SELMON EXPRESSWAY

South Selmon PD&E Study

Preliminary Engineering Report

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

South Selmon Expressway (SR 618) from Himes Avenue to Whiting Street

Project Development and Environment (PD&E) Study
Hillsborough County, Florida
Tampa Hillsborough Expressway Authority Number: HI-0112
Efficient Transportation Decision Making (ETDM) Number: N/A

SELMON EXPRESSWAY

South Selmon PD&E Study

Professional Engineer Certification

Preliminary Engineering Report

Project: Selmon Expressway (S.R. 618) Project Development and Environment Study

THEA Project No: HI-0112

Study Limits: From End of Existing Six-lane Section at the Selmon Expressway West Extension Project to the Beginning of the Six-lane Section Near Whiting Street

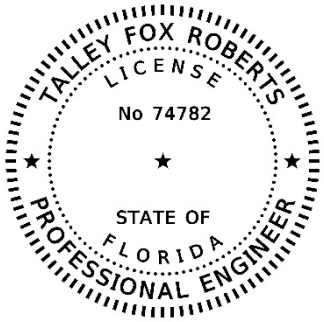
Date: June 2021

This preliminary engineering report contains engineering information that fulfills the purpose and need for the Selmon Expressway (S.R. 618) Project Development and Environment Study from the end of existing six-lane section at the Selmon Expressway West Extension Project to the beginning of the six-lane section near Whiting Street in Hillsborough 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 professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with HDR Engineering, Inc. and that I have prepared or approved the evaluation, findings, opinions, conclusions or technical advice for this project.

Talley Fox Roberts

June 8th, 2021



This item has been digitally signed and sealed by Talley Fox Roberts, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
APE	Area of Potential Effects
BEBR	Bureau of Economic and Business Research
BIR	Bridge Inspection Report
BMP	Best Management Practices
CDMS	Crash Data Management System
CR	County Road
CRF	Crash Reduction Factor
DDHV	Directional Design Hourly Volumes
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FDM	Florida Design Manual
FHWA	Federal Highway Administration
FTO	Florida Traffic Online
HSM	Highway Safety Manual
ITS	Intelligent Transportation Systems
LFR	Load Factor Rating
LOS	Level of Service
MOE	Measure of Effectiveness
MOT	Maintenance of Traffic
MPH	Miles per Hour
NBI	National Bridge Institute
NAVD	North American Vertical Datum
NGVD	National Geodetic Vertical Datum

NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PD&E	Project Development and Environment
PTAR	Project Traffic Analysis Report
SDG	Structures Design Guidelines
SIS	Strategic Intermodal System
SR	State Road
SMF	Stormwater Management Facilities
THEA	Tampa Hillsborough Expressway Authority
TBRPM	Tampa Bay Regional Planning Model
TSM&O	Transportation Systems Management and Operations
UAO	Utility Agency Owner
USFWS	United States Fish and Wildlife Service
USACE	Unites States Army Corps of Engineers
USGS	U.S. Geological Survey
v/c	Volume to Capacity

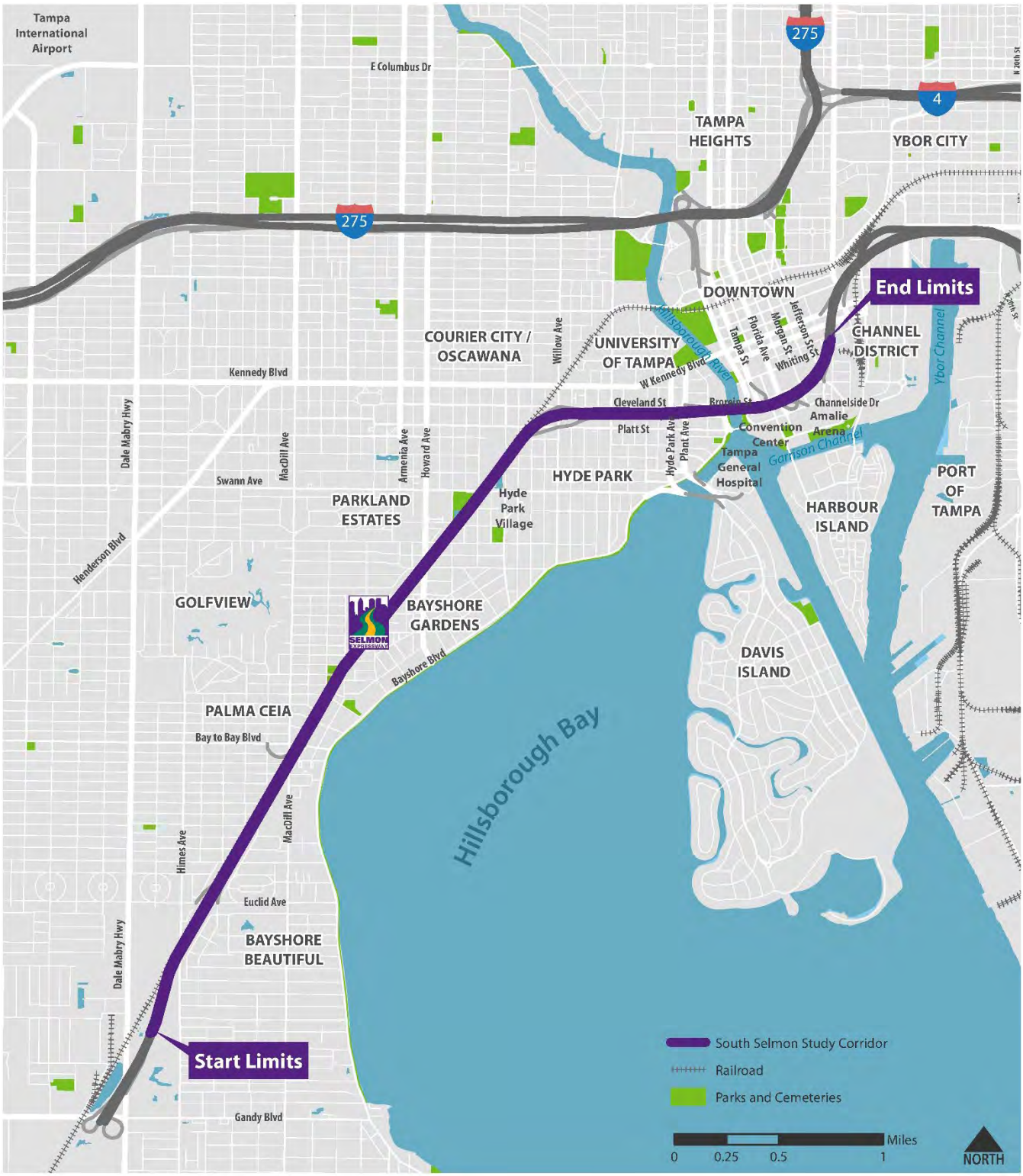
1.0 Project Summary

1.1. Project Description

The Tampa Hillsborough Expressway Authority (THEA) conducted a Project Development and Environment (PD&E) Study to evaluate capacity improvements along Selmon Expressway [State Road (SR) 618] in Hillsborough County, Florida (see Straight Line Diagram provided in **Appendix A**). The project limits extend from Himes Avenue to the beginning of the six-lane section near Whiting Street, approximately 4.5 miles, as shown in **Figure 1**. Capacity improvements evaluated included widening inside to the median, adding inside paved shoulders, and adding lanes by widening to the outside or constructing elevated lanes along the median. The ability of technology to improve efficiency and capacity was also evaluated. The improvements would be accommodated within existing right-of-way.

The Selmon Expressway is a limited access, tolled facility providing east-west connectivity from Interstate 75 (I-75) to downtown Tampa and United States Highway 92 (US 92). The Selmon Expressway within the project limits currently consists of two 12-foot-wide travel lanes in each direction separated by a 38-foot paved median with a concrete barrier wall. The outside shoulders are eight feet wide and contain either shoulder gutter with guardrail or shoulder gutter with barrier wall. The facility is elevated through downtown Tampa and includes structures over the Hillsborough River and multiple local roadways.

Figure 1: Project Location



1.2. Purpose and Need

The primary purposes of the South Selmon PD&E Study were to reduce congestion and improve safety along the corridor. Bottlenecks occur regularly at on- and off- ramp locations even though the existing capacity of the mainline currently meets demand, and there is a high frequency of crashes within the project limits. An additional goal of this study was how to address transportation demand, which is expected to increase and contribute to congestion and safety issues and do so within existing THEA right-of-way.

The on- and off- ramps experience frequent bottlenecks backing up onto the mainline due to deficient acceleration/deceleration lanes. Successive on-ramps, as well as off-ramps that split into multiple lanes, contribute to congestion, and add safety conflict points. Successive on-ramps include Morgan Street and Tampa Street. Off-ramps that split into multiple lanes past the exit include Brorein Street, Channelside Drive/Florida Avenue, Plant Avenue, Willow Avenue, and Bay-to-Bay Boulevard. Additionally, periodic off-ramp closures at the downtown exits create bottlenecks.

Over the five-year period from 2013 to 2017, a total of 237 crashes occurred on the Selmon Expressway mainline or its ramps. The merge and weave areas on Selmon Expressway create safety conflict points. In addition to crashes on the Selmon Expressway, several intersection points at the on- and off- ramps experience frequent crashes that can cause backups onto the mainline. High-crash locations include the eastbound off- ramp to Channelside Drive and Morgan Street and the eastbound and westbound off-ramps to Willow Avenue (*THEA: Arterial Safety Analysis March 2019*).

While the existing capacity meets current demand, future transportation demand is expected to exceed the existing capacity and increase the existing congestion and safety issues. Traffic along this portion of the Selmon Expressway has nearly doubled in the last 10 years (*THEA: 2017 Traffic and Revenue Report*). The existing Level of Service (LOS) is C from the eastern project limit to Willow Avenue and it is projected to fail by 2033. The existing LOS is D from Willow Avenue to Whiting Street (northern project limit), and it is projected to fail by 2025. The University of Florida Bureau of Economic and Business Research (BEBR) estimates the 2019 population of Hillsborough County (County) at 1.47 million and the medium 2045 projection for population growth at 1.96 million, an increase of 33 percent.

This facility is vital to accommodating the economic and social demands of the region as population and employment opportunities in the region grow. The Selmon Expressway provides regional connectivity between several densely populated areas and regional attractors, including Pinellas County and St. Petersburg via the Gandy Boulevard Bridge, MacDill Air Force Base, Downtown Tampa, Port Tampa Bay, and Brandon. It also serves as an Alternative to Interstate 4 (I-4), I-75, and Interstate 275 (I-275) during road closures and is a critical corridor for hurricane evacuations.

1.3. Related Projects

Related projects are described in the following sections and shown in **Figure 2**.

1.3.1. South Selmon Safety Project

The South Selmon Safety Project was completed in the fall of 2020. The project included constructing a concrete barrier wall in the median of the Selmon Expressway between Himes Avenue and the Hillsborough River. In addition to the barrier wall, the existing grassed median was paved in order to provide wide inside shoulders as a safe location for vehicles to pull over.

1.3.2. Selmon Extension

The Selmon Extension is a planned 1.9-mile toll lane located in the median of Gandy Boulevard, which will allow a choice for local residents and regional travelers: use Gandy Boulevard for local destinations or use the Selmon Extension for a direct connection to the Selmon Expressway or the Gandy Bridge. The project is currently under construction and scheduled for completion in Spring 2021.

1.3.3. Whiting PD&E Study

THEA is conducting a Project Development and Environment (PD&E) Study to evaluate the needs, costs, and effects of extending Whiting Street and Washington Street and reconfiguring the eastbound on-ramp of the Selmon Expressway at Jefferson Street and eastbound off-ramp at Florida Avenue and Channelside Drive. The study will consider extending Whiting Street and Washington Street to Meridian Avenue and include improvements to and re-alignment of the existing segment of Whiting Street from Jefferson Street to North Brush Street. The extension will provide a direct connection of Whiting Street to Meridian Avenue to improve traffic flow and safety for all transportation modes, increase capacity on the adjacent street network, and offer additional connections within the street network. The Whiting Street PD&E will be conducted in close coordination with the South Selmon PD&E and Selmon East PD&E to study capacity needs along the entire Selmon Expressway.

1.3.4. East Selmon PD&E Study

THEA is conducting a PD&E Study to evaluate capacity improvements along the eastern section of Selmon Expressway. The East Selmon PD&E Study limits extend approximately 10 miles from Brorein Street in downtown Tampa to I-75 near Brandon. Roadway and ramp improvements will be evaluated to address safety, efficiency, and capacity needs of the Selmon Expressway general lanes and reversible express lanes through the year 2045.

To increase utilization of the Reversible Elevated Lanes (REL) while alleviating the congestion of the Local Lanes during the AM peak period, two slip ramps associated with Phase 1 of the East Selmon PD&E Study were accelerated for Design Build procurement. The project will facilitate westbound traffic on the expressway system with a slip ramp ingress to the reversible express lanes at I-75 and a slip ramp egress from the reversible express lanes to the local lanes in the I-4 Connector area. The improvements will be within existing right-of-way.

Figure 2: Related Projects

1.4. Commitments

1.4.1. Cultural Resources

- During construction for the project within the Fort Brooke site (8HI00013), ground disturbance that goes beyond the depth of one meter (3.3 ft) shall be monitored by a qualified archaeologist.
- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project area, construction activities involving subsurface disturbance in the vicinity of the discovery will cease. The Florida Department of State, Division of Historical Resources, Compliance Review Section will be contacted. The subsurface construction activities will not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during construction activities, all work will stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

1.4.2. Natural Resources

To protect listed wildlife, wildlife habitat, plants, wetlands, and other surface waters, THEA will abide by standard resource protection measures in addition to the following commitments:

- THEA will require the construction contractor to adhere to the most current National Marine Fisheries Service's (NMFS) Construction Special Provisions - Gulf Sturgeon Protection Guidelines for the protection of the Gulf Sturgeon.
- THEA will require that the construction contractor to adhere to the most current NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions during project construction.
- THEA will implement the U.S. Army Corps of Engineers (USACE) Standard Manatee Conditions for In-Water Work (most current version). These guidelines will be incorporated as part of the final project design. Additional special conditions for manatees will be addressed during construction and include the following:
  - Barges will be equipped with fender systems that provide a minimum standoff distance of four feet between wharves, bulkheads and vessels moored together to prevent crushing manatees. Existing slow speed or no wake zones will apply to work boats and barges associated with construction; and
  - The spacing between the bridge pilings will be at least 60 inches to allow for manatee movement in between the pilings. If a minimum of 60-inch spacing is not provided between piles, further coordination will be conducted with the U.S. Fish and Wildlife Service (USFWS).
  - Any culverts larger than eight inches and less than eight feet in diameter will be grated to prevent manatee entrapment.

- THEA will implement a Marine Wildlife Watch Plan for the West Indian/Florida manatee during project construction to eliminate the possibility of construction-related manatee injury or death. These guidelines will be incorporated into the final project design.
- THEA will coordinate with the NMFS, USFWS, and/or USACE regarding potential impacts associated with pile driving activities needed for bridge construction over the Hillsborough River.
  - The size/style of piles, quantity of piles, number of piles driven per day, number of strikes per pile, and other information needed to determine potential hydroacoustic impacts to marine wildlife is currently unknown.
  - THEA will inform the construction contractor of the requirement to use a ramp-up procedure during the installation of piles. This procedure allows for a gradual increase in noise level to give sensitive species ample time to flee prior to initiation of full noise levels. This approach can reduce the likelihood of secondary or sub-lethal effects from sound impulses associated with pile driving.
  - No nighttime in-water work will be performed. In-water work will be conducted from official sunrise until official sunset times.

1.4.3. Highway Traffic Noise

Based on the traffic noise analysis, few locations along the proposed project improvements for both Alternative 2 and 6 met the federal and state criteria for noise walls. However, for the preferred alternative (Alternative 6), THEA has committed to building walls the entire length of the project on both sides of the roadway.

1.4.4. Contamination

- For those locations with a risk ranking of MEDIUM and HIGH, Level II field screening should be considered during future project implementation phases.
- Additional information may become available or site-specific conditions may change from the time the CSER was prepared and should be considered prior to proceeding with roadway construction.

1.5. Description of the Preferred Alternative

Based on the public input received at the Alternatives Update Virtual Meeting and the results of the alternatives analysis, THEA has identified Alternative 6 as the Preferred Alternative. Alternative 6 was selected as the Preferred Alternative because it is the most cost feasible in the short-term; adds needed capacity and addresses traffic congestion well into the future; focuses near-term construction to the outside and minimizes future reconstruction; and provides walls for the full length of the project on both sides of the roadway.

In the interim phase, the Preferred Alternative provides for a 6-lane section by widening to the outside and therefore does not require inside bridge widening at all overpass locations. Alternative 6 in the ultimate phase would be able to accommodate a future 8 lane section without outside widening. The roadway typical section in the interim phase for Alternative 6 consists of three 12-foot lanes in each direction with 18-foot inside shoulders and five-foot outside shoulders.

2.0 Existing Conditions

2.1. Existing Roadway Conditions

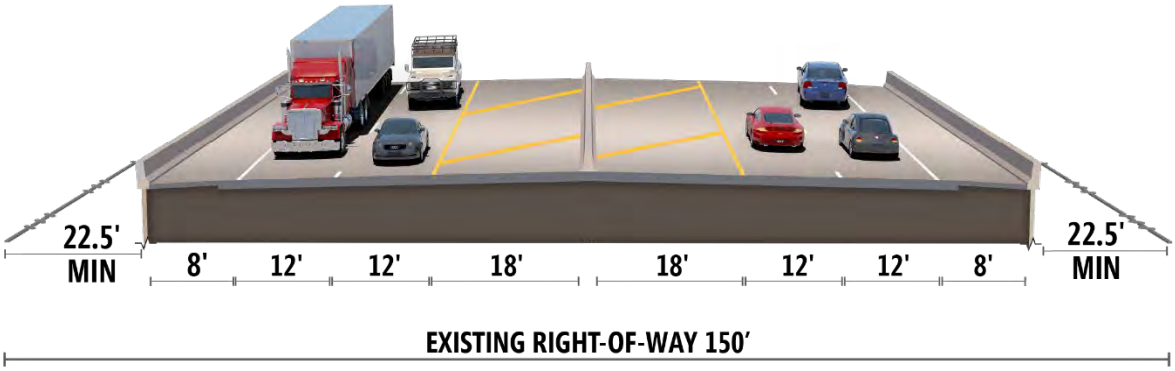
2.1.1. Roadway Classification

Selmon Expressway, also known as SR 618, is a limited access facility and is functionally classified as an Urban Principal Arterial Expressway. The roadway is part of the Strategic Intermodal System (SIS) and is a hurricane/emergency evacuation route. Since the roadway is a limited access facility, Context Classification does not apply.

2.1.2. Typical Section

The existing typical section of the Selmon Expressway consists of two 12-foot-wide travel lanes in each direction separated by a 38-foot paved median with a concrete barrier wall. The inside shoulders are 18 feet wide which is a recent improvement from the South Selmon Safety Project (See Section 1.3.1). The outside shoulders are eight feet wide and contain either shoulder gutter with guardrail or shoulder gutter with barrier wall on the outside. **Figure 3** shows the existing typical section.

Figure 3: Existing Typical Section



2.1.3. Right-of-Way

The limited access right-of-way is typically 150 feet wide but varies at multiple locations within the project limits as shown in **Table 1**. The existing right-of-way is also graphically depicted on the Alternative Concept Roll Plots found in **Appendix B.**

Table 1: Existing Right-of-way

Limits	Right-of-Way Width	Remarks
Begin Study to Himes Ave.	244'-279'	
Himes Ave. to Euclid Ave.	150'	

Limits	Right-of-Way Width	Remarks
Euclid Ave. to El Prado Blvd.	150′-275′	Includes ramps to Euclid Ave. EB on ramp
El Prado Blvd. to MacDill Ave.	150′	
MacDill Ave. to Bay to Bay Blvd.	150′-240′	Includes Bay to Bay Blvd. EB on ramp
Bay to Bay Blvd. to Mississippi Ave.	150′	
East of Mississippi Ave.	150′-190′	
East of Mississippi Ave. to South of Platt St.	150′	
South of Platt St. to S. Boulevard	150′-615′	Willow interchange
S. Boulevard to Bayshore Blvd.	175′-333′	
Bayshore Blvd. to End Study	153′-480′	Includes downtown ramps

Source: "Selmon_RW_Master" microstation file.

2.1.4. Pavement Type and Condition

The Selmon Expressway corridor in this area is classified as FC5M, or friction course 5, which is asphaltic concrete. Pavement condition is measured on a scale of Good to Fair to Poor based on an annual survey of the state highway system to measure the presence of cracks and ruts on the roadway as well as overall ride quality. According to the Flexible Pavement Design Manual Table 7.1, a "Good" rating means no cracking, a "Fair" rating has cracks rated 8 or higher, and a "Poor" rating is for a 7 or less. As the Selmon Expressway in the project limits was milled and resurfaced in 2020-2021, the pavement condition is Good.

2.1.5. Design and Posted Speed Limit

Within the project limits, the Selmon Expressway has a posted speed of 55 mph, except for the segment west of Himes Avenue which has a posted speed of 45 mph. The recently constructed South Selmon Safety Project used a design speed of 50 mph. A design speed of 50 mph does not meet the 2021 FDOT Design Manual (FDM) Table 201.5.1 design speed for SIS facilities. A Design Variation is required to maintain the 50 mph design speed on the mainline of Selmon Expressway (SR 681).

2.1.6. Horizontal and Vertical Alignments

Horizontal Alignment

Existing horizontal alignment data was obtained from the surveyed alignment used in the South Selmon Safety Project design plans. The existing horizontal curve information From Himes Avenue to the Hillsborough River is provided in **Table 2**. East of the Hillsborough River, the horizontal alignment contains spiral and curve combinations as summarized in **Table 3**.

Table 2: Mainline Horizontal Curves (from Himes Avenue to the Hillsborough River)

Curve	Location	PC Sta.	PT Sta.	Curve Direction	Curve Length (feet)	Curve Radius (feet)
C4	West of Himes Ave.	89+18.86	98+72.12	Right	953.26	3,819.72
C3	West of Mississippi Ave.	179+55.89	183+88.91	Right	433.03	2,839.93
C2	Swann Ave.	233+70.72	239+73.44	Left	602.71	11,484.19
C1_2	Platt St. and Willow Ave.	497+56.87	511+36.68	Right	1,379.81	1,432.39
C19	West of Hyde Park Ave.	527+06.25	536+08.81	Left	902.56	11,459.16

Abbreviations: PC – Point of Curve, PT – Point of Tangent

Table 3: Mainline Horizontal Spirals and Curves (East of the Hillsborough River)

Spiral or Curve ID	Location	Begin Sta.	End Sta.	Spiral or Curve Direction	Spiral or Curve Length (feet)	Curve Radius (feet)	Spiral Degree
Spiral SC 1B	Tampa St.	555+20.96 (TS)	559+70.96 (SC)	Left	450	N/A	3
Curve SC_1	Franklin St.	559+70.96 (PC)	562+60.74 (PT)	Left	289.78	1909.86	N/A
Spiral SC 1B	Florida Ave.	562+60.74 (CS)	567+10.74 (ST)	Left	450	N/A	3
Curve C11_C1	Morgan St. to Whiting St.	567+65.36 (PC)	586+30.79 (PT)	Left	1,865.43	1,762.85	N/A

Abbreviations: PC – Point of Curve, PT – Point of Tangent, TS – Tangent to Spiral, SC – Spiral to Curve, CS – Curve to Spiral, ST – Spiral to Tangent

The FDOT Design Manual (FDM) Table 211.7.1 states that for a 50 mph design speed, the minimum length of a horizontal curve is 750 feet with a desired 1,500 feet. Out of the curves identified, it was found that curves C3 and C2 have a horizontal curve length that is less than 750 feet and will require a design variation. The length for Curve SC_1 was added to the lengths of the spirals adjacent to that curve for an overall length of 1190' which meets the minimum curve length requirement. FDM Table 210.8.2 requires a minimum curve radius of 694'; all mainline horizontal curves within the project limits meet the requirement for minimum curve radius.

Surveyed alignments were not provided for the ramps within the project limits. The horizontal curvature of the ramps was estimated using the surveyed topo along the outside edge of pavement and is summarized in **Table 4** below.

Table 4: Ramp Horizontal Curves

Location	Curve Length (feet)	Curve Radius (feet)
Euclid Ave. EB on ramp	255	1250
Euclid Ave WB off ramp gore	156	2035
Euclid Ave. WB off ramp over CSX	245	590
Bay to Bay EB on ramp	229	2450
Bay to Bay WB off ramp	664	350
Willow EB off ramp	259	400
Willow WB on ramp	194	590
Willow EB on ramp	591	1320
Willow WB off ramp	190	1150
Plant EB on ramp	194	2500
Plant WB off ramp	204	1210
Tampa WB on ramp	235	153
Florida EB off ramp	572	200/100/200
Morgan WB on ramp	567	1800
Brorein WB off ramp	430	1704
Jefferson EB on ramp	363	1500

FDM Table 211.7.1 states that ramps with a design speed of 35 mph require a minimum horizontal curve length of 400 feet with a desired length of 525 feet. As shown in Table 4, only the Bay to Bay WB off ramp, the Willow EB on ramp, the Florida EB off ramp, the Morgan WB on ramp and the Brorein WB off ramp meet the curve length requirement.

Vertical Alignment

The existing vertical alignment of Selmon Expressway was obtained from the South Selmon Safety Project design plans and the original as-built plans. Vertical curve data is presented in **Table 5.**

Table 5: Vertical Curves (West to East)

Curve	Location	Curve Length (feet)	K Value	Grade In	Grade Out	Type
1	W. of Himes St	400	143	+0.2%	+2.9878%	Sag
2	Himes St	600	100	+2.9878%	-3.0%	Crest
3	E. of Himes St	500	83	-3.0%	+3.0%	Sag
4	Euclid Ave	400	152	+3.0%	+0.36%	Crest
5	MacDill Ave	600	100	+3.0%	-3.0%	Crest
6	N. of Bay to Bay Blvd	500	156	-3.0%	+0.1999%	Sag
7	S. of Mississippi Ave	300	107	+0.1999%	+3.0%	Sag
8	Mississippi Ave	600	100	+3.0%	-3.0%	Crest
9	N. of Mississippi Ave	500	83	-3.0%	+3.0%	Sag
10	Watrous Ave	500	182	+3.0%	+0.25%	Crest
11	Morrison Ave	400	186	+0.25%	+2.4%	Crest
12	S. of Swann Ave	500	833	+2.4%	+3.0%	Sag
13	Swann Ave	550	92	+3.0%	-3.0%	Crest
14	Platt Ave	600	214	+2.155%	-0.649%	Crest
15	Willow Ave	400	263	-0.649%	-2.1686%	Crest
16	E. of South Blvd	500	97	-2.1686%	3.0%	Sag
17	South Blvd	600	100	+3.0%	-3.0%	Crest
18	N. of South Blvd	290	94	-3.0%	+2.787%	Sag
19	E. of Hyde Park Ave	500	150	+2.787%	-0.550%	Crest
20	N. of Plant Ave	500	196	-0.550%	+2.0%	Sag

FDOT criteria for a limited access expressway with a design speed of 50 mph requires the following with regards to vertical curves:

- Maximum grade of 4%
- Minimum vertical curve length of 800 feet for a sag, 1,000 feet for a crest (open highway), and 1,800 feet for a crest (within interchange)
- K value of 136 for crest curves and 96 for sag curves

American Association of State Highway and Transportation Officials (AASHTO) criteria for an urban freeway with level terrain and a design speed of 50 mph requires the following with regards to vertical curves:

- Maximum grade of 4%.
- K value of 84 for crest curves and 96 for sag curves

All vertical curves meet the FDOT and AASHTO maximum grade requirements. None of the vertical curves meet FDOT minimum length requirements. Curves 2, 5, 8, 13, 17 do not meet FDOT K value requirements for crest vertical curves. Curves 3, 9, and 18, do not meet either FDOT or AASHTO K value requirements. Design variations and exceptions will be required as appropriate for the vertical profile to remain.

2.1.7. Multi-modal Facilities

Multi-modal facilities considered include pedestrian accommodations, bicycle facilities, transit services, and freight and intermodal logistic centers.

The Selmon Expressway is a limited access facility and therefore does not provide any pedestrian or bicycle accommodations.

There are several public transit routes along the Selmon Expressway within the project limits as detailed in **Table 6** and **Figure 4**. The Britton Plaza Transfer Center is located near the southern project limit at 3944 South Dale Mabry Highway. The Marion Transit Center is located downtown at 1211 North Marion Street not far from the northern project limit.

Table 6: Transit Routes

Operator	Route	Description	Selmon Expressway Interchanges Used
PSTA	100X	Pinellas County to Downtown Tampa Express Route	Euclid Avenue, S. Morgan Street
HART	20X	Pasco/Lutz Express	S. Morgan Street, S. Tampa Street, Gandy Boulevard
HART	24LX	FishHawk/South Tampa Limited Express	S. Morgan Street, S. Tampa Street, Gandy Boulevard
HART	25LX	Bloomingdale/South Tampa Limited Express	S. Morgan Street, S. Tampa Street, Gandy Boulevard
HART	360LX	Brandon/South Tampa Limited Express	S. Morgan Street, S. Tampa Street, Bay to Bay Boulevard

PSTA = Pinellas Suncoast Transit Authority
HART = Hillsborough Area Regional Transit Authority

Figure 4: Multi-Modal Facilities in the Project Limits

The Selmon Expressway serves major intermodal logistic centers in the Tampa area as shown in **Figure 4**. The Selmon Expressway is part of FDOT's SIS which handles the bulk of Florida's passenger and freight traffic. The Selmon Expressway is a primary trade corridor for trucks and connects the Tampa Bay region with the rest of Florida as well as the United States. It serves the Port of Tampa Bay which is located south of downtown Tampa. The Port of Tampa Bay handles the largest amount of tonnage in the state of Florida.

CSX operates an active rail line running parallel to the Selmon Expressway. This rail line runs southwest to service Port Tampa and includes a spur that services several shipyards north of Port Tampa. The Selmon Expressway does not cross the railroad within the project area; however, cross street railroad crossings are discussed in Section 2.1.12. East of the project area near the Selmon Expressway and US 41 interchange, CSX operates an intermodal logistics yard, which is surrounded by other distribution centers. It should be noted that the spur line adjacent to Whiting Street and Ardent Mills will be removed as part of the Whiting Street Extension.

2.1.8. Access Classification, Interchanges and Intersections

The Selmon Expressway has an Access Classification of 1 and an Area Type 1 which represents a Central Business District (CBD) and CBD fringe for cities in urbanized areas. Access Management standards require an interchange spacing of 1 mile for Access Class 1 Area Type 1 facilities. Within the project limits, there are eight arterial roadways with access to or from Selmon Expressway as summarized in **Table 7**. The spacing between the access points at the interchanges is noted in **Table 8**, with only the segment between Bay to Bay Boulevard and Willow Avenue meeting the interchange spacing requirements of an Access Class 1, Area Type 1 facility.

