality treatment for the east side of SR 29 is provided in shallow retention areas between the road and the Barron Canal. Runoff from the west side of SR 29 sheet flows directly to existing grade with no permitted treatment. Stormwater attenuation was not required under ERP 11-00968-S.

Existing cross drains were located based on existing construction plans, United States Geological Survey (USGS) Quadrangle Maps, Flood Insurance Rate Maps (FIRMs), survey/Geographic Information System (GIS) data and field investigations. There are 47 cross drain structures within the study limits. The cross drains, along with their respective drainage basin locations, are listed in **Table 2.3**. In addition to the major cross drains, there are numerous side drains, ditch bottom inlets and manholes.

**Table 2.3
Existing Cross Drainage Inventory**

Structure No.	Station	Size	Drainage Basin
CD-1	1414+64	36"	1
CD-2	1447+00	36"	4
CD-3	1462+00	36"	5
CD-4	1486+50	36"	6
CD-5	1501+50	43"x68"	7
CD-6	1540+50	(2)-24"	8, 9
CD-7	1577+00	24"	10
CD-8	1589+75	(2)-24"	11
CD-9 ⁽¹⁾	1624+70	2 Span Reinforced Concrete Flat Slab Bridge - Gator Creek	12, 13
CD-10	1655+55	(2)-24"	14
CD-11	1669+80	(2)-24"	15
CD-12	1684+60	24"	15
CD-13	1701+00	(2)-24"	16
CD-14	1725+00	24"	17
CD-15	1765+90	36"	18, 19
CD-16 ⁽¹⁾	1792+25	(2)-10'x5' CBC Milton's Creek	20
CD-17	1815+20	(3)-24"	21
CD-18	1842+70	(4)-24"	22, 23
CD-19	1866+65	24"	23
CD-20	1881+75	(2)-24"	24, 25
CD-21 ⁽¹⁾	1908+70	(3)-10'x5' CBC Dry Gulch Creek	26
CD-22 ⁽¹⁾	1948+40	(2)-10'x5' CBC Eutopia Canal	28
CD-33	118+50 New Market Road	(2)-24"	29-1R
CD-34	89+05 New Market Road	24"	30-1R
CD-35	82+45 New Market Road	24"	30-1R
CD-36	81+90 New Market Road	24"	30-1R
CD-37	70+85 New Market Road	24"	30-1R
CD-38	70+30 New Market Road	24"	30-1R

Table 2.3 (Continued)
Existing Cross Drainage Inventory

Structure No.	Station	Size	Drainage Basin
CD-39	2075+24	42"	33
CD-40	2107+05	36"	34
CD-41	2119+90	36"	35
CD-42	2133+20	(2)-48"	37
CD-43	2162+35	36"	38
CD-44	2175+00	36"	39
CD-45	2240+15	(2)-36"	40
CD-46	2257+20	(2)-36"	41
CD-47	SR 82	(3)-42"	41

⁽¹⁾ Denotes bridge culverts

2.10 Existing Traffic Conditions

This section provides a brief summary of the detailed information contained in the *SR 29 Design Traffic Technical Memorandum, January 2018*. A more thorough discussion of the development of the existing and future year daily and peak hour traffic volumes, as well as the existing and future year peak hour traffic operations analyses that were conducted for this study are provided in the *Design Traffic Technical Memorandum, January 2018*.

2.10.1 Existing Year Traffic Volumes

Peak hour intersection turning movement counts (TMCs), 72-hour classification counts, and 24-hour bi-directional counts were conducted at various locations within the study corridor during April and May 2017 while school was in session. Vehicle composition for the classification count counts consisted of passenger vehicles, medium trucks, and heavy trucks.

The traffic count data was adjusted using the seasonal adjustment factors for Collier County to provide 2017 annual average conditions. The bi-directional volume counts were adjusted using the FDOT axle adjustment factors. Annual average daily traffic (AADT) volumes were estimated from the adjusted 72-hour and 24-hour counts. A seasonal adjustment factor was not applied to the TMC's since the counts were taken during the peak season. The existing (2017) AADT and AM and PM peak hour TMC's are displayed in **Figure 2.10** and **Figure 2.11**, respectively.

Figure 2.10
Existing (2017) AADT

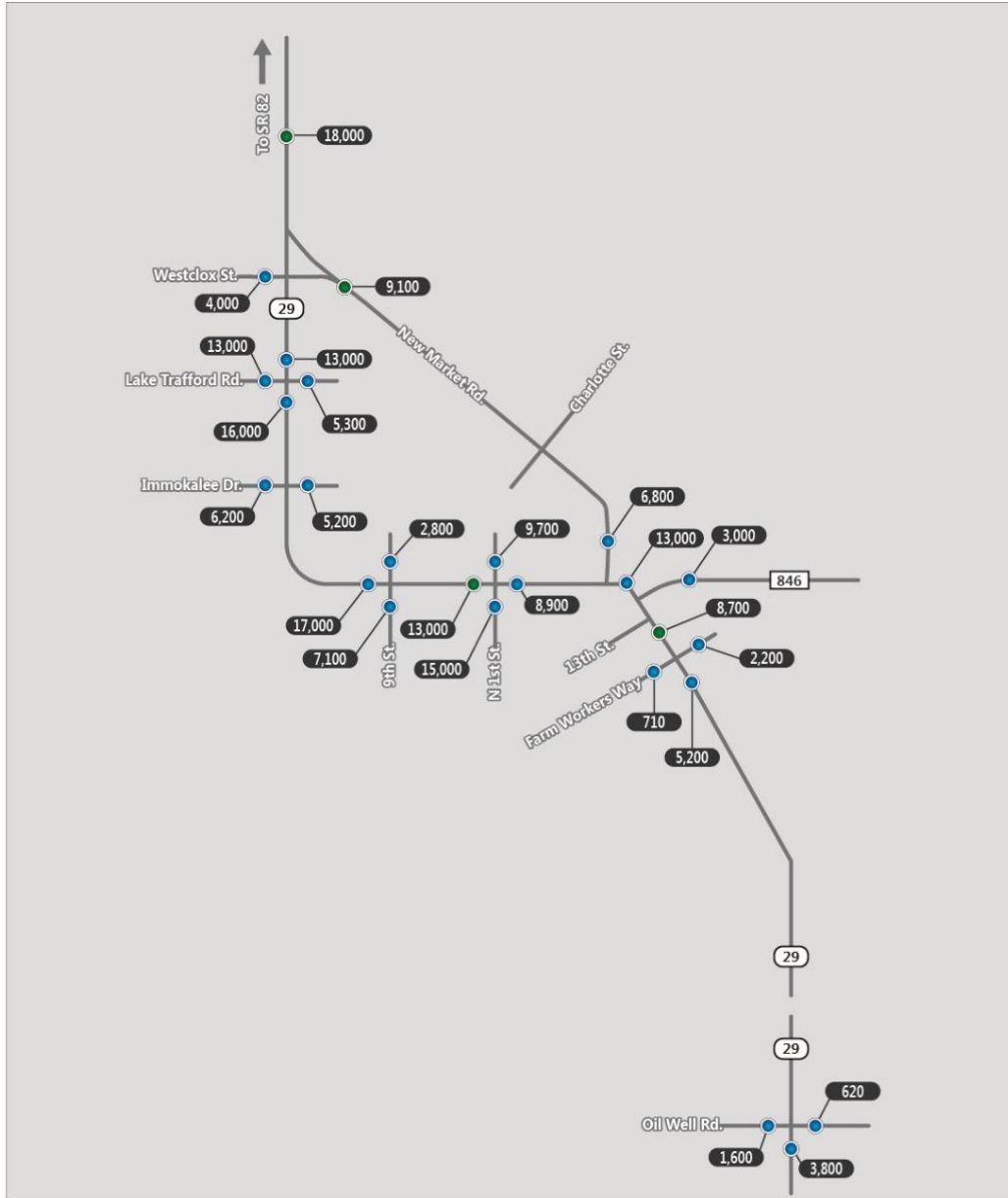
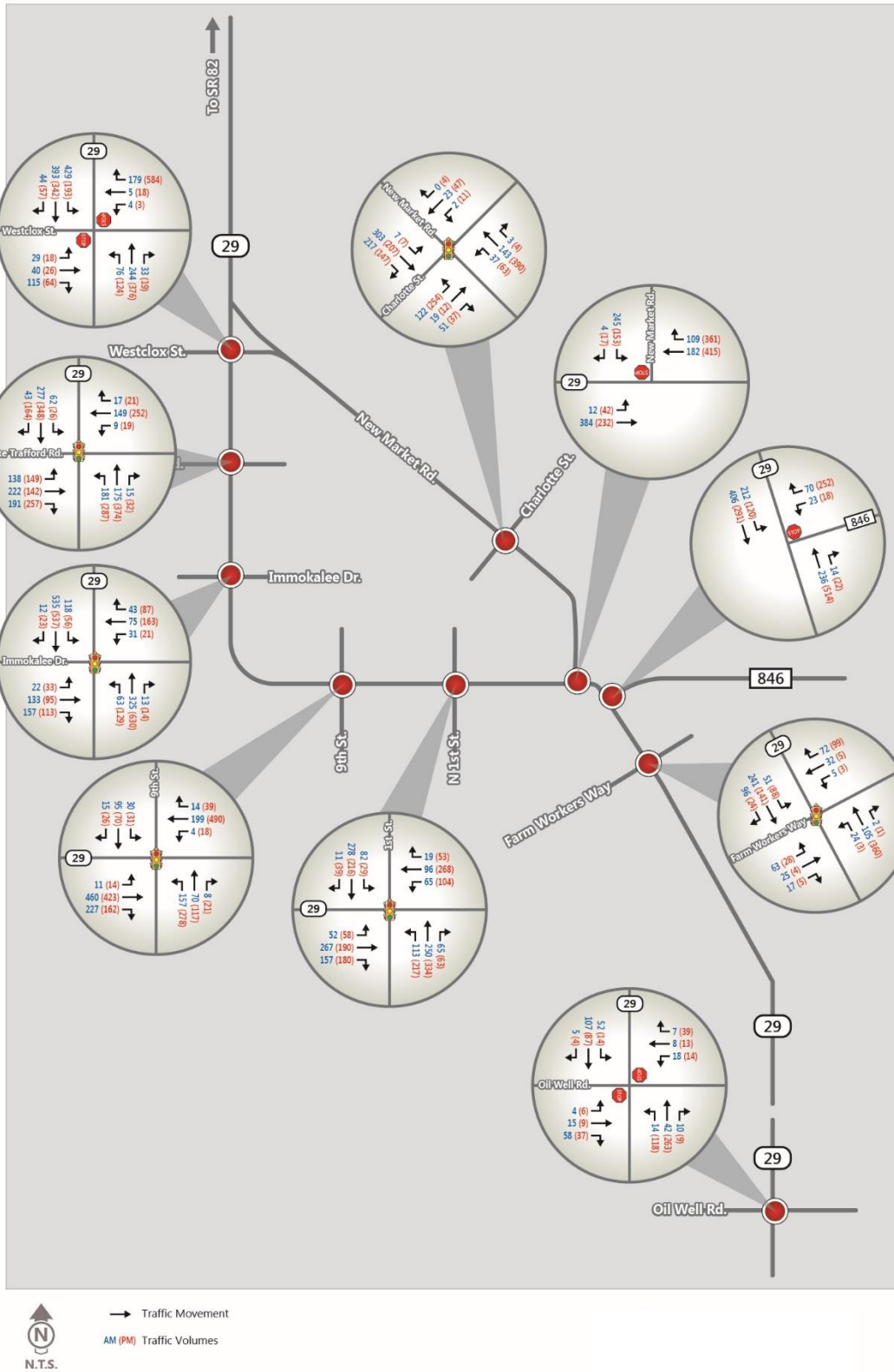


Figure 2.11
Existing (2017) AM and PM TMC's



2.10.2 Existing Level of Service

The FDOT sets the adopted LOS standard for state facilities. However, since SR 29 transitions between rural and urban classification, the LOS standard also changes. **Table 2.4** shows the adopted current year and twenty year (2045) peak hour LOS standards for the project corridor.

Table 2.4
Peak Hour LOS Standards

Facility	Limits	Current Year Standard	Twenty Year Standard
SR 29	Oil Well Road to Farm Worker Way	C	C
SR 29	Farm Worker Way to Westclox Street/New Market Road	D	D
SR 29	Westclox Street/New Market Road to SR 82	C	C
New Market Road	SR 29 South to SR 29 North	D	D

Source: FDOT

Intersection LOS for existing (2017) conditions was estimated using Highway Capacity Manual (HCM) 2010 procedures, as executed by Synchro (Version 9) software. AM peak hour and PM peak hour analyses were performed under existing conditions. The analysis results for the intersections within the project limits are summarized in **Table 2.5**. All intersections operate at an acceptable LOS, except for SR 29 and Westclox Street/New Market Road and New Market Road and Charlotte Street.

Table 2.5
Existing (2017) Intersection LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
SR 29 and Oil Well Road	Stop	7.9/12.6	A/B	8.6/24.7	A/C
SR 29 and Farm Worker Way	Signal	8.5	A	8.1	A
SR 29 and CR 846	Stop	8.8/19.1	A/C	22.4/10.2	C/B
SR 29 and New Market Road	Stop	8.1/19.3	A/C	10.7/29.6	B/D
SR 29 and North 1 st Street	Signal	23.7	C	24.1	C
SR 29 and North 9 th Street	Signal	14.1	B	14.3	B
SR 29 and Immokalee Drive	Signal	13.7	B	14.1	B
SR 29 and Lake Trafford Road	Signal	17.6	B	20.1	C
SR 29 and Westclox Street/New Market Road	Stop	9.3/43.4	A/E	9.1/53.8	A/F
New Market Road and Charlotte Street	Signal	14.3	B	58.1	E

Arterial LOS for existing (2017) conditions was estimated using the FDOT 2013 *Quality/Level of Service Handbook*, LOS Generalized Tables. PM peak hour analyses were performed under existing conditions. The analysis results for the arterial segments within the project limits are

summarized in **Table 2.6**. All segments operate at an acceptable LOS except for SR 29 from New Market Road to SR 82.

Table 2.6
Existing (2017) PM Peak Hour Arterial LOS

Segment	Number of Lanes	Posted Speed Limit	NB/WB Volume	SB/EB Volume	Peak Direction LOS
SR 29					
Oil Well Road to Farm Worker Way	2	60	391	178	B
Farm Worker Way to CR 846	2	45	432	274	C
CR 846 to New Market Road	4	35	846	453	D
New Market Road to North 1 st Street	4	35	407	304	C
North 1 st Street to North 9 th Street	4	35	523	484	C
North 9 th Street to Immokalee Drive	2	40	829	624	C
Immokalee Drive to Lake Trafford Road	2	45	797	591	C
Lake Trafford Road to Westclox Street/New Market Road	2	45	614	593	C
Westclox Street/New Market Road to SR 82	2	60	968	638	D
New Market Road					
SR 29 to Charlotte Street	2	35	525	262	D
Charlotte Street to SR 29/Westclox Street	2	45	461	244	C

2.11 Crash Data

Five full calendar years (January to December) of available vehicular crash data from Signal Four Analytics, for the years from 2012 to 2016, were utilized for the SR 29 and New Market Road crash analysis.

Table 2.7 summarizes the crash experience for the study area by severity type and driving conditions. For the five year study period 714 crashes were reported, with five of those resulting in at least one fatality and 200 (28%) resulting in at least one injury. Approximately 28% of the crashes occurred during non-daylight time periods with low lighting conditions and 11% occurred in wet weather conditions.

The intersection of SR 29 and Lake Trafford had the highest number of crashes (91 crashes) of any of the analyzed intersections and accounted for 13 percent of the total crashes along the study corridor. The segment of SR 29 from Farm Worker Way to Westclox Street/New Market Road had the highest number of crashes (195 crashes) of any of the analyzed segments and accounted for 27 percent of the total crashes along the study corridor.

Table 2.7
Crashes (2012 to 2016) by Severity and Driving Conditions

Year/Location	Total	Fatal Crashes	Injury Crashes	Property Damage Only	Night	Wet
Intersection						
SR 29 and Oil Well Road	24	1	11	12	13	2
SR 29 and Farm Worker Way	7	0	1	6	5	1
SR 29 and CR 846	3	0	1	2	1	0
SR 29 and New Market Road	22	0	7	15	7	3
SR 29 and North 1 st Street	62	1	12	49	17	4
SR 29 and North 9 th Street	37	0	11	26	7	6
SR 29 and Immokalee Drive	60	0	10	50	21	7
SR 29 and Lake Trafford Road	91	0	19	72	15	9
SR 29 and Westclox Street/New Market Road	65	0	20	45	12	6
New Market Road and Charlotte Street	17	0	1	16	4	4
Segments						
SR 29 from Oil Well Road to Farm Worker Way	12	1	5	6	5	4
SR 29 from Farm Worker Way to Westclox Street/New Market Road	195	0	67	128	67	15
SR 29 from Westclox Street/New Market Road to SR 82	54	1	16	37	17	12
New Market Road from SR 29 to SR 29 /Westclox Street	65	1	19	45	11	9
Total	714	5	200	509	202	82

Table 2.8 summarizes the crash experience for the study area by crash type. For the overall corridor, the highest crash type was rear-end, comprising 40% of the total crashes. Angle (18%) and left turn (11%) were the second and third highest crash types. There were 18 pedestrian and 5 bicycle crashes over the five years, a pedestrian crash resulting in two of the five fatal crashes.

Table 2.8
Crashes (2012 to 2016) by Crash Type

Crash Type	2012	2013	2014	2015	2016	Total
Angle	10	19	13	24	24	90
Animal	0	0	3	0	0	3
Bicycle	2	2	0	0	1	5
Head On	4	4	2	5	4	19
Left Turn	6	11	14	21	25	77
Off Road	4	3	3	2	6	18
Pedestrian	1	4	6	3	4	18
Rear End	24	45	59	71	84	283
Right Turn	0	2	6	0	1	9
Rollover	2	1	1	2	0	6
Sideswipe	6	11	11	18	20	66
Unknown	8	2	3	2	4	19
Other	6	21	23	22	29	101
Total	73	125	144	170	202	714

Table 2.9 compares the crash rate in million vehicle miles traveled (MVMT) by segment to the statewide average. SR 29 from Farm Worker Way to Westclox Street/New Market Road and New Market Road from SR 29 to SR 29/Westclox Street exhibit crash rates higher than the statewide average for a similar typical section.

Table 2.9
Crashes Rate Comparison

Crash Type	Area Type	Total Crashes	AADT	Length (miles)	Crash Rate (MVMT)	Statewide Average (MVMT)	Greater than Average?
SR 29 from Oil Well Road to Farm Worker Way	Rural	43	5,200	9.58	0.47	0.69	No
SR 29 from Farm Worker Way to Westclox Street/New Market Road	Urban	535	12,800	4.35	5.27	2.39	Yes
SR 29 from Westclox Street/New Market Road to SR 82	Rural	54	18,000	2.65	0.62	0.69	No
New Market Road from SR 29 South to SR 29/Westclox Street	Urban	82	7,950	2.23	2.54	1.02	Yes

2.12 Utilities

The preliminary utility coordination and investigation effort was conducted through written and verbal communications with the existing utility owners. A Sunshine State 811 of Florida Design Ticket System listing of existing Utility Agencies/Owners (UAO's) was acquired on March 5, 2018. The utility types obtained from the Sunshine State 811 of Florida Design ticket are listed in **Table 2.10**.

A *Utility Request Package* was submitted to the UAO's on June 8, 2018. **Table 2.10** contains existing facilities information received to date.

Table 2.10
Existing Utilities Overview

Utility Type	Utility	Summary of Facilities
Cable TV/ Communications/ Fiber Optic	Collier County Traffic Operations Section	Collier County operates and maintains the ATMS infrastructure that includes the signalized intersection on SR 29 at Farm Worker Way, North 1 st Street, North 9 th Street, Immokalee Drive, and Lake Trafford Road.
	Collier County Information Technology (IT)	No utilities within the project limits.
	Comcast	Existing aerial Comcast facilities run along SR 29 on the west side of the roadway from Farm Workers Way to Jerome Dr. Existing aerial Comcast facilities run along CR 846 on the south side of the roadway throughout the project limits. There is an existing network of aerial and underground facilities in the downtown Immokalee area from CR 846 to Flagler St. Existing aerial Comcast facilities run along SR 29 on the east side of the roadway from south of Westclox St. to south of SR 82.
	Crown Castle Fiber	Overhead fiber optic crosses SR 29 at dirt road north of Johnson Rd. Buried fiber optic runs from SR 29 westward at same dirt road.
	Summit Broadband Inc.	Fiber Optic runs along north side of CR 846 crossing roadway at 12th street continuing along SR 29. Fiber Optic runs along west side of SR 29 from south of Westclox St. to north of SR 82.
	Lipman Family Companies	Information not yet received from UAO
	Centurylink – Naples	Buried copper and fiber telephone lines along the east side of SR 29 south of Oil Well Rd. Buried fiber crosses SR 29 south of Oil Well Rd. Buried fiber runs along south side of Oil Well Rd. Buried copper runs along south side of Oil Well Rd. east of SR 29. Buried copper and fiber run along east side of SR 29 before fiber crosses SR 29 at station 125+10.00. Fiber continues on west side of SR 29 until Trans Gro Rd. where copper begins again. Buried copper and fiber run along west side of SR 29 until Seminole Crossing Trail. Fiber is consistent while copper varies. North of Seminole Crossing Trail copper and fiber run below the existing geometry of the roadway. Buried fiber and copper run along north side of CR 846. Buried copper and fiber run along both sides of New Market Rd. as well as below existing roadway until Charlotte St. Buried copper and fiber run on both sides of SR 29 from south of Westclox St. to end of project limits at SR 82.
Water/Sewer	Immokalee Water & Sewer District	South of Agriculture Way to New Market Rd., there is a network of varying size PVC water mains and PVC force mains. North of New Harvest Rd. to New Market Rd. there is a network of gravity sanitary sewers including manhole covers. 8" PVC water main on west side of SR 29 from south of Westclox St. to Heritage Blvd. 10" PVC gravity sanitary sewer runs across Westclox St. west of SR 29. 12" PVC water main crosses SR 29 at Heritage Blvd.
Electric	Lee County Electric Co-Op	Overhead electric along west side of SR 29 from Oil Well Rd. to New Market Rd. with multiple crossings, primarily at cross streets. Overhead electric along south side of CR 846. Overhead electric along east and west sides of New Market Rd. with various crossings ending at Flagler St. Overhead electric along west side of proposed bypass for Central Alternative #2 with multiple crossing at the wastewater treatment plant.

		Overhead electric crosses proposed roadway at Alachua St. Overhead electric along east side of SR 29 from Westclox St. to SR 82 with multiple crossings, primarily at cross streets.
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2.13 Railroads

There are no at-grade or grade-separated railroad crossings within the project study area.

2.14 Lighting

No existing lighting is present along SR 29 from Oil Well Road to CR 846, along SR 29 from Westclox Street/New Market Road W to SR 82, or along any portion of New Market Road within the study limits.

The existing lighting along SR 29 from CR 846 (Airport Road) to North 1st Street consists of FDOT conventional lighting using cobra-head fixtures. They are placed in a staggered across-the-median configuration. At North 1st Street, the lighting changes to decorative poles and luminaries with acorn fixtures and an opposite across-the-roadway configuration. At left turn bay openings, there are also decorative light fixtures within the median. The decorative lighting continues in this manner until North 9th Street, at which the configuration becomes staggered across-the-median and there is no longer lighting within the median. The decorative lighting continues in a staggered across-the-median configuration from North 9th Street to Westclox Street/New Market Road W.

Along SR 29 from North 1st Street to North 9th Street, there are decorative pedestrian lights provided at each cross street. These same pedestrian lights are also provided at the SR 29 signalized intersections of Immokalee Drive, Lake Trafford Road, and Westclox Street/New Market Road.

Currently, the existing lighting along SR 29 or New Market Road does not meet lighting criteria identified within the FDM for signalized intersections. As mentioned previously, approximately 28% of the crashes occurred during non-daylight time periods with low lighting conditions.

2.15 Soils Classifications

Based on a review of the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) *Soil Survey of Collier County, Florida*, much of the project corridor consists of nearly level, poorly drained soils. Generally, the natural seasonal high groundwater table (SHWT) is at depths of about 6 to 18 inches below the natural grade within the project limits. The project study area is comprised of 18 mapped soil units. According to the *Hydric Soils of Florida Handbook* (Hurt, 2007), 10 of the 18 soil types identified within the project study area are classified as hydric; the remaining 8 types are not hydric. **Table 2.11** lists each mapped soil type within the project limits.

Table 2.11
Collier County USDA NRCS Soil Survey Information

Soil Type	Hydric Y/N
3 - Malabar fine sand, 0 to 2 percent slopes	Y
7 - Immokalee fine sand, 0 to 2 percent slopes	N
8 - Myakka fine sand, 0 to 2 percent slopes	N
10 - Oldsmar fine sand, limestone substratum	N
15 - Pomello fine sand, 0 to 2 percent slopes	N
16 - Oldsmar fine sand, 0 to 2 percent slopes	N
17 - Basinger fine sand, 0 to 2 percent slopes	Y
20 - Fort Drum, and Malabar, high fine sands	N
21 - Boca fine sand, 0 to 2 percent slopes	Y
22 - Chobee, Winder, and Gator soils, depressional	Y
23 - Holopaw and Okeelanta soils, depressional	Y
25 - Boca, Riviera, limestone substratum and Copeland fine sands, depressional	Y
27 - Holopaw fine sand, 0 to 2 percent slopes	Y
28 - Pineda and Riviera fine sands	Y
29 - Wabasso fine sands, 0 to 2 percent slopes	N
34 - Urban land-Immokalee-Oldsmar, limestone substratum complex	Unranked
37 - Tusawilla fine sand	Y
43 - Winder, Riviera, limestone substratum and Chobee soils, depressional	Y

2.16 Structures

There are five structures located along SR 29 within the project limits. Of these structures, three are concrete bridge culverts (#030019, #030304, and #030305) carrying SR 29 over water bodies; one is a concrete flat slab bridge (#030303) carrying SR 29 over a water body; and one bridge (#039001) is a prefabricated steel truss structure carrying pedestrian traffic over SR 29 to/from Village Oaks Elementary School. **Table 2.12** provides a comprehensive list of existing data for these bridges including year built, span lengths, and minimum vertical clearance.

Bridge sufficiency ratings are used to help determine whether a bridge that is structurally or functionally obsolete should be repaired or replaced. This rating considers a number of factors, of which approximately half relate to the condition of the bridge itself. **Table 2.12** catalogs the condition ratings and load ratings of the bridges within the project limits along SR 29. All bridges have Load Factor Rating (LFR) Operating Load ratings greater than 1.0. The LFR Inventory Rating on all the bridges is greater than 1.0 as required in Section 7.1.1 in the FDOT *Structures Design Guidelines (SDG)*.

**Table 2.12
Existing Bridge Conditions**

Milepost		Location Description	Structure			Year Built (Widened/ Deck Replaced)	Skew Angle (deg.)	Spans		Beam/ Girder/ Slab Depth (ft.)	Out to Out Width (ft.)	Travel Lane Widths (ft.)	Shoulder Width (ft.)		Sidewalk Width (ft.)	Navigable Waterway	Minimum Vertical Clearance (ft.)	Structural Ratings (HS20)		Sufficiency Rating
Begin	End		Number	Type	Length (ft.)			Number	Lengths (ft.)				Inside	Outside				Operating	Inventory	
SR 29																				
36.873	36.878	SR 29 over Eutopia Canal	030019	Concrete Culvert	21	1965	0	2	10.5	-	87 (Roadway)	12	8	8	-	No	N/A	67	40	81
30.749	30.758	SR 29 over Gator Creek	030303	Concrete Flat Slab	49.9	1999	0	2	24.9	15	46.5	11.8	9.8	9.8	-	No	6.69	97	58.2	95.9
33.924	33.928	SR 29 over Miltons Canal	030304	Concrete Culvert	21.6	1999	0	2	10.8	-	47.2 (Roadway) 60 (Culvert)	11.8	5 (Paved) 6.8 (Unpaved)	5 (Paved) 6.8 (Unpaved)	-	No	4.60	61	36.6	95.9
36.122	36.128	SR 29 over Gulch Creek	030305	Concrete Culvert	31.5	1999	0	3	10.8	-	55.6 (Roadway) 62 (Culvert)	11.8	9.8	5 (Paved) 6.8 (Unpaved)	7.9	No	5.95	82.9	49.7	93.9
35.403	35.406	Panther Pass Pedestrian Crossing/SR 29	039001	Prefab Steel Truss - Pedestrian Overpass	642.1	1992	0	2 (Truss) 14 (Approaches)	122.4 & 102.4 (Truss)	-	-	-	-	-	8	-	18.8 (SR 29 & Farm Worker Way)	-	-	-2

The minimum vertical clearances over various facility types, based on standards from the FDM (Sections 260.6 and 260.8), are presented below in **Table 2.13**. Within the project limits, the only existing bridge clearance over roadway is 18.8 feet (#039001 over SR 29 and Farm Worker Way). Existing bridge clearances over water range from 4.6 to 6.69 feet.

Table 2.13
Minimum Vertical Clearance for Existing Bridges

Facility Type (Freeways, Arterials, Collectors & Others)	Vertical Clearance
Existing Roadway or Railroad Over Roadway	16.0 ft.
Roadway Over Pedestrian ⁽¹⁾	7.0 ft.
Pedestrian Over Roadway	17.0 ft.
Roadway over Navigable Water	6 ft.
Roadway over Non-Navigable Water (over design flood state)	2 ft.

⁽¹⁾ From the FDM, Part 2, Revised January 1, 2018, Section 260.6

In general, all of the bridges within the project limits are in satisfactory condition. None of these bridges are considered deficient per FDOT vertical clearance standards. All of the bridges that carry vehicular traffic have a LFR inventory rating factor above 1.0, which makes them suitable for widening per SDG 7.1.1A.

2.17 Existing Intelligent Transportation Systems

There are existing ITS/ATMS facilities along SR 29 within the project limits. The FDOT is the owner of the existing ITS infrastructure including an actuated solid state controller assembly, inductive loop detectors, system control equipment, telephone connection box, and associated pull boxes along SR 29 within the study limits. Collier County operates and maintains the ATMS infrastructure that includes the signalized intersection on SR 29 at Farm Worker Way, North 1st Street, North 9th Street, Immokalee Drive, and Lake Trafford Road.

There are two school zone warning beacons located approximately 200 feet from the intersection of Farm Worker Way, along SR 29. The warning beacons have pull boxes along the northwest and southeast side of SR 29. There are also pull boxes at the northwest and northeast corners of the intersection of SR 29 and Farm Worker Way.

The signalized intersection of North 1st Street (Immokalee Road) and SR 29 includes a 24 strand fiber branch that runs along the south side of SR 29. The fiber crosses SR 29 on the west side of the intersection. There are seven fiber pull boxes on the northwest corner, many of which connect to ten type B loop and five type F loop assemblies. There are four pull boxes at varying points along the southwest corner. There are four pull boxes on the northeast quadrant. On the southeast quadrant, there are two pull boxes. There are two pedestrian detectors located at each corner of the intersection. The controller cabinet is located on the northwest quadrant and contains an actuated solid state controller assembly, eight inductive loop detectors, one interface panel, one

modulator/demodulator, and a fiber optic modem. There is also a Closed Circuit TV Camera located on the northwest pole.

The signalized intersection of North 9th Street and SR 29 includes a 24 strand fiber branch that runs along the south side of SR 29. There are two fiber pull boxes on the northwest corner, nine pull boxes at varying points along the southwest corner; many of which connect to loop assemblies along the eastbound lanes of SR 29 approaching the intersection. Similar to the southwest corner, there are five pull boxes on the northeast quadrant at varying points that connect to loop assemblies for the westbound lanes. On the southeast quadrant, there are two pull boxes. There are two pedestrian detectors located at each corner of the intersection. The controller cabinet is located on the southwest quadrant and contains an actuated solid state controller assembly, seven inductive loop detectors, one interface panel, one modulator/demodulator, and a fiber optic modem. There is also a Closed Circuit TV Camera located on the southwest pole.

The signalized intersection of Immokalee Drive and SR 29 includes a 24 strand fiber branch that runs along the west side of SR 29. There is one fiber pull box on the northwest corner and one additional pull box further up the northwest side of the intersection that connects to the loop assembly. The loop assembly is located 300 feet north of the northbound lanes stop bar on SR 29. There is one pull box on the southwest quadrant adjacent to the controller cabinet. The controller cabinet contains an actuated solid state controller assembly, four inductive loop detectors, one interface panel, one modulator/demodulator, and a fiber optic modem. There is also a Closed Circuit TV Camera located on the southwest pole.

The signalized intersection of Lake Trafford Road and SR 29 includes a 24 strand fiber branch that runs along the west side of SR 29, crosses SR 29 on the south side of the intersection, and crosses Lake Trafford Road on the east side of SR 29. There are three fiber pull boxes on the southwest corner of the intersection, one on the southeast, and one on the northeast corner. This fiber ties into a controller cabinet located on the northeast corner. The controller cabinet contains an actuated solid state controller assembly, five inductive loop detectors, one interface panel, one modulator/demodulator, and a fiber optic modem. There are also two loop assemblies installed on the eastbound lanes of Lake Trafford Road, 320 feet west of the intersection. There is a Closed Circuit TV Camera located on the northeast pole.

3.0

DESIGN CONTROLS AND CRITERIA

The design criteria for the proposed improvements to SR 29 adhere to the FDM, January 2018. The design year for the proposed improvements is 2045. The design criteria used for this PD&E study are listed by segment along SR 29 in **Table 3.1** through **Table 3.5** as follows:

- **Table 3.1** – Roadway Design Criteria – Oil Well Road to South of Kaicasa Entrance
- **Table 3.2** – Roadway Design Criteria – South of Kaicasa Entrance to North of Seminole Crossing Trail and North of Westclox to Experimental Road
- **Table 3.3** – Roadway Design Criteria – North of Seminole Crossing Trail to Gopher Ridge Road
- **Table 3.4** – Roadway Design Criteria – Gopher Ridge Road to SR 29/SR 29 Bypass Junction
- **Table 3.5** – Roadway Design Criteria – Experimental Road to South of SR 82

Table 3.1
Roadway Design Criteria – Oil Well Road to South of Kaicasa Entrance

DESIGN ELEMENT	Oil Well Rd. to S. of Kaicasa Entrance	SOURCE
Context Classification	C2: Rural	FDM Table 200.4.1
Functional Classification	Principal Arterial (SIS)	FDM Table 200.2.1
Access Classification	Class 3, Restrictive	FDM Table 201.3.2
Design Vehicle	WB-62FL	FDM Section 201.5
Typical Section		
Design Speed (MPH)	65	FDM Table 201.4.1
Number of Through Lanes	4	Typical Section
Travel Lane Widths	12'	FDM Table 210.2.1
Median Widths	40'	FDM Table 210.3.1
Bicycle Lane Width	5' Paved Shoulder	FDM Section 223.2.2/ Table 210.4.1
Shared Use Path (Width)	12' std., 10' min.	FDM Section 224.4
Shared Use Path (Maximum Grade)	5.00%	FDM Section 224.6
Shoulder Width (Total/Paved): Without Shoulder Gutter	inside: 8'4' paved outside: 10'5' paved	FDM Table 210.4.1
Clear Zone	36'	FDM Table 215.2.1
Border Width	40'	FDM Table 210.7.1
Maximum Cross Slope (travel lanes)	2%	FDM Figure 210.2.1
Maximum Cross Slope (shoulder)	5% inside/6% outside	FDM Section 210.4.1
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1
HORIZONTAL		
Minimum Stopping Sight Distance	645'	FDM Table 210.11.1
Maximum Deflection Without Curve	0°45'00"	FDM Section 210.8.1
Length of Horizontal Curve	975' (400' min.)	FDM Table 210.8.1
Maximum Degree of Curve/Min. Radius	4° 15'/1,348'	FDM Table 210.9.1
Superelevation Transition:		
On Tangent	80%	FDM Section 210.9.1
On Curve	20%	
Superelevation Transition Rate	1:250	FDM Table 210.9.3
Maximum Superelevation	10%	FDM Section 210.9
Maximum Curvature without Superelevation	0° 15'	FDM Table 210.9.1
VERTICAL		
Minimum K value for Crest Vertical Curves	313	FDM Table 210.10.3
Minimum Lengths of Crest Vertical Curves	450'	FDM Table 210.10.4
Minimum K value for Sag Vertical Curves	157	FDM Table 210.10.3
Minimum Lengths of Sag Vertical Curves	350'	FDM Table 210.10.4
Maximum Profile Grade	3%	FDM Table 210.10.1
Maximum Change in Grade Without a Vertical Curve	0.30%	FDM Table 210.10.2
Minimum Base Clearance	3'	FDM Section 210.10.3
Minimum Vertical Clearances for Pedestrian Bridges over Mainline (New/Existing)	17'-6"/17'-0"	FDM Section 210.10.3
Minimum Vertical Clearances for Signs and Signals	17'-6"	FDM Section 210.10.3
Minimum Vertical Clearances for Overhead Dynamic Message Signs (DMS)	19'-6"	FDM Section 210.10.3

Table 3.2

Roadway Design Criteria – South of Kaicasa Entrance to North of Seminole Crossing Trail and North of Westclox Street to Experimental Road

DESIGN ELEMENT	(1): S. of Kaicasa Entrance to Seminole Crossing Trail; (2): N. of Westclox St. to Experimental Rd.	SOURCE
Context Classification	C3R: Suburban Res. (1) C3C: Suburban Comm. (2)	FDM Table 200.4.1
Functional Classification	Principal Arterial (SIS)	FDM Table 200.2.1
Access Classification	Class 3, Restrictive	FDM Table 201.3.2
Design Vehicle	WB-62FL	FDM Section 201.5
Typical Section		
Design Speed (MPH)	55	FDM Table 201.4.1
Number of Through Lanes	4	Typical Section
Travel Lane Widths	12'	FDM Table 210.2.1
Median Widths	30'	FDM Table 210.3.1
Bicycle Lane Width	5' Paved Shoulder	FDM Section 223.2.2/ Table 210.4.1
Shared Use Path (Width)	12' std., 10' min.	FDM Section 224.4
Shared Use Path (Maximum Grade)	5.00%	FDM Section 224.6
Shoulder Width (Total/Paved): Without Shoulder Gutter	inside: 4' paved with C&G 'E' outside: 10'/5' paved	FDM Table 210.4.1
Clear Zone	30'	FDM Table 215.2.1
Border Width	40'	FDM Table 210.7.1
Maximum Cross Slope (travel lanes)	2%	FDM Figure 210.2.1
Maximum Cross Slope (shoulder)	5% inside/6% outside	FDM Section 210.4.1
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1
HORIZONTAL		
Minimum Stopping Sight Distance	495'	FDM Table 210.11.1
Maximum Deflection Without Curve	0°45'00"	FDM Section 210.8.1
Length of Horizontal Curve	825' (400' min.)	FDM Table 210.8.1
Maximum Degree of Curve/Min. Radius	6° 30'/881'	FDM Table 210.9.1
Superelevation Transition:		
On Tangent	80%	FDM Section 210.9.1
On Curve	20%	
Superelevation Transition Rate	1:225	FDM Table 210.9.3
Maximum Superelevation	10%	FDM Section 210.9
Maximum Curvature without Superelevation	0° 30'	FDM Table 210.9.1
VERTICAL		
Minimum K value for Crest Vertical Curves	185	FDM Table 210.10.3
Minimum Lengths of Crest Vertical Curves	350'	FDM Table 210.10.4
Minimum K value for Sag Vertical Curves	115	FDM Table 210.10.3
Minimum Lengths of Sag Vertical Curves	250'	FDM Table 210.10.4
Maximum Profile Grade	5%	FDM Table 210.10.1
Maximum Change in Grade Without a Vertical Curve	0.50%	FDM Table 210.10.2
Minimum Base Clearance	3'	FDM Section 210.10.3
Minimum Vertical Clearances for Signs and Signals	17'-6"	FDM Section 210.10.3
Minimum Vertical Clearances for Overhead DMS	19'-6"	FDM Section 210.10.3

Table 3.3
Roadway Design Criteria – North of Seminole Crossing Trail to Gopher Ridge Road

DESIGN ELEMENT	Seminole Crossing Trail to Gopher Ridge Rd.	SOURCE
Context Classification	C3C: Suburban Comm.	FDM Table 200.4.1
Functional Classification	Principal Arterial (SIS)	FDM Table 200.2.1
Access Classification	Class 3, Restrictive	FDM Table 201.3.2
Design Vehicle	WB-62FL	FDM Section 201.5
Typical Section		
Design Speed (MPH)	45	FDM Table 201.4.1
Number of Through Lanes	4	Typical Section
Travel Lane Widths	11'	FDM Table 210.2.1
Median Widths	22'	FDM Table 210.3.1
Bicycle Lane Width	7' buffered	FDM Table 210.4.1
Clear Zone	24'	FDM Table 215.2.1
Border Width	12'	FDM Table 210.7.1
Sidewalk Width	6'	FDM Table 222.1.1
Maximum Cross Slope (travel lanes)	2%	FDM Figure 210.2.1
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1
HORIZONTAL		
Minimum Stopping Sight Distance	360'	FDM Table 210.11.1
Maximum Deflection Without Curve	1°00'00"	FDM Section 210.8.1
Maximum Deflection through Intersection	3°00'00"	FDM Table 212.7.1
Length of Horizontal Curve	675' (400' min.)	FDM Table 210.8.1
Maximum Degree of Curve/Min. Radius	8° 15'/695'	FDM Table 210.9.2
Superelevation Transition:		
On Tangent	80%	FDM Section 210.9.1
On Curve	20%	
Superelevation Transition Rate	1:150	FDM Table 210.9.3
Maximum Superelevation	5%	FDM Section 210.9
Maximum Curvature without Superelevation	2° 45'	FDM Table 210.9.2
VERTICAL		
Minimum K value for Crest Vertical Curves	98	FDM Table 210.10.3
Minimum Lengths of Crest Vertical Curves	135'	FDM Table 210.10.4
Minimum K value for Sag Vertical Curves	79	FDM Table 210.10.3
Minimum Lengths of Sag Vertical Curves	135'	FDM Table 210.10.4
Minimum Lateral Offset (Light Pole)	4'	FDM Table 215.2.2
Minimum Lateral Offset (Utilities)	4'	
Minimum Lateral Offset (Signal Pole)	4'	
Minimum Lateral Offset (Trees)	4'	
Maximum Profile Grade	6%	FDM Table 210.10.1
Maximum Change in Grade Without a Vertical Curve	0.70%	FDM Table 210.10.2
Minimum Base Clearance	1' with Reduction in M _R	FDM Section 210.10.3
Minimum Distance between VPIs	250'	FDM Section 210.10.1.1
Minimum Profile Grade for Curb & Gutter Sections	0.30%	FDM Section 210.10.1.1
Minimum Vertical Clearances for Signs and Signals	17'-6"	FDM Section 210.10.3
Minimum Vertical Clearances for Overhead DMS	19'-6"	FDM Section 210.10.3

Table 3.4

Roadway Design Criteria – Gopher Ridge Road to SR 29/SR 29 Bypass Junction (Bypass)

DESIGN ELEMENT	Gopher Ridge Rd. to SR 29/SR 29 Bypass Junction	SOURCE
Context Classification	C3R: Suburban Res.	FDM Table 200.4.1
Functional Classification	Principal Arterial (SIS)	FDM Table 200.2.1
Access Classification	Class 3, Restrictive	FDM Table 201.3.2
Design Vehicle	WB-62FL	FDM Section 201.5
Typical Section		
Design Speed (MPH)	50	FDM Table 201.4.1
Number of Through Lanes	4	Typical Section
Travel Lane Widths	12'	FDM Table 210.2.1
Median Widths	30'	FDM Table 210.3.1
Bicycle Lane Width	5' Paved Shoulder	FDM Section 223.2.2/ Table 210.4.1
Shared Use Path (Width)	12' std., 10' min.	FDM Section 224.4
Shared Use Path (Maximum Grade)	5.00%	FDM Section 224.6
Shoulder Width (Total/Paved): Without Shoulder Gutter	inside: 4' paved with C&G 'E' outside: 10'/5' paved	FDM Table 210.4.1
Clear Zone	24'	FDM Table 215.2.1
Border Width	40'	FDM Table 210.7.1
Maximum Cross Slope (travel lanes)	2%	FDM Figure 210.2.1
Maximum Cross Slope (shoulder)	5% inside/6% outside	FDM Section 210.4.1
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1
HORIZONTAL		
Minimum Stopping Sight Distance	425'	FDM Table 210.11.1
Maximum Deflection Without Curve	0°45'00"	FDM Section 210.8.1
Length of Horizontal Curve	750' (400' min.)	FDM Table 210.8.1
Maximum Degree of Curve/Min. Radius	8° 15'/695'	FDM Table 210.9.1
Superelevation Transition:		
On Tangent	80%	FDM Section 210.9.1
On Curve	20%	
Superelevation Transition Rate	1:200	FDM Table 210.9.3
Maximum Superelevation	10%	FDM Section 210.9
Maximum Curvature without Superelevation	0° 30'	FDM Table 210.9.1
VERTICAL		
Minimum K value for Crest Vertical Curves	136	FDM Table 210.10.3
Minimum Lengths of Crest Vertical Curves	300'	FDM Table 210.10.4
Minimum K value for Sag Vertical Curves	96	FDM Table 210.10.3
Minimum Lengths of Sag Vertical Curves	200'	FDM Table 210.10.4
Maximum Profile Grade	6%	FDM Table 210.10.1
Maximum Change in Grade Without a Vertical Curve	0.60%	FDM Table 210.10.2
Minimum Base Clearance	3'	FDM Section 210.10.3
Minimum Vertical Clearances for Signs and Signals	17'-6"	FDM Section 210.10.3
Minimum Vertical Clearances for Overhead DMS	19'-6"	FDM Section 210.10.3

**Table 3.5
Roadway Design Criteria – Experimental Road to South of SR 82**

DESIGN ELEMENT	Experimental Rd. to S. of SR 82	SOURCE
Context Classification	C2: Rural	FDM Table 200.4.1
Functional Classification	Principal Arterial (SIS)	FDM Table 200.2.1
Access Classification	Class 3, Restrictive	FDM Table 201.3.2
Design Vehicle	WB-62FL	FDM Section 201.5
Typical Section		
Design Speed (MPH)	60	FDM Table 201.4.1
Number of Through Lanes	4	Typical Section
Travel Lane Widths	12'	FDM Table 210.2.1
Median Widths	40'	FDM Table 210.3.1
Bicycle Lane Width	5' Paved Shoulder	FDM Section 223.2.2/ Table 210.4.1
Shared Use Path (Width)	12' std., 10' min.	FDM Section 224.4
Shared Use Path (Maximum Grade)	5.00%	FDM Section 224.6
Shoulder Width (Total/Paved): Without Shoulder Gutter	inside: 8'/4' paved outside: 10'/5' paved	FDM Table 210.4.1
Clear Zone	36'	FDM Table 215.2.1
Border Width	40'	FDM Table 210.7.1
Maximum Cross Slope (travel lanes)	2%	FDM Figure 210.2.1
Maximum Cross Slope (shoulder)	5% inside/6% outside	FDM Section 210.4.1
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1
HORIZONTAL		
Minimum Stopping Sight Distance	570'	FDM Table 210.11.1
Maximum Deflection Without Curve	0°45'00"	FDM Section 210.8.1
Length of Horizontal Curve	900' (400' min.)	FDM Table 210.8.1
Maximum Degree of Curve/Min. Radius	5° 15'/1,091'	FDM Table 210.9.1
Superelevation Transition:		
On Tangent	80%	FDM Section 210.9.1
On Curve	20%	
Superelevation Transition Rate	1:225	FDM Table 210.9.3
Maximum Superelevation	10%	FDM Section 210.9
Maximum Curvature without Superelevation	0° 15'	FDM Table 210.9.1
VERTICAL		
Minimum K value for Crest Vertical Curves	245	FDM Table 210.10.3
Minimum Lengths of Crest Vertical Curves	400'	FDM Table 210.10.4
Minimum K value for Sag Vertical Curves	136	FDM Table 210.10.3
Minimum Lengths of Sag Vertical Curves	300'	FDM Table 210.10.4
Maximum Profile Grade	3%	FDM Table 210.10.1
Maximum Change in Grade Without a Vertical Curve	0.40%	FDM Table 210.10.2
Minimum Base Clearance	3'	FDM Section 210.10.3
Minimum Vertical Clearances for Signs and Signals	17'-6"	FDM Section 210.10.3
Minimum Vertical Clearances for Overhead DMS	19'-6"	FDM Section 210.10.3

4.0

ALTERNATIVES ANALYSIS

The objective of the alternatives analysis process is to identify technically and environmentally sound alternatives that meet the needs of the project, are cost-effective and are acceptable to the community. This section describes the alternatives considered and results of the alternatives evaluation.

4.1 Corridor Analysis

As part of the SR 29 PD&E Study from Oil Well Road to SR 82, a *Corridor Evaluation Report* (dated March 2009) was prepared and signed by the Federal Highway Administration (FHWA) on April 6, 2009. The *Corridor Evaluation Report* was a planning level study and evaluated and documented the engineering and environmental issues associated with the proposed improvements. Corridors were developed using land suitability mapping by identifying and mapping sensitive natural, physical, and socio-cultural features located within the project study area. As the process continued, these maps were refined to identify sensitive areas which should be avoided and areas in which impacts should be reduced to the greatest extent possible. The corridor alternatives considered were an existing alignment corridor, a central corridor, an east corridor, and a west corridor. A description of the corridors is provided below:

- ***Existing SR 29 Corridor*** - which consisted of the existing SR 29 roadway through the downtown Immokalee area from Oil Well Road to SR 82,
- ***West Corridor*** - located to the west of SR 29,
- ***Central Corridor*** - diverged from the existing SR 29 roadway west of the Immokalee Regional Airport and proceeded northward then westward to connect to SR 29 south of SR 82, and
- ***East Corridor*** - located to the east of SR 29 and avoided the downtown Immokalee area.

Figure 4.1 depicts the corridor alternatives and **Table 4.1** provides a comparison matrix of the corridor alternatives. After completion of the evaluation, it was determined that a greater level of analysis was needed before any corridor could be eliminated. It was recommended that all study corridors remain viable and be advanced for further evaluation and analysis.

Figure 4.1
Corridor Alternatives

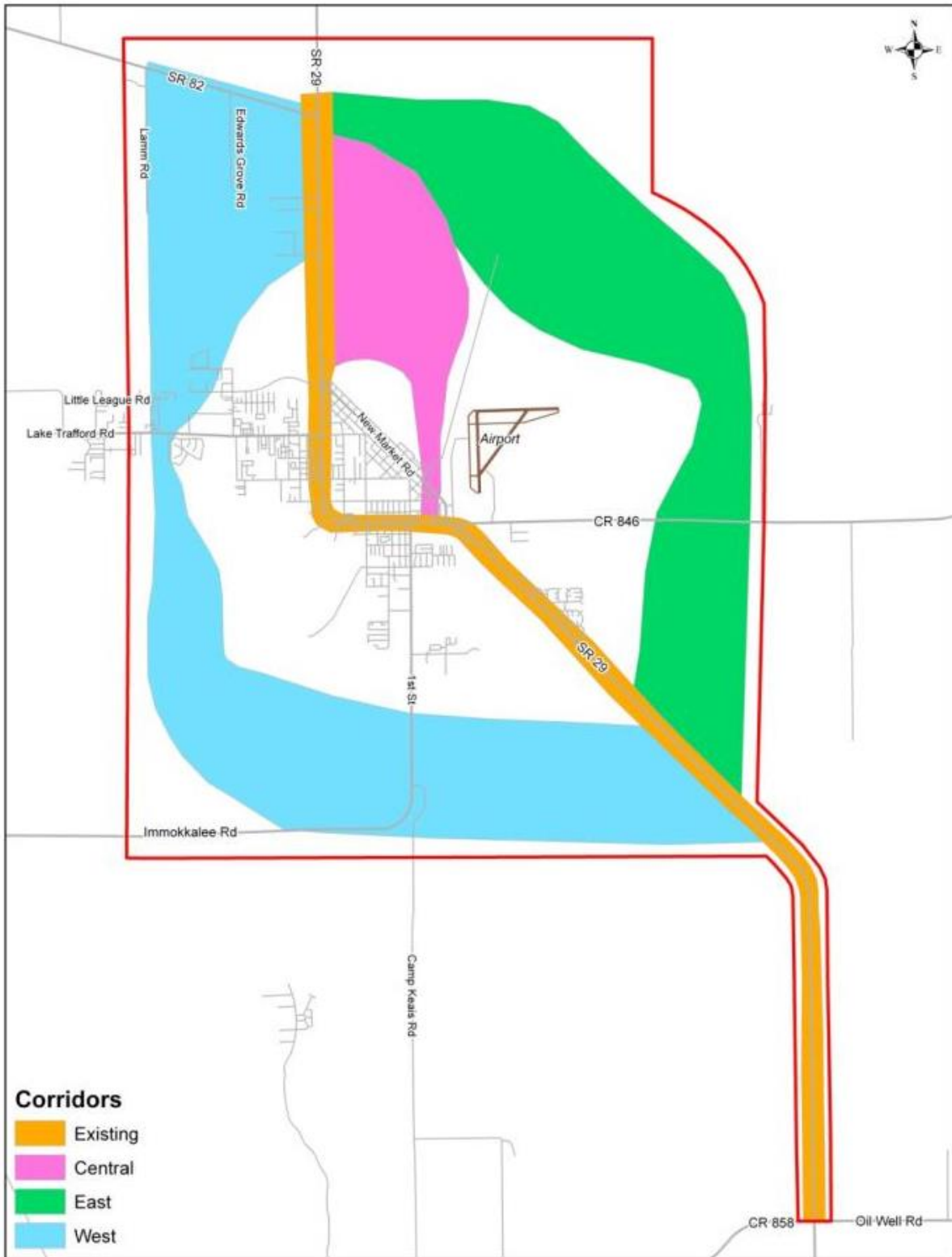


Table 4.1
Corridor Comparison Matrix

Corridor	Purpose and Need Satisfaction	Public Support ¹	Potential Socio-Economic Impacts	Potential Environmental Impacts	Recommendation of Advancement into PD&E Study
Existing	Yes	1	Medium	Low	Yes
West	Yes	0	High	High	Yes
Central	Yes	1	Medium	Medium	Yes
East	Yes	13	Medium	High	Yes

¹ Number of favorable comments at Corridor Public Workshop

4.2 Alignments Analysis

A *SR 29 Collier County PD&E Study from Oil Well Road to SR 82 Alignments Report* (dated August, 2010) was prepared and approved by FHWA on August 27, 2010. The *Alignments Report* outlined the history of the planning efforts of the project to date, the methodology and approach to the development of alignments within corridors previously approved by FDOT and FHWA, analyzed and evaluated the alignments developed, outlined the outreach and involvement of the public and agencies, and made recommendations for alignments to be carried forward into the draft environmental document for the development of reasonable alternatives. A total of 31 alignments were considered: eight (8) in the West Corridor, four (4) in the Central Corridor, eighteen (18) in the East Corridor, and the Existing Corridor. After analysis of the alignments and feedback from the Stakeholders Advisory Committee (SAC), five (5) representative alignments were selected for presentation at the June 23, 2009 Alignments Public Workshop. The representative alignments included one (1) each from the Existing Corridor, West Corridor, and Central Corridor and two (2) from the East Corridor. The five representative alignments included:

- ***Alignment A (Existing Corridor)*** - which followed the existing SR 29 roadway through Immokalee,
- ***Alignment E (West Corridor)*** - which traveled around the west side of Immokalee and then followed Edwards Grove Road to SR 82,
- ***Alignment L (Central Corridor)*** - which headed north from the existing SR 29 roadway on the west side of Immokalee Regional Airport and then curved west to intersect SR 82,
- ***Alignment S (East Corridor)*** - which headed north from the existing SR 29 roadway on the east side of the project study area and then took a more southerly western route to connect to SR 82, and
- ***Alignment U (East Corridor)*** - which headed north from the existing SR 29 roadway on the east side of the project study area and then went farther north before turning west to intersect SR 82.

Following the Alignments Public Workshop and based on input received through a series of meetings with project stakeholders, the five representative alignments were revised in an effort to further avoid and minimize impacts to area features and improve overall operational characteristics of future preliminary alternatives to be developed within these alignments. These updates resulted in the continued analysis of *Alignment A (Existing Alignment)* and the development of three modified alignments:

- *Alignment HH (West Corridor)* - which followed the existing SR 29 roadway to Collier County's planned extension of Immokalee Road to 1st Street and then continued north to Collier County's proposed extension of Little League Road and connected to Lamm Road where it intersected SR 82,
- *Alignment GG (Central Corridor)* - which followed the existing SR 29 roadway to Alachua Street then turned northerly toward Gopher Ridge Road where it continued along Gopher Ridge Road to the north and northwest toward SR 29/SR 82, and
- *Alignment FF (East Corridor)* - which travelled north on the existing SR 29 roadway to just north of where Collier County's planned extension of Immokalee Road connects to SR 29 and then continued north (on the east side of the Immokalee Regional Airport) where it turned to the west (north of Gopher Ridge Road) and intersected with SR 29/SR 82.

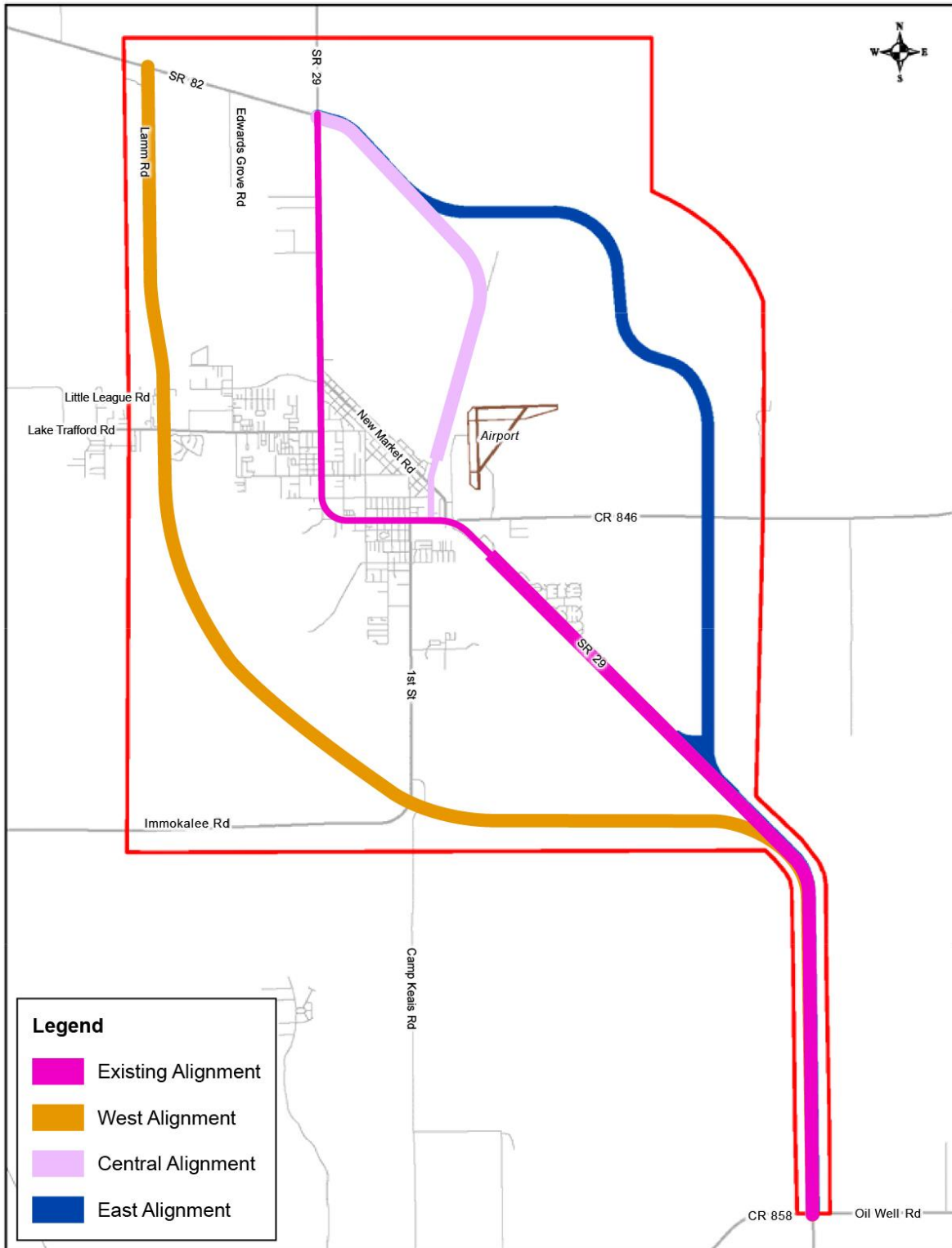
Figure 4.2 depicts the four (4) alignments. These four (4) alignments, along with the no-build, Transportation Systems Management and Operations (TSM&O) and Multimodal alternatives, were recommended for development and consideration as reasonable alternatives.