Table 7: Interchanges

Interchange	Milepost of Crossroad	Interchange Type	Description
Euclid Avenue	1.245	Partial Diamond	Provides eastbound ingress and westbound egress (exit 2)
Bay to Bay Boulevard	2.121	Trumpet	Provides eastbound ingress and westbound egress (exit 3)
Willow Avenue	4.140	Diamond	Provides eastbound and westbound ingress and egress (exit 4)
Plant Avenue	4.747	Partial Diamond	Provides eastbound ingress and westbound egress (exit 5)
Tampa Street	5.109	Partial Trumpet	Provides westbound ingress only
Florida Avenue	5.218	Partial Cloverleaf Interchange	Provides eastbound egress (exit 6a)

Interchange	Milepost of Crossroad	Interchange Type	Description
Morgan Street (Downtown Tampa)	5.332	Direct Connect	Provides eastbound egress and westbound ingress and egress (exit 6b and 7)
North Jefferson Street	5.456	Partial Diamond	Provides eastbound ingress only

Source: FDOT Straight Line Diagram

Table 8: Interchange Ramp Spacing

Ramp	Direction	Ingress or Egress	Milepost of Ramp	Spacing to Downstream Ramp (mi)
Euclid Avenue	Eastbound	Ingress	1.379	0.844
Bay to Bay Boulevard	Eastbound	Ingress	2.223	1.729
Willow Avenue	Eastbound	Egress	3.952	0.353
Willow Avenue	Eastbound	Ingress	4.305	0.546
Plant Avenue	Eastbound	Ingress	4.851	0.391
Morgan Street (Downtown Tampa)	Eastbound	Egress	5.242	0.331
North Jefferson Street	Eastbound	Ingress	5.573	-
Euclid Avenue	Westbound	Egress	1.441	0.624
Bay to Bay Boulevard	Westbound	Egress	2.065	1.937
Willow Avenue	Westbound	Ingress	4.002	0.303
Willow Avenue	Westbound	Egress	4.305	0.560
Plant Avenue	Westbound	Egress	4.865	0.259
Tampa Street	Westbound	Ingress	5.124	0.102
Morgan Street (Downtown Tampa)	Westbound	Ingress	5.226	0.302
Morgan Street (Downtown Tampa)	Westbound	Ingress	5.528	-

Source: FDOT Straight Line Diagram

There are a total of 25 intersections within the study area. The intersection types and geometries are shown in **Figure 5**.

Figure 5: Existing Year (2019) Lane Geometry

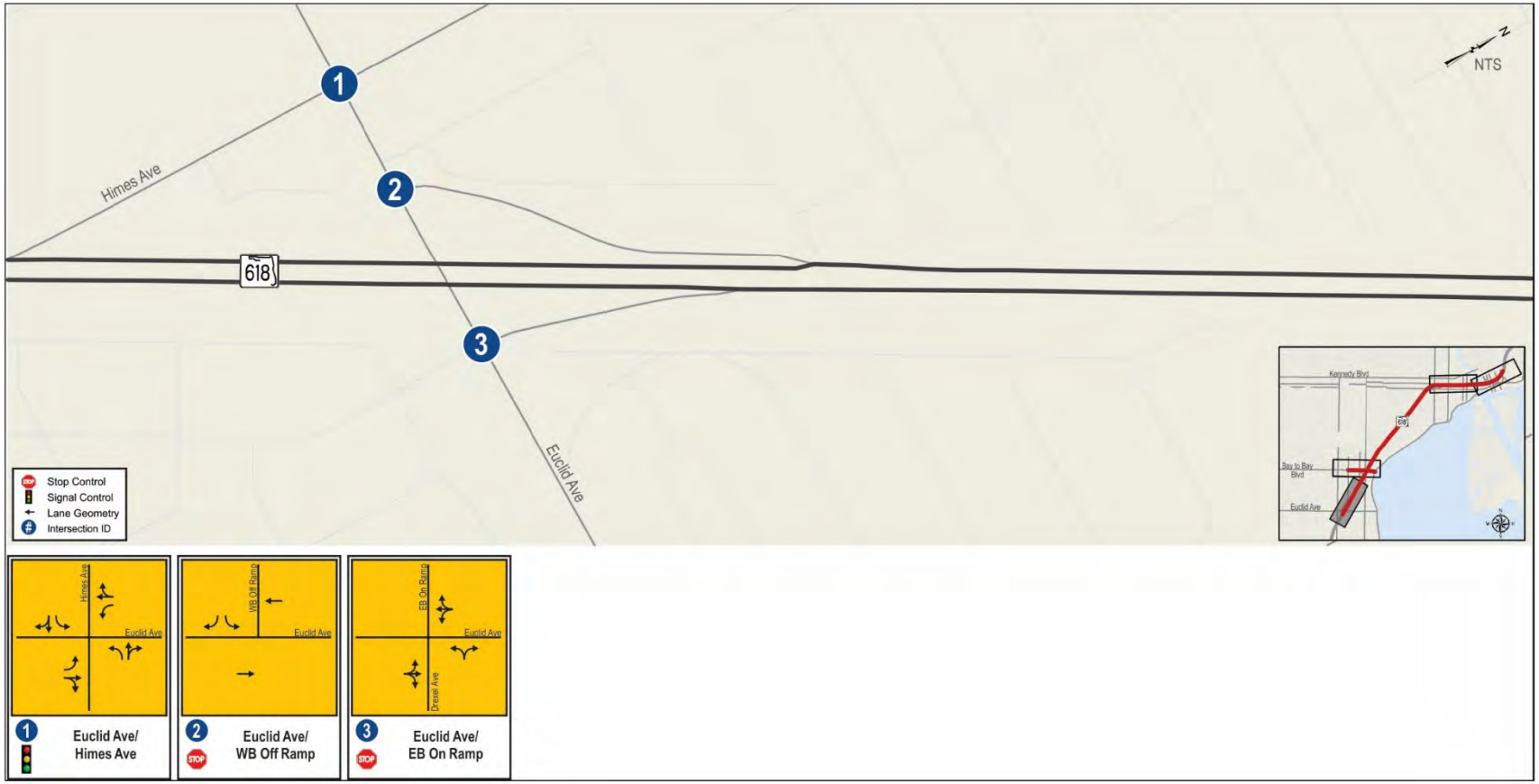


Figure 5: Existing Year (2019) Lane Geometry Continued

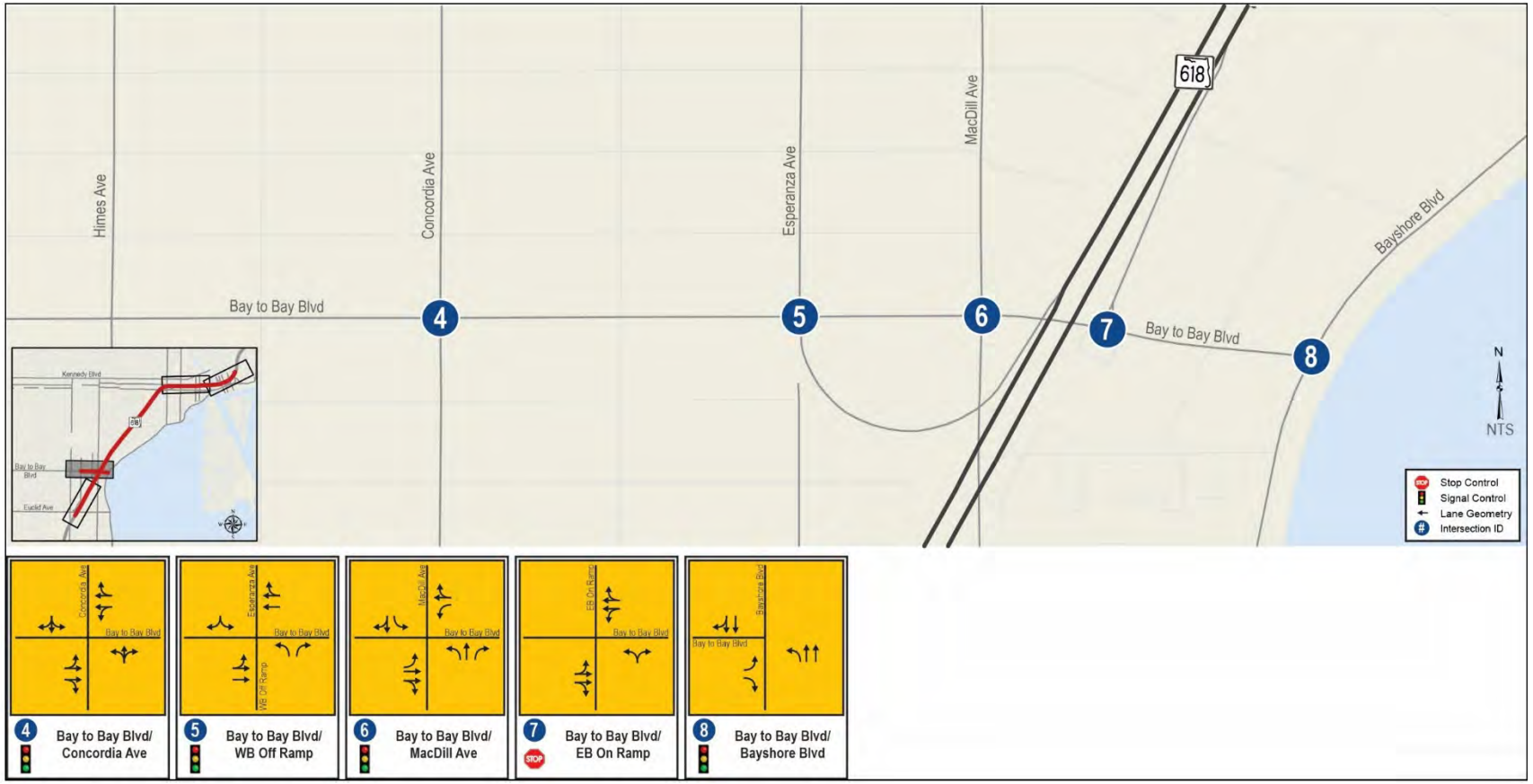


Figure 5: Existing Year (2019) Lane Geometry Continued

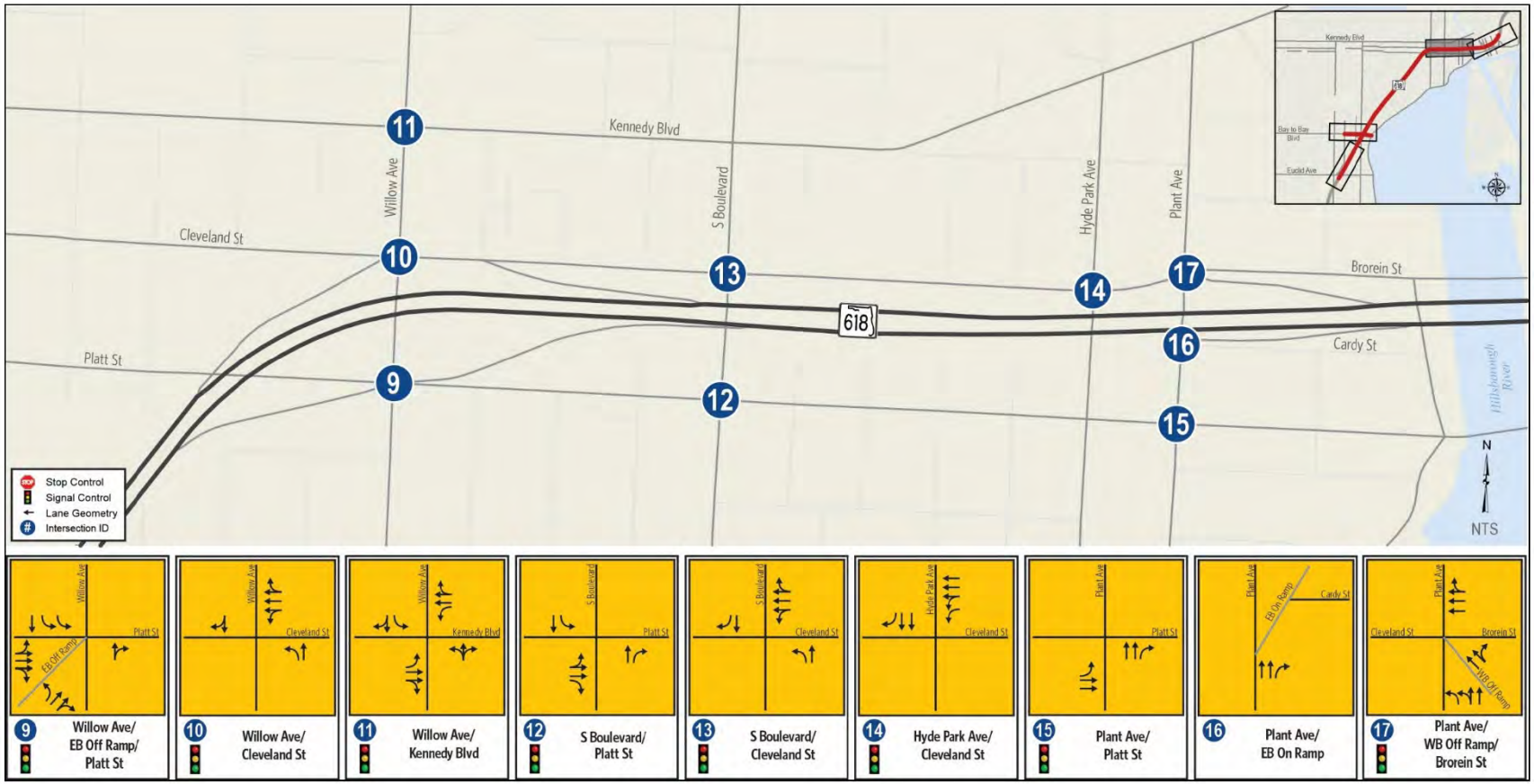
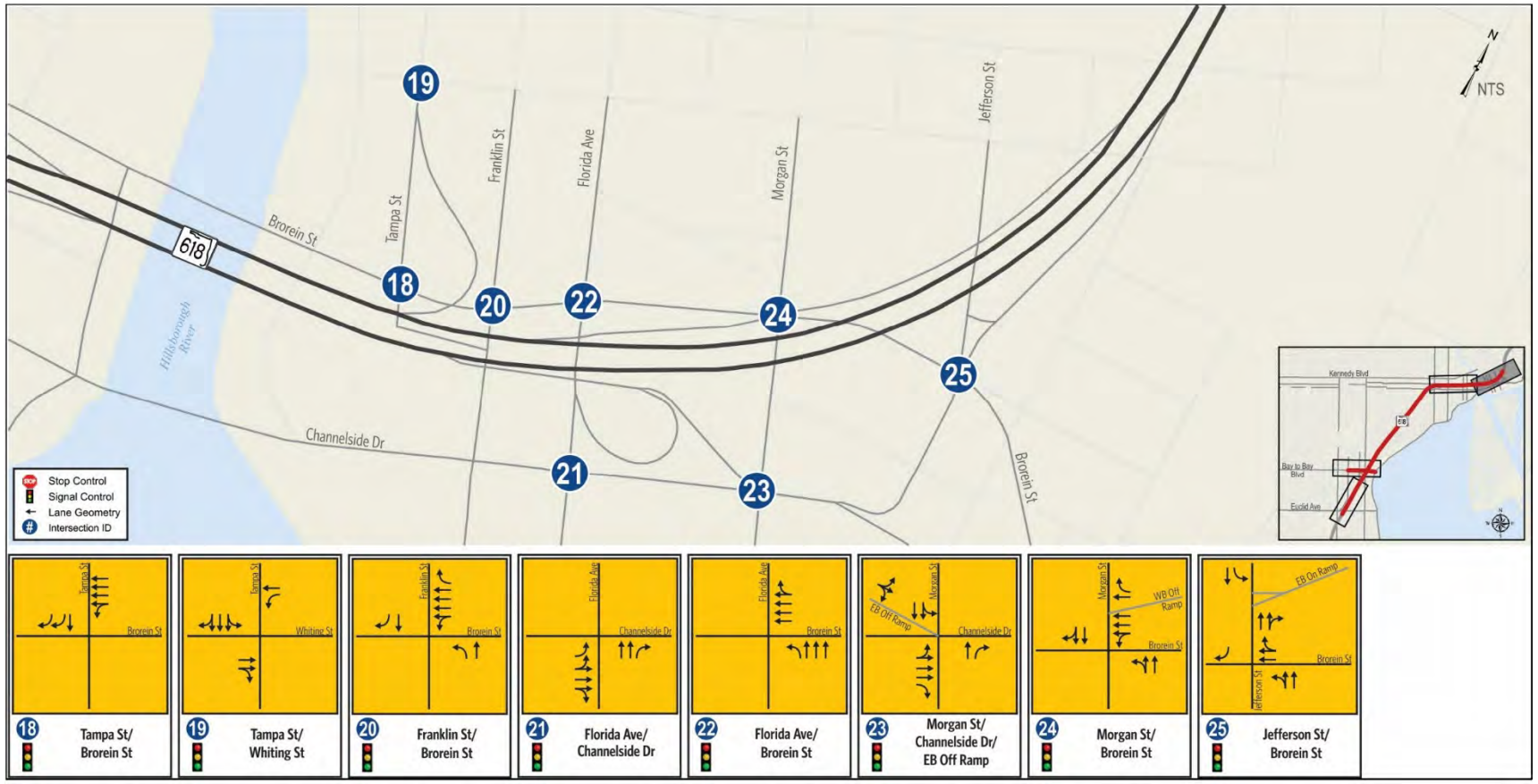


Figure 5: Existing Year (2019) Lane Geometry Continued



2.1.9. Traffic Data

A *Project Traffic Analysis Report* (PTAR) was prepared for this project. Data collection included traffic counts collected in May of 2019, streetlight data (for determining origin-destination patterns), and FDOT 2018 Florida Traffic Online (FTO) data. The data was used to determine the existing year (2019) annual average daily traffic (AADT) volumes for the mainline and ramps, which are shown in **Figure 6**.

The AM and PM global peak hours were determined to occur from 7:30 AM to 8:30 AM and 4:45 PM to 5:45 PM, respectively, using 48-hour approach counts. The peak direction of flow in the AM peak period was determined to be eastbound west of Willow Avenue and westbound east of Willow Avenue, and conversely in the PM peak period. **Figure 7** shows the existing year (2019) directional design hourly volumes (DDHV) and peak-hour turning movement counts for both the AM and PM peak periods.

For additional existing traffic information, refer to the PTAR.

Figure 6: Existing Year (2019) AADT

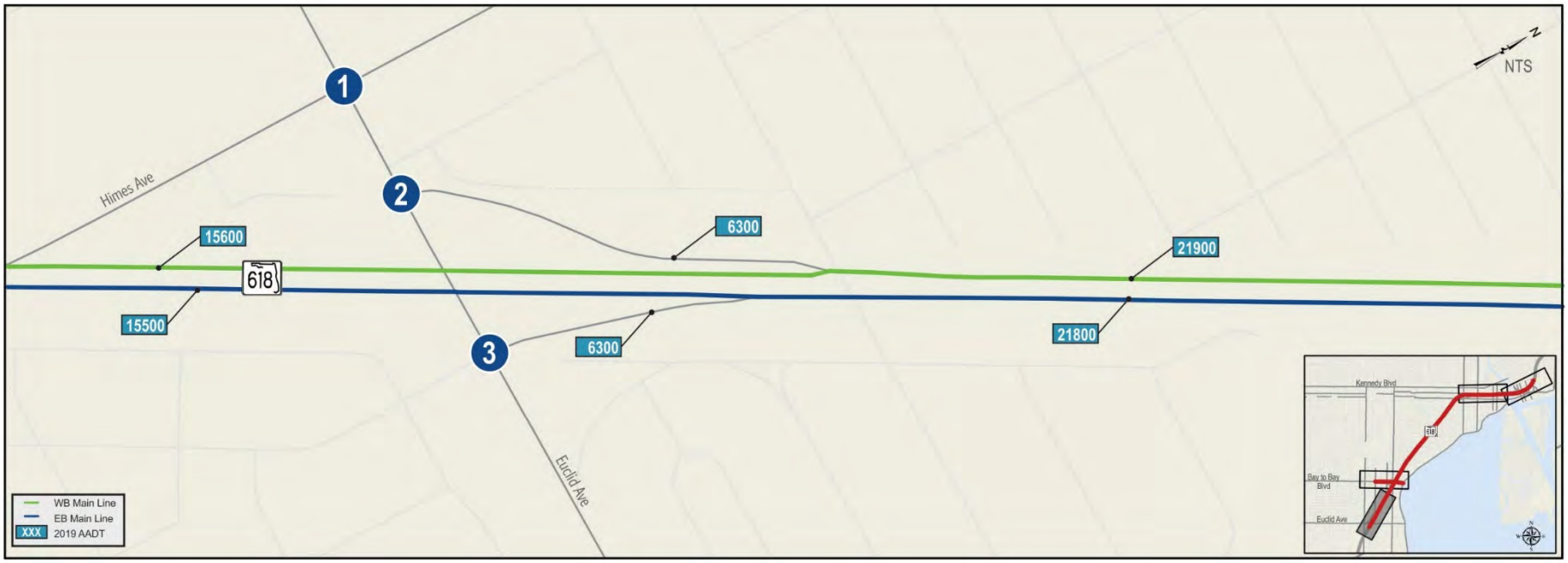


Figure 6: Existing Year (2019) AADT Continued

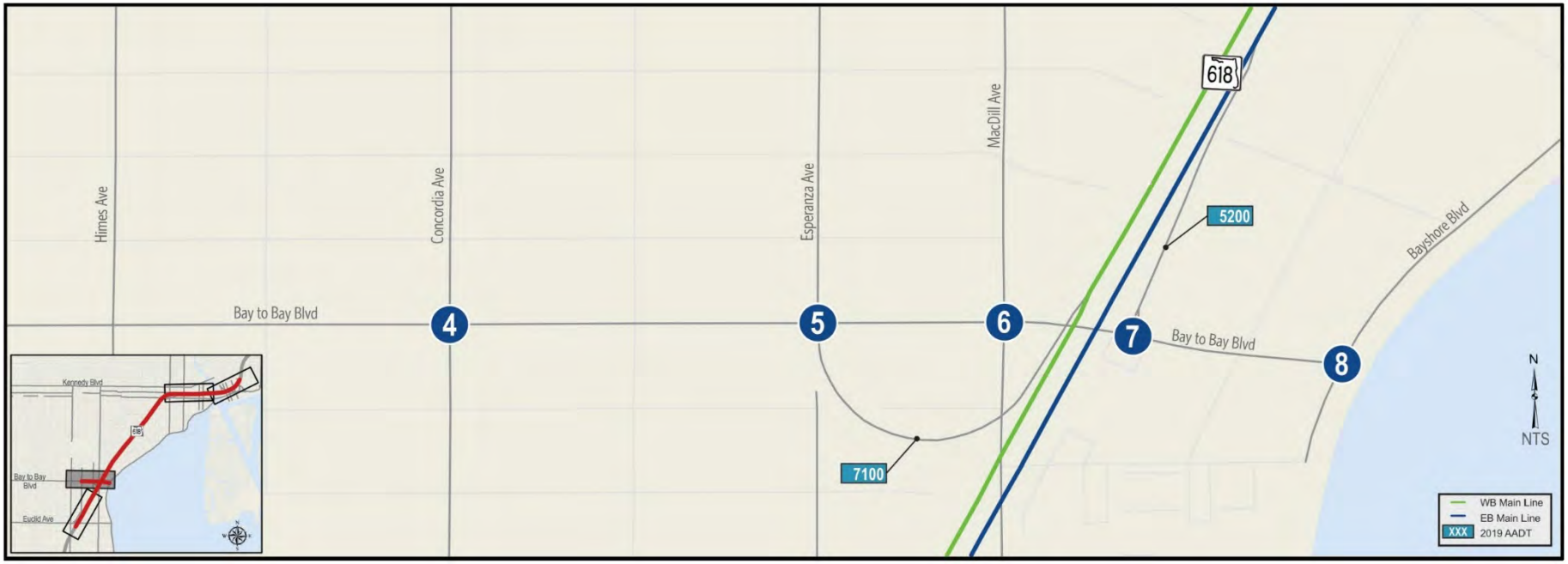


Figure 6: Existing Year (2019) AADT Continued

Figure 6: Existing Year (2019) AADT Continued

Figure 7: Existing Year (2019) DDHVs and Peak-Hour Turning Movement Volumes

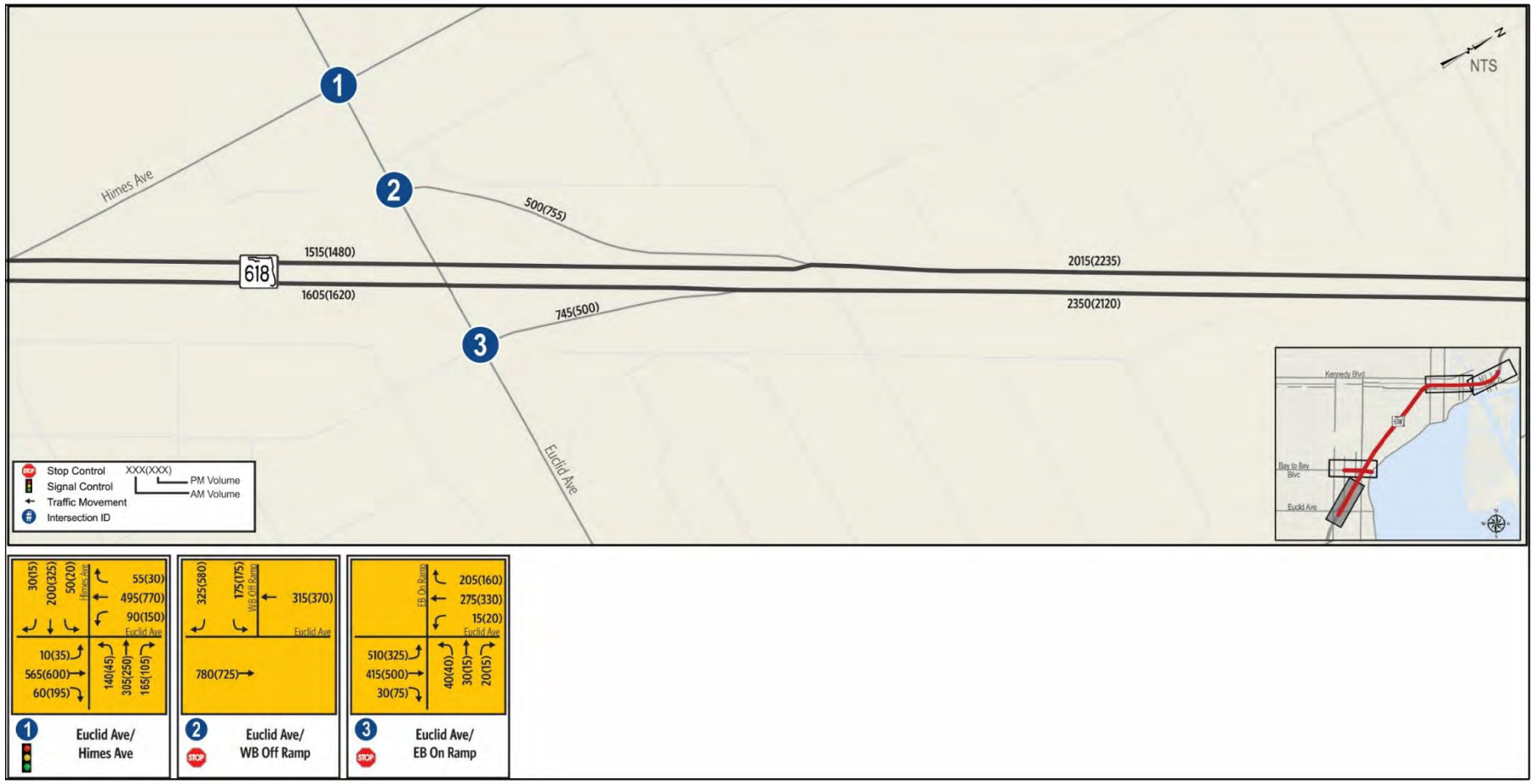


Figure 7: Existing Year (2019) DDHVs and Peak-Hour Turning Movement Volumes Continued

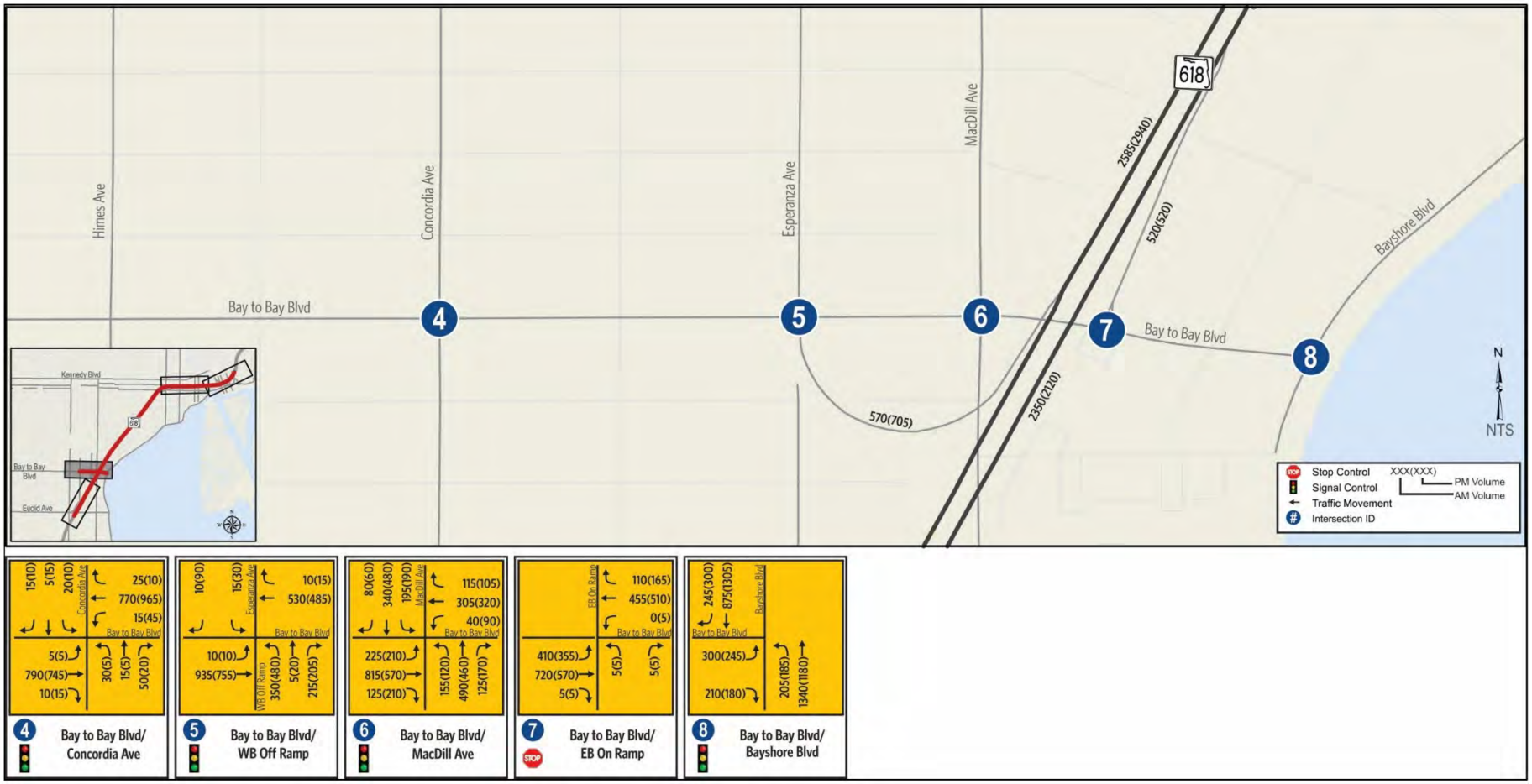


Figure 7: Existing Year (2019) DDHVs and Peak-Hour Turning Movement Volumes Continued

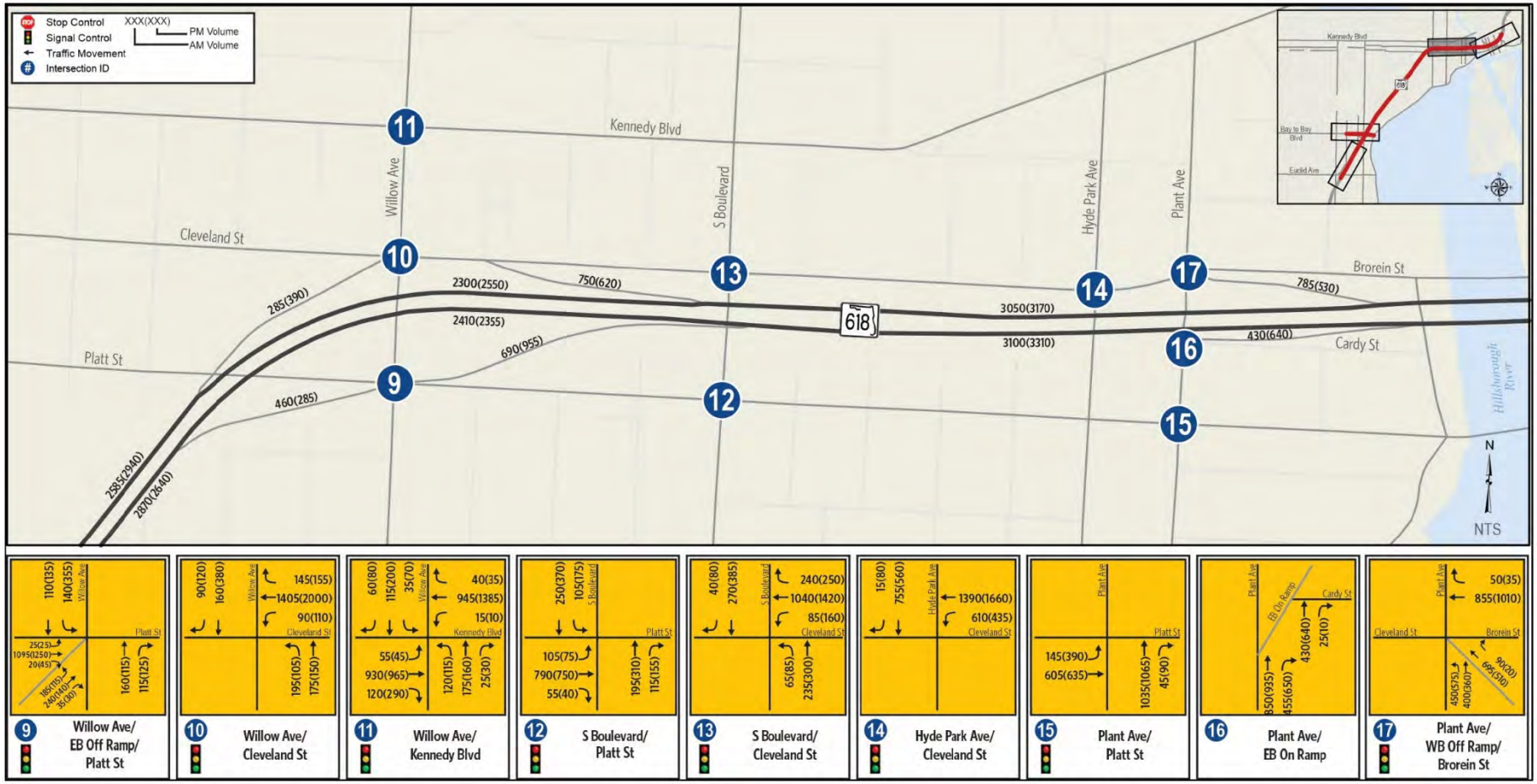
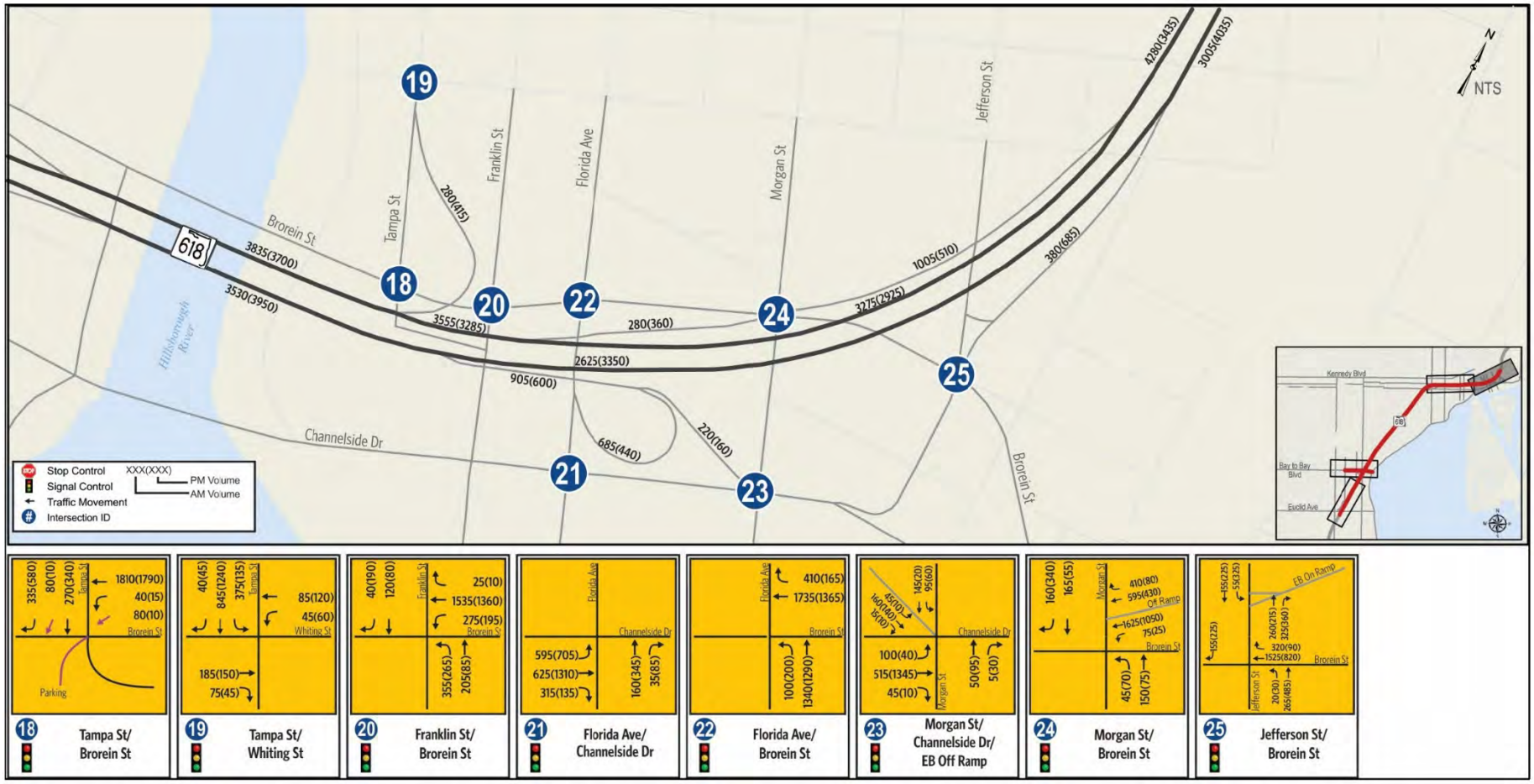


Figure 7: Existing Year (2019) DDHVs and Peak-Hour Turning Movement Volumes Continued



2.1.10. Roadway Operational Conditions

Existing year (2019) DDHVs were simulated in VISSIM and used to determine the LOS.

Mainline and Ramp Analysis

The AM peak hour shows three westbound Selmon Expressway mainline segments operating at LOS F. These segments correspond to the area between the Brorein Street off ramp and the Plant Avenue off ramp. This may be attributed to vehicles queuing back from the Plant Avenue off ramp that back up onto the mainline, as well as the short acceleration lane from the Brorein Street on ramp and the weaving section between the Tampa Street on ramp and Plant Avenue off ramp. These segments also experience a corresponding drop in speed due to these conditions.

The PM peak hour shows two eastbound Selmon Expressway mainline segments operating at LOS E. One segment is from the Florida Avenue off ramp to the Jefferson Street on ramp. This may be attributed to the curvature of the roadway on this segment, as well as interaction between the mainline traffic and the Jefferson Street on ramp traffic. The other segment is from the Willow Avenue on ramp to the Plant Avenue on ramp.

In the AM peak hour, two eastbound ramp segments and three westbound ramp segments operate at LOS E or worse. In the PM peak hour, one eastbound ramp segment and two westbound ramp segments operate at LOS E or worse. In the eastbound direction, the Morgan Street off ramp consistently operates at LOS F under both peak hours. **Table 9** shows density (vehicles/mile/lane) and LOS for the Selmon Expressway mainline and ramps.

Table 9: Existing Year (2019) Density and LOS

Link Segment	AM Density	AM LOS	PM Density	PM LOS
Eastbound Selmon Expressway Mainline				
From Start of Network to Euclid Avenue On-Ramp	13.5	B	13.7	B
From Euclid Avenue On-Ramp to Bay to Bay Boulevard On-Ramp	20.1	C	18.2	C
From Bay to Bay Boulevard On-Ramp to Willow Avenue Off-Ramp	24.8	C	22.5	C
From Willow Avenue Off-Ramp to Willow Avenue On-Ramp	20.6	C	20.2	C
From Willow Avenue On-Ramp to Plant Avenue On-Ramp	29.4	D	35.3	E
From Plant Avenue On-Ramp to Florida Avenue Off-Ramp	23.8	C	34.9	D
From Florida Avenue Off-Ramp to Jefferson Street On-Ramp	24.2	C	35.9	E
From Jefferson Street On-Ramp to End of Network	18.3	C	27.0	D
Westbound Selmon Expressway Mainline				
From Start of Network to Morgan Street Off-Ramp	28.2	D	19.2	C

Link Segment	AM Density	AM LOS	PM Density	PM LOS
From Morgan Street Off-Ramp to Morgan Street On-Ramp	45.1	F	25.0	C
From Morgan Street On-Ramp to Tampa Street On-Ramp	55.1	F	30.4	D
From Tampa Street On-Ramp to Plant Avenue Off-Ramp	51.6	F	25.3	C
From Plant Avenue Off-Ramp to Willow Avenue Off-Ramp	25.6	C	25.9	C
From Willow Avenue Off to Willow Avenue On-Ramp	20.3	C	20.8	C
From Willow Avenue On-Ramp to Bay to Bay Boulevard Off-Ramp	24.8	C	23.2	C
From Bay to Bay Boulevard Off-Ramp to Euclid Avenue Off-Ramp	18.6	C	20.6	C
From Euclid Avenue Off-Ramp to End of Network	13.5	B	12.7	B
Eastbound Selmon Expressway Ramps				
Euclid Avenue On-Ramp	17.3	B	11.2	B
Bay to Bay Boulevard On-Ramp	11.8	B	11.5	B
Willow Avenue Off-Ramp	11.6	B	6.9	A
Willow Avenue On-Ramp	14.6	B	20.4	C
Plant Avenue On-Ramp	9.7	A	15.0	B
Morgan Street and Florida Street Off-Ramps	15.8	B	10.2	A
Florida Street Off-Ramp	35.5	E	20.6	C
Morgan Street Off-Ramp	60.9	F	50.4	F
Jefferson Street On-Ramp	8.0	A	14.5	B
Westbound Selmon Expressway Ramps				
Morgan Street Off-Ramp	32.8	D	15.2	B
Morgan Street On-Ramp	6.9	A	8.8	A
Tampa Street On-Ramp	8.9	A	13.2	B
Plant Avenue Off-Ramp	123.0	F	22.4	C
Willow Avenue Off-Ramp	35.9	E	49.3	F
Willow Avenue On-Ramp	5.9	A	8.2	A
Bay to Bay Boulevard Off-Ramp	52.3	F	39.3	E
Euclid Avenue Off-Ramp	13.7	B	26.5	D

Intersection Analysis

The ramp terminal intersections, as well as adjacent signalized intersections within the project area, were included in the existing year (2019) VISSIM models to replicate the metering of traffic and platooning onto the ramps and arterials. Intersection delay and LOS can be found in **Table 10**.

Delay is generally low, as many of these intersections consist of two one-way streets and operate under two-phase signal control. Most intersections operate at LOS D or better overall, with few operating at LOS E, and none at LOS F. Various intersection approaches operate at LOS E or worse. The results of the existing year (2019) intersection queue length analysis indicate that several movements queue back in excess of 1,000 feet. Among these intersections are off-ramp terminals at Bay to Bay Boulevard, Willow Avenue/Platt Street, Willow Avenue/Cleveland Street, and Plant Avenue/Brorein Street.

Table 10: Existing Year (2019) Intersection Delay (s/veh) and LOS

ID	Intersection	Eastbound				Westbound				Northbound				Southbound				Diagonal				Overall Intersection			
		Delay		LOS		Delay		LOS		Delay		LOS		Delay		LOS		Delay		LOS		Delay		LOS	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Euclid Ave/Himes Ave	23.3	23.5	C	C	16.8	12.4	B	B	26.6	51.8	C	D	17.2	45.2	B	D	-	-	-	-	21.5	26.9	C	C
2	Euclid Ave/Selmon Expressway WB Off Ramp	1.0	0.8	A	A	1.4	3.8	A	A	-	-	-	-	14.4	21.3	B	C	-	-	-	-	5.3	9.7	A	A
3	Euclid Ave/Selmon Expressway EB On Ramp	5.4	3.7	A	A	6.3	6.4	A	A	9.9	10.8	A	B	-	-	-	-	-	-	-	-	5.9	4.9	A	A
4	Bay to Bay Blvd/Concordia Ave	5.5	3.6	A	A	4.1	1.7	A	A	41.0	28.7	D	C	37.7	43.9	D	D	-	-	-	-	7.5	3.7	A	A
5	Bay to Bay Blvd/Selmon Expressway WB Off Ramp	17.7	17.7	B	B	5.3	22.1	A	C	98.7	50.7	F	D	57.0	31.5	E	C	-	-	-	-	36.6	30.6	D	C
6	Bay to Bay Blvd/MacDill Ave	37.6	54.2	D	D	53.2	36.8	D	D	42.9	31.3	D	C	83.1	46.6	F	D	-	-	-	-	50.7	43.5	D	D
7	Bay to Bay Blvd/Selmon Expressway EB On Ramp	11.7	5.6	B	A	37.4	11.5	E	B	23.0	13.2	C	B	-	-	-	-	-	-	-	-	20.3	8.2	C	A
8	Bay to Bay Blvd/Bayshore Blvd	50.4	34.6	D	C	-	-	-	-	10.2	9.9	B	A	24.8	26.3	C	C	-	-	-	-	21.9	20.7	C	C
9	Willow Ave/Platt St/Selmon Expressway EB Off Ramp	46.4	87.9	D	F	-	-	-	-	33.6	44.5	C	D	30.3	64.4	C	E	65.4	60.6	E	E	47.1	75.1	D	E
10	Willow Ave/Cleveland St	-	-	-	-	22.5	33.4	C	C	38.5	30.2	D	C	60.8	53.7	E	D	-	-	-	-	29.4	36.6	C	D
11	Willow Ave/Kennedy Blvd	12.9	23.5	B	C	12.3	21.8	B	C	40.6	33.9	D	C	40.3	51.5	D	D	-	-	-	-	18.2	26.7	B	C
12	South Boulevard/Platt St	4.5	9.5	A	A	-	-	-	-	36.4	32.0	D	C	78.7	30.1	E	C	-	-	-	-	26.6	21.1	C	C
13	South Boulevard/Cleveland St	-	-	-	-	16.2	14.8	B	B	49.0	55.7	D	E	48.1	45.1	D	D	-	-	-	-	26.2	25.9	C	C
14	Hyde Park Ave/Cleveland St	-	-	-	-	6.3	9.1	A	A	-	-	-	-	45.4	41.5	D	D	-	-	-	-	17.2	16.6	B	B
15	Plant Ave/Platt St	15.5	20.7	B	C	-	-	-	-	70.2	46.3	E	D	-	-	-	-	-	-	-	-	47.7	34.5	D	C
16	Plant Ave/Walgreens Drwy/Cardy St/Selmon Expressway EB On Ramp	7.5	8.8	A	A	-	-	-	-	3.2	3.5	A	A	-	-	-	-	-	-	-	-	3.2	3.6	A	A
17	Plant Ave/Brorein St/Selmon Expressway WB Off Ramp	-	-	-	-	43.0	32.5	D	C	47.6	26.3	D	C	-	-	-	-	146.5	75.9	F	E	76.7	39.1	E	D
18	Tampa St/Brorein St	-	-	-	-	4.3	5.2	A	A	-	-	-	-	16.1	13.7	B	B	44.2	41.4	D	D	10.4	11.6	B	B

ID	Intersection	Eastbound				Westbound				Northbound				Southbound				Diagonal				Overall Intersection			
		Delay		LOS		Delay		LOS		Delay		LOS		Delay		LOS		Delay		LOS		Delay		LOS	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
19	Tampa St/Whiting St	45.8	44.1	D	D	52.6	53.5	D	D	-	-	-	-	11.6	11.1	B	B	-	-	-	-	20.1	18.8	C	B
20	Franklin St/Brorein St	-	-	-	-	10.0	13.0	B	B	30.9	27.8	C	C	28.8	16.4	C	B	-	-	-	-	15.9	15.9	B	B
21	Florida St/Channelside Dr	4.7	7.1	A	A	-	-	-	-	47.7	46.0	D	D	-	-	-	-	-	-	-	-	9.3	13.4	A	B
22	Florida St/Brorein St	-	-	-	-	19.6	11.8	B	B	40.5	41.3	D	D	-	-	-	-	-	-	-	-	28.4	29.0	C	C
23	Morgan St/Channelside Dr/Selmon Expressway EB Off Ramp	20.6	27.7	C	C	-	-	-	-	38.2	33.9	D	C	80.0	45.1	F	D	55.1	64.9	E	E	40.1	32.5	D	C
24	Morgan St/Brorein St/Selmon Expressway WB Off Ramp	-	-	-	-	8.1	7.7	A	A	60.2	27.0	E	C	43.0	43.9	D	D	15.1	10.6	B	B	16.0	16.4	B	B
25	Jefferson St/Brorein St/Selmon Expressway EB On Ramp	-	-	-	-	11.1	10.3	B	B	31.7	33.4	C	C	0.9	2.5	A	A	-	-	-	-	16.1	20.8	B	C

2.1.11. Crash Data

A crash analysis was conducted along the Selmon Expressway within the project limits. Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. The data covers the study limits along the Selmon Expressway mainline and ramps. The data was cleaned to identify crash patterns, locations, types, and severity.

Over the five-year period, a total of 237 crashes occurred on the Selmon Expressway mainline or its ramps. The majority of these were rear-end crashes, which comprised about 41 percent of the 237 crashes, followed by hit fixed object at about 27 percent, and sideswipes at 16 percent. Crashes by type are shown in **Table 11**. Note that the temporal and special limits of the *THEA: Arterial Safety Analysis March 2019* differ from the limits used in this study.

Table 12 shows the crashes by severity. There were 2 crashes involving a fatality, 93 crashes resulting in an injury, and 142 crashes that were property damage only crashes. One of the fatal crashes involved a motorcycle losing control and hitting a fixed object in 2015 between the eastbound Willow Avenue interchange ramps. The second fatal crash, with 3 fatalities, occurred in 2017 near the Euclid Avenue interchange in the eastbound direction. This crash involved a rear-end collision that sent the car that was hit to the westbound side of the expressway. Both fatal crashes involved intoxicated drivers.

Table 11: Crashes by Type – Selmon Expressway and Ramps

Year	Rear End	Hit Fixed Object	Sideswipe	Single Vehicle	Other	Total
2013	10	10	8	1	6	35
2014	14	15	4	3	5	41
2015	16	13	10	4	6	49
2016	22	16	7	3	6	54
2017	34	10	9	1	4	58
Total	96	64	38	12	27	237

Table 12: Crashes by Severity

Year	Fatal Crashes	Incapacitating Crashes	Non-Incapacitating Crashes	Possible Injury Crashes	Property Damage Only Crashes	Total
2013	0	3	2	8	22	35
2014	0	2	8	6	25	41
2015	1	2	8	10	28	49
2016	0	3	9	6	36	54
2017	1	1	10	15	31	58
Total	2	11	37	45	142	237

2.1.12. Railroad Crossings

CSX operates an active rail line running parallel to the Selmon Expressway. The Selmon Expressway does not cross the railroad within the project area; however, three of the cross streets with access to Selmon Expressway cross the railroad. The railroad crosses Euclid Avenue approximately 45 feet east of the edge of the Selmon Expressway overpass at a slight northeast skew. The railroad crosses Bay to Bay Boulevard approximately 30 feet east of the edge of the Selmon Expressway overpass at a slight northeast skew. Both the Euclid Avenue and Bay to Bay Boulevard crossings include crossing signs, pavement markings, gates, and a cantilever with flashing lights. The Willow Avenue railroad crossing is approximately 700 feet north of the Selmon Expressway at the signalized intersection with Kennedy Boulevard. The railroad crosses the intersection at a diagonal. The crossing includes gates and crossing signs with flashing lights in all directions and pavement markings in all directions except for northbound. **Table 13** lists the cross street name, crossing number and the type of traffic controls currently in place.

Table 13: Cross Street Railroad Crossings

Facility Name	Crossing Number	Traffic Controls
Euclid Avenue	626344	Crossing Signs, Pavement Markings, Cantilever with Flashing Lights, Gates
Bay to Bay Boulevard	626341	Crossing Signs, Pavement Markings, Cantilever with Flashing Lights, Gates
Willow Avenue	626304	Traffic Light, Gates, Crossing Signs with Flashing Lights, Pavement Markings (except in NB direction)

Source: FDOT Roadway Characteristic Inventory, 2020.

2.1.13. Drainage System

The Selmon Expressway within the project limits crosses nine stormwater basins, which are subdivided based on the basin's outfall into the Hillsborough River or Hillsborough Bay. The stormwater basin names used are based on the naming convention of the City of Tampa, which manages the stormwater infrastructure GIS geodatabase. An overview of these basins and the stormwater infrastructure within them is shown in Figure 8 and **Table 14**. General information about each of these basins is described below.

Basin 1 (Gandy)

Basin 1 begins at the southern end of the project limits (Sta. 77+22) and extends to the high point of the bridge over Himes Avenue at Sta. 99+50. Runoff from the expressway in this basin is conveyed to either side of the roadway, and is conveyed south and west through ditches and cross-drains until it discharges into SMF 1A (Pond 1), which was recently modified with the Selmon West Extension project (THEA Project Number O-17-00217).

Basin 2 (Euclid)

Basin 2 extends between the high points along the bridges over Himes Avenue (Sta. 99+50) and El Prado Boulevard (Sta. 127+63). Runoff from the roadway in Basin 2 enters lateral storm sewer pipes that convey it to a ditch on the west side, between the expressway and the CSX railroad. Runoff in the ditch is conveyed to a control structure under the southbound ramp bridge around Station 120+00, which is connected to a double 4'x5' concrete box culvert that heads southeast towards the Hillsborough Bay. The control structure was recently installed by the South Selmon Safety Project to provide discharge attenuation only. This storm sewer system expands to double 6'x5' concrete box culverts before discharging into Hillsborough Bay. No permitted stormwater management systems exist in this basin.

Basin 3 (Granada)

Basin 3 begins at the high point along the bridge over El Prado Boulevard at Sta. 127+63 and extends north until approximately the bridge over Bay to Bay Boulevard at Sta. 163+90, a distance of 3,627 feet. Runoff from the roadway is typically conveyed through lateral storm sewer pipes that send water to a ditch along the west side, between the expressway and the CSX railroad. Runoff in this ditch is conveyed north until it enters ditch bottom inlets just before MacDill Avenue. Once in the storm sewer system, runoff continues north before turning east into a 54" pipe that flows east into the Hillsborough Bay.

Basin 4 (Palma Ceia)

Basin 4 extends between north of Bay to Bay Boulevard (Sta. 163+90) and approximately Howard Avenue (Sta. 217+55). Runoff from the roadway in this basin is typically conveyed to the west side of the expressway, to a ditch between the expressway and the CSX railroad. Runoff from this ditch enters a storm sewer system via slotted ditch bottom inlets. This storm sewer system becomes an 8'x4' concrete box culvert, which is parallel to double 60" pipes, and both systems continue southeast along Rubideaux Street before discharging into the Hillsborough Bay.

Basin 5 (Rome Avenue)

Basin 5 extends from approximately Howard Avenue (Sta. 217+55) to north of Swann Avenue (Sta. 244+04). In the southern part of the basin, runoff from the expressway is conveyed to a ditch along the west side, between the roadway and the CSX railroad. This runoff drains to a triangular pond within Hyde Park, between the CSX railroad and S. Albany Avenue. Ditch runoff enters a recently installed control structure connected to an existing railroad cross-drain that outfalls to the pond. The pond currently has no gravity-driven outfall structure, but there is a pump station in poor condition that does not appear to be operable. No permit or design records are available for this pond constructed with the original Selmon Expressway. The old plans indicate a pond outfall pipe across the tracks, but this pipe cannot be found due to heavy vegetation in the CSX right-of-way or it may be buried. Without the pump operation, runoff now backflows out of the pond into the ditch between the railway and the expressway. During an October 2020 field review, the pond stage was about one foot below the berm.

The drainage ditch continues north and provides hydraulic connection to the existing storm sewer system along Swann Avenue. The storm sewer system discharges into the Swann Avenue Pond, located between the expressway and Rome Avenue. Additionally, runoff from the expressway in the northern

part of this basin discharges directly to the Swann Avenue Pond. The Swann Pond was modified by a City of Tampa beautification project. There is no excess hydraulic capacity as evidenced during our field review. Debris was observed hanging over the top of the skimmer and control structure. In addition, the pond has steep slopes with synthetic mats and sand cement bags in certain areas to prevent further erosion. The outfall for this pond is a 38"x60" pipe that runs south along Rome Avenue, before discharging into the Hillsborough Bay.

Basin 6 (Spanishtown Creek)

Basin 6 extends from approximately north of Swann Avenue (Sta. 244+04) to the high point at the bridge over Willow Avenue (Sta. 507+50). In the southwestern part of the basin, runoff from the expressway is conveyed via lateral storm sewer pipes to a ditch along the west side, between the roadway and the CSX railroad. This ditch then conveys runoff north and enters a storm sewer system along Platt Street, which flows east until reaching a 12'x5' box culvert system that outfalls to the Hillsborough Bay. In the northeast part of the basin, runoff from the expressway is conveyed to the existing Pond 9 that is located at the northwest corner of Platt St. and Willow Ave. This pond, along with the existing Pond 10 in the Brorein West basin, were constructed as part of the South Selmon Safety Project (THEA Project Number O-00518). These ponds were designed to provide attenuation runoff within this basin and the Brorein West basin and some compensatory water treatment for the entire safety improvement project length. Pond 9 provides 0.1 ac-ft. of treatment volume and 0.28 ac-ft. of attenuation volume. Pond 9 retains a depth of 0.34' above the pond bottom elevation of 17.0, which is about 2.5' above the estimated SHW elevation. The pond eventually discharges through a control structure into the concrete box culvert system that conveys stormwater runoff southeast to the Hillsborough Bay.

Basin 7 (Brorein W)

Basin 7 extends from the high point at the bridge over Willow Avenue (Sta. 507+50) to the bridge over the Hillsborough River (Sta. 551+50). Runoff from the expressway in this area is conveyed in lateral storm sewer pipes from the north to the south and connects to a storm sewer system that runs parallel to the expressway on the south side. This system ranges in size from 18" to 36", and discharges to the Hillsborough River under the Tony Jannus Park.

The majority of the basin runoff drains untreated directly to the Hillsborough River. In the west part of the basin, part of the expressway drains into Pond 10, which was constructed as part of the South Selmon Safety Project. This dry retention pond provides 0.18 ac-ft. and 0.39 ac-ft. of treatment and attenuation volume, respectively. The pond bottom elevation of 16.0' is 4.5' above the SHGWT and provides a 0.5' retention depth. Pond 10 discharges through a control structure and enters the storm sewer system that runs parallel to the expressway.

A small dry retention pond provides treatment of the existing toll plaza facility within this basin and connects to the same storm sewer system that discharges into the Hillsborough River. No permit information is available for this facility. Aside from this pond and the existing Pond 10, no other stormwater management facilities exist within this basin.

Basin 8 (Brorein E)

Basin 8 extends from the bridge over the Hillsborough River (Sta. 554+60) to east of Morgan Street in downtown Tampa (Sta. 572+50). Runoff from the expressway in this basin typically is conveyed from the overpass to a storm sewer system on the ground level by vertical pipes connected to the bridge piles. Runoff from the storm sewer system on the ground level travels westward before discharging into the Hillsborough River via a 42" pipe. No existing stormwater management facilities exist within this basin.

Basin 9 (Meridian)

Basin 9 extends from east of Morgan Street (Sta. 572+50) to the end of the project limits, which is near Whiting Street (Sta. 584+17). Bridge deck runoff from the expressway in this basin is typically conveyed to a storm sewer system on the ground level by vertical pipes connected to the expressway's structural piles. The storm sewer system conveys runoff northeast, before turning south and discharging into the Garrison Channel via an 8'x5' concrete box culvert. No existing stormwater management facilities exist within this basin.

Hillsborough River Bridge

In addition to the above basins, a portion of the existing bridge over the Hillsborough River is proposed to be widened. The bridge features scuppers that drain roadway runoff directly into the Hillsborough River below.