4.3 Alternative Analysis

Based on refinements to the alignments at the conclusion of the Alignments Public Workshop, the following preliminary alternatives were presented at the Public and Agency Alternatives Scoping Meetings held on February 17 and 18, 2010, respectively:

- Existing SR 29 Alternative (carried forward from Alignment A),
- West Preliminary Alternative (carried forward from Modified Alignment HH),
- Central Preliminary Alternative (carried forward from Modified Alignment GG), and
- East Preliminary Alternative (carried forward from Modified Alignment FF).

Figure 4.2
Alignment Alternatives



The No-Build Alternative, introduced from the beginning and to remain a viable alternative through the PD&E process, was also presented. This alternative would postpone major improvements to SR 29 beyond the 2045 design year and preserve existing roadway with only routine maintenance. The Public and Agency Alternatives Scoping Meetings resulted in the following actions:

- No Build Alternative continued to be evaluated,
- Existing SR 29 Alternative continued to be evaluated,
- Central Preliminary Alternative revised to become Central Preliminary Alternative #1 which was advanced for further study,
- East Preliminary Alternative revised to become East Preliminary Alternative #1 and East Preliminary Alternative #2 which were advanced for further study, and
- West Preliminary Alternative eliminated by FHWA on June 1, 2010.

Both the TSM&O Preliminary Alternative (which evaluated intersection improvements, signal coordination, and other operational enhancements and consisted primarily of adding turn lanes with signalization required by 2020) and the Multimodal Preliminary Alternative (which explored transit improvements for existing, planned and programmed service operated by CAT) were also introduced. These preliminary alternatives along with the others listed above were further evaluated and refined through continued coordination with project stakeholders in order to determine a range of reasonable alternatives to advance to the Alternatives Public Workshop. This evaluation and coordination resulted in the following actions:

- No-Build Alternative advanced,
- Existing SR 29 Alternative advanced,
- Central Preliminary Alternative #1 revised to become Central Alternative #1 Revised and a new Central Alternative #2 (both advanced),
- TSM&O Preliminary Alternative eliminated by FHWA on July 24, 2012,
- Multimodal Preliminary Alternative eliminated by FHWA on July 24, 2012,
- East Preliminary Alternative #1 eliminated by FHWA on December 18, 2013, and
- East Preliminary Alternative #2 eliminated by FHWA on December 18, 2013.

West Alternative Elimination

Coinciding with the preparation of the *Alignments Report*, an Evaluation for Elimination of the West Alternative was prepared and accepted by the FHWA on June 1, 2010. The decision to recommend the elimination of the West Alternative was the result of direct impacts to natural resources, minority or low-income communities (environmental justice), public and agency comments, and estimated construction costs. In comparison to the other alternatives considered, the West Alternative had potentially higher impacts based on the evaluation factors such as: wetlands, residential parcels, schools, noise, construction cost, and environmental justice. Due to

the higher impacts to these criteria, this evaluation ultimately recommended that the West Alternative be eliminated from further consideration.

Transportation Systems Management and Operations Alternative Elimination

The TSM&O Alternative included analyzing intersection improvements and signal coordination to improve current and projected congestion on SR 29 from Oil Well Road to SR 82. The *Project Traffic Technical Memorandum* (September 2011) identified a set of roadway improvements to existing SR 29 at eight specific locations along the corridor including primarily adding turn lanes with signalization required by 2040. The improvements were based upon projects identified in the Collier County MPO's 2035 LRTP Cost-Feasible Plan. These improvements were developed as an alternative to the complete reconstruction/widening of SR 29 between Oil Well Road on the south and SR 82 on the north. While these improvements improved operating conditions, they did not support purpose and need of the project.

During a quarterly meeting with the FHWA on July 24, 2012, the TSM&O Alternative was eliminated from further consideration. The decision to eliminate this alternatives is due to its inability to meet the purpose and need for the project.

Multimodal Alternative Elimination

The Multimodal Alternative for SR 29 from Oil Well Road to SR 82 included analyzing existing, planned and programmed transit service operated by CAT within the study area based on the improvements included in the Transit Development Plan that was developed in coordination with the Collier County MPO's 2035 LRTP. This service included an existing CAT Route 5 that served Immokalee from other parts of the county at various times during the day. In addition, Routes 8a and 8b operated together as a circulator route that served Immokalee in a clockwise and counterclockwise loop. The Lee/Collier LRTP 2035 identified a need for an increase in the frequency of Route 5. This frequency increase is programmed in the cost feasible plan for funding 2031-2035. In addition, the needs plan demonstrates need for an express route from Immokalee to Lehigh Acres. However, this is not programmed prior to 2035.

During a quarterly meeting with the FHWA on July 24, 2012, the Multimodal Alternative was eliminated from further consideration. The decision to eliminate this alternative is due to its inability to meet the purpose and need for the project.

East Alternatives Elimination

Two (2) East Alternatives were developed within the East Alignment. Upon further evaluation, the East Alternatives were eliminated from further consideration. A letter documenting the justification for the elimination of the two East Alternatives was prepared and accepted by the FHWA on December 18, 2013. The decision to recommend the elimination of the East Alternatives from further evaluation is the result of direct and indirect effects to the endangered Florida panther and its habitat, direct and indirect effects to Section 106 and potential Section 4(f)

resources, high estimated preliminary costs in comparison to other viable alternatives, and public and agency comments.

The FDOT presented the following four alternatives at the first Alternatives Public Workshop held on April 3, 2014:

- No-Build Alternative,
- Existing SR 29 Alternative,
- Central Alternative #1 Revised, and
- Central Alternative #2.

Figure 4.3 depicts the alternatives presented at the first Alternatives Public Workshop.

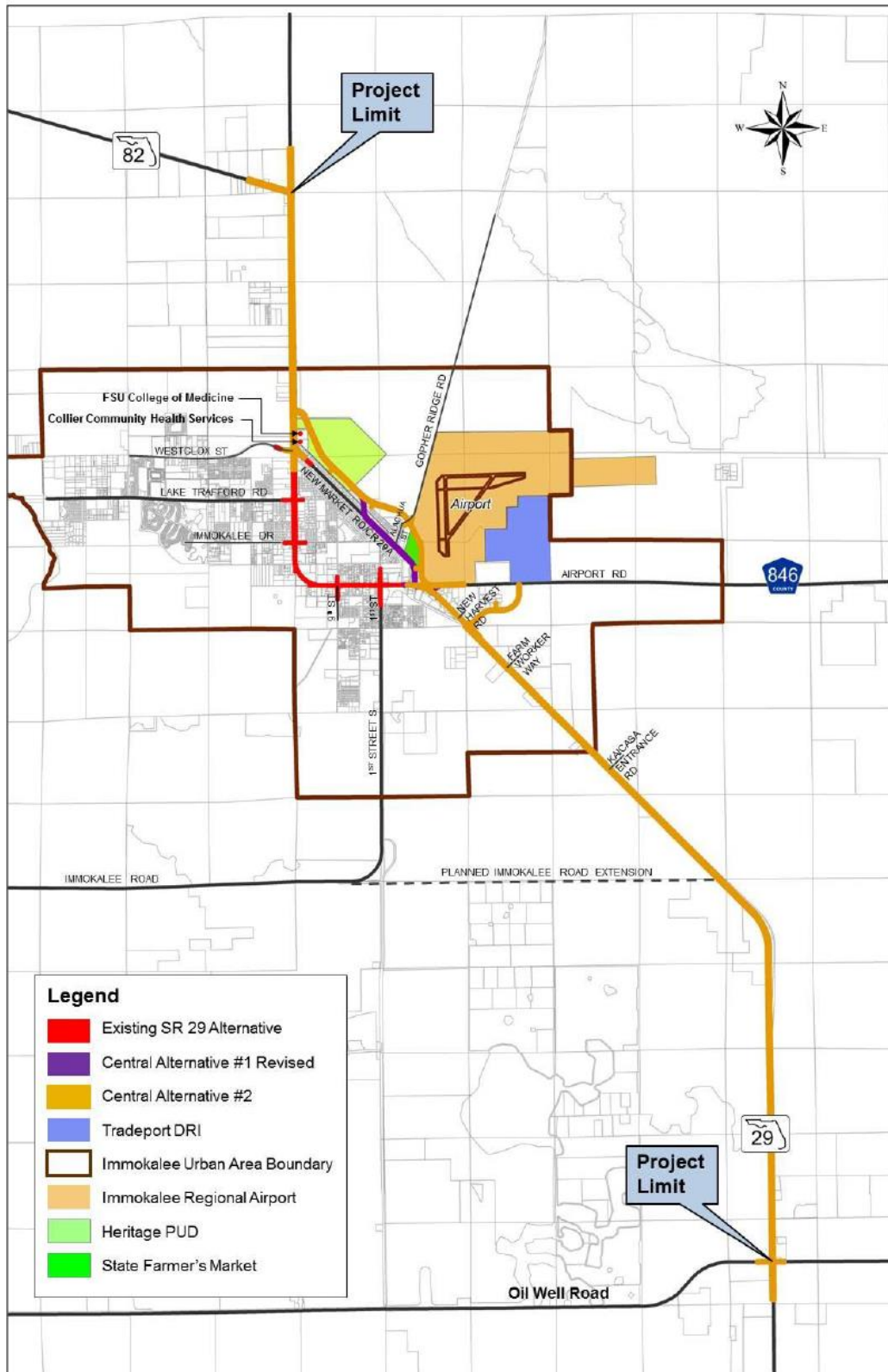
Based on comments received from the first Alternatives Public Workshop, a revision to Central Alternative #2 was developed that shifted the alignment of the Bypass portion of SR 29 further to the north to avoid direct impacts to a large undeveloped parcel east of SR 29 near Westclox Street/New Market Road and north of Madison Avenue. This parcel was the site of the former Heritage PUD, which has since sunsetted. This alternative became Central Alternative #2 Revised.

Existing Alternative Elimination

Upon further coordination with FHWA regarding public comments received at the Alternatives Public Workshop and project stakeholders after the Alternatives Public Workshop, FHWA concurred with the elimination of the Existing SR 29 Alternative on February 9, 2015. The Existing SR 29 Alternative was eliminated because it did not satisfy the purpose and need of the project – specifically to reduce truck traffic in downtown; would result in direct and indirect effects to cultural, historic, and Section 4(f) resources; and public comments.

In August 2014, the *SR 29 Collier County PD&E Study from Oil Well Road to SR 82 Alternatives Technical Report* was prepared and accepted by FHWA on February 16, 2015. The *Alternatives Technical Report* outlined the different build alternatives, justification for elimination of alternatives, and resulted in a recommendation to advance the following four alternatives: No-Build Alternative, Central Alternative #1 Revised, Central Alternative #2, and Central Alternative #2 Revised.

Figure 4.3
Alternatives Presented at the First Alternatives Public Workshop

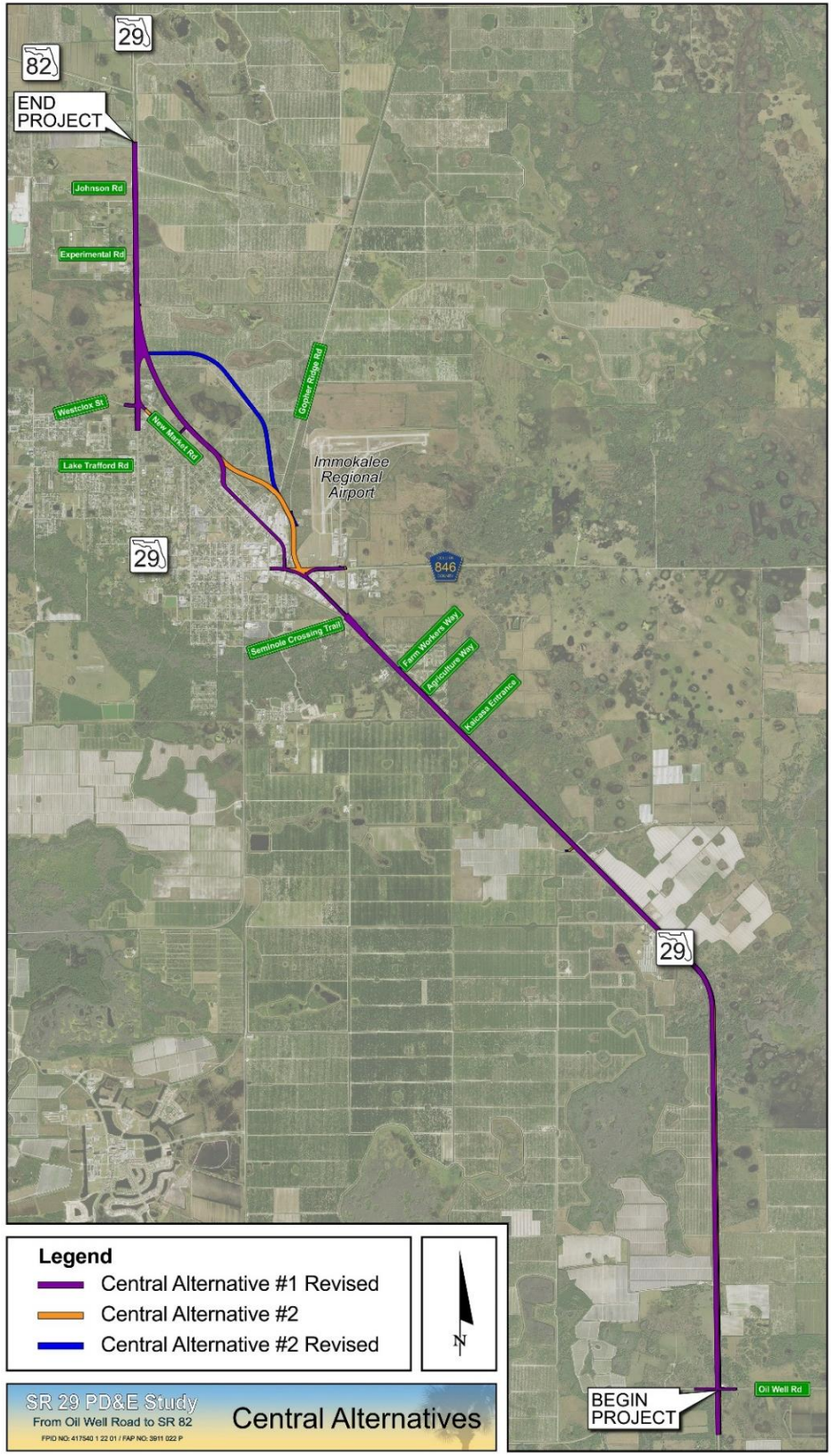


Central Alternative #2 Revised Elimination

The four remaining alternatives were presented for comment at the second Alternatives Public Workshop held November 9, 2017 (see **Figure 4.4**). Following the the second Alternatives Public Workshop, Central Alternative #2 Revised was eliminated from further consideration based on the following findings:

- The location of the proposed Central Alternative #2 Revised is such that higher traffic volumes are expected along the existing SR 29 and lower volumes are expected along the SR 29 Bypass as compared with the volumes of Central Alternatives #1 and #2. As one of the purposes of the PD&E study is to divert traffic from existing SR 29 through downtown Immokalee, Central Alternative #2 Revised does not meet one of the study purposes as well as the other alternatives.
- The Central Alternative #2 Revised was the lowest ranked of the three Build Alternatives at the Alternatives Public Workshop in terms of public support.
- The Central Alternative #2 Revised, which is similar in alignment and location to the formerly named “Central Alternative,” has historically not been supported by natural resource agencies due to its impacts to Florida panther habitat.
- Central Alternative #2 Revised impacts the largest proportion of Florida panther habitat, floodplains, and potentially contaminated sites, and has the greatest potential for secondary and cumulative impacts.
- Central Alternative #2 Revised requires the most additional right-of-way of any build alternative.
- The estimated preliminary total costs for the Central Alternative #2 Revised are the highest of the Build Alternatives.

Figure 4.4
Alternatives Presented at the Second Alternatives Public Workshop



4.4 Alternatives

4.4.1 No-Build Alternative

The No-Build Alternative assumes that no action will be taken to improve SR 29 within the project limits. This involves leaving the existing roadway as it is, with only routine maintenance as required through 2045. Advantages of the No-Build Alternative include:

- No construction costs;
- No disruption to traffic due to construction;
- No disruption to the adjacent property owners due to construction
- No ROW acquisitions or relocations; and
- No degradation or disruption of natural and other environmental resources due to construction.

Disadvantages of the No-Build Alternative include:

- Increased traffic congestion causing increased road user costs due to travel delay;
- Not consistent with the local transportation plans;
- Increased potential for vehicular crashes due to congested lanes and intersections;
- Increased emergency vehicle response times;
- Increased potential for crashes between vehicles and pedestrians/bicycles due to inadequate sidewalks and bicycle lanes; and
- Increased vehicle emission pollutants due to higher levels of traffic congestion.

The No-Build Alternative will remain a viable alternative throughout this PD&E Study.

4.4.2 Build Alternatives

Two (2) build alternatives remained and were analyzed for further evaluation as part of this PD&E study: Central Alternative #1 Revised and Central Alternative #2. Both alternatives include a 4-lane divided typical section with travel lanes varying between 11 feet and 12 feet in size. ROW, median type and width, and bicycle and pedestrian accommodations vary along the build alternatives.

The two alternatives are the same for much of their alignment, only diverging for approximately 1.3 miles on the east side of Immokalee by the airport. From the start of the project at Oil Well Road to north of Seminole Crossing Trail and from north of Westclox Street to the end of the project south of SR 82, both alignments follow the existing SR 29 alignment. The build alternatives differ in the following ways:

- **Central Alternative #1 Revised:** From Seminole Crossing Trail, Central Alternative #1 Revised remains on existing SR 29 to New Market Road. At New Market Road, this

alternative follows the eastern portion of New Market Road and provides direct access to the agribusiness/commercial areas of Immokalee and State Farmers Market. This alternative continues just past Flagler Street, then turns northward on new alignment to avoid a residential neighborhood. It then parallels Madison Avenue and New Market Road. At this point, the two build alternatives are on the same alignment. It then travels along the east side of Collier Health Services Medical Center and the Florida State University College of Medicine before reconnecting to SR 29 north of Westclox Street and continuing north to SR 82.

- **Central Alternative #2:** From Seminole Crossing Trail, Central Alternative #2 travels north from SR 29 on new alignment along the west side of the Immokalee Regional Airport to avoid the commercial/industrial areas of Immokalee and the State Farmers Market to the west. This alternative then turns to the northwest just past Gopher Ridge Road to parallel Madison Avenue and New Market Road. At this point, the two build alternatives are on the same alignment. It then travels along the east side of Collier Health Services Medical Center and the Florida State University College of Medicine before reconnecting to SR 29 north of Westclox Street and continuing north to SR 82.

4.4.3 Alternatives Evaluation Matrix

The No-Build Alternative and the two remaining Build Alternatives (Central Alternative #1 Revised and Central Alternative #2) were evaluated based on environmental effects, ROW needs, project costs, and engineering factors. The matrix shown as **Table 4.2** provides the results of the alternatives evaluation process. The matrix quantifies considerations such as potential residential and business relocations, impacts to environmental resources, and the acres of ROW needed for roadway improvements and stormwater facilities. The potential for the proposed widening to impact archaeological/historical sites, noise sensitive sites, and threatened and endangered species were qualified in the matrix. The bottom half of the matrix details cost estimates for ROW acquisition, construction, design, and construction engineering and inspection. The estimates were based on 2018 unit costs. Both of the costs for design and construction engineering and inspection are estimated as 15% of the total construction cost. Construction costs were estimated in May 2018 using the FDOT's Long Range Estimate (LRE) web-based computer system and are provided in **Appendix C**.

**Table 4.2
Alternatives Evaluation Matrix**

Evaluation Criteria	No-Build Alternative	Central Alternative #1 Revised	Central Alternative #2
Design Features			
Length (miles)	15.59 miles	16.38 miles	16.38 miles
Traffic Control Measures	Stop Control and Traffic Signals	Traffic Signals & Roundabout	Traffic Signals & Roundabout
Travel Lane Width (feet)	12 feet	11 to 12 feet	11 to 12 feet
Posted Speed - Subject to change pending speed study after construction	35 to 60 MPH	40 to 60 MPH	40 to 60 MPH
ROW Impacts			
Area of ROW to be Acquired for Roadway (acres)	0	56.18	77.82
Area of ROW to be Acquired for Stormwater Ponds/Floodplain Compensation Sites (acres)	0	102.07	104
Business Impacts			
Number of Business Relocations	0	9	1
Number of Parcels Impacted	0	20	4
Residential Impacts			
Number of Residential Relocations	0	3	0
Number of Parcels Impacted	0	2	0
Environmental Impacts			
Number of Historical Sites Impacted (National Register of Historic Places (NRHP) Listed/Eligible)	0	0	0
Number of Archaeological Sites Impacted (NRHP Listed/Eligible)	0	0	0
Number of Public Recreational Facilities/ Parks Impacted	0	0	1
Area of Wetlands – Roadway (acres)	0	14.33	14.33
Area of Surface Waters – Roadway (acres)	0	14.99	15.41
Area of Floodplain Encroachment (acres)	0	25.36	25.36
Potential Threatened and Endangered Species Impacts (none, low, medium, high)	None	Medium	Medium
Number of Potential Petroleum or Hazardous Materials Contaminated Sites	0	72 (34 Medium or High Risk)	67 (31 Medium or High Risk)
Number of Receivers Potentially Impacted By Noise	0	2	2
Estimated Total Project Costs (2018 cost)			
Engineering Design (15% of Construction Cost)	\$0	\$15,560,000	\$16,386,000
Wetland Mitigation ¹	\$0	\$1,800,000	\$1,800,000
Wildlife Habitat Mitigation ²	\$0	\$3,272,000	\$4,396,000
Utilities Relocation	\$0	\$0	\$0
ITS/ATMS Relocation	\$0	\$227,000	\$227,000
ROW Acquisition	\$0	\$16,830,000	\$18,300,000
Construction	\$0	\$103,732,000	\$109,241,000
Construction Engineering and Inspection (15% of Construction Cost)	\$0	\$15,560,000	\$16,386,000
Preliminary Estimate of Total Project Cost	\$0	\$156,981,000	\$166,736,000

¹ Wetland mitigation cost estimate based on FDOT Environmental Mitigation Payment Processing Handbook, Page 5, Fiscal Year 2021/2022 (\$125,594 per acre of impact)

² Wildlife habitat mitigation cost include mitigation for Florida panther and Florida scrub jay. Florida panther mitigation cost estimate based on \$850 per panther habitat unit (PHU). Florida scrub jay mitigation cost estimates based on \$25,000 per acre of impact with assumed 2:1 mitigation credit ratio.

TBD = To Be Determined

4.4.4 Recommended Alternative

Based on the evaluation of the alternatives previously described, the Recommended Alternative is Central Alternative #2, which better satisfies the Purpose and Need of the project than Central Alternative #1 Revised in the following ways:

- Central Alternative #2 provides a more direct route than does Central Alternative #1 Revised. Central Alternative #1 Revised has two more signalized intersections than does Central Alternative #2 (one at SR 29 and New Market Road E, and one at New Market Road E and Charlotte Street). Central Alternative #1 Revised also has a jog or offset alignment on SR 29 between CR 846 and New Market Road E.
- Central Alternative #2 is less disruptive to the existing street network and does not require any street closures. Central Alternative #1 Revised requires street closures on New Market Road W near Flagler Street, Flagler Street near Madison Avenue W, and Madison Avenue W near Glades Street.
- Central Alternative #2 has far fewer business relocations and parcel impacts (one business relocation and four parcel impacts) than Central Alternative #1 Revised (nine business relocations and twenty parcel impacts). The Immokalee area is a designated Rural Area of Opportunity, a legislative land use designation applied to encourage and facilitate the location and expansion of major economic development projects of significant scale in such rural communities.
- Central Alternative #2 has no residential relocations or parcel impacts, while Central Alternative #1 Revised has three residential relocations and two parcel impacts.
- At the second Alternatives Public Workshop held on November 8, 2017, more people expressed a preference for Central Alternative #2 than for Central Alternative #1 Revised.
- Central Alternative #2 avoids the access impacts to existing businesses along New Market Road that Central Alternative #1 Revised creates. Central Alternative #2 leaves New Market Road as a two-lane undivided roadway with unencumbered access to adjacent businesses, while Central Alternative #1 Revised converts a portion of New Market Road to a four-lane divided roadway with raised median and six median openings with controlled access to adjacent businesses.
- There are three fewer High or Medium-ranked potential petroleum or hazardous materials contaminated sites along Central Alternative #2 than along Central Alternative #1 Revised.

The design details of the Recommended Alternative are discussed in **Section 6.0**.

5.0

PUBLIC INVOLVEMENT

A *Public Involvement Plan (PIP)* was developed and approved on August 3, 2007 for the SR 29 PD&E Study. Subsequent revisions to the PIP were approved on March 8, 2012 and April 3, 2018. The PIP outlines the community outreach efforts and the approach used throughout this project to involve the general public, public officials, the media, and government agencies in the project process. A *Comments and Coordination Report*, prepared under separate cover, fully documents the public and stakeholder involvement conducted for this project. Below is a summary of the public involvement activities.

5.1 Local Agency/Group Meetings

Throughout the duration of the SR 29 Immokalee PD&E Study to present, the FDOT has participated in numerous coordination meetings with FHWA, Collier County Growth Management staff, Collier MPO and its Committees, the Immokalee CRA, a SAC, government and non-government agencies, and the public to solicit input on the project.

Table 5.1 provides a list of public meetings conducted to date for the project. Summaries of the public meetings and workshops are included below. Full documentation of the public meetings and the Public Hearing will be included in the *Comments and Coordination Report*.

**Table 5.1
Public Meetings**

Meeting/Presentation	Date
Corridor Public Workshop	August 7, 2008
Alignments Public Workshop	June 23, 2009
Alternatives Public Scoping Meeting	February 17, 2010
Agency Public Scoping Meeting	February 18, 2010
Alternatives Public Workshop #1	April 3, 2014
Alternatives Public Workshop #2	November 9, 2017
Public Hearing (PENDING)	November 15, 2018

5.2 Corridor Public Workshop

A Corridor Public Workshop was held on August 7, 2008 at the Immokalee One-Stop Career Center (750 South 5th Street in Immokalee, FL). Four corridors were presented for consideration at the Workshop, including:

- Existing SR 29 Corridor,
- West Corridor,
- Central Corridor, and
- East Corridor.

A total of 24 comments were received as a result of the Corridor Public Workshop. Many of the comments stated a preference for a specific corridor(s). The majority stated a preference for the East Corridor, one individual each preferred the Existing Corridor and Central Corridor, and none preferred the West Corridor. Other concerns cited were the need for access to the industrial zone near the airport; the need to minimize impacts to residential properties, churches, and stores; the need to keep trucks/freight traffic out of downtown; the need to include bicycle/pedestrian facilities; and the need to avoid environmental impacts.

Initial review of demographic data for the project study area in 2007, prior to the Corridor Public Workshop, indicated that a large number of Spanish speaking individuals were present. In order to better engage these individuals in the public involvement effort as part of the project development process, stand-alone Spanish language versions of all handouts and meeting materials were made available at this Workshop and at all other public meetings associated with this study effort, and bilingual (English and Spanish) staff were present at all public meetings for translation services, as needed.

Following the Corridor Public Workshop, the *Corridor Evaluation Technical Memorandum* was submitted to FHWA and was approved on April 6, 2009.

5.3 Alignments Public Workshop

An Alignments Public Workshop was held on June 23, 2009 at the Immokalee One-Stop Career Center (750 South 5th Street in Immokalee, FL). This meeting was noticed bilingually in several local newspapers and invitational letters were sent out to property owners within the study area, interested parties, agencies, and elected officials. Based on coordination with and input from FHWA, the SAC, resource agencies, and the public, five “representative alignments” were selected to be presented at the Alignments Public Workshop. The five representative alignments included:

- Alignment A (Existing Corridor),
- Alignment E (West Corridor),
- Alignment L (Central Corridor),
- Alignment S (East Corridor), and
- Alignment U (East Corridor).

Twenty-two citizens signed in and reviewed the presentation materials that were on display and asked questions to the FDOT Study Team staff present. A total of eight comments were received

at the Alignments Public Workshop from participants, and two additional comments were received as a result of the workshop, one via the project website and one via email. Additional comments were received from a meeting that was held on the same day as the workshop with a group of large property owners in the project area. Some of the comments stated a preference for a specific alignment(s) – four favored Alignment S, one favored Alignment A, and two favored Alignment E. Other concerns/suggestions relayed were impacts on private properties, concerns that a bypass would harm downtown businesses, the need to minimize impacts to the human and natural environments, and suggestions of ways to revise/modify the representative alignments.

For the Alignments Public Workshop, FDOT continued to utilize the previously stated accommodations to enhance public outreach efforts to the Limited English Proficiency (LEP) populations within the SR 29 study area.

5.4 Public and Agency Alternatives Scoping Meetings

The Public Alternatives Scoping Meeting was held on February 17, 2010, and an Agency Alternatives Scoping Meeting was held the following day on February 18, 2010. Both meetings were at the Immokalee One-Stop Career Center. The purpose of the scoping meetings was to:

1. Review the process used to get to the alternatives stage and discuss progress made to date.
2. Identify the range of alternatives which were to be carried forward for analysis from the corridor and alignments stages.
3. Determine the potential impacts to be evaluated, including the scope and degree of analysis required to evaluate the alternatives to be considered in the environmental document.
4. Identify issues which were identified during the ETDM process as not needing further study, or which needed only minor analysis. This would narrow discussion in the environmental document to a brief description of why they will not have a significant effect on the human or natural environment or providing a reference to their coverage elsewhere.
5. Identify other Environmental Assessments or Environmental Impact Statements which are being prepared in the vicinity of the project that are related to, but are not part of, the scope of the environmental document under consideration.
6. Identify other environmental review and consultation requirements so the lead and cooperating agencies may prepare other required analyses and studies concurrently with, and integrated with, the environmental document.

Aerial photographs and other project information were available for public viewing. Department representatives were available at the meetings to answer questions and discuss the purpose and need statement.

Based on refinements to the alignments following the Alignments Public Workshop, the following preliminary alternatives were presented at the Public and Agency Alternatives Scoping Meetings:

- Existing SR 29 Alternative,
- West Preliminary Alternative,
- Central Preliminary Alternative, and
- East Preliminary Alternative.

The No-Build Alternative, which remains a viable alternative through the PD&E process, was also presented. The Public and Agency Alternatives Scoping Meetings, and subsequent coordination, resulted in the following actions:

- No Build Alternative: Moved forward for further evaluation,
- Existing SR 29 Alternative: Moved forward for further evaluation,
- West Preliminary Alternative: Eliminated by FHWA on June 1, 2010,
- Central Preliminary Alternative: Revised to become Central Preliminary Alternative #1 which was advanced for further evaluation, and
- East Preliminary Alternative: Revised to become East Preliminary Alternative #1 and East Preliminary Alternative #2, both of which were advanced for further evaluation.

5.5 Alternatives Public Workshop #1

An Alternatives Public Workshop was held on April 3, 2014 at the Immokalee One-Stop Career Center. The FDOT presented the following four alternatives at the Alternatives Public Workshop:

- No-Build Alternative
- Existing SR 29 Alternative
- Central Alternative #1 Revised
- Central Alternative #2

A total of seventeen comments were received as a result of the Alternatives Public Workshop. Responders denoted the following preferences for a specific alternative(s): one favored the No-Build Alternative, three favored the Existing SR 29 Alternative, and thirteen favored Central Alternative #2; the majority of responders were against Central Alternative #1 Revised. An additional 26 comments were received following the workshop, which were in opposition to roundabouts.

Additional comments received from stakeholders and the public at the Alternatives Public Workshop indicated concerns about bicycle and pedestrian safety in regards to the Existing SR 29 Alternative and Central Alternative #1 Revised. Other concerns regarding these two alternatives pertained to the funneling of traffic through key portions of Immokalee, which would bisect portions of the town and result in impacts to key structures and limitations on future redevelopment.

5.6 Alternatives Public Workshop #2

A second Alternatives Public Workshop was held on November 9, 2017 at the University of Florida, Institute of Food and Agricultural Sciences (UF IFAS) Extension, Southwest Florida Research and Education Center in Immokalee (2868 SR 29N, Immokalee, FL 34142). The FDOT presented the following four alternatives at this Alternatives Public Workshop:

- No-Build Alternative
- Central Alternative #1 Revised
- Central Alternative #2
- Central Alternative #2 Revised

Sixteen comments were received during the meeting. Attendees were asked to rank the alternatives from one through four in order of preference, with one being their most preferred. Only six of the sixteen comment cards assigned a rank for each alternative. Central Alternative #2 was the most preferred with eight people ranking it either #1 or #2, while Central Alternative #1 Revised was preferred by only six people. Central Alternative #2 Revised and the No Build-Alternative had the fewest numbers of people expressing their preference for these alternatives (four people and one person, respectively). Conversely, Central Alternative #2 received no rankings of #3 or #4, which means there were no persons opposed to this alternative. Central Alternative #1 Revised received three rankings of #3 and #4, and Central Alternative #2 Revised and the No-Build Alternative received five rankings of #3 and #4.

After the workshop, the Conservancy of Southwest Florida and Collier Enterprises responded with comments. A letter signed by Alison Wescott was sent by Susan Scott of the Conservancy of Southwest Florida on November 20, 2017. The letter expressed support for the Central Alternative #1 Revised. An email was received from Pat Utter of Collier Enterprises on December 21, 2017 in support of Central Alternative #2 Revised. None of the letters ranked the additional alternatives. Besides the No Build Alternative, Central Alternative #2 Revised was the least supported of the three Build alternatives.

5.7 Public Hearing

The Public Hearing is currently scheduled to be held on November 15, 2018. This section will be updated with details about the meeting following the Hearing.

6.0

RECOMMENDED ALTERNATIVE

Central Alternative #2 has been selected as the recommended alternative. It follows the existing alignment of SR 29 from the start of the project at Oil Well Road to north of Seminole Crossing Trail. From this point, the Bypass portion of the Central Alternative #2 travels north from SR 29 on new alignment along the west side of the Immokalee Regional Airport to avoid the commercial/industrial areas of Immokalee and the State Farmers Market to the west. The Bypass portion of Central Alternative #2 then turns to the northwest just past Gopher Ridge Road to parallel Madison Avenue and New Market Road. It then travels along the east side of Collier Health Services Medical Center and the Florida State University College of Medicine before reconnecting to SR 29 north of Westclox Street/New Market Road W. Central Alternative #2 from north of Westclox Street/New Market Road W to the project terminus near SR 82. A partial two-lane roundabout is proposed at SR 29 and Westclox Street/New Market Road W.

6.1 Typical Sections

6.1.1 SR 29

Within the project limits, SR 29 has been divided into the following six typical sections:

From Oil Well Road to South of Kaicasa Entrance

The existing 2-lane undivided roadway is widened to a 4-lane divided typical section (two (2) 12-foot lanes in each direction and a 40-foot median). There is an open drainage system, and the design speed is 65 mph.

The existing ROW varies from 173.75 feet to 181 feet. The ROW width needed for this typical section can be accommodated within the existing ROW limits. **Figure 6.1** depicts this typical section.

From South of Kaicasa Entrance to North of Seminole Crossing Trail

The existing 2-lane undivided roadway is widened to a 4-lane divided typical section (two (2) 12-foot lanes in each direction and a 30-foot median), with a 10-foot shared use path on the west side of the corridor from Farm Worker Way to Seminole Crossing Trail. There is an open drainage system, and the design speed is 55 mph.

The existing ROW varies from 173.75 feet to 181 feet. The ROW width needed for this typical section can be accommodated within the existing ROW limits, except for the canal relocation near Seminole Crossing Trail. **Figure 6.2** depicts this typical section.

Figure 6.1
SR 29 Typical Section from Oil Well Road to South of Kaicasa Entrance

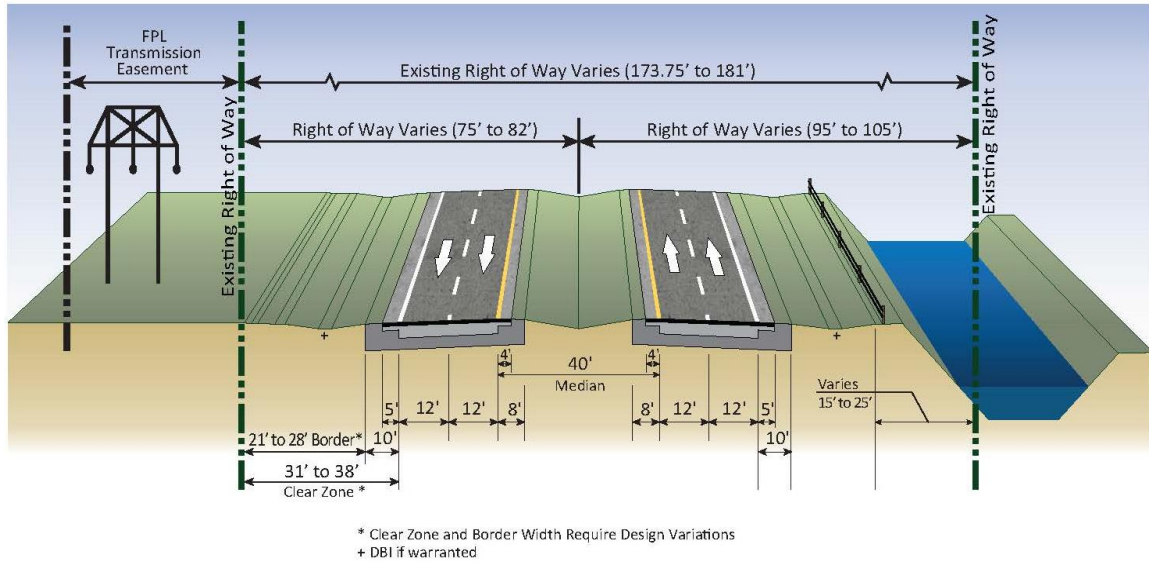
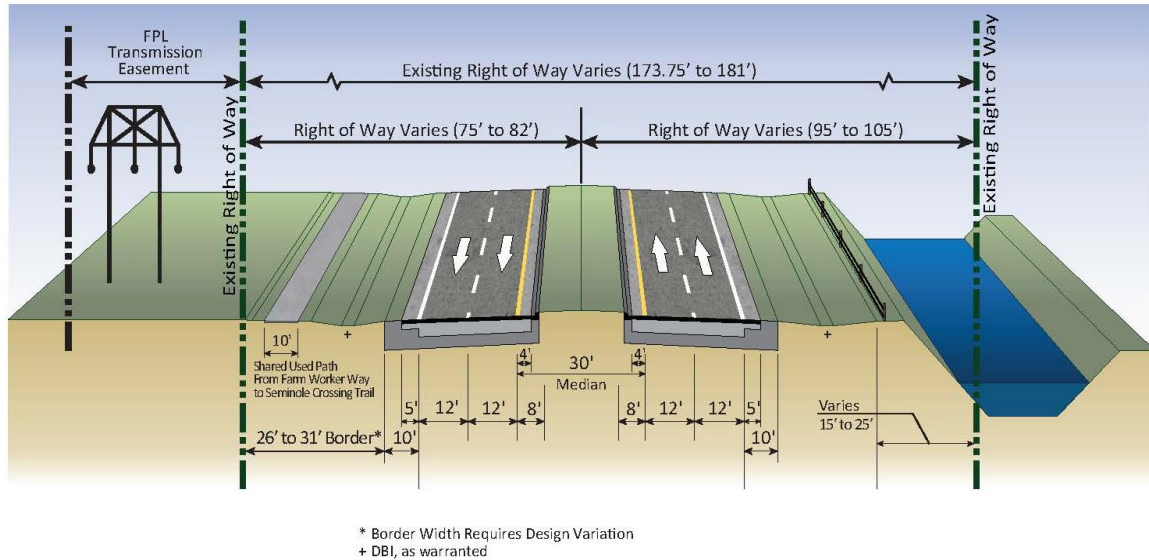


Figure 6.2
SR 29 Typical Section from South of Kaicasa Entrance to North of Seminole Crossing Trail

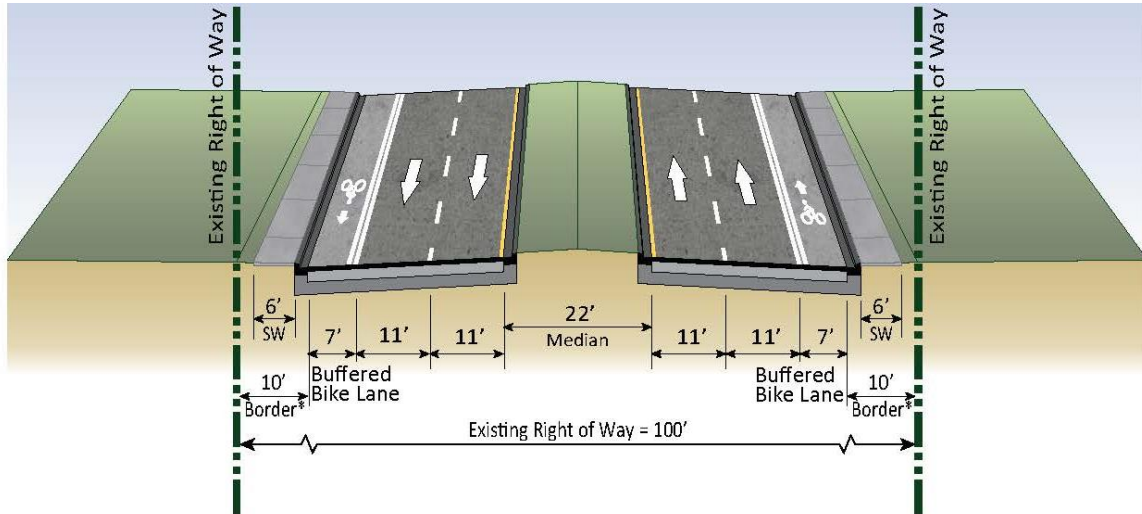


From North of Seminole Crossing Trail to CR 846

The existing 2-lane undivided roadway is widened to a 4-lane divided typical section (two (2) 11-foot lanes in each direction and a 22-foot median), with 7-foot buffered bicycle lanes and 6-foot sidewalks in each direction. There is a closed drainage system with curb and gutter, and the design speed is 45 mph.

The existing ROW is 100 feet. The ROW width needed for this typical section can mostly be accommodated within the existing ROW limits, except for some additional ROW needed for a turn lane near 13th Street. **Figure 6.3** depicts this typical section.

Figure 6.3
SR 29 Typical Section from North of Seminole Crossing Trail to CR 846



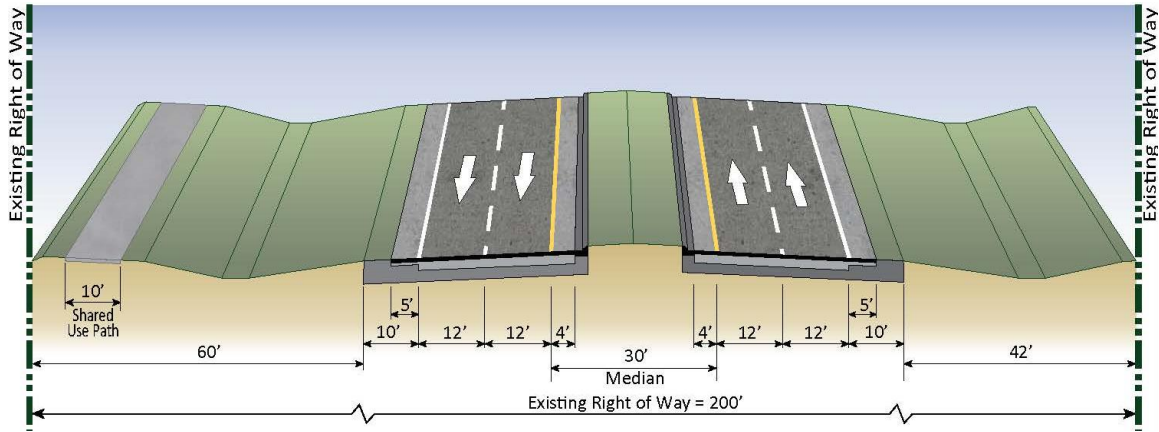
* 10' Border Width Requires Design Variation Where Constrained by 100' Existing ROW

From North of Westclox Street to the SR 29 Bypass Junction

The existing 2-lane undivided roadway is widened to a 4-lane divided typical section (two (2) 12-foot lanes in each direction and a 30-foot median), with a 10-foot shared use path on the west side of the corridor. There is an open drainage system, and the design speed will be 50 mph when the SR 29 Bypass is constructed.

The existing ROW is 200 feet. The ROW width needed for this typical section can be accommodated within the existing ROW limits. **Figure 6.4** depicts this typical section.

Figure 6.4
SR 29 Typical Section from North of Westclox Street to the SR 29 Bypass Junction

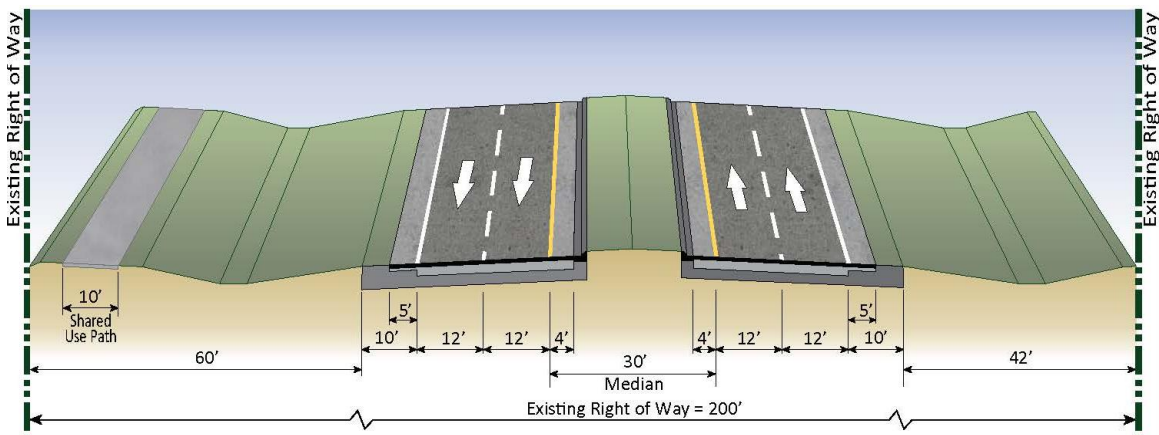


From the SR 29 Bypass Junction to Experimental Road

The existing 2-lane undivided roadway is widened to a 4-lane divided typical section (two (2) 12-foot lanes in each direction and a 30-foot median), with a 10-foot shared use path on the west side of the corridor. There is an open drainage system, and the design speed is 55 mph.

The existing ROW is 200 feet. The ROW width needed for this typical section can be accommodated within the existing ROW limits. **Figure 6.5** depicts this typical section.

Figure 6.5
SR 29 Typical Section from the SR 29 Bypass Junction to Experimental Road

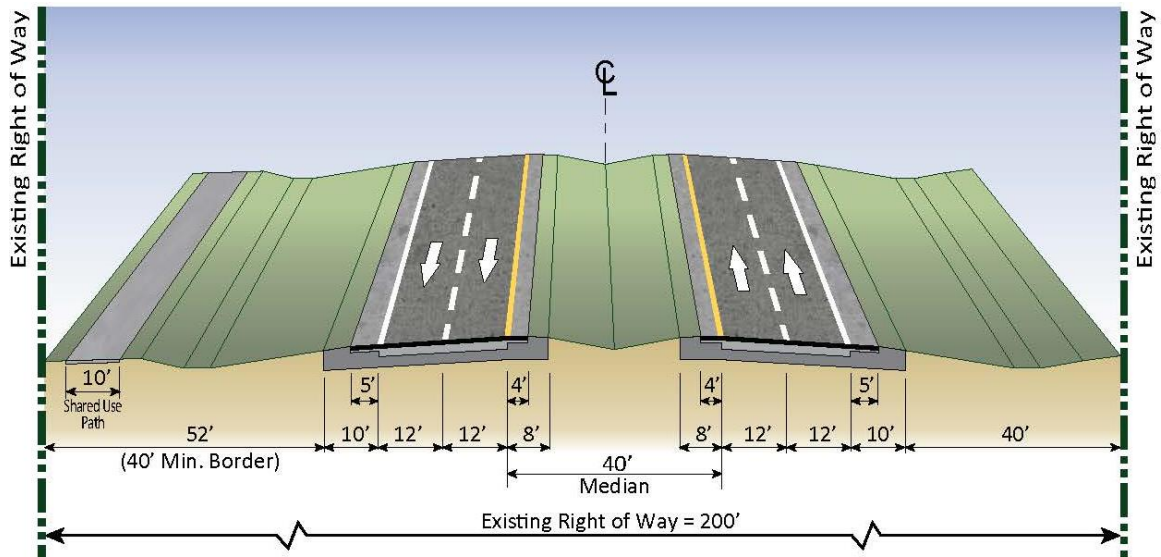


From Experimental Road to South of SR 82

The existing 2-lane undivided roadway is widened to a 4-lane divided typical section (two (2) 12-foot lanes in each direction and a 40-foot median), with a 10-foot shared use path on the west side of the corridor. There is an open drainage system, and the design speed is 60 mph.

The existing ROW is 200 feet. The ROW width needed for this typical section can be accommodated within the existing ROW limits. **Figure 6.6** depicts this typical section.

Figure 6.6
SR 29 Typical Section from Experimental Road to South of SR 82



6.1.2 SR 29 Bypass Portion

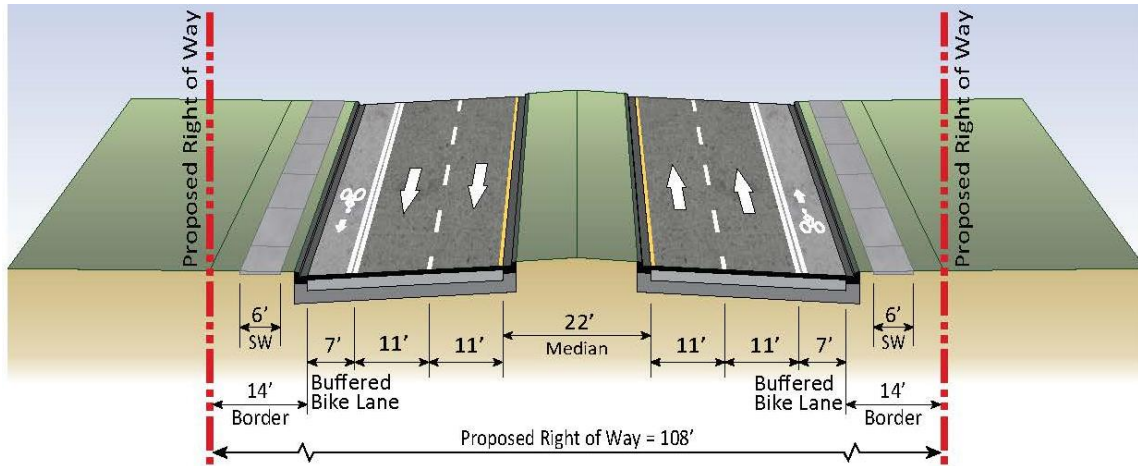
Within the project limits, the proposed SR 29 Bypass portion of Central Alternative #2 from CR 846 to the Bypass junction with SR 29 north of Westclox Street / New Market Road W can be divided into the following two typical sections:

From CR 846 to Gopher Ridge Road

A 4-lane divided typical section (two (2) 11-foot travel lanes in each direction and a 22-foot median) is proposed, with 7-foot buffered bicycle lanes and 6-foot sidewalks in each direction. There is a closed drainage system with curb and gutter, and the design speed is 45 mph.

The ROW width needed for this typical section is 108 feet. **Figure 6.7** depicts this typical section.

Figure 6.7
SR 29 Bypass Typical Section from CR 846 to Gopher Ridge Road

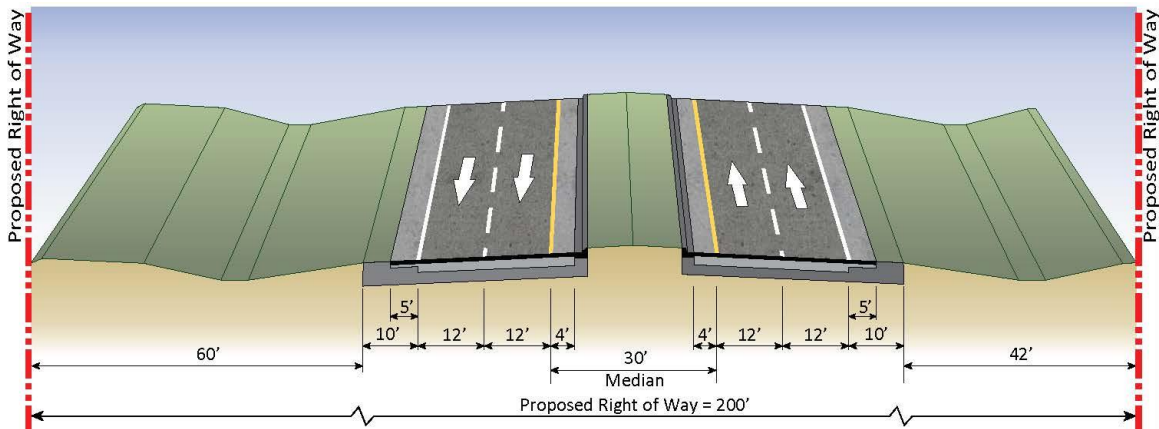


From Gopher Ridge Road to SR 29 Bypass Junction

A 4-lane divided typical section (two (2) 12-foot travel lanes in each direction and a 30-foot median) is proposed. There is an open drainage system, and the design speed is 50 mph.

The ROW width needed for this typical section is 200 feet. Figure 6.8 depicts this typical section.

Figure 6.8
SR 29 Bypass Typical Section from Gopher Ridge Road to SR 29



6.2 Intersection Concepts

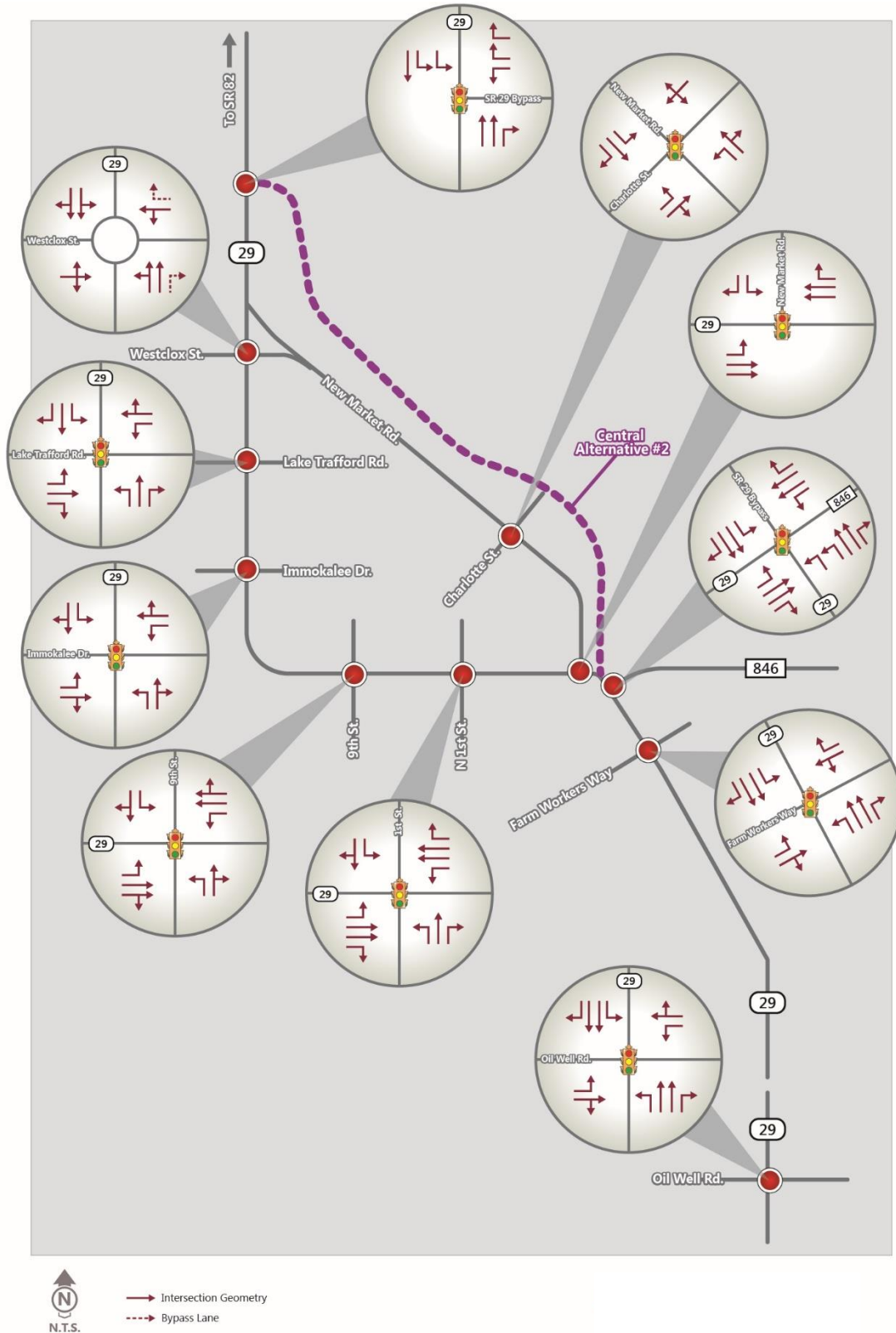
For Central Alternative #2, signalized intersections have been proposed at each of the existing stop controlled intersections, except at SR 29 and Westclox Street/New Market Road W where a partial two-lane roundabout is proposed. Also, capacity increases, from 2-lane to 4-lane facilities, have been proposed along the existing SR 29 and New Market corridors north and south of the SR 29 Bypass. Additional left and right turn lanes have been proposed at various intersections along the study corridor. No geometric changes to SR 29 within downtown Immokalee, from New Market Road to Westclox Street/New Market Road W, or along New Market Road have been proposed. Figure 6.9 depicts the proposed intersection geometries for Central Alternative #2.

The FDOT Step 1 Roundabout Screening was conducted for each of the following intersections:

- SR 29 and Oil Well Road
- SR 29 and Farm Worker Way
- SR 29 and CR 846/Southern SR 29 Bypass Junction
- SR 29 and New Market Road
- SR 29 and Westclox Street/New Market Road
- SR 29 and the Northern SR 29 Bypass Junction

The intersections at SR 29 and Westclox Street/New Market Road and SR 29 and the northern SR 29 Bypass Junction were advanced to the Step 2 Benefit-Cost Evaluation for Central Alternative #2. It is anticipated that the SR 29 and Westclox Street/New Market Road intersection will proceed to the Step 3 Geometric and Operational Analysis during preliminary and final design. The FDOT Roundabout Screening forms and evaluations for the Recommended Alternative can be found in **Appendix D**.