Figure 8: Stormwater Network and Basins

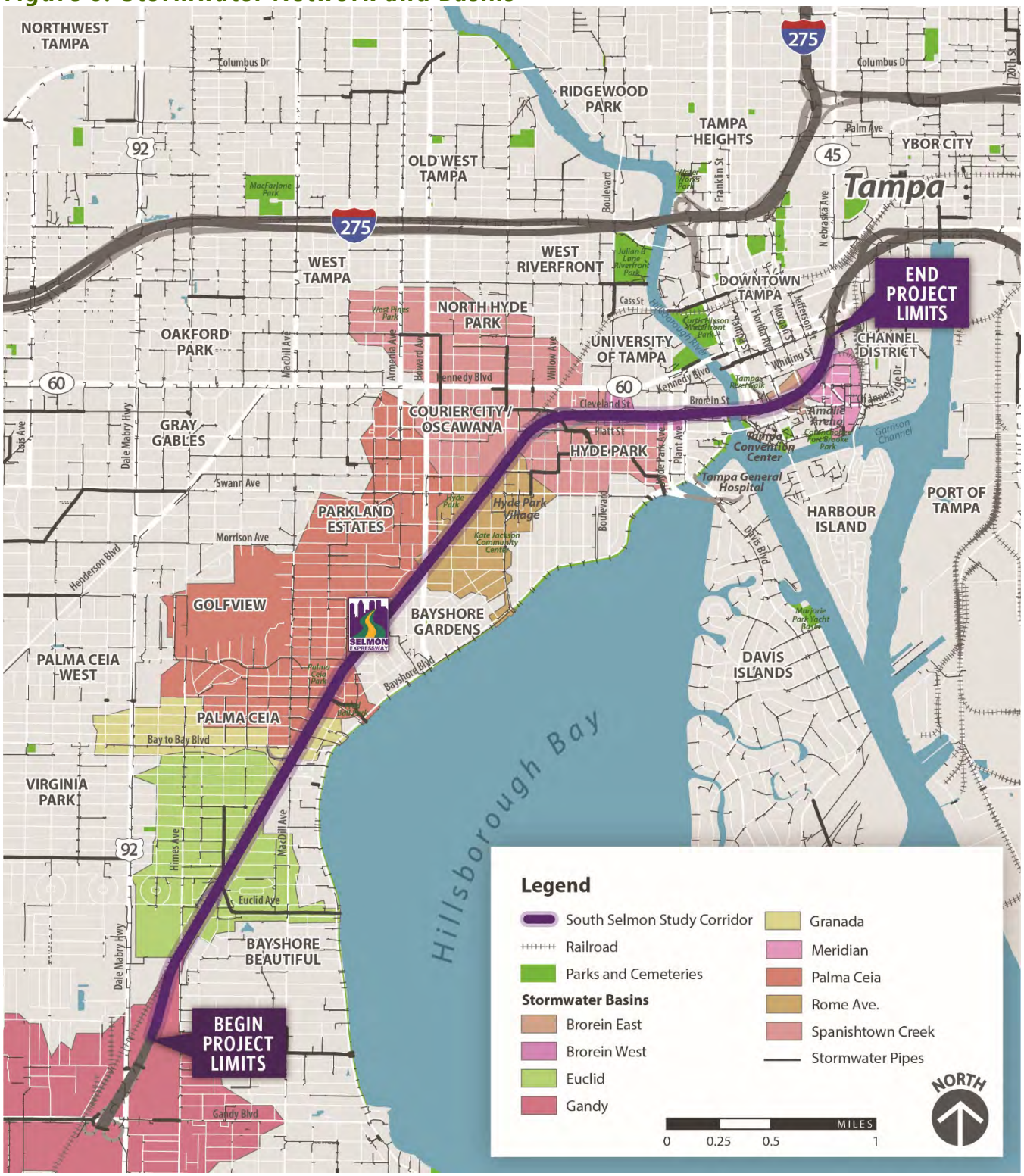


Table 14: Existing Basin Information

Basin Number	Basin Name	Begin Station	End Station	Basin Length (ft.)	Outfall Size
1	Gandy	77+22	99+50	2,228	4'x10' CBC
2	Euclid	99+50	127+63	2,813	2 x 4'x5' CBC
3	Granada	127+63	163+90	3,627	54"
4	Palma Ceia	163+90	217+55	5,365	2 x 60" & 8'x4' CBC
5	Rome Ave.	217+55	244+04	2,649	38"x60"
6	Spanishtown Creek	244+04	507+50	3,578	2 x 7'x5.4' CBC
7	Brorein W	507+50	551+50	2,968	36"
-	Hillsborough River Bridge	551+50	554+60	310	-
8	Brorein E	554+60	572+50	1,790	42"
9	Meridian	572+50	584+17	1,167	8'x5' CBC

Per a coordination meeting with the City of Tampa on 10/9/2020, all City-owned outfalls within the project limits are to be considered undersized for the purpose of this project. It was recommended to provide additional storage of runoff, where feasible, to improve the existing flooding conditions. Refer to the *Pond Siting Report* for additional information on the proposed stormwater management facilities and requirements for this project.

2.1.14. Floodplain

None of the project's corridor falls within the Federal Emergency Management Agency (FEMA) 100-year floodplain limits, except within the area surrounding the Hillsborough River. However, the expressway within this area is raised well above the Zone AE 100-year floodplain elevation of 10 feet (NAVD). Therefore, no impacts to the floodplain are expected. The project area is covered by five Hillsborough County FEMA FIRM maps (effective on August 28, 2008) for community number 12057, panels C0344H, C0342H, C0361H, C0353H and C0354H. It is noted that the FEMA floodplain elevation is based on a hurricane storm surge event.

Minimal floodplain encroachment is anticipated for all of the various build alternatives considered in this PD&E. Refer to the *Location Hydraulics Report* for more information on floodplain involvement for the various alternatives.

2.1.15. Lighting

From Himes Avenue to Hyde Park Avenue, there are median barrier mounted light poles as a result of the Selmon Safety Project (described in Section 1.3.1), except for at the bridge approaches. The median barrier wall stops at the bridge approaches and temporary barrier walls are in placed to taper and connect to the inside bridge railings. Light poles at these locations are on the outside in each direction. From Hyde Park Avenue to Whiting Street, light poles are mounted on the outsides of both structures.

2.1.16. Existing Intelligent Transportation Systems

The Selmon Expressway is a tolled facility with seven existing toll gantries within the project limits as summarized below.

1. Willow Ave. eastbound off ramp
2. Willow Ave. westbound on ramp
3. Willow Ave. westbound off ramp
4. Selmon Expressway eastbound, east of Willow Ave.
5. Selmon Expressway westbound, west of Plant Ave.
6. Selmon Expressway eastbound and westbound, east of Plant Ave.
7. Plant Ave. westbound off ramp

There are no current Intelligent Transportation System (ITS) sign structures within the project limits.

2.1.17. Utilities

There are thirteen Utility Agency Owners (UAOs) within the project limits. All were contacted for green lines, future builds and easement documents were requested. All utilities are in permitted right of way unless otherwise noted.

The UAOs and their facilities are summarized in **Table 15**. The table specifically notes the locations where utilities cross the Selmon Expressway or are parallel to and within the right-of-way of the Selmon Expressway.

Table 15: Utilities

Utility Agency	Contact	Description of Facilities	Selmon Expressway Crossing / Parallel Locations
AT&T	Slade Hutchinson (813) 888-8300 shutchinson@sdt-1.com	4" duct	In railroad right-of-way (US DOT easement for CSX right-of-way)
CenturyLink	Xan Rypkema (720) 888-1089 NationalRelo@centurylink.com	1" - 2" BFOCs / HDPE BFOCs, aerial and direct buried cables	Crossings: Himes Ave, S. Blvd, Plant Ave, and Ashley Dr S, Franklin St Parallel: Hillsborough River Bridge
Charter Communications	Paul Perrini (813) 684-6100 Paul.perrini@charter.com	CATV-OFOC	Crossings: Himes Ave, Euclid Ave, S. Blvd, Jefferson St
City of Tampa - Wastewater	Robert Kezler (813) 274-8936 Wastewater_UtilityNotify@tampagov.net	Pipes include 8" – 24" VCP, 12" CAS, 60" RCP, 48" DIP FM, 48" PCCP	Crossings: Euclid Ave, Barcelona St, Orleans Ave, Willow Ave, S Blvd, Hyde Park Ave, Plant Ave, Franklin St, Brorein St, Whiting St , Leona St, Horatio St, Barcelona St,

Utility Agency	Contact	Description of Facilities	Selmon Expressway Crossing / Parallel Locations
			Bayshore Dr, Ashley Dr, Florida Ave Parallel: Ashley Dr – Florida Ave,
City of Tampa - Water	Rynaldo Deshauteurs (813) 274-7221 WaterUtilityCoordination@tampagov.net	Pipes vary in size and include: DIP, Enamel, HDPE, RCP, and steel casings	Crossings: Himes Ave, El Prado Blvd, San Carlos, Mississippi Ave, Watrous Ave, Howard Ave, Morrison Ave, Swann Ave, Horatio St, Platt St, S. Blvd, Fielding Ave, Magnolia Ave, Cedar Ave, Hyde Park Ave, Plant Ave, Bayshore Blvd, Ashley Dr, Tampa St, Franklin St, Florida Ave, Morgan St, Cumberland Ave, Jefferson St, Pinley St, Whiting St Parallel: MacDill Ave to Bay to Bay Blvd, Carolina to Mississippi Ave, De Leon to Horatio St, Franklin St to Morgan St,
CrownCastle	Danny Haskett (786) 610-7073 Danny.haskett@crowncastle.com	BFOC	Crossing: Plant Ave
Fiberlight	Tim Green (813) 877-7183 Tim.green@fiberlight.com	1.25" – 1.5" HDPE BFOC	Crossing: Hyde St, Plant Ave, Florida Ave Parallel: Hillsborough River
Frontier	Randy James randall.james@ftr.com	Conduits have copper and fiber cables	Crossings: Himes Ave, Euclid Ave, El Prado Blvd, Macdill Ave, Morrison Ave, Swann Ave, Edison Ave, S Blvd, Hyde Park Ave, Plant Ave, Ashley Dr, Florida Ave, Morgan St
MCI	Andy Cole (813) 207-7959 ColeA@bv.com	Two 2" HDPE by Dir. Bore	Crossings: Howard Ave and Plant Ave
T-Mobile	Jon Baker (321) 280-9596 Jon.baker@sprint.com	BFOC	Crossings: Whiting St
TECO – Distribution	Heather Lovett (813) 275-3433	13KV BE/OE line	Crossings: Euclid Ave, Macdill Ave, Barcelona, Howard Ave, Swann

Utility Agency	Contact	Description of Facilities	Selmon Expressway Crossing / Parallel Locations
	csadmin@tecoenergy.com		Ave, De Leon St, Horatio St, Platt St, Hyde Park Ave, Tampa St, Morgan St, Whiting St
TECO – Transmission	Heather Lovett (813) 275-3433 csadmin@tecoenergy.com	Trans Steel Poles with OE 69kV, OE 138 kV, or BE 69 kV	Crossings: Himes Ave, MacDill Ave, De Leon St, Cleveland St, Whiting St
TECO Peoples Gas	James Hamilton (813) 275-3732 jkhamilton@tecoenergy.com	4" – 8" CS GM, 6" PE GM, 12" HP CS GM	Crossings: Himes Ave, El Prado Blvd, Bay to Bay Blvd, Howard Ave, Morrison Ave, Willow Ave, Delaware Ave, Hyde Park Ave, Ashley Dr, Franklin St
Uniti Fiber	David Woods (813) 539-1180 David.woods@uniti.com	Three 1.25" conduits with FOC underground	Crossings: Swann Ave and S. Blvd
Verizon Business / MCI	James Barra (813) 928-9881 James.barra1@verizonwireless.com	Intermedia 48 BFOC MFS 72 BFOC	Crossings: Hyde Park Ave, Brorein St, Plant Ave (proposed), Florida Ave (proposed) and Ashley Dr

Abbreviations: BFOC – Buried Fiber Optic Cable, CAS – Conventional Activated Sludge System, CS – Coasted Steel, DIP – Direct In-line Pump, GM – Gas Main, HDPE – High Density Polyethylene, HP – High Profile Main, PCCP – Pre-stressed Concrete Cylinder Pipe, PE – Polyethylene, RCP – Reinforced Concrete Pressure, VCP – Vitrified Clay Pipe

2.1.18. Soils Classifications

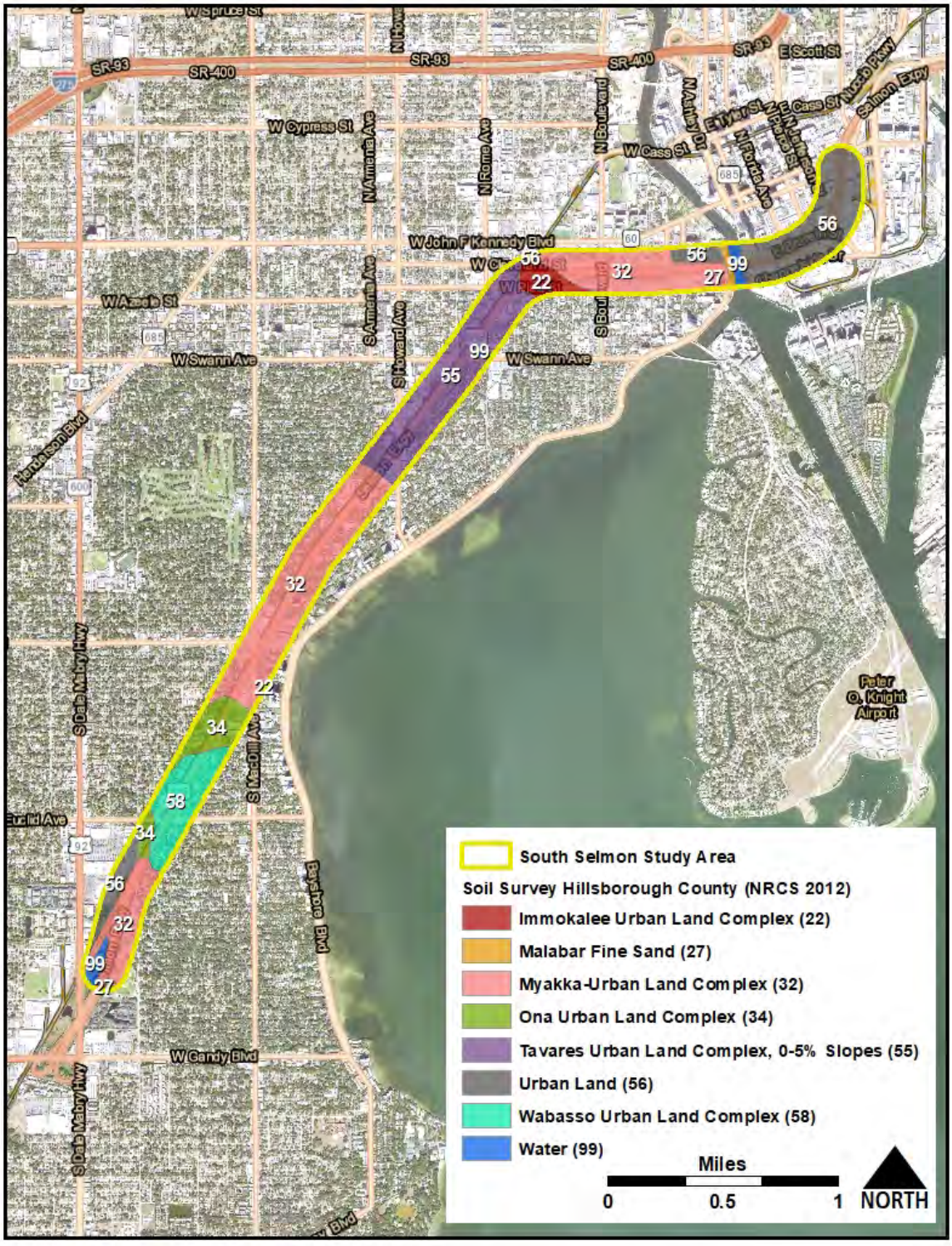
The United States Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Survey of Hillsborough County, Florida issued in May 1989 and the Web Soil Survey were reviewed for general climate and near surface soil information. Based on the NRCS geodatabase (2012), the study area contains seven soil types.

Figure 9 provides an aerial image depicting the soil types within the study area. The general soil types within the study area are described in **Table 16** with their corresponding NRCS map unit number, hydric classification, drainage class, and the approximate acreage and percentage found within the study area.

Table 16: Soil Types within the Selmon Expressway Study Area

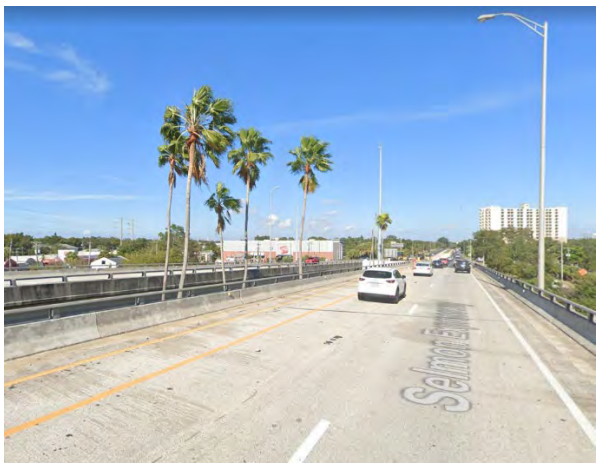
Map Unit Number	Soil Type	Hydric Y/N	Drainage Class	Area within the Project Study Area	Percent of Project Study Area
22	Immokalee-Urban Land Complex	No	Poorly Drained	19.17	2.9
27	Malabar Fine Sand	Yes	Poorly Drained	5.42	0.83
32	Myakka-Urban Land Complex	No	Poorly Drained	270.38	41.19
34	Ona-Urban Land Complex	No	Poorly Drained	38.34	5.84
55	Tavares-Urban Land Complex, 0-5% Slopes	No	Poorly Drained	128.15	19.52
56	Urban Land	Unranked	NA	125.62	19.14
58	Wabasso-Urban Land Complex	No	Poorly Drained	55.58	8.47
99	Water	No	--	13.82	2.11

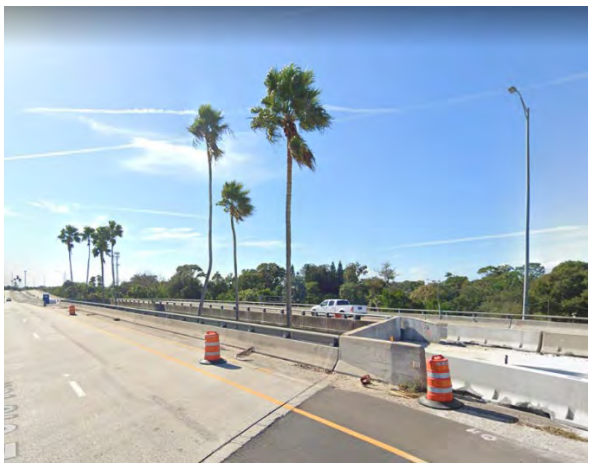
Figure 9: Soil Survey Map



2.1.19. Aesthetic Features

The Selmon Expressway is located in developed urban areas. The elevated structures downtown and the bridge over the Hillsborough River are visible features. These structures have a standard design without defining aesthetic characteristics. There are trees and shrubs within the right-of-way to the outsides of the roadway in some areas. Maintained landscaping is mostly limited to the open space between the bridges at the overpass locations as shown in the pictures below.





Landscaping at Overpasses

2.1.20. Traffic Signs

Signage along the Selmon Expressway consists of standard ground mounted and barrier wall mounted regulatory (e.g. speed limits) and way-finding signage, as well as span and cantilever way-finding signs at interchanges.

2.1.21. Adjacent Land Use

The proposed project is located in the City of Tampa and intersects the Central Business District and historic Hyde Park Urban Village. The City of Tampa is urbanized and built out along the Selmon Expressway corridor. Existing land use is shown in **Figure 10.** From East Jackson Street to West Platt Street adjacent land use is primarily commercial, institutional and public/semi-public. Notably, the Tampa Convention Center, Amalie Arena and associated parking are located in this area. South of West Platt Street, land use along Selmon Expressway is primarily residential with commercial and institutional uses near major roads. In addition, three public parks are located adjacent to Selmon Expressway: Hyde Park south of Swann Avenue, Palma Ceia Park at San Miguel Street, and Himes Avenue Sports Complex.

Figure 10: Existing Land Use

2.2. Existing Structure Conditions

2.2.1. Bridge Information

There are 26 existing bridge structures on the Selmon Expressway in the project limits as summarized in **Table 17**. Structural data was collected from the current bridge inspection reports (BIR). The bridges are inventoried from the western project limits to the eastern project limits.

All the bridges were built between 1975 and 1976, making them between 44 and 45 years old, respectively, as of 2020. Most of the bridges are constructed with prestressed concrete girders, but there are five that are constructed with continuous steel girders. The structural information, including materials, geometry, and condition, provided in **Table 17** for each bridge has been collected from the respective BIR, which were last compiled following inspections in July of 2019.

Generally, the bridges are in good overall condition. All the superstructure and substructure ratings are "7-Good", which indicates that the superstructures have only non-structural cracks and that the substructures only show signs of minor deterioration and insignificant cracking. Most of the decks are also rated as "7-Good", although one is rated as "6-Satisfactory". One exception is the deck inspection for 100308 & 100309 (over Himes Avenue) was given a rating of 7-Good; however, numerous patches have failed, exposing reinforcing, and in one case the rebar is actually protruding in a travel lane. Additionally, the inspection report notes numerous cracks on the top and bottom of the deck. Another exception is the substructure on the Viaduct Section (Bridge 100332 & 100333) which received a 6-Satisfactory on the substructure and was noted as functionally obsolete, but the deck and the superstructure received a 7-Good in the inspection report.

THEA has recently procured a deck and approach slab repair project that started in mid-February 2021 and ended by April 2021. The project was located at the bridge over Himes Avenue and focussed on replacing the east approach slab on the Eastbound Bridge, as well as general repairs to cracks in the deck and approach sabs on both bridges. During full-depth deck repairs, it was discovered that there was only one layer of reinforcement in the deck; plans called for two layers.

Load ratings for all existing bridges in their current condition were conducted to assess their condition for widening per FDOT Structures Design Guidelines (SDG) and Bridge Load Rating Manual 2020. To determine if the bridge was suitable for widening, Figure 7.1.1-1 "Widening/Rehabilitation Load Rating Flow Chart" from the FDOT SDG was used to determine the load rating process and subsequent recommendations. Following the Flow Chart, LRFR load rating was first attempted for the HL-93 inventory and operating and the FL-120 permit. If the HL-93 inventory rating or the FL-120 permit rating fell below 1.00, LFR load rating was attempted. Please note that only the HS-20 design truck was used in LFR ratings. Per the FDOT 7.1.1-1 widening flowchart, only the HS-20 results determine whether the bridge can be widened. Therefore, no legal load ratings or emergency vehicles were rated at this time. If the HS-20 inventory rating fell below 1.00 or the operating rating fell below 1.67, then a LARSA finite element model was investigated using LRFR.

Initial rating assumptions included not considering the haunch for section properties during the rating analysis. Numerous bridges were not designed with stay-in-place (SIP) forms, but it was discovered by visual inspection on a site visit that SIP forms were used. SIP form loads equal to 20psf (FDOT SDG Table 2.2) were included in the rating. Additionally, no shop drawings were provided for the original AASHTO beams. HDR made conservative assumptions based on the standards provided in the plans. The contractor was given the option to use partially pulled strands in the top flange, therefore they were included in the model. The contractor was given the option to use 40ksi or 60ksi rebar in the beams, so all stirrups were modeled as 40ksi. All results are included in these calculations. For a detailed accounting of the bridge load ratings, please see the *Bridge Report*. Existing load ratings are included in **Table 17**.

Table 17: Summary of Bridges

Bridge Number	Bridge Type	Facility Crossed	Year Built and/or Modified	Bridge Condition	Existing Load Rating
100308	Steel Plate Girder	Selmon WB - Himes Ave	1975	Good	0.98*
100309	Steel Plate Girder	Selmon EB - Himes Ave	1975	Good	0.98*
100310	AASHTO Beam	Selmon WB - Euclid Ave	1975	Good	1.05
100311	AASHTO Beam	Selmon EB - Euclid Ave	1975	Good	1.05
100312	AASHTO Beam	Selmon WB & Ramp - EL Prado Blvd **	1975	Good	1.04*
100313	AASHTO Beam	Selmon EB - EL Prado Blvd **	1975	Good	1.04*
100314	Steel Plate Girder & AASHTO beam	Selmon WB - MacDill Ave & Bay to Bay Blvd **	1975	Satisfactory (Deck)	1.02*
100314	Steel Plate Girder	Selmon WB - MacDill Ramp over RR	1976	Good	1.02*
100315	Steel Plate Girder & AASHTO beam	Selmon EB - MacDill Ave & Bay to Bay Blvd **	1976	Good	1.00
100316	AASHTO Beam	Selmon WB- Mississippi Ave	1975	Good	1.00
100317	AASHTO Beam	Selmon EB - Mississippi Ave	1975	Good	1.00

Bridge Number	Bridge Type	Facility Crossed	Year Built and/or Modified	Bridge Condition	Existing Load Rating
100318	AASHTO beam	Selmon WB - Howard Ave and Watrous Ave **	1975	Good	1.00*
100319	Steel Plate Girder	Selmon EB - Howard Ave and Watrous Ave **	1975	Good	1.21**
100320	AASHTO Beam	Selmon WB & EB - Morrison Ave	1975	Good	1.06**
100321	AASHTO Beam	Selmon WB & EB - Morrison Ave	1975	Good	1.06**
100322	AASHTO Beam	Selmon WB & EB - Swann Ave	1975	Good	1.00
100323	AASHTO Beam	Selmon WB & EB - Swann Ave	1975	Good	1.00
100324	AASHTO Beam	Selmon WB - Platt St **	1975	Good	1.06*
100325	AASHTO Beam	Selmon EB - Platt St **	1975	Good	0.86*
100326	AASHTO Beam	Selmon WB & EB - Willow Ave	1975	Good	1.00
100327	AASHTO Beam	Selmon WB & EB - Willow Ave	1975	Good	1.00
100328	AASHTO Beam	Selmon WB & EB - South Blvd	1975	Good	1.01
100329	AASHTO Beam	Selmon WB & EB - South Blvd	1975	Good	1.01
100330	AASHTO Beam	Selmon WB & EB - Hyde Park and Plant Ave	1975	Good	1.03
100331	AASHTO Beam	Selmon WB & EB - Hyde Park and Plant Ave	1975	Good	1.03
100332-100333	AASHTO Beam	Selmon WB & EB - Viaducts Segment 1	1975	Satisfactory (Substructure, Functionally Obsolete)	1.00
100332-100333	AASHTO Beam	Selmon WB & EB - Viaducts Segment 2	1975	Satisfactory (Substructure,	0.88*

Bridge Number	Bridge Type	Facility Crossed	Year Built and/or Modified	Bridge Condition	Existing Load Rating
				Functionally Obsolete)	

* - LRFR Refined Load Rating

** - LFR Load Rating

After meeting with THEA and reviewing the 2013 As-Built Load Rating Report, some rating assumptions were changed. The minimum haunch depth at midspan was used for increasing the section properties in the model if it was not rating. A minimum haunch of 0.5" at midspan was assumed for all beams, as was assumed in the 2013 As-Built Load Rating Report. Based on recent shop drawings, it was determined to use a noncomposite dead load of 12.4psf for girder spacings of 10'-0" or more and a load of 10.9psf for beam spacings less than 10'-0", rather than the standard 20psf load called out in FDOT SDG Table 2.2-1. Loads ratings were also updated to reflect the addition of a new lightweight concrete 36" single slope traffic railing (Index 521-427) on each side, the outside railing was also to include a lightweight concrete noise wall (Index 521-509). For load rating results of existing beams with revised assumptions, see the *Bridge Report*.

2.2.2. Span Arrangement

Bridges 100308 – 100331 consist of multi-span bridges in pairs leading to the Viaduct (Bridge 100332 & 100333). A brief description of each pair of bridges will follow.

Bridges 100308 and 100309 are twin bridges over Himes Avenue. Each structure is a three-span (78.4375'-155.5'-78.4375') continuous steel girder bridge with a semi-composite reinforced concrete deck. The bridges are highly skewed (skew = 61.96°). There are five steel plate girders spaced 8'-3" apart.

Bridges 100310 and 100311 are twin bridges over Euclid Avenue. Each bridge is a three-span (68'-78'-68') prestressed AASHTO beam bridge with a composite reinforced concrete deck. The bridges have a skew of 30.0167°. All beams are AASHTO Type III. Span 1 and Span 3 have five beams spaced 8'-3" apart while Span 2 has six beams spaced 6'-7 ¼" apart.

Bridge 100312 is a three-span mainline bridge over El Prado Boulevard and an 11-span ramp over CSX rail that consists of prestressed AASHTO beams with a composite reinforced concrete deck. The bridge has varying skews from normal up to 76°, in some cases in opposite directions creating trapezoidal slabs. There are also numerous splayed beams.

Bridge 100313 is a three-span mainline bridge over El Prado Boulevard that consists of prestressed AASHTO beams with a composite reinforced concrete deck. All spans contain splayed beams.

Mainline Bridge 100314 crosses over MacDill Avenue and Bay to Bay Boulevard. The westbound mainline structure starts with a simple prestressed concrete span, followed by a two-span continuous

steel girder bridge over MacDill Avenue and a parking lot, and ends with a seven-span prestressed concrete bridge with varying span arrangements. Additionally, Bridge 100314 has a three-span continuous curved steel girder off-ramp over the CSX railroad.

Mainline Bridge 100315 crosses over MacDill Avenue. The eastbound mainline structure starts with a simple prestressed concrete span, followed by a two-span continuous steel girder bridge over MacDill Avenue and a parking lot, and ends with a seven-span prestressed concrete bridge with varying span arrangements.

Bridge 100316 and 100317 are twin bridges over Mississippi Avenue. Each bridge is a three-span (47'-53'-47') pre-stressed AASHTO beam bridge with a composite reinforced concrete deck. The bridges have a skew of 38.17°. All beams are AASHTO Type II. Span 1 and Span 3 have five beams spaced 8'-3" apart while Span 2 has six beams spaced 6'-7 ¼" apart.

Bridge 100318 on Selmon Expressway westbound over Howard Avenue is a four-span (91.75'-varies-109'-87.5') prestressed AASHTO beam bridge with a composite reinforced concrete deck. The bridge has varying skews (-39.5°, -39.5°, 51.83°, 51.83° 51.83°). Spans 1, 2 and 4 have five beams spaced 8'-3" apart while Span 3 has seven beams spaced 5'-6" apart.