**Figure 6.9
Proposed Intersection Geometries**



6.3 Design Year Traffic Volumes

6.3.1 Design Traffic Projections and Characteristics

A *Design Traffic Technical Memorandum*, dated January 2018, was prepared as part of this study. To develop the design year (2045) traffic volumes, the following design traffic characteristics were utilized:

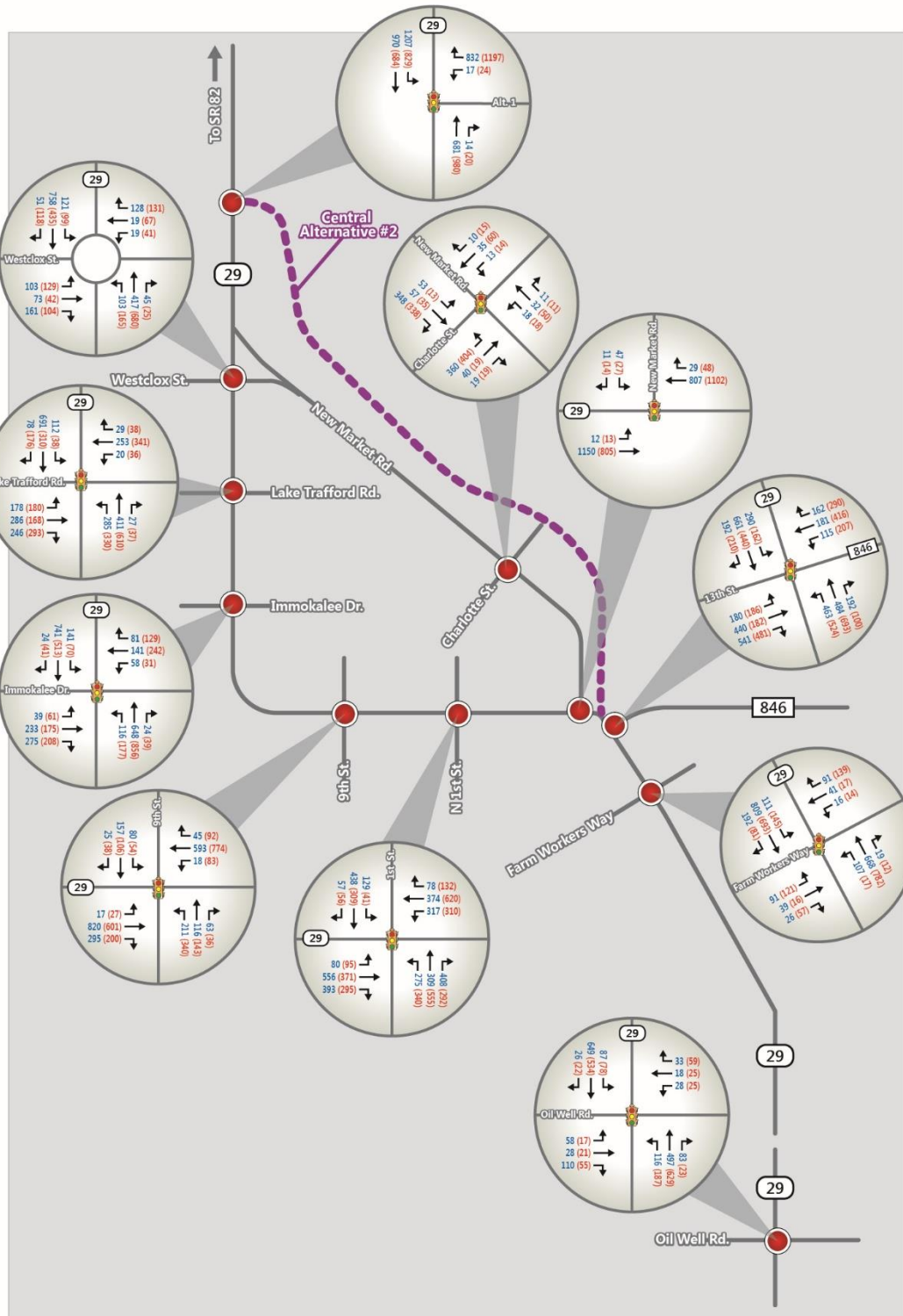
- Standard K factor of 9.5% along SR 29 from Oil Well Road to south of Farm Worker Way
- Standard K factor of 9.0% along SR 29 from Farm Worker Way to SR 82 and along New Market Road
- Peak directional factor of 59.0% along SR 29 and New Market Road
- Peak directional factors ranging from 52.1% to 67.1% along the side streets
- Peak hour truck factor of 16.0% along SR 29, south and north of the Bypass junctions, and along the Bypass
- Peak hour truck factor of 9.0% along SR 29 from the southern to the northern Bypass junctions
- Annual growth rates ranging from 0.90% to 1.63%

Using the standard K factor and D factor approach, 2045 AM and PM peak hour approach and departure volumes were estimated for all intersections based on existing turning patterns. The estimated (2045) AM and PM peak hour volumes for Central Alternative #2 are depicted in **Figure 6.10**.

6.3.2 Design Traffic Operational Analysis

Intersection operational analysis was undertaken for the 2045 AM and PM peak hours using Synchro. Similarly, arterial operational analysis of the Recommended Alternative was undertaken referencing the 2013 FDOT *Quality/Level of Service Handbook*. **Table 6.1** and **Table 6.2** provide summaries of the anticipated intersection LOS and delay and arterial LOS in the year 2045 for Central Alternative #2. Those intersections and arterial segments that do not meet LOS standards are shown in red bold font.

Figure 6.10
Design Year (2045) AM and PM Peak Hour TMC's



**Table 6.1
2045 Intersection LOS**

Intersection	Control Type	FDOT LOS Target	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
SR 29 and Oil Well Road	Signal	C	18.3	B	16.8	B
SR 29 and Farm Worker Way	Signal	D	14.3	B	15.3	B
SR 29 and CR 846	Signal	D	48.4	D	40.3	D
SR 29 and New Market Road	Signal	D	2.4	A	1.8	A
SR 29 and North 1 st Street	Signal	D	68.1	E	47.5	D
SR 29 and North 9 th Street	Signal	D	29.9	C	34.5	C
SR 29 and Immokalee Drive	Signal	D	33.7	C	28.9	C
SR 29 and Lake Trafford Road	Signal	D	55.2	E	26.2	C
SR 29 and Westclox Street/New Market Road W	Roundabout	D	12.6	B	12.9	B
SR 29 and SR 29 Bypass	Signal	D	20.9	C	29.3	C
New Market Road and Charlotte Street	Signal	D	27.4	C	28.8	C

**Table 6.2
2045 Arterial LOS**

Segment	Number of Lanes	FDOT LOS Target	Directional Design Hour Volume (DDHV)	LOS
SR 29				
Oil Well Road to Farm Worker Way	4	C	841	B
Farm Worker Way to CR 846	4	D	1,221	C
CR 846 to New Market Road	4	D	1,221	C
New Market Road to North 1 st Street	4	D	1,062	D
North 1 st Street to North 9 th Street	4	D	1,009	D
North 9 th Street to Immokalee Drive	2	D	1,062	F
Immokalee Drive to Lake Trafford Road	2	D	797	C
Lake Trafford Road to Westclox Street/New Market Road	2	D	690	C
Westclox Street/New Market Road to SR 29 Bypass	4	D	1,009	C
SR 29 Bypass to SR 82	4	D	2,177	C
SR 29 Bypass				
SR 29 (south termini) to Flagler Street	4	D	1,168	C
Flagler Street to Kissimmee Street	4	D	1,381	C
Kissimmee Street to SR 29 (north termini)	4	D	1,221	C
New Market Road				
SR 29 to Charlotte Street	2	D	287	C
Charlotte Street to SR 29/Westclox Street	2	D	58	C

6.4 Horizontal and Vertical Geometry

The horizontal alignment for Central Alternative #2 contains ten horizontal curves within the project limits. The curve data is summarized in **Table 6.3**.

Table 6.3
Horizontal Alignment

Horizontal Curve Station			Radius (ft.)	DELTA (Deflection Angle)	DELTA (RT or LT)	Degree of Curve	Tangent Length (ft.)	Length (ft.)	Superelevation	Design Speed (MPH)
P.C.	P.I.	P.T.								
SR 29										
224+31.64	237+25.99	248+91.15	3,194.17	44° 07' 04"	LT	1° 47' 38"	1,294.35	2,459.51	0.056	65
477+78.09	482+50.42	487+22.62	22,918.94	2° 21' 41"	RT	0° 15' 00"	472.33	944.53	NC	55
492+34.20	496+20.61	500+06.94	22,918.00	1° 55' 55"	LT	0° 15' 00"	386.40	772.73	NC	55
SR 29 Bypass										
88+22.26	89+08.44	89+94.61	22,918.00	0° 25' 51"	LT	1° 15' 00"	86.17	172.35	NC	-
111+97.46	113+99.03	116+00.10	3,300.00	5° 59' 27"	LT	1° 44' 11"	201.57	402.64	NC	45
116+00.10	126+14.39	134+85.71	2,064.87	52° 19' 18"	RT	2° 46' 29"	1,014.29	1,885.61	0.02	45
144+28.41	147+82.73	151+23.11	1,432.00	27° 47' 45"	LT	4° 00' 04"	354.33	694.70	0.02	45
158+02.61	168+28.93	177+73.64	2,865.00	39° 25' 04"	LT	2° 00' 00"	1,026.32	1,971.04	NC/0.04	45/50
185+25.85	190+84.11	196+29.74	3,000.00	21° 04' 58"	RT	1° 54' 35"	558.26	1,103.89	0.039	50
213+89.91	257+65.07	296+72.64	10,398.79	45° 38' 12"	RT	0° 33' 04"	4,375.16	8,282.73	NC	50

The topography surrounding the project vicinity is relatively flat. Central Alternative #2 will follow the existing profile of SR 29, where applicable. The vertical alignment will be evaluated in more detail during the final design phase, during which site-specific geotechnical data will be collected and analyzed.

6.5 Access Management

Given SR 29's designation as an Emerging SIS Highway Corridor, the proposed access classification along SR 29 for Central Alternative #2 is Access Class 3, upgrading portions of the corridor with less restrictive existing access classifications. Emerging SIS facilities are a primary means for the movement of people and goods between regions, and generally serve fast growing economic regions and Rural Areas of Opportunity, such as Immokalee.

Table 6.4 summarizes the proposed 35 access points for Central Alternative #2.

**Table 6.4
Access Management**

Location Description	Station	Design Speed (MPH)	Existing Access	Proposed Access	Proposed Spacing (Ft.)
Oil Well Rd & SR 29 Intersection	30+00	65	Full	Signal	>2640
Partial: SB LT, North of Oil Well Rd	68+10	65	N/A	Directional	>1320
Partial: NB LT, North of Oil Well Rd	82+80	65	N/A	Directional	>1320
Partial: SB LT, North of Oil Well Rd	109+20	65	N/A	Directional	>1320
Partial: NB & SB LT, North of Oil Well Rd	178+70	65	N/A	Directional	>1320
Partial: NB & SB LT, South of Trans Gro	239+10	65	N/A	Directional	>1320
Trans Gro & SR 29 Intersection	259+00	65	N/A	Full	>2640
Sunniland Nursery Rd & SR 29 Intersection	281+20	65	N/A	Full	2,220
Full: North of Sunniland Nursery Rd	335+50	65	N/A	Full	>2640
Full: South of Future Kaicasa Entrance	399+40	65	N/A	Full	>2640
Future Kaicasa Entrance & SR 29 Intersection	416+10	65	N/A	Directional	>1320
Agriculture Way & SR 29 Intersection	446+00	55	N/A	Directional	>1320
Farm Workers Way & SR 29 Intersection	463+40	55	Signal	Signal	>2640
Partial: SB LT, North of Farm Workers Way	486+10	55	N/A	Directional	>1320
Seminole Crossing Trail & SR 29 Intersection	499+30	55	N/A	Full	>2640
Circle K at New Harvest Rd & SR 29 Intersection	95+00	45	N/A	Directional	770
Oakes Farms at New Harvest Rd & SR 29 Intersection	105+50	45	N/A	Full	1,820
14th St & SR 29 Intersection	113+50	45	N/A	Directional	800
CR 846 & SR 29 Intersection	122+00	45	N/A	Signal	>2640
Airport Access & SR 29 Intersection	135+00	45	N/A	Directional	1,300
Partial: North of Airport Access	148+40	45	N/A	Directional	>1320
Gopher Ridge Rd & SR 29 Intersection	165+50	45	N/A	Directional	>1320
Gopher Ridge East/SR 29 Connection	167+00	45	N/A	Directional	150
Proposed Flagler St & SR 29 Intersection	189+40	50	N/A	Full	>2640
Partial: NB & SB LT, North of Proposed Flagler St & SR 29 Intersection	206+10	50	N/A	Directional	>1320
Proposed Lee St & SR 29 Intersection	223+00	50	N/A	Full	>2640
Partial: NB & SB LT, South of Proposed 15th St & SR 29 Intersection	241+20	50	N/A	Directional	>1320
Heritage Blvd/ SR 29 Connection	251+30	50	N/A	Directional	1,010
Proposed 15th St & SR 29 Intersection	264+50	55	N/A	Signal	>2640
Full: North of Proposed 15th St & SR 29 Intersection	287+70	55	N/A	Full	2,320
UF IFAS & SR 29 Intersection	309+70	55	N/A	Directional	>1320
Experimental Rd & SR 29 Intersection	317+20	55	N/A	Full	>2640
Partial: NB & SB LT, South of Oquinn Rd	328+00	65	N/A	Directional	1,080
Johnson Rd & SR 29 Intersection	351+50	65	N/A	Full	>2640
Partial: SB LT, North of Johnson Rd	361+00	65	N/A	Directional	950
Westclox St & SR 29 Intersection	---	50	Flashing Beacon	Roundabout	1,310

6.6 Variation and Exceptions

Based on the design criteria identified in **Section 3.0**, **Table 6.5** summarizes the potential design variations anticipated along SR 29 for Central Alternative #2. Drafts of the Design Variation requests are included in **Appendix E**.

Table 6.5
Design Variations

Segment	Context Classification	Design Speed (MPH)	Design Variation	FDM Requirement	Central Alternative #2
Oil Well Road to South Kaicasa Entrance	C2 Rural	65	Border Width	40 ft	21 ft to 28 ft on the west side
			Clear Zone	36 ft	31 ft minimum on the west side
Kaicasa Entrance to Seminole Crossing Trail	C3R	55	Border Widths	40 ft	26 ft to 31 ft on the west side
Seminole Crossing Trail to Gopher Ridge Road	C3C Rural	45	Border Widths	12 ft	10 ft on both sides

6.7 Drainage

A *Location Hydraulic Report (LHR)* (August 2018) and a *Preliminary Pond Siting Report (PPSR)* (August 2018) have been prepared under separate cover as part of this PD&E study.

6.7.1 Location Hydraulics

The purpose of the *Location Hydraulic Report (LHR)* is to address the base floodplain encroachments resulting from the roadway improvements evaluated in this PD&E study. The intent is to avoid or minimize highway encroachments within the 100-year (base) floodplains and to avoid supporting land use development incompatible with floodplain values.

FEMA has designated locations of the 100-year base floodplain within the project corridor. The entire project is within the 100-year base floodplain designated as Zone AH, which is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from detailed hydraulic analyses are shown at selected intervals within this zone. The base flood elevation ranges from elevation 19 feet just south of Oil Well Road to elevation 36.5 feet at SR 82. The proposed improvements would impact the base floodplain storage in the following ways:

- The widening of the cross drains and bridge culverts will encroach upon the floodplain in the form of concrete and fill material.

- The widening of the roadway portion of the project would add embankment fill material upon the base floodplain within the existing right-of-way.

Based on the proposed typical sections, the estimated encroachment volumes (floodplain impacts) are expected to be approximately 25.36 acre-feet. Floodplain compensating storage will be provided as required by SFWMD and as a result, no significant changes in base flood elevations or limits will occur.

6.7.2 Stormwater Management

The purpose of the *Preliminary Pond Siting Report (PPSR)* is to develop engineering concepts, analyze environmental data and document information which will aid the FDOT in determining the type, design and location of stormwater management facilities required for the proposed improvements. The report identifies alternative pond locations for meeting applicable stormwater management criteria, documents estimated ROW requirements, and discusses possible environmental impacts associated with the alternative pond sites. For this PD&E Study, the *PPSR* identifies one alternative pond site for each basin.

The SR 29 study corridor traverses three major watersheds within the project study area, Okaloacoochee Watershed, Cocohatchee-Corkscrew and the Caloosahatchee River Watershed. Within these watersheds, there are four regional drainage basins: Barron River Canal North (WBID 3278W), Urban Immokalee (WBID 3278L), Corkscrew Slough (WBID 3278E), and Townsend Canal (WBID 3235L). WBIDs 3278W, 3278L and 3235L are all verified as impaired for nutrients on the current FDEP 303(d) list. There are no OFW's within the project limits.

The project consists of 41 drainage basins for Central Alternative #2: Basins 1 through 25, Basins 26-2 through 32-2 and Basins 33 through 41. A proposed wet detention pond has been identified within each of these basins.

Existing flow patterns will be maintained and stormwater management facilities will be utilized to provide the necessary stormwater management (water quality and quantity). It is assumed that the existing offsite stormwater runoff will be "passed through" the proposed ponds, where necessary, with no additional treatment required. Weir structures and pipes must be sized to accommodate the additional offsite flows passing through the proposed ponds.

6.8 Right of Way and Relocations

Central Alternative #2 follows the existing ROW up to 13th Street in Immokalee. From this point, Central Alternative #2 turns north at 13th Street on new ROW on the west side of the Immokalee Regional Airport then follows the alignment of CR 846/Airport Road before turning west on new alignment. **Table 6.6** shows the business and vacant parcel impacts.

Table 6.6
Potential ROW Impacts

Parcel Impact Type	Number of Parcels Impacted
Business Parcels Affected	4
Business Displacements	1
Public/Semi-Public Parcels Affected	3
Undeveloped Parcels Affected	13
Personal Property Relocations	3

There are no residential relocations anticipated for Central Alternative #2. However, there is one business that will require relocation as a result of Central Alternative #2. This business is located at 730 E Main Street. This business is a gas station/store that was built in 1965. Relocation on the existing parcel is not feasible.

6.9 Utility Impacts

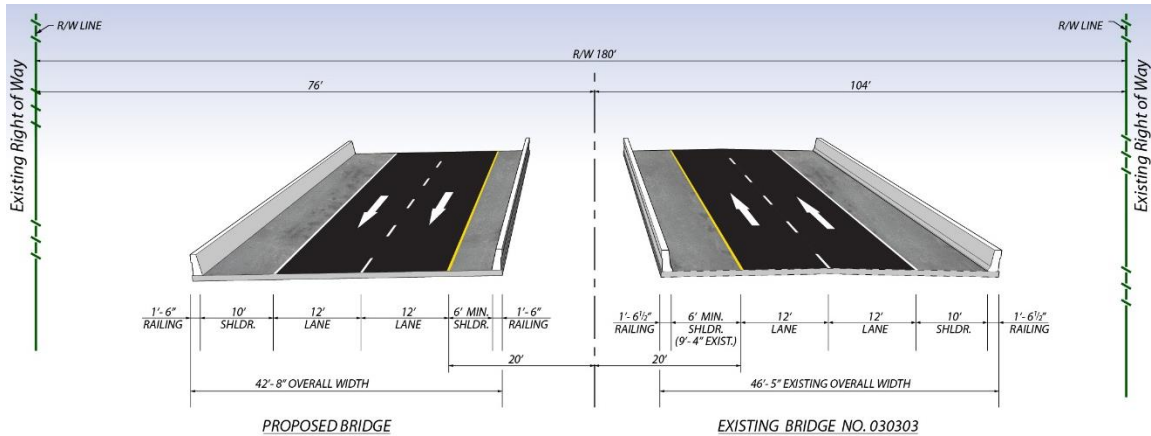
A *Utility Request Package* was submitted to the UAO's on June 8, 2018. The utility impacts will be identified as information is received from the UAO's and a *Utility Assessment Package* will be prepared for the project. However, all of the anticipated utility impacts will occur within FDOT's right-of-way. Relocation of any utility located within FDOT right-of-way by permit will be at the expense of the UAO.

6.10 Structures

The widening of SR 29 for Central Alternative #2 requires the lengths of three existing bridge culverts (Structure Nos. 030019, 030304 and 030305) to be extended. Bridge Culvert No. 030019 was constructed in 1965 and has a Sufficiency Rating of 81. Bridge Culvert Nos. 030304 and 030305 were constructed in 1999 and have Sufficiency Ratings of 95.9 and 93.9, respectively. All of the bridge culverts have LFR Inventory Load Rating Factors above 1.0, which makes them suitable for widening.

The widening of SR 29 also requires the addition of a new bridge over Gator Creek adjacent to Bridge No. 030303. The existing reinforced concrete flat slab bridge was constructed in 1999. It has a Sufficiency Rating of 95.9 and a LFR Inventory Rating over 1.0, which indicates that it is in good overall condition and is suitable to remain in service. The existing bridge will carry the two northbound lanes of traffic and the new bridge will carry the two southbound lanes. The proposed southbound parallel structure will be a 50-ft. long two-span concrete bridge with equal spans and with a similar vertical profile as the existing bridge. The bridge typical section will have two 12-foot wide travel lanes with a 6-foot inside shoulder and a 10-foot outside shoulder. **Figure 6.11** depicts this typical section.

Figure 6.11
Typical Section for SR 29 Bridge over Gator Creek



Replacement of the existing pedestrian overpass Bridge No. 039001 over SR 29 is required due to insufficient bridge horizontal underclearance to accommodate the widening of SR 29.

6.11 Railroad Assessment

There are no at-grade or grade-separated railroad crossings within the project study area.

6.12 Lighting

A *Lighting Justification Report* was not completed as part of this PD&E study.

Since approximately 28% of the crashes along SR 29 occurred during non-daylight time periods with low lighting conditions and all of the existing stop-controlled intersections along the corridor are proposed to be signalized, the need for lighting along SR 29 where there currently is none should be evaluated during preliminary and final design. The adequacy of the existing conventional lighting along SR 29 from CR 846 to North 1st Street and the decorative lighting in the vicinity of the Westclox Street/New Market Road W intersection should also be evaluated to determine if it meets the Lighting Maintained Values contained within the *FDM – Table 231.2.1*.

6.13 Intelligent Transportation Systems

The replacement of the pedestrian overpass at SR 29 and Farm Worker Way (Structure No. 039001) will impact the controller assembly box and pull boxes located on the southeast corner of the intersection. The impacts include potential relocation or replacement of the controller assembly box and associated pull boxes.

Also, the addition of lanes along the west side of SR 29 at Farm Worker Way will similarly impact the controller assembly box and associated pull boxes, the southbound school zone warning

beacon, all pull boxes along the southbound approach, and the pull boxes at the northwest corner of the intersection.

6.14 Traffic Control Plan/Construction Impacts

The construction of Central Alternative #2 can be completed through the following phases:

SR 29 from Oil Well Road to North of Seminole Crossing Trail

- Phase 1*
- A. Maintain existing two-way traffic on the existing lanes.
 - B. Construct the required ponds and related drainage systems leading to the ponds.
 - C. Construct the new southbound lanes.
- Phase 2*
- A. Shift the two-way traffic over to the newly completed southbound lanes.
 - B. Undertake construction work required to reconstruct or widen the existing two lanes to become the new northbound lanes.
- Phase 3*
- A. Shift traffic where one northbound lane is placed on the outside lane of the completed two northbound lanes, and one southbound lane is placed on the outside lane of the completed two southbound lanes.
 - B. Complete the required median work including the related drainage structures.
 - C. Undertake the final pavement surface (friction course) and apply final striping.

SR 29 from North of Seminole Crossing Trail to CR 846 and Continuing to West of New Market Road E

- Phase 1*
- A. Construct ponds that are not in conflict with roadway traffic.
 - B. During allowable lane closure periods (night-work operations) and in sections where four lanes exist, close one lane in each direction and place temporary pavement in the median.
 - C. Shift traffic lanes toward the paved median and add temporary pavement along the west side.
- Phase 2*
- A. Shift the traffic lanes toward the west side, over existing pavement and the newly completed temporary pavement.
 - B. Construct the new northbound lanes and related drainage structures.
- Phase 3*
- A. Shift the traffic lanes toward the east side, over the newly completed northbound pavement and portion of the temporary pavement in the median.
 - B. Construct the new southbound lanes and related drainage structures.

- Phase 4*
- A. Place traffic lanes over the completed northbound and southbound lanes – lanes in both directions will be shifted toward the outside to allow more space toward the median.
 - B. Complete the required median work including the related drainage structures.
 - C. Undertake the final pavement surface (friction course) and apply final striping.

SR 29 Bypass from CR 846 to South of Experimental Road

- Phase 1*
- A. Alignment is over virgin land.
 - B. Construct the required ponds and related drainage systems.
 - C. Construct all four lanes and related drainage structures.

SR 29 from South of Experimental Road to South of SR 82

- Phase 1*
- A. Maintain existing two-way traffic on the existing lanes.
 - B. Construct the required ponds and related drainage systems leading to the ponds.
 - C. Construct the new northbound lanes.
- Phase 2*
- A. Shift the two-way traffic over to the newly completed northbound lanes.
 - B. Undertake construction work required to reconstruct or widen the existing two lanes to become the new southbound lanes.
- Phase 3*
- A. Shift traffic where one northbound lane is placed on the outside lane of the completed two northbound lanes, and one southbound lane is placed on the outside lane of the completed two southbound lanes.
 - B. Complete the required median work including the related drainage structures.
 - C. Undertake the final pavement surface (friction course) and apply final striping.

Construction activities for the proposed SR 29 improvements will have minor air, noise, vibration, water quality, traffic flow, and visual impacts for those residents and travelers within the immediate vicinity of the project.

6.15 Soil Classifications

Based on a review of the USDA NRCS *Soil Survey of Collier County, Florida*, much of the project corridor consists of nearly level, poorly drained soils. Generally, the natural SHWT is at depths of about 6 to 18 inches below the natural grade within the project limits. Isolated surficial organic soils (A-8) are expected in some low-lying areas from natural grades to depths of approximately 2 feet.

The project study area is comprised of 18 mapped soil units. According to the Hydric Soils of Florida Handbook (Hurt, 2007), 10 of the 18 soil types identified within the project study area are classified as hydric; the remaining 8 types are not hydric. **Table 6.7** lists the acreage and percentage of each mapped soil type for Central Alternative #2.

Table 6.7
Soil Types and Coverage

Soil Type	Hydric (Y/N)	Area (acres)	% of Total
3 - Malabar fine sand, 0 to 2 percent slopes	Y	4.31	1.13
7 - Immokalee fine sand, 0 to 2 percent slopes	N	75.41	19.73
8 - Myakka fine sand, 0 to 2 percent slopes	N	15.38	4.02
10 - Oldsmar fine sand, limestone substratum	N	4.71	1.23
15 - Pomello fine sand, 0 to 2 percent slopes	N	16.42	4.30
16 - Oldsmar fine sand, 0 to 2 percent slopes	N	74.42	19.47
17 - Basinger fine sand, 0 to 2 percent slopes	Y	30.10	7.87
20 - Fort Drum, and Malabar, high fine sands	N	11.01	2.89
21 - Boca fine sand, 0 to 2 percent slopes	Y	14.37	3.75
22 - Chobee, Winder, and Gator soils, depressional	Y	6.31	1.64
23 - Holopaw and Okeelanta soils, depressional	Y	0.30	0.08
25 - Boca, Riviera, limestone substratum and Copeland fine sands, depressional	Y	1.62	0.43
27 - Holopaw fine sand, 0 to 2 percent slopes	Y	31.27	8.18
28 - Pineda and Riviera fine sands	Y	16.70	4.37
29 - Wabasso fine sands, 0 to 2 percent slopes	N	19.12	5.01
34 - Urban land -Immokalee-Oldsmar , limestone substratum complex	Unranked	26.34	6.89
37 - Tuscawilla fine sand	Y	12.76	3.33
43 - Winder, Riviera, limestone substratum and Chobee soils, depressional	Y	21.71	5.68
Total		382.26	100%

6.16 Environmental Impacts

6.16.1 Cultural Resources

A *Cultural Resource Assessment Survey (CRAS)* was conducted in accordance with requirements set forth in the National Historic Preservation Act of 1966, as amended, and Chapter 267, F.S. The investigations were carried out in conformity with Part 2, Chapter 8 of the FDOT PD&E Manual and the standards contained in the Florida Division of Historical Resources' (FDHR) Cultural Resource Management Standards and Operations Manual (FDHR 2003; FDOT 1999). In addition, the survey met the specifications set forth in Chapter 1A-46, Florida Administrative Code (F.A.C.).

The assessment resulted in the identification of a total of 46 historic resources (50 years of age or older) within the historic Area of Potential Effect (APE) (two previously recorded resources and

44 newly recorded historic resources). Forty-five of the resources are considered ineligible for listing in the National Register either individually or as part of a historic district.

No previously recorded or newly recorded archaeological sites were identified during the archaeological resources survey.

Of the identified resources, only the Immokalee Ice Plant (8CR642) is considered National Register-eligible. The Immokalee Ice Plant (8CR642) is representative of Immokalee's conversion from a community of individual isolated farmsteads to a more modern agricultural community and is considered eligible for the National Register under Criterion A for its role in Immokalee's Community Planning and Development, Agriculture, and Industry. Central Alternative #2 does not propose any direct impacts to Immokalee Ice Plant and remains within the existing ROW adjacent to the property. The CRAS Report (July 2018), prepared under separate cover, along with the CRAS transmittal letter with Ice Plant effects analysis, was submitted to the SHPO and on August 9, 2018 (see **Appendix F**) the SHPO concurred with the recommendations and finding that the project would have *No Adverse Effect* to historic properties.

6.16.2 Wetlands

Central Alternative #2 will result in a total of approximately 14.33 acres of permanent wetland impacts to twelve (12) individual wetlands. In addition, Central Alternative #2 will result in a total of approximately 15.41 acres of impact to Other Surface Waters. A Uniform Mitigation Assessment Method (UMAM) analysis was performed to determine an estimate to the functional loss due to wetland impacts. Based on the calculations, Central Alternative #2 will result in 9.21 units of functional loss for direct wetland impacts. For further information, refer to Sections 3.0 and 5.2 of the *Natural Resources Evaluation (NRE)* (July 2018) prepared under separate cover for this project.

6.16.3 Floodplains

According to the FEMA FIRMS for Collier County (Map Numbers 12021C0290H, 12021C0280H, 12021C0165H, 12021C0145H, and 12021C0135H), the 100-year base floodplain is within the project corridor. The entire project is within Zone AH. Potential floodplain encroachment was evaluated using cross sections created from LiDAR data and existing SFWMD ERP information in the areas within the 100-year floodplain to calculate the additional fill due to widening that would be added. Total floodplain encroachment for the proposed improvements is 25.23 acre-feet and is rated as "Minimal" and can best be described as Project Activity Category 4 – "Projects on Existing Alignment Involving Replacement of Existing Drainage Structures with No Record of Drainage Problems". Floodplain compensating storage will be provided as required by SFWMD and as a result, no significant changes in base flood elevations or limits will occur. None of the floodplain encroachments were determined to be significant. Additional information regarding Floodplains and mitigation for impacts can be found in the *Location Hydraulic Report (LHR)* (August 2018) prepared for this project.

6.16.4 Threatened and Endangered Species

A *Natural Resources Evaluation (NRE)* (July 2018) was prepared under separate cover as part of consultation required under Section 7 of the Endangered Species Act of 1973, as amended, and per the requirements of Part 2, Chapter 16 of the FDOT PD&E Manual. A total of 21 federal or state listed protected species were identified as having the potential to occur within the project study area. Field evaluations of the study area were conducted by project biologists in April and October 2010, April 2011, January 2012, August 2017, and March 2018. The evaluation included coordination with the FWS and the Fish and Wildlife Conservation (FWC), and the Florida Natural Areas Inventory (FNAI). **Table 6.8** below summarizes the effect determinations for each of these species as a result of the proposed project based on the FDOT findings and commitments to offset potential impacts. Based upon coordination with the FWS received on March 20, 2018 (**Appendix F**), the FDOT has committed to reinitiate Section 7 consultation with the FWS during the project's design and permitting phase and conduct seasonal field surveys for the Florida scrub jay and Florida panther. Potential impacts to listed species and their habitats are described in more detail in the NRE. The NRE was submitted to the FWS and FWC on July 20, 2018. The concurrence letters from FWS and FWC are included in **Appendix F**.

6.16.5 Contamination

A Level I contamination evaluation was conducted for the study and a *Contamination Screening Evaluation Report (CSER)* (July 2018) was completed under separate cover. For purposes of this report, the project study area included the limits of the mainline project and a 1,320-foot area extending from the centerline of the mainline.

Based on the results of this Draft CSER, for Central Alternative #2, 67 sites have been identified as having a potential for hazardous materials or petroleum-based impacts or pesticides/herbicides. Thirty-one (31) sites are rated as having a "Medium" or "High" risk for containing environmental contamination. For those locations with a risk ranking of "Medium" and "High", including any proposed stormwater treatment ponds and/or floodplain compensation sites outside the FDOT right-of-way, Level II screening will be conducted during the design phase if it is determined that construction activities could be in the vicinity of these sites or if the site will be subject to right-of-way acquisition. Currently, the Recommended Alternative will require right-of-way from 18 "Medium" or "High" ranked sites.

For further information, refer to the CSER prepared for this project.

Table 6.8
Summary of Listed Species Effect Determinations

Scientific Name	Common Name	Effect Determination	Status	
			Federal	State
Federally – Listed & Candidate Wildlife Species				
<i>Alligator mississippiensis</i>	American alligator	May Affect, Not Likely to Adversely Affect	T(S/A)	FT(S/A)
<i>Ammodramus savannarum floridanus</i>	Florida grasshopper sparrow	No Effect	E	F, E
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	May Affect, Likely to Adversely Affect	T	F, T
<i>Drymarchon corais couperi</i>	Eastern indigo snake	May Affect, Not Likely to Adversely Affect	T	F, T
<i>Eumops floridanus</i>	Florida bonneted bat	May Affect, Not Likely to Adversely Affect	E	F, E
<i>Mycteria americana</i>	Wood stork	May Affect, Not Likely to Adversely Affect	T	F, T
<i>Picoides borealis</i>	Red-cockaded woodpecker	No Effect	E	F, E
<i>Polyborus plancus audubonii</i>	Audubon’s crested caracara	May Affect, Not Likely to Adversely Affect	T	F, T
<i>Puma concolor coryi</i>	Florida panther	May Affect, Likely to Adversely Affect	E	F, E
<i>Rostrhamus sociabilis plumbeus</i>	Snail kite	May Affect, Not Likely to Adversely Affect	E	F, E
Federally – Listed Plant Species				
<i>Dalia carthagensis floridana</i>	Florida prairie-clover	No Effect	E	NL
<i>Chamaesyce garberi</i>	Garber’s spurge	No Effect	T	NL
State – Listed Wildlife Species				
<i>Athene cunicularia floridana</i>	Florida burrowing owl	No Adverse Effect Anticipated	NL	T
<i>Egretta caerulea</i>	Little blue heron	No Adverse Effect Anticipated	NL	T
<i>Egretta tricolor</i>	Tricolored heron	No Adverse Effect Anticipated	NL	T
<i>Falco sparverius paulus</i>	Southeastern American kestrel	No Adverse Effect Anticipated	NL	T
<i>Gopherus polyphemus</i>	Gopher tortoise	No Adverse Effect Anticipated	C	T
<i>Grus canadensis pratensis</i>	Florida sandhill crane	No Adverse Effect Anticipated	NL	T
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	No Adverse Effect Anticipated	NL	T
<i>Platalea ajaja</i>	Roseate spoonbill	No Adverse Effect Anticipated	NL	T
<i>Sciurus niger avicennia</i>	Big Cypress fox squirrel	No Adverse Effect Anticipated	NL	T
State – Listed Plant Species				
<i>Andropogon arctatus</i>	Pine woods bluestem	No Adverse Effect Anticipated	NL	T
<i>Calopogon multiflorus</i>	Many flowered grass pink	No Adverse Effect Anticipated	NL	E
<i>Centrosema arenicola</i>	Sand butterfly pea	No Adverse Effect Anticipated	NL	E
<i>Lechea cernua</i>	Nodding pinweed	No Adverse Effect Anticipated	NL	T
<i>Linum carteri var. smallii</i>	Small’s flax	No Adverse Effect Anticipated	NL	E
<i>Matelea floridana</i>	Florida spiny-pod	No Adverse Effect Anticipated	NL	E
<i>Nemastylis floridana</i>	Celestial lily	No Adverse Effect Anticipated	NL	E
<i>Nolina atopocarpa</i>	Florida beargrass	No Adverse Effect Anticipated	NL	T
<i>Platanthera integra</i>	Yellow fringeless orchid	No Adverse Effect Anticipated	NL	E
<i>Tephrosia angustissima var. curtissii</i>	Coastal hoary-pea	No Adverse Effect Anticipated	NL	E

F = Federally Listed, NL = Not Listed, E = Endangered, T = Threatened, T(S/A) = Threatened due to similar appearance, C = Candidate species

6.16.6 Noise

A *Noise Study Report (NSR)* was prepared for this project under separate cover.

The Recommended Alternative for SR 29 is predicted to result in exterior traffic noise levels ranging from 47.1 to 65.7 decibels on the “A”-weighted scale (dB(A)), and interior levels are predicted at 42.6 dB(A) at the 100 evaluated noise-sensitive receptors. Of the 100 noise sensitive sites evaluated, none of the sites are predicted to experience future traffic noise levels that approach, meet, or exceed the Noise Abatement Criteria (NAC) for their respective Activity Category. The results of the analysis also indicate that when compared to existing conditions, traffic noise levels would not increase more than 9.8 dB(A) above existing conditions with the proposed improvements at any of the evaluated sites. As such, none of the evaluated sites will experience a substantial increase in traffic noise [15 dB(A) or more] as a result of the proposed project. Therefore, noise abatement measures were not considered for the noise sensitive sites identified adjacent to the Recommended Alternative.

For further information, refer to the NSR prepared for this project.

6.16.7 Section 4(f)

The project was examined for potential Section 4(f) resources in accordance with Section 4(f) of the Department of Transportation Act of 1966 (Title 49, United States Code (U.S.C.), Section 1653(f), amended and recodified in Title 49, U.S.C., Section 303, in 1983). A Section 4(f) *Determination of Applicability (DOA)* was prepared under separate cover for the following four potential Section 4(f) resources: Collier Rural Land Stewardship Sending Area #5, 1st Street Plaza, 9th Street Plaza, and Immokalee Airport Park. The Section 4(f) *DOA* was submitted to FHWA who determined in an email dated June 6, 2013 that the Immokalee Airport Park is a Section 4(f) resource. The other three resources are no longer within the project limits; in addition, there will be no permanent acquisition of land from these resources, no temporary occupancies of land that are adverse in terms of the statute’s preservation purpose, and no proximity impacts which significantly impair the protected functions of the properties from the Recommended Alternative. A Section 4(f) *DOA Addendum* was prepared under separate cover for the Immokalee Airport Conservation Easement, and FHWA concurred with the determination that this is a Section 4(f) resource on April 28, 2014. A subsequent Section 4(f) *DOA* (Form 650-050-45), prepared under separate cover, for the Airport Viewing Area was completed and it was determined on June 26, 2018 that Section 4(f) does not apply to this resource. Additional information is available in the Section 4(f) *DOAs*.

Two Section 4(f) resources are located within the project study area: Immokalee Airport Park and the Immokalee Airport Conservation Easement. The Recommended Alternative, Central Alternative #2, will result in approximately 0.27 acre (5.3% of the total area) of direct impact to the Immokalee Airport Park and 4.45 acres (2.9% of the total area) of direct impact to the Immokalee Airport Conservation Easement. These impacts will occur at the edge of each property

and will not adversely affect the activities, features, and attributes of the remaining area of each property. Separate draft Section 4(f) *de minimis* determinations for the Immokalee Airport Park and the Immokalee Airport Conservation Easement have been prepared and are pending public review and comment. The finalization of the Section 4(f) *de minimis* determination will take place after the Public Hearing.

6.16.8 Summary of Permits and Mitigation

Both the United States Army Corps of Engineers (USACE) and SFWMD regulate impacts to wetlands within the project study area. Other resource agencies, including the National Marine Fisheries Service (NMFS), United States Environmental Protection Agency (USEPA), and FWC review and comment on wetland permit applications. In addition, the FDEP regulates stormwater discharges from construction sites. The complexity of the permitting process will depend greatly on the degree of the impact to jurisdictional areas. It is anticipated that the following permits will be required for this project:

<u>Permit</u>	<u>Issuing Agency</u>
Section 404 Wetland Dredge and Fill Permit	USACE
Environmental Resource Permit (ERP)	SFWMD
National Pollutant Discharge Elimination System (NPDES)	FDEP
Gopher Tortoise Relocaion Permit	FWC

7.0

LIST OF TECHNICAL REPORTS

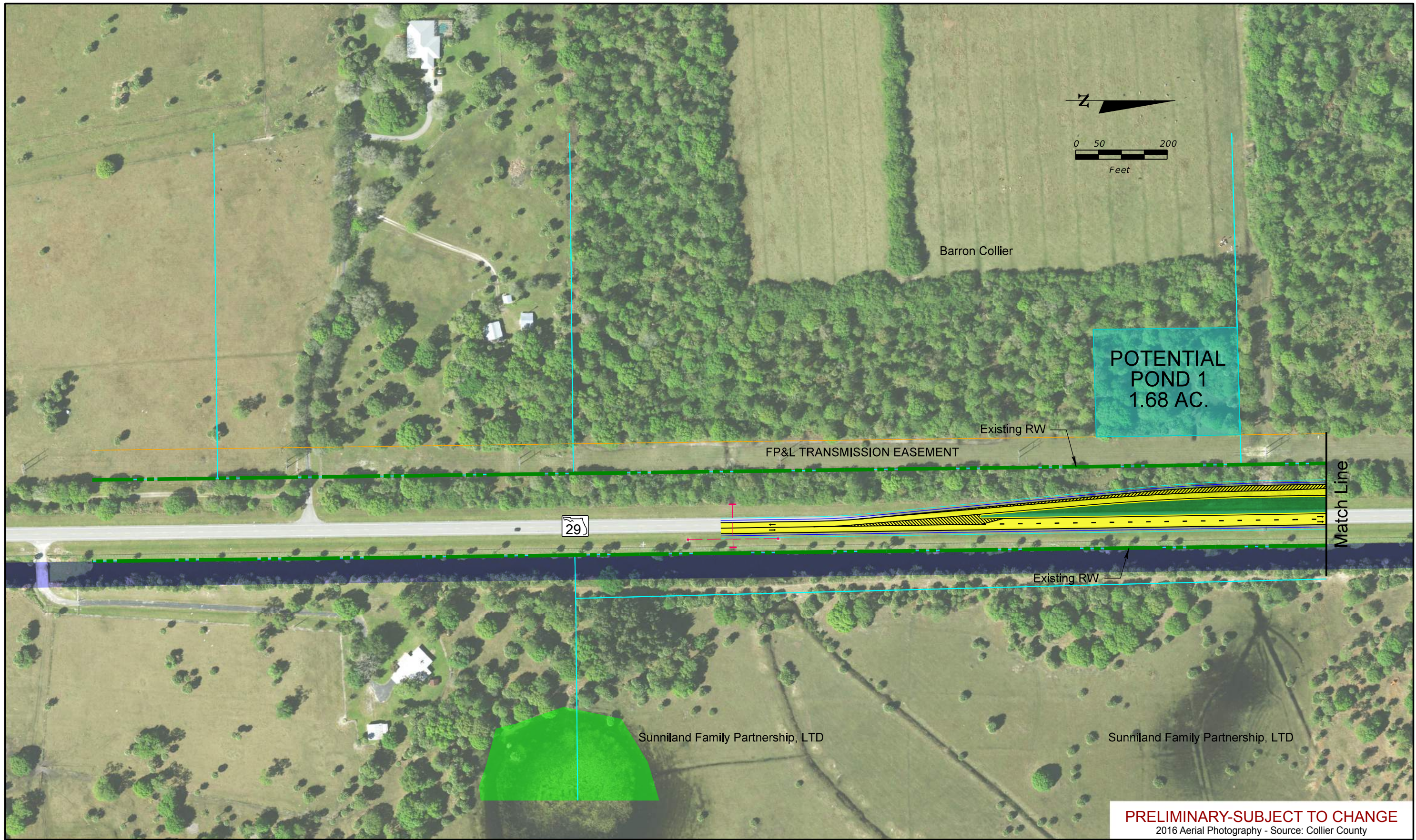
The purpose of the PD&E study is to evaluate engineering and environmental data and document information that will aid Collier County, FDOT, and the FHWA in determining the type, preliminary design and location of the proposed improvements. The study is being conducted in order to meet the requirements of NEPA and other related federal and state laws, rules and regulations. The technical documents to be generated during this study are listed in **Table 7.1**.

Table 7.1
Technical Documents

Supporting Document	Dated
Public Involvement	
Public Involvement Plan	March 2018
Comments and Coordination Report	In progress
Engineering	
Corridor Evaluation Technical Memorandum	March 2009
Alignments Report	August 2010
Project Traffic Technical Memorandum	September 2011
Alternatives Technical Report	February 2015
Design Traffic Technical Memorandum	January 2018
Context Classification Assignment Evaluation	March 2018
Conceptual Design Roadway Plan Set	June 2018
Water Quality Impact Evaluation	June 2018
Location Hydraulic Report	August 2018
Preliminary Pond Siting Report	August 2018
Environmental	
Finding of No Significant Impact	To Be Determined
Cultural Resource Assessment Survey	May 2018
Determination of Section 4(f) Applicability	June 2018
Noise Study Report	June 2018
Contamination Screening Evaluation Report	June 2018
Conceptual Stage Relocation Plan	June 2018
Environmental Assessment	June 2018
Natural Resources Evaluation	July 2018

APPENDICES

Appendix A
**Recommended Alternative
Concept Plans**



SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

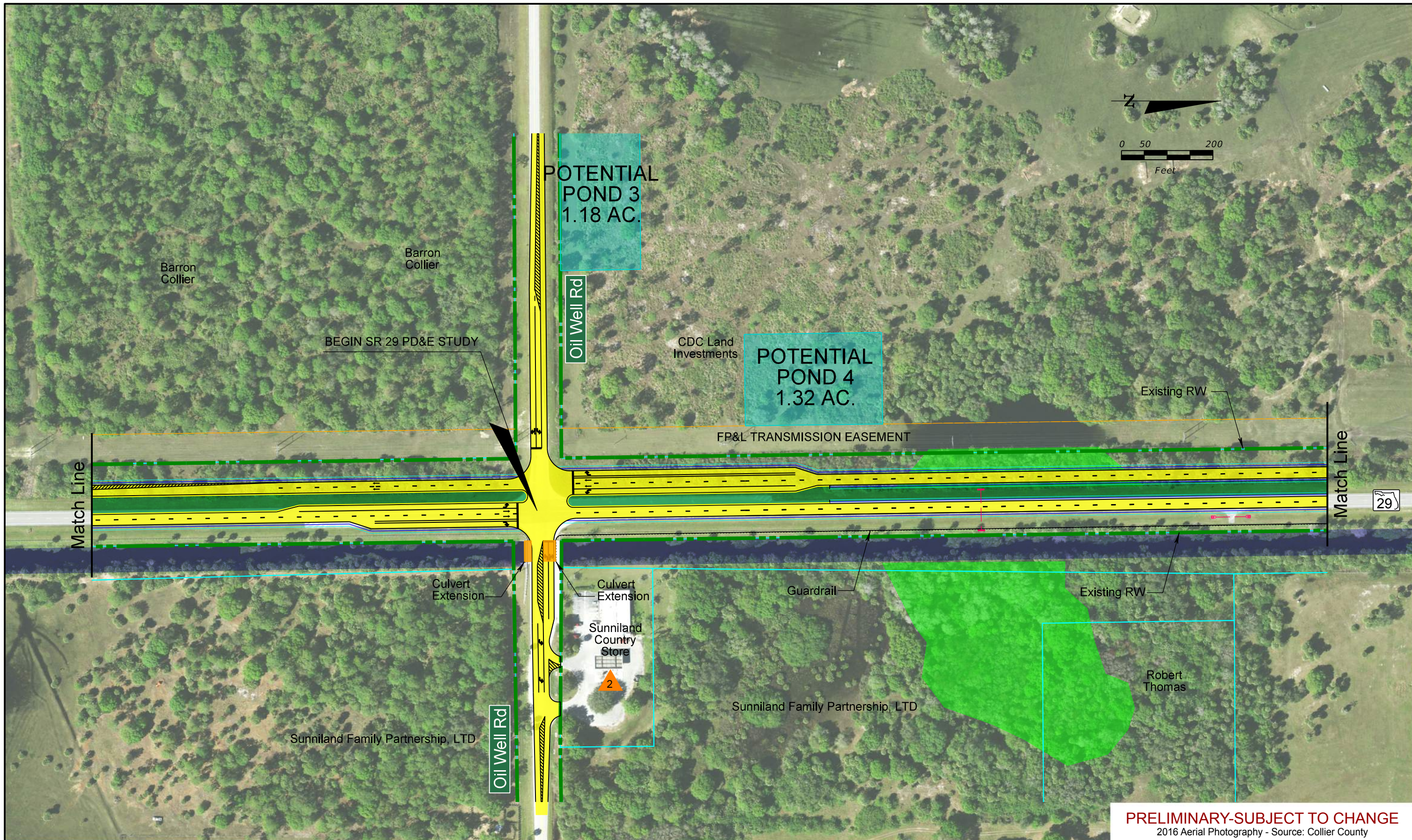
Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Proposed Pavement
	Seminole Land		Proposed Median/Border
	Proposed Pavement		Proposed Sidewalks
	Proposed Median/Border		Proposed Structure
	Proposed Sidewalks		Existing Drainage Structure
	Proposed Structure		Proposed Guardrail
	Existing Drainage Structure		Potential Business Relocation
	Proposed Guardrail		Potential Contamination (Low)
	Potential Business Relocation		Potential Contamination (Medium or High)
	Potential Contamination (Low)		
	Potential Contamination (Medium or High)		

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

Central Alternative #2

Sheet No.
1



BEGIN SR 29 PD&E STUDY

POTENTIAL POND 3
1.18 AC.

POTENTIAL POND 4
1.32 AC.

Oil Well Rd

CDC Land Investments

Barron Collier

Barron Collier

FP&L TRANSMISSION EASEMENT

Existing RW

Match Line

Match Line

29

Culvert Extension

Culvert Extension

Guardrail

Existing RW

Sunniland Country Store

Robert Thomas

Sunniland Family Partnership, LTD

Sunniland Family Partnership, LTD

Oil Well Rd

PRELIMINARY-SUBJECT TO CHANGE
2016 Aerial Photography - Source: Collier County

SR 29 PD&E Study
From Oil Well Road to SR 82
FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
Proposed Median/Border	Proposed Guardrail
Proposed Sidewalks	Potential Business Relocation
Proposed Structure	Potential Contamination (Low)
Existing Drainage Structure	Potential Contamination (Medium or High)

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Central Alternative #2

Sheet No.
2



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

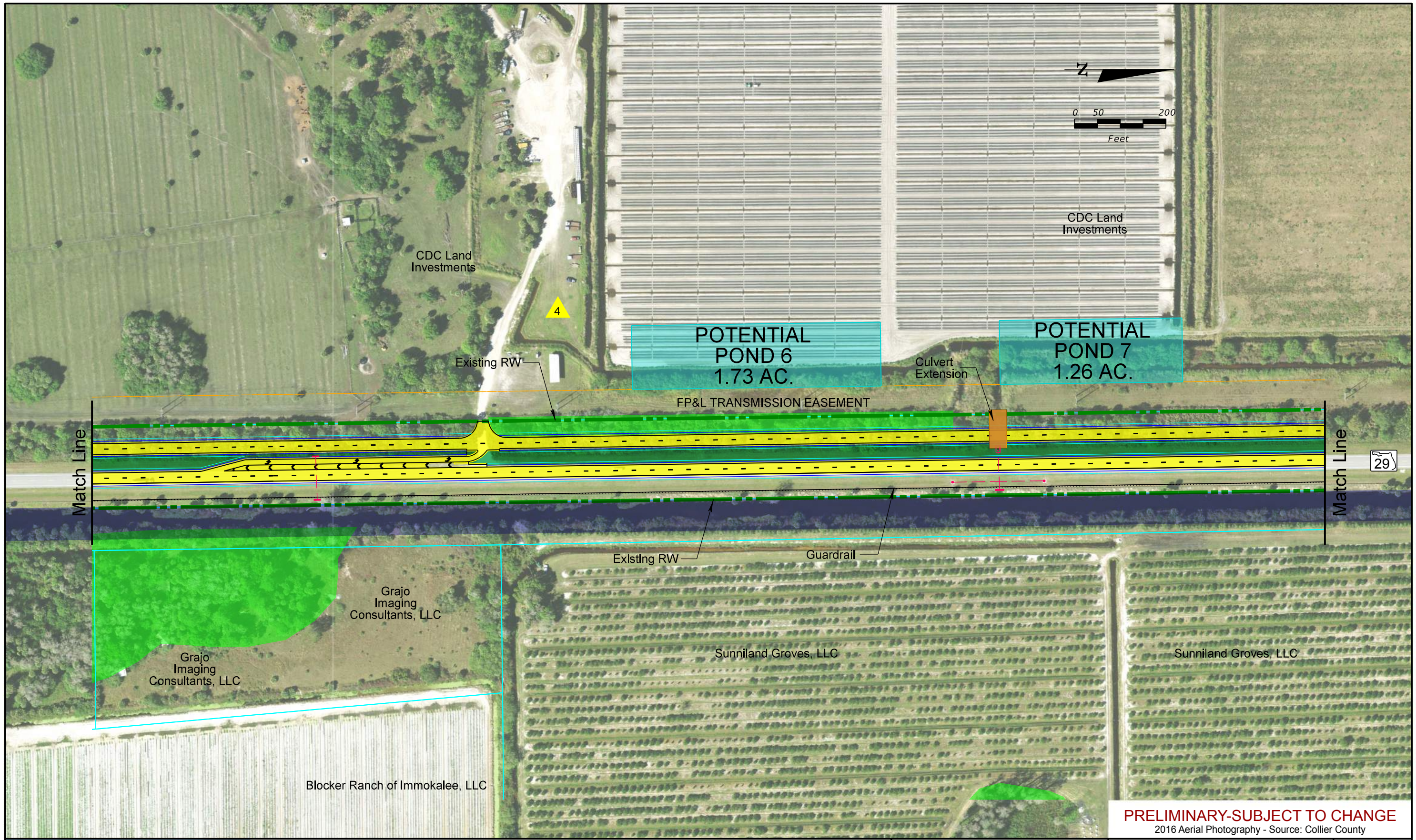
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
			Proposed Median/Border
			Proposed Sidewalks
			Proposed Structure
			Existing Drainage Structure
			Proposed Guardrail
			Potential Business Relocation
			Potential Contamination (Low)
			Potential Contamination (Medium or High)

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Central Alternative #2

Sheet No.
3



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

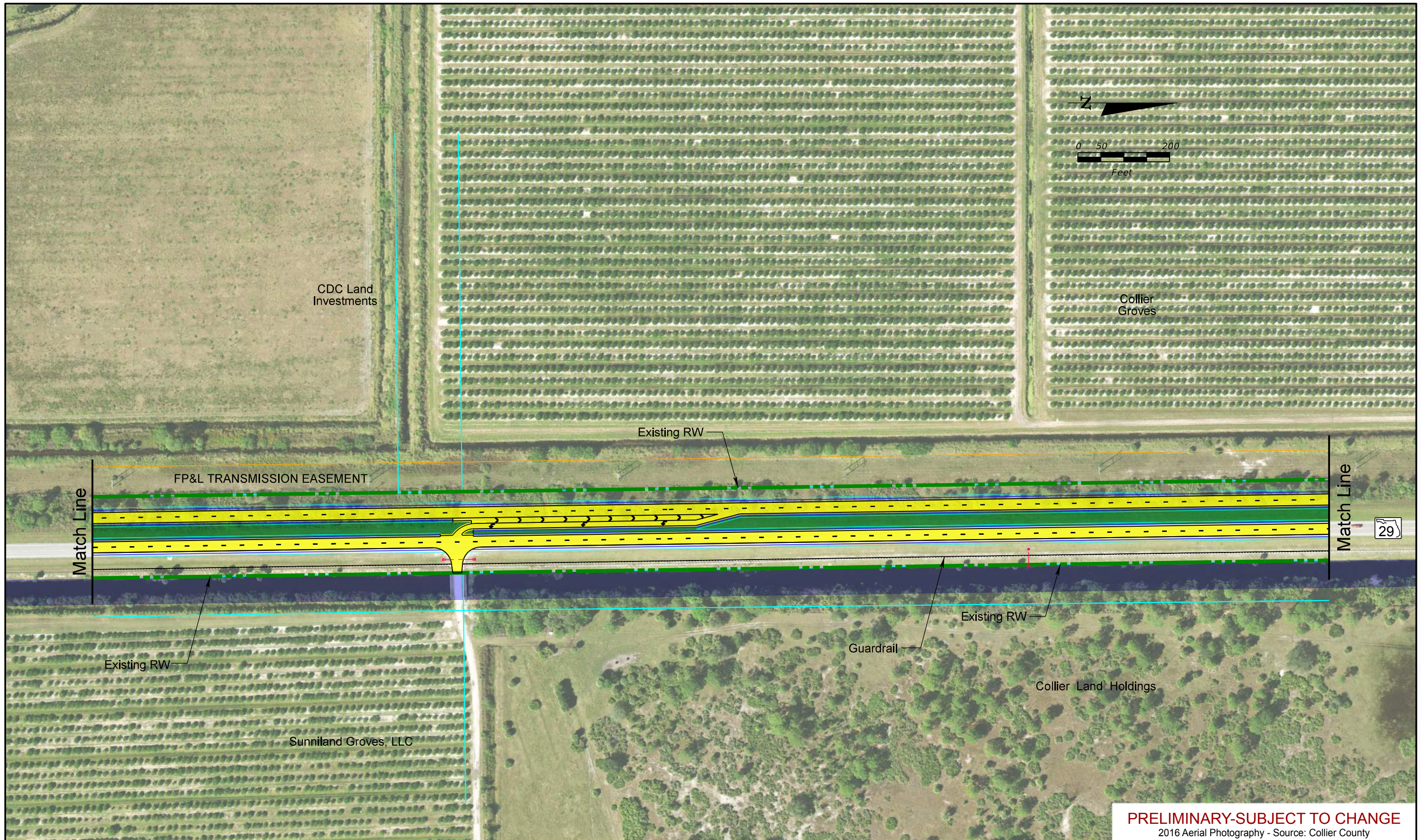
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Guardrail
	Proposed Sidewalks		Potential Business Relocation
	Proposed Structure		Potential Contamination (Low)
	Existing Drainage Structure		Potential Contamination (Medium or High)