Bridge 100319 over Howard Avenue is a three-span (74'-137.5'-74') continuous steel girder bridge with a semi-composite reinforced concrete deck. The bridge is highly skewed (skew = 51.83°). There are five girders spaced 8'-3" apart.

Bridges 100320 and 100321 are twin bridges over Morrison Avenue. Each bridge is a three-span (67'-85'-67') pre-stressed AASHTO beam bridge with a composite reinforced concrete deck. The bridges have a skew of 36.98°. All beams are AASHTO Type III. Span 1 and Span 3 have five beams spaced 8'-3" apart while Span 2 has seven beams spaced 5'-6" apart.

Bridge 100322 and 100323 are twin bridges over Swann Avenue. Each bridge is a three-span (68'-82.5'-68') prestressed AASHTO beam bridge with a composite reinforced concrete deck. The bridges have a skew of 35.1476°. All beams are AASHTO Type III. Span 1 and Span 3 have five beams spaced 8'-3" apart while Span 2 has seven beams spaced 5'-6 ¼" apart.

Bridge 100324 crosses over Platt Street. The westbound structure is a simple pre-stressed concrete bridge. It is a three-span bridge with an additional span forming an off ramp.

Bridge 100325 crosses over Platt Street. The eastbound structure is a simple pre-stressed concrete bridge. It is a three-span bridge. Please see the Bridge Summary sheet for more information.

Bridges 100326 and 100327 are twin bridges over Willow Avenue. Each bridge is a three-span (45'-84'-39') pre-stressed AASHTO beam bridge with a composite reinforced concrete deck. Span 1 consists of five beams spaced at 8.21', with AASTHO Type III exterior beams and AAASHTO Type II interior beams. Span 2 consists of seven AASHTO Type III beams spaced at 5.53'. Span 3 consists of five beams spaced at 8.36', with AASTHO Type III exterior beams and AAASHTO Type II interior beams.

Bridge 100328 and 100329 are twin bridges over South Boulevard. Each bridge is a three-span (34'-83'-34') prestressed AASHTO beam bridge with a composite reinforced concrete deck. The bridge has a skew of 0°. Span 1 and Span 3 have six beams spaced 9'-0" apart while Span 2 has nine beams spaced 5'-7½" apart.

Bridge 100330 and 100331 are twin bridges over Hyde Park Avenue and Plant Avenue. Each bridge is an eight span (41.5'-105'-86.42'-86.42'-86.42'-86.42'-86.42'-86.42') prestressed AASHTO beam bridge with a composite reinforced concrete deck. The bridge has a skew of 4.48°. All beams are AASHTO Type IV except for the interior beams in Span 1 that are AASHTO Type III. Span 2 has seven beams spaced 5'-6" apart while Span 1 and Spans 3-8 have five beams spaced 8'-3" apart.

For modeling purposes, the Viaduct (Bridges 100332 and 100333) were divided into two segments.

Segment 1 of the Viaduct represents the original construction portion of the Viaduct over the Hillsborough River and Downtown Tampa. It starts over Bayshore Boulevard, crosses the Hillsborough River, and ends after crossing S. Florida Street. Specifically, Segment 1 of 100332 is a 24-span (simple) prestressed AASHTO beam bridge with a composite 7" reinforced concrete deck. Segment 1 of 100333 is a 26-span (simple) prestressed AASHTO beam bridge with a composite 7" reinforced concrete deck. All bridge skews vary, but are less than 15°.

Segment 2 of the Viaduct represents the redecked and widened portion of the Viaduct over Downtown Tampa. Per the scope of this project, Segment 2 will refer to the portion of the viaduct starting beyond S. Florida Avenue and extending over E. Jackson Street. (Span 25WB – Span 54WB and Span 27EB – Span 57EB).

Segment 2 of 100332 consists of 29-simple prestressed concrete beam spans and one simple steel girder span (Span 34WB). Original concrete beams were AASHTO Type III or Type IV. Spans 28WB – Span 54WB have been widened with FIB beams. At the time of the widening, the entire deck of Viaduct Segment 2 was replaced with a composite 8.5" reinforced concrete deck with the exception of the steel bridge span that was redecked with a 7.5" deck.

Segment 2 of 100333 consists of 31-simple prestressed concrete beam spans. Original concrete beams were AASHTO Type III or Type IV. Spans 53EB – Span 57EB have been widened with FIB beams. At the time of the widening, the entire deck of Viaduct Segment 2 was replaced with a composite 8.5" reinforced concrete deck. **Table 18** contains a summary of the span arrangement for the bridges in the project limits. For more information, please see the *Bridge Report*.

Table 18: Summary of Bridge Spans

Bridge Number	Number of Spans	Length of Max Span	Overall Length	Bridge Type
100308	3	155.5	320.9	Steel
100309	3	155.18	320.9	Steel
100310	3	78	213.9	Concrete
100311	3	78.1	213.9	Concrete
100312	14	110.89	960.3	Concrete
100313	3	91.21	272.7	Concrete
100314	11	138.12	703.4	Steel/Concrete
100315	10	139	809.4	Steel/Concrete
100316	3	55.4	153.6	Concrete
100317	3	55.45	153.6	Concrete
100318	4	108.6	342.9	Concrete
100319	3	137.47	288.7	Steel
100320	3	84.65	222.5	Concrete
100321	3	84.65	222.5	Concrete
100322	3	83.66	220.8	Concrete
100323	3	83.3	220.8	Concrete
100324	4	93.18	213.9	Concrete
100325	3	106.9	230	Concrete
100326	3	84.65	170.6	Concrete
100327	3	84.9	171.3	Concrete
100328	3	84.97	153.9	Concrete
100329	3	84.9	153.9	Concrete
100330	8	105	666	Concrete
100331	8	104.9	666	Concrete
100332 – Segment 1	24	99.5	1722.76	Steel/Concrete
100333 – Segment 1	26	99.5	1864.23	Concrete

Bridge Number	Number of Spans	Length of Max Span	Overall Length	Bridge Type
100332 – Segment 2	30	186.75	2415.24	Steel/Concrete
100333 – Segment 2	31	112.0	2273.64	Concrete

2.2.3. Horizontal and Vertical Clearances

Two geometric constraints for this project are the minimum vertical clearance under the bridges and the horizontal clearance between the bridge and the CSX railroad that runs along the South Selmon Expressway between Himes Avenue and Platt Street.

FDOT FDM Table 260.6.1 states the minimum vertical clearance should be 16'-6" for a bridge over roadway. AASHTO criteria allows 14 feet for vertical clearance in an urban area if an alternate route provides 16 feet (FDM Table 122.5.12). The existing minimum vertical clearances over roadway were surveyed and reported in **Table 19**. Although some existing vertical clearances are less than the minimum allowed, it is the intent of any widening to maintain the existing vertical clearance if it is less than the minimum.

Per the CSX Handbook, the minimum horizontal clearance between the bridge and the centerline of rail is 25'-0" with no barrier protection and 18'-0" with barrier protection. The existing horizontal clearances reported in **Table 19** were calculated using the right-of-way limits and existing bridge CADD provided by THEA; there was no survey conducted to determine the horizontal clearance.

Table 19: Horizontal and Vertical Clearance of Existing Bridge Structures

Bridge Number	Horizontal Clearance to CL CSX (feet)	Vertical Clearance (feet) over Roadway
100308	32.0	**16.1**
100309	-	**15.1**
100310	35.5	**14.6**
100311	-	**15.0**
100312	12.0	**14.7**
100313	-	**14.9**
100314	16.2	19.1
100317	-	**15.6**
100318	37.7	**15.0**
100319	-	16.6

Bridge Number	Horizontal Clearance to CL CSX (feet)	Vertical Clearance (feet) over Roadway
100322	34.42	15.2
100323	-	15.5
100324	22.5	17.7
100325	-	15.3
100326	-	14.7
100327	-	15.1
100328	-	15.1
100329	-	15.1
100330	-	15.3
100331	-	15.2
100332	-	14.5

2.2.4. Geotechnical Information

Based on a review of the USGS Quadrangle Maps "Gandy Bridge, Florida" and "Tampa, Florida", it appears that the natural ground elevations along the project limits range from approximately +10 to +15 feet National Geodetic Vertical Datum of 1929 (NGVD 29). Using the conversion tool developed by the National Geodetic Survey, the North American Vertical Datum of 1988 (NAVD 88) conversion factor is in this area was determined to be -0.866. Thus the NAVD 88 elevation ranges from +9.134 feet to +14.134 feet. Based on a review of the "Potentiometric Surface of the Upper Floridan Aquifer, West-Central Florida" map published by the USGS, the potentiometric surface elevation of the upper Floridan Aquifer in the project vicinity ranges from approximately +5 (+4.134) to +15 feet (+14.134), NGVD 29 (NAVD 88). The Hillsborough County Soil Survey was reviewed, and soils are described in Section 2.1.18.

In spring of 2018, a consultant to THEA performed subsurface exploration along the Selmon Expressway from Himes Avenue to the Hillsborough River. Hand auger boings, SPT and pavement core borings were completed along the project corridor in order to identify the subsurface conditions, pavement conditions and encountered groundwater table levels. The hand auger borings were performed by manually twisting and advancing a bucket auger into the ground, typically in 6-inch increments. SPT borings were performed using a drill rig and bentonite mud drilling procedures. The SPT borings were performed in general accordance with the American Society for Testing and Materials test designation D-1586. The initial 4 feet of the SPT borings were advanced by manual hand auger to verify utility clearance. Resistance N-values were then taken continuously to a depth of 10 feet and on intervals of 5 feet thereafter. As each soil type was revealed, representative samples were placed in air-tight containers and returned to the laboratory for testing and confirmation of the field classification by a

geotechnical engineer. The pavement core borings were performed with the use of a 6-inch outside diameter core bit. The pavement was visually classified using standard FDOT nomenclature.

Representative soil samples collected from the borings performed along the project alignment were classified and stratified in general accordance with the AASHTO Soil Classification System. The classification was based on visual observations, using the results from the laboratory testing as confirmation. These tests included grain-size analyses, fines content analysis, organic content, Atterberg Limits, and natural moisture content determination. Environmental corrosion tests were performed on selected soil samples to evaluate the corrosive nature of the subsurface soils encountered. The soil types encountered during exploration were assigned a stratum number. The stratum descriptions and soil types associated with this project are listed in **Table 20**.

Table 20: Stratum Descriptions

Stratum No.	Typical Soil Description	AASHTO Classification
1	Light Gray to Brown to Orange-Brown SAND to SAND with Silt	A-3
2	Light Gray to Light Brown Silty SAND	A-2-4
3	Light Brown SAND to Silty SAND with Rock and/or Cemented Sands and/or Clay Nodules and/or Shell Fragments	A-3/A-2-4
4	Orange-Brown Silty SAND to Clayey SAND	A-2-6/A-2-7/A-4/A-7-5/A-7-6
5	Blue-Gray to Gray to Green-Gray Clayey SAND to CLAY	A-7-5/A-7-6
6	Dark Brown Organic SAND to Organic SAND with silt	A-8
7	Weathered LIMESTONE	--(1)

(1) AASHTO does not include a classification for Limestone

The groundwater table was measured at the boring locations during our field exploration. The depths to the groundwater table, when encountered, were found to range from depths of approximately 4 to 9¾ feet below the existing ground surface.

2.2.5. Historical Significance

None of the bridges are eligible for listing in the National Register of Historic Places (NRHP) according to the 2019 BIRs.

2.2.6. Bridges over Water

Viaduct Segment 1 (Bridges 100332 and 100333) cross over the Hillsborough River. The total width of river crossing is roughly 290 feet. Pier 4 through Pier 7 are located in the Hillsborough River. Span 6 is the center span over the river for boat traffic and is 99.5 feet long. There is a fender system in the river under Span 6 to protect Pier 5 and Pier 6. The channel clear width for boat traffic is 80.0'. The maximum

channel depth is 18 ft. at the centerline of the channel. However, the Platt Street bridge is located 362-feet to the south of Bridge No. 100333 at the mouth of the Hillsborough River. The NOAA depth chart shows the depth at the mouth of the Hillsborough River (before the Platt Street movable bridge) to be 7-feet.

The Viaduct Segment 1 as-built plans note a Mean High Water (MHW) elevation of +0.96 feet per NGVD 29 (0.094 ft per NGVD 89) and actual minimum vertical clearance of 40.07' for boat traffic.

2.2.7. Ship Impact Data

The viaduct widenings (Bridges 100332 & 100333) over the Hillsborough River are considered a minor widening over a major river per SDG 7.2.2. The consideration of designing for vessel collision is left to the owner, THEA. Because of the viaduct's importance to the connectivity of the Tampa Bay area and it being a dedicated hurricane evacuation route, HDR recommends that vessel impact be included in the analysis for widening the viaduct bridges. Per LRFD 3.14.1, vessel collision is used in design for the Extreme Event where a vessel accidentally collides with a bridge. The force is used in design to prevent catastrophic failure, either for designing substructure and superstructure connections to withstand the force or to design adequate protection systems like dolphins.

Three main components determine the design vessel collision force: bridge geometry, waterway characteristics, and the vessel fleet characteristics. Based on the findings of the *Vessel Collision Report,* HDR recommends a design vessel impact force of **1000 kips** to be applied to Pier 4 through Pier 7, located in the Hillsborough River.

Because the Alternate 6 Interim phase widens to the outside, the new piers will act as protection for the existing piers from a direct, head on collision from aberrant vessels. However, during construction contractors will most likely use barges with cranes for beam erection. There will be no protection from a head-on collision during construction. Therefore, both existing piers and proposed piers are required to meet the 100% of the vessel impact force acting in the transverse direction of the pier per SDG 2.11.9 and LRFD 3.14.14. Additionally, both existing piers and proposed piers should be analyzed by the DBT to ensure the 50% of the vessel impact force acting in the lateral direction of the pier.

Please see the *Vessel Collision Report* for a detailed analysis of determining the bridge data, river characteristics and vessel fleet determination used to arrive at the vessel impact design force.

2.3. Environmental Characteristics

2.3.1. Social Environment

The proposed project is located in the City of Tampa and intersects the Central Business District which houses the highest density of employment and population in the Tampa Bay Metropolitan Area. The population in the City of Tampa increased from 2010 to 2019 by 18.9 percent from 335,709 to 399,700 persons and is expected to continue to grow. The census block groups intersecting the project saw a 53 percent growth from 2010 to 2019. The study area does not include any census block groups with high

minority concentration. However, three census tracts (Tracts 49, 50, and 51.01) have a higher rate of poverty than the County and City, which indicates the potential for low-income areas.

2.3.2. Cultural Environment

A *Cultural Resource Assessment Survey Report* was prepared as part of the PD&E Study. Background research of the Florida Master Site File, the NRHP, and the City of Tampa database was supplemented by fieldwork conducted between December 5, 2019 and January 16, 2020. The historical resources area of potential effects (APE) included the existing right-of-way and areas within 100 feet of it. Of the 163 historic resources, 11 are NRHP-listed, eligible, or appear eligible for listing in the NRHP.

The archaeological APE included the existing right-of-way. Three previously recorded archaeological sites (8HI00013, 8HI00537, and 8HI00966) are located within the APE, one of which (8HI00013) is eligible for the NRHP. Sixty-six shovel tests were excavated within the APE, resulting in the recording of 8HI14875, a Middle/Late Archaic lithic scatter, which was subsequently determined ineligible for listing. No evidence of the previously recorded 8HI00013, 8HI00537, or 8HI00996 was uncovered within the APE.

2.3.3. Natural Environment

Wetlands and other surface waters were identified within the study area. These included the tidal, channelized segment of the Hillsborough River north of Garrison and Seddon Channels and Hillsborough Bay. Seagrasses were not present. Mangrove habitat was present along the eastern shoreline of the Hillsborough River, partially beneath the existing Selmon Expressway Bridge and extending south along the river. Stormwater management areas with littoral vegetation were observed at the Selmon Expressway crossover at South Dale Mabry Highway, behind Lowes Home Improvement, and north of West Swann Avenue.

Federal listed and protected species and state-listed wildlife were reviewed for their potential to occur within the study area. Nine federally-listed species potentially occur within the study area including two fishes (Gulf sturgeon, smalltooth sawfish), three reptiles (loggerhead, green and Kemp's ridley sea turtles), three birds (wood stork, piping plover, rufa red knot), and one mammal (West Indian/Florida manatee). Six state listed wildlife could potentially occur within the study area including one reptile (gopher tortoise), two wading birds (little blue heron, tricolored heron), and three shorebirds (American oystercatcher, black skimmer, least tern). No federal or state listed species were observed during preliminary field surveys. Additionally, the study area does not contain designated critical habitat.

2.3.4. Physical Environment

A Level I Contamination Screening of the project study area was conducted to determine the potential for contamination of the corridor right-of-way from adjacent properties and business operations. Of the 156 sites investigated, the following risk rankings have been applied: eight HIGH ranked sites, four MEDIUM ranked sites, 144 LOW ranked sites, and zero NO ranked sites for potential contamination.

The *Noise Study Report*, located in the project file, documented a total of 1,015 properties for which the existing land use has a Federal Highway Administration (FHWA)/FDOT established Noise Abatement Criteria. The 1,015 properties are comprised of 1,009 residences, two active sports areas, one park, and three schools.

3.0 Future Conditions Analysis

3.1. Future Land Use and Context Classification

Future land use adjacent to the Selmon Expressway is planned to remain similar to the existing uses (discussed in Section 2.1.21) based on the City's Future Land Use and Vision Map from the *Imagine 2040: Tampa Comprehensive Plan*. With the exceptions of Downtown Tampa and Britton Plaza near the southern terminus, the Vision Map shows land use adjacent to Selmon Expressway as Established which means that no significant change in current development pattern is planned and only some infill is anticipated. The Hyde Park Urban Village Neighborhood Plan also does not plan for significant growth.

Since the roadway is a limited access facility, Context Classification does not apply.

3.2. Future Transportation Demand

This section highlights the future travel demand as documented in the PTAR for the study segment. For more detailed information regarding the analyses, please refer to the PTAR.

The PTAR analyzed traffic for Existing Year 2019, Opening Year 2026, Interim Year 2036 and Design Year 2046. The Tampa Bay Regional Planning Model (TBRPM) v1.1 that was validated for the Selmon Expressway by others was obtained and used as a source to forecast design year (2046) AADT volumes per direction from THEA officials. The Model's validated base year is 2015 and the most recently adopted Cost-Affordable Model has a horizon year of 2040.

3.2.1. Alternatives Screening

Five Build Alternatives, described in Section 5.3.1, were modeled in Cube Voyager to compare the volume differences with additional mainline capacity (i.e. comparing six-lane options to eight-lane options) and to compare the sensitivity of the different configurations for options with the same mainline capacity (i.e. comparing six-lane options to each other and eight-lane options to each other with variations in elevated vs. at-grade number of lanes). Alternative 1 and Alternative 6 have geometric alignment differences, but from a travel demand modeling and traffic analysis perspective, they may be considered the same Alternative.

Alternatives 3 and 4 were screened out based on Streetlight Origin-Destination data indicating that the elevated sections would be underutilized since they would not provide access to all interchanges within the study limits. This could lead to at-grade sections being over capacity, while elevated sections are underutilized. The at-grade Alternatives can better accommodate fluctuations in travel patterns since all interchanges are accessible. Alternative 1 was screened out because it would require demolition of interim improvements and significant reconstruction to widen to the outside in the ultimate phase. Alternative 5 was screened out based on excessive construction costs. The remaining Alternatives being advanced for analysis, in addition to the No Build (Existing + Committed) Alternative, are Alternatives 2 and 6. These Alternatives are compatible with each other, which allows possible phasing. Alternative 2 provides 8-lanes while Alternative 6 provides 6 lanes in the interim phase and 8-lanes in the ultimate phase, which is anticipated to be needed to meet traffic demand in the future.

3.2.2. Future Traffic Volumes

The THEA TBRPM horizon year (2040) Alternative 2 AADT volumes were used as the basis for developing 2040 DDHVs for the Selmon Expressway mainline and ramps for a conservative approach, as Alternative 2 showed slightly higher AADT volumes than Alternative 6. The design year (2046), interim year (2036), and opening year (2026) AADT and DDHV were obtained by interpolating between the existing year (2019) and horizon year (2040) AADT and DDHV volumes. The horizon year (2040) volumes were only used as an end point for the purposes of interpolation and were not used in the analysis. **Figure 11** and **Figure 12** show the design year (2046) AADT and DDHV for both the AM and PM peak periods, respectively. For opening year and interim year volumes, please see the PTAR.

3.2.3. Design Year (2046) Traffic Operational Analysis

The No Build Alternative and Alternatives 2 and 6 were analyzed in VISSIM for the design year (2046). Density, speed, total volume processed, and travel times were the measures of effectiveness (MOEs) extracted for the mainline. Delay and maximum queue output were extracted for the intersections within the study area. Network-wide MOEs were also extracted from each model. The results comparisons are shown in this section.

Table 21 shows the design year (2046) peak-hour density results for the AM and PM peak hours for the mainline and ramps. Overall intersection delay comparison of the No Build Alternative and Alternatives 6 and 2 can be found in **Table 22**. **Table 23** shows the network-wide VISSIM results for the design year (2046). Alternatives 2 and 6 generally show better results than the No Build Alternative.

For opening year and interim year operational analysis, please see the PTAR.

Figure 11: Design Year (2046) AADT Volumes

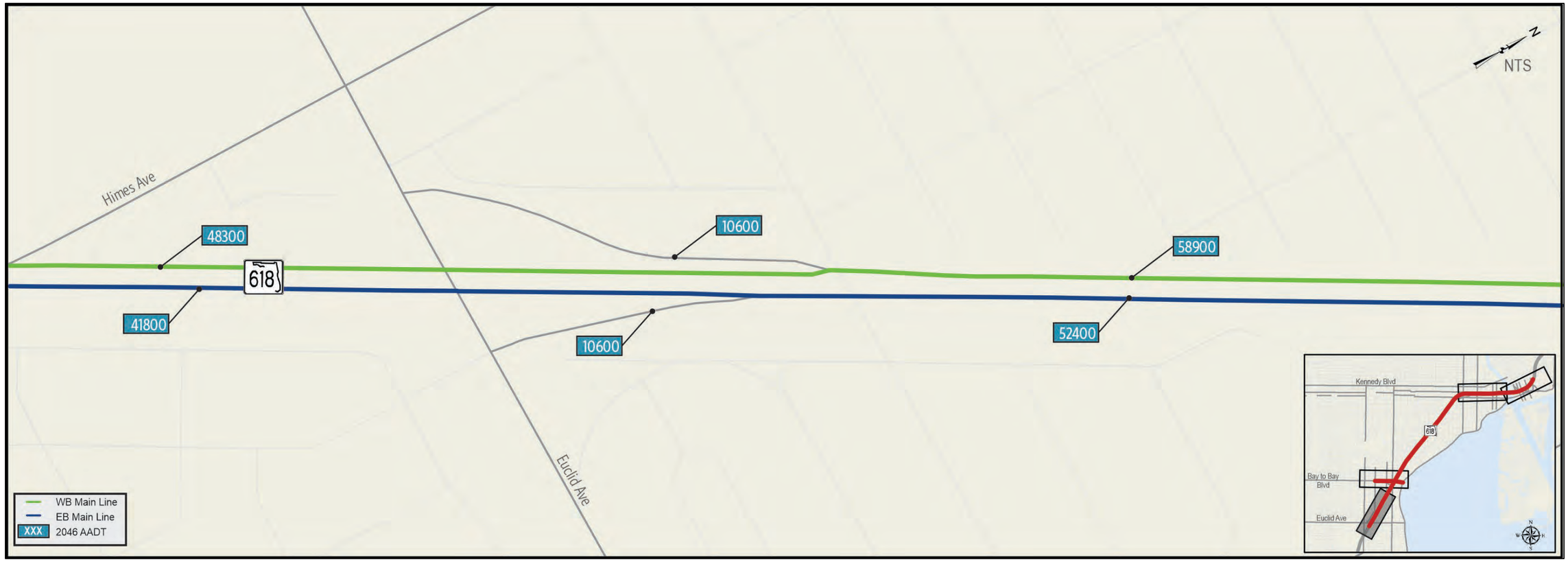


Figure 11 (Continued): Design Year (2046) AADT Volumes

Figure 11 (Continued): Design Year (2046) AADT Volumes

Figure 11 (Continued): Design Year (2046) AADT Volumes

Figure 12: Design Year (2046) DDHVs and Peak-Hour Turning Movement Volumes

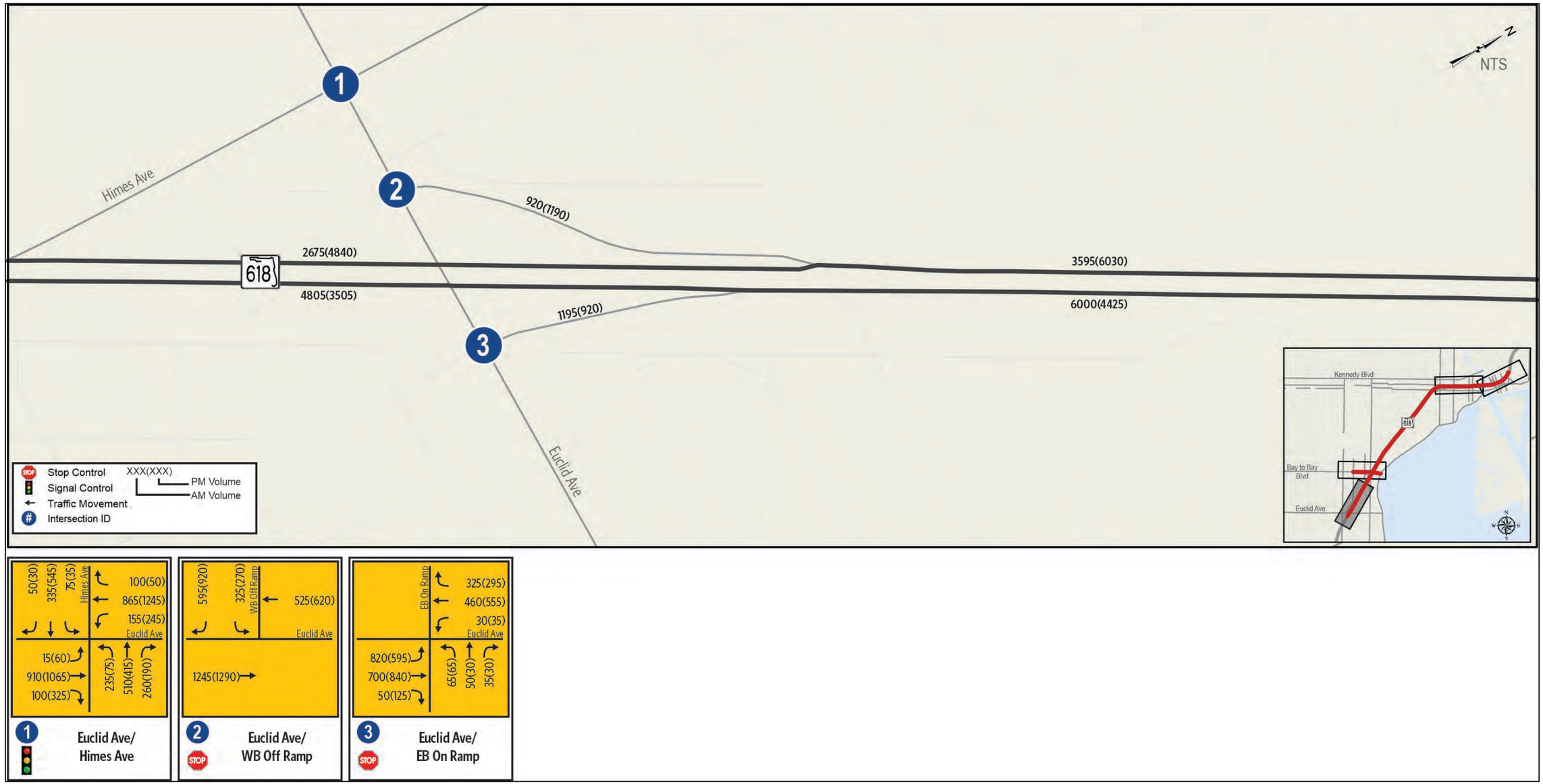


Figure 12 (Continued): Design Year (2046) DDHVs and Peak-Hour Turning Movement Volumes

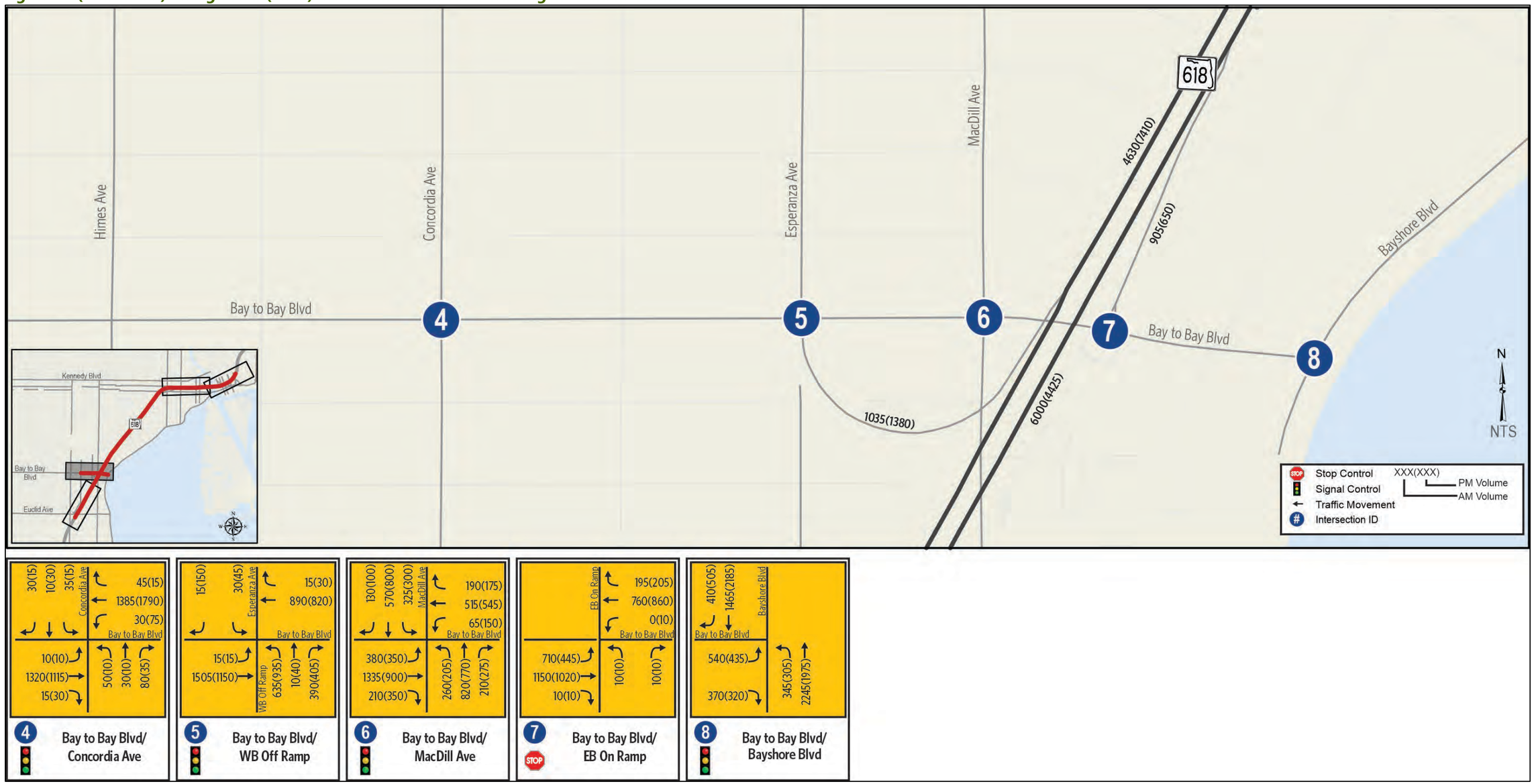


Figure 12 (Continued): Design Year (2046) DDHVs and Peak-Hour Turning Movement Volumes