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Central Alternative #2

Sheet No.
4



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

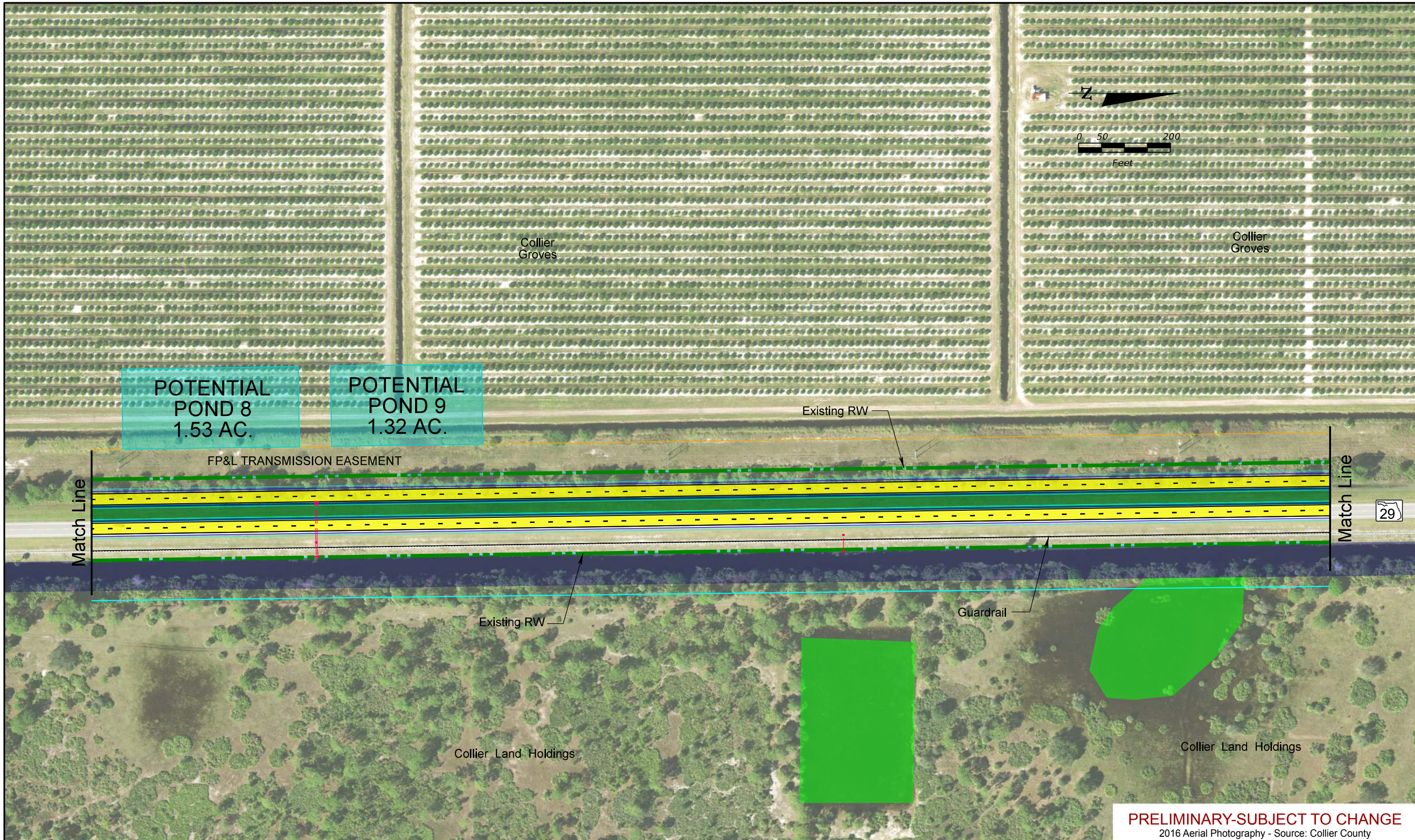
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 0227

Legend	
	Existing Right-of-Way
	Parcels
	Proposed Right-of-Way
	Water/Canal
	Seminole Land
	Wetland
	Potential Pond
	Potential Flood Plain Compensation
	Traffic Signal
	Proposed Pavement
	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
	Proposed Guardrail
	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

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Central Alternative #2

Sheet No.
5



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

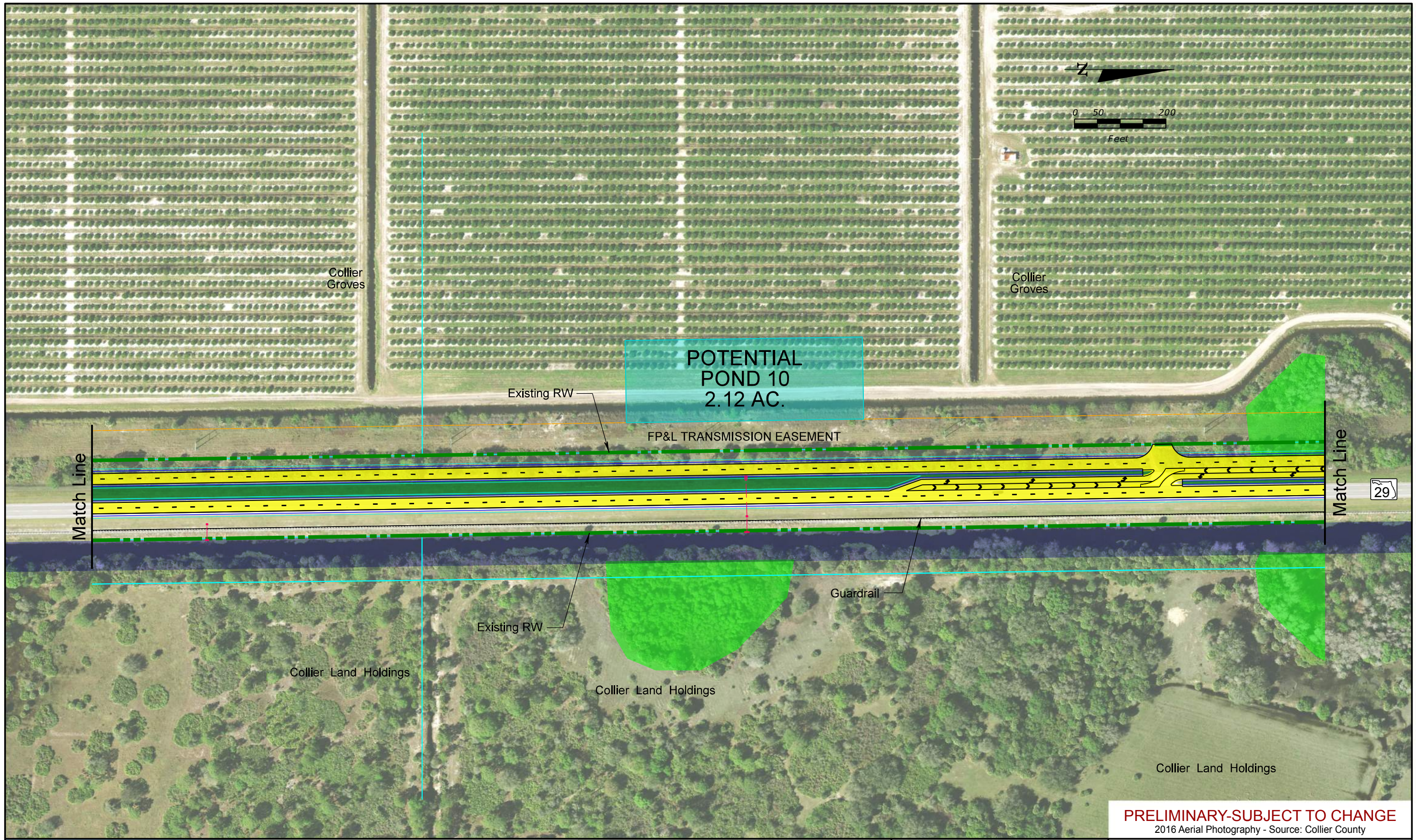
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend			
	Existing Right-of-Way		Proposed Pavement
	Parcels		Proposed Medlan/Border
	Proposed Right-of-Way		Proposed Sidewalks
	Water/Canal		Proposed Structure
	Seminole Land		Existing Drainage Structure
	Potential Pond		Proposed Guardrail
	Potential Flood Plain Compensation		Potential Business Relocation
	Wetland		Potential Contamination (Low)
	Potential Flood Plain Compensation		Potential Contamination (Medium or High)
	Seminole Land		
	Traffic Signal		

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Central Alternative #2

Sheet No.
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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Potential Pond
	Parcels		Potential Flood Plain Compensation
	Proposed Right-of-Way		Wetland
	Water/Canal		Proposed Pavement
	Seminole Land		Proposed Median/Border
	Traffic Signal		Proposed Sidewalks
			Proposed Structure
			Existing Drainage Structure
			Proposed Guardrail
			Potential Business Relocation
			Potential Contamination (Low)
			Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

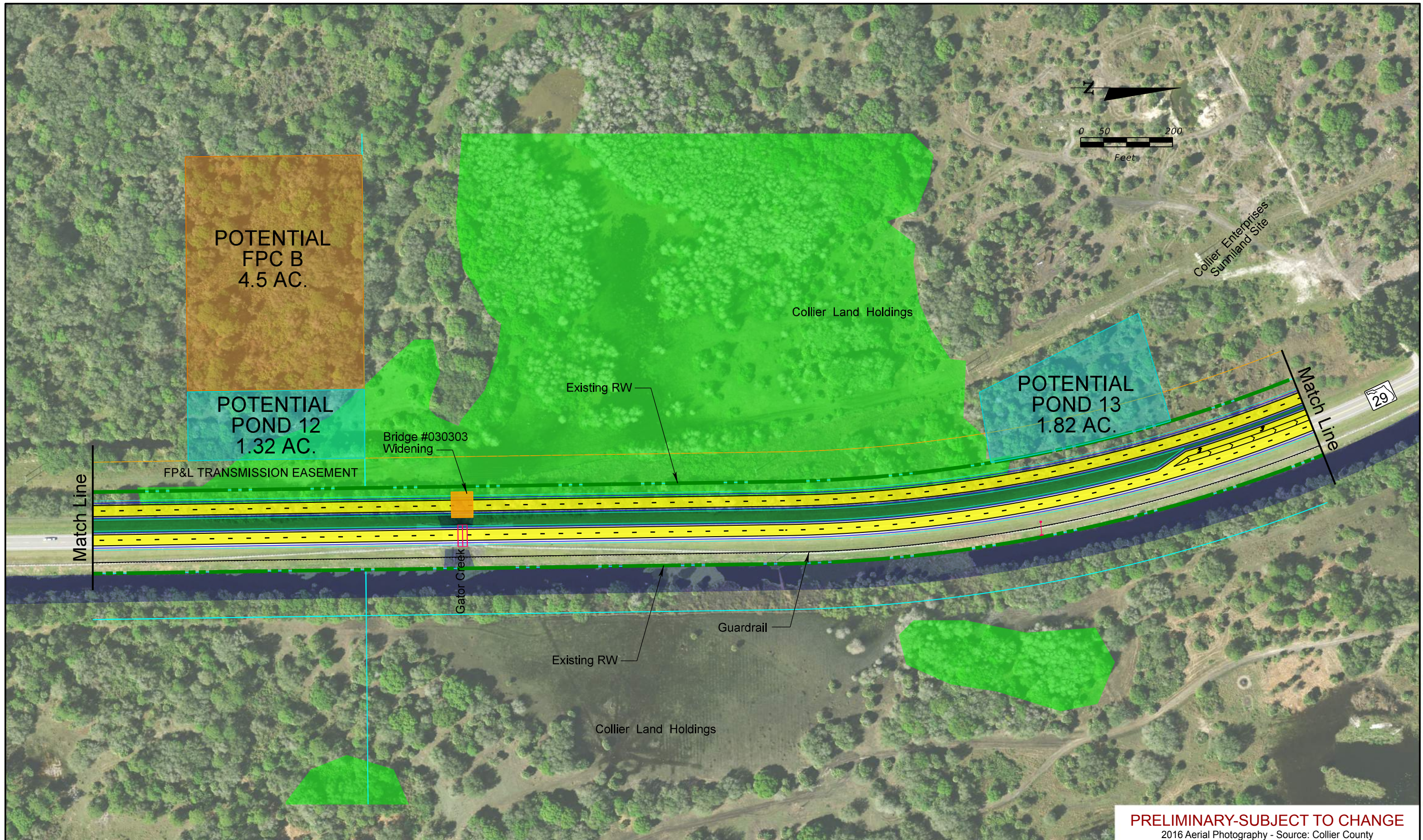
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
	Proposed Guardrail
	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

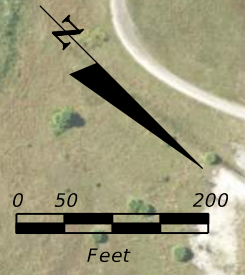
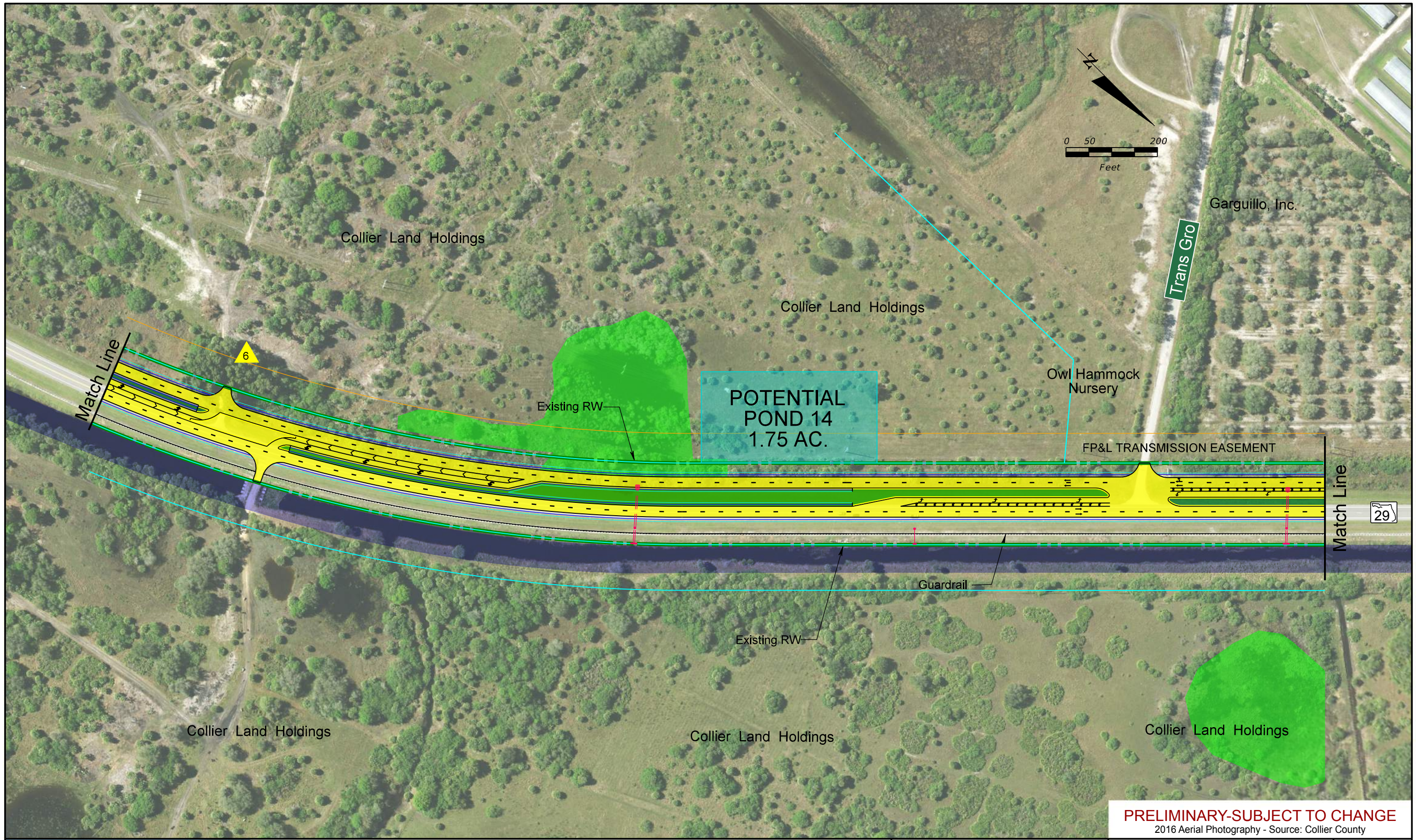
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend			
Existing Right-of-Way	Wetland	Proposed Pavement	Proposed Guardrail
Parcels	Potential Pond	Proposed Median/Border	Potential Business Relocation
Proposed Right-of-Way	Potential Flood Plain Compensation	Proposed Sidewalks	Potential Contamination (Low)
Water/Canal	Traffic Signal	Proposed Structure	Potential Contamination (Medium or High)
Seminole Land		Existing Drainage Structure	

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Existing Drainage Structure		Proposed Median/Border
	Existing Drainage Structure		Proposed Sidewalks
	Existing Drainage Structure		Proposed Structure
	Existing Drainage Structure		Proposed Guardrail
	Potential Business Relocation		Potential Contamination (Low)
	Potential Contamination (Medium or High)		

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Existing Drainage Structure		Proposed Median/Border
	Proposed Guardrail		Proposed Sidewalks
	Potential Business Relocation		Proposed Structure
	Potential Contamination (Low)		Existing Drainage Structure
	Potential Contamination (Medium or High)		

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

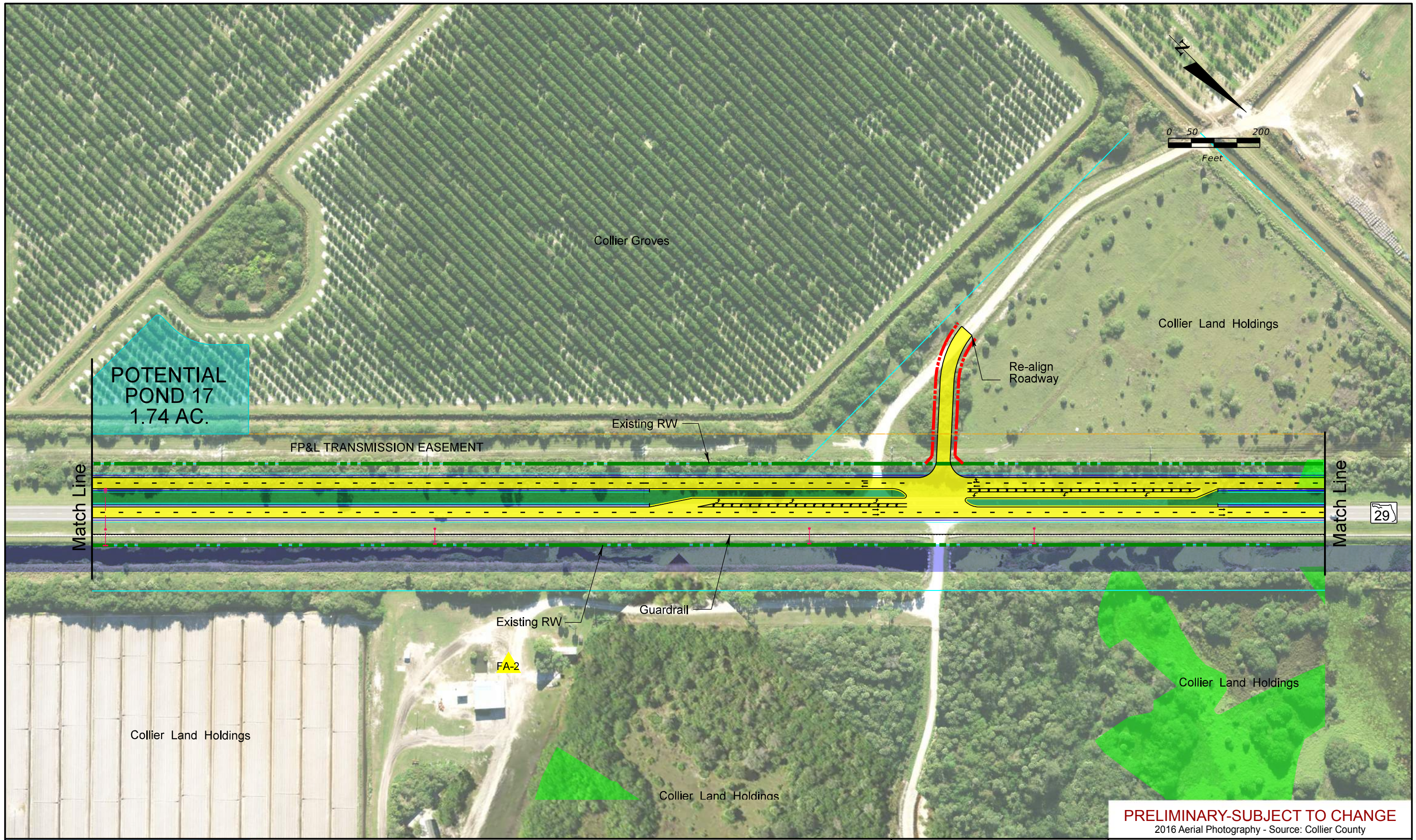
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Sidewalks
	Proposed Structure		Existing Drainage Structure
	Proposed Guardrail		Potential Business Relocation
	Potential Contamination (Low)		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

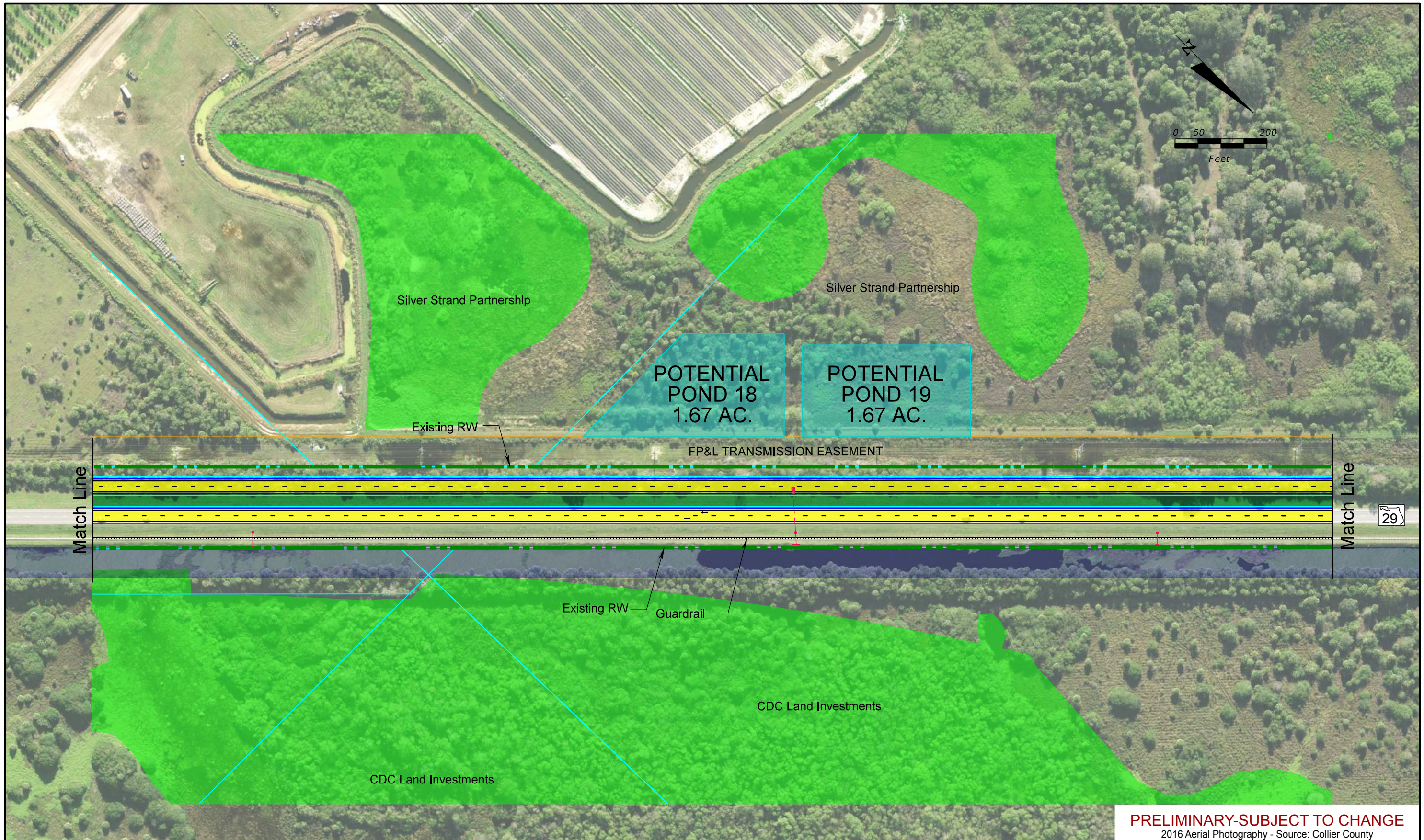
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Proposed Pavement
	Seminole Land		Proposed Median/Border
	Proposed Structure		Proposed Sidewalks
	Existing Drainage Structure		Proposed Guardrail
	Potential Business Relocation		Potential Contamination (Low)
	Potential Contamination (Medium or High)		

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

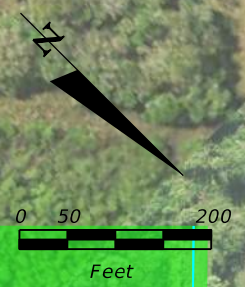
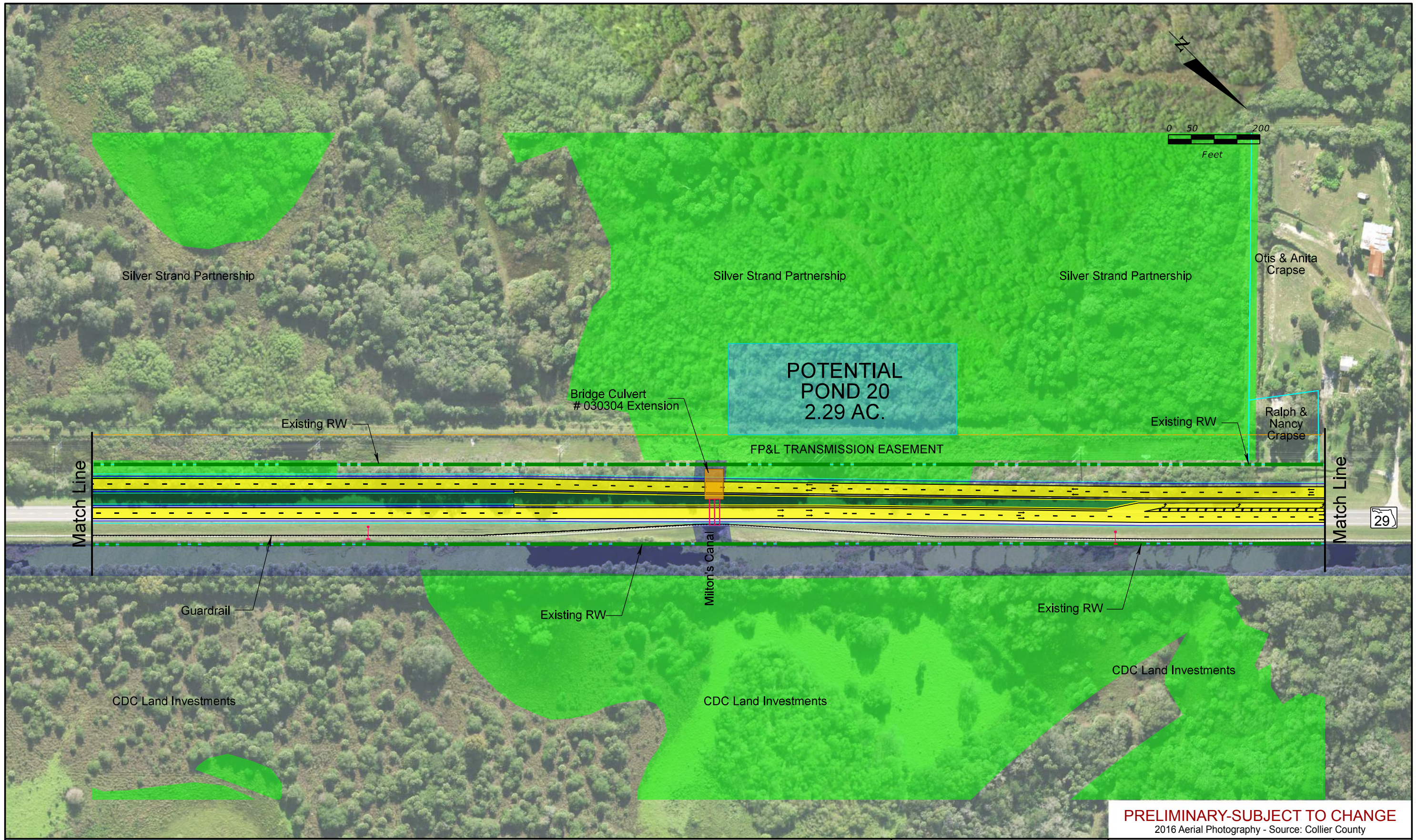
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Guardrail
	Proposed Sidewalks		Potential Business Relocation
	Proposed Structure		Potential Contamination (Low)
	Existing Drainage Structure		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

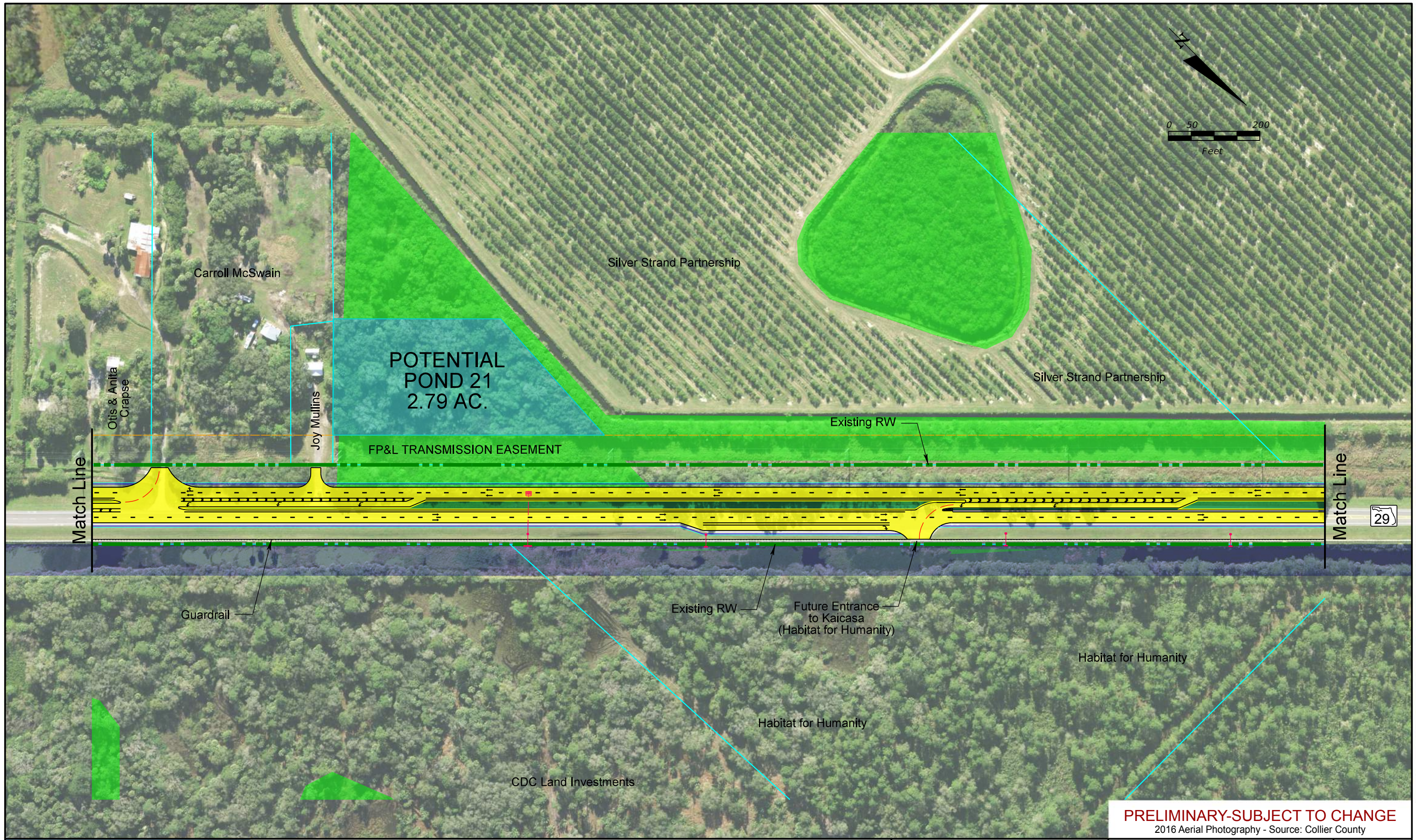
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
Existing Right-of-Way	Wetland	Proposed Pavement	Proposed Guardrail
Parcels	Potential Pond	Proposed Median/Border	Potential Business Relocation
Proposed Right-of-Way	Potential Flood Plain Compensation	Proposed Sidewalks	Potential Contamination (Low)
Water/Canal	Traffic Signal	Proposed Structure	Potential Contamination (Medium or High)
Seminole Land		Existing Drainage Structure	

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

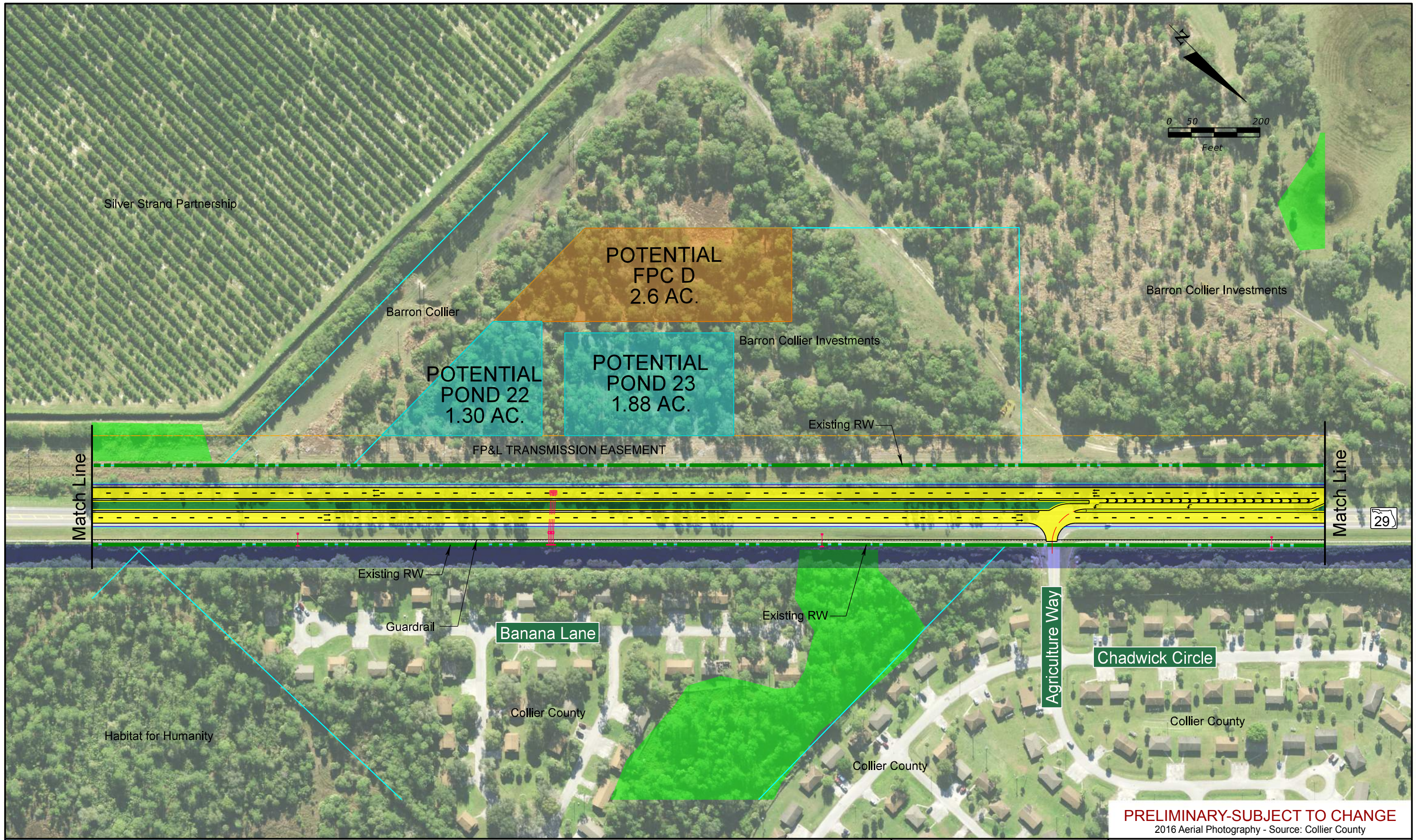
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Sidewalks
	Proposed Structure		Potential Business Relocation
	Existing Drainage Structure		Potential Contamination (Low)
	Proposed Guardrail		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

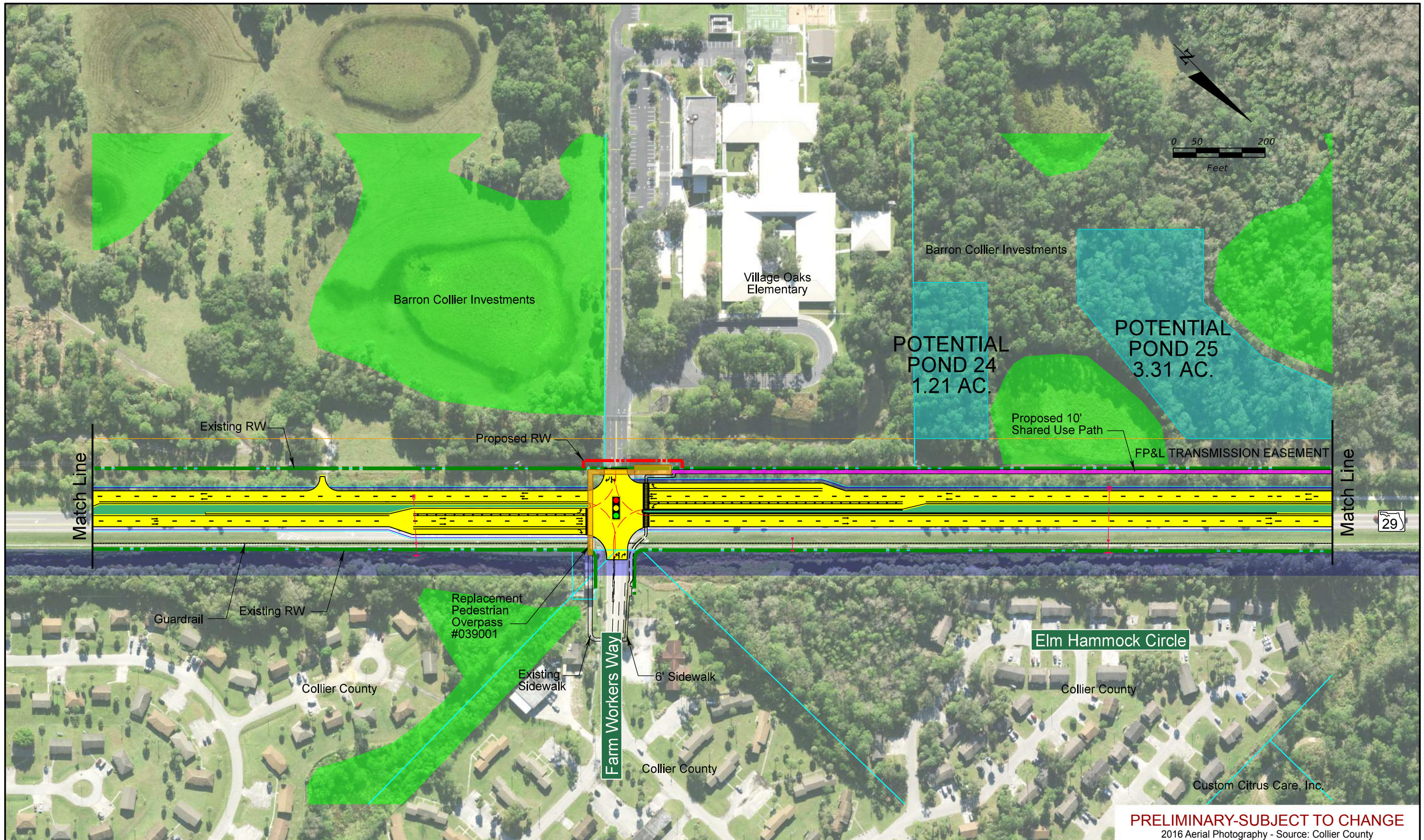
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Guardrail		Proposed Median/Border
	Existing Drainage Structure		Proposed Sidewalks
	Existing Drainage Structure		Proposed Structure
	Proposed Guardrail		Potential Business Relocation
	Potential Contamination (Low)		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

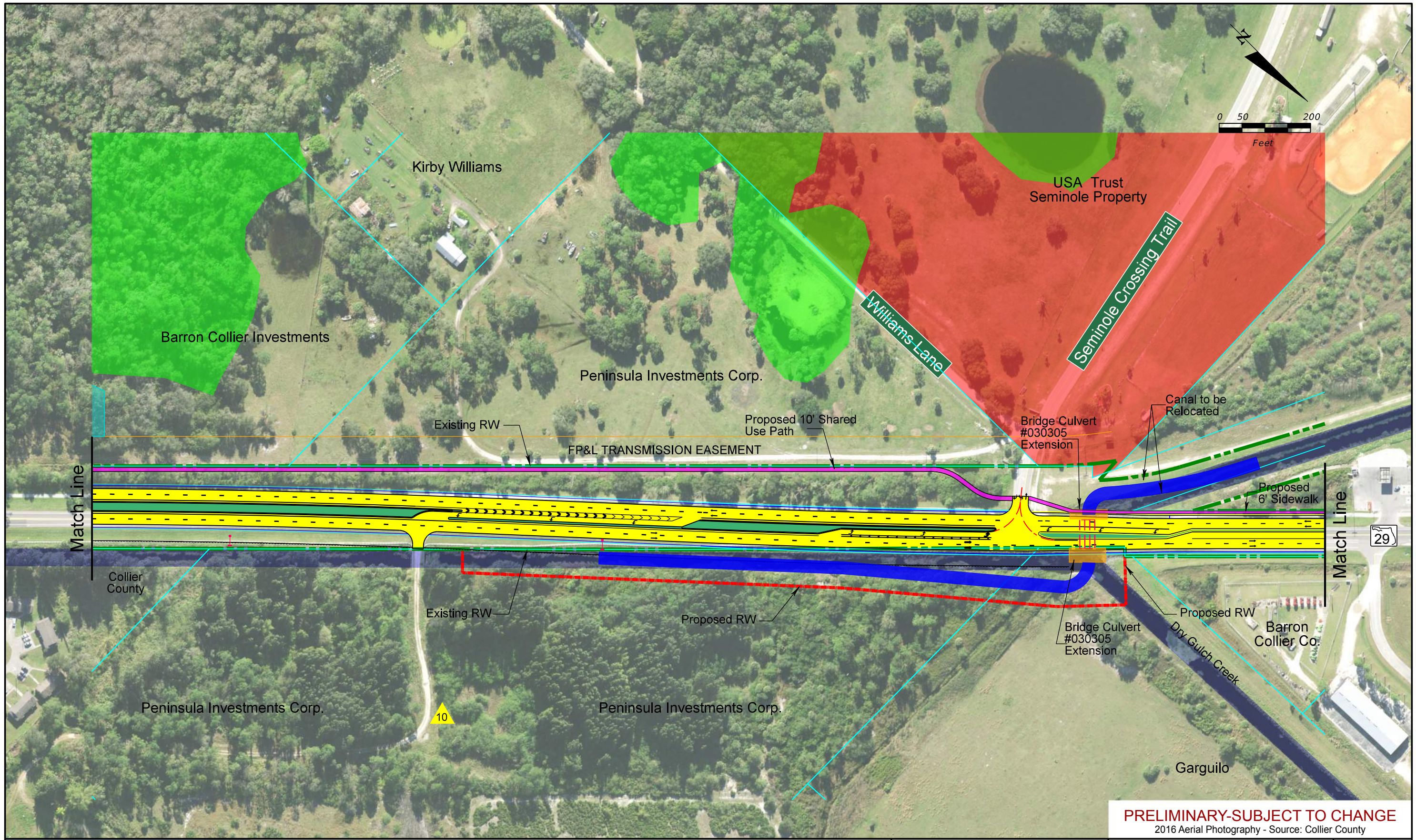
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Guardrail
	Proposed Sidewalks		Potential Business Relocation
	Proposed Structure		Potential Contamination (Low)
	Existing Drainage Structure		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

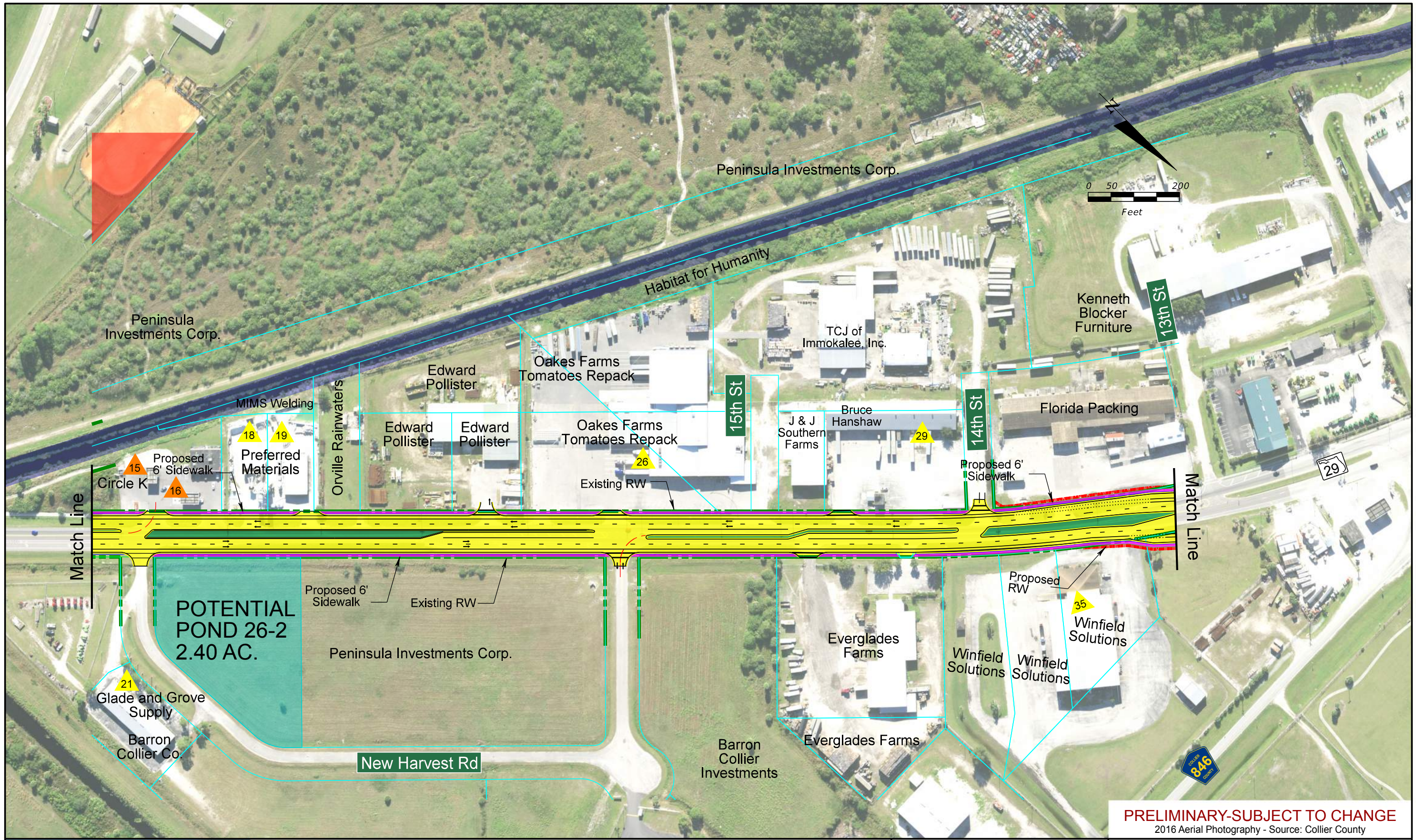
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Proposed Pavement
	Seminole Land		Proposed Median/Border
	Traffic Signal		Proposed Sidewalks
	Existing Drainage Structure		Proposed Structure
	Proposed Guardrail		Potential Business Relocation
	Potential Contamination (Low)		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

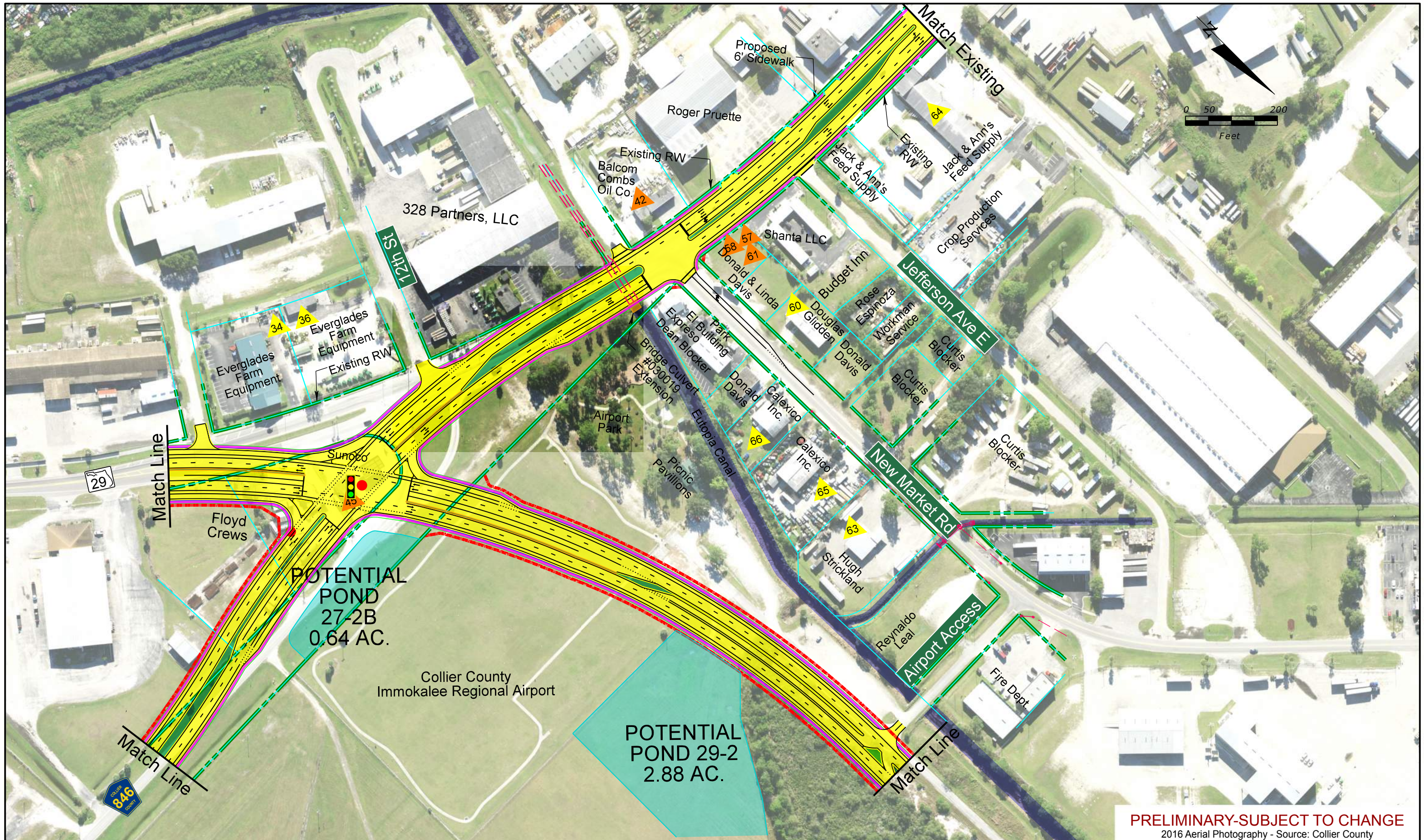
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Guardrail
	Proposed Sidewalks		Potential Business Relocation
	Proposed Structure		Potential Contamination (Low)
	Existing Drainage Structure		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

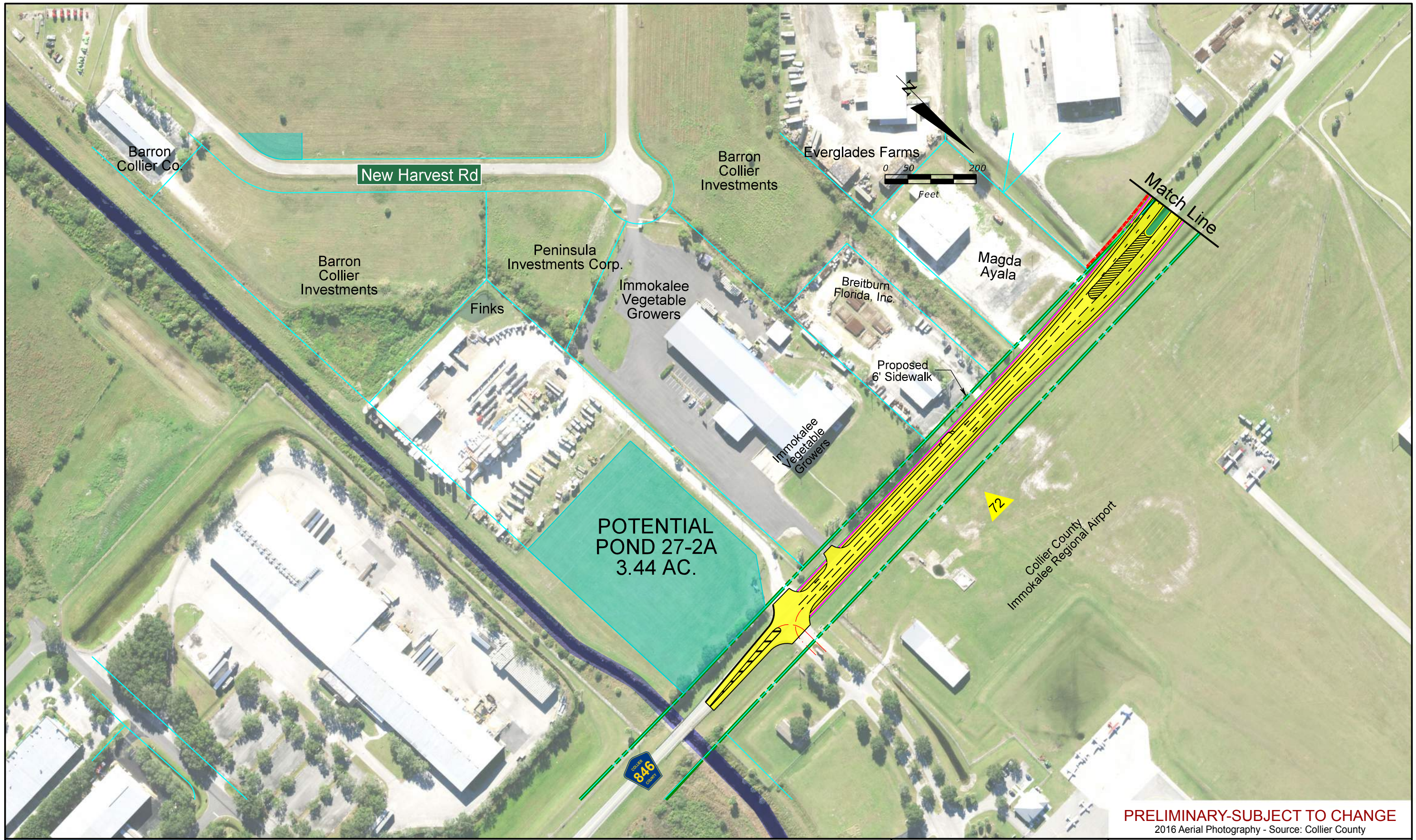
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
	Proposed Guardrail
	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

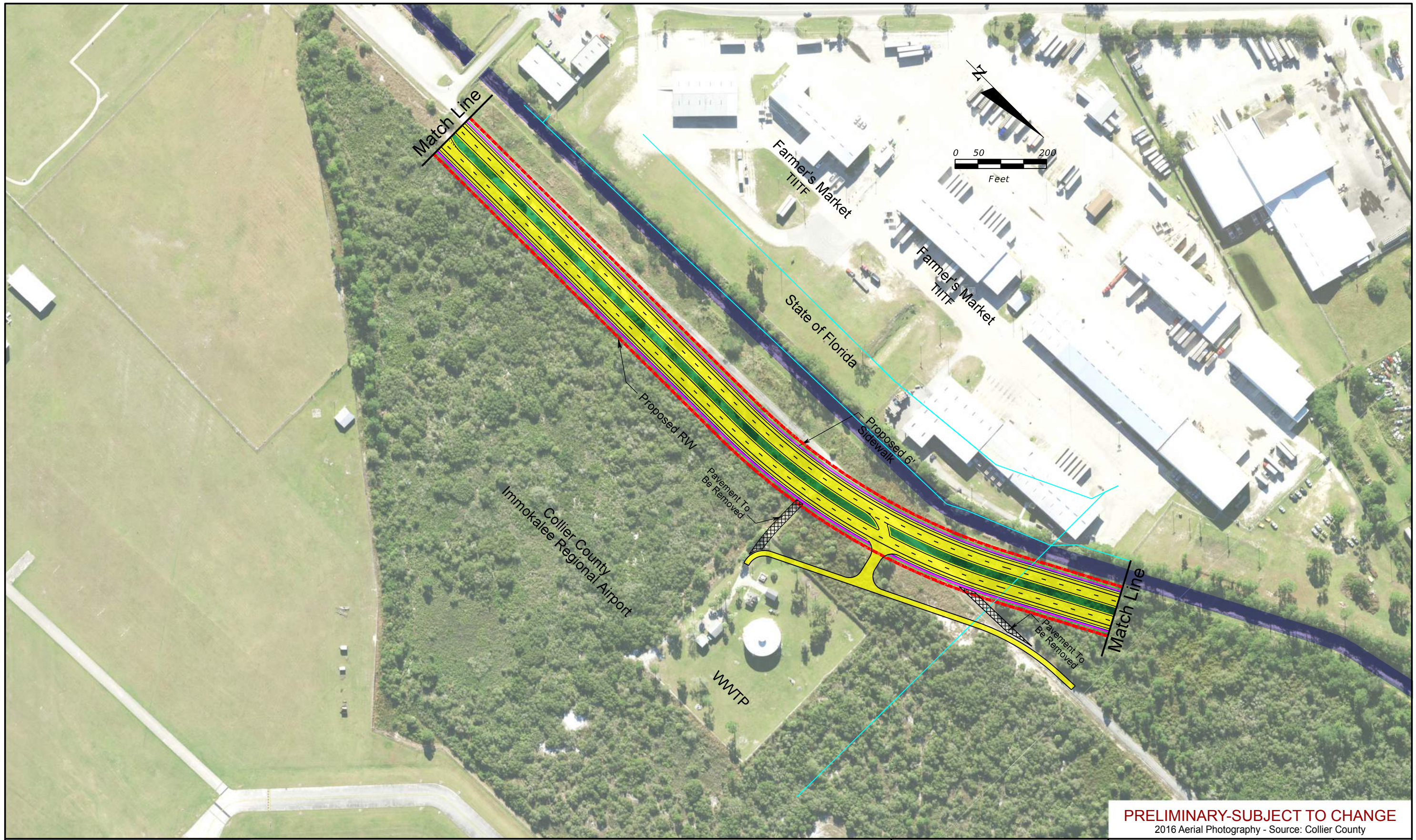
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
			Proposed Median/Border
			Proposed Sidewalks
			Proposed Structure
	Existing Drainage Structure		Proposed Guardrail
			Potential Business Relocation
			Potential Contamination (Low)
			Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

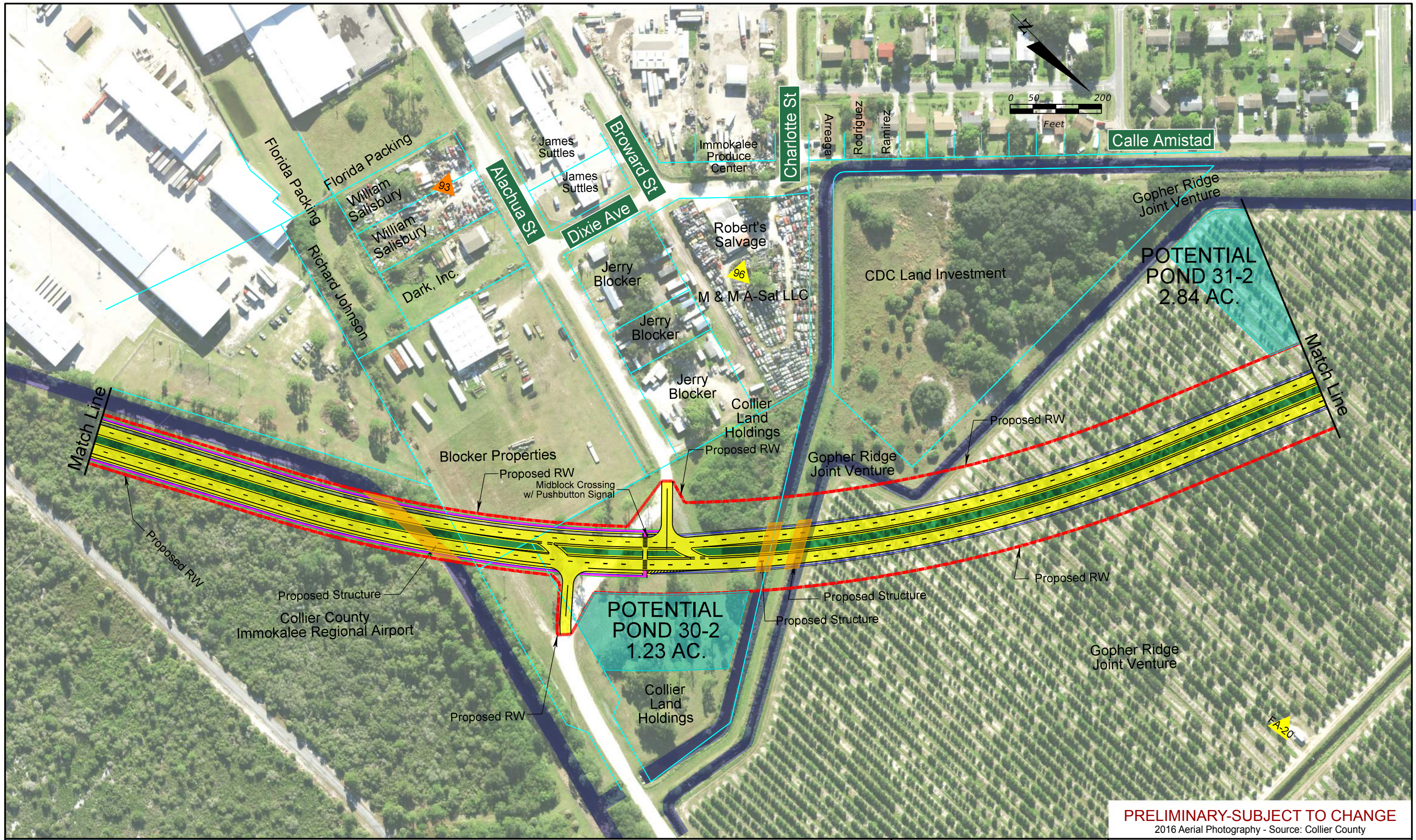
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Proposed Pavement
	Parcels		Proposed Median/Border
	Proposed Right-of-Way		Proposed Sidewalks
	Water/Canal		Proposed Structure
	Seminole Land		Existing Drainage Structure
	Wetland		Proposed Guardrail
	Potential Pond		Potential Business Relocation
	Potential Flood Plain Compensation		Potential Contamination (Low)
	Traffic Signal		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

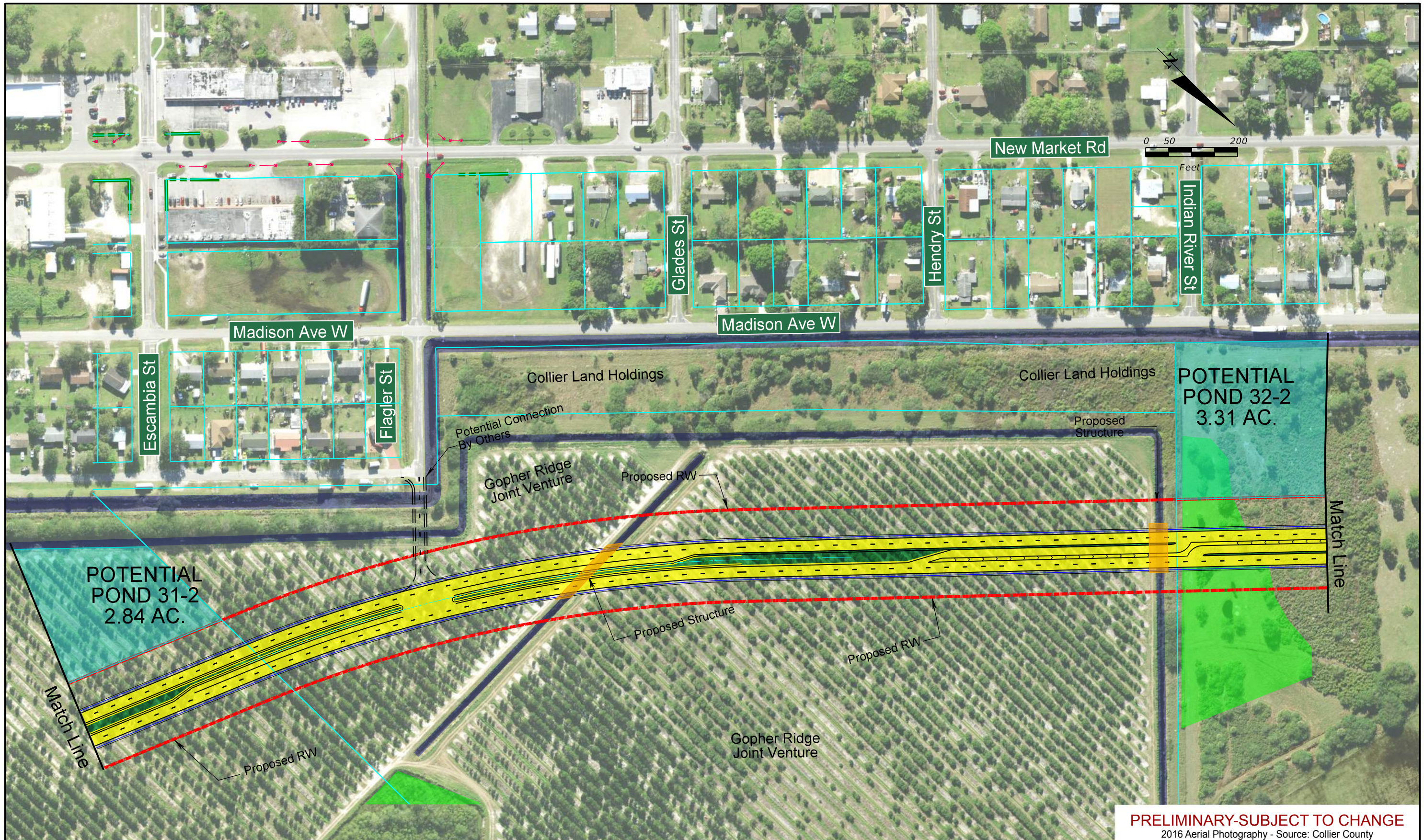
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Sidewalks
	Proposed Structure		Proposed Guardrail
	Existing Drainage Structure		Potential Business Relocation
			Potential Contamination (Low)
			Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

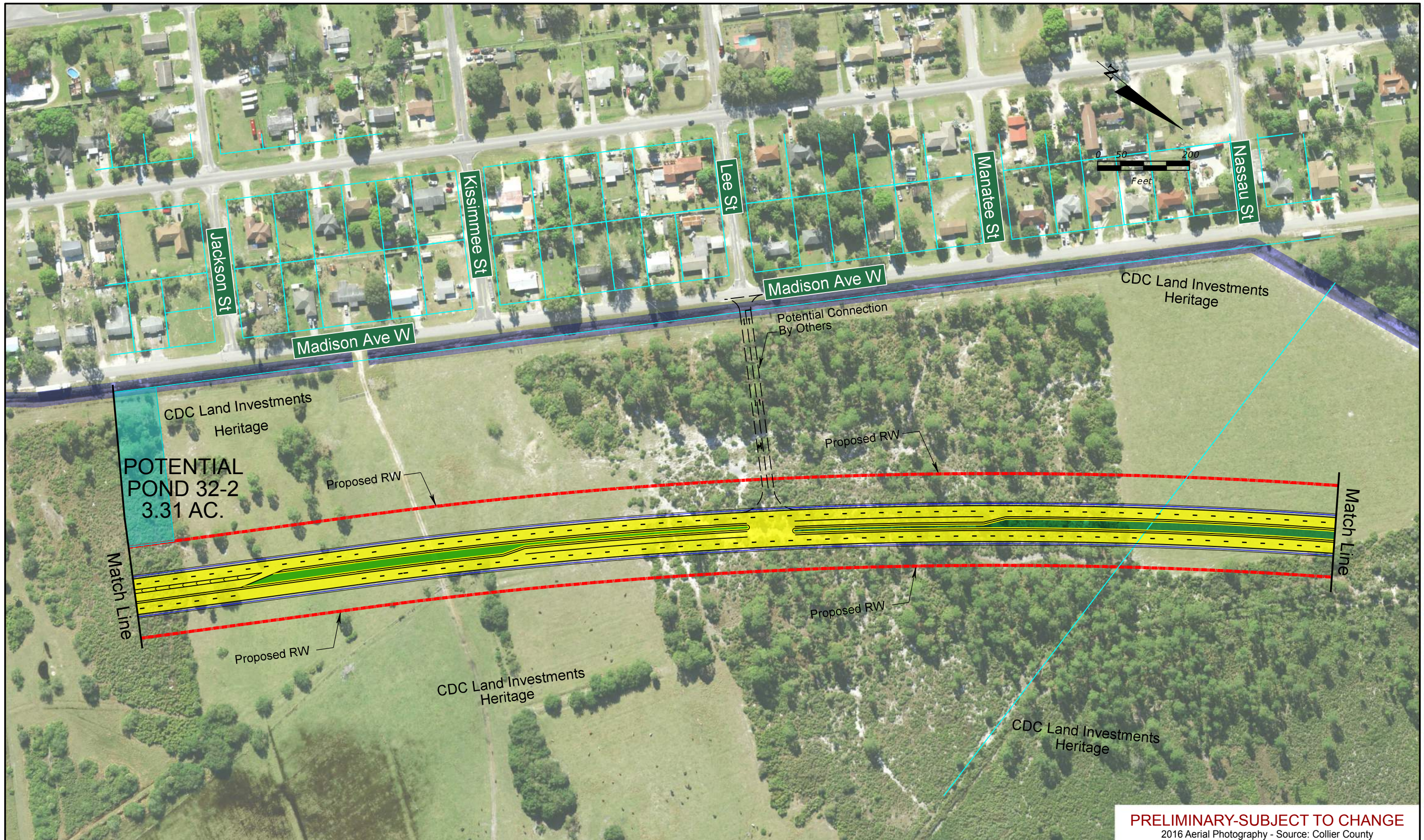
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Guardrail
	Proposed Sidewalks		Potential Business Relocation
	Proposed Structure		Potential Contamination (Low)
	Existing Drainage Structure		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

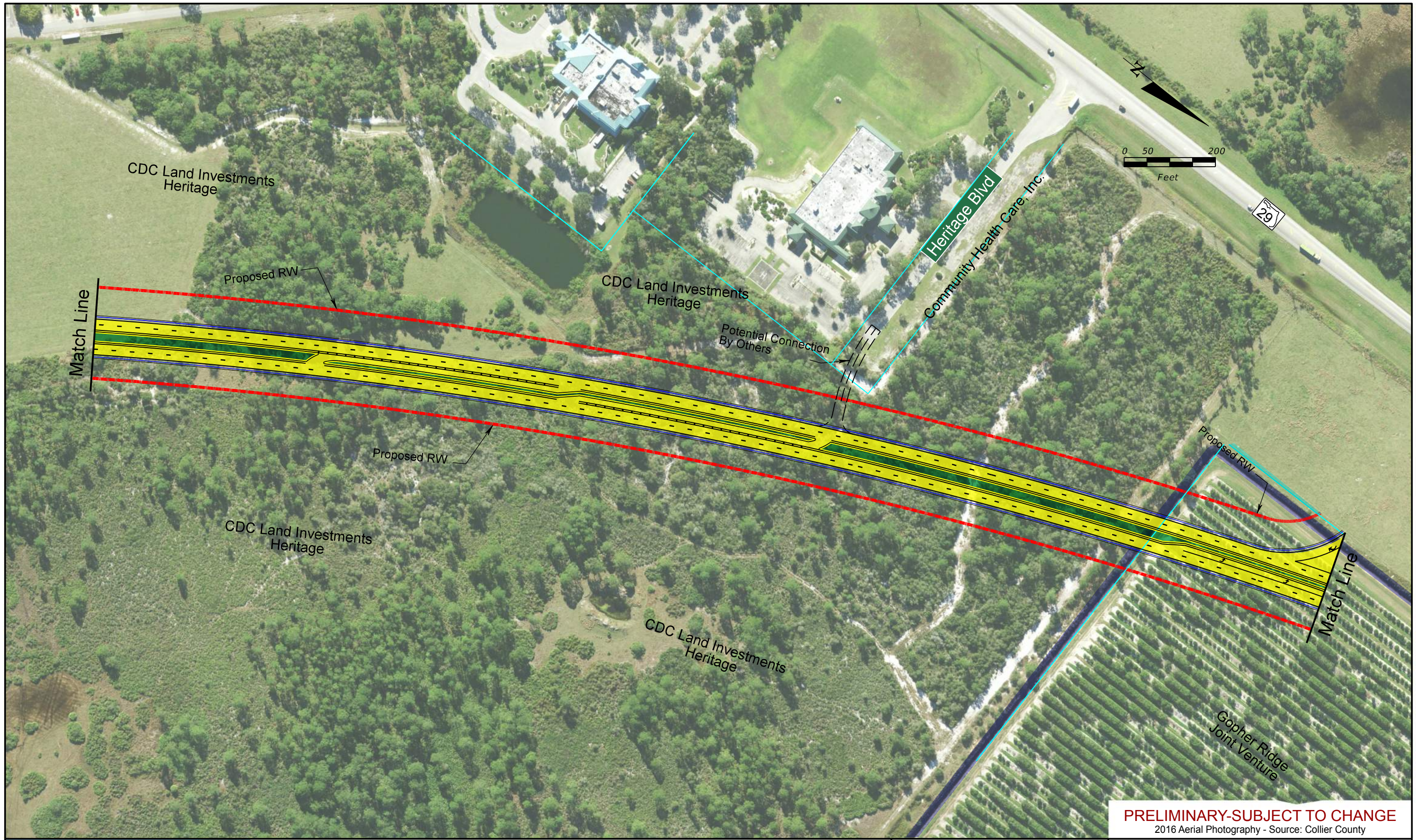
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Structure
	Proposed Sidewalks		Proposed Guardrail
	Existing Drainage Structure		Potential Contamination (Low)
			Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

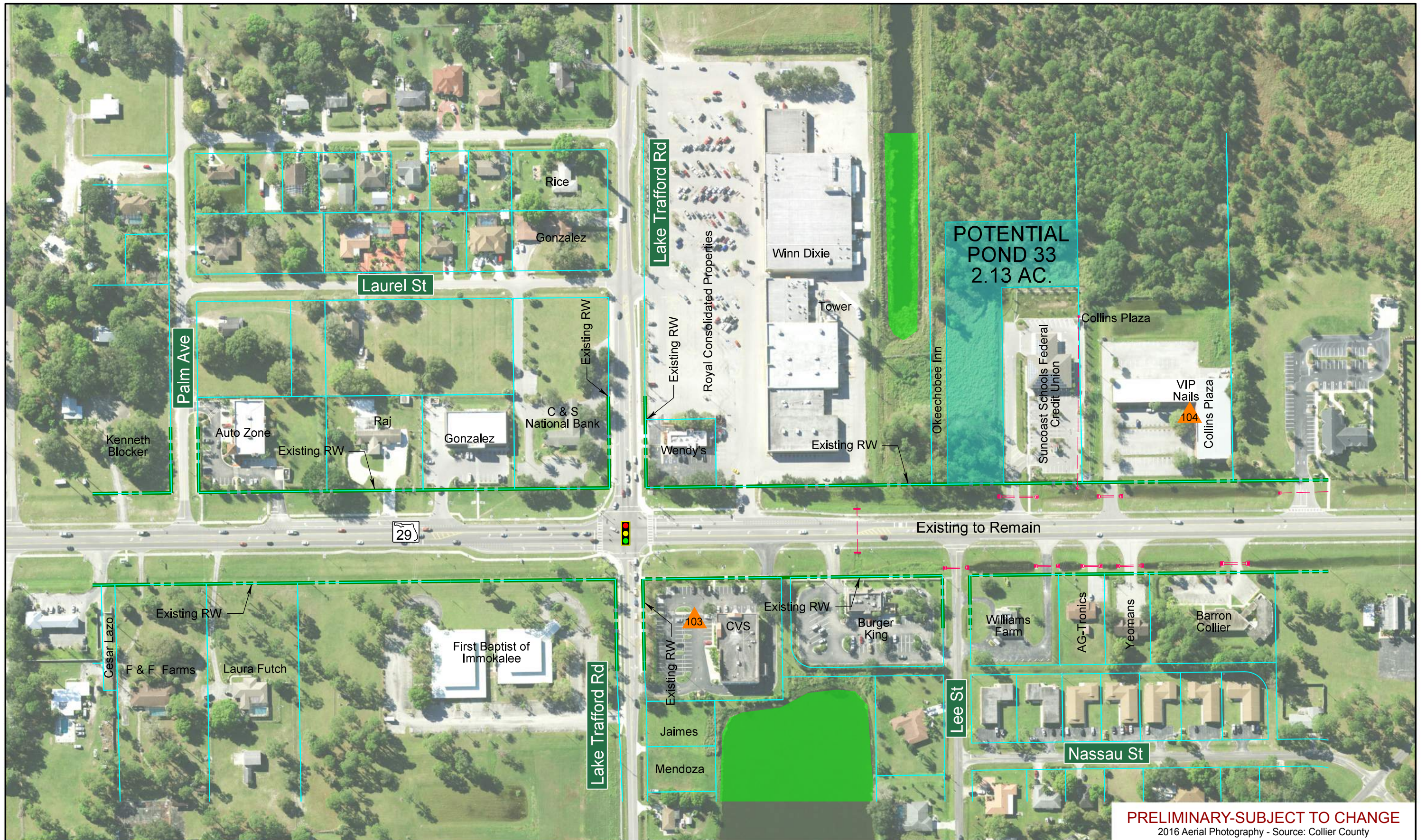
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
Existing Right-of-Way	Wetland	Proposed Pavement	Proposed Guardrail
Parcels	Potential Pond	Proposed Median/Border	Potential Business Relocation
Proposed Right-of-Way	Potential Flood Plain Compensation	Proposed Sidewalks	Potential Contamination (Low)
Water/Canal	Traffic Signal	Proposed Structure	Potential Contamination (Medium or High)
Seminole Land		Existing Drainage Structure	

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

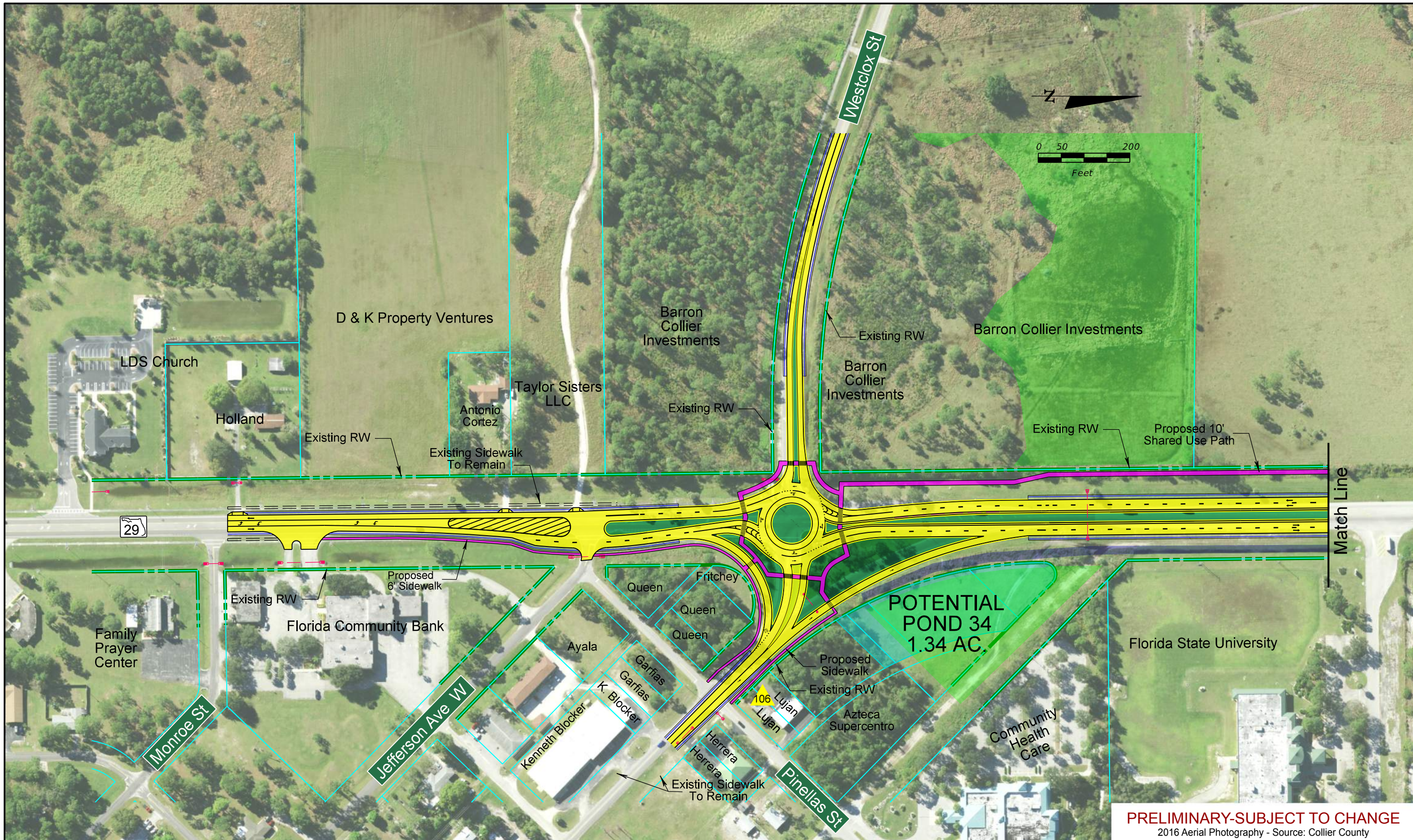
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
Existing Drainage Structure	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
	Proposed Guardrail
	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

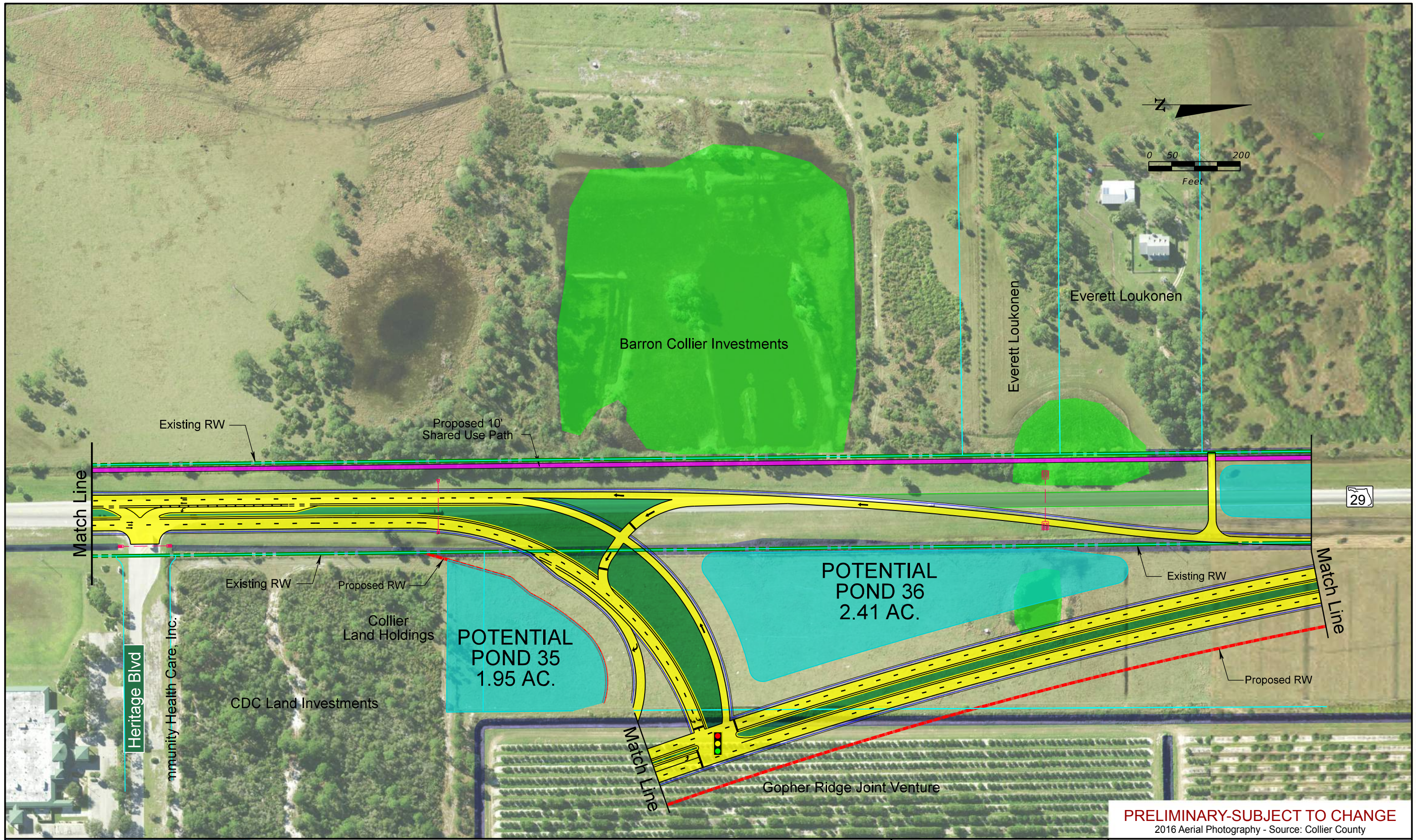
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Proposed Pavement
	Seminole Land		Proposed Median/Border
	Traffic Signal		Proposed Sidewalks
	Existing Drainage Structure		Proposed Structure
	Proposed Guardrail		Potential Business Relocation
	Potential Contamination (Low)		Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

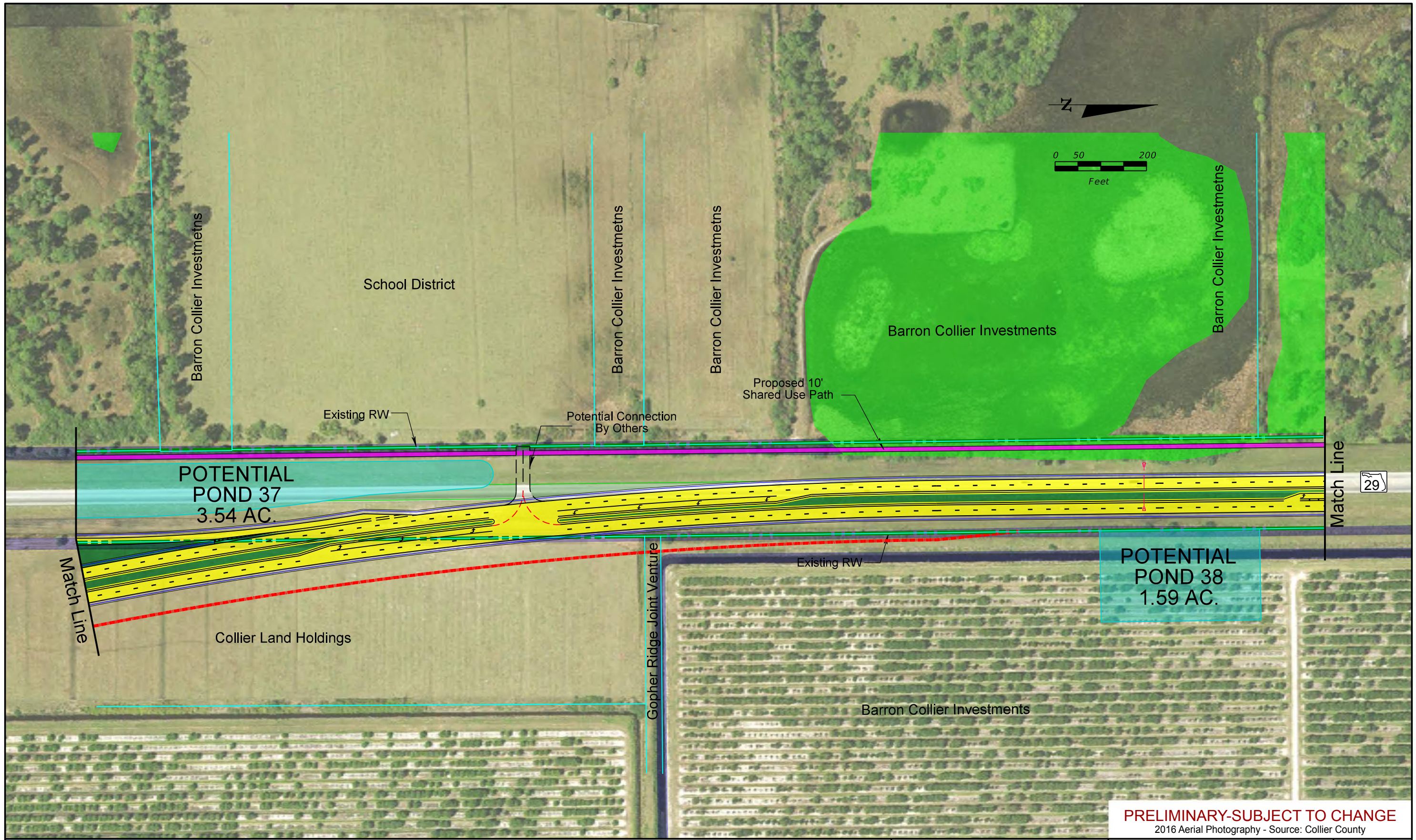
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
	Proposed Guardrail
	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

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PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Sidewalks
	Proposed Structure		Potential Business Relocation
	Existing Drainage Structure		Potential Contamination (Low)
	Proposed Guardrail		Potential Contamination (Medium or High)

H. W. Lochner, Inc.
 4350 W. Cypress St., Suite 800
 Tampa, Florida 33607
 FBPR Certificate of Auth. #894

Central Alternative #2

Sheet No.
31



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

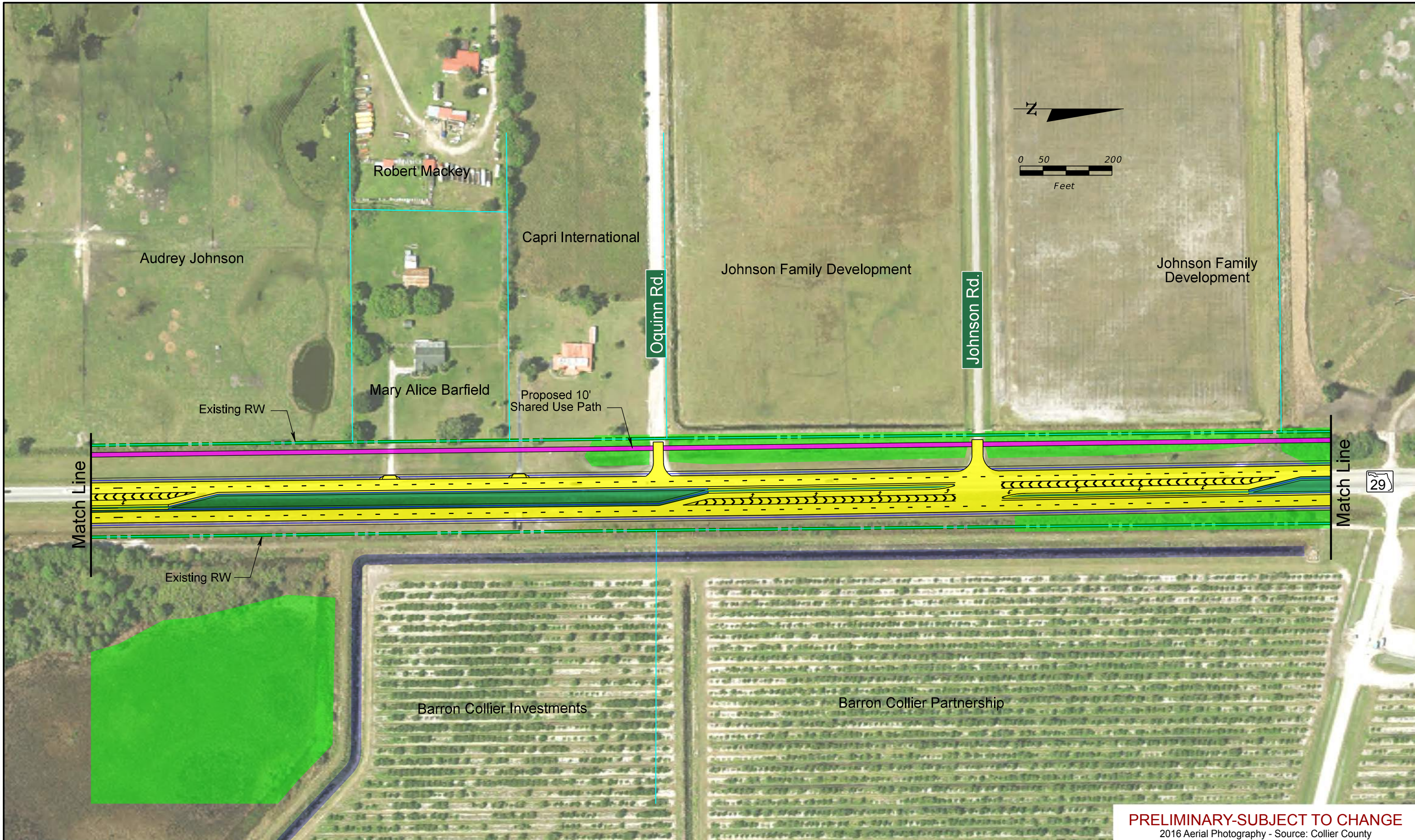
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
	Proposed Guardrail
	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

H. W. Lochner, Inc.
 4350 W. Cypress St., Suite 800
 Tampa, Florida 33607
 FBPR Certificate of Auth. #894

Central Alternative #2

Sheet No.
32



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

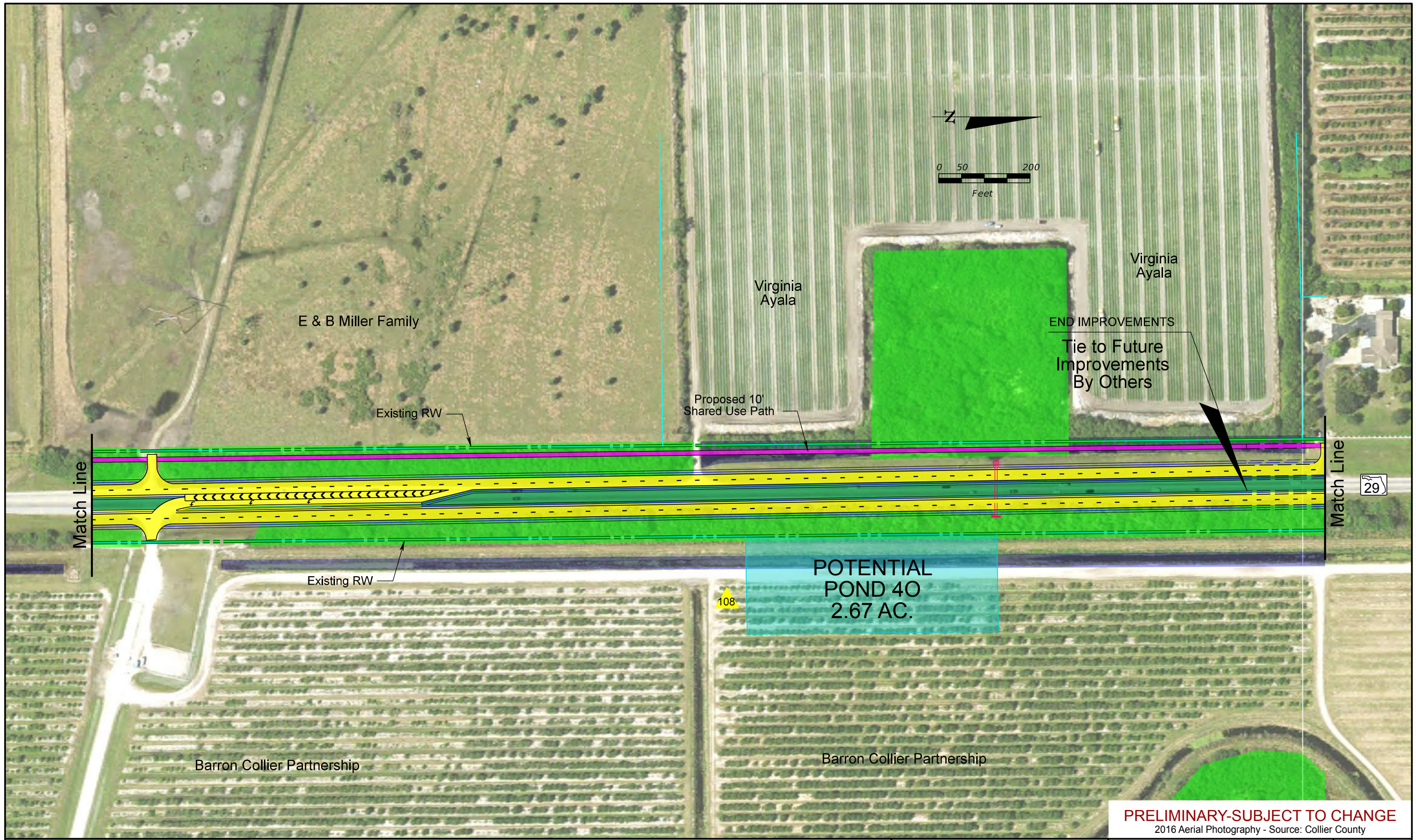
SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3911 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Proposed Pavement
	Seminole Land		Proposed Median/Border
	Traffic Signal		Proposed Sidewalks
			Proposed Structure
			Existing Drainage Structure
			Proposed Guardrail
			Potential Business Relocation
			Potential Contamination (Low)
			Potential Contamination (Medium or High)

H. W. Lochner, Inc.
 4350 W. Cypress St., Suite 800
 Tampa, Florida 33607
 FBPR Certificate of Auth. #894

Central Alternative #2

Sheet No.
33



SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend			
	Existing Right-of-Way		Wetland
	Parcels		Potential Pond
	Proposed Right-of-Way		Potential Flood Plain Compensation
	Water/Canal		Traffic Signal
	Seminole Land		Proposed Pavement
	Proposed Median/Border		Proposed Sidewalks
	Proposed Structure		Existing Drainage Structure
	Proposed Guardrail		Potential Business Relocation
	Potential Contamination (Low)		Potential Contamination (Medium or High)

H. W. Lochner, Inc.
 4350 W. Cypress St., Suite 800
 Tampa, Florida 33607
 FBPR Certificate of Auth. #894

PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County
Central Alternative #2

Sheet No.
34



PRELIMINARY-SUBJECT TO CHANGE
 2016 Aerial Photography - Source: Collier County

SR 29 PD&E Study
 From Oil Well Road to SR 82
 FPID NO: 417540 1 22 01 / FAP NO: 3811 022P

Legend	
Existing Right-of-Way	Wetland
Parcels	Potential Pond
Proposed Right-of-Way	Potential Flood Plain Compensation
Water/Canal	Traffic Signal
Seminole Land	Proposed Pavement
	Proposed Median/Border
	Proposed Sidewalks
	Proposed Structure
	Existing Drainage Structure
Proposed Guardrail	Potential Business Relocation
	Potential Contamination (Low)
	Potential Contamination (Medium or High)

H. W. Lochner, Inc.
 4350 W. Cypress St., Suite 800
 Tampa, Florida 33607
 FBPR Certificate of Auth. #894

Central Alternative #2

Sheet No.
35

Appendix B

Typical Section Package

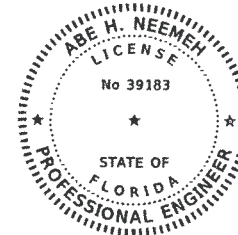
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION PACKAGE

FINANCIAL PROJECT ID 417540-1-22-01
COLLIER COUNTY (03080)
STATE ROAD NO. 29
SR 29 PD&E (DIL WELL ROAD TO S. DF SR 82)

APPROVED BY:

THIS DOCUMENT HAS BEEN DIGITALLY
SIGNED AND SEALED BY:



PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED.
THE SIGNATURE MUST BE VERIFIED
ON THE ELECTRONIC DOCUMENTS

H.W. LOCHNER, INC
4350 W. CYPRESS STREET
SUITE 800
TAMPA, FLORIDA 33607
(813) 357-3750
CERTIFICATE OF AUTHORIZATION NO.: 894
ABE H. NEEMEH, P.E.
P.E. NO. 39183

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

TYPICAL SECTION PACKAGE

SHEET NO	SHEET DESCRIPTION
1	COVER SHEET
2	TYPICAL SECTION NO. 1
3	TYPICAL SECTION NO. 2
4	TYPICAL SECTION NO. 3
5	TYPICAL SECTION NO. 4
6	TYPICAL SECTION NO. 5
7	TYPICAL SECTION NO. 6
8	TYPICAL SECTION NO. 7

TYPICAL SECTION CONCURRENCE

Digitally signed
by Eduardo A
Ponce
Date: 2018.06.12
18:09:19 -04'00'

for

FDOT DISTRICT DESIGN ENGINEER

Digitally signed
by Andra G Diggs
Date: 2018.06.07
15:39:54 -04'00'

FDOT DISTRICT STRUCTURES
DESIGN ENGINEER

Digitally signed by
William A Hartmann
Date: 2018.06.07
14:12:55 -04'00'

FDOT DISTRICT PROJECT
DEVELOPMENT ENGINEER

DESIGN SPEED AND POSTED
SPEED CONCURRENCE:

Digitally signed by: Ryan K Slater
Date: 2018.06.08 07:12:30 -
04'00'

FDOT DISTRICT TRAFFIC OPERATIONS
ENGINEER

Digitally signed by
Eduardo A Ponce
Date: 2018.06.12
18:09:43 -04'00'

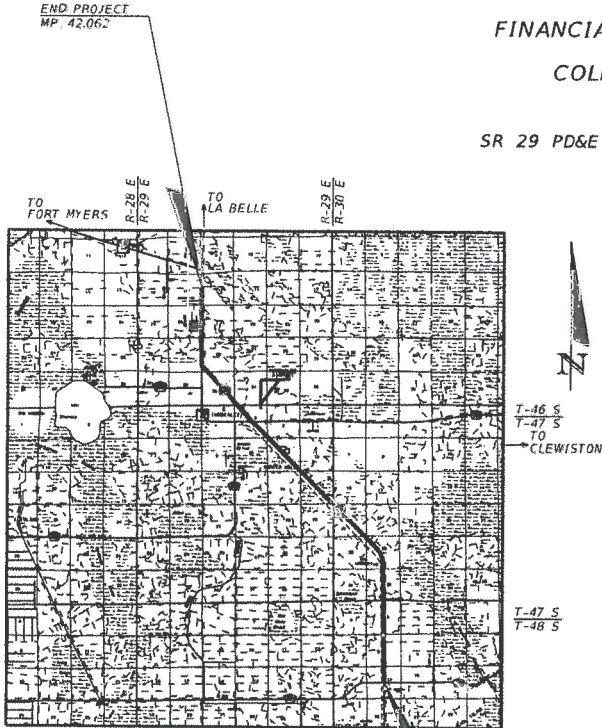
for

FDOT DISTRICT DESIGN ENGINEER

CONTEXT CLASSIFICATION
CONCURRENCE:

Joe. 5-23-18

FDOT DISTRICT INTERMODAL SYSTEMS
DEVELOPMENT MANAGER



SHEET
No.
1

PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : NATURAL () C3C : SUBURBAN COMM.
- (X) C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- () C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : LA. FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWY. () MINOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

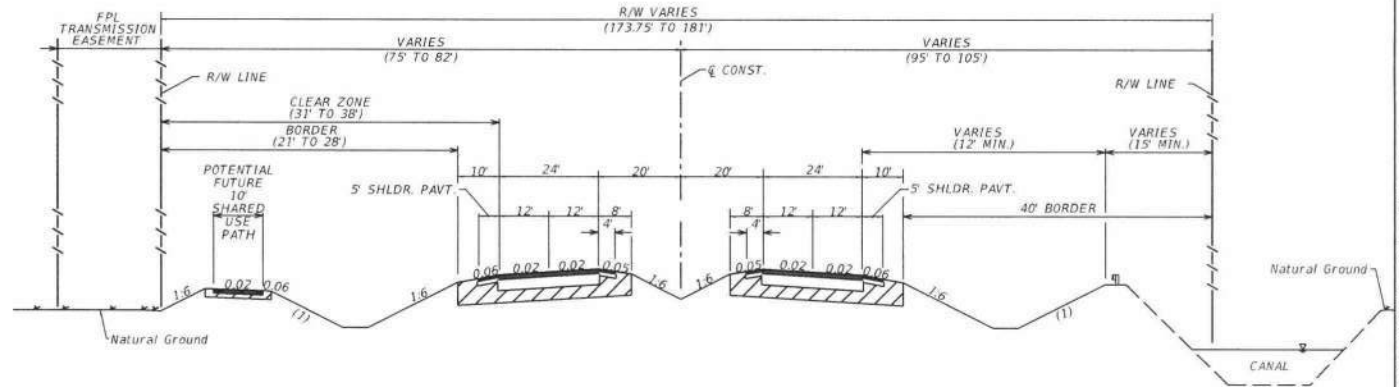
CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

1. BORDER WIDTH
2. CLEAR ZONE

TYPICAL SECTION No. 1



(1) 1:6 INSIDE CLEAR ZONE
1:4 OUTSIDE CLEAR ZONE

SR 29 FROM OIL WELL ROAD TO SOUTH OF KAICASA ENTRANCE
MP 27.208 TO MP 34.055

NOT TO SCALE

TRAFFIC DATA

CURRENT YEAR = 2017 AADT = 9,100
 ESTIMATED OPENING YEAR = 2025 AADT = 16,000
 ESTIMATED DESIGN YEAR = 2045 AADT = 26,000
 K = 9% D = 59% T = 16% (24 HOUR)
 DESIGN HOUR T = 8%
 DESIGN SPEED = 65 MPH
 POSTED SPEED = 60 MPH

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61015-23-004, F.A.C.

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	2

PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : NATURAL () C3C : SUBURBAN COMM.
- () C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- (X) C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWY. () MINOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

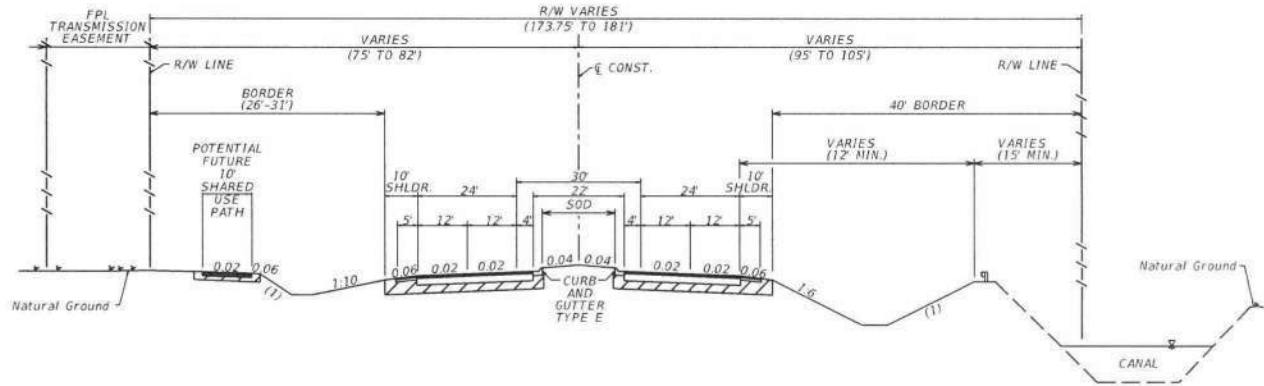
CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

- 1. BORDER WIDTH/CANAL LATERAL OFFSET

TYPICAL SECTION No. 2



SR 29 FROM SOUTH OF KAICASA ENTRANCE TO SEMINOLE CROSSING TRAIL
MP 34.055 TO MP 36.367

(1) 1:6 INSIDE CLEAR ZONE
1:4 OUTSIDE CLEAR ZONE

NOT TO SCALE

TRAFFIC DATA

CURRENT YEAR = 2017 AADT = 9,100
 ESTIMATED OPENING YEAR = 2025 AADT = 16,000
 ESTIMATED DESIGN YEAR = 2045 AADT = 26,000
 K = 9% D = 59% T = 16% (24 HOUR)
 DESIGN HOUR T = 8%
 DESIGN SPEED = 55 MPH
 POSTED SPEED = 50 MPH

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	3

PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : NATURAL (X) C3C : SUBURBAN COMM.
- () C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- () C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : LA FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWAY. () MINOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

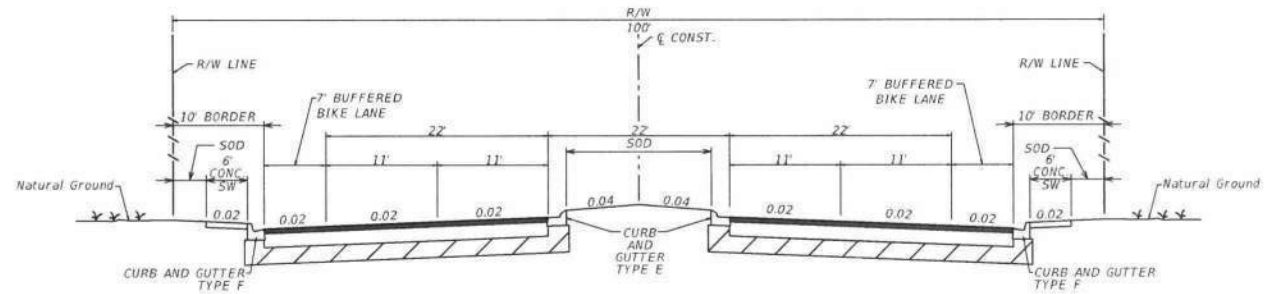
CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

- 1. BORDER WIDTH

TYPICAL SECTION No. 3



SR 29 FROM SEMINOLE CROSSING TRAIL TO GOPHER RIDGE ROAD
MP 36.367 TO MP 37.918

NOT TO SCALE

TRAFFIC DATA

CURRENT YEAR = 2017 AADT = 9,100
 ESTIMATED OPENING YEAR = 2025 AADT = 16,000
 ESTIMATED DESIGN YEAR = 2045 AADT = 26,000
 K = 9% D = 59% T = 16% (24 HOUR)
 DESIGN HOUR T = 8%
 DESIGN SPEED = 45 MPH
 POSTED SPEED = 40-45 MPH

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	4

PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : RURAL () C3C : SUBURBAN COMM.
- () C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- (X) C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWY. () MINOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

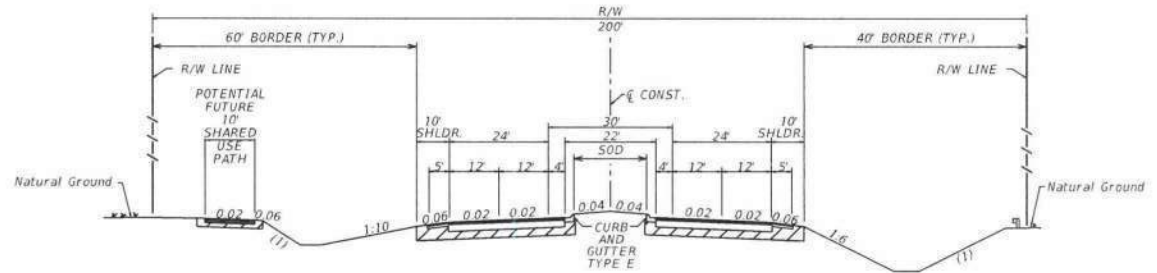
- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 4



SR 29 FROM GOPHER RIDGE ROAD TO SR 29/SR 29 BYPASS JUNCTION
MP 37.918 TO MP 39.878

(1) 1:6 INSIDE CLEAR ZONE
1:4 OUTSIDE CLEAR ZONE

NOT TO SCALE

TRAFFIC DATA

CURRENT YEAR = 2017 AADT = 9,100
 ESTIMATED OPENING YEAR = 2025 AADT = 16,000
 ESTIMATED DESIGN YEAR = 2045 AADT = 26,000
 K = 9% D = 59% T = 16% (24 HOUR)
 DESIGN HOUR T = 8%
 DESIGN SPEED = 50 MPH
 POSTED SPEED = 45 MPH

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	5

PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : NATURAL (X) C3C : SUBURBAN COMM.
- () C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- () C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : LA. FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWY. () MINDOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM**
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

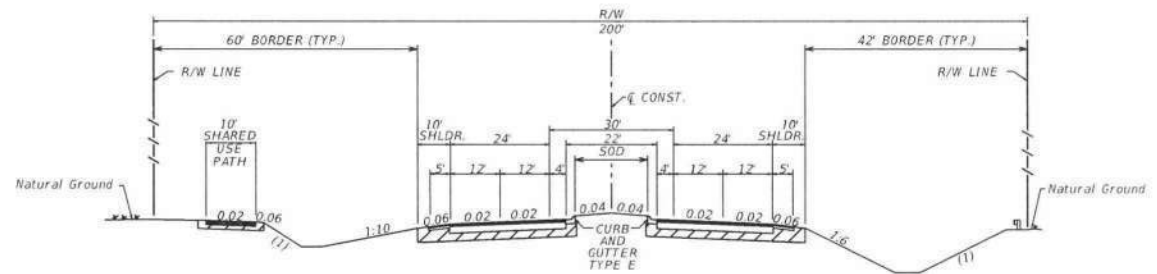
- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 5



(1) 1:6 INSIDE CLEAR ZONE
1:4 OUTSIDE CLEAR ZONE

SR 29 FROM NORTH OF WESTCLOX STREET TO EXPERIMENTAL ROAD
MP 39.878 TO MP 40.857

NOT TO SCALE

TRAFFIC DATA

NORTH OF WESTCLOX STREET TO SR 29/SR 29 BYPASS JUNCTION

CURRENT YEAR = 2017 AADT = 13,000
ESTIMATED OPENING YEAR = 2025 AADT = 8,200
ESTIMATED DESIGN YEAR = 2045 AADT = 13,000
K = 9% D = 59% T = 9% (24 HOUR)
DESIGN HOUR T = 5%

DESIGN SPEED = 55 MPH*
POSTED SPEED = 50 MPH (45 MPH AFTER SR 29 BYPASS IS CONSTRUCTED)

*50 MPH FROM NORTH OF WESTCLOX STREET TO SR 29/SR 29 BYPASS JUNCTION WHEN SR 29 BYPASS IS CONSTRUCTED.
**NOT AN EMERGING SIS WHEN SR 29 BYPASS IS CONSTRUCTED.