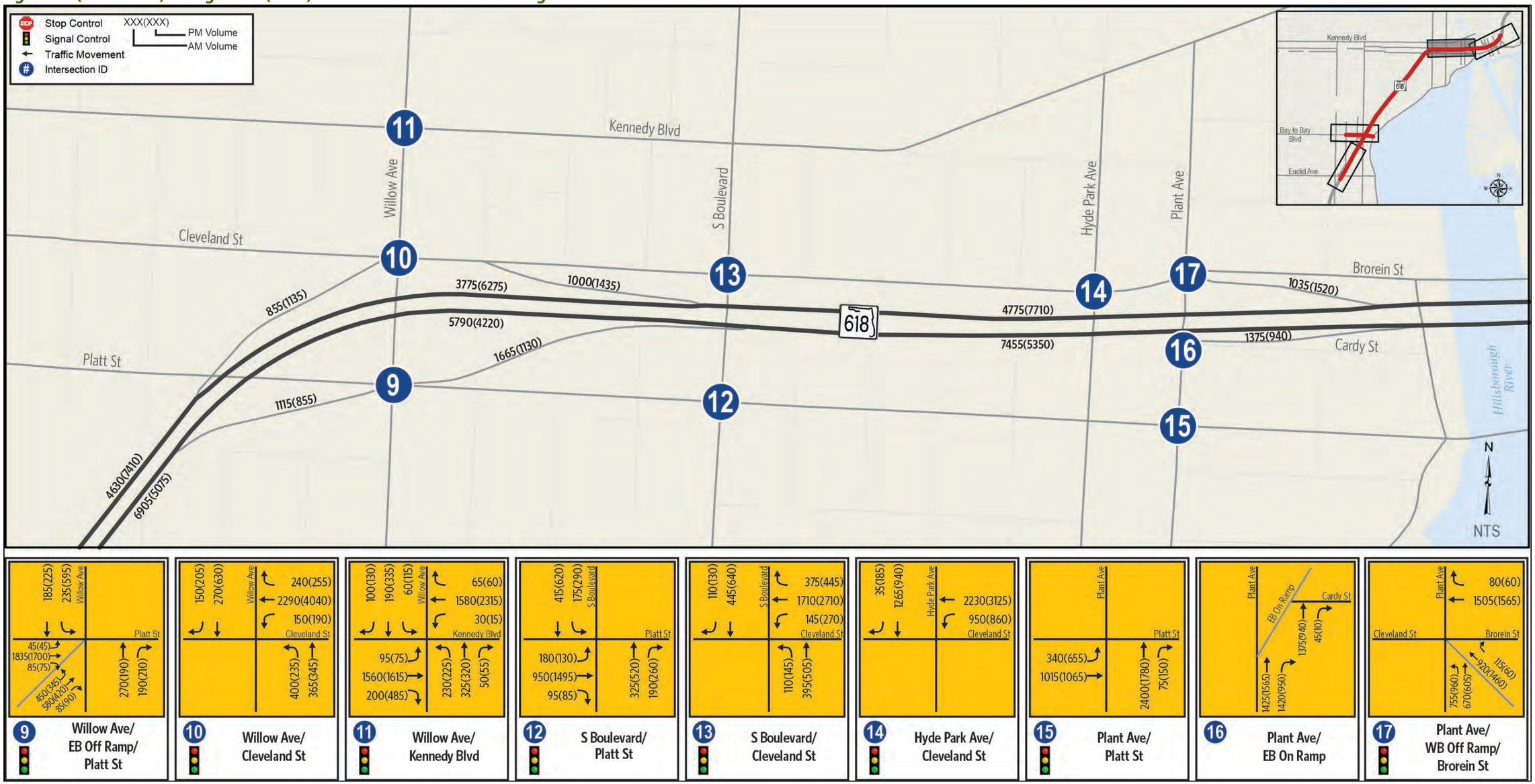


Figure 12 (Continued): Design Year (2046) DDHVs and Peak-Hour Turning Movement Volumes

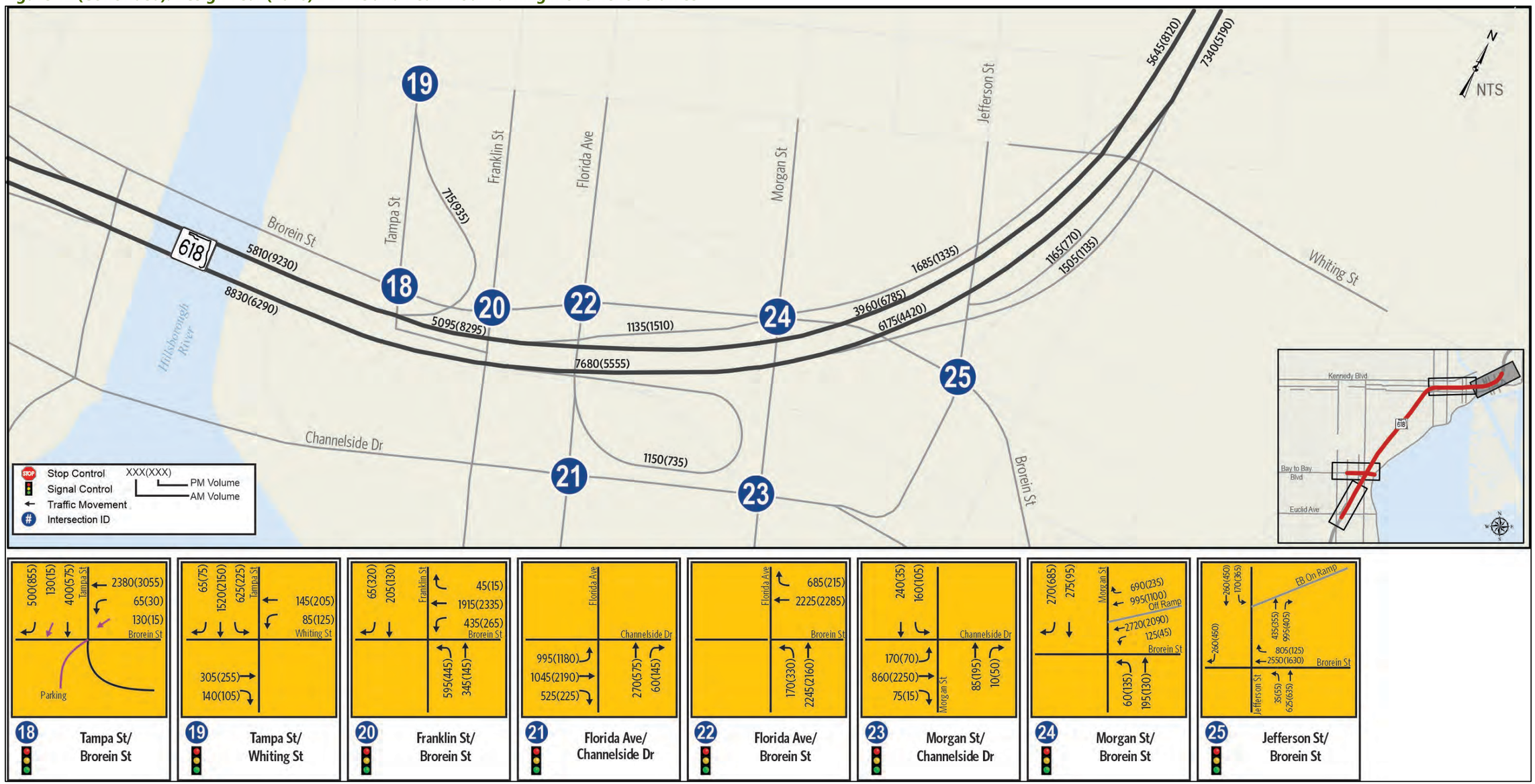


Table 21: Design Year (2046) Density (veh/mi/lane)

Link Segment	No Build		No Build		Alternative 6		Alternative 6		Alternative 2		Alternative 2	
	AM Density	AM LOS	PM Density	PM LOS	AM Density	AM LOS	PM Density	PM LOS	AM Density	AM LOS	PM Density	PM LOS
Eastbound Selmon Expressway Mainline												
From Start of Network to Euclid Ave On Ramp	110.2	F	83.1	F	28.1	D	20.1	C	20.4	C	14.7	B
From Euclid Ave On Ramp to Bay to Bay Blvd On Ramp	102.4	F	77.0	F	34.5	D	24.1	C	24.6	C	17.9	B
From Bay to Bay Blvd On Ramp to Willow Ave Off Ramp	90.6	F	53.8	F	37.3	E	26.4	D	26.6	D	19.6	C
From Willow Ave Off Ramp to Willow Ave On Ramp	109.1	F	69.0	F	36.7	E	21.8	C	23.2	C	17.5	B
From Willow Ave On Ramp to Plant Ave On Ramp	77.8	F	69.9	F	57.0	F	31.1	D	32.4	D	22.2	C
From Plant Ave On Ramp to Florida Ave Off Ramp	67.5	F	59.2	F	54.5	F	29.3	D	32.8	D	21.9	C
From Florida Ave Off Ramp to Whiting St Off Ramp	59.6	F	58.5	F	56.3	F	32.1	D	34.0	D	21.7	C
From Whiting St Off Ramp to Jefferson St On Ramp	38.2	E	35.8	E	33.0	D	22.6	C	34.2	D	22.4	C
From Jefferson St On Ramp to End of Network	31.0	D	28.0	D	42.0	E	27.9	D	42.2	E	26.9	D
Westbound Selmon Expressway Mainline												
From Start of Network to Brorein St Off Ramp	116.9	F	129.5	F	68.1	F	91.8	F	86.8	F	121.1	F
From Brorein St Off Ramp to Brorein St On Ramp	114.5	F	112.6	F	20.2	C	101.0	F	91.1	F	127.1	F
From Brorein St On Ramp to Tampa St On Ramp	83.3	F	80.2	F	31.1	D	72.0	F	109.2	F	132.2	F
From Tampa St On Ramp to Plant Ave Off Ramp	57.1	F	35.7	E	26.1	D	45.8	F	100.2	F	119.0	F
From Plant Ave Off Ramp to Willow Ave Off Ramp	84.9	F	31.0	D	21.5	C	29.9	D	57.2	F	23.2	C
From Willow Ave Off to Willow Ave On Ramp	23.8	C	27.5	D	17.7	B	25.2	C	10.8	A	12.0	B
From Willow Ave On Ramp to Bay to Bay Blvd Off Ramp	31.0	D	34.5	D	44.9	E	29.8	D	18.0	C	15.3	B
From Bay to Bay Blvd Off Ramp to Euclid Ave Off Ramp	25.3	C	31.6	D	24.8	C	27.0	D	12.2	B	14.7	B
From Euclid Ave Off Ramp to End of Network	18.0	C	24.9	C	13.5	B	20.8	C	11.5	B	15.1	B
Eastbound Selmon Expressway Ramps												
Euclid Ave On Ramp	104.0	F	15.9	B	21.4	C	14.2	B	21.7	C	15.8	B
Bay to Bay Blvd On Ramp	13.6	B	10.9	A	13.3	B	10.6	A	13.6	B	10.9	A
Willow Ave Off Ramp	21.4	C	35.2	E	17.8	B	9.6	A	17.3	B	9.5	A
Willow Ave On Ramp	32.1	D	14.5	B	28.6	D	15.4	B	28.1	D	14.9	B
Plant Ave On Ramp	18.4	C	9.3	A	18.6	C	8.5	A	19.7	C	8.8	A
Florida Ave Off Ramp	12.9	B	13.7	B	26.8	D	13.3	B	27.9	D	14.4	B
Whiting St Off Ramp	16.2	B	17.4	B	23.5	C	17.3	B	24.4	C	17.6	B
Jefferson St On Ramp	21.3	C	16.8	B	21.7	C	17.1	B	18.4	C	14.0	B
Westbound Selmon Expressway Ramps												
Brorein St Off Ramp	48.4	F	13.2	B	123.6	F	28.5	D	77.9	F	12.7	B
Brorein St On Ramp	89.6	F	134.7	F	26.1	D	119.2	F	136.3	F	170.0	F
Tampa St On Ramp	17.5	B	24.9	C	17.8	B	24.8	C	22.8	C	41.5	E
Plant Ave Off Ramp	51.8	F	31.8	D	21.6	C	46.5	F	14.9	B	17.8	B
Willow Ave Off Ramp	163.8	F	17.7	B	10.5	A	10.7	A	197.6	F	69.4	F
Willow Ave On Ramp	15.7	B	17.9	B	14.9	B	15.4	B	15.0	B	16.3	B
Bay to Bay Blvd Off Ramp	79.0	F	23.4	C	147.5	F	51.9	F	85.8	F	33.9	D
Euclid Ave Off Ramp	40.2	E	27.7	D	89.3	F	61.4	F	48.6	F	34.1	D

Table 22: Design Year (2046) Overall Intersection Delay (s/veh) and LOS Comparison

ID	Intersection	No Build				Alternative 6				Alternative 2			
		Delay		LOS		Delay		LOS		Delay		LOS	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Euclid Ave/Himes Ave	142.0	187.6	F	F	129.7	185.2	F	F	129.0	186.4	F	F
2	Euclid Ave/Selmon Expressway WB Off Ramp	46.8	31.9	E	D	71.9	51.5	F	F	49.3	37.2	E	E
3	Euclid Ave/Selmon Expressway EB On Ramp	127.7	96.3	F	F	95.5	123.5	F	F	93.9	98.3	F	F
4	Bay to Bay Blvd/Concordia Ave	207.9	55.1	F	E	203.3	133.0	F	F	199.6	137.5	F	F
5	Bay to Bay Blvd/Selmon Expressway WB Off Ramp	143.2	87.2	F	F	168.5	102.3	F	F	141.1	102.3	F	F
6	Bay to Bay Blvd/MacDill Ave	146.9	124.7	F	F	143.2	126.8	F	F	145.3	128.3	F	F
7	Bay to Bay Blvd/Selmon Expressway EB On Ramp	56.0	57.2	F	F	53.8	55.7	F	F	54.6	58.6	F	F
8	Bay to Bay Blvd/Bayshore Blvd	218.2	208.9	F	F	221.1	203.2	F	F	215.3	204.6	F	F
9	Willow Ave/Platt St/Selmon Expressway EB Off Ramp	214.3	297.9	F	F	200.6	304.7	F	F	211.0	340.5	F	F
10	Willow Ave/Cleveland St/Selmon Expressway WB Off Ramp	169.9	104.4	F	F	98.1	109.8	F	F	247.2	152.1	F	F
11	Willow Ave/Kennedy Blvd	80.2	454.0	F	F	90.5	449.4	F	F	95.9	475.5	F	F
12	South Boulevard/Platt St	34.0	79.6	C	E	34.8	80.9	C	F	34.9	82.5	C	F
13	South Boulevard/Cleveland St	54.2	145.0	D	F	54.5	159.6	D	F	54.7	164.4	D	F
14	Hyde Park Ave/Cleveland St	114.8	64.0	F	E	112.9	64.9	F	E	114.7	67.2	F	E
15	Plant Ave/Platt St	164.7	466.9	F	F	166.3	573.8	F	F	149.1	537.0	F	F
16	Plant Ave/Walgreens Drwy/Cardy St/Selmon Expressway EB On Ramp	15.5	50.3	C	F	15.7	60.5	C	F	13.3	60.3	B	F
17	Plant Ave/Brorein St/Selmon Expressway WB Off Ramp	58.2	93.1	E	F	52.9	156.8	D	F	73.4	122.2	E	F
18	Tampa St/Brorein St	13.4	15.7	B	B	12.7	15.1	B	B	14.1	16.2	B	B
19	Tampa St/Whiting St	226.0	121.8	F	F	222.0	122.1	F	F	225.1	127.7	F	F
20	Franklin St/Brorein St	73.2	41.4	E	D	71.8	44.2	E	D	77.6	55.3	E	E
21	Florida St/Channelside Dr	20.1	117.9	C	F	65.9	154.3	E	F	71.0	151.1	E	F
22	Florida St/Brorein St	34.5	42.7	C	D	53.5	40.6	D	D	48.4	46.3	D	D
23	Morgan St/Channelside Dr	22.8	12.4	C	B	22.8	16.4	C	B	22.8	29.4	C	C
24	Morgan St/Brorein St/Selmon Expressway WB Off Ramp	32.1	184.2	C	F	52.8	126.4	D	F	67.2	295.8	E	F
25	Jefferson St/Brorein St/Selmon Expressway EB On Ramp	70.8	73.9	E	E	59.0	44.4	E	D	72.2	108.6	E	F

Table 23: Design Year (2046) Network-wide MOEs

Alt	Ave Speed (mph)	Total Distance (mi)	Total Travel Time (h)	Total Delay (h)	Total Number of Stops	Vehicles Remaining in System	Processed Vehicles	Latent Delay (s)	Latent Demand	*Adjusted Total Travel Time (h)
AM										
No Build	16	268875	20244	14268	2275769	23589	104754	66884272	26726	24459
Alternative 6	19	305544	18367	11771	1767857	21138	110867	46209354	18373	20923
Alternative 2	18	297158	19091	12668	2108186	21956	108192	53943589	21787	22287
PM										
No Build	12	283854	25235	18970	2660588	27132	107047	167311760	63695	37214
Alternative 6	14	316172	24403	17623	1919651	26864	112153	137240171	52214	33568
Alternative 2	12	290928	25453	19116	2987268	27864	106717	155307908	60076	36815

**Adjusted Total Travel Time is not output directly from VISSIM. It is a calculation to account for additional travel time that would be incurred by latent vehicles, calculated as Total Travel Time/(Vehicles Remaining in System+Processed Vehicles)*Latent Demand+Total Travel Time.*

4.0 Design Controls and Criteria

4.1. Design Controls

4.1.1. Roadway Design Criteria

The roadway design criteria used in the mainline alternatives development is shown in **Table 24**. Design criteria for ramps is shown in **Table 25**. The design criteria values listed in the tables were met to the greatest extent possible. However, due to the constraints of the corridor, deviations from these standard values were assumed in the development of the build alternatives. Design criteria values that do not meet standard values will require a Design Exception (DE) or Design Variation (DV) as appropriate**. Table 24** and **Table 25** note which design elements were assumed to be less than the standard values during the development of the build alternatives. The standard values listed below assume approval of a design variation for a design speed of 50 mph. For discussion of the design exceptions and variations required as part of the Preferred Alternative, see Section 7.3.

Table 24: Highway Design Criteria - Mainline

Design Element	Standard Value	Source	DE/DV (Value Used)
Design Speed	60 MPH	FDM Table 201.5.1	DV (50 MPH)
Lane Width	12′	FDM Section 211.2	DE (11′)
Median Width	26′ (with barrier)	FDM Table 211.3.1	
Shoulder Widths			
Outside	12′ Full / 10′ Paved	FDM Table 211.4.1	DE (5′ min full/paved)
Inside	12′ Full / 10′ Paved	FDM Table 211.4.1	DE (4′ full/paved)
Structures	10' Inside/ 10' Outside	FDM Figure 260.1.1	DE (4′ min. inside/5′ min. outside)
Horizontal Curvature, 50 MPH			
Maximum Deflection Without a Horizontal Curve	0°45'00"	FDM Section 211.7.1	
Length of Horizontal Curve (Desirable/Minimum)	1500' / 750'	FDM Table 211.7.1	DV assumed to maintain existing horizontal curvature
Maximum Degree of Curve / Minimum Radius	8°15' / 695.5′	FDM Table 210.9.1	

Design Element	Standard Value	Source	DE/DV (Value Used)
Minimum Radius without Superelevation	8,337'	FDM Table 210.9.1	
Superelevation			
Maximum Superelevation Rate	10%	FDM Section 210.9	
% Transition on Tangent	80%	FDM Section 210.9.1	
% Transition on Curve	20%	FDM Section 210.9.1	
Transition Rate, 8 lanes	1:150	FDM Table 210.9.3	
Transition Rate, 6 lanes	1:160	FDM Table 210.9.3	
Stopping Sight Distance, 50 MPH (2% max. grade)	425'	FDM Table 21210.11.1	DV and DE assumed as needed to maintain existing roadway profile
Profile Grade, 50 MPH			
Maximum Profile Grade	4%	FDM Table 211.9.1	
Maximum Change in Grade without Vertical Curve	0.60%	FDM Table 210.10.2	
Cross Slope			
Inside two travel lanes	2%	FDM Figure 211.2.1	
Outside lane(s)	3%	FDM Figure 211.2.1	
Maximum Algebraic Difference in Cross Slope at Turning Roadway Terminus	5%	FDM Table 211.2.2	
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1	
Outside Shoulder	6%	FDM Section 211.4.2	DV for 2% slope assumed as needed to accommodate future lanes
Inside Shoulder	5%	FDM Section 211.4.2	

Design Element	Standard Value	Source	DE/DV (Value Used)
Vertical Clearance			
Roadway over Roadway	16.5' New / 16.0' Existing	FDM Table 260.6.1	DV assumed as needed to maintain existing vertical clearances
Roadway over Railroad	23.5'	FDM Table 260.6.1	DE assumed as needed to maintain existing vertical clearances
OH Sign Structure	17.5' New / 17' Existing	FDM Section 210.10.3	
Dynamic Message Signs	19.5' New/ 19' Existing	FDM Section 210.10.3	
Vertical Curvature			DV and DE for vertical curvature assumed to maintain existing roadway profile
Crest Vertical Curves - Minimum K Value	136	FDM Table 211.9.2	
Crest Vertical Curves - Minimum Length	1000' Open Highway / 1800' in Interchange	FDM Table 211.9.3	
Sag Vertical Curves - Minimum K Value	96	FDM Table 211.9.2	
Sag Vertical Curves - Minimum Length	800'	FDM Table 211.9.3	
Minimum Lateral Offset/Horizontal Clearance Criteria			
Conventional Light Poles	20' from Travel Lane, 14' from Aux Lane, or Clear Zone width, whichever is less	FDM Table 215.2.2	
Other Elements (ITS Poles, Trees, Above Ground Utilities, Bridge Piers & Abutments	Outside Clear Zone	FDM Table 215.2.2	
Clear Zone	24'	FDM Table 215.2.1	
Border Width	10' min. from back of wall to R/W (for maintenance)	FDM Section 211.6.1	

Table 25: Highway Design Criteria - Ramps

Design Control	Value	Source	
Design Speed			
Loops and Semi Direct	30 MPH	FDM Table 201.5.2	DV (25 mph for Tampa St. Ramp)
Outer Cloverleaf	35 MPH	FDM Table 201.5.2	
Intermediate Portions of Long Ramps	40 MPH	FDM Table 201.5.2	
Lane Widths			
Single Lane Ramps	15'	FDM Section 211.2.1	
Two Lane Ramps	24'	FDM Section 211.2.1	
Shoulder Widths			
One Lane Ramp - Outside	6' Full / 4' Paved	FDM Table211.4.1	DE to maintain existing shoulder widths
One Lane Ramp - Inside	6' Full / 2' Paved	FDM Table 211.4.1	
2 or more Lane Ramp - Outside	10' Full / 8' paved	FDM Table 211.4.1	
2 or more Lane Ramp - Inside	8' Full / 4' Paved	FDM Table 211.4.1	
One Lane Ramp Structures	6' Inside / 6' Outside	FDM Table 211.4.1	
2 or more Lane Ramp Structures	6' Inside / 10' Outside	FDM Table 211.4.1	
Horizontal Curvature			
Maximum Deflection Without a Horizontal Curve			DV to tie to and maintain existing horizontal curvature
Ramps (≥45 MPH)	0°45'00"	FDM Section 211.7.1	
Ramps (≤40 MPH)	2°00'00"	FDM Section 211.7.1	
Length of Horizontal Curve (Desirable/Minimum)			
Ramps, 30 MPH	450' / 400'	FDM Table 211.7.1	

Design Control	Value	Source	
Ramps, 35 MPH	525' / 400'	FDM Table 211.7.1	
Ramps, 40 MPH	600' / 400'	FDM Table 211.7.1	
Maximum Degree of Curve / Minimum Radius			
Ramps, 30 MPH	24°45' / 231.5'	FDM Table 210.9.1	
Ramps, 35 MPH	17°45' / 323'	FDM Table 210.9.1	
Ramps, 40 MPH	13°15' / 433'	FDM Table 210.9.1	
Minimum Radius without Superelevation			
Ramps, 30 MPH	3,349'	FDM Table 210.9.1	
Ramps, 35 MPH	4,384'	FDM Table 210.9.1	
Ramps, 40 MPH	5,560'	FDM Table 210.9.1	
Superelevation			
Maximum Superelevation Rate	10%	FDM Section 210.9	
% Transition on Tangent	80%	FDM Section 210.9.1	
% Transition on Curve	20%	FDM Section 210.9.1	
Transition Rate (<40 MPH)	1:175	FDM Table 210.9.3	
Stopping Sight Distance (2% max. grade)			
Ramps, 30 MPH	200'	FDM Table 211.10.2	DE to maintain existing Tampa St. ramp curvature
Ramps, 35 MPH	250'	FDM Table 211.10.2	

Design Control	Value	Source
Ramps, 40 MPH	305'	FDM Table 211.10.2
Profile Grade		
Maximum Profile Grade		
Ramps, 30 MPH	7%	FDM Table 211.9.1
Ramps, 35-40 MPH	6%	FDM Table 211.9.1
Maximum Change in Grade without Vertical Curve		
Ramps, 30 MPH	1.00%	FDM Table 210.10.2
Ramps, 35 MPH	0.90%	FDM Table 210.10.2
Ramps, 40 MPH	0.80%	FDM Table 210.10.2
Cross Slope		
Inside two travel lanes	2%	FDM Figure 211.2.1
Outside lane(s)	3%	FDM Figure 211.2.1
Maximum Algebraic Difference in Cross Slope at Turning Roadway Terminus	5%	FDM Table 211.2.2
Maximum Change in Cross Slope between Adjacent Travel Lanes	4%	FDM Figure 211.2.1
Outside Shoulder	6%	FDM Section 211.4.2
Inside Shoulder	5%	FDM Section 211.4.2
Vertical Clearance		
Roadway over Roadway	16.5' New / 16.0' Existing	FDM Table 260.6.1
Roadway over Railroad	23.5'	FDM Table 260.6.1
OH Sign Structure	17.5' New / 17' Existing	FDM Section 210.10.3

Design Control	Value	Source
Dynamic Message Signs (DMS)	19.5' New/ 19' Existing	FDM Section 210.10.3
Vertical Curvature		
Crest Vertical Curves - Minimum K Value		
Ramps, 30 MPH	31	FDM Table 211.9.2
Ramps, 35 MPH	47	FDM Table 211.9.2
Ramps, 40 MPH	70	FDM Table 211.9.2
Crest Vertical Curves - Minimum Length		
Ramps, 30 MPH	90'	FDM Table 211.9.3
Ramps, 35 MPH	105'	FDM Table 211.9.3
Ramps, 40 MPH	120'	FDM Table 211.9.3
Sag Vertical Curves - Minimum K Value		
Ramps, 30 MPH	37	FDM Table 211.9.2
Ramps, 35 MPH	49	FDM Table 211.9.2
Ramps, 40 MPH	64	FDM Table 211.9.2
Sag Vertical Curves - Minimum Length		
Ramps, 30 MPH	90'	FDM Table 211.9.3
Ramps, 35 MPH	105'	FDM Table 211.9.3
Ramps, 40 MPH	120'	FDM Table 211.9.3

Design Control	Value	Source
Minimum Lateral Offset/Horizontal Clearance Criteria		
Light Poles	20' from Travel Lane, 14' from Aux Lane, or Clear Zone width	FDM Table 215.2.2
Other Elements	Outside Clear Zone	FDM Table 215.2.2
Clear Zone		
Ramps at 30 MPH	10' Single Lane / 12' Multilane	FDM Table 15.2.1
Ramps at 35 MPH	10' Single Lane / 14' Multilane	FDM Table 15.2.1
Ramps at 40 MPH	10' Single Lane / 18' Multilane	FDM Table 15.2.1
Border Width	10' min. from back of wall to R/W	FDM Section 211.6.1

4.1.2. Drainage Design Criteria

The drainage design criteria used in the alternatives development is shown in **Table 26**.

Table 26: Drainage Design Criteria

Design Control	Value	Source
Storm Sewer Design Storm Event	Storm sewer systems shall be designed to convey the 10-year frequency storm event	FDOT
Presumptive Water Quality Treatment	Wet Detention: Treat 1" over Increase in Impervious Area Dry Retention: Treat 0.5" over Increase in Impervious Area	SWFWMD
Net Nutrient Improvement	Net reduction in nutrients must be met for discharges into impaired waters	SWFWMD/FDEP
Historic Basin Storage	Any existing storage capacity in existing depressional areas must be replaced or mitigated	SWFWMD
Discharge Attenuation	<25 year/24 hour Design Storm Peak Discharge Rate (cfs)	SWFWMD
Retention Pond Recovery	Dry Systems: Treatment volume shall be available within 72 hours; volume available within 36 hours can be counted for water quantity storage Wet Systems: Bleed ½ the treatment volume in 60 hours, all treatment volume in no less than 120 hours	SWFWMD
Side Slope Criteria	Retention and detention areas should have side slopes no steeper than 1:4 (V:H) unless protected or 2' below NWL	SWFWMD

5.0 Alternatives Analysis

5.1. No-Build Alternative

The No-Build Alternative considers what would happen in the future if the proposed project is not built. It includes the routine maintenance improvements of the existing roadway, currently programmed, committed and funded roadway projects, and assumed improvements at certain ramp terminal intersections to prevent excessive future congestion and gridlock. The currently programmed and assumed improvements are discussed in detail in Section 7.6. While the No Build Alternative does not meet the project needs, it provides a baseline condition against which to compare and measure the effects of all the Build Alternatives.