SR 29/SR 29 BYPASS JUNCTION TO EXPERIMENTAL ROAD

CURRENT YEAR = 2017 AADT = 18,000
ESTIMATED OPENING YEAR = 2025 AADT = 25,000
ESTIMATED DESIGN YEAR = 2045 AADT = 41,000
K = 9% D = 39% T = 16% (24 HOUR)
DESIGN HOUR T = 8%

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	6

PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : NATURAL () C3C : SUBURBAN COMM.
- (X) C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- () C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWY. () MINOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

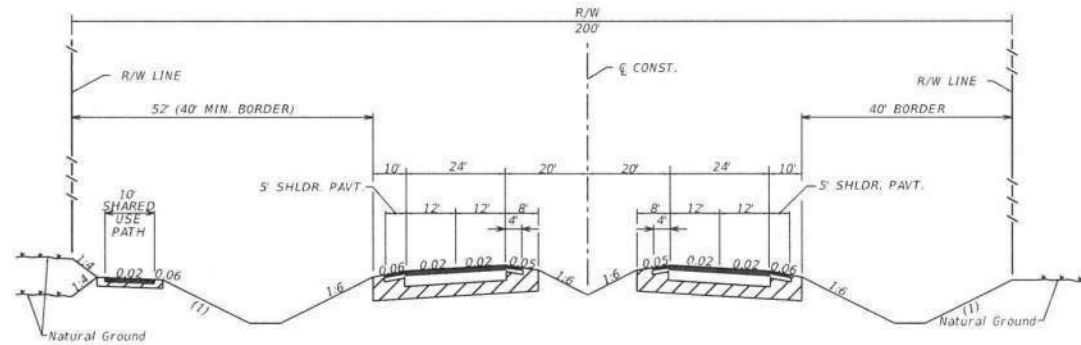
- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 6



SR 29 FROM EXPERIMENTAL ROAD TO SOUTH OF SR 82
MP 40.857 TO MP 42.062

(1) 1:6 INSIDE CLEAR ZONE
1:4 OUTSIDE CLEAR ZONE

NOT TO SCALE

TRAFFIC DATA

CURRENT YEAR = 2017 AADT = 18,000
ESTIMATED OPENING YEAR = 2025 AADT = 25,000
ESTIMATED DESIGN YEAR = 2045 AADT = 41,000
K = 9% D = 59% T = 16% (24 HOUR)
DESIGN HOUR T = 8%
DESIGN SPEED = 60 MPH
POSTED SPEED = 55 MPH

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	7

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

- () C1 : NATURAL () C3C : SUBURBAN COMM.
- (X) C2 : RURAL () C4 : URBAN GENERAL
- () C2T : RURAL TOWN () C5 : URBAN CENTER
- () C3R : SUBURBAN RES. () C6 : URBAN CORE
- () N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

- () INTERSTATE () MAJOR COLLECTOR
- () FREEWAY/EXPWY. () MINOR COLLECTOR
- (X) PRINCIPAL ARTERIAL () LOCAL
- () MINOR ARTERIAL

HIGHWAY SYSTEM

- () NATIONAL HIGHWAY SYSTEM
- (X) STRATEGIC INTERMODAL SYSTEM
- () STATE HIGHWAY SYSTEM
- () OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

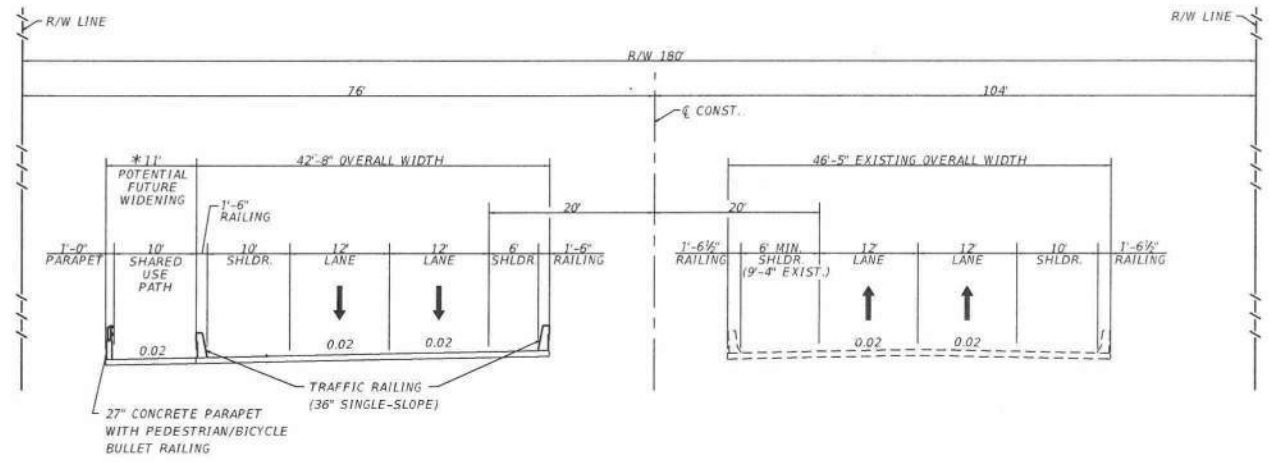
- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- () RESURFACING (LA FACILITIES)
- () RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 7



PROPOSED BRIDGE

EXISTING BRIDGE NO. 030303

*POTENTIAL FUTURE WIDENING FOR A 10' SHARED USE PATH

SR 29 OVER GATOR CREEK
MP 30.749 TO MP 30.758

TRAFFIC DATA

CURRENT YEAR = 2017 AADT = 9,100
 ESTIMATED OPENING YEAR = 2025 AADT = 16,000
 ESTIMATED DESIGN YEAR = 2045 AADT = 26,000
 K = 9% D = 59% T = 16% (24 HOUR)
 DESIGN HOUR T = 8%
 DESIGN SPEED = 65 MPH
 POSTED SPEED = 60 MPH

FINANCIAL PROJECT ID	SHEET NO.
417540-1-22-01	8

Appendix C

Long Range Estimates

Date: 5/29/2018 8:52:08 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-2-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM OIL WELL ROAD TO SUNNILAND NURSERY ROAD

District: 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.762 MI

Project Manager: JMK-RML-MWS**Version 6 Project Grand Total****\$25,850,160.21****Description:** PD&E - SEGMENT 1 - 5/23/18**Sequence:** 1 WDR - Widen/Resurface, Divided, Rural**Net** 4.639 MI**Length:** 24,496 LF

Description: NB RESURFACING SR 29 FROM OIL WELL ROAD TO SUNNILAND
NURSERY ROAD.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	4.639
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
	6.00 % / 6.00 %

Existing Outside Shoulder Cross Slope L/R	
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	22.49	AC	\$20,515.11	\$461,384.82
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	19,740.29	CY	\$18.32	\$361,642.11
Earthwork Component Total					\$823,026.93

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	0
Widened Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	48,992.06	SY	\$3.56	\$174,411.73
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	65,322.75	SY	\$2.13	\$139,137.46
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	7,185.50	TN	\$113.49	\$815,482.40
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,612.91	TN	\$149.57	\$390,812.95

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	626.00	EA	\$4.85	\$3,036.10
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	37.12	GM	\$1,062.52	\$39,440.74

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	816.53	TN	\$151.40	\$123,622.64
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	24,496.00	LF	\$17.87	\$437,743.52

Roadway Component Total

\$2,123,687.54

SHOULDER COMPONENT**User Input Data**

Description	Value
	0.00 / 0.00

Existing Total Outside Shoulder Width L/R	
New Total Outside Shoulder Width L/R	0.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 5.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	14,507.09	SY	\$12.55	\$182,063.98
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	748.49	TN	\$113.49	\$84,946.13
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	544.36	TN	\$149.57	\$81,419.93
570-1-1	PERFORMANCE TURF	13,608.91	SY	\$1.14	\$15,514.16

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	56,340.87	LF	\$1.11	\$62,538.37
104-11	FLOATING TURBIDITY BARRIER	463.94	LF	\$10.36	\$4,806.42
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	463.94	LF	\$8.02	\$3,720.80
104-15	SOIL TRACKING PREVENTION DEVICE	5.00	EA	\$1,692.58	\$8,462.90
107-1	LITTER REMOVAL	33.73	AC	\$28.98	\$977.50
107-2	MOWING	33.73	AC	\$46.24	\$1,559.68

Shoulder Component Total**\$446,009.87****MEDIAN COMPONENT**

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	24.00
New Total Median Shoulder Width L/R	0.00 / 8.00
New Paved Median Shoulder Width L/R	0.00 / 4.00
Existing Total Median Shoulder Width L/R	0.00 / 0.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	11,785.31	SY	\$12.55	\$147,905.64
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	598.79	TN	\$113.49	\$67,956.68
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	435.49	TN	\$149.57	\$65,136.24
570-1-1	PERFORMANCE TURF	65,322.75	SY	\$1.14	\$74,467.94

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	3,907.00	LF	\$23.74	\$92,752.18
Median Component Total					\$448,218.68

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	83.51	CY	\$1,404.50	\$117,289.80
		3,712.00	LF	\$79.94	\$296,737.28

430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD			
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	376.00 LF	\$86.26	\$32,433.76
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	186.00 EA	\$1,990.35	\$370,205.10
570-1-1	PERFORMANCE TURF	3,266.14 SY	\$1.14	\$3,723.40

Box Culvert 1

Description	Value
Size	6 x 4
Length	75.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	59.65	CY	\$1,550.79	\$92,504.62
415-1-1	REINF STEEL- ROADWAY	9,145.00	LB	\$0.98	\$8,962.10

Retention Basin 1

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 5

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220		1,025.00	LF	\$14.45	\$14,811.25

	FENCING, TYPE B, 5.1-6.0', STANDARD			
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40

Retention Basin 2

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 3

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 7

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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110-1-1	CLEARING & GRUBBING	1.50 AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00 CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00 LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40

Retention Basin 4

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 8

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 5

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	Pond 9

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	\$20,515.11	\$20,515.11
120-1	REGULAR EXCAVATION	9,680.00	CY	\$8.67	\$83,925.60
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	\$14.45	\$12,138.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	4,840.00	SY	\$1.14	\$5,517.60

Retention Basin 6

Description	Value
Size	2 AC
Multiplier	1
Depth	6.00
Description	Pond 10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	19,360.00	CY	\$8.67	\$167,851.20
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541		1.00	EA	\$3,583.09	\$3,583.09

	INLETS, DT BOT, TYPE D, <10'			
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00 LF	\$14.45	\$17,051.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00 SY	\$1.14	\$11,035.20

Retention Basin 7

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 11

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 8

Description	Value
Size	1.5 AC

Multiplier 1
 Depth 6.00
 Description Pond 12

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 9

Description **Value**
 Size 1.5 AC
 Multiplier 1
 Depth 6.00
 Description Pond 13

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88

430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00 LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40

Retention Basin 10

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 14

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 11

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 15

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 12

Description	Value
Size	5 AC
Multiplier	1
Depth	4.00
Description	FPC A

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.00	AC	\$20,515.11	\$102,575.55
120-1	REGULAR EXCAVATION	32,266.67	CY	\$8.67	\$279,752.03
400-2-2	CONC CLASS II, ENDWALLS	30.00	CY	\$1,404.50	\$42,135.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	2.00	EA	\$5,737.64	\$11,475.28
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	\$183.10	\$73,240.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,860.00	LF	\$14.45	\$26,877.00
550-60-234		2.00	EA	\$1,836.75	\$3,673.50

	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN			
570-1-1	PERFORMANCE TURF	24,200.00 SY	\$1.14	\$27,588.00

Retention Basin 13

Description	Value
Size	5 AC
Multiplier	1
Depth	4.00
Description	FPC B

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.00	AC	\$20,515.11	\$102,575.55
120-1	REGULAR EXCAVATION	32,266.67	CY	\$8.67	\$279,752.03
400-2-2	CONC CLASS II, ENDWALLS	30.00	CY	\$1,404.50	\$42,135.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	2.00	EA	\$5,737.64	\$11,475.28
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	\$183.10	\$73,240.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,860.00	LF	\$14.45	\$26,877.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00	EA	\$1,836.75	\$3,673.50
570-1-1	PERFORMANCE TURF	24,200.00	SY	\$1.14	\$27,588.00
Drainage Component Total					\$4,925,258.09

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	10.00	AS	\$331.85	\$3,318.50
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	112.00	AS	\$1,051.24	\$117,738.88
700-1-50	SINGLE POST SIGN, RELOCATE	10.00	AS	\$188.32	\$1,883.20

700-1-60	SINGLE POST SIGN, REMOVE	112.00 AS	\$21.46	\$2,403.52
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	10.00 AS	\$4,870.56	\$48,705.60
700-2-60	MULTI- POST SIGN, REMOVE	10.00 AS	\$829.30	\$8,293.00
Signing Component Total				\$182,342.70

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description		Value			
Multiplier (Number of Poles)		143			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	28,600.00	LF	\$7.88	\$225,368.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	143.00	EA	\$813.38	\$116,313.34
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	85,800.00	LF	\$2.18	\$187,044.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	143.00	EA	\$5,051.47	\$722,360.21
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	143.00	EA	\$488.78	\$69,895.54
Subcomponent Total					\$1,320,981.09
Lighting Component Total					\$1,320,981.09

BRIDGES COMPONENT

Bridge 030303

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	50.00
Width (LF)	47.00
Type	Low Level
Cost Factor	1.00
Structure No.	030303
Removal of Existing Structures area	0.00

Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$135.38
Basic Bridge Cost	\$267,900.00

Description

NEW BRIDGE OVER GATOR CREEK (SB),
EXISTING BRIDGE NO. 030303**Bridge Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	104.44	CY	\$321.86	\$33,615.06
415-1-9	REINF STEEL- APPROACH SLABS	18,277.00	LB	\$0.91	\$16,632.07
Bridge 030303 Total					\$318,147.13
Bridges Component Total					\$318,147.13
<hr/>					
Sequence 1 Total					\$10,587,672.03
<hr/>					

Sequence: 2 NUR - New Construction, Undivided, Rural**Net** 4.639 MI**Length:** 24,496 LF**Description:** SB NEW CONSTRUCTION SR 29 FROM OIL WELL ROAD TO
SUNNILAND NURSERY ROAD

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	4.639
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	56.23	AC	\$20,515.11	\$1,153,564.64
120-6	EMBANKMENT	158,294.23	CY	\$8.35	\$1,321,756.82
Earthwork Component Total					\$2,475,321.46

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	24.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	114,314.82	SY	\$3.56	\$406,960.76
285-709	OPTIONAL BASE,BASE GROUP 09	66,220.94	SY	\$13.38	\$886,036.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	8,981.88	TN	\$113.49	\$1,019,353.56
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	5,389.13	TN	\$136.70	\$736,694.07

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	11,431.48	SY	\$3.56	\$40,696.07
285-709	OPTIONAL BASE,BASE GROUP 09	6,622.09	SY	\$13.38	\$88,603.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	898.19	TN	\$113.49	\$101,935.58
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	538.91	TN	\$136.70	\$73,669.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	626.00	EA	\$4.85	\$3,036.10

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	18.56 GM	\$1,062.52	\$19,720.37
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	9.28 GM	\$422.18	\$3,917.83
Roadway Component Total				\$3,380,623.08

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 4.00
Paved Outside Shoulder Width L/R	5.00 / 4.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	26,292.41	SY	\$12.55	\$329,969.75
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,347.28	TN	\$113.49	\$152,902.81
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,020.92	TN	\$136.70	\$276,259.76
570-1-1	PERFORMANCE TURF	24,496.03	SY	\$1.14	\$27,925.47

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	63,689.68	LF	\$1.11	\$70,695.54
104-11	FLOATING TURBIDITY BARRIER	1,159.85	LF	\$10.36	\$12,016.05
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	1,159.85	LF	\$8.02	\$9,302.00
104-15	SOIL TRACKING PREVENTION DEVICE	5.00	EA	\$1,692.58	\$8,462.90
107-1	LITTER REMOVAL	56.23	AC	\$28.98	\$1,629.55
107-2	MOWING	56.23	AC	\$46.24	\$2,600.08

Shoulder Component Total \$891,763.91

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	83.51	CY	\$1,404.50	\$117,289.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	3,712.00	LF	\$79.94	\$296,737.28
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	784.00	LF	\$86.26	\$67,627.84
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	186.00	EA	\$1,990.35	\$370,205.10
570-1-1	PERFORMANCE TURF	3,266.14	SY	\$1.14	\$3,723.40
Drainage Component Total					\$855,583.42

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	10.00	AS	\$331.85	\$3,318.50
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	93.00	AS	\$1,051.24	\$97,765.32
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	10.00	AS	\$4,870.56	\$48,705.60
Signing Component Total					\$149,789.42

Sequence 2 Total \$7,753,081.29

Sequence: 3 WDR - Widen/Resurface, Divided, Rural**Net** 0.556 MI**Length:** 2,938 LF**Description:** NB RESURFACING SR 29 FROM 2340' SOUTH OF OIL WELL ROAD TO 600' NORTH OF OIL WELL ROAD

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.556
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.70	AC	\$20,515.11	\$55,390.80
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	939.42	CY	\$18.32	\$17,210.17
Earthwork Component Total					\$72,600.97

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	3
Existing Roadway Pavement Width L/R	0.00 / 26.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	0
Widened Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,264.21	SY	\$3.56	\$11,620.59
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	8,486.95	SY	\$2.13	\$18,077.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	933.57	TN	\$113.49	\$105,950.86
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	339.48	TN	\$149.57	\$50,776.02

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	150.00	EA	\$4.85	\$727.50
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.45	GM	\$1,062.52	\$4,728.21

710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.11 GM	\$363.84	\$403.86
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Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	22.03	TN	\$151.40	\$3,335.34
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	661.00	LF	\$17.87	\$11,812.07
Roadway Component Total					\$207,431.65

SHOULDER COMPONENT**User Input Data**

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	0.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 5.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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285-704	OPTIONAL BASE,BASE GROUP 04	1,739.83 SY	\$12.55	\$21,834.87
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	89.77 TN	\$113.49	\$10,188.00
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	65.28 TN	\$149.57	\$9,763.93
570-1-1	PERFORMANCE TURF	1,632.11 SY	\$1.14	\$1,860.61

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,756.92	LF	\$1.11	\$7,500.18
104-11	FLOATING TURBIDITY BARRIER	55.64	LF	\$10.36	\$576.43
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	55.64	LF	\$8.02	\$446.23
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58
107-1	LITTER REMOVAL	4.05	AC	\$28.98	\$117.37
107-2	MOWING	4.05	AC	\$46.24	\$187.27
Shoulder Component Total					\$54,167.47

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	22.00
New Total Median Shoulder Width L/R	0.00 / 0.00
New Paved Median Shoulder Width L/R	0.00 / 0.00
Existing Total Median Shoulder Width L/R	0.00 / 0.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	0
Friction Course Spread Rate	0
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $i_{\frac{1}{2}}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	7,181.27	SY	\$1.14	\$8,186.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,875.00	LF	\$23.74	\$139,472.50

Median Component Total

\$147,659.15

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	10.02	CY	\$1,404.50	\$14,073.09
430-174-124	PIPE CULV, OPT MATL, ROUND, 24"SD	448.00	LF	\$79.94	\$35,813.12
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00	LF	\$86.26	\$4,140.48
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	23.00	EA	\$1,990.35	\$45,778.05
570-1-1	PERFORMANCE TURF	391.71	SY	\$1.14	\$446.55
Drainage Component Total					\$100,251.29

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$331.85	\$663.70
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	14.00	AS	\$1,051.24	\$14,717.36
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	\$188.32	\$376.64
700-1-60	SINGLE POST SIGN, REMOVE	14.00	AS	\$21.46	\$300.44
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$4,870.56	\$9,741.12

700-2-60	MULTI- POST SIGN, REMOVE	2.00 AS	\$829.30	\$1,658.60
Signing Component Total				\$27,457.86

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	SIGNAL AT SR 29 AND OIL WELL ROAD

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00	LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE,F&I,TYP P-VI	4.00	EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$204.94	\$1,639.52
670-5-111		1.00	AS	\$24,961.04	\$24,961.04

	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT			
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$156.31	\$625.24
Signalizations Component Total				\$136,680.70

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description		Value			
Multiplier (Number of Poles)		15			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,000.00	LF	\$7.88	\$23,640.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	15.00	EA	\$813.38	\$12,200.70
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	9,000.00	LF	\$2.18	\$19,620.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	15.00	EA	\$5,051.47	\$75,772.05
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	15.00	EA	\$488.78	\$7,331.70
Subcomponent Total					\$138,564.45
Lighting Component Total					\$138,564.45
Sequence 3 Total					\$884,813.54

Sequence: 4 NUR - New Construction, Undivided, Rural**Net** 0.556 MI**Length:** 2,938 LF**Description:** SB RECONSTRUCTION SR 29 FROM 2340' SOUTH OF OIL WELL
ROAD TO 600' NORTH OF OIL WELL ROAD

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.556
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	6.74	AC	\$20,515.11	\$138,271.84
120-6	EMBANKMENT	19,573.37	CY	\$8.35	\$163,437.64
Earthwork Component Total					\$301,709.48

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	26.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	11,751.17	SY	\$3.56	\$41,834.17
285-709	OPTIONAL BASE,BASE GROUP 09	8,594.67	SY	\$13.38	\$114,996.68
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,166.96	TN	\$113.49	\$132,438.29
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	700.17	TN	\$136.70	\$95,713.24

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,175.12	SY	\$3.56	\$4,183.43
285-709	OPTIONAL BASE,BASE GROUP 09	859.47	SY	\$13.38	\$11,499.71
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	116.70	TN	\$113.49	\$13,244.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	70.02	TN	\$136.70	\$9,571.73

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	75.00	EA	\$4.85	\$363.75

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.23 GM	\$1,062.52	\$2,369.42
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	1.11 GM	\$422.18	\$468.62
Roadway Component Total				\$426,683.32

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 0.00
Paved Outside Shoulder Width L/R	5.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,739.83	SY	\$12.55	\$21,834.87
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	89.77	TN	\$113.49	\$10,188.00
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	134.65	TN	\$136.70	\$18,406.66
570-1-1	PERFORMANCE TURF	1,632.11	SY	\$1.14	\$1,860.61

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	7,638.26	LF	\$1.11	\$8,478.47
104-11	FLOATING TURBIDITY BARRIER	139.10	LF	\$10.36	\$1,441.08
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	139.10	LF	\$8.02	\$1,115.58
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58
107-1	LITTER REMOVAL	6.74	AC	\$28.98	\$195.33
107-2	MOWING	6.74	AC	\$46.24	\$311.66

Shoulder Component Total \$65,524.84

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	10.02	CY	\$1,404.50	\$14,073.09
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	448.00	LF	\$79.94	\$35,813.12
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	96.00	LF	\$86.26	\$8,280.96
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	23.00	EA	\$1,990.35	\$45,778.05
570-1-1	PERFORMANCE TURF	391.71	SY	\$1.14	\$446.55
Drainage Component Total					\$104,391.77

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$331.85	\$663.70
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	\$1,051.24	\$12,614.88
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$4,870.56	\$9,741.12
Signing Component Total					\$23,019.70

Sequence 4 Total \$921,329.11

Sequence: 5 WUR - Widen/Resurface, Undivided, Rural**Net** 0.395 MI**Length:** 2,087 LF**Description:** OIL WELL ROAD AT SR 29**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	40.00 / 40.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.395
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.83	AC	\$20,515.11	\$78,572.87
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	1,750.36	CY	\$18.32	\$32,066.60
Earthwork Component Total					\$110,639.47

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	0.00 / 24.00

Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	12.00 / 0.00
Widened Structural Spread Rate	275
Widened Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,421.10	SY	\$3.56	\$26,419.12
285-709	OPTIONAL BASE,BASE GROUP 09	2,859.44	SY	\$13.38	\$38,259.31
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	5,565.82	SY	\$2.13	\$11,855.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	459.18	TN	\$113.49	\$52,112.34
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	382.65	TN	\$113.49	\$43,426.95
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	222.63	TN	\$136.70	\$30,433.52
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	229.59	TN	\$136.70	\$31,384.95

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	53.00	EA	\$4.85	\$257.05
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.58	GM	\$1,062.52	\$1,678.78
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.79	GM	\$422.18	\$333.52

Roadway Component Total

\$236,160.74

SHOULDER COMPONENT**User Input Data**

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	2,472.15	SY	\$12.55	\$31,025.48
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	127.55	TN	\$113.49	\$14,475.65
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	92.76	TN	\$136.70	\$12,680.29
570-1-1	PERFORMANCE TURF	2,319.09	SY	\$1.14	\$2,643.76

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,800.52	LF	\$1.11	\$5,328.58
104-11	FLOATING TURBIDITY BARRIER	39.53	LF	\$10.36	\$409.53
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	39.53	LF	\$8.02	\$317.03
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58

104-18	INLET PROTECTION SYSTEM	1.00 EA	\$118.93	\$118.93
107-1	LITTER REMOVAL	0.96 AC	\$28.98	\$27.82
107-2	MOWING	0.96 AC	\$46.24	\$44.39
Shoulder Component Total				\$68,764.04

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	7.12	CY	\$1,404.50	\$10,000.04
430-174-124	PIPE CULV, OPT MATL, ROUND, 24"SD	64.00	LF	\$79.94	\$5,116.16
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00	LF	\$86.26	\$2,760.32
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	4.00	EA	\$1,990.35	\$7,961.40
570-1-1	PERFORMANCE TURF	159.70	SY	\$1.14	\$182.06
Drainage Component Total					\$26,019.98

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$331.85	\$331.85
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	8.00	AS	\$1,051.24	\$8,409.92
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	\$188.32	\$188.32
700-1-60	SINGLE POST SIGN, REMOVE	8.00	AS	\$21.46	\$171.68
700-2-13	MULTI- POST SIGN, F&I GM, 21-30 SF	1.00	AS	\$4,571.10	\$4,571.10
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	\$829.30	\$829.30
Signing Component Total					\$14,502.17

Sequence 5 Total	\$456,086.40
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FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-2-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM OIL WELL ROAD TO SUNNILAND NURSERY ROAD

District: 01	County: 03 COLLIER	Market Area: 10	Units: English
Contract Class: 1	Lump Sum Project: N	Design/Build: N	Project Length: 4.762 MI

Project Manager: JMK-RML-MWS**Version 6 Project Grand Total** **\$25,850,160.21****Description:** PD&E - SEGMENT 1 - 5/23/18

Project Sequences Subtotal **\$20,602,982.37**

102-1	Maintenance of Traffic	10.00 %	\$2,060,298.24
101-1	Mobilization	8.00 %	\$1,813,062.45

Project Sequences Total **\$24,476,343.06**

Project Unknowns	5.00 %	\$1,223,817.15
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal **\$150,000.00****Version 6 Project Grand Total** **\$25,850,160.21**

Date: 5/29/2018 8:47:57 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-3-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM SUNNILAND NURSERY ROAD TO S OF AGRICULTURE WAY**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.550 MI**Project Manager:** JMK-WHB-JRR**Version 6 Project Grand Total** **\$16,732,746.95****Description:** PD&E - SEGMENT 2 - 5/23/18**Sequence:** 1 WDR - Widen/Resurface, Divided, Rural**Net** 1.871 MI**Length:** 9,879 LF**Description:** NB RESURFACING SR 29 FROM SUNNILAND NURSERY ROAD TO SOUTH OF MILTON'S CANAL**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.871
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	5.00 % / 5.00 %

Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	9.07	AC	\$20,515.11	\$186,072.05
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	7,961.65	CY	\$18.32	\$145,857.43
Earthwork Component Total					\$331,929.48

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	0
Widened Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	19,757.76	SY	\$3.56	\$70,337.63
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	26,343.68	SY	\$2.13	\$56,112.04
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,897.80	TN	\$113.49	\$328,871.32
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,053.75	TN	\$149.57	\$157,609.39

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	253.00	EA	\$4.85	\$1,227.05
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	14.97	GM	\$1,062.52	\$15,905.92

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	328.93	TN	\$151.40	\$49,800.00
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	9,868.00	LF	\$17.87	\$176,341.16

Roadway Component Total

\$856,204.51

SHOULDER COMPONENT**User Input Data**

Description	Value
	0.00 / 0.00

Existing Total Outside Shoulder Width L/R	
New Total Outside Shoulder Width L/R	0.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 5.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,850.49	SY	\$12.55	\$73,423.65
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	301.85	TN	\$113.49	\$34,256.96
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	219.53	TN	\$149.57	\$32,835.10
570-1-1	PERFORMANCE TURF	5,488.27	SY	\$1.14	\$6,256.63

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	22,721.42	LF	\$1.11	\$25,220.78
104-11	FLOATING TURBIDITY BARRIER	187.10	LF	\$10.36	\$1,938.36
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	187.10	LF	\$8.02	\$1,500.54
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
107-1	LITTER REMOVAL	13.60	AC	\$28.98	\$394.13
107-2	MOWING	13.60	AC	\$46.24	\$628.86

Shoulder Component Total

\$179,840.17

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	24.00
New Total Median Shoulder Width L/R	0.00 / 8.00
New Paved Median Shoulder Width L/R	0.00 / 4.00
Existing Total Median Shoulder Width L/R	0.00 / 0.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,752.84	SY	\$12.55	\$59,648.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	241.48	TN	\$113.49	\$27,405.57
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	175.62	TN	\$149.57	\$26,267.48
570-1-1	PERFORMANCE TURF	26,343.68	SY	\$1.14	\$30,031.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	3,339.00	LF	\$23.74	\$79,267.86
Median Component Total					\$222,620.85

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	33.68	CY	\$1,404.50	\$47,303.56
		1,496.00	LF	\$79.94	\$119,590.24

430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD			
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	152.00 LF	\$86.26	\$13,111.52
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	75.00 EA	\$1,990.35	\$149,276.25
570-1-1	PERFORMANCE TURF	1,317.18 SY	\$1.14	\$1,501.59

Retention Basin 1

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 16

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 2

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 17

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 3

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 18

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234		1.00	EA	\$1,836.75	\$1,836.75

	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN			
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40

Retention Basin 4

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 19

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 5

Description	Value
Size	10 AC
Multiplier	1
Depth	4.00
Description	FPC C

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.00	AC	\$20,515.11	\$205,151.10
120-1	REGULAR EXCAVATION	64,533.33	CY	\$8.67	\$559,503.97

400-2-2	CONC CLASS II, ENDWALLS	36.00 CY	\$1,404.50	\$50,562.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00 EA	\$3,583.09	\$7,166.18
425-2-71	MANHOLES, J-7, <10'	2.00 EA	\$5,737.64	\$11,475.28
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	104.00 LF	\$111.48	\$11,593.92
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00 LF	\$183.10	\$73,240.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,780.00 LF	\$14.45	\$40,171.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	3.00 EA	\$1,836.75	\$5,510.25
570-1-1	PERFORMANCE TURF	48,400.00 SY	\$1.14	\$55,176.00
Drainage Component Total				\$2,386,533.18

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$331.85	\$1,327.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	45.00	AS	\$1,051.24	\$47,305.80
700-1-50	SINGLE POST SIGN, RELOCATE	4.00	AS	\$188.32	\$753.28
700-1-60	SINGLE POST SIGN, REMOVE	45.00	AS	\$21.46	\$965.70
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	4.00	AS	\$4,870.56	\$19,482.24
700-2-60	MULTI- POST SIGN, REMOVE	4.00	AS	\$829.30	\$3,317.20
Signing Component Total					\$73,151.62

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	57

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	11,400.00 LF	\$7.88	\$89,832.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	57.00 EA	\$813.38	\$46,362.66
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	34,200.00 LF	\$2.18	\$74,556.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	57.00 EA	\$5,051.47	\$287,933.79
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	57.00 EA	\$488.78	\$27,860.46
	Subcomponent Total			\$526,544.91
	Lighting Component Total			\$526,544.91
<hr/>				
	Sequence 1 Total			\$4,576,824.72
<hr/>				

Sequence: 2 NUR - New Construction, Undivided, Rural**Net** 1.871 MI**Length:** 9,879 LF**Description:** SB NEW CONSTRUCTION FROM SUNNILAND NURSERY ROAD TO SOUTH OF MILTON'S CANAL.

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.871
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	22.68	AC	\$20,515.11	\$465,282.69
120-6	EMBANKMENT	63,843.18	CY	\$8.35	\$533,090.55
Earthwork Component Total					\$998,373.24

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	24.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	46,101.44	SY	\$3.56	\$164,121.13
285-709	OPTIONAL BASE,BASE GROUP 09	26,705.91	SY	\$13.38	\$357,325.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,622.26	TN	\$113.49	\$411,090.29
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,173.35	TN	\$136.70	\$297,096.94

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,610.14	SY	\$3.56	\$16,412.10
285-709	OPTIONAL BASE,BASE GROUP 09	2,670.59	SY	\$13.38	\$35,732.49
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	362.23	TN	\$113.49	\$41,109.48
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	217.34	TN	\$136.70	\$29,710.38

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	253.00	EA	\$4.85	\$1,227.05

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	7.48 GM	\$1,062.52	\$7,947.65
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	3.74 GM	\$422.18	\$1,578.95
Roadway Component Total				\$1,363,351.55

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 4.00
Paved Outside Shoulder Width L/R	5.00 / 4.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	10,603.33	SY	\$12.55	\$133,071.79
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	543.34	TN	\$113.49	\$61,663.66
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	815.01	TN	\$136.70	\$111,411.87
570-1-1	PERFORMANCE TURF	9,878.88	SY	\$1.14	\$11,261.92

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,685.09	LF	\$1.11	\$28,510.45
104-11	FLOATING TURBIDITY BARRIER	467.75	LF	\$10.36	\$4,845.89
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	467.75	LF	\$8.02	\$3,751.36
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
107-1	LITTER REMOVAL	22.68	AC	\$28.98	\$657.27
107-2	MOWING	22.68	AC	\$46.24	\$1,048.72

Shoulder Component Total

\$359,608.09

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	33.68	CY	\$1,404.50	\$47,303.56
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	1,496.00	LF	\$79.94	\$119,590.24
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	320.00	LF	\$86.26	\$27,603.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	75.00	EA	\$1,990.35	\$149,276.25
570-1-1	PERFORMANCE TURF	1,317.18	SY	\$1.14	\$1,501.59
Drainage Component Total					\$345,274.84

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$331.85	\$1,327.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	38.00	AS	\$1,051.24	\$39,947.12
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	4.00	AS	\$4,870.56	\$19,482.24
Signing Component Total					\$60,756.76

Sequence 2 Total

\$3,127,364.48

Sequence: 3 WDR - Widen/Resurface, Divided, Rural**Net** 1.246 MI**Length:** 6,579 LF**Description:** NB RESURFACING SR 29 FROM SOUTH OF MILTON'S CANAL TO
SOUTH OF AGRICULTURE WAY

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.246
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	6.04	AC	\$20,515.11	\$123,911.26
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	3,827.93	CY	\$18.32	\$70,127.68
Earthwork Component Total					\$194,038.94

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 4.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,233.81	SY	\$3.56	\$36,432.36
285-709	OPTIONAL BASE,BASE GROUP 09	3,165.17	SY	\$13.38	\$42,349.97
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	17,543.68	SY	\$2.13	\$37,368.04
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,929.80	TN	\$113.49	\$219,013.00
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	482.45	TN	\$113.49	\$54,753.25
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	701.75	TN	\$149.57	\$104,960.75
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	116.96	TN	\$149.57	\$17,493.71

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	168.00	EA	\$4.85	\$814.80
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.97	GM	\$1,062.52	\$10,593.32

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	219.30	TN	\$151.40	\$33,202.02
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	6,579.00	LF	\$17.87	\$117,566.73
Roadway Component Total					\$674,547.95

SHOULDER COMPONENT**User Input Data**

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	0.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 3.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 7.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,358.13	SY	\$12.55	\$67,244.53
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	281.43	TN	\$113.49	\$31,939.49
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	204.68	TN	\$149.57	\$30,613.99
570-1-1	PERFORMANCE TURF	2,192.96	SY	\$1.14	\$2,499.97

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	15,131.42	LF	\$1.11	\$16,795.88
104-11	FLOATING TURBIDITY BARRIER	124.60	LF	\$10.36	\$1,290.86
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	124.60	LF	\$8.02	\$999.29
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
107-1	LITTER REMOVAL	9.06	AC	\$28.98	\$262.56
107-2	MOWING	9.06	AC	\$46.24	\$418.93

Shoulder Component Total

\$155,450.66

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	30.00
Performance Turf Width	17.50
New Total Median Shoulder Width L/R	0.00 / 0.00
New Paved Median Shoulder Width L/R	0.00 / 0.00
Existing Total Median Shoulder Width L/R	0.00 / 0.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	0
Friction Course Spread Rate	0

Total Width (T) / 8" Overlap (O)	T
Rumble Strips i_j 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	12,792.27	SY	\$1.14	\$14,583.19

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	13,157.00	LF	\$23.74	\$312,347.18

Median Component Total					\$326,930.37
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	22.43	CY	\$1,404.50	\$31,502.94
430-174-124	PIPE CULV, OPT MATL, ROUND, 24"SD	1,000.00	LF	\$79.94	\$79,940.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	104.00	LF	\$86.26	\$8,971.04
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	50.00	EA	\$1,990.35	\$99,517.50
570-1-1	PERFORMANCE TURF	877.18	SY	\$1.14	\$999.99

Box Culvert 1

Description	Value
Size	Dbl. 10 x 5
Length	52.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	120.52	CY	\$1,550.79	\$186,901.21
415-1-1	REINF STEEL- ROADWAY	18,750.00	LB	\$0.98	\$18,375.00

Retention Basin 1

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 20

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 2

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 21

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541		1.00	EA	\$3,583.09	\$3,583.09

	INLETS, DT BOT, TYPE D, <10'			
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00 LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40

Retention Basin 3

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 22

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 4

Description	Value
Size	1.5 AC

Multiplier	1
Depth	6.00
Description	Pond 23

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 5

Description	Value
Size	2.5 AC
Multiplier	1
Depth	4.00
Description	FPC D

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	16,133.33	CY	\$8.67	\$139,875.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88

430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00 LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00 SY	\$1.14	\$13,794.00
Drainage Component Total				\$1,765,913.88

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	\$331.85	\$995.55
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	30.00	AS	\$1,051.24	\$31,537.20
700-1-50	SINGLE POST SIGN, RELOCATE	3.00	AS	\$188.32	\$564.96
700-1-60	SINGLE POST SIGN, REMOVE	30.00	AS	\$21.46	\$643.80
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	\$4,870.56	\$14,611.68
700-2-60	MULTI- POST SIGN, REMOVE	3.00	AS	\$829.30	\$2,487.90
Signing Component Total					\$50,841.09

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value				
Multiplier (Number of Poles)	27				
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,400.00	LF	\$7.88	\$42,552.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	27.00	EA	\$813.38	\$21,961.26
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	16,200.00	LF	\$2.18	\$35,316.00

715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	27.00 EA	\$5,051.47	\$136,389.69
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	27.00 EA	\$488.78	\$13,197.06
	Subcomponent Total			\$249,416.01
	Lighting Component Total			\$249,416.01
<hr/>				
	Sequence 3 Total			\$3,417,138.90
<hr/>				

Sequence: 4 NUR - New Construction, Undivided, Rural**Net** 1.246 MI**Length:** 6,579 LF**Description:** SB NEW CONSTRUCTION SR 29 FROM SOUTH OF MILTON'S CANAL
TO SOUTH OF AGRICULTURE WAY

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.246
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	15.10	AC	\$20,515.11	\$309,778.16
120-6	EMBANKMENT	44,989.79	CY	\$8.35	\$375,664.75
Earthwork Component Total					\$685,442.91

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	28.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	27,777.49	SY	\$3.56	\$98,887.86
285-709	OPTIONAL BASE,BASE GROUP 09	20,708.85	SY	\$13.38	\$277,084.41
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,814.30	TN	\$113.49	\$319,394.91
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,688.58	TN	\$136.70	\$230,828.89

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,777.75	SY	\$3.56	\$9,888.79
285-709	OPTIONAL BASE,BASE GROUP 09	2,070.89	SY	\$13.38	\$27,708.51
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	281.43	TN	\$113.49	\$31,939.49
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	168.86	TN	\$136.70	\$23,083.16

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	168.00	EA	\$4.85	\$814.80

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.98 GM	\$1,062.52	\$5,291.35
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	2.49 GM	\$422.18	\$1,051.23
Roadway Component Total				\$1,025,973.40

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 0.00
Paved Outside Shoulder Width L/R	7.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,358.13	SY	\$12.55	\$67,244.53
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	281.43	TN	\$113.49	\$31,939.49
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	422.14	TN	\$136.70	\$57,706.54
570-1-1	PERFORMANCE TURF	2,192.96	SY	\$1.14	\$2,499.97

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	17,105.09	LF	\$1.11	\$18,986.65
104-11	FLOATING TURBIDITY BARRIER	311.50	LF	\$10.36	\$3,227.14
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	311.50	LF	\$8.02	\$2,498.23
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
107-1	LITTER REMOVAL	15.10	AC	\$28.98	\$437.60
107-2	MOWING	15.10	AC	\$46.24	\$698.22

Shoulder Component Total

\$188,623.53

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	22.43	CY	\$1,404.50	\$31,502.94
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	1,000.00	LF	\$79.94	\$79,940.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	216.00	LF	\$86.26	\$18,632.16
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	50.00	EA	\$1,990.35	\$99,517.50
570-1-1	PERFORMANCE TURF	877.18	SY	\$1.14	\$999.99
Drainage Component Total					\$230,592.59

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	\$331.85	\$995.55
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	25.00	AS	\$1,051.24	\$26,281.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	\$4,870.56	\$14,611.68
Signing Component Total					\$41,888.23

Sequence 4 Total

\$2,172,520.66

Date: 5/29/2018 8:47:58 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-3-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM SUNNILAND NURSERY ROAD TO S OF AGRICULTURE WAY

District: 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English
Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.550 MI
Project Manager: JMK-WHB-JRR

Version 6 Project Grand Total **\$16,732,746.95****Description:** PD&E - SEGMENT 2 - 5/23/18

Project Sequences Subtotal **\$13,293,848.76**

102-1 Maintenance of Traffic 10.00 % \$1,329,384.88

101-1 Mobilization 8.00 % \$1,169,858.69

Project Sequences Total **\$15,793,092.33**

Project Unknowns 5.00 % \$789,654.62

Design/Build 0.00 % \$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal **\$150,000.00****Version 6 Project Grand Total** **\$16,732,746.95**

Date: 5/29/2018 8:54:25 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-4-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM S OF AGRICULTURE WAY TO CR 846 E

District: 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.250 MI

Project Manager: JMK-AEB-KSJ**Version 6 Project Grand Total****\$15,197,221.08****Description:** PD&E - SEGMENT 3 - 5/23/18**Sequence:** 1 NDS - New, Divided, Suburban (Urban In/Rural Out)**Net** 1.005 MI**Length:** 5,306 LF

Description: SR 29 FROM SOUTH OF AGRICULTURE WAY TO SEMINOLE
CROSSING TRAIL

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	80.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.005
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	21.93	AC	\$20,515.11	\$449,896.36
120-6	EMBANKMENT	104,874.12	CY	\$8.35	\$875,698.90
Earthwork Component Total					\$1,325,595.26

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	28.00 / 28.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	47,851.94	SY	\$3.56	\$170,352.91
285-709	OPTIONAL BASE,BASE GROUP 09	33,795.87	SY	\$13.38	\$452,188.74
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	5,447.90	TN	\$113.49	\$618,282.17
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,320.70	TN	\$149.57	\$197,537.10

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,785.19	SY	\$3.56	\$17,035.28
285-709	OPTIONAL BASE,BASE GROUP 09	3,379.59	SY	\$13.38	\$45,218.91
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	544.79	TN	\$113.49	\$61,828.22

337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	132.07 TN	\$149.57	\$19,753.71
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Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	407.00	EA	\$4.85	\$1,973.95
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	8.04	GM	\$1,062.52	\$8,542.66
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.02	GM	\$363.84	\$1,462.64

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	176.97	TN	\$151.40	\$26,793.26
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	5,309.00	LF	\$17.87	\$94,871.83

Roadway Component Total	\$1,715,841.38
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SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 3.00
Paved Outside Shoulder Width L/R	7.00 / 7.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $i_{\frac{1}{2}}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	8,643.54	SY	\$12.55	\$108,476.43
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	453.99	TN	\$113.49	\$51,523.33
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	330.18	TN	\$149.57	\$49,385.02
570-1-1	PERFORMANCE TURF	3,537.60	SY	\$1.14	\$4,032.86

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" Comment: 10' SIDEWALK ON WEST SIDE OF SR 29 FROM FARM WORKERS WAY NORTH.	4,340.00	SY	\$37.60	\$163,184.00

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	13,796.64	LF	\$1.11	\$15,314.27
104-11	FLOATING TURBIDITY BARRIER	251.25	LF	\$10.36	\$2,602.95
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	251.25	LF	\$8.02	\$2,015.02
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
104-18		9.00	EA	\$118.93	\$1,070.37

	INLET PROTECTION SYSTEM			
107-1	LITTER REMOVAL	18.02 AC	\$28.98	\$522.22
107-2	MOWING	18.02 AC	\$46.24	\$833.24
Shoulder Component Total				\$402,344.88

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	30.00
Performance Turf Width	17.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	10,612.80	LF	\$23.74	\$251,947.87
570-1-1	PERFORMANCE TURF	10,318.00	SY	\$1.14	\$11,762.52
Median Component Total					\$263,710.39

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	18.09	CY	\$1,404.50	\$25,407.40
425-1-551	INLETS, DT BOT, TYPE E, <10'	9.00	EA	\$4,618.62	\$41,567.58
430-175- 124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	424.00	LF	\$88.61	\$37,570.64
430-175- 136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	240.00	LF	\$86.26	\$20,702.40
430-984- 129	MITERED END SECT, OPTIONAL RD, 24" SD	9.00	EA	\$1,990.35	\$17,913.15
570-1-1	PERFORMANCE TURF	385.92	SY	\$1.14	\$439.95

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1

Depth 6.00
 Description Pond 24

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	\$20,515.11	\$20,515.11
120-1	REGULAR EXCAVATION	9,680.00	CY	\$8.67	\$83,925.60
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	\$14.45	\$12,138.00
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	4,840.00	SY	\$1.14	\$5,517.60

Retention Basin 2

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 25

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
		200.00	LF	\$183.10	\$36,620.00

430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD				
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00 LF		\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA		\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY		\$1.14	\$8,276.40
Drainage Component Total					\$604,048.88

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	25.00	AS	\$331.85	\$8,296.25
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	\$1,051.24	\$3,153.72
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	\$4,870.56	\$14,611.68
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00	AS	\$6,758.66	\$20,275.98
Signing Component Total					\$46,337.63

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	SIGNAL AT SR 29 AND FARM WORKERS WAY

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56

634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00 PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00 EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00 LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE,F&I,TYP P-VI	4.00 EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$156.31	\$625.24
Signalizations Component Total				\$136,680.70

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description				Value	
Spacing				MAX	
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,306.40	LF	\$7.88	\$41,814.43
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	692.44	LF	\$22.93	\$15,877.65
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	\$813.38	\$17,894.36
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	17,996.54	LF	\$2.18	\$39,232.46
715-4-13		22.00	EA	\$6,110.26	\$134,425.72

	LIGHT POLE COMPLETE, F&I- STD, 40'			
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	22.00 EA	\$488.78	\$10,753.16
	Subcomponent Total			\$259,997.78
	Lighting Component Total			\$259,997.78

BRIDGES COMPONENT

Bridge PED

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	420.00
Width (LF)	20.00
Type	Pedestrian Overpass
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	7,320.00
Default Cost per SF	\$470.00
Factored Cost per SF	\$470.00
Final Cost per SF	\$470.00
Basic Bridge Cost	\$3,948,000.00
Description	PEDESTRIAN STRUCTURE OVER FARM WORKERS WAY

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	7,320.00	SF	\$17.18	\$125,757.60
	Bridge PED Total				\$4,073,757.60
	Bridges Component Total				\$4,073,757.60
	Sequence 1 Total				\$8,828,314.50

Sequence: 2 NDU - New Construction, Divided, Urban**Net** 0.474 MI**Length:** 2,500 LF**Description:** SR 29 FROM SEMINOLE CROSSING TRAIL TO CR 846 E**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.474
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.75	AC	\$20,515.11	\$117,961.88
120-6	EMBANKMENT	57,021.23	CY	\$8.35	\$476,127.27

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION Comment: CANAL RELOCATION NEAR SEMINOLE CROSSING TRAIL	15,671.00	CY	\$8.67	\$135,867.57
120-6	EMBANKMENT Comment: CANAL RELOCATION NEAR SEMINOLE CROSSING TRAIL	4,692.00	CY	\$8.35	\$39,178.20

Earthwork Component Total

\$769,134.92

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	18,978.39	SY	\$3.56	\$67,563.07
285-709	OPTIONAL BASE,BASE GROUP 09	16,111.63	SY	\$13.38	\$215,573.61
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,658.42	TN	\$113.49	\$301,704.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,329.21	TN	\$136.70	\$181,703.01

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,897.84	SY	\$3.56	\$6,756.31
285-709	OPTIONAL BASE,BASE GROUP 09	1,611.16	SY	\$13.38	\$21,557.32
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	265.84	TN	\$113.49	\$30,170.18
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	132.92	TN	\$136.70	\$18,170.16

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
	2

Solid Stripe No. of Paint Applications	
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	192.00	EA	\$4.85	\$931.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.79	GM	\$1,062.52	\$4,026.95
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.89	GM	\$363.84	\$687.66
Roadway Component Total					\$848,843.56

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	13.25 / 13.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,500.08	LF	\$30.78	\$76,952.46
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,500.08	LF	\$30.78	\$76,952.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,333.44	SY	\$37.60	\$125,337.34
570-1-1	PERFORMANCE TURF	2,777.87	SY	\$1.14	\$3,166.77

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,000.16	LF	\$1.11	\$5,550.18
104-11		118.38	LF	\$10.36	\$1,226.42

	FLOATING TURBIDITY BARRIER			
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	118.38 LF	\$8.02	\$949.41
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$1,692.58	\$1,692.58
104-18	INLET PROTECTION SYSTEM	25.00 EA	\$118.93	\$2,973.25
107-1	LITTER REMOVAL	12.05 AC	\$28.98	\$349.21
107-2	MOWING	12.05 AC	\$46.24	\$557.19
Shoulder Component Total				\$295,707.27

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,000.16	LF	\$23.74	\$118,703.80
570-1-1	PERFORMANCE TURF	5,000.16	SY	\$1.14	\$5,700.18
Median Component Total					\$124,403.98

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.52	CY	\$1,404.50	\$11,966.34
425-1-351	INLETS, CURB, TYPE P-5, <10'	18.00	EA	\$3,074.07	\$55,333.26
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	\$4,340.12	\$21,700.60
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	\$1,743.65	\$5,230.95
425-2-41	MANHOLES, P-7, <10'	3.00	EA	\$4,248.55	\$12,745.65
		1,256.00	LF	\$88.61	\$111,294.16

430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD			
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00 LF	\$86.26	\$9,661.12
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,368.00 LF	\$123.95	\$293,513.60
570-1-1	PERFORMANCE TURF	143.94 SY	\$1.14	\$164.09

Box Culvert 1

Description	Value
Size	Trip. 10 x 6
Length	50.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	162.30	CY	\$1,550.79	\$251,693.22
415-1-1	REINF STEEL- ROADWAY	25,238.00	LB	\$0.98	\$24,733.24

Retention Basin 1

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 26

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220		1,025.00	LF	\$14.45	\$14,811.25

	FENCING, TYPE B, 5.1-6.0', STANDARD			
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40
Drainage Component Total				\$1,057,086.31

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	12.00 AS	\$331.85	\$3,982.20
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,051.24	\$1,051.24
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$6,758.66	\$6,758.66
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	\$7,795.35	\$7,795.35
Signing Component Total				\$19,587.45

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description				Value
Spacing				MAX
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,500.08 LF	\$7.88	\$19,700.63
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	326.24 LF	\$22.93	\$7,480.68
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00 EA	\$813.38	\$8,133.80
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,478.96 LF	\$2.18	\$18,484.13
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	10.00 EA	\$6,110.26	\$61,102.60
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00 EA	\$488.78	\$4,887.80

Subcomponent Total	\$119,789.65
Lighting Component Total	\$119,789.64
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Sequence 2 Total	\$3,234,553.13
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Date: 5/29/2018 8:54:26 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-4-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM S OF AGRICULTURE WAY TO CR 846 E**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.250 MI**Project Manager:** JMK-AEB-KSJ**Version 6 Project Grand Total** **\$15,197,221.08****Description:** PD&E - SEGMENT 3 - 5/23/18

Project Sequences Subtotal **\$12,062,867.63**

102-1	Maintenance of Traffic	10.00 %	\$1,206,286.76
101-1	Mobilization	8.00 %	\$1,061,532.35

Project Sequences Total **\$14,330,686.74**

Project Unknowns	5.00 %	\$716,534.34
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal **\$150,000.00****Version 6 Project Grand Total** **\$15,197,221.08**

Date: 5/29/2018 9:05:00 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-5-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM CR 846 E TO N OF NEW MARKET ROAD N**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 3.480 MI**Project Manager:** JMK-NEM-AEB**Version 6 Project Grand Total****\$30,916,534.86****Description:** PD&E - SEGMENT 4 -(ALTERNATIVE 1R)- 5/23/18**Sequence:** 1 NDU - New Construction, Divided, Urban**Net** 2.025 MI**Length:** 10,692 LF**Description:** SR 29 FROM CR 846 E TO NORTH OF MADISON AVENUE W.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.025
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	29.45	AC	\$20,515.11	\$604,169.99
120-6	EMBANKMENT	243,603.36	CY	\$8.35	\$2,034,088.06
Earthwork Component Total					\$2,638,258.05

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	81,164.16	SY	\$3.56	\$288,944.41
285-709	OPTIONAL BASE,BASE GROUP 09	68,904.00	SY	\$13.38	\$921,935.52
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	11,369.16	TN	\$113.49	\$1,290,285.97
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	5,684.58	TN	\$136.70	\$777,082.09

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	8,116.42	SY	\$3.56	\$28,894.46
285-709	OPTIONAL BASE,BASE GROUP 09	6,890.40	SY	\$13.38	\$92,193.55
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,136.92	TN	\$113.49	\$129,029.05

337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	568.46 TN	\$136.70	\$77,708.48
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Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	820.00	EA	\$4.85	\$3,977.00
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	16.20	GM	\$1,062.52	\$17,212.82
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	8.10	GM	\$363.84	\$2,947.10
Roadway Component Total					\$3,630,210.45

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	13.25 / 13.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	10,692.00	LF	\$30.78	\$329,099.76
520-1-10	CONCRETE CURB & GUTTER, TYPE F	10,692.00	LF	\$30.78	\$329,099.76
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	14,256.00	SY	\$37.60	\$536,025.60
570-1-1	PERFORMANCE TURF	11,880.00	SY	\$1.14	\$13,543.20

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	21,384.00	LF	\$1.11	\$23,736.24
104-11	FLOATING TURBIDITY BARRIER	506.25	LF	\$10.36	\$5,244.75
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	506.25	LF	\$8.02	\$4,060.12
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	\$1,692.58	\$5,077.74
104-18	INLET PROTECTION SYSTEM	104.00	EA	\$118.93	\$12,368.72
107-1	LITTER REMOVAL	51.54	AC	\$28.98	\$1,493.63
107-2	MOWING	51.54	AC	\$46.24	\$2,383.21
Shoulder Component Total					\$1,262,132.74

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	17.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	21,384.00	LF	\$23.74	\$507,656.16
570-1-1	PERFORMANCE TURF	20,790.00	SY	\$1.14	\$23,700.60
Median Component Total					\$531,356.76

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	36.45	CY	\$1,404.50	\$51,194.02
425-1-351	INLETS, CURB, TYPE P-5, <10'	73.00	EA	\$3,074.07	\$224,407.11

425-1-451	INLETS, CURB, TYPE J-5, <10'	21.00 EA	\$4,340.12	\$91,142.52
425-1-521	INLETS, DT BOT, TYPE C, <10'	11.00 EA	\$1,743.65	\$19,180.15
425-2-41	MANHOLES, P-7, <10'	11.00 EA	\$4,248.55	\$46,734.05
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	5,360.00 LF	\$88.61	\$474,949.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	480.00 LF	\$86.26	\$41,404.80
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	10,128.00 LF	\$123.95	\$1,255,365.60
570-1-1	PERFORMANCE TURF	615.60 SY	\$1.14	\$701.78

Box Culvert 1

Description	Value
Size	Dbl. 10 x 5
Length	30.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	79.60	CY	\$1,550.79	\$123,442.88
415-1-1	REINF STEEL- ROADWAY	11,655.00	LB	\$0.98	\$11,421.90

Retention Basin 1

Description	Value
Size	2 AC
Multiplier	1
Depth	6.00
Description	Pond 27

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	19,360.00	CY	\$8.67	\$167,851.20
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64

430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00 LF	\$14.45	\$17,051.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00 SY	\$1.14	\$11,035.20

Retention Basin 2

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 1R-E

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00	LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00	SY	\$1.14	\$13,794.00

Retention Basin 3

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 1R-D

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40
Drainage Component Total					\$3,288,707.39

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	49.00	AS	\$331.85	\$16,260.65
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	\$1,051.24	\$5,256.20
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00	AS	\$6,758.66	\$33,793.30
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	5.00	AS	\$7,795.35	\$38,976.75
Signing Component Total					\$94,286.90

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	4 Lane Strain Pole

Multiplier 1
 Description NEW SIGNAL AT SR 29
 AND CR 486 E

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00	LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE,F&I,TYP P-VI	4.00	EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$156.31	\$625.24

Signalization 2

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	

NEW SIGNAL AT SR 29
AND NEW MARKET
ROAD

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV, F&I, OH, M, PUR BY CON	1.00	AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00	LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE, F&I, TYP P-VI	4.00	EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL, F&I ALUMINUM, 3 S 1 W	12.00	AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$156.31	\$625.24

Signalization 3

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	

NEW SIGNAL AT SR 29
AND CHARLOTTE
STREET

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV, F&I, OH, M, PUR BY CON	1.00	AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00	LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE, F&I, TYP P-VI	4.00	EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL, F&I ALUMINUM, 3 S 1 W	12.00	AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$156.31	\$625.24
Signalizations Component Total					\$410,042.10

LIGHTING COMPONENT**Conventional Lighting Subcomponent**

Description	Value
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Spacing		MAX			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	10,692.00	LF	\$7.88	\$84,252.96
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,395.22	LF	\$22.93	\$31,992.39
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	43.00	EA	\$813.38	\$34,975.34
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	36,261.67	LF	\$2.18	\$79,050.44
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	43.00	EA	\$6,110.26	\$262,741.18
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	43.00	EA	\$488.78	\$21,017.54
	Subcomponent Total				\$514,029.86
	Lighting Component Total				\$514,029.85
<hr/>					
Sequence 1 Total					\$12,369,024.24
<hr/>					

Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)**Net** 1.925 MI**Length:** 10,164 LF**Description:** SR 29 FROM NORTH OF MADISON AVENUE TO NORTH OF NEW MARKET ROAD. INCLUDES BYPASS CONNECTION.

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 75.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.925
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	46.67	AC	\$20,515.11	\$957,440.18
120-6	EMBANKMENT	197,753.80	CY	\$8.35	\$1,651,244.23

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	1,976.00	CY	\$8.67	\$17,131.92
	Comment: CANAL RELOCATION NORTH OF MADISON AVE W.				

Earthwork Component Total\$2,625,816.33

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	28.00 / 28.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	87,139.36	SY	\$3.56	\$310,216.12
285-709	OPTIONAL BASE,BASE GROUP 09	64,733.39	SY	\$13.38	\$866,132.76
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	10,435.04	TN	\$113.49	\$1,184,272.69
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,529.71	TN	\$149.57	\$378,368.72

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	8,713.94	SY	\$3.56	\$31,021.63
285-709	OPTIONAL BASE,BASE GROUP 09	6,473.34	SY	\$13.38	\$86,613.29
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,043.50	TN	\$113.49	\$118,426.82
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	252.97	TN	\$149.57	\$37,836.72

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4

Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	780.00 EA	\$4.85	\$3,783.00
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	15.40 GM	\$1,062.52	\$16,362.81
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	7.70 GM	\$363.84	\$2,801.57
Roadway Component Total				\$3,035,836.13

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 3.00
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $i_{j\frac{1}{2}}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	12,038.69 SY	\$12.55	\$151,085.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	621.13 TN	\$113.49	\$70,492.04
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	451.73 TN	\$149.57	\$67,565.26
570-1-1	PERFORMANCE TURF	6,776.00 SY	\$1.14	\$7,724.64

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-701	OPTIONAL BASE,BASE GROUP 01	5,281.00 SY	\$6.19	\$32,689.39

Comment: 10' SHARED USE PATH.
ASSUME BASE EXTENDS 2' ON EITHER
SIDE OF PATH.

334-1-11	SUPERPAVE ASPHALTIC CONC, TRAFFIC A	207.00 TN	\$100.68	\$20,840.76
	Comment: ASSUME 3772 SY SUPERPAVE, AT 1" THICKNESS			

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	26,426.40	LF	\$1.11	\$29,333.30
104-11	FLOATING TURBIDITY BARRIER	481.25	LF	\$10.36	\$4,985.75
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	481.25	LF	\$8.02	\$3,859.62
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
104-18	INLET PROTECTION SYSTEM	16.00	EA	\$118.93	\$1,902.88
107-1	LITTER REMOVAL	34.52	AC	\$28.98	\$1,000.39
107-2	MOWING	34.52	AC	\$46.24	\$1,596.20
Shoulder Component Total					\$396,460.96

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	30.00
Performance Turf Width	17.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	20,328.00	LF	\$23.74	\$482,586.72
570-1-1	PERFORMANCE TURF	19,763.33	SY	\$1.14	\$22,530.20
Median Component Total					\$505,116.92

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	34.65	CY	\$1,404.50	\$48,665.92
425-1-551	INLETS, DT BOT, TYPE E, <10'	16.00	EA	\$4,618.62	\$73,897.92
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	800.00	LF	\$88.61	\$70,888.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	456.00	LF	\$86.26	\$39,334.56
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	16.00	EA	\$1,990.35	\$31,845.60
570-1-1	PERFORMANCE TURF	739.20	SY	\$1.14	\$842.69

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	Pond 1R-C

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	\$20,515.11	\$20,515.11
120-1	REGULAR EXCAVATION	9,680.00	CY	\$8.67	\$83,925.60
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	\$14.45	\$12,138.00
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	4,840.00	SY	\$1.14	\$5,517.60

Retention Basin 2

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 1R-B

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00	LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00	SY	\$1.14	\$13,794.00

Retention Basin 3

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 1R-A

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64

430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00 LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00 SY	\$1.14	\$13,794.00

Retention Basin 4

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 31

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 5

Description	Value
Size	2 AC
Multiplier	1
Depth	6.00
Description	Pond 32

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	19,360.00	CY	\$8.67	\$167,851.20
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	\$14.45	\$17,051.00
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00	SY	\$1.14	\$11,035.20

Retention Basin 6

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	POND 1R-B (ADDITIONAL ACREAGE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	\$20,515.11	\$20,515.11
120-1	REGULAR EXCAVATION	9,680.00	CY	\$8.67	\$83,925.60
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
		200.00	LF	\$183.10	\$36,620.00

430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD				
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	\$14.45	\$12,138.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	4,840.00	SY	\$1.14	\$5,517.60
Drainage Component Total					\$1,990,476.92

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	47.00	AS	\$331.85	\$15,596.95
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	\$1,051.24	\$4,204.96
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	4.00	AS	\$4,870.56	\$19,482.24
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	4.00	AS	\$6,758.66	\$27,034.64
Signing Component Total					\$66,318.79

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	NEW SIGNAL AT SR 29 BYPASS CONNECTION

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56

634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00 PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00 EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00 LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE,F&I,TYP P-VI	4.00 EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$156.31	\$625.24
Signalizations Component Total				\$136,680.70

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description				Value
Spacing				MIN
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	10,164.00 LF	\$7.88	\$80,092.32
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,017.40 LF	\$22.93	\$46,258.98
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	68.00 EA	\$813.38	\$55,309.84
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	37,121.70 LF	\$2.18	\$80,925.31
715-4-13		68.00 EA	\$6,110.26	\$415,497.68

	LIGHT POLE COMPLETE, F&I- STD, 40'			
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	68.00 EA	\$488.78	\$33,237.04
	Subcomponent Total			\$711,321.17
	Lighting Component Total			\$711,321.17

BRIDGES COMPONENT

Bridge BRDGE1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	150.00
Width (LF)	25.00
Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$121.13
Basic Bridge Cost	\$427,500.00
Description	NEW BRIDGE OVER CANAL AT MADISON AVE W.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	55.56	CY	\$321.86	\$17,882.54
415-1-9	REINF STEEL- APPROACH SLABS	9,723.00	LB	\$0.91	\$8,847.93
	Bridge BRDGE1 Total				\$454,230.47

Bridge BRDGE2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	190.00
Width (LF)	40.00

Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$119.63
Basic Bridge Cost	\$866,400.00
Description	NEW BRIDGE AT CANAL NORTH OF MADISON AVE W.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	88.89	CY	\$321.86	\$28,610.14
415-1-9	REINF STEEL- APPROACH SLABS	15,555.75	LB	\$0.91	\$14,155.73
Bridge BRDGE2 Total					\$909,165.87

Bridge BRDGE3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	100.00
Width (LF)	30.00
Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$124.69
Basic Bridge Cost	\$342,000.00
Description	NEW BRIDGE OVER CANAL AT INDIAN RIVER STREET

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	\$321.86	\$21,458.41

415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	\$0.91	\$10,617.20
	Bridge BRDGE3 Total			\$374,075.61
	Bridges Component Total			\$1,737,471.95
<hr/>				
	Sequence 2 Total			\$11,205,499.87
<hr/>				

Sequence: 3 NUR - New Construction, Undivided, Rural**Net** 0.694 MI**Length:** 3,666 LF**Description:** ONE LANE RAMPS AT SR 29 BYPASS CONNECTION**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.694
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.36	AC	\$20,515.11	\$68,930.77
120-6	EMBANKMENT	19,462.97	CY	\$8.35	\$162,515.80
Earthwork Component Total					\$231,446.57

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	15.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	12,627.00	SY	\$3.56	\$44,952.12
285-709	OPTIONAL BASE,BASE GROUP 09	6,244.26	SY	\$13.38	\$83,548.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	840.10	TN	\$113.49	\$95,342.95
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	504.06	TN	\$136.70	\$68,905.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.78	GM	\$1,062.52	\$2,953.81

Roadway Component Total

\$295,702.08

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 3.00
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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285-704	OPTIONAL BASE,BASE GROUP 04	4,342.06 SY	\$12.55	\$54,492.85
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	224.03 TN	\$113.49	\$25,425.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	336.04 TN	\$136.70	\$45,936.67
570-1-1	PERFORMANCE TURF	2,443.94 SY	\$1.14	\$2,786.09

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,531.35	LF	\$1.11	\$10,579.80
104-11	FLOATING TURBIDITY BARRIER	173.58	LF	\$10.36	\$1,798.29
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	173.58	LF	\$8.02	\$1,392.11
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58
107-1	LITTER REMOVAL	8.41	AC	\$28.98	\$243.72
107-2	MOWING	8.41	AC	\$46.24	\$388.88
Shoulder Component Total					\$144,736.15

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	12.50	CY	\$1,404.50	\$17,556.25
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	560.00	LF	\$83.97	\$47,023.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	120.00	LF	\$86.26	\$10,351.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	28.00	EA	\$1,990.35	\$55,729.80
570-1-1	PERFORMANCE TURF	488.79	SY	\$1.14	\$557.22
Drainage Component Total					\$131,217.67

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$331.85	\$663.70
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	14.00	AS	\$1,051.24	\$14,717.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$4,870.56	\$9,741.12
Signing Component Total					\$25,122.18
<hr/>					
Sequence 3 Total					\$828,224.65
<hr/>					

Sequence: 4 NUR - New Construction, Undivided, Rural**Net** 0.158 MI**Length:** 833 LF**Description:** 2-LANE RAMP AT SR 29 BYPASS CONNECTION**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.158
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.77	AC	\$20,515.11	\$15,796.63
120-6	EMBANKMENT	7,656.78	CY	\$8.35	\$63,934.11
Earthwork Component Total					\$79,730.74

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,962.43	SY	\$3.56	\$10,546.25
285-709	OPTIONAL BASE,BASE GROUP 09	2,282.92	SY	\$13.38	\$30,545.47
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	305.50	TN	\$113.49	\$34,671.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	183.30	TN	\$136.70	\$25,057.11

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	21.00	EA	\$4.85	\$101.85
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.63	GM	\$1,062.52	\$669.39
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.32	GM	\$422.18	\$135.10
Roadway Component Total					\$101,726.37

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 3.00
Paved Outside Shoulder Width L/R	0.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	493.43	SY	\$12.55	\$6,192.55
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	25.46	TN	\$113.49	\$2,889.46
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	38.19	TN	\$136.70	\$5,220.57
570-1-1	PERFORMANCE TURF	277.73	SY	\$1.14	\$316.61

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	833.00	LF	\$23.74	\$19,775.42

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,166.28	LF	\$1.11	\$2,404.57
104-11	FLOATING TURBIDITY BARRIER	39.45	LF	\$10.36	\$408.70
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	39.45	LF	\$8.02	\$316.39
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58
107-1	LITTER REMOVAL	1.91	AC	\$28.98	\$55.35
107-2	MOWING	1.91	AC	\$46.24	\$88.32

Shoulder Component Total

\$39,360.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.84	CY	\$1,404.50	\$3,988.78
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	128.00	LF	\$83.97	\$10,748.16
430-175-136		32.00	LF	\$86.26	\$2,760.32

	PIPE CULV, OPT MATL, ROUND, 36"S/CD			
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	7.00 EA	\$1,990.35	\$13,932.45
570-1-1	PERFORMANCE TURF	111.09 SY	\$1.14	\$126.64
Drainage Component Total				\$31,556.35

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$331.85	\$331.85
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	\$1,051.24	\$4,204.96
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$4,870.56	\$4,870.56
Signing Component Total					\$9,407.37

Sequence 4 Total	\$261,781.35
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Date: 5/29/2018 9:05:02 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-5-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM CR 846 E TO N OF NEW MARKET ROAD N**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 3.480 MI**Project Manager:** JMK-NEM-AEB**Version 6 Project Grand Total** **\$30,916,534.86****Description:** PD&E - SEGMENT 4 -(ALTERNATIVE 1R)- 5/23/18

Project Sequences Subtotal **\$24,664,530.11**

102-1	Maintenance of Traffic	10.00 %	\$2,466,453.01
101-1	Mobilization	8.00 %	\$2,170,478.65

Project Sequences Total **\$29,301,461.77**

Project Unknowns	5.00 %	\$1,465,073.09
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal **\$150,000.00****Version 6 Project Grand Total** **\$30,916,534.86**

Date: 5/29/2018 9:07:24 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-5-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM CR 846 E TO N OF NEW MARKET ROAD N**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 3.480 MI**Project Manager:** JMK-NEM-AEB**Version 7 Project Grand Total****\$36,424,658.33****Description:** PD&E - SEGMENT 4 -(ALTERNATIVE C2)- 5/23/18**Sequence:** 1 NDU - New Construction, Divided, Urban**Net** 1.696 MI**Length:** 8,953 LF**Description:** SR 29 FROM CR 846 E TO GOPHER RIDGE RD.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.696
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	24.67	AC	\$20,515.11	\$506,107.76
120-6	EMBANKMENT	204,025.33	CY	\$8.35	\$1,703,611.51
Earthwork Component Total					\$2,209,719.27

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	67,961.46	SY	\$3.56	\$241,942.80
285-709	OPTIONAL BASE,BASE GROUP 09	57,695.62	SY	\$13.38	\$771,967.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	9,519.78	TN	\$113.49	\$1,080,399.83
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	4,759.89	TN	\$136.70	\$650,676.96

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,796.15	SY	\$3.56	\$24,194.29
285-709	OPTIONAL BASE,BASE GROUP 09	5,769.56	SY	\$13.38	\$77,196.71
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	951.98	TN	\$113.49	\$108,040.21

337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	475.99 TN	\$136.70	\$65,067.83
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Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	687.00	EA	\$4.85	\$3,331.95
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	13.56	GM	\$1,062.52	\$14,407.77
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.78	GM	\$363.84	\$2,466.84

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	42.67	TN	\$189.36	\$8,079.99
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,280.00	LF	\$17.87	\$22,873.60

Roadway Component Total**\$3,070,646.18****SHOULDER COMPONENT**

User Input Data

Description	Value
Total Outside Shoulder Width L/R	13.25 / 13.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	8,952.77	LF	\$30.78	\$275,566.26
520-1-10	CONCRETE CURB & GUTTER, TYPE F	8,952.77	LF	\$30.78	\$275,566.26
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	11,937.02	SY	\$37.60	\$448,831.95
570-1-1	PERFORMANCE TURF	9,947.52	SY	\$1.14	\$11,340.17

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	17,905.54	LF	\$1.11	\$19,875.15
104-11	FLOATING TURBIDITY BARRIER	423.90	LF	\$10.36	\$4,391.60
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	423.90	LF	\$8.02	\$3,399.68
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
104-18	INLET PROTECTION SYSTEM	87.00	EA	\$118.93	\$10,346.91
107-1	LITTER REMOVAL	43.15	AC	\$28.98	\$1,250.49
107-2	MOWING	43.15	AC	\$46.24	\$1,995.26
Shoulder Component Total					\$1,055,948.89

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	17.50

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	17,905.54 LF	\$23.74	\$425,077.52
570-1-1	PERFORMANCE TURF	17,408.16 SY	\$1.14	\$19,845.30
Median Component Total				\$444,922.82

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	30.52 CY	\$1,404.50	\$42,865.34
425-1-351	INLETS, CURB, TYPE P-5, <10'	62.00 EA	\$3,074.07	\$190,592.34
425-1-451	INLETS, CURB, TYPE J-5, <10'	17.00 EA	\$4,340.12	\$73,782.04
425-1-521	INLETS, DT BOT, TYPE C, <10'	9.00 EA	\$1,743.65	\$15,692.85
425-2-41	MANHOLES, P-7, <10'	9.00 EA	\$4,248.55	\$38,236.95
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	4,488.00 LF	\$88.61	\$397,681.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	408.00 LF	\$86.26	\$35,194.08
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	8,480.00 LF	\$123.95	\$1,051,096.00
570-1-1	PERFORMANCE TURF	515.46 SY	\$1.14	\$587.62

Box Culvert 1

Description	Value
Size	Dbl. 10 x 5
Length	30.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	79.60 CY	\$1,550.79	\$123,442.88
415-1-1	REINF STEEL- ROADWAY	11,655.00 LB	\$0.98	\$11,421.90

Retention Basin 1

Description	Value
Size	2 AC
Multiplier	1
Depth	6.00
Description	Pond 27

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	19,360.00	CY	\$8.67	\$167,851.20
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	\$14.45	\$17,051.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00	SY	\$1.14	\$11,035.20

Retention Basin 2

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 2-E

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361		1.00	EA	\$3,539.11	\$3,539.11

	INLETS, CURB, TYPE P-6, <10'			
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00 LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00 SY	\$1.14	\$13,794.00

Retention Basin 3

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	Pond 2-D

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	\$20,515.11	\$20,515.11
120-1	REGULAR EXCAVATION	9,680.00	CY	\$8.67	\$83,925.60
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	\$14.45	\$12,138.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	4,840.00	SY	\$1.14	\$5,517.60
Drainage Component Total					\$2,871,704.24

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	41.00	AS	\$331.85	\$13,605.85
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	\$1,051.24	\$4,204.96
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	4.00	AS	\$6,758.66	\$27,034.64
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	4.00	AS	\$7,795.35	\$31,181.40
Signing Component Total					\$76,026.85

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	NEW SIGNAL AT SR 29 AND CR 846 E

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	\$7,045.71	\$7,045.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00	LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE,F&I,TYP P-VI	4.00	EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$908.80	\$10,905.60

653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$156.31	\$625.24
Signalizations Component Total				\$136,680.70

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description				Value	
Spacing				MIN	
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	8,952.77	LF	\$7.88	\$70,547.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,776.99	LF	\$22.93	\$40,746.38
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	60.00	EA	\$813.38	\$48,802.80
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	32,697.95	LF	\$2.18	\$71,281.53
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	60.00	EA	\$6,110.26	\$366,615.60
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	60.00	EA	\$488.78	\$29,326.80
Subcomponent Total					\$627,320.94
Lighting Component Total					\$627,320.94

BRIDGES COMPONENT

Bridge BRDGE1

Description	Value
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Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	320.00
Width (LF)	100.00
Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$117.34
Basic Bridge Cost	\$3,648,000.00
Description	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	222.22	CY	\$321.86	\$71,523.73
415-1-9	REINF STEEL- APPROACH SLABS	38,888.50	LB	\$0.91	\$35,388.54
Bridge BRDGE1 Total					\$3,754,912.27
Bridges Component Total					\$3,754,912.27
<hr/>					
Sequence 1 Total					\$14,247,882.16
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)**Net** 2.412 MI**Length:** 12,734 LF**Description:** SR 29 FROM GOPHER RIDGE ROAD TO NORTH OF NEW MARKET ROAD. INCLUDES BYPASS CONNECTION INCLUDES BYPASS CONNECTION.

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.412
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	35.08	AC	\$20,515.11	\$719,670.06
120-6	EMBANKMENT	247,782.94	CY	\$8.35	\$2,068,987.55
Earthwork Component Total					\$2,788,657.61

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	28.00 / 28.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	109,170.91	SY	\$3.56	\$388,648.44
285-709	OPTIONAL BASE,BASE GROUP 09	81,100.00	SY	\$13.38	\$1,085,118.00
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	13,073.34	TN	\$113.49	\$1,483,693.36
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	3,169.30	TN	\$149.57	\$474,032.20

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,917.09	SY	\$3.56	\$38,864.84
285-709	OPTIONAL BASE,BASE GROUP 09	8,110.00	SY	\$13.38	\$108,511.80
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,307.33	TN	\$113.49	\$148,368.88
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	316.93	TN	\$149.57	\$47,403.22

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	977.00 EA	\$4.85	\$4,738.45
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	19.29 GM	\$1,062.52	\$20,496.01
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	9.65 GM	\$363.84	\$3,511.06

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	64.00	TN	\$189.36	\$12,119.04
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,920.00	LF	\$17.87	\$34,310.40
Roadway Component Total					\$3,849,815.70

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 3.00
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	15,082.45	SY	\$12.55	\$189,284.75

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	778.18 TN	\$113.49	\$88,315.65
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	565.95 TN	\$149.57	\$84,649.14
570-1-1	PERFORMANCE TURF	8,489.18 SY	\$1.14	\$9,677.67

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-701	OPTIONAL BASE,BASE GROUP 01 Comment: 10' SHARED USE PATH. ASSUME BASE EXTENDS 2' ON EITHER SIDE OF PATH.	5,281.00	SY	\$6.19	\$32,689.39
334-1-11	SUPERPAVE ASPHALTIC CONC, TRAFFIC A Comment: ASSUME 3772 SY SUPERPAVE, AT 1" THICKNESS	207.00	TN	\$100.68	\$20,840.76

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	33,107.82	LF	\$1.11	\$36,749.68
104-11	FLOATING TURBIDITY BARRIER	602.93	LF	\$10.36	\$6,246.35
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	602.93	LF	\$8.02	\$4,835.50
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	\$1,692.58	\$5,077.74
104-18	INLET PROTECTION SYSTEM	20.00	EA	\$118.93	\$2,378.60
107-1	LITTER REMOVAL	43.24	AC	\$28.98	\$1,253.10
107-2	MOWING	43.24	AC	\$46.24	\$1,999.42
Shoulder Component Total					\$483,997.75

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	30.00
Performance Turf Width	17.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	25,467.55	LF	\$23.74	\$604,599.64
570-1-1	PERFORMANCE TURF	24,760.12	SY	\$1.14	\$28,226.54
Median Component Total					\$632,826.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	43.41	CY	\$1,404.50	\$60,969.34
425-1-551	INLETS, DT BOT, TYPE E, <10'	20.00	EA	\$4,618.62	\$92,372.40
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,008.00	LF	\$88.61	\$89,318.88
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	576.00	LF	\$86.26	\$49,685.76
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	20.00	EA	\$1,990.35	\$39,807.00
570-1-1	PERFORMANCE TURF	926.09	SY	\$1.14	\$1,055.74

Retention Basin 1

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 2-C

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64

430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00 LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00 SY	\$1.14	\$13,794.00

Retention Basin 2

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 2-B

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00	LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00	SY	\$1.14	\$13,794.00

Retention Basin 3

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 2-A

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00	LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00	SY	\$1.14	\$13,794.00

Retention Basin 4

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 31

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220		1,025.00	LF	\$14.45	\$14,811.25

	FENCING, TYPE B, 5.1-6.0', STANDARD			
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00 SY	\$1.14	\$8,276.40

Retention Basin 5

Description	Value
Size	2 AC
Multiplier	1
Depth	6.00
Description	Pond 32

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	19,360.00	CY	\$8.67	\$167,851.20
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	\$14.45	\$17,051.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00	SY	\$1.14	\$11,035.20

Retention Basin 6

Description	Value
Size	.5 AC
Multiplier	1
Depth	6.00
Description	POND 2-C (ADDITIONAL ACREAGE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$20,515.11	\$10,257.56
120-1	REGULAR EXCAVATION	4,840.00	CY	\$8.67	\$41,962.80
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	\$14.45	\$8,670.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	2,420.00	SY	\$1.14	\$2,758.80

Retention Basin 7

Description	Value
Size	.5 AC
Multiplier	1
Depth	6.00
Description	POND 2-B (ADDITIONAL ACREAGE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$20,515.11	\$10,257.56
120-1	REGULAR EXCAVATION	4,840.00	CY	\$8.67	\$41,962.80
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220		600.00	LF	\$14.45	\$8,670.00

	FENCING, TYPE B, 5.1-6.0', STANDARD			
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	2,420.00 SY	\$1.14	\$2,758.80
Drainage Component Total				\$2,314,760.96

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	58.00	AS	\$331.85	\$19,247.30
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	\$1,051.24	\$5,256.20
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	\$4,870.56	\$24,352.80
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00	AS	\$6,758.66	\$33,793.30
Signing Component Total					\$82,649.60

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	NEW SIGNAL AT SR 29 BYPASS CONNECTION

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$7.88	\$5,910.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	\$22.93	\$4,586.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$4,842.56	\$4,842.56
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	\$7,045.71	\$7,045.71

635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00 EA	\$813.38	\$11,387.32
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,808.27	\$3,808.27
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00 LF	\$7.92	\$237.60
641-2-16	PREST CNC POLE,F&I,TYP P-VI	4.00 EA	\$9,719.73	\$38,878.92
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$908.80	\$10,905.60
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.25	\$4,778.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$194.38	\$2,332.56
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,228.53	\$14,742.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$204.94	\$1,639.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$24,961.04	\$24,961.04
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$156.31	\$625.24
Signalizations Component Total				\$136,680.70

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description		Value			
Spacing		MIN			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	12,733.78	LF	\$7.88	\$100,342.19
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,527.46	LF	\$22.93	\$57,954.66
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	85.00	EA	\$813.38	\$69,137.30
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	46,507.22	LF	\$2.18	\$101,385.74
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	85.00	EA	\$6,110.26	\$519,372.10

715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	85.00 EA	\$488.78	\$41,546.30
	Subcomponent Total			\$889,738.28
	Lighting Component Total			\$889,738.29

BRIDGES COMPONENT

Bridge BRDGE1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	164.00
Width (LF)	30.00
Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$120.52
Basic Bridge Cost	\$560,880.00
Description	NEW BRIDGE OVER CANAL NORTH OF GOPHER RIDGE ROAD

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	\$321.86	\$21,458.41
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25	LB	\$0.91	\$10,617.20
	Bridge BRDGE1 Total				\$592,955.61

Bridge BRDGE2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	164.00
Width (LF)	30.00
Type	Low Level
Cost Factor	1.00
Structure No.	

Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$120.52
Basic Bridge Cost	\$560,880.00

Description NEW BRIDGE AT CANAL NORTH OF GOPHER RIDGE ROAD

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	\$321.86	\$21,458.41
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25	LB	\$0.91	\$10,617.20

Bridge BRDGE2 Total \$592,955.61

Bridge BRDGE3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	250.00
Width (LF)	22.00
Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$118.28
Basic Bridge Cost	\$627,000.00

Description NEW BRIDGE OVER CANAL NORTH OF FLAGLER STREET

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	48.89	CY	\$321.86	\$15,735.74
415-1-9	REINF STEEL- APPROACH SLABS	8,555.75	LB	\$0.91	\$7,785.73

Bridge BRDGE3 Total

\$650,521.47

Bridge BRDGE4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	150.00
Width (LF)	40.00
Type	Low Level
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$114.00
Factored Cost per SF	\$114.00
Final Cost per SF	\$121.13
Basic Bridge Cost	\$684,000.00
Description	NEW BRIDGE OVER CANAL NEAR INDIAN RIVER STREET

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	88.89	CY	\$321.86	\$28,610.14
415-1-9	REINF STEEL- APPROACH SLABS	15,555.75	LB	\$0.91	\$14,155.73

Bridge BRDGE4 Total

\$726,765.87

Bridges Component Total

\$2,563,198.56

Sequence 2 Total

\$13,742,325.35

Sequence: 3 NUR - New Construction, Undivided, Rural**Net** 0.694 MI**Length:** 3,666 LF**Description:** ONE LANE RAMPS AT SR 29 BYPASS CONNECTION**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.694
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.36	AC	\$20,515.11	\$68,930.77
120-6	EMBANKMENT	19,462.97	CY	\$8.35	\$162,515.80
Earthwork Component Total					\$231,446.57

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	15.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	12,627.00	SY	\$3.56	\$44,952.12
285-709	OPTIONAL BASE,BASE GROUP 09	6,244.26	SY	\$13.38	\$83,548.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	840.10	TN	\$113.49	\$95,342.95
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	504.06	TN	\$136.70	\$68,905.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.78	GM	\$1,062.52	\$2,953.81

Roadway Component Total

\$295,702.08

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 3.00
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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285-704	OPTIONAL BASE,BASE GROUP 04	4,342.06 SY	\$12.55	\$54,492.85
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	224.03 TN	\$113.49	\$25,425.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	336.04 TN	\$136.70	\$45,936.67
570-1-1	PERFORMANCE TURF	2,443.94 SY	\$1.14	\$2,786.09

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,531.35 LF	\$1.11	\$10,579.80
104-11	FLOATING TURBIDITY BARRIER	173.58 LF	\$10.36	\$1,798.29
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	173.58 LF	\$8.02	\$1,392.11
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$1,692.58	\$1,692.58
107-1	LITTER REMOVAL	8.41 AC	\$28.98	\$243.72
107-2	MOWING	8.41 AC	\$46.24	\$388.88
Shoulder Component Total				\$144,736.15

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	12.50 CY	\$1,404.50	\$17,556.25
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	560.00 LF	\$83.97	\$47,023.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	120.00 LF	\$86.26	\$10,351.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	28.00 EA	\$1,990.35	\$55,729.80
570-1-1	PERFORMANCE TURF	488.79 SY	\$1.14	\$557.22
Drainage Component Total				\$131,217.67

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$331.85	\$663.70
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	14.00	AS	\$1,051.24	\$14,717.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$4,870.56	\$9,741.12
Signing Component Total					\$25,122.18
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Sequence 3 Total					\$828,224.65
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Sequence: 4 NUR - New Construction, Undivided, Rural**Net** 0.158 MI**Length:** 833 LF**Description:** 2-LANE RAMP AT SR 29 BYPASS CONNECTION**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.158
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.77	AC	\$20,515.11	\$15,796.63
120-6	EMBANKMENT	7,656.78	CY	\$8.35	\$63,934.11
Earthwork Component Total					\$79,730.74

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,962.43	SY	\$3.56	\$10,546.25
285-709	OPTIONAL BASE,BASE GROUP 09	2,282.92	SY	\$13.38	\$30,545.47
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	305.50	TN	\$113.49	\$34,671.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	183.30	TN	\$136.70	\$25,057.11

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	21.00	EA	\$4.85	\$101.85
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.63	GM	\$1,062.52	\$669.39
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.32	GM	\$422.18	\$135.10
Roadway Component Total					\$101,726.37

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 3.00
Paved Outside Shoulder Width L/R	0.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $i_{\frac{1}{2}}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	493.43	SY	\$12.55	\$6,192.55
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	25.46	TN	\$113.49	\$2,889.46
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	38.19	TN	\$136.70	\$5,220.57
570-1-1	PERFORMANCE TURF	277.73	SY	\$1.14	\$316.61

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	833.00	LF	\$23.74	\$19,775.42

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,166.28	LF	\$1.11	\$2,404.57
104-11	FLOATING TURBIDITY BARRIER	39.45	LF	\$10.36	\$408.70
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	39.45	LF	\$8.02	\$316.39
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58
107-1	LITTER REMOVAL	1.91	AC	\$28.98	\$55.35
107-2	MOWING	1.91	AC	\$46.24	\$88.32

Shoulder Component Total

\$39,360.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.84	CY	\$1,404.50	\$3,988.78
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	128.00	LF	\$83.97	\$10,748.16
430-175-136		32.00	LF	\$86.26	\$2,760.32

	PIPE CULV, OPT MATL, ROUND, 36"S/CD			
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	7.00 EA	\$1,990.35	\$13,932.45
570-1-1	PERFORMANCE TURF	111.09 SY	\$1.14	\$126.64
Drainage Component Total				\$31,556.35

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$331.85	\$331.85
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	\$1,051.24	\$4,204.96
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$4,870.56	\$4,870.56
Signing Component Total					\$9,407.37

Sequence 4 Total	\$261,781.35
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Date: 5/29/2018 9:07:27 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-5-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM CR 846 E TO N OF NEW MARKET ROAD N**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 3.480 MI**Project Manager:** JMK-NEM-AEB**Version 7 Project Grand Total** **\$36,424,658.33****Description:** PD&E - SEGMENT 4 -(ALTERNATIVE C2)- 5/23/18

Project Sequences Subtotal **\$29,080,213.51**

102-1	Maintenance of Traffic	10.00 %	\$2,908,021.35
101-1	Mobilization	8.00 %	\$2,559,058.79

Project Sequences Total **\$34,547,293.65**

Project Unknowns	5.00 %	\$1,727,364.68
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal **\$150,000.00****Version 7 Project Grand Total** **\$36,424,658.33**

Date: 5/29/2018 9:11:46 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-6-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM N OF NEW MARKET RD N ROAD TO SR 82

District: 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 3.040 MI

Project Manager: JMK-WHB-JPV**Version 7 Project Grand Total****\$15,035,788.09****Description:** PD&E - SEGMENT 5 - 5/23/18**Sequence:** 1 WUR - Widen/Resurface, Undivided, Rural**Net** 0.517 MI**Length:** 2,727 LF**Description:** SR 29 AT WESTCLOX ROAD AND NEW MARKET ROAD.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	45.00 / 45.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.516
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.63	AC	\$20,515.11	\$115,500.07
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	242.18	CY	\$18.32	\$4,436.74
Earthwork Component Total					\$119,936.81

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	3
Existing Roadway Pavement Width L/R	24.00 / 16.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 5.00
Widened Structural Spread Rate	275
Widened Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,575.33	SY	\$3.56	\$26,968.17
285-709	OPTIONAL BASE,BASE GROUP 09	1,615.06	SY	\$13.38	\$21,609.50
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	12,120.53	SY	\$2.13	\$25,816.73
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,666.57	TN	\$113.49	\$189,139.03
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	208.32	TN	\$113.49	\$23,642.24
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	484.82	TN	\$136.70	\$66,274.89
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	124.99	TN	\$136.70	\$17,086.13

Pavement Marking Subcomponent

Description	Value
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Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	279.00	EA	\$4.85	\$1,353.15
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.07	GM	\$1,062.52	\$2,199.42
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	2.07	GM	\$422.18	\$873.91
Roadway Component Total					\$374,963.17

SHOULDER COMPONENT**User Input Data**

Description	Value
Existing Total Outside Shoulder Width L/R	10.00 / 10.00
New Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Existing Paved Outside Shoulder Width L/R	5.00 / 5.00
New Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,230.12	SY	\$12.55	\$40,538.01

327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	3,030.13 SY	\$2.00	\$6,060.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	166.66 TN	\$113.49	\$18,914.24
337-7-83	ASPH CONC FC, TRAFFIC C, FC-12.5, PG 76-22	121.21 TN	\$136.70	\$16,569.41
570-1-1	PERFORMANCE TURF	1,618.09 SY	\$1.14	\$1,844.62

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,042.00 SY		\$37.60	\$39,179.20

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,272.38 LF		\$1.11	\$6,962.34
104-11	FLOATING TURBIDITY BARRIER	51.65 LF		\$10.36	\$535.09
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	51.65 LF		\$8.02	\$414.23
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA		\$1,692.58	\$1,692.58
104-18	INLET PROTECTION SYSTEM	2.00 EA		\$118.93	\$237.86
107-1	LITTER REMOVAL	1.25 AC		\$28.98	\$36.22
107-2	MOWING	1.25 AC		\$46.24	\$57.80
Shoulder Component Total					\$133,041.87

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.30 CY		\$1,404.50	\$13,061.85
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	80.00 LF		\$79.94	\$6,395.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	40.00 LF		\$86.26	\$3,450.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	6.00 EA		\$1,990.35	\$11,942.10

570-1-1	PERFORMANCE TURF	208.67 SY	\$1.14	\$237.88
Drainage Component Total				\$35,087.43

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$331.85	\$663.70
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	11.00	AS	\$1,051.24	\$11,563.64
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	\$188.32	\$376.64
700-1-60	SINGLE POST SIGN, REMOVE	11.00	AS	\$21.46	\$236.06
700-2-13	MULTI- POST SIGN, F&I GM, 21-30 SF	2.00	AS	\$4,571.10	\$9,142.20
700-2-60	MULTI- POST SIGN, REMOVE	2.00	AS	\$829.30	\$1,658.60
Signing Component Total					\$23,640.84

Sequence 1 Total				\$686,670.12
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)**Net** 0.875 MI**Length:** 4,619 LF**Description:** SR 29 FROM NEW MARKET ROAD/WESTCLOX ROAD TO BYPASS CONNECTION AND FROM BYPASS CONNECTION TO NORTH OF EXPERIMENTAL ROAD.**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 175.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.875
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	31.82	AC	\$20,515.11	\$652,790.80
120-6	EMBANKMENT	89,888.09	CY	\$8.35	\$750,565.55
Earthwork Component Total					\$1,403,356.35

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	28.00 / 28.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	39,599.75	SY	\$3.56	\$140,975.11
285-709	OPTIONAL BASE,BASE GROUP 09	29,417.54	SY	\$13.38	\$393,606.69
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,742.12	TN	\$113.49	\$538,183.20
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,149.60	TN	\$149.57	\$171,945.67

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,959.98	SY	\$3.56	\$14,097.53
285-709	OPTIONAL BASE,BASE GROUP 09	2,941.75	SY	\$13.38	\$39,360.62
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	474.21	TN	\$113.49	\$53,818.09
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	114.96	TN	\$149.57	\$17,194.57

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	354.00 EA	\$4.85	\$1,716.90
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	7.00 GM	\$1,062.52	\$7,437.64
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.50 GM	\$363.84	\$1,273.44
Roadway Component Total				\$1,379,609.46

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	3.00 / 3.00
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $i\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,470.88	SY	\$12.55	\$68,659.54
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	282.27	TN	\$113.49	\$32,034.82
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	205.29	TN	\$149.57	\$30,705.23
570-1-1	PERFORMANCE TURF	3,079.30	SY	\$1.14	\$3,510.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-701	OPTIONAL BASE,BASE GROUP 01 Comment: 10' SHARED USE PATH. ASSUME BASE EXTENDS 2' ON EITHER SIDE OF PATH.	7,061.60	SY	\$6.19	\$43,711.30
334-1-11	SUPERPAVE ASPHALTIC CONC, TRAFFIC A	249.70	TN	\$100.68	\$25,139.80

Comment: ASSUME 3772 SY SUPERPAVE,
AT 1" THICKNESS

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,009.25	LF	\$1.11	\$13,330.27
104-11	FLOATING TURBIDITY BARRIER	218.70	LF	\$10.36	\$2,265.73
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	218.70	LF	\$8.02	\$1,753.97
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$1,692.58	\$1,692.58
104-18	INLET PROTECTION SYSTEM	7.00	EA	\$118.93	\$832.51
107-1	LITTER REMOVAL	15.69	AC	\$28.98	\$454.70
107-2	MOWING	15.69	AC	\$46.24	\$725.51
Shoulder Component Total					\$224,816.36

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	30.00
Performance Turf Width	17.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	9,237.89	LF	\$23.74	\$219,307.51
570-1-1	PERFORMANCE TURF	8,981.28	SY	\$1.14	\$10,238.66
Median Component Total					\$229,546.17

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	15.75	CY	\$1,404.50	\$22,120.88

425-1-551	INLETS, DT BOT, TYPE E, <10'	7.00 EA	\$4,618.62	\$32,330.34
430-175- 124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	368.00 LF	\$88.61	\$32,608.48
430-175- 136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	208.00 LF	\$86.26	\$17,942.08
430-984- 129	MITERED END SECT, OPTIONAL RD, 24" SD	7.00 EA	\$1,990.35	\$13,932.45
570-1-1	PERFORMANCE TURF	335.92 SY	\$1.14	\$382.95

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	Pond 30

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	\$20,515.11	\$20,515.11
120-1	REGULAR EXCAVATION	9,680.00	CY	\$8.67	\$83,925.60
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	\$14.45	\$12,138.00
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	4,840.00	SY	\$1.14	\$5,517.60

Retention Basin 2

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 33

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40

Retention Basin 3

Description	Value
Size	2 AC
Multiplier	1
Depth	6.00
Description	Pond 34

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	19,360.00	CY	\$8.67	\$167,851.20
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220		1,180.00	LF	\$14.45	\$17,051.00

	FENCING, TYPE B, 5.1-6.0', STANDARD			
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00 SY	\$1.14	\$11,035.20

Retention Basin 4

Description	Value
Size	10 AC
Multiplier	1
Depth	4.00
Description	FLOOD PLAIN COMP. E

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.00	AC	\$20,515.11	\$205,151.10
120-1	REGULAR EXCAVATION	64,533.33	CY	\$8.67	\$559,503.97
400-2-2	CONC CLASS II, ENDWALLS	36.00	CY	\$1,404.50	\$50,562.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00	EA	\$3,583.09	\$7,166.18
425-2-71	MANHOLES, J-7, <10'	2.00	EA	\$5,737.64	\$11,475.28
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	104.00	LF	\$111.48	\$11,593.92
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	\$183.10	\$73,240.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,780.00	LF	\$14.45	\$40,171.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	3.00	EA	\$1,836.75	\$5,510.25
570-1-1	PERFORMANCE TURF	48,400.00	SY	\$1.14	\$55,176.00

Retention Basin 5

Description	Value
Size	2 AC
Multiplier	1
Depth	4.00
Description	FPC E (ADDITIONAL ACREAGE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price
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				Extended Amount
110-1-1	CLEARING & GRUBBING	2.00 AC	\$20,515.11	\$41,030.22
120-1	REGULAR EXCAVATION	12,906.67 CY	\$8.67	\$111,900.83
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00 LF	\$14.45	\$17,051.00
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	9,680.00 SY	\$1.14	\$11,035.20
Drainage Component Total				\$2,175,902.22

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	21.00	AS	\$331.85	\$6,968.85
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,051.24	\$2,102.48
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$4,870.56	\$9,741.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	\$6,758.66	\$13,517.32
Signing Component Total					\$32,329.77

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description		Value		
Spacing		MIN		
Pay Items				
Pay item	Description	Quantity	Unit	Extended Amount

			Unit Price	
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,618.94 LF	\$7.88	\$36,397.25
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	916.79 LF	\$22.93	\$21,021.99
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	31.00 EA	\$813.38	\$25,214.78
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	16,869.64 LF	\$2.18	\$36,775.82
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	31.00 EA	\$6,110.26	\$189,418.06
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	31.00 EA	\$488.78	\$15,152.18
	Subcomponent Total			\$323,980.08
	Lighting Component Total			\$323,980.08
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	Sequence 2 Total			\$5,769,540.41
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Sequence: 3 NDR - New Construction, Divided, Rural**Net** 1.208 MI**Length:** 6,380 LF**Description:** SR 29 FROM EXPERIMENTAL ROAD TO SOUTH OF SR 82**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	100.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.208
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	29.28	AC	\$20,515.11	\$600,682.42
120-6	EMBANKMENT	119,433.73	CY	\$8.35	\$997,271.65
Earthwork Component Total					\$1,597,954.07

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	59,545.02	SY	\$3.56	\$211,980.27
285-709	OPTIONAL BASE,BASE GROUP 09	34,961.44	SY	\$13.38	\$467,784.07
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	5,614.25	TN	\$113.49	\$637,161.23
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,361.03	TN	\$149.57	\$203,569.26

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	10.00
Stabilization Code	Y
Base Code	Y
Friction Course Code	Y

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	5,954.50	SY	\$3.56	\$21,198.02
285-709	OPTIONAL BASE,BASE GROUP 09	3,496.14	SY	\$13.38	\$46,778.35
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	561.42	TN	\$113.49	\$63,715.56
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	136.10	TN	\$149.57	\$20,356.48

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3		489.00	EA	\$4.85	\$2,371.65

	RETRO-REFLECTIVE PAVEMENT MARKERS			
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.67 GM	\$1,062.52	\$10,274.57
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.83 GM	\$363.84	\$1,757.35
Roadway Component Total				\$1,686,946.81

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $i\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	7,556.55	SY	\$12.55	\$94,834.70
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	389.88	TN	\$113.49	\$44,247.48
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	283.55	TN	\$149.57	\$42,410.57
570-1-1	PERFORMANCE TURF	7,088.69	SY	\$1.14	\$8,081.11

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-701	OPTIONAL BASE,BASE GROUP 01 Comment: ASSUME BASE EXTENDS 2' FROM EITHER SIDE OF SHARED USE PATH.	9,724.40	SY	\$6.19	\$60,194.04
334-1-11	SUPERPAVE ASPHALTIC CONC, TRAFFIC A Comment: ASSUME 6946 SY AT 1" DEPTH	382.03	TN	\$100.68	\$38,462.78

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	16,587.54	LF	\$1.11	\$18,412.17
104-11	FLOATING TURBIDITY BARRIER	302.08	LF	\$10.36	\$3,129.55
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	302.08	LF	\$8.02	\$2,422.68
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$1,692.58	\$3,385.16
104-18	INLET PROTECTION SYSTEM	8.00	EA	\$118.93	\$951.44
107-1	LITTER REMOVAL	29.29	AC	\$28.98	\$848.82
107-2	MOWING	29.29	AC	\$46.24	\$1,354.37
Shoulder Component Total					\$318,734.87

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	40.00
Performance Turf Width	32.00
Total Median Shoulder Width L/R	8.00 / 8.00
Paved Median Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	6,138.81	SY	\$12.55	\$77,042.07
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	311.90	TN	\$113.49	\$35,397.53
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	226.84	TN	\$149.57	\$33,928.46
570-1-1	PERFORMANCE TURF	22,683.82	SY	\$1.14	\$25,859.55

Median Component Total

\$172,227.61

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	21.75	CY	\$1,404.50	\$30,547.88
425-1-551	INLETS, DT BOT, TYPE E, <10'	8.00	EA	\$4,618.62	\$36,948.96
430-174- 124	PIPE CULV, OPT MATL, ROUND,24"SD	968.00	LF	\$79.94	\$77,381.92
430-175- 124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	416.00	LF	\$88.61	\$36,861.76
430-175- 136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	360.00	LF	\$86.26	\$31,053.60
430-984- 129	MITERED END SECT, OPTIONAL RD, 24" SD	49.00	EA	\$1,990.35	\$97,527.15
524-1-1	CONCRETE DITCH PAVT, NR, 3"	2,416.60	SY	\$119.52	\$288,832.03
570-1-1	PERFORMANCE TURF	850.64	SY	\$1.14	\$969.73

Retention Basin 1

Description	Value
Size	2.5 AC
Multiplier	1
Depth	6.00
Description	Pond 35

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	\$20,515.11	\$51,287.78
120-1	REGULAR EXCAVATION	24,200.00	CY	\$8.67	\$209,814.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	\$3,539.11	\$3,539.11
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175- 142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175- 160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00

550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00 LF	\$14.45	\$19,290.75
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	12,100.00 SY	\$1.14	\$13,794.00

Retention Basin 2

Description	Value
Size	1.5 AC
Multiplier	1
Depth	6.00
Description	Pond 36

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.50	AC	\$20,515.11	\$30,772.66
120-1	REGULAR EXCAVATION	14,520.00	CY	\$8.67	\$125,888.40
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	\$1,404.50	\$25,281.00
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	\$3,583.09	\$3,583.09
425-2-71	MANHOLES, J-7, <10'	1.00	EA	\$5,737.64	\$5,737.64
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$111.48	\$6,242.88
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	\$183.10	\$36,620.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,025.00	LF	\$14.45	\$14,811.25
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$1,836.75	\$1,836.75
570-1-1	PERFORMANCE TURF	7,260.00	SY	\$1.14	\$8,276.40
Drainage Component Total					\$1,232,617.02

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	\$331.85	\$995.55
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	29.00	AS	\$1,051.24	\$30,485.96

700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00 AS	\$4,870.56	\$14,611.68
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	8.00 AS	\$6,758.66	\$54,069.28
Signing Component Total				\$100,162.47

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description		Value			
Multiplier (Number of Poles)		40			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	8,000.00	LF	\$7.88	\$63,040.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	40.00	EA	\$813.38	\$32,535.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	24,000.00	LF	\$2.18	\$52,320.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	40.00	EA	\$5,051.47	\$202,058.80
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	40.00	EA	\$488.78	\$19,551.20
Subcomponent Total					\$369,505.20
Lighting Component Total					\$369,505.20
Sequence 3 Total					\$5,478,148.05

Date: 5/29/2018 9:11:47 AM

FDOT Long Range Estimating System - Production
R3: Project Details by Sequence Report

Project: 417540-6-52-01**Letting Date:** 01/2099**Description:** SR 29 FROM N OF NEW MARKET RD N ROAD TO SR 82**District:** 01 **County:** 03 COLLIER **Market Area:** 10 **Units:** English**Contract Class:** 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 3.040 MI**Project Manager:** JMK-WHB-JPV**Version 7 Project Grand Total** **\$15,035,788.09****Description:** PD&E - SEGMENT 5 - 5/23/18

Project Sequences Subtotal **\$11,934,358.58**

102-1	Maintenance of Traffic	10.00 %	\$1,193,435.86
101-1	Mobilization	8.00 %	\$1,050,223.56

Project Sequences Total **\$14,178,018.00**

Project Unknowns	5.00 %	\$708,900.90
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$148,869.19	\$148,869.19

Project Non-Bid Subtotal **\$148,869.19****Version 7 Project Grand Total** **\$15,035,788.09**

Appendix D

Roundabout Screening Evaluation

*SR 29 PD&E Study
from Oil Well Road to SR 82*

*Preliminary Engineering Report
Financial Management No. 417540-1-22-01*

SIGNATURE INDEX SHEET
FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING

Financial Project ID: 417540-1-22-01
 FAP No.: 3911-022-P
 County: Collier
 Project Name: SR 29 from Oil Well Road to SR 82
 State Road: SR 29

Intersecting Road:									
Oil Well Road	Farm Worker Way	CR 846 - 12 th Street	29 - New Market Road	New Market Road - Charlotte	CR 846	New Market Road	Existing 29 - Westclox Road	SR 29 - New Bypass	

EXISTING CONTROL/PROJECT CLASSIFICATION										
Control	Signal					X				
	2 Way Stop	X	X	X	X		X	X	X	
Alternative	1 Revised, 2, or Both	Both	Both	1 R	1 R	1 R	2	2	Both	Both


SCREENING CRITERIA										
1	Does the intersection have physical or geometric constraints that would limit visibility or complicate construction?	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
2	Does the major roadway AADT exceed 90% of the total intersection AADT?	Yes	Yes	No	No	No	No	Yes	No	No
3	Does the intersection have pedestrians with special needs that would have difficulty crossing the road?	No	Yes	No	No	Yes	No	No	No	No
4	Is the intersection located within a coordinated signal network?	No	No	Yes	Yes	No	No	No	No	No
5	Is there downstream traffic control or conditions that could cause queues to back up into the intersection?	No	No	No	Yes	No	No	Yes	No	No
6	Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required?	No	No	Yes	Yes	Yes	Yes	Yes	No	No


Please refer to individual Step 1 - Roundabout Screening sheets for comments.

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2	No	No	No	No	No	No	No	Yes	Yes
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Approved by:


 KEITH SLATER, P.E. Date
 District Traffic Operations Engineer


 B.A. MASING, P.E. Date
 FDOT District Design Engineer

**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
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5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
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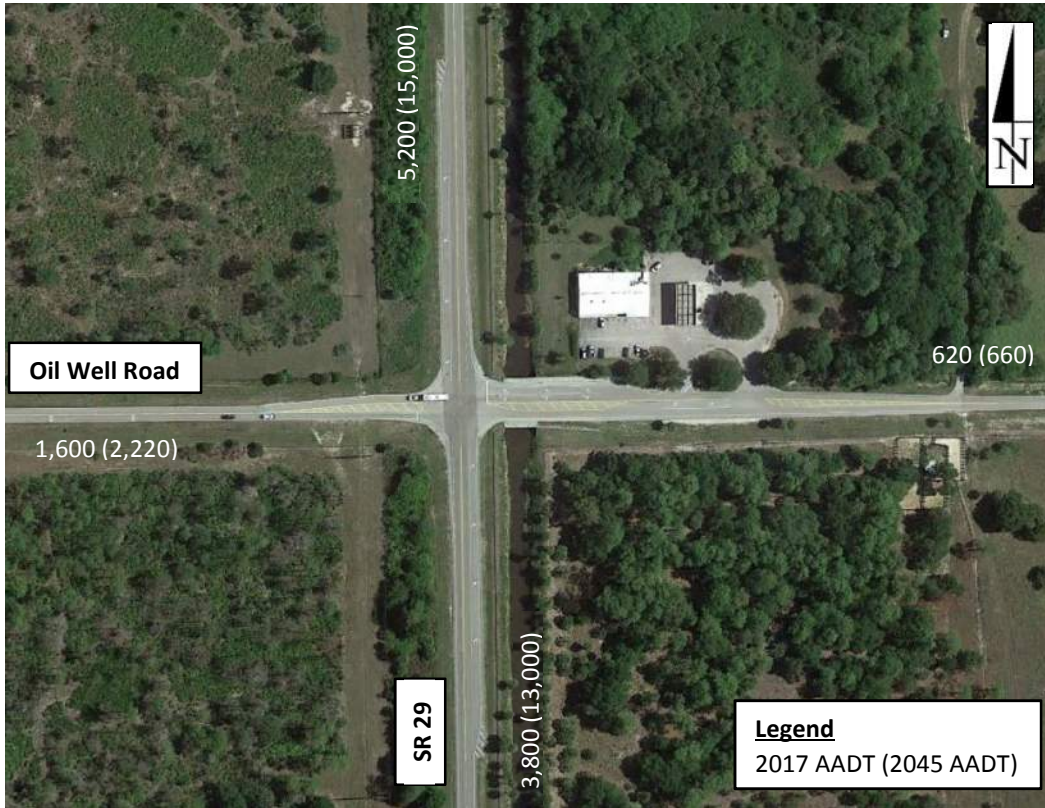
Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

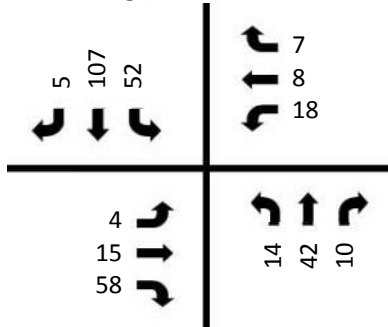
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Central Alternative #1 Revised

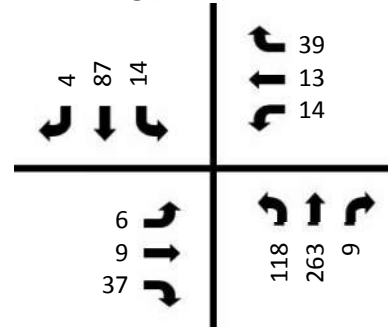
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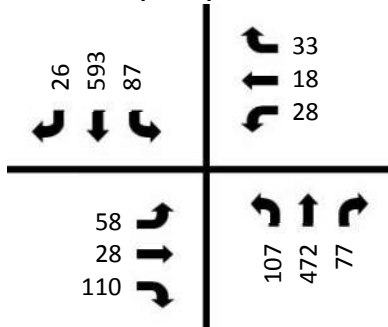
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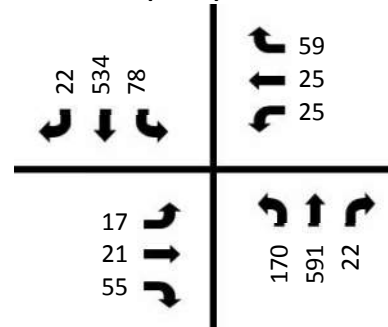
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

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Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

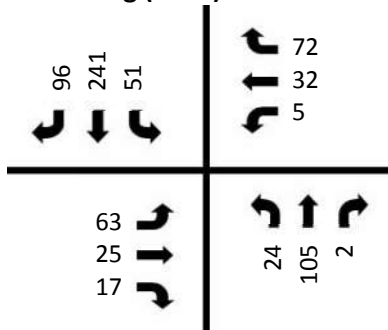
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Central Alternative #1 Revised

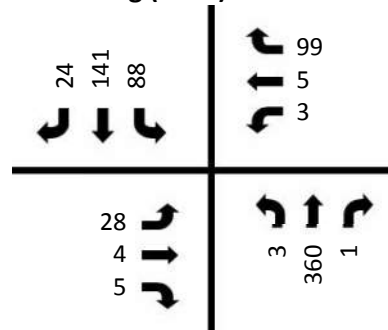
SR 29 and Farm Workers Way



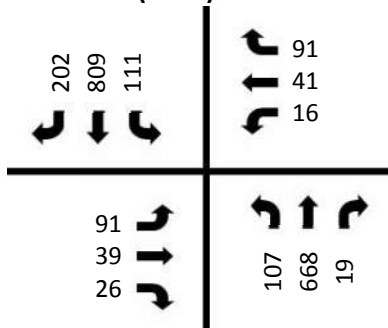
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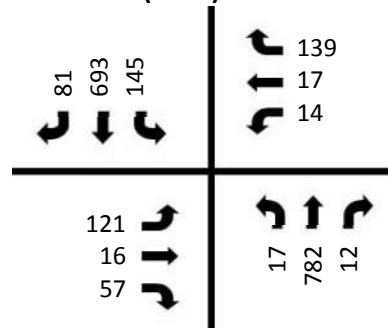
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

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Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

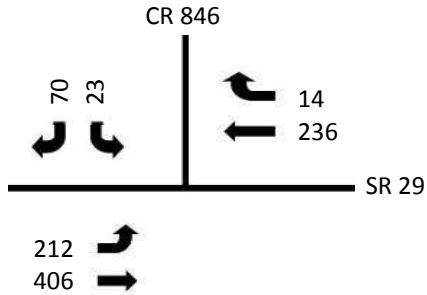
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Central Alternative #1 Revised

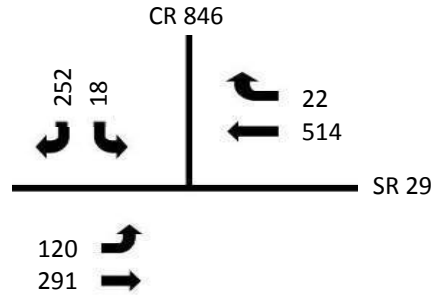
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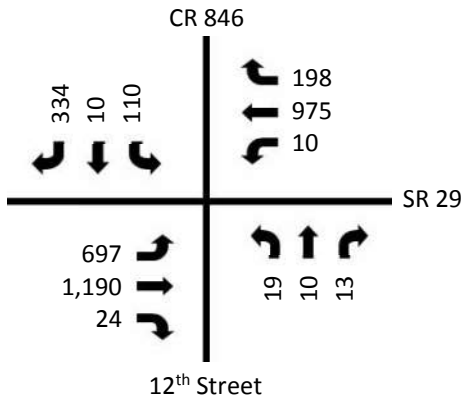
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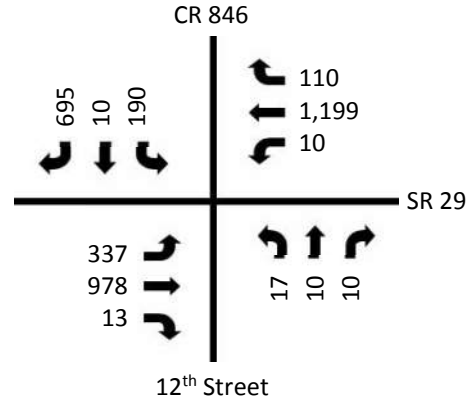
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

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Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

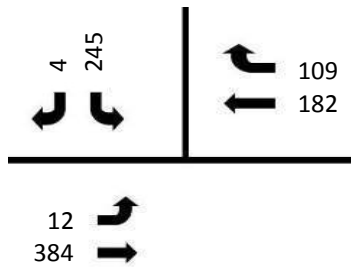
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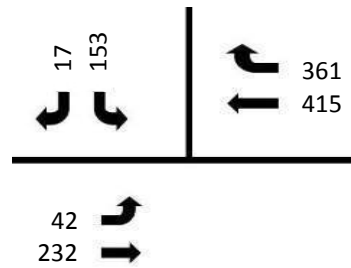
SR 29 and New Market Road



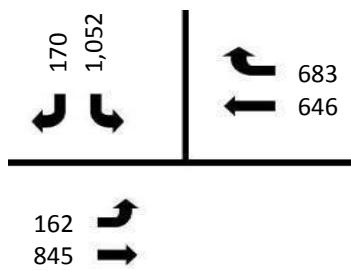
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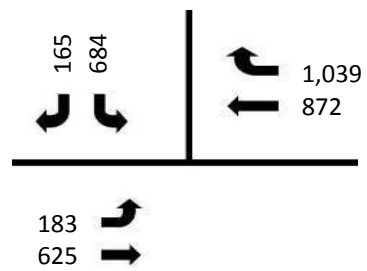
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

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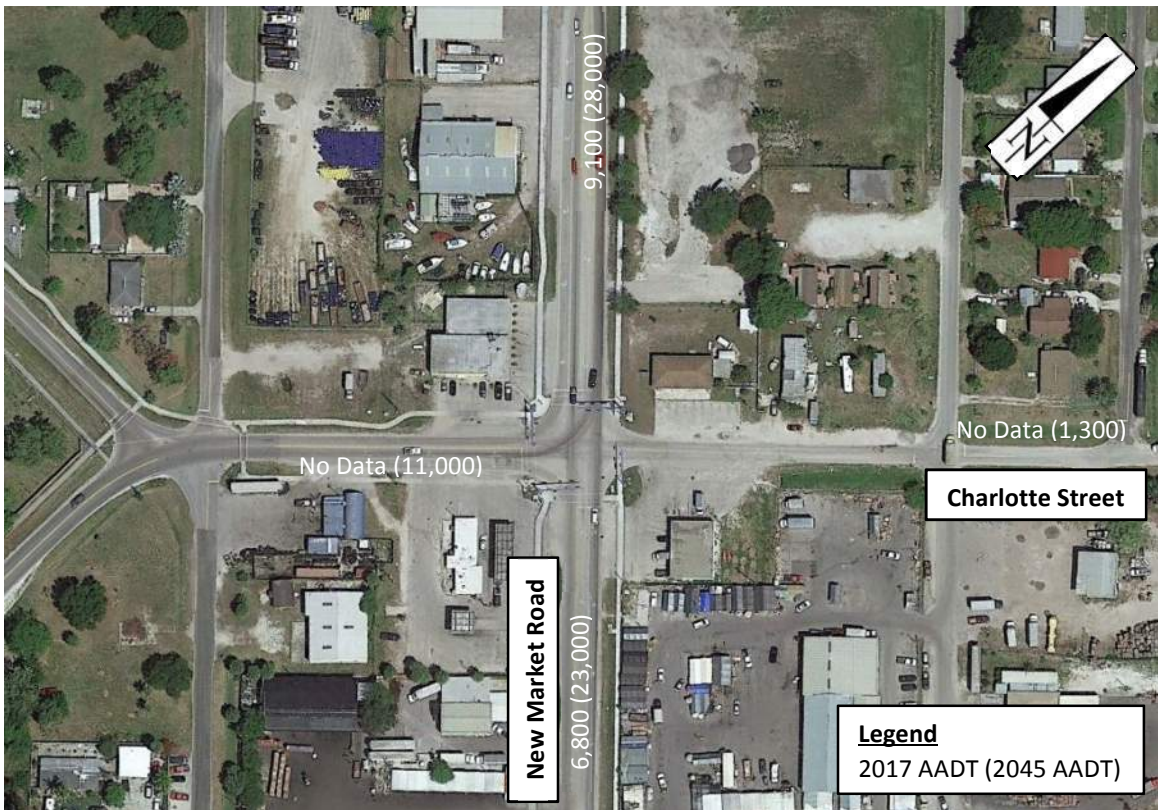
Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

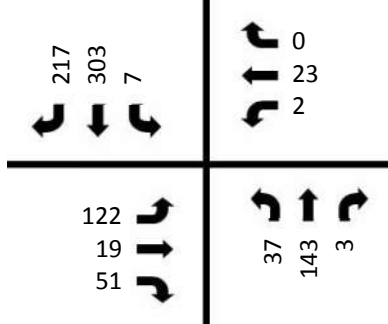
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Central Alternative #1 Revised

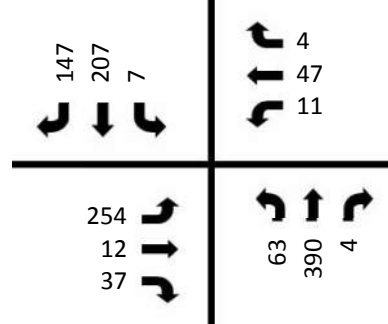
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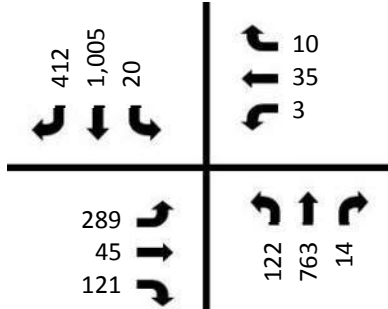
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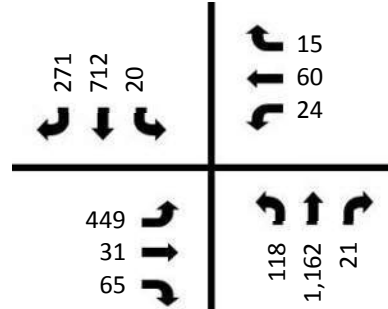
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

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Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

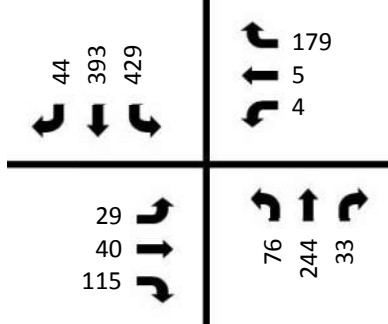
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Central Alternative #1 Revised

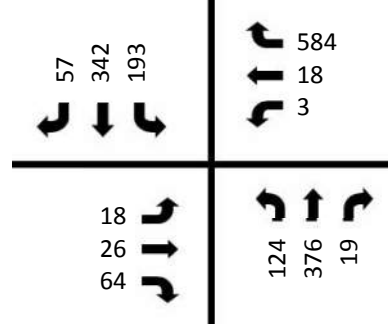
SR 29 and Westclox Road/New Market Road



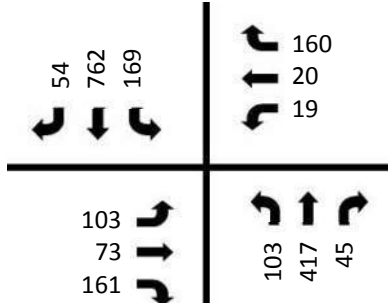
Existing (2017) Traffic AM



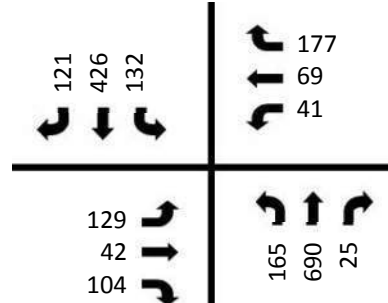
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #1 Revised

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
2. Does the major roadway AADT exceed 90% of the total intersection AADT? *(comment below if "yes")* yes no
3. Does the intersection have pedestrians with special needs that would have difficulty crossing the road? *(comment below if "yes")* yes no
4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
6. Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required? *(comment below if "yes")* yes no