5.2. TSM&O

Transportation Systems Management and Operations (TSM&O) alternatives focus on maximizing the capacity, safety, security, and reliability of the existing transportation facility by implementing a variety of short-term projects and services. Although TSM&O-type improvements could help alleviate some congestion and to some extent improve traffic safety in the project corridor for the short-term, they would not effectively address the project purpose and need. Therefore, the TSM&O Alternative was eliminated from further study.

5.3. Build Alternatives

5.3.1. Development of Build Alternatives

The process for developing the Build Alternatives included four steps to develop, screen, and refine alternatives. The following describes the process for developing the Build Alternatives during this study.

STEP 1 – IDENTIFY PRELIMINARY ALTERNATIVES. Five preliminary alternatives (shown in **Figure 13**) were initially developed based on the purpose and need for the project and an understanding of the existing conditions and constraints along the corridor. The alternatives were developed to limit the need to expand beyond the existing right-of-way and to avoid impacting adjacent properties and the CSX railroad while maintaining the same access at existing ramp locations. Alternatives initially identified are described below:

- **Alternative 1** – Widen bridges to the inside and restripe the existing lanes and inside paved shoulders to accommodate six lanes. No outside widening is proposed.
- **Alternative 2** - Widen bridges to the inside, widen roadway and bridges 9-feet to the outside directions and restripe the existing lanes and inside paved shoulders to accommodate an eight-lane section.
- **Alternative 3** - Maintain the four-lane at-grade typical section and add two elevated limited access lanes (one in each direction) in the median.
- **Alternative 4** - Maintain the four-lane at-grade typical section and add four elevated limited access lanes (two in each direction) in the median.

- **Alternative 5** – Widen bridges to the inside and restripe the existing lanes and inside paved shoulders to accommodate six lanes at grade; add four elevated limited access lanes (two in each direction) in the median.

Figure 13: Preliminary Alternatives

STEP 2 – SCREEN PRELIMINARY ALTERNATIVES. Based on a preliminary evaluation of future traffic needs for 2046 and an evaluation of costs, Alternatives 3, 4 and 5 were eliminated from consideration (as shown in **Figure 14**). Because future traffic (2046) shows a need for 8-lanes, Alternative 1 was modified and a new Alternative 6 was developed to provide an interim 6-lane condition and an ultimate 8-lane condition. In the interim or near-term phase, Alternative 1 widens to the inside first and Alternative 6 widens to the outside first.

Figure 14: Preliminary Alternatives – Initial Screening

STEP 3 – SECONDARY SCREENING. Following further analysis, Alternative 1 was eliminated (as shown in **Figure 15**) because it would require demolition of interim improvements and significant reconstruction to widen to the outside in the ultimate phase.

Figure 15: Preliminary Alternatives – Secondary Screening

STEP 4 – REFINE ALTERNATIVES. The two remaining build alternatives (Alternative 2 and 6) were further developed and refined based on study analysis results. These Alternatives include the same currently programmed and assumed ramp terminal improvements as the No Build Alternative. Details on each alternative are provided in the following sections.

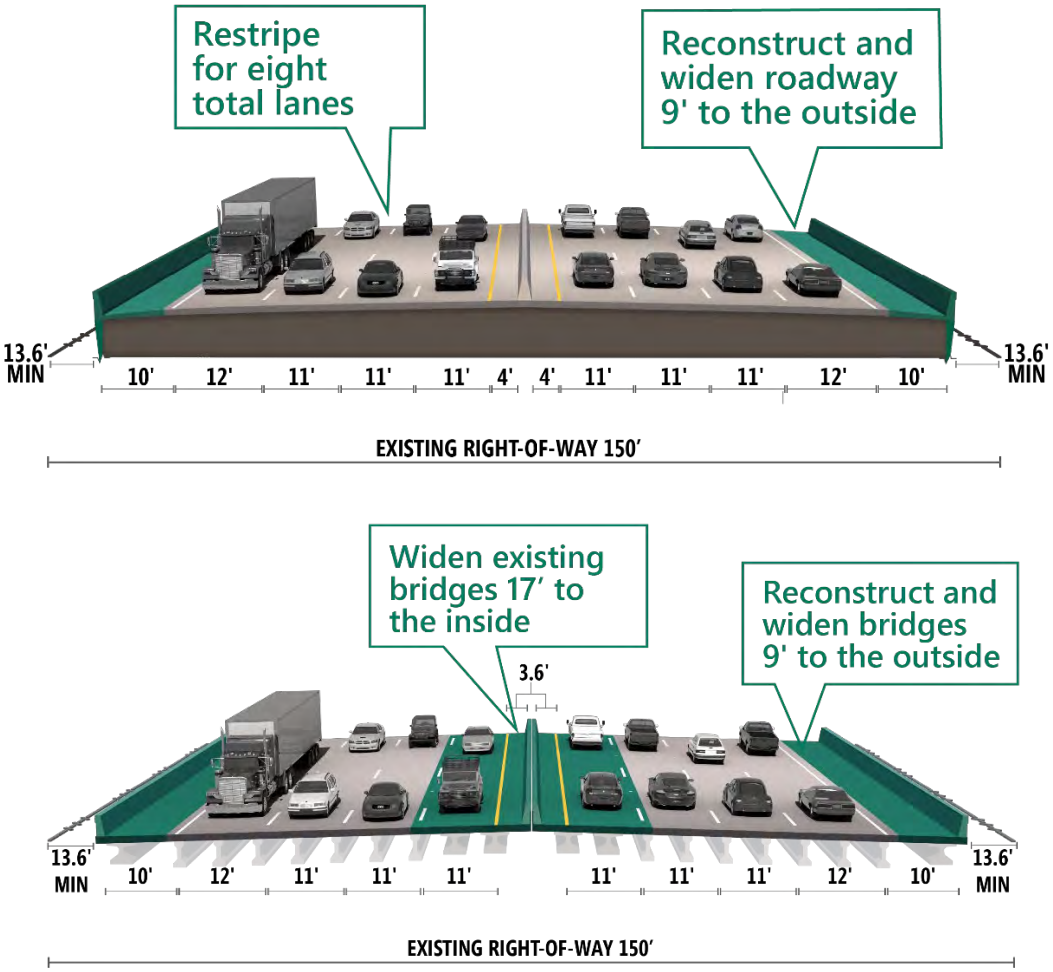
5.3.2. Alternative 2 – Eight lanes at-grade with outside widening

Alternative 2 proposes to utilize the improvements provided by the South Selmon Safety Project by restriping the existing lanes and inside paved shoulders and widening 9-feet to the outside in both directions to accommodate an eight-lane section. The typical section for Alternative 2 consists of three 11-foot lanes and one 12-foot outside lane in each direction with four-foot inside shoulders and 10-foot outside shoulders (see **Figure 16**). The existing outside barrier wall would be removed and a new retaining wall with barrier would be constructed to accommodate the 10-foot outside shoulder. The existing median barrier wall would remain. Alternative 2 requires inside and outside widening of the existing bridges along the corridor to match the proposed roadway section.

Alternative 2 also includes the following improvements:

- Extension of the westbound on-ramp acceleration lane at Willow Avenue, and
- Accommodations for the City of Tampa future ramp improvements to Florida Avenue.

Figure 16: Alternative 2 – Roadway and Bridge



5.3.3. Alternative 6 – Six lanes at-grade with outside widening

Alternative 6 was developed to provide the same outside widening footprint as shown in Alternative 2 (widening 9-feet to the outside in both directions). In the interim phase (**Figure 17**), Alternative 6 provides for a 6 lane section by widening to the outside and therefore does not require inside bridge widening at all overpass locations. Alternative 6 in the ultimate phase (**Figure 18**) would be able to accommodate a future 8 lane section without outside widening. The roadway typical section in the interim phase for Alternative 6 consists of three 12-foot lanes in each direction with 18-foot inside shoulders (utilizing improvements provided by the South Selmon Safety Project) and five-foot outside shoulders. The existing outside barrier wall would be removed and a new retaining wall with barrier would be constructed in order to accommodate the outside widening. The existing median barrier wall would remain. Existing bridges along the corridor would be widened to the outside to the same extent as shown in Alternative 2. Unless it is required to maintain ingress and egress at the interchanges, all

overpass bridges would not be widened to the inside during the interim phase and would maintain the existing 4 foot inside shoulder. Bridges that require both inside and outside widening would provide a 10 foot minimum inside shoulder (Himes, Euclid, El Prado, and Platt). Alternative 6 also includes the following improvements:

- Extension of the westbound on-ramp acceleration lane at Willow Avenue, and
- Accommodations for the City of Tampa future ramp improvements to Florida Avenue.

Figure 17: Alternative 6 – Interim Roadway and Bridge

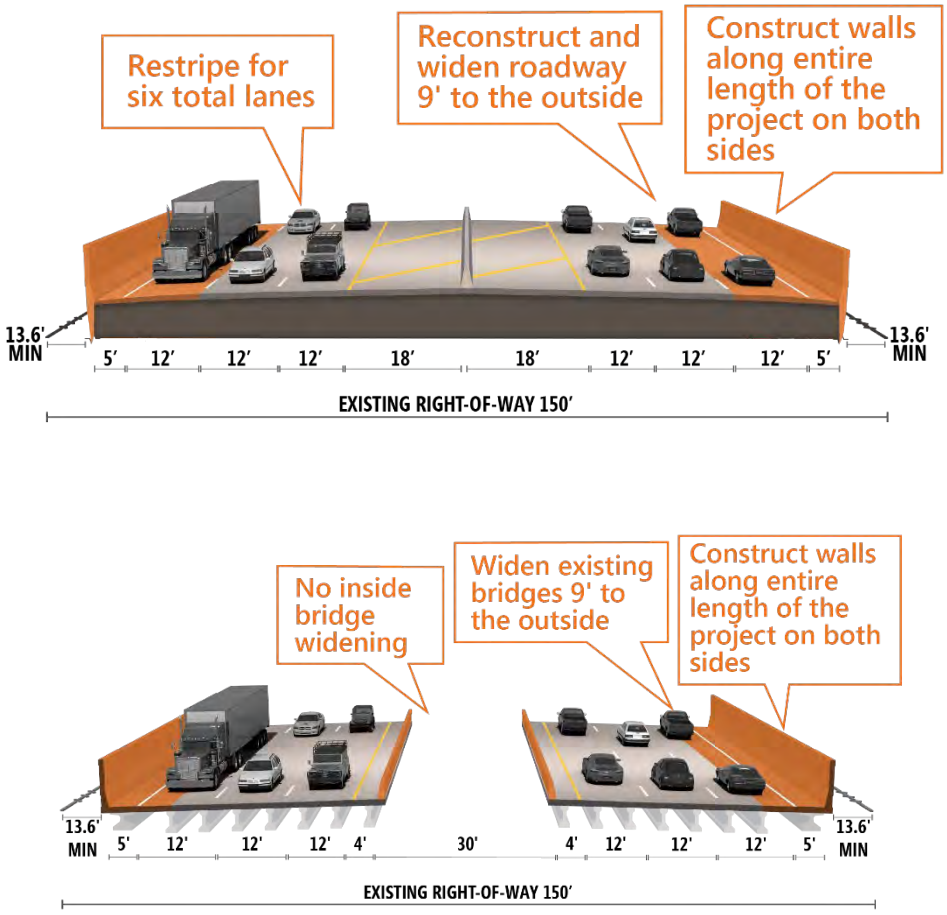
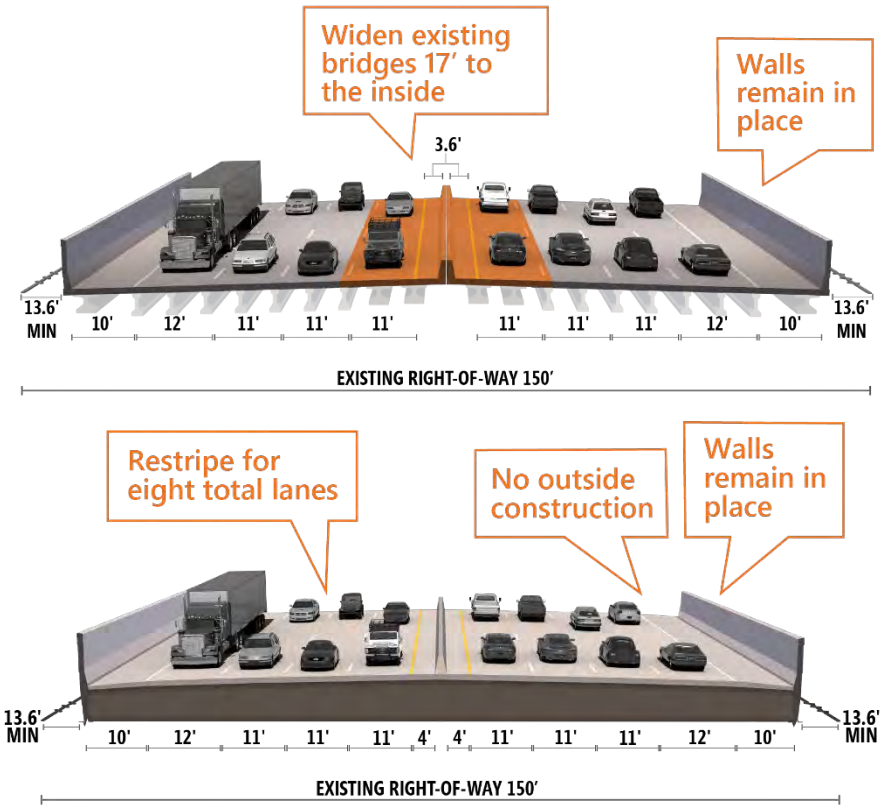


Figure 18: Alternative 6 – Ultimate Bridge and Roadway



5.4. Alternatives Analysis

5.4.1. Engineering Considerations

The following engineering features were considered in the development and analysis of Alternatives 2 and 6. Alternatives Concept Roll Plots for Alternatives 2 and 6 are provided in **Appendix B**.

5.4.1.1. Traffic Operations

The results of the operational analysis show that Alternative 6 and Alternative 2 are expected to reduce the combined AM and PM peak-period total delay by 2418 and 1424 hours, respectively. Additional operational benefit is expected if improvements were to be made at the intersection terminals and along the interchange arterials that would allow the arterials to absorb and deliver traffic to the Selmon Expressway in a more efficient manner.

5.4.1.2. Safety

A Highway Safety Manual (HSM) Predictive Crash Analysis was conducted to compare the anticipated number of crashes between the No Build Alternative and Alternative 6 within the study period. The results show that there would be an anticipated reduction in crashes of approximately 17 percent over the length of the study

period by implementing Alternative 6. This reduction is most likely due to the increased capacity, wider inside and outside shoulder widths, and other safety improvements along the corridor under Alternative 6.

Under Alternative 6, the Selmon Expressway corridor is expected to experience reductions in possible injury and property damage only type crashes of approximately 22 and 18 percent, respectively. Alternative 6 is also expected to reduce the number of total multiple vehicle crashes along the Selmon Expressway by over 29 percent. This is most likely due to the additional lane in each direction of travel and larger shoulders. These features may allow vehicles more opportunities to avoid crashes that would result in sideswipes or rear-end collisions.

Additionally, the No Build Alternative and Alternative 6 crash rates were compared to the critical crash rates for each year and the average of all years in the project's design life. The critical crash rate is similar between the No Build Alternative and Alternative 6 for all years. The crash rate for the No Build Alternative is expected to be less than the critical crash rate until 2035, at which point it becomes greater than the critical crash rate. The overall crash rate for the average of all years in the project's design life for the No Build Alternative also shows the crash rate exceeding the critical crash rate. Alternative 6 shows crash rates less than the critical crash rate for each year and the average of all years in the project's design life. The severity rate, based on a scale from the Minnesota Department of Transportation Traffic Safety Fundamentals Handbook, is also predicted to be lower for Alternative 6 than for the No Build Alternative for each year and the average of all years in the project's design life.

5.4.1.3. Access Management

There are no anticipated changes to the access management classifications of the Selmon Expressway or adjacent local roadways as part of Alternative 2 or 6.

5.4.1.4. Interchanges

Within the project limits, there are eight arterial roadways with access to or from Selmon Expressway as summarized in **Table 7**. The interchanges types within the project limits are anticipated to remain the same. Both alternatives 2 and 6 widen the roadway and bridges 9' to the outside. As such, the modifications needed at interchange ramp locations would be the same for each alternative. Alternatives 2 and 6 assume the following improvements to interchange ramps:

- Extension of the westbound on-ramp acceleration lane at Willow Avenue, and
- Accommodations for future ramp improvements to Florida Avenue as part of THEA's Whiting Street PD&E Study.

5.4.1.5. Railings and Walls

The existing guardrail and barrier wall on the outside of the Selmon Expressway will be removed as a result of the proposed widening in Alternatives 2 and 6. Both Alternatives assume barrier walls on the outside of the proposed shoulders as roadside protection. Additionally, due to the 13.6' width remaining between the outside of the proposed widening and the right-of-way, retaining walls are also assumed below the proposed barrier walls. Most of the project limits are accepting offsite runoff so the remaining space between the barrier/retaining wall was assumed to be utilized for drainage and maintenance purposes.

All existing bridges within the project limits except for the downtown viaduct bridge have sub-standard traffic railings on the inside and outside. The build alternatives assume removal and replacement of the inside and outside traffic railings on all bridges to meet current safety requirements. Alternative 2 proposes widening all bridges within the project limits; therefore, the widened bridge will include a new railing on both the inside and outside. Alternative 6 widens all bridges to the outside but only widens bridges to the inside where necessary to maintain ingress and egress at the interchanges during the interim phase. However, the bridge railings will be replaced during the interim phase on the inside regardless of widening. A 3.5' wide section of existing bridge on the inside is assumed to be removed and reconstructed to properly tie in the new railing to the bridge deck. Bridge reconstruction to replace the inside bridge railing in Alternative 6 was accounted for in the construction cost estimate, along with the widths of outside bridge widening.

A highway traffic noise analysis was performed as part of this study and few locations along the proposed project improvements for both Alternative 2 and 6 met the federal and state criteria for noise walls. However, for Alternative 6, THEA has committed to building walls the entire length of the project on both sides of the roadway. These walls would be mounted on top of the proposed outside barrier walls, except for the noise walls located along the eastbound Willow Avenue off ramp where the right-of-way opens up and allows space for ground mounted noise walls. For more information on the highway traffic noise analysis, please refer to the *Noise Study Report*.

5.4.1.6. Structures and Bridges

All bridges through the corridor were load rated to see if the existing bridges could be widened or would need to be replaced or strengthened per FDOT SDG Figure 7.1.1-1 "Widening/Rehabilitation Load Rating Flow Chart". Existing beams and girders were rated to include the final proposed condition, including the barrier replacement and addition of a wall on the outside of the bridge. Please note that the assumption of lightweight concrete for barriers and walls was used to minimize additional loads on the existing bridges. Normal weight concrete will be used on the roadway portion. Deck replacement was also considered for the load rating based on the current condition of the deck as noted in the Inspection Reports. Based on the Inspection Reports and discussions with THEA, only two (2) bridge decks were slated for replacement: Bridge 100308 over Himes and Bridge 100314 over MacDill and Bay-to-Bay. These bridges were also rated for the final condition using an 8" composite lightweight concrete deck to minimize additional dead load on existing beams. Following the FDOT guidelines, all existing bridges were able to be widened with two (2) design variations. For detailed calculations and results, please refer to the *Bridge Report*.

Because alternative 2 and alternative 6 have the same widening limits, the only difference from a bridge load rating perspective is that the inside exterior beams will remain in alternative 6 in the interim phase. The load rating took this into consideration, ensuring that existing inside exterior beams would also be able to handle the alternative 6 interim conditions. Please note that for bridge widening, new beams were laid out such that no existing beam tributary area is increased.

Span 4 through Span 8 of the Viaduct Segment 1 cross the Hillsborough River. Substructure and foundation located in the river shall be designed for vessel collision. Both alternative 2 and 6 widen to the to the outside to the same extents over the Hillsborough River. The difference between the two alternatives is that Alternative 2 also widens to the inside whereas the inside bridge widening for Alternative 6 over the river does not occur until the ultimate phase of construction.

The cost for bridge re-decking and widening was determined using recent projects and a weighted cost average of local costs and the BDR. Bridge costs vary based on bridge type (steel versus PS concrete) and have been accounted for in the cost estimation. Because alternative 2 and alternative 6 ultimate have the same widening limits and girder configurations, there is no cost difference except mobilization and inflation.

Please refer to the *Bridge Report* for a more detailed discussion of bridge rating assumptions and results.

5.4.1.7. Pedestrian and Bicycle Accommodations

There are no pedestrian or bicycle accommodations along the South Selmon Expressway as it is a Limited Access facility. Both alternative 2 and 6 would allow the existing pedestrian and bicycle facilities along local roadways that cross under and connect to the Selmon Expressway to remain in place. Proposed bridge piers would be placed such that sidewalk and bike lane connections can be maintained. Coordination between THEA and the City of Tampa regarding improvements to the pedestrian and bicycle accommodations along local roadways is anticipated during the design and construction phases of this project.

5.4.1.8. Lighting

The median barrier light poles installed as part of the Selmon Safety Project are assumed to remain in place for both alternatives. The construction cost estimates for Alternatives 2 and 6 assume the following with regards to lighting:

- From Himes Avenue to Hyde Park Avenue, the existing lights located on the outside at the bridge approaches will be removed and replaced in the median using a 235 foot spacing. Permanent median barrier wall is assumed to be installed at the bridge approach locations to mount the proposed light poles for both alternatives.
- The existing lights on the outside of the Hyde Park Ave./Plant Ave. bridge are assumed to be removed as part of the outside bridge widening and replaced with lights mounted on the inside bridge railing that will be replaced as part of both alternatives.
- The existing lights mounted on the outside of the Viaduct will be removed as part of the outside bridge widening. Since the inside bridge railing on the Viaduct bridge meets current safety requirements, it is not proposed to be replaced like the other bridges within the study limits. Therefore, the proposed lights will be mounted on the outside of the widened viaduct bridge in both directions, using a spacing of 200 feet.

- The existing under deck lighting will be removed and replaced for both alternatives at all bridge locations. Additionally, new underdeck lighting in areas of bridge widening was assumed using a 25 foot spacing.

5.4.1.9. Intelligent Transportation Systems

The existing ITS system along the Selmon Expressway was assumed to be replaced with a new system that can accommodate the ultimate 8 lane section. The ITS construction cost was estimated to be $1.1M for both alternatives. The construction cost estimates for Alternatives 2 and 6 assumed $5M for the removal and replacement of the toll gantries at the following locations within the study limits:

1. Willow Ave. eastbound off ramp
2. Willow Ave. westbound on ramp
3. Willow Ave. westbound off ramp
4. Selmon Expressway eastbound, east of Willow Ave.
5. Selmon Expressway westbound, west of Plant Ave.
6. Selmon Expressway eastbound and westbound, east of Plant Ave.
7. Plant Ave. westbound off ramp

5.4.1.10. Railroad Crossings

CSX operates an active rail line running parallel to the Selmon Expressway from Himes Avenue to Platt Street. Alternatives 2 and 6 both widen the Selmon Expressway to the outside to the same extent, with the proposed retaining wall on the westbound side coming within 26 feet from the nearest rail from Himes Avenue to Swann Avenue. North of Swann Avenue, the horizontal clearance from the proposed retaining wall on the westbound side to the nearest rail is reduced to 13.5 feet to accommodate a westbound acceleration lane at the Willow Avenue on ramp.

There are two ramp structures within the project limits that cross over the railroad – the westbound off ramps to Euclid Avenue and Bay to Bay Boulevard. While these structures are to remain in place, the railing on each side is assumed to be replaced with new railing that meets current safety standards for both alternatives. The portion of the work to replace the railing on each of these bridge structures occurs outside of the Selmon Expressway right-of-way and within the adjacent CSX right-of-way. Close coordination with CSX will be required during construction to replace the railings while safely maintaining all modes of transportation.

5.4.1.11. Utilities

Both Alternatives 2 and 6 will have utility impacts as a result of the proposed improvements. The extent of the necessary utility adjustments are unknown at this phase of study. The cost to resolve any utility impacts is assumed to be the burden of the utility companies; therefore, utility cost was not included in the construction cost estimates for Alternatives 2 and 6.

5.4.1.12. Water Resources

Two separate water quality requirements affect this project. These criteria are referred to as the presumptive water quality treatment requirement and the net nutrient improvement requirement. The

SWFWMD presumptive requirement states that either 0.5 or 1.0 inch of runoff, for dry retention or wet detention ponds, respectively, must be stored and treated from any added impervious area. This treatment volume is required for each project basin, but compensatory treatment is possible due to the entire project draining to the same ultimate outfall (Hillsborough Bay). In addition, equivalent treatment provided in existing SMFs shall be replaced if impacted or eliminated by the roadway improvements.

Dry retention or wet detention ponds treatment volume must be able to recover within a prescribed time. For dry retention facilities, the treatment volume shall recover via percolation within 72 hours, with only the volume available after 36 hours counted for water quantity storage volumes. For wet detention facilities, no more than one-half of the treatment volume shall recover within the first 60 hours via a bleeder device. Side slopes must be no steeper than a 1V:4H slope, unless a fence is provided for public safety. The pond peak stages must be designed for the 25-year, 24-hour design storm event.

Additionally, no net increase in nutrient loading (e.g. nitrogen and phosphorus) is required by the SWFWMD and the Florida Department of Environmental Protection (FDEP) for nutrient-impaired basins. The project lies within the FDEP Water Body Identification numbers (WBID) 1640, 1609, 1443E and 1548A1 as shown on the FDEP WBID map provided in Appendix A of the *Pond Siting Report*. These basins drain to Old Tampa Bay characterized by WBID 1558E and 15842A2. Review of the FDEP 2019 Final Verified Lists for Group 1 Basins only shows only WBID 1584A1 as the only impaired basin for fecal coliforms. However, based on the SWFWMD pre-application meeting the District considers WBID 1640-Direct Runoff to Tampa Bay impaired for nutrients and demonstration of no net increase in nitrogen and phosphorus is required.

This approach requires current and proposed nutrient loadings, specifically total nitrogen and phosphorus, to be estimated. A net reduction in nutrient loading must be shown using appropriate methods, such as the BMP Trains water quality modeling software. This approach is independent of the presumptive water quality requirement, but the treatment capacity of any stormwater management facilities, or other best management practices (BMPs), can be counted towards meeting both water quality requirements.

South Selmon Safety Project

The recent median safety improvements removed some treatment functions from the grassed median swales. To account for this loss, the analysis assumed that these swales provided treatment for 0.25 inches of runoff over the pavement that contributed to these median swales. For impervious area that did not drain to these median swales, no formal water quality treatment was performed; however, there remains informal treatment from the ditches along either side of the expressway. Compensatory water quality treatment was estimated for this project within two stormwater management facilities labeled Pond 9 and 10 in the Willow Avenue interchange infields, both of which are within the Spanishtown Creek basin.

Since no water quality treatment was performed for most of the safety improvement project area, the additional pavement that was left untreated must be taken into account for this project due to added travel lanes.

Net Nutrient Improvement

To demonstrate a net improvement in nutrient loading, a BMP Trains (2020 Version) model was created. A Net Improvement analysis was performed to determine the annual loadings from the existing condition and the proposed condition of the Selmon Expressway. The stormwater management facilities that are currently proposed to meet the presumptive treatment and attenuation criteria were also added to the proposed condition model to determine what nutrient reduction they provide. The results of this analysis are presented in **Table 27**. With the current proposed stormwater management facilities, net nutrient improvement is met across the project limits.

Table 27: Estimated Nutrient Loading due to Proposed Improvements

Nutrient	Existing Condition Loading (kg/yr)	Proposed Condition Loading (kg/yr)	Proposed Condition Loading with Pond Treatment (kg/yr)
Total Nitrogen	394.0	465.3	393.9
Total Phosphorus	51.1	60.8	48.7

5.4.1.13. Water Quantity

Much of the Selmon Expressway runoff enters storm sewer systems owned by the City of Tampa before discharging into Hillsborough Bay. Since most of the Selmon Expressway runoff first enters a separate storm sewer system attenuation must be met to assure no downstream impacts occur. Attenuation of stormwater runoff is not required for those basins with outfalls that drain directly into tidally controlled water bodies.

Runoff from the expressway must be attenuated such that the post-development discharge rate is less than or equal to the discharge rate in the existing condition. The design storm event for this discharge rate is the 100-year, 24-hour storm event due to the existing flooding problem in the City systems. Also, SWFWMD requires that any historic storage, such as depressional areas with some volume of storage below the 100-year, 24-hour storm event, be replaced or mitigated. However, there are no depressional storage areas along the corridor as the existing ditches are conveyance or attenuation systems. Attenuation storage in the existing linear swales shall be replaced by the project.

5.4.1.14. Hydrology and Floodplains

Nearly all of the project falls within FEMA's Zone X, which is outside the 100-year floodplain. A small portion of the bridge over the Hillsborough River is within Zone AE, which has a 100-year floodplain elevation of 10 feet (NAVD). However, the bridge and approach sections of the Expressway are well above the floodplain elevation and no impacts to the floodplain are expected for Alternative 2 or 6.

Preliminary FEMA information is also available within this corridor. These preliminary maps show similar flooding extents along the Selmon Expressway. At the bridge over the Hillsborough River, the Zone AE floodplain elevation is set at 11 or 12 feet (NAVD), for the west and east sides, respectively. Additionally, a new 500-year floodplain is shown surrounding the Selmon Expressway and Dale Mabry Highway interchange but does not encroach upon the travel lanes.

5.4.1.15. Stormwater Management

The stormwater management approaches considered in this study aim to make use of all available right-of-way within each basin to provide the required treatment and attenuation volumes. Compensatory treatment was evaluated where traditional stormwater management approaches were not possible. Additionally, basin divides were changed in some areas to meet attenuation requirements in basins that did not have enough available storage.

The stormwater management system is to be designed for the ultimate 8 lane section of the Selmon Expressway. Therefore, the anticipated ponds and drainage system modifications are the same for Alternative 2 and 6. Per conversation with the City of Tampa on 10/9/2020, all outfalls within the project limits are to be considered undersized. Additional storage volume was provided, where feasible, to improve the existing flooding conditions.

An overview of the proposed stormwater management facilities of the design alternative is presented in **Table 28.** For a summary on the proposed stormwater management approach in each basin, please refer to Section 7.12.