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

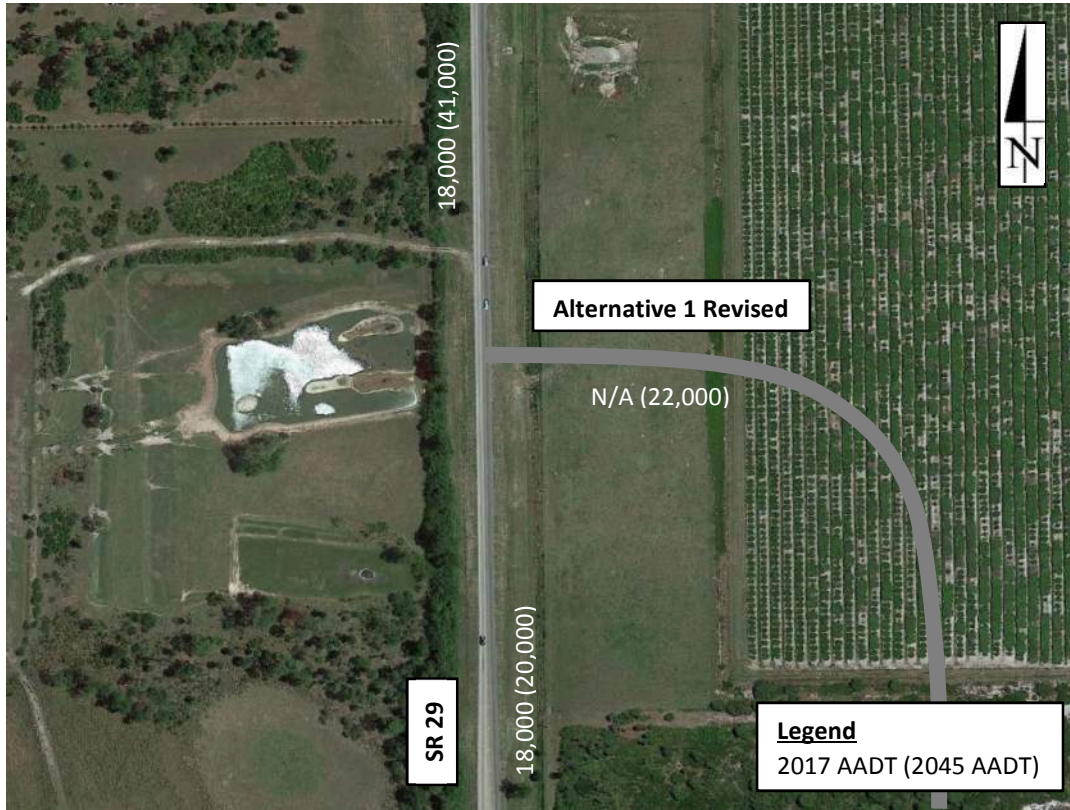
Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

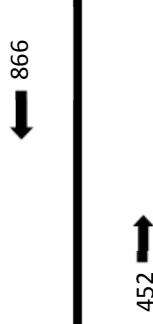
Signature: _____ Date: _____

Central Alternative #1 Revised

SR 29 and SR 29 Bypass Alternative 1 Revised



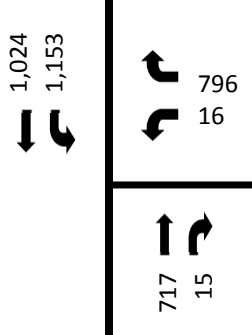
Existing (2017) Traffic AM



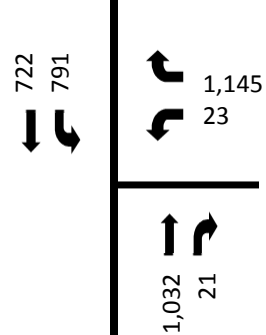
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #2

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
2. Does the major roadway AADT exceed 90% of the total intersection AADT? *(comment below if "yes")* yes no
3. Does the intersection have pedestrians with special needs that would have difficulty crossing the road? *(comment below if "yes")* yes no
4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
6. Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required? *(comment below if "yes")* yes no

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

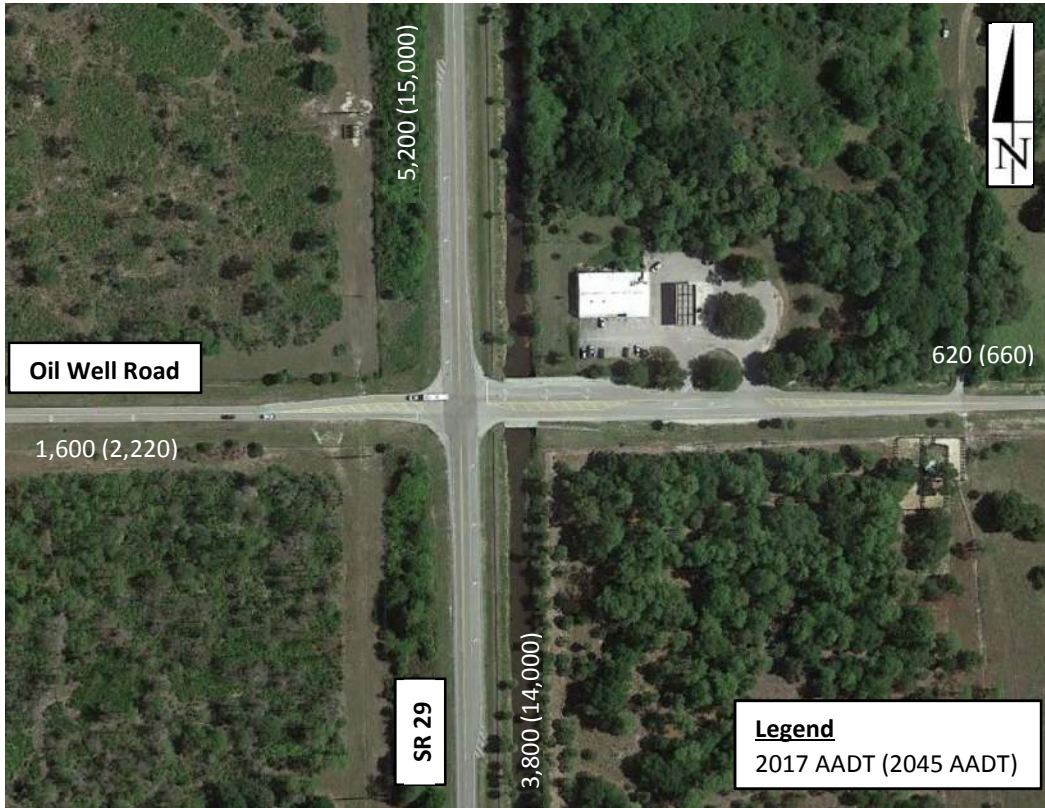
Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

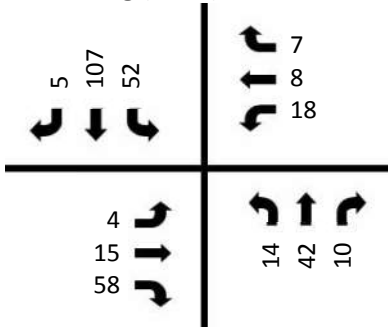
Signature: _____ Date: _____

Central Alternative #2

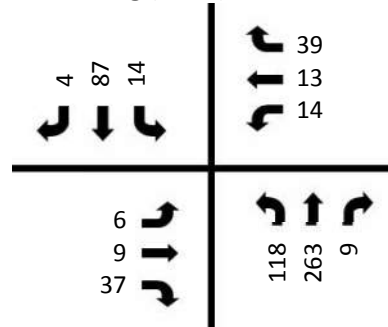
SR 29 and Oil Well Road



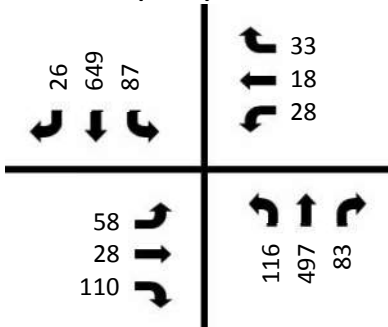
Existing (2017) Traffic AM



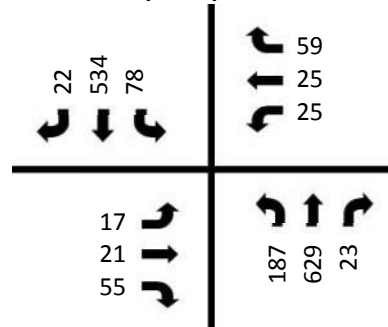
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #2

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
2. Does the major roadway AADT exceed 90% of the total intersection AADT? *(comment below if "yes")* yes no
3. Does the intersection have pedestrians with special needs that would have difficulty crossing the road? *(comment below if "yes")* yes no
4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
6. Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required? *(comment below if "yes")* yes no

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

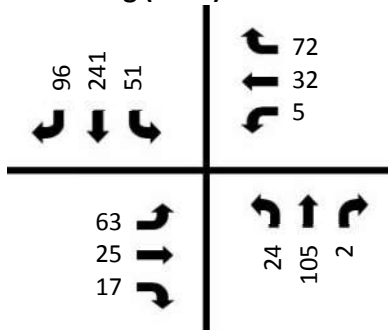
Signature: _____ Date: _____

Central Alternative #2

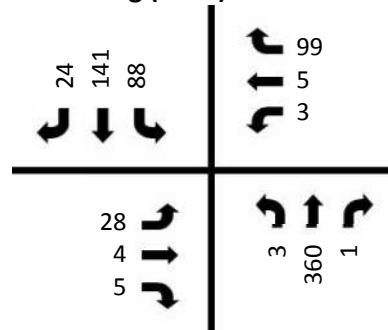
SR 29 and Farm Workers Way



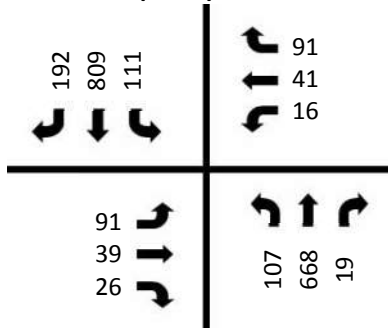
Existing (2017) Traffic AM



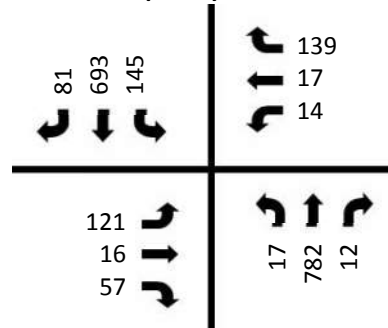
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #2

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
2. Does the major roadway AADT exceed 90% of the total intersection AADT? *(comment below if "yes")* yes no
3. Does the intersection have pedestrians with special needs that would have difficulty crossing the road? *(comment below if "yes")* yes no
4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
6. Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required? *(comment below if "yes")* yes no

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

Signature: _____ Date: _____

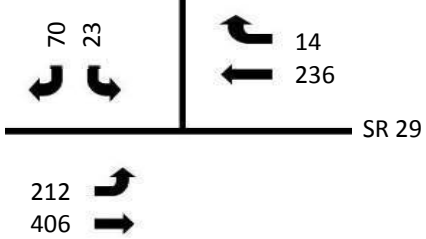
Central Alternative #2

SR 29 and CR 846/12th Street Existing (2017) Conditions



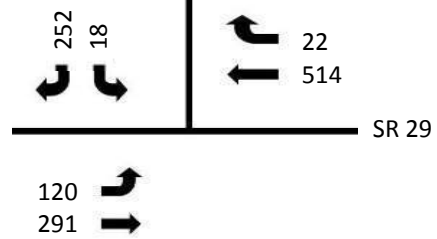
Existing (2017) Traffic AM

CR 846



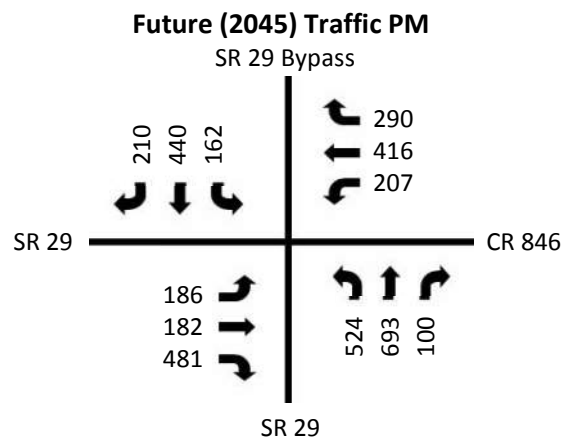
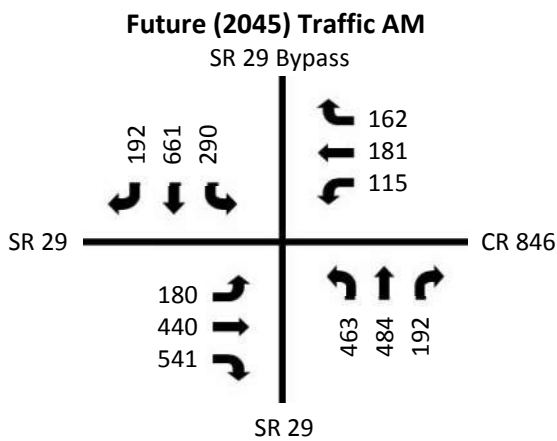
Existing (2017) Traffic PM

CR 846



Central Alternative #2

SR 29 and CR 846/12th Street Future (2045) Conditions



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #2

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
2. Does the major roadway AADT exceed 90% of the total intersection AADT? *(comment below if "yes")* yes no
3. Does the intersection have pedestrians with special needs that would have difficulty crossing the road? *(comment below if "yes")* yes no
4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
6. Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required? *(comment below if "yes")* yes no

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

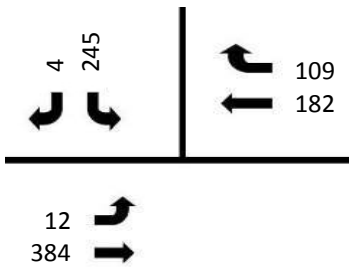
Signature: _____ Date: _____

Central Alternative #2

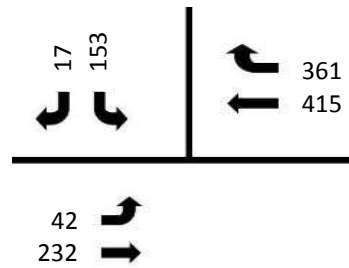
SR 29 and New Market Road



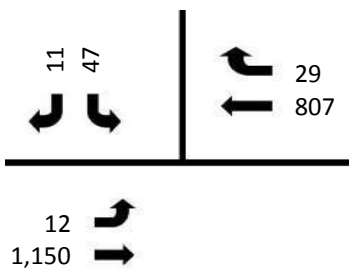
Existing (2017) Traffic AM



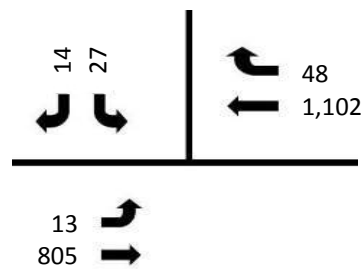
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #2

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
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4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
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Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

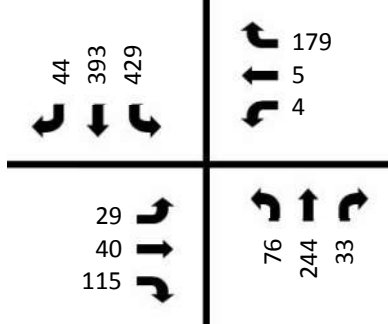
Signature: _____ Date: _____

Central Alternative #2

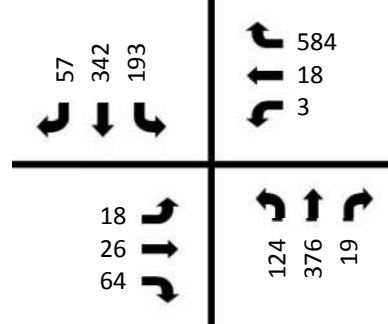
SR 29 and Westclox Road/New Market Road



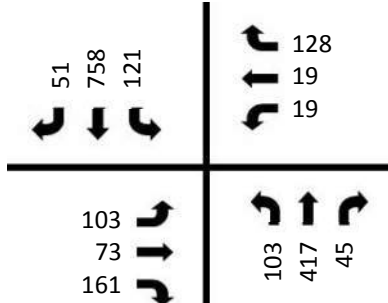
Existing (2017) Traffic AM



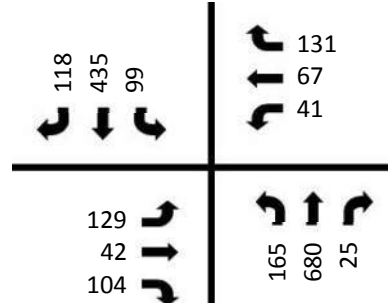
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



**FLORIDA DEPARTMENT OF TRANSPORTATION
STEP 1 - ROUNDABOUT SCREENING**



Prepared by:	Date Prepared:
Financial Project ID:	Project Name:
FAP No.:	State Road:
County:	Intersecting Road:

Central Alternative #2

EXISTING CONTROL/PROJECT CLASSIFICATION

Control:	<input type="checkbox"/> Signal	<input type="checkbox"/> All Way Stop	<input type="checkbox"/> 2 Way Stop	<input type="checkbox"/> Yield	<input type="checkbox"/> None
Classification:	<input type="checkbox"/> Design.	<input type="checkbox"/> Traffic Operations	<input type="checkbox"/> Other		

SCREENING CRITERIA

1. Does the intersection have physical or geometric constraints that would limit visibility or complicate construction? *(comment below if "yes")* yes no
2. Does the major roadway AADT exceed 90% of the total intersection AADT? *(comment below if "yes")* yes no
3. Does the intersection have pedestrians with special needs that would have difficulty crossing the road? *(comment below if "yes")* yes no
4. Is the intersection located within a coordinated signal network? *(comment below if "yes")* yes no
5. Is there downstream traffic control or conditions that could cause queues to back up into the intersection? *(comment below if "yes")* yes no
6. Would the installation of a roundabout create impacts to historical, 4(f), or environmentally sensitive sites? Would the relocation of residences or businesses be required? *(comment below if "yes")* yes no

Step 2 evaluation is required if no is checked for all criteria. Level 2 is optional if yes is checked for one or more of the criteria.

Advance Roundabout Alternative to step 2 Roundabout b/c Evaluation yes no

Approved by: DDE or DTOE

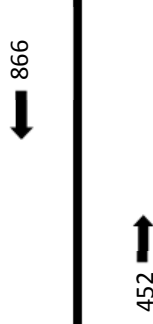
Signature: _____ Date: _____

Central Alternative #2

SR 29 and SR 29 Bypass Alternative 2



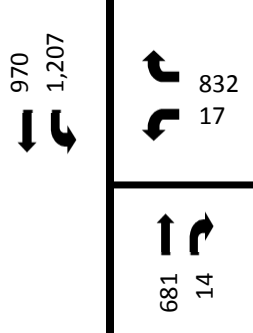
Existing (2017) Traffic AM



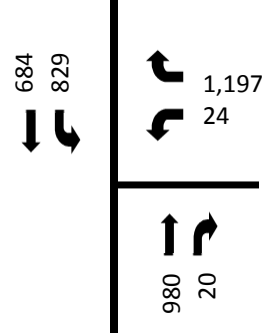
Existing (2017) Traffic PM



Future (2045) Traffic AM



Future (2045) Traffic PM



FLORIDA DEPARTMENT OF TRANSPORTATION



STEP 2 - b/c EVALUATION

Prepared by:	<i>H.W. Lochner</i>	Date Prepared:	<i>29-May-18</i>
Financial Project ID:	<i>417540-1-22-01</i>	Project Name:	<i>SR 29 PD&E</i>
FAP No.:	<i>3911-022-P</i>	State Road:	<i>29</i>
County:	<i>Collier</i>	Intersecting Rd:	<i>Westclox Street</i>

ANNUAL COSTS		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ 463,645	\$ 2,208,478
Delay Cost	\$ 52,883	\$ 49,642
O & M Cost	\$ 2,750	\$ 5,517

Initial Capital Cost		
Preliminary Engineering	\$ 1,753,496	\$ 1,335,306
Right-of-way and Utilities	\$ -	\$ -
Construction	\$ 5,844,987	\$ 1,630,192

TOTAL DISCOUNTED LIFE CYCLE COSTS (OPENING YEAR)		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ 6,897,871	\$ 32,856,575
Delay Cost	\$ 1,110,537	\$ 1,042,483
O & M Cost	\$ 40,913	\$ 82,074
Initial Capital Cost	\$ 7,598,483	\$ 2,965,498
Total Life Cycle Costs	\$ 15,647,804	\$ 36,946,630

LIFECYCLE BENEFIT/COST RATIO	
Safety Benefit of a Roundabout	\$ 25,958,704
Delay Reduction Benefit of a Roundabout	\$ (68,054)
Total Benefit	\$ 25,890,650
Added O & M Costs of a Roundabout	\$ (41,161)
Added Capital Costs of a Roundabout	\$ 4,632,985
Total Cost	\$ 4,591,824
Life Cycle Benefit/Cost Ratio	5.6

Advance to Level 3 Geometric and Operational Analysis: YES NO

Approved by: DDE or DTOE

Signature: _____ Date: _____

FLORIDA DEPARTMENT OF TRANSPORTATION



STEP 2 - b/c EVALUATION

Prepared by:	<i>H.W. Lochner</i>	Date Prepared:	<i>29-May-18</i>
Financial Project ID:	<i>417540-1-22-01</i>	Project Name:	<i>SR 29 PD&E</i>
FAP No.:	<i>3911-022-P</i>	State Road:	<i>29</i>
County:	<i>Collier</i>	Intersecting Rd:	<i>Bypass Alt 1 Revised</i>

ANNUAL COSTS		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ -	\$ -
Delay Cost	\$ 172,601	\$ 184,357
O & M Cost	\$ 2,750	\$ 5,517

Initial Capital Cost		
Preliminary Engineering	\$ 1,929,520	\$ 1,147,187
Right-of-way and Utilities	\$ -	\$ -
Construction	\$ 6,431,735	\$ 3,823,958

TOTAL DISCOUNTED LIFE CYCLE COSTS (OPENING YEAR)		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ -	\$ -
Delay Cost	\$ 3,624,621	\$ 3,871,494
O & M Cost	\$ 40,913	\$ 82,074
Initial Capital Cost	\$ 8,361,255	\$ 4,971,145
Total Life Cycle Costs	\$ 12,026,789	\$ 8,924,713

LIFECYCLE BENEFIT/COST RATIO	
Safety Benefit of a Roundabout	\$ -
Delay Reduction Benefit of a Roundabout	\$ 246,872
Total Benefit	\$ 246,872
Added O & M Costs of a Roundabout	\$ (41,161)
Added Capital Costs of a Roundabout	\$ 3,390,110
Total Cost	\$ 3,348,949
Life Cycle Benefit/Cost Ratio	0.1

Advance to Level 3 Geometric and Operational Analysis: YES NO

Approved by: DDE or DTOE

Signature: _____ Date: _____

FLORIDA DEPARTMENT OF TRANSPORTATION



STEP 2 - b/c EVALUATION

Prepared by:	<i>H.W. Lochner</i>	Date Prepared:	<i>29-May-18</i>
Financial Project ID:	<i>417540-1-22-01</i>	Project Name:	<i>SR 29 PD&E</i>
FAP No.:	<i>3911-022-P</i>	State Road:	<i>29</i>
County:	<i>Collier</i>	Intersecting Rd:	<i>Westclox Street</i>

ANNUAL COSTS		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ 450,467	\$ 2,138,610
Delay Cost	\$ 47,573	\$ 47,440
O & M Cost	\$ 2,750	\$ 5,517

Initial Capital Cost		
Preliminary Engineering	\$ 1,753,496	\$ 1,335,306
Right-of-way and Utilities	\$ -	\$ -
Construction	\$ 5,844,987	\$ 1,630,192

TOTAL DISCOUNTED LIFE CYCLE COSTS (OPENING YEAR)		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ 6,701,809	\$ 31,817,121
Delay Cost	\$ 999,023	\$ 996,239
O & M Cost	\$ 40,913	\$ 82,074
Initial Capital Cost	\$ 7,598,483	\$ 2,965,498
Total Life Cycle Costs	\$ 15,340,228	\$ 35,860,932

LIFECYCLE BENEFIT/COST RATIO	
Safety Benefit of a Roundabout	\$ 25,115,312
Delay Reduction Benefit of a Roundabout	\$ (2,784)
Total Benefit	\$ 25,112,528
Added O & M Costs of a Roundabout	\$ (41,161)
Added Capital Costs of a Roundabout	\$ 4,632,985
Total Cost	\$ 4,591,824
Life Cycle Benefit/Cost Ratio	5.5

Advance to Level 3 Geometric and Operational Analysis: YES NO

Approved by: DDE or DTOE

Signature: _____ Date: _____

FLORIDA DEPARTMENT OF TRANSPORTATION



STEP 2 - b/c EVALUATION

Prepared by:	<i>H.W. Lochner</i>	Date Prepared:	<i>29-May-18</i>
Financial Project ID:	<i>417540-1-22-01</i>	Project Name:	<i>SR 29 PD&E</i>
FAP No.:	<i>3911-022-P</i>	State Road:	<i>29</i>
County:	<i>Collier</i>	Intersecting Rd:	<i>Bypass Alt 2</i>

ANNUAL COSTS		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ -	\$ -
Delay Cost	\$ 170,655	\$ 181,433
O & M Cost	\$ 2,750	\$ 5,517

Initial Capital Cost		
Preliminary Engineering	\$ 1,929,520	\$ 1,147,187
Right-of-way and Utilities	\$ -	\$ -
Construction	\$ 6,431,735	\$ 3,823,958

TOTAL DISCOUNTED LIFE CYCLE COSTS (OPENING YEAR)		
	Roundabout	Traffic Signal
Safety Cost (Crashes)	\$ -	\$ -
Delay Cost	\$ 3,583,751	\$ 3,810,095
O & M Cost	\$ 40,913	\$ 82,074
Initial Capital Cost	\$ 8,361,255	\$ 4,971,145
Total Life Cycle Costs	\$ 11,985,919	\$ 8,863,314

LIFECYCLE BENEFIT/COST RATIO	
Safety Benefit of a Roundabout	\$ -
Delay Reduction Benefit of a Roundabout	\$ 226,343
Total Benefit	\$ 226,343
Added O & M Costs of a Roundabout	\$ (41,161)
Added Capital Costs of a Roundabout	\$ 3,390,110
Total Cost	\$ 3,348,949
Life Cycle Benefit/Cost Ratio	0.1

Advance to Level 3 Geometric and Operational Analysis: YES NO

Approved by: DDE or DTOE

Signature: _____ Date: _____

Appendix E

Draft Design Variation Requests

Draft

To: Mr. B.A. Masing, P.E.

Date: July 19, 2018

Financial Project ID: 417540-1-22-01

New Construction (X) RRR ()

Federal Aid Number: 3911 022 P

Project Name: SR 29 Project Development and Environment (PD&E) Study from Oil Well Rd. to SR 82

State Road Number: SR 29

Co./Sec./Sub.: 03080000

Begin Project MP: 27.208

End Project MP: 42.062

Full Federal Oversight: Yes () No (X)

Request for Design Exception (), Design Variation(s) (X)

(For Design Exception or Variations Requiring Central Office Approval)

Re-submittal: Yes () No (X) Original Ref # _____ - _____ - _____

Requested for the following element(s):

- () Design Speed () Lane Widths () Shoulder Widths () Bridge Widths
- () Structural Capacity () Vertical Clearance () Grades () Cross Slope
- () Superelevation () Horizontal Alignment () Vertical Alignment () Stopping Sight Distance
- () Horizontal Clearance (x) Other – **Border Width**

A Design Variation is requested for a border width reduction along SR 29 within the limits of this project.

Recommended by:

 Date 7/19/2018
 William G. Howell, PE

Approvals:

 B.A. Masing, P.E.
 District Design Engineer

 District Structures Design Engineer

 State Roadway Design Engineer

 State Structures Design Engineer

 State Chief Engineer

 FHWA Division Administrator

Draft

INTRODUCTION

This design variation is being requested as part of the widening reconstruction of the SR 29 mainline from Oil Well Rd. to SR 82 in Collier County, Florida.

SR 29 will be reconstructed from Oil Well Rd. to SR 82. There are four typical sections associated with this Design Variation for Border Width. The limits of the first typical section are from Oil Well Rd. to south of Kaicasa Entrance, the limits of the second typical section are from south of Kaicasa Entrance to Seminole Crossing Trail, the limits of the third typical section are from Seminole Crossing Trail to Gopher Ridge Rd., and the limits of the fourth typical section are from Experimental Rd. to south of SR 82.

The typical section from Oil Well Rd. to S. of Kaicasa Entrance proposes to widen SR 29 from a two-lane undivided roadway to a four-lane divided rural facility with a 65 mph design speed, 12 foot lanes, 10 foot outside shoulder (five foot paved) and a 40 foot depressed median. The typical section from south of Kaicasa Entrance to Seminole Crossing Trail proposes to widen SR 29 from a two-lane undivided roadway to a four-lane divided suburban facility with a 55 mph design speed, 12 foot lanes, 10 foot outside shoulder (five foot paved) and a 30 foot raised median. The typical section from Seminole Crossing Trail to Gopher Ridge Rd. proposes to widen SR 29 from a two-lane undivided roadway to a four-lane divided urban facility with a 45 mph design speed, 11 foot lanes, seven foot buffered-bike lanes, Type-F curb and gutter, six foot sidewalks on both sides and a 22 foot raised median. The typical section from Experimental Rd. to south of SR 82 proposes to widen SR 29 from a two-lane undivided roadway to a four-lane divided rural section with a 60 mph design speed, 12 foot lanes, 10 foot outside shoulder (five foot paved) and a 40 foot depressed median. The improvements will include a 10 foot shared use path along the west side of SR 29.

SR 29 is classified as a “Rural Principal Arterial – Other” from Oil Well Rd. to approximately 0.43 miles south of Agriculture Way and from Westclox St./New Market Rd. to SR 82. From approximately 0.43 miles south of Agriculture Way to Westclox St./New Market Rd., SR 29 is classified as an “Urban Principal Arterial – Other”.

A Design Variation is being requested for a border width reduction for the following areas along the project:

SR 29	Proposed Context Classification	Min. Proposed Border Width	Required Border Width	Source (FDM)
Northbound				
MP 27.208 to MP 33.84	C2 - Rural	21.00 – 28.00 ft.	40 ft.	Table 210.7.1
MP 33.84 to MP 36.11	C3 - Suburban	26.00 – 31.00 ft.	40 ft.	Table 210.7.1
MP 36.11 to MP 37.59	C3 - Suburban	10 ft.	14 ft.	Table 210.7.1
MP 40.84 to MP 42.32	C2 - Rural	26.00 – 39.00 ft.	40 ft.	Table 210.7.1

DESIGN VARIATION

The reduced border width along the west side of SR 29 from MP 27.208 to MP 36.11 is located on the west, adjacent to an existing Florida Power and Light (FPL) easement. A reduced border width of 21.00 feet – 28.00 feet from MP 27.208 to MP 33.84 (west side) and 26.00 feet – 31.00 feet from MP 33.84 to MP 36.11 (west side) is provided in order to reduce the impacts to this easement and the existing utilities within this easement.

The reduced border width along both the east and west sides of SR 29 from MP 36.11 to MP 37.59 is located in an area where the existing right of way is narrow (100 feet wide). The reduced border width of 10 feet being provided in this area will limit excess right of way impacts and associated impacts to businesses and properties adjacent to the roadway.

Draft

The reduced border width along the east side of SR 29 from MP 40.84 to MP 42.32 is located adjacent to many large farm lands. The reduced border width of 26.00 feet – 39.00 feet being provided in this area will limit the excess right of way impacts to these farm lands.

1. Design Criteria vs. Proposed Criteria

The FDOT Design Manual (FDM), Volume 1, Table 210.7.1 states the minimum border width for a rural (C2) context classification, with flush shoulder design and speeds greater than 50 mph, is 40 feet measured from the shoulder break. Table 210.7.1 states the minimum border width for a suburban (C3) context classification, with flush shoulders and speed greater than 50 mph, is 40 feet measured from the shoulder break. Table 210.7.1 states the minimum border width for a suburban (C3) context classification, with curb and gutter and speed of 45 mph is 12 feet measured from outside edge of pavement (lip of gutter). The minimum border width provided along SR 29 varies between 21.00 feet and 31.00 feet, in the area of the existing Florida Power and Light (FPL) easement. The minimum border width provided along SR 29 is 10 feet from MP 36.11 to MP 37.59. The minimum border width provided along SR 29 varies between 26.00 feet and 39.00 feet, from MP 40.84 to MP 42.32.

2. Reason the Design Criteria is Not Appropriate

If 40 ft. border width is provided along the west side of SR 29, from MP 27.208 to MP 33.84, the FPL easement will be heavily impacted. Overhead electric transmission towers are located in the easement and would require relocation. Along the east and west sides of SR 29, from MP 36.11 to MP 37.59, no new right of way is being proposed along both sides for the roadway widening. If the minimum border width of 12 feet is to be provided, right-of-way impacts will be introduced, adding cost and schedule implications to the project. Along the west side of SR 29, from MP 40.84 to MP 42.32, providing the required 40 foot border width will introduce impacts to adjacent farm lands.

3. Crash History and Safety Impacts

Analysis of existing crash data is not applicable for this Design Variation because SR 29 will be reconstructed from a 2-lane undivided section to a divided four-lane section including other aspects of the project that will be different from the existing condition.

4. Justification for the Proposed Criteria

The reduced border widths along SR 29 noted herein will eliminate impacts to the FPL easement and other adjacent properties and thereby reduce project cost and avoid project schedule delays. The proposed border widths in this Design Variation are anticipated to be sufficient to accommodate the construction of the roadway improvements, including utilities and the required signage and lighting. Furthermore, the proposed border width is not anticipated to adversely affect safety along the corridor. Providing a wider border width, consistent with the FDOT Design Manual, will result in unnecessary impacts to the easements and adjacent facilities.

Draft

RECOMMENDATION

The overriding justification for this design variation is the desire to keep the proposed typical sections within the existing right-of-way on both the east and west sides of SR 29, and to minimize impacts to FPL easement. No safety impacts are anticipated as a result of the noted reductions in the border width. Maintaining the required border width would increase project costs due to the need for right-of-way acquisition and utility relocation. The approval of this Design Variation is therefore recommended for this project.

Recommended by:

Date _____

William G. Howell, P.E.
Responsible Professional Engineer
Florida P.E. No. 37284

Lochner
4350 W. Cypress Street, Suite 800
Tampa, Florida 33607
FBPR Certificate of Authorization #894

Draft

To: Mr. B.A. Masing, P.E.

Date: July 19, 2018

Financial Project ID: 417540-1-22-01

New Construction (X) RRR ()

Federal Aid Number: 3911 022 P

Project Name: SR 29 Project Development and Environment (PD&E) Study from Oil Well Rd. to SR 82

State Road Number: SR 29

Co./Sec./Sub.: 03080000

Begin Project MP: 27.208

End Project MP: 42.062

Full Federal Oversight: Yes () No (X)

Request for Design Exception (), Design Variation(s) (X)

(For Design Exception or Variations Requiring Central Office Approval)

Re-submittal: Yes () No (X) Original Ref # _____ - _____ - _____

Requested for the following element(s):

- () Design Speed () Lane Widths () Shoulder Widths () Bridge Widths
- () Structural Capacity () Vertical Clearance () Grades () Cross Slope
- () Superelevation () Horizontal Alignment () Vertical Alignment () Stopping Sight Distance
- () Horizontal Clearance (x) Other – **Clear Zone**

A Design Variation is requested for a clear zone reduction along SR 29 within the limits of this project.

Recommended by:

William G. Howell Date 7/19/2018
 William G. Howell, PE

Approvals:

_____ Date _____
 B.A. Masing, P.E.
 District Design Engineer

_____ Date _____
 District Structures Design Engineer

_____ Date _____
 State Roadway Design Engineer

_____ Date _____
 State Structures Design Engineer

_____ Date _____
 State Chief Engineer

_____ Date _____
 FHWA Division Administrator

Draft

INTRODUCTION

This design variation is being requested as part of the widening reconstruction of the SR 29 mainline from Oil Well Rd. to SR 82 in Collier County, Florida.

SR 29 will be reconstructed from Oil Well Rd. to SR 82. There is one typical section associated with this Design Variation for Clear Zone. The limits of the typical section are from Oil Well Rd. to south of Kaicasa Entrance.

The typical section from Oil Well Rd. to S. of Kaicasa Entrance proposes to widen SR 29 from a two-lane undivided roadway to a four-lane divided rural facility with a 65 mph design speed, 12 foot lanes, 10 foot outside shoulder (five foot paved) and a 40 foot depressed median.

SR 29 is classified as a "Rural Principal Arterial – Other" from Oil Well Rd. to approximately 0.43 miles south of Agriculture Way and from Westclox St./New Market Rd. to SR 82. From approximately 0.43 miles south of Agriculture Way to Westclox St./New Market Rd., SR 29 is classified as an "Urban Principal Arterial – Other".

A design variation is being requested for a clear zone reduction for the following area along the project:

SR 29	Proposed Context Classification	Min. Proposed Clear Zone	Required Clear Zone	Source (FDM)
Northbound				
MP 27.208 to MP 33.84	C2 - Rural	31.00 – 38.00 ft.	36 ft.	Table 215.2.1

DESIGN VARIATION

The reduced clear zone along the west side of SR 29 from MP 27.208 to MP 33.84 is located adjacent to an existing Florida Power and Light (FPL) easement. A reduced clear zone of 31.00 feet – 38.00 feet from MP 27.208 to MP 33.84 (west side) is provided in order to reduce the impacts to this easement and the existing utilities within this easement.

1. Design Criteria vs. Proposed Criteria

The FDOT Design Manual (FDM), Volume 1, Table 215.2.1 states the minimum clear zone for a rural (C2) context classification, with flush shoulder design and speeds greater than 50 mph, is 36 feet measured from the edge of travel lane. The minimum clear zone provided along SR 29 varies between 31.00 feet and 38.00 feet, in the area of the existing Florida Power and Light (FPL) easement.

2. Reason the Design Criteria is Not Appropriate

If 36 ft. clear zone is provided along the west side of SR 29, from MP 27.208 to MP 33.84, the existing roadway alignment will require modification and the FPL easement will be heavily impacted. Overhead electric transmission towers are located in the easement and would require relocation.

3. Crash History and Safety Impacts

Analysis of existing crash data is not applicable for this Design Variation because SR 29 will be reconstructed from a two-lane undivided section to a divided four-lane section including other aspects of the project that will be different from the existing condition.

Draft

4. Justification for the Proposed Criteria

The reduced clear zone along SR 29 noted herein will eliminate unnecessary modifications to the existing roadway alignment, impacts to the FPL easement and facilities as well as other adjacent properties, and thereby reduce project cost and avoid project schedule delays. The proposed clear zone in this Design Variation is anticipated to be sufficient to accommodate the construction of the roadway improvements, including utilities and the required signage and lighting. Furthermore, the proposed clear zone is not anticipated to adversely affect safety along the corridor. Providing a wider clear zone, consistent with the FDOT Design Manual, will result in unnecessary impacts to the easements as well as the existing roadway pavement.

Draft

RECOMMENDATION

The overriding justification for this design variation is the desire to keep the proposed typical section within the existing right-of-way on both the east and west sides of SR 29, and to minimize impacts to existing roadway alignment and FPL easement. No safety impacts are anticipated as a result of the noted reductions in the clear zone. Maintaining the required clear zone would increase project costs due to the need for right-of-way acquisition and utility relocation. The approval of this Design Variation is therefore recommended for this project.

Recommended by:

Date _____

William G. Howell, P.E.
Responsible Professional Engineer
Florida P.E. No. 37284

Lochner
4350 W. Cypress Street, Suite 800
Tampa, Florida 33607
FBPR Certificate of Authorization #894

Appendix F

Agency Correspondence



Florida Department of Transportation

RICK SCOTT
GOVERNOR

801 North Broadway Avenue
Bartow, FL 33830

MIKE DEW
SECRETARY

July 11, 2018

Timothy A. Parsons, Ph.D., Director
State Historic Preservation Officer
Florida Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

REC'D
BUREAU OF
HISTORIC PRESERVATION
2018 JUL 13 A 8:12

Attention: Ms. Alyssa McManus, Transportation Compliance Review Program

Re: **Cultural Resource Assessment Survey
State Road 29 Project Development and Environment Study from Oil Well Road
(County Road 858) to State Road 82
Collier County, Florida
Financial Project ID No.: 417540-1-22-01**

Dear Dr. Parsons,

The Florida Department of Transportation (FDOT), District One, is pleased to submit the *Cultural Resource Assessment Survey (CRAS) for the State Road (SR) 29 Project Development and Environment (PD&E) Study from Oil Well Road (County Road [CR] 858) to SR 82 in Collier County, Florida*. Please find enclosed the following:

- One unbound copy of the CRAS report;
- One CD containing a .pdf of the CRAS report, an electronic version of the survey log and site file forms, selected photos, and GIS shapefiles of the survey area;
- One unbound copy of all site file forms, and
- One unbound survey log.

Also included is the Cultural Resources Desktop Analysis of Proposed Ponds and Floodplain Compensation Sites associated with the alternatives included in the CRAS. Please note that the objective of this desktop analysis is to provide preliminary cultural resource information to assist in the avoidance of previously recorded resources listed in, determined eligible for, or considered eligible for listing in the *National Register of Historic Places* (National Register). Once final ponds are selected, a cultural resource assessment of those ponds will be conducted.

Timothy A. Parsons, Ph.D.
SR 29 PD&E from Oil Well Road (CR 858) to SR 82
Collier County, Florida
Financial Project ID No.: 417540-1-22-01
July 11, 2018
Page 2 of 4

The CRAS was conducted in compliance with Section 106 of the *National Historic Preservation Act (NHPA) of 1966* (Public Law 89-665, as amended), as implemented by 36 Code of Federal Regulations (CFR) 800 -- *Protection of Historic Properties* (incorporating amendments effective August 5, 2004); Stipulation VII of the *Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation (ACHP), the Florida Division of Historical Resources (FDHR), the State Historic Preservation Officer (SHPO), and the FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida* (Section 106 Programmatic Agreement, effective March 2016, amended June 7, 2017); the revised Chapter 267, *Florida Statutes (F.S.)*; and the standards embodied in the FDHR's *Cultural Resource Management Standards and Operational Manual* (February 2003), and Chapter 1A-46 (*Archaeological and Historical Report Standards and Guidelines*), *Florida Administrative Code*. In addition, this report was prepared in conformity with standards set forth in Part 2, Chapter 8 (*Archaeological and Historical Resources*) of the *FDOT Project Development and Environment Manual* (effective June 14, 2017). The objective of the CRAS was to identify cultural resources within the project area of potential effect (APE) and assess the resources in terms of their eligibility for listing in the *National Register of Historic Places* (National Register) according to the criteria set forth in 36 CFR Section 60.4.

No previously recorded or newly recorded archaeological sites were identified during the archaeological resources survey. The historic resources survey resulted in the identification of a total of 46 historic resources within the historic resources APE. This includes two previously recorded resources and 44 newly recorded resources. The previously recorded resources include the Immokalee Ice Plant (8CR642) and the Immokalee Regional Airport (8CR1087). The 44 newly recorded resources include 35 buildings (8CR1180–8CR1196, 8CR1236–8CR1238, 8CR1245–8CR1246, 8CR1323–8CR1329, 8CR1331–8CR1334, 8CR1369–8CR1370), two bridges (8CR1496–8CR1497), four canals (8CR1256, 8CR1368, 8CR1498–8CR1499), one road (8CR1309) and two resource groups (8CR1252 and CR1500).

Forty-five of the resources are considered ineligible for listing in the National Register either individually or as part of a historic district. One resource, the Immokalee Ice Plant (8CR642) is considered National Register-eligible. The Ice Plant was constructed in 1945 and, although there have been several additions, it maintains much of its integrity. This resource is representative of Immokalee's conversion from a community of individual isolated farmsteads to a more modern agricultural community and is considered eligible for the National Register under Criterion A for its role in Immokalee's Community Planning and Development, Agriculture, and Industry.

A webinar was held on June 20, 2018 with Alyssa McManus of the SHPO/FDHR Transportation Compliance Review Program, FDOT District 1, and the consultant team to provide an overview of the results of the CRAS and discuss the potential effects of the project on the potentially eligible Immokalee Ice Plant. The level of documentation needed to determine the effects to the Ice Plant were also discussed. Ms. McManus noted that it appeared there would be no adverse effect to the Ice Plant and agreed that the effects analysis could be included in this CRAS transmittal letter.

Timothy A. Parsons, Ph.D.
SR 29 PD&E from Oil Well Road (CR 858) to SR 82
Collier County, Florida
Financial Project ID No.: 417540-1-22-01
July 11, 2018
Page 3 of 4

The Criteria of Adverse Effects, as defined in the Section 106 implementing regulations, 36 CFR part 800.5, states:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Neither of the proposed alternatives included any acquisition of property from the Ice Plant parcel. The proposed at-grade roadway improvements on SR 29 adjacent to the National Register-eligible Immokalee Ice Plant will fall entirely within the existing ROW and will match the existing roadway typical section (Attachment 1). The existing typical section includes two 12-foot lanes, concrete sidewalks and bike lanes in each direction separated by a raised median. The existing driveway access to the Ice Plant will remain. Improvements along SR 29, west of New Market Road, are limited to milling and resurfacing of the existing pavement in order to transition the proposed improvements to the existing roadway. None of the proposed improvements directly or indirectly impact the Ice Plant or diminish its integrity. Therefore, based on the criteria of adverse effect, the proposed project will not adversely affect those characteristics of the Immokalee Ice Plant that qualify this resource for listing in the National Register.

This letter and the enclosed CRAS report are respectfully provided for your review and concurrence with both the determinations of eligibility and the effects determination. This information is being provided in accordance with provisions contained in *Section 106 of the National Historic Preservation Act*. If you have any questions, please do not hesitate to call me at (863) 519-2375 or Gwen.Pipkin@dot.state.fl.us

Sincerely,



Gwen G. Pipkin
Environmental Manager

Timothy A. Parsons, Ph.D.
SR 29 PD&E from Oil Well Road (CR 858) to SR 82
Collier County, Florida
Financial Project ID No.: 417540-1-22-01
July 11, 2018
Page 4 of 4

Enclosures

Cc: Marlon Bizerra, FDOT
Jonathon Bennett, FDOT
Matthew Marino, FDOT
Roy Jackson, FDOT
Bill Howell, Lochner
Amy Streehman, Janus Research
Kathleen Hoffman, Janus Research

The Florida State Historic Preservation Officer finds the attached Cultural Resources Assessment Report complete and sufficient and concurs/ does not concur with the determinations of historic significance provided in this cover letter and does does not find applicable the determinations of effects and adverse effects provided in this cover letter for SHPO/FDHR Project File Number 2018-3480.

FDHR Comments:

CR 688 should be CR 668. Please correct and submit in report - files on disc. However, this office concurs w/ the determinations - findings of this report.

Timothy A. Parsons, Director, and
State Historic Preservation Officer

[DATE]

Florida Division of Historical Resources

Howell, Bill

From: Pipkin, Gwen G <Gwen.Pipkin@dot.state.fl.us>
Sent: Tuesday, March 20, 2018 10:11 AM
To: Bizerra, Marlon; Howell, Bill; Peate, Martin; Lauren Brooks ; kwarren@rkk.com
Subject: FW: SR 29 Immokalee

Importance: High

We have concurrence from John Wrublik (see below) on our plan to do some species surveys as part of design. We will do the NRE as usual and get concurrence on the species we can do now, and include commitments to do during design for the rest. Please forward as needed.

Gwen G. Pipkin

Environmental Manager
Office - 863.519.2375
Cell - 863-280-5850
gwen.pipkin@dot.state.fl.us

From: Wrublik, John [mailto:john_wrublik@fws.gov]
Sent: Tuesday, March 20, 2018 8:26 AM
To: Pipkin, Gwen G <Gwen.Pipkin@dot.state.fl.us>
Subject: Re: SR 29 Immokalee

Gwen,

The proposal that the listed species surveys indicated for this project be conducted during the design phase of the project is acceptable to the Service. I don't have any further comments at this time.

John

John M. Wrublik
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
Office: (772) 469-4282
Fax: (772) 562-4288
email: John_Wrublik@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

On Tue, Mar 20, 2018 at 7:30 AM, Pipkin, Gwen G <Gwen.Pipkin@dot.state.fl.us> wrote:

Hi John,

We spoke a while back about completing some of our species surveys during design for this project. I followed up I with an email (see attached). I would like to know if you have had a chance to review that, and if we could get a response back?

I am also including the following additional information for your use.

- Panther: This is the major wildlife issue south of Immokalee, especially considering the number of panther vehicle strikes. A wildlife crossing at Owl Hammock curve is needed. PHUs for lost habitat will also need to be calculated as part of the PD&E.
- Crested caracara: No nests currently known in PD&E study area; surveys will be required during design for those segments that are not right in town.
- Scrub jay: An updated survey will be required during design for the new alignment segment northwest of the airport (a colony is known to exist in this area). There is no suitable habitat south of Immokalee.
- Wood stork: Suitable foraging habitat is present in all segments and at least three colonies are within 18.6 miles. A foraging habitat assessment should be completed during design.

Thanks, John, I look forward to your response!

Gwen G. Pipkin

Environmental Manager

Office - 863.519.2375

Cell - 863-280-5850

gwen.pipkin@dot.state.fl.us

----- Forwarded message -----

From: "Pipkin, Gwen G" <Gwen.Pipkin@dot.state.fl.us>

To: "John Wrublik (john_wrublik@fws.gov)" <john_wrublik@fws.gov>

Cc:

Bcc:

Date: Thu, 8 Mar 2018 17:36:41 +0000

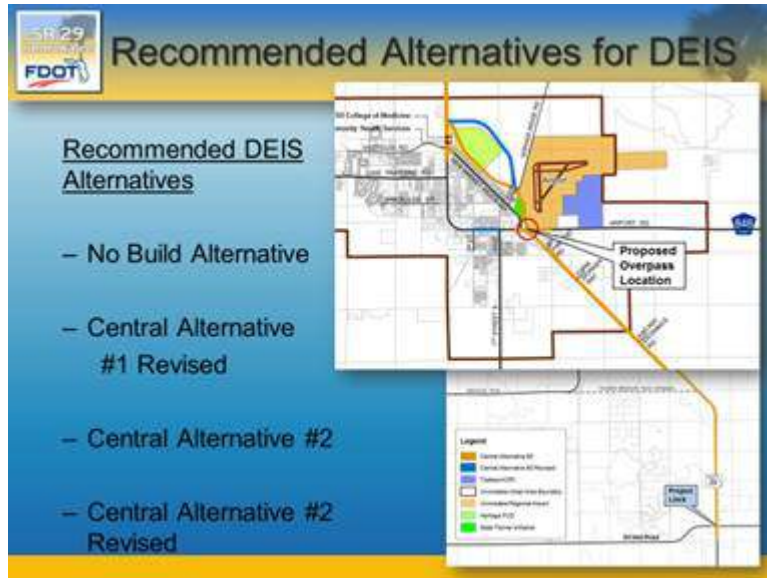
Subject: 417540-1 - SR 29 from Oil Well Rd to SR 82, Immokalee

John,

We spoke last week about the method FDOT would like to use to accomplish the species surveys for this project, and I was going to send you an email with more information so you could reply back. My apologies for taking so long!

Due to time constraints on the project, and the sensitivity of the species issues in the area, we feel it would be more appropriate to complete the NRE with commitments to do the formal surveys and coordination during the design phase, when the plans are more detailed. The species we feel would be best to complete later are snail kite, scrub jay, caracara, bonneted bat, and panther. The forthcoming NRE will address the rest of the species, and contain the commitments for completing the rest during design.

Also, just to update you, we are planning to move forward with only two build alternatives and the no-build alternative. We are in the process of officially eliminating Central Alternative #2 Revised, shown in blue below.



Thanks,

Gwen G. Pipkin

Environmental Manager

Office - 863.519.2375

Cell - 863-280-5850

gwen.pipkin@dot.state.fl.us

From: John Wrublik
To: [Bennett, Jonathon](mailto:Jonathon.Bennett@dot.state.fl.us)
Subject: Re: [EXTERNAL] 417540-1-22-01 NRE Transmittal
Date: Friday, August 03, 2018 9:05:31 AM

EXTERNAL SENDER: Use caution with links and attachments.

John M. Wrublik
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
Office: (772) 469-4282
Fax: (772) 562-4288
email: John.Wrublik@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

Jonathon,

Yes I have downloaded the documents for the SR 29 project. I thought that I had sent you a response to your email, letter, and NRE dated July 20, 2018, but I can not locate in my records so maybe I neglected to send it. Anyway, her is the response I thought I had sent to you. You indicated in your letter that the FDOT intends to re-initiate consultation with the Service regarding the project's adverse effects to the Florida panther and the Florida scrub-jay during the project's design and permitting phase. In order to avoid unnecessary duplication of effort and better manage my workload, I will respond to determinations for all listed species (i.e., panther, scrub-jay, and all species that you made a MANLAA determination in your July 20th, 2018 letter) at the time of re-initiation of consultation for this project (i.e., during the final design and permitting phase). I have no other comments on the project at this time.

Sincerely,

John Wrublik

On Thu, Aug 2, 2018 at 1:16 PM Bennett, Jonathon <Jonathon.Bennett@dot.state.fl.us> wrote:

Good afternoon,

The email below was sent Friday July 20th, 2018, it is for a review of the SR 29 from Oil Well Rd to SR 82 Collier County Natural Resource Evaluation Report (NRE). The link will expire on Friday August 3rd, please let me know if you need me to resend the link for your availability to download and review the NRE. If you have already retrieved this file, please disregard this email.

Thank you,

Jonathon A. Bennett

Environmental Project Manager

Florida Department of Transportation District One

801 North Broadway Avenue

Bartow, Florida 33830

Office – (863) 519-2495

Main – (863) 519-2300

62.05 MB

417540-1 NRE Transmittal_xxx.pdf

127.30 KB

Thank you for sharing files securely.

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and Wildlife
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Executive Director
Eric Sutton**
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

850-487-3796
850-921-5786 FAX

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620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: 850-488-4676

Hearing/speech-impaired:
800-955-8771 (T)
800 955-8770 (V)

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August 21, 2018

Mr. Jonathon A. Bennett
Environmental Project Manager
Florida Department of Transportation (FDOT) District 1
801 N. Broadway Avenue
Bartow, FL 33830
Jonathon.Bennett@dot.state.fl.us

Re: SR 29 from Oil Well Road to SR 82, Collier County, Natural Resources
Evaluation Report, File Number 417540-1-22-01

Dear Mr. Bennett:

The Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the Natural Resources Evaluation Report (NRE) and the NRE Addendum for the above-referenced project. The NRE was prepared as part of the Project Development and Environment Study for the proposed project. Since 2005, we have been involved in the review of this project via the Efficient Transportation Decision Making process as ETDM 3752, and through meetings and correspondence with FDOT District 1 and environmental resource agency staffs. We provide the following comments and recommendations for your consideration in accordance with Chapter 379, Florida Statutes and Rule 68A-27, Florida Administrative Code (F.A.C.).

Project Description

The project involves the widening of SR 29 from two lanes to four lanes between Oil Well Road and SR 82, a distance of approximately 15.6 miles, and including a new four-lane roadway bypassing the downtown area of Immokalee. The two build alternatives under consideration differ only in their alignment of the Immokalee bypass near the Immokalee Regional Airport. The Central Alternative #1 Revised runs to the west of the airport through developed land within Immokalee, while Central Alternative #2 runs through the Upland Management Area on the west side of airport property where the FWC holds a conservation easement associated with Gopher Tortoise (*Gopherus polyphemus*) Incidental Take Permit No. COL 36, and which is managed to benefit the resident Florida scrub-jays (*Aphelocoma coerulescens*). Central Alternative #2 would result in 4.45 acres of direct impact to this conservation easement. The project area is dominated by agricultural land use (pasture, rangeland, and citrus) with urban land use within the City of Immokalee. Natural land cover includes some pine flatwoods and several forested and herbaceous wetlands. The Big Cypress Area of Critical State Concern borders the east side of SR 29 in the southern portion of the project area.

Potentially Affected Resources

The NRE evaluated potential project impacts to 18 wildlife species classified under the Endangered Species Act as Federally Endangered (FE) or Threatened (FT), or by the State of Florida as Threatened (ST). Listed species were evaluated based on range and

potential appropriate habitat or because the project is within a U.S. Fish and Wildlife Service (USFWS) Consultation Area. Included were: eastern indigo snake (*Drymarchon corais couperi*, FT), American alligator (*Alligator mississippiensis*, FT based on similarity of appearance to American crocodile, *Crocodylus acutus*), Audubon's crested caracara (*Polyborus plancus audubonii*, FT), Everglade snail kite (*Rostrhamus sociabilis plumbeus*, FE), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*, FE), Florida scrub-jay (FT), red-cockaded woodpecker (*Picoides borealis*, FE), wood stork (*Mycteria americana*, FT), Florida panther (*Puma concolor coryi*, FE), Florida bonneted bat (*Eumops floridanus*, FE), gopher tortoise (ST), Florida burrowing owl (*Athene cunicularia floridana*, ST), southeastern American kestrel (*Falco sparverius paulus*, ST), Florida sandhill crane (*Antigone canadensis pratensis*, ST), little blue heron (*Egretta caerulea*, ST), tricolored heron (*Egretta tricolor*, ST), roseate spoonbill (*Platalea ajaja*, ST), and Big Cypress fox squirrel (*Sciurus niger avicennia*, ST). Also evaluated were the bald eagle (*Haliaeetus leucocephalus*), which was delisted by state and federal agencies, but this species remains protected under state rule in Section 68A-16.002, F.A.C., and by the federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d); the osprey (*Pandion haliaetus*), which is protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712); and the Florida black bear (*Ursus americanus floridanus*), which is protected in Section 68A-4.009 F.A.C.

Comments and Recommendations

Due to the lack of both appropriate habitat and observation during on-site surveys, project biologists made a finding of "no effect" for the red-cockaded woodpecker and Florida grasshopper sparrow. For the other federally listed species and the gopher tortoise, the biologist's findings were "may affect, but is not likely to adversely affect". The other state-listed species were given a "no adverse effect anticipated" determination. With adherence to the project commitments, we agree with these determinations.

We support the project commitments for protected species, which include the following:

1. The FDOT will perform updated wildlife surveys for the species discussed in the NRE and other wildlife species during the project design phase to ascertain the involvement, if any, of listed/protected species.
2. The FDOT will coordinate further with the FWC during the project design phase for impacts associated with state-listed wildlife species.
3. A Section 7 Consultation with the USFWS will be completed during project design and permitting for the panther, scrub-jay, crested caracara, and wood stork. Appropriate mitigation will be completed for habitat impacts to these species.
4. A wildlife crossing will be constructed near the Owl Hammock curve, which has a high number of panther road kills.
5. The Standard Protection Measures for the Eastern Indigo Snake will be followed during construction.
6. For gopher tortoise burrows that cannot be avoided, the tortoises will be relocated per current FWC guidelines. For gopher tortoise survey methodology and permitting guidance, we recommend that FDOT refer to the FWC's Gopher Tortoise Permitting Guidelines (Revised January 2017) at (<http://www.myfwc.com/license/wildlife/gopher-tortoise-permits/>).

7. Should the Central Alternative #2 be selected for construction, FDOT will provide compensatory land acquisition to mitigate the loss of land within FWC's Immokalee Regional Airport Conservation Easement. As stated in the NRE Addendum, FWC has identified six priority parcels contiguous to the Platt Branch Wildlife and Environmental Area in Highlands County as preferred potential site options for mitigation.
8. The FDOT will resurvey the project limits for the presence of bald eagle nests prior to construction commencement. If a bald eagle nest is identified within the 660-foot construction buffer zone of the project area, the FDOT will coordinate with the FWS (as applicable) to secure all necessary approvals regarding this species prior to project construction.
9. The FDOT will resurvey the project limits for the presence of active osprey nests prior to construction commencement. If an active osprey nest is identified within the project area, the FDOT will coordinate with the FWC (as applicable) to secure all necessary approvals regarding this species prior to project construction.
10. The FDOT will follow the FDOT Supplemental Standard Specification 7-1.4.1 Additional Requirements for the Florida Black Bear to minimize human-bear interactions associated with construction sites during project construction.
11. Wetland impacts resulting from construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344. Compensatory mitigation for this project will be completed through the use of mitigation banks and any other mitigation options that satisfy state and federal requirements.
12. During the construction phase of this project, the FDOT will implement the Standard Specifications for Road and Bridge Construction and other best management practices to avoid, where possible, and otherwise minimize adverse impacts to wetlands and water quality within the project limits to the maximum extent practicable.

Thank you for the opportunity to review the NRE for the SR 29 from Oil Well Road to SR 82 project in Collier County. If you need further assistance, please do not hesitate to contact our office by email at FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions regarding the content of this letter, contact Brian Barnett at (772) 579-9746 or email brian.barnett@MyFWC.com.

Sincerely,



Jennifer D. Goff, Director
Office of Conservation Planning Services