Table 28: Provided Treatment and Attenuation Volumes in Ponds

Basin	Pond Name	Treatment Volume Required (ac-ft)	Treatment Volume Provided (ac-ft)	Attenuation Volume Required (ac-ft)	Attenuation Volume Provided (ac-ft)
Gandy	Pond 1 (existing pond)	0.10[1]	0.10[1]	0.77[2]	0.77[2]
Euclid	Pond EC - 1	0.21	0.04	1.33	0.15
	Pond EC - 2		0.09		0.44
	Pond EC - 3		0.09		0.40
	Pond EC - 4		0.02		0.19
	Pond EC - 5		0.02		0.16
Granada	-	0.17	-	0.00	-
Palma Ceia	PC-1	0.33	0.04	1.18	0.02
	PC-2		0.04		0.03
	Stormwater Management Alternative		-		1.34[3]
Rome Ave.	Swann Pond Expansion	0.25	0.22	0.45	0.49
Spanishtown Creek	Pond SC-1	0.35[6]	0.19	0.75	0.83
Brorein West	Pond BW-1	0.79[6]	1.08	2.83[4]	2.87
	Pond BW-2		0.37		0.53
	Pond BW-3		0.16		0.07
Hillsborough River Bridge	-	0.03	-	-	-
Brorein East	-	0.12	-	-	-
Meridian R.R.	Pond M-1	0.03	0.04	0.02	0.05
	Totals	***2.28***	***2.40***	***3.73 (7.33)[5]***	***7.57***

[1]Additional treatment volume available in existing Pond-1; no additional treatment volume required

[2]ICPR3 model results show negligible impact due to increase in runoff; no additional attenuation volume required

[3]Multiple alternatives available to account for increase in runoff from Palma Ceia basin; refer to the *Pond Siting Report*. Option 2 attenuation volume is shown

[4]Outfall drains directly to Hillsborough Bay; no additional attenuation volume required, but excess is provided to prevent pipe surcharge

[5]Number in parenthesis includes attenuation volume that is not required from a regulatory perspective, such as that within the Brorein West and Gandy basins

[6]Includes twice the existing treatment volume of Pond 9 and Pond 10, due to proposed conversion from dry to wet ponds

5.4.1.16. Landscaping

The interchanges at Euclid Ave., Willow Ave. and Hyde Park/Plant Ave. were identified as locations with potential for landscaping. While a detailed landscape design was not prepared as part of this study, a cost of $200,000 per location was included in the construction cost estimate for both alternatives. This figure was determined using similar landscape projects in the area.

5.4.1.17. Transportation Management Plan

Alternatives 2 and 6 propose widening to the outside, as such, the first phase of construction will begin on outside for both alternatives. Once the outside construction is completed, the traffic will be shifted to the outside to allow work on the inside. Alternative 2 proposes widening all bridges within the project limits to the inside. Unless it is required to maintain ingress and egress at the interchanges, all overpass bridges would not be widened to the inside for Alternative 6. Therefore, the second phase of construction will last longer for Alternative 2 as compared to Alternative 6. Two lanes of traffic will be maintained during construction for all phases.

5.4.1.18. Constructability

The outside widening for Alternatives 2 and 6 leaves 13.6 feet of space between the outside of proposed retaining wall to the right of way line for most of the project limits. There are a few locations listed in **Table 29** where adjacent to ramps and auxiliary lanes where the distance between the outside of proposed retaining wall and the right-of-way is less than 13.6 feet. These distances are the same for Alternative 2 and 6.

Table 29: Right of Way Constraints

Station Range	Direction	Adjacent Feature	Minimum Distance from outside of proposed wall to R/W
120+07.64 – 123+65.31	Eastbound	Euclid Avenue EB on ramp acceleration lane	2 feet
251+69.70 – 499+86.17	Westbound	Willow Avenue WB on ramp acceleration lane	2.5 feet
252+56.22 – 497+80.11	Eastbound	Willow Avenue EB off ramp deceleration lane	6.9 feet
163+92.10 – 170+09.60	Eastbound	Bay to Bay Boulevard EB on ramp acceleration lane	7.2 feet

All construction is anticipated to be completed within the THEA right-of-way. Consideration will be given to the corridor's constraints with a focus on minimizing impacts and maintaining traffic during construction.

5.4.1.19. Construction Cost

Construction cost estimates were prepared using the FDOT Long Range Estimating (LRE) tool for Alternatives 2 and 6 and were presented at the Alternatives Public Workshop on September 10, 2020. The LRE's included the following components:

- Clearing and grubbing
- Earthwork
- Roadway
- Shoulder
- Median
- Pavement Marking
- Erosion Control
- Drainage (including retention/detention ponds in Alts 2 and 6)
- Signing
- Bridges
- Retaining Walls
- Noise or Sound/Safety Walls
- Lighting (highway and under deck lighting)
- ITS/Tolling
- Landscaping
- Signal updates/modifications at ramp terminals

The LRE's assume 10% and 12% of the construction cost subtotal for mobilization and maintenance of traffic (MOT), respectively. Additionally, unit costs from recent Tampa Bay Next (TBNext) projects were incorporated into the LRE's. Design and Construction, Engineering, Inspection (CEI) costs were estimated to be 10% of the construction cost each. **Table 30** summarizes the cost estimates for Alternatives 2 and the interim phase of Alternative 6.

Table 30: Alternatives Cost Estimates

Description	Source	Alternative 2	Alternative 6
Construction Cost	LRE	$175,734,462	$149,544,726
Design	10% Construction Cost	$17,573,446	$14,954,473
Construction, Engineering, Inspection (CEI)	10% Construction Cost	$17,573,446	$14,954,473
Total Cost		**$210,881,354**	**$179,453,671**

When 8 lanes are warranted to meet future traffic needs (2033), the ultimate phase of Alternative 6 will be constructed. In the ultimate phase of Alternative 6, the bridges that were

not widened to the inside during the interim phase will be widened. All construction activities during the Alternative 6 ultimate phase occur on the inside – no outside work is anticipated. The construction cost estimate for ultimate phase of Alternative 6 also assumed 10% for Design and CEI and totals to $64,660,185. The LRE's for Alternative 2 and Alternative 6 (interim and ultimate) are provided in **Appendix C**.

5.4.2. Environmental Considerations

An analysis of the social and economic, cultural, natural and physical environmental issues/resources was performed as part of this PD&E study and is summarized in the *Project Environmental Impact Report* (PEIR) for the proposed project. The purpose of environmental analysis was to determine the effects associated with the proposed project alternatives, Alternatives 2 and 6.

The proposed project improvements to the Selmon Expressway would result in **no substantial** impacts to social and economic resources and would **enhance** mobility conditions along the South Selmon Expressway and adjacent neighborhoods, bicycle and pedestrian accommodations at the Euclid Avenue and Willow Avenue ramp terminals, and aesthetics along local roadways that cross under the Selmon Expressway. The project would **not directly impact** historic properties and it was determined that the project would **not have an adverse effect** on historic and archaeological resources. However, it is recommended that during construction for the project within the Fort Brooke site (8HI00013), ground disturbance that goes beyond the depth of one meter (3.3 ft) shall be monitored by a qualified archaeologist. In addition, except for highway traffic noise and contamination, the proposed project would result in **no substantial** physical effects.

Since both build alternatives evaluated, Alternatives 2 and 6, would have the same outside widening footprint, they would both result in the same potential impacts to natural resources. *De minimis* impacts would be expected to unvegetated substrate within the Hillsborough River due to installation of pilings. Mangrove shading could occur as a result of bridge widening associated with each of the proposed alternatives; however, seagrasses are not present. A total mangrove impact of approximately 0.05 acres (2,178 square feet) could be expected as a result of shading. Based on the Uniform Mitigation Assessment Method (UMAM) analysis of the mangrove shading, the proposed project could have a total UMAM functional loss of 0.01. Measures required to be implemented per construction procedure, standard specifications, or other agency requirements, issued in a later project phase, are listed in the *Natural Resource Evaluation* (NRE) *Report* to help address project effects. Commitments are discussed in the NRE *Report* as well as Section 1.4 above.

Based on the results of the highway traffic noise analysis, with the proposed alternatives, a total of up to 624 properties would be impacted by traffic noise. Noise barriers were considered as an abatement measure. Few locations along the proposed project improvements for both Alternative

2 and 6 met the federal and state criteria for noise walls. However, for the preferred alternative (Alternative 6), THEA has committed to building walls the entire length of the project on both sides of the roadway.

As a result of the Level I Contamination Screening, 156 sites were determined as having the potential for contamination concern. Of the 156 sites investigated, eight were HIGH ranked sites and four were MEDIUM ranked sites. For those locations with a risk ranking of MEDIUM and HIGH, Level II field screening should be considered during future project implementation phases. These sites were determined to have potential contaminants which may impact the proposed construction.

Environmental commitments related to cultural and natural resources, highway traffic noise and contamination are discussed in Section 1.4.

5.4.3. Comparative Alternatives Evaluation

A summary of the engineering and environmental evaluation of the No-Build Alternative, Alternative 2 and Alternative 6 are presented in the matrix below **(Figure 19).**

Figure 19: Alternatives Evaluation Matrix

ALTERNATIVE CHARACTERISTICS	NO BUILD ALTERNATIVE	ALTERNATIVE 2	ALTERNATIVE 6
Key Project Details	Congestion will continue to increase. Potential increase in neighborhood cut-through traffic.	Most expensive in the short term. Eight lanes are not needed until 2033. Noise walls not in key locations. Builds to the inside and outside.	Relieves congestion in the short term (Interim), but would require additional lanes in the future to keep pace with growth. Builds to the outside first. Walls provided along full length of project limits. Walls will contain construction noise/debris. Leaves median open at most bridge locations until Ultimate configuration. Minimal reconstruction required for Ultimate.
Number of Lanes	**4 lanes**	**8 lanes** Adds 2 lanes in each direction	**Interim – 6 lanes** Adds 1 lane in each direction on the outside **Ultimate (2033) – 8 lanes** Adds another lane in each direction on the inside
Congestion Relief	None	Short and Long Term	**Interim – Short Term** Adds 1 lane in each direction **Ultimate (2033) – Long Term** Adds 2 lanes in each direction
Noise & Sound/Safety Walls	None	**Linear Feet of Noise Walls** 1,428 LF per noise analysis	**Linear Feet of Noise Walls** 2,284 LF per noise analysis **Additional Commitment by THEA for Sound/Safety Walls** 43,163 LF
Distance from Edge of Roadway to Property Line	22.5 feet	13.6 feet	13.6 feet
Widens Roadway & Bridges to Outside	No	Yes	Yes
Estimated Total Cost (Paid by Toll Revenue & Toll Bonds)	None	**Total: $211M**	**Total: $244M** Interim: $179M Ultimate (2033): Additional $65M
Social, Environment & Cultural Resources	No right of way impacts or relocations. No impacts to historical or archaeological sites.		
Natural Resources Wetlands/Habitat	None		
Operational Benefits			
2046 Eastbound Travel Time from Himes Ave. to N 12th St.	14.1 min. AM 9.5 min. PM	5.8 min. AM 5.5 min. PM	6.4 min. AM 5.7 min. PM
2046 Westbound Travel Time from N 12th St. to Himes Ave.	11.1 min. AM 11.2 min. PM	7.3 min. PM 10.2 min. PM	5.4 min. PM 7.8 min. PM

6.0 Public Involvement / Project Coordination

A comprehensive Public Involvement Program (PIP) that focused on soliciting community participation was developed and implemented as part of this PD&E Study. The program was prepared in compliance with the FDOT PD&E Manual Part 1, Chapter 11 and approved in June 2019 and revised in November 2020. The purpose of the PIP was to provide a guide for implementing stakeholder involvement for the study with an emphasis on the communities adjacent to the study area. The PIP was used as a blueprint for defining methods and tools to reach, educate, and engage all stakeholders in the decision-making process. The strategies outlined in the PIP were designed to be comprehensive, and to ensure stakeholders are provided multiple opportunities to be informed and engaged as the study progresses.

The primary goal of the PIP was to actively seek the participation of communities, agencies, individual interest groups, and the public throughout the PD&E process. The following information was included as part of the PIP:

- Identify stakeholders and target audiences;
- Anticipate issues and key messaging;
- Outline outreach methods;
- Detail public involvement activities;
- Establish comment management protocols; and
- Provide a structure for documenting the PIP and closing out the study.

6.1. Agency Coordination

Through the Advance Notification (AN) process, THEA informed numerous federal, state, and local agencies of the PD&E study and its scope. An AN package was prepared in accordance with the FDOT PD&E Manual, Part 1, Chapter 3, as applicable.

The federal, state, and local agencies having a concern in this project due to jurisdictional review are identified in **Table 31.** These agencies were contacted by THEA through the AN process in May 2020. The study was conducted utilizing information obtained from comments made by various regulatory agencies in response to the AN.

Table 31: Advanced Notification Agencies

Federal Agencies
U.S. Army Corps of Engineers (USACE) – Jacksonville District
U.S. Coast Guard (USCG) – Permits Division
U.S. Department of Commerce – National Marine Fisheries Services (NMFS), Habitat Conservation Division
U.S. Department of Interior – U.S. Fish and Wildlife Services (USFWS)
State Agencies
Florida Department of Environmental Protection (FDEP) – ETAT Representative
Florida Department of Environmental Protection (FDEP) – State Clearinghouse
Florida Department of State – Division of Historic Resources (FDOS DHR)
Florida Fish and Wildlife Conservation Commission (FFWC) – ETAT Representative
Regional Agencies
Southwest Florida Water Management District (SWFWMD) – Environmental Resources Bureau Regulation Division
Environmental Protection Commission (EPC) of Hillsborough County
City of Tampa – Mobility Division
Port Tampa Bay

6.2. Small Group and Stakeholders Meetings

In addition to the public meetings discussed in Section 6.3, THEA held and/or participated in additional stakeholder coordination meetings throughout the length of the project. These meetings included those with neighborhood associations, elected officials and local agencies. Additional information regarding the stakeholder coordination meetings can be found in the *Comments and Coordination Report* prepared as part of this study..

6.3. Public Meetings

The PD&E Study was introduced to the public on Thursday March 5, 2020 during a Virtual Town Hall conducted by THEA to provide status updates on various other on-going THEA projects.

Several meetings were held over the course of the PD&E study to meet with public officials, agencies, public and interested stakeholders. The meetings included scheduled public meetings, including the Alternatives Update Virtual Meeting and Public Hearing. In addition to these two scheduled public meetings, additional meetings were held with stakeholders, including elected

and appointed officials, agency representatives, special interest groups, homeowners' associations, and individuals, as needed.

6.3.1. Alternatives Update Virtual Meeting

THEA held an Alternatives Update Virtual Meeting on Thursday, September 10, 2020 at 6:30 p.m. for the PD&E Study. Due to the COVID-19 pandemic, the Alternatives Update was held virtually. Registration for the meeting and the meeting itself was held online.

The virtual meeting format consisted of an online presentation by THEA to present the alternatives identified to improve travel times, reduce congestion, improve safety, and enhance regional mobility. The virtual meeting participants were introduced to the interactive website that included all meeting materials (www.southselmonpde.com). One hundred thirty-two (132) citizens registered for the workshop. The virtual workshop was attended by 62 citizens as well as THEA and consultant staff. Attendees were presented a slideshow consisting of:

- An overview of the PD&E Study.
- The need to improve the expressway.
- The PD&E Study process to develop, screen and refine alternatives for additional evaluation.
    - The five preliminary alternatives that were developed based on the project purpose and need were presented, as well as a new alternative, Alternative 6
- The build alternatives under consideration (Alternatives 2 and 6).
- The evaluation criteria for the two alternatives under consideration, as compared to the no-build alternative.
- The PD&E Study resources and reports that are currently or will be available.
- The methods for the public to provide feedback on the alternatives under consideration, including a comment form, email address, and mail-in option.

After the presentation, the questions and answer portion of the workshop began. Citizens were able to submit questions real-time virtually in a chat on the online meeting platform and received responses during the workshop. Nineteen citizens submitted 45 questions during the virtual workshop.

A recording of the virtual meeting was posted in its entirety the next day, September 11, 2020, on the THEA website www.selmonstudies.com. The interactive website (www.southselmonpde.com) was available starting on September 10, 2020 and was accessible anywhere, anytime. This website contained the same information that was presented at the virtual meeting, including methods for the public to provide feedback on the alternatives under consideration.

Comments were accepted by THEA on the alternatives up to 5 pm on October 2, 2020. All comments received during this period were responded to and taken into consideration by THEA

during the selection of the preferred alternative. During the 21-day comment period, 110 unique visitors viewed the online meeting.

Fifty-one (51) written comments were received at the meeting, online, or via email during the 21-day review period following the virtual meeting. Most comments received at the meeting, online, and those sent directly to THEA indicated their desire for the installation of noise walls as soon as possible. Additional comments inquired about the construction schedule, widening for the additional lanes, traffic volumes, proposed wall heights, and whether transit was being considered.

Additional information, including meeting materials, advertisements, notices, and public comments, are provided in Appendix B of the *Comments and Coordination Report* prepared as part of this study.

6.3.2. Public Hearing

A Public Hearing was held on February 25, 2021, at 5:00 pm at the Tampa Convention Center. The purpose of the hearing was to provide interested persons with information on the Preferred Alternative and to allow the public the opportunity to comment. To accommodate those who were not able to attend in public, all meeting materials were also posted virtually prior to the in-person hearing on www.southselmonpde.com.

Prior to the Public Hearing, THEA distributed a public notice postcard, letters to elected and appointed officials and agencies, newspaper ads, FAR ads, press releases, social media posts, project website. The first newspaper ad was published on January 31, 2021 and the second newspaper ad was published on which February 17, 2021. The newspaper ad also listed locations where the project documents would be displayed for review at least 21 days prior to the hearing, which included the project website. The full mailing list for this newsletter was updated on January 20, 2021. The public hearing notifications, including newspaper ads, postcard, press release, screenshots of the website public hearing announcements, project documents, mailing list, social media posts, and the FAR ad can be found in the *Comments and Coordination Report*.

A total of 30 citizens signed in at the Public Hearing. Attendees were provided with sign-in card and hearing handout/comment form. The meeting began with an open house from 5:00 p.m. to 6:00 p.m., followed by opening remarks and an audiovisual presentation at 6:00 p.m. The audiovisual presentation discussed an overview of the project. These details included the PD&E Study process, a description of the Preferred Alternative and the estimated project costs and impacts.

During the comment period which lasted from February 4 to March 8, 2021, THEA received 90 comments from the public. Sixty percent (60%) of the comments were received via the southselmonpde.com comment form, 26% of comments were received via email, 13% of

comments were received in person during the Public Hearing, and 1% via the THEA main office line.

Forty-six percent (46%) of the comments expressed opposition to the study, 23% mentioned noise walls, barriers, and/or noise pollution, 19% advocated for mass transit needs, 14% shared concerns that they would like to be considered such as tolls and structural disruption, 12% clarified improvements they would like to see in addition to the extension of the expressway, and 11% expressed apprehension around light and air pollution.

An analysis of comments using the provided mailing addressed was conducted to understand where commentors lived in relation to the study area. Many live directly adjacent to the corridor, but some commentors also live elsewhere in Hillsborough County.

7.0 Preferred Alternative

Based on the public input received at the Alternatives Update Virtual Meeting and the results of the alternatives analysis, THEA has identified Alternative 6 as the Preferred Alternative. Alternative 6 was selected as the Preferred Alternative because it is the most cost feasible in the short-term; adds needed capacity and addresses traffic congestion well into the future; focuses near-term construction to the outside and minimizes future reconstruction; and provides walls for the full length of the project on both sides of the roadway.

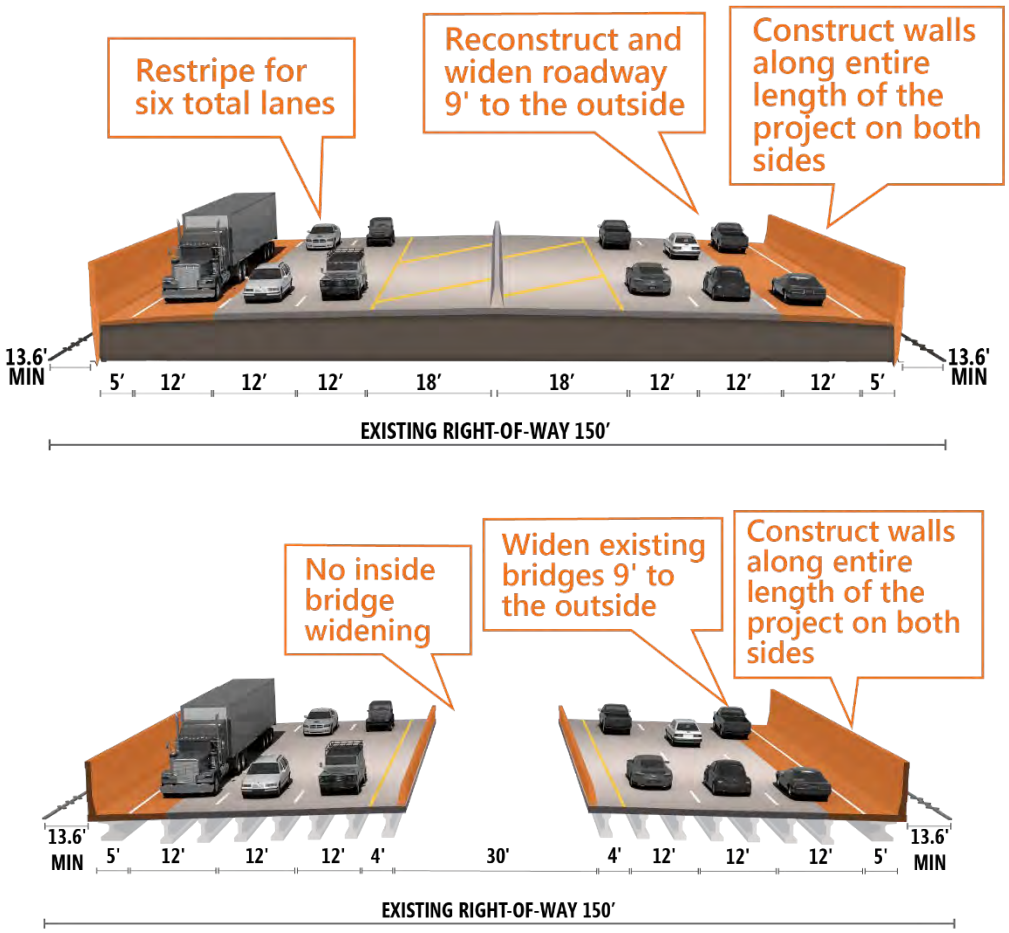
In the interim phase, the Preferred Alternative provides for a 6-lane section by widening to the outside and therefore does not require inside bridge widening at all overpass locations. Alternative 6 in the ultimate phase would be able to accommodate a future 8 lane section without outside widening. The roadway typical section in the interim phase for Alternative 6 consists of three 12-foot lanes in each direction with 18-foot inside shoulders and five-foot outside shoulders. The Preferred Alternative Concept Plans are provided in **Appendix D**.

Following identification of Alternative 6 as the Preferred Alternative, further refinements were made to the design concept including improvements to the ramps at Euclid Avenue, Willow Avenue, and Plant Avenue. Pond locations within the existing THEA right-of-way were also identified along with proposed bridge improvements, and construction costs were updated. The following sections discuss the refinements made to the design as well as other important features of the Preferred Alternative.

7.1. Typical Sections

As described in Section 5.3.3, there is one primary typical section for roadway and one primary bridge typical section for the interim phase of the Preferred Alternative, as shown in **Figure 20** below.

Figure 20: Preferred Alternative Roadway and Bridge Typical Section



In order to maintain ingress and egress at interchange locations, there are segments of the Preferred Alternative design that deviate slightly from these primary roadway and bridge typical sections. The various roadway and bridge typical sections are summarized in **Table 32** and **Figure 21.** The corresponding Preferred Alternative Typical Section Package is provided in **Appendix E**.

Table 32: Preferred Alternative Typical Sections Chart

						Westbound			Eastbound				
Typical Section No.	**Roadway or Bridge**	**Limits**	**Begin Station**	**End Station**	**Distance from outside of wall to RW**	**Outside Shoulder Width**	**Lane Widths**	**Inside Shoulder Width**	**Inside Shoulder Width**	**Lane Widths**	**Outside Shoulder Width**	**Distance from outside of wall to RW**	***Notes**
1	**Roadway**	**Begin Project to Himes Avenue**	88+66.12	97+65.13	Varies (19.5' min.)	Varies (**5'**-10')	12', 12', **11'**	10'	Varies 15'-16'	11'-12', 11'-12', 12'	10'	Varies (84' min.)	
2	**Bridge**	**Himes Avenue** **Euclid Avenue**	97+65.13 112+10.20	100+85.31 114+26.33	22.5'	**5'**	12', 12', **11'**	10'	15'	**11', 11'**, 12'	10'	Varies (13.9' min.)	
3	**Roadway**	**From Himes Avenue to El Prado Boulevard**	100+85.31 114+26.33	112+10.20 123+65.31	22.5'	**5'**	12', 12', **11'**	10'	15'	**11', 11'**, 12',*	10'	Varies (13.9' min.)**	*Limits of 12' Auxiliary Lane (**Minimum Distance to RW): 120+07.64 - 123+65.31 EB (2')
4	**Bridge**	**El Prado Boulevard**	123+65.31	126+40.03	**into CSX R/W**	**5'**	15' Ramp and Gore, 12', 12', **11'**	10'	15'	**11', 11'**, 12', 12' Aux.	10'	6.8'	
5	**Roadway**	**From El Prado Blvd to north of El Prado Blvd and from South of Platt Street to Willow Avenue**	126+40.03 246+44.58 502+42.89 509+35.72	133+11.12 499+86.17 505+36.30 511+36.38	Varies (13.6' min.)**	**5'**	*, 12', 12', 12'	Varies 10'-18'	Varies 12'-18'	12', 12', 12', *	**5'**	Varies (13.6' min.)**	*Limits of Auxiliary Lane or Ramp and Gore (**Minimum Distance to RW): 15' Ramp and Gore - 126+40.03-129+07.78 WB **(into CSX RW)** **11'** Auxiliary Lane -251+69.70 - 499+86.17 WB (2.5') 12' Auxiliary Lane - 252+56.22 - 497+80.11 EB (6.9')
6	**Roadway**	**From north of El Prado Boulevard to South of Platt Street and From Willow Avenue to East of S. Boulevard**	133+11.12 160+40.38 200+10.92 216+29.71 223+35.57 240+00.20 511+36.68	153+00.74 198+54.63 213+30.58 221+11.58 237+79.68 246+44.58 520+96.04	Varies (13.6' min.)**	**5'**	*, 12', 12', 12'	18'	18'	12', 12', 12', *	**5'**	Varies (13.6' min.)**	*Limits of Auxiliary Lane or Ramp and Gore (**Minimum Distance to RW): 15' Ramp and Gore to 12' Aux. Lane - 163+92.10 - 170+09.60 EB (7.2') 24' Ramp and Gore - 517+85.02 - 520+96.04 WB (69') 15' Ramp and Gore to 12' Aux. Lane - 517+15.98 to 520+96.04 EB (75.7')
7	**Bridge**	**McDill Avenue/Bay to Bay Boulevard** **Mississippi Avenue** **Howard Avenue/Watrous Avenue** **Morrison Avenue** **Swann Avenue**	153+00.74 198+54.63 213+30.58 221+11.58 237+79.68	160+40.38 200+10.92 216+29.71 223+35.57 240+00.20	Varies (13.6' min.)**	**5'**	*, 12', 12', 12'	**4'**	**4'**	12', 12', 12'	**5'**	Varies (13.6' min.)	*Limits of 15' Ramp and Gore (**Minimum Distance to RW): 156+30.00 to 160+40.38 **(into CSX R/W)**
8	**Bridge**	**Platt Avenue**	499+86.17	502+42.89	Varies (3.5' min.)	**5'**	15' Ramp and Gore, 12', 12', 12'	18'	12'	12', 12', 12'	**5'**	Varies (w/in interchange)	
9	**Bridge**	**Willow Avenue**	507+45.99	509+35.72	Varies (w/in interchange)	**5'**	12', 12', 12'	18'	Varies 12.4'-14.2'	12', 12', 12'	**5'**	Varies (w/in interchange)	

						Westbound			Eastbound				
Typical Section No.	Roadway or Bridge	Limits	Begin Station	End Station	Distance from outside of wall to RW	Outside Shoulder Width	Lane Widths	Inside Shoulder Width	Inside Shoulder Width	Lane Widths	Outside Shoulder Width	Distance from outside of wall to RW	*Notes
10	Bridge	S. Boulevard	520+96.04	522+68.02	Varies (51.1' min.)	5'	24' Ramp and Gore, 12', 12', 12'	4'	4'	12', 12', 12', 12' Aux.	5'	Varies (84.9' min.)	
11	Roadway	From S. Boulevard to Bayshore Boulevard	522+68.02 542+69.72	536+05.09 549+01.38	Varies (41' min.)	5'	*, 12', 12', 12'	21'	21'	12', 12', 12', *	5'	Varies (41' min.)	*Limits of Auxiliary Lane or Ramp and Gore (**Minimum Distance to RW): 12' Auxiliary Lane - 522+68.02 - 529+32.94 EB (80.2') 12' Auxiliary Lane - 522+68.02 - 533+35.34 WB (48') 15' Ramp and Gore to 11' Aux. Lane - 545+54.86 - 549+01.38 EB (18.3') 24' Ramp and Gore - 545+86.01 - 549+01.38 WB (34')
12	Bridge	Hyde Park Ave./Plant Ave.	536+05.09	542+69.72	Varies (27.6' min.)	5'	12', 12', 12'	6'	5'	12', 12', 12'	5'	Varies (31.1' min.)	
13	Bridge	Viaduct Segment 1 and 2	549+01.38	580+37.10	Varies	Varies (5'-10')	11' aux., 12', 11', 11'	4'	4'	11', 11', 12', 11' aux.	Varies (5'-10')	Varies	

Red text denotes a Design Exception is required

Figure 21: Preferred Alternative Typical Sections Map

7.2. Horizontal and Vertical Geometry

7.2.1. Horizontal Geometry

The horizontal geometry of the Preferred Alternative generally follows the baseline of survey of the Selmon Expressway with lane lines being parallel to the baseline. The horizontal geometry of the baseline of survey is included in **Table 2** and **Table 3**. To accommodate ingress and egress at interchange locations, coupled with limiting inside widening at bridge overpass locations, there are some areas where the horizontal geometry is not parallel to the baseline of survey. These "transition" areas between the various roadway and bridge typical sections described in Section 7.1 are summarized below and noted on the Preferred Alternative Concept Plans shown in **Appendix D**.

- North/east of the El Prado Blvd. overpass, the eastbound travel lanes utilize 45 minute deflections (right and then left) to transition the inside lane line from 16 feet to 19 feet right of the baseline of survey.
- North/east of the El Prado Blvd. overpass, the westbound travel lanes utilize 45 minute deflections (left and then right) to transition the inside lane line from 11 feet to 19 feet left of the baseline of survey.
- North/east of the Swann Ave. overpass, the eastbound travel lanes utilize 45 minute deflections (left and then right) to transition the inside lane line from 19 feet to 13 feet right of the baseline of survey.
- North/east of the Platt St. overpass, the eastbound travel lanes utilize a compound curve (R1 = 1,419 feet, R2 = 1,350 feet) to transition the inside lane line from 13 feet back to 19 feet right of the baseline.
- East of the S. Boulevard overpass, the eastbound travel lanes utilize a curve with a radius of 10,000 feet to transition the inside lane line from 19 feet to 22 feet right of the baseline.
- East of the S. Boulevard overpass, the westbound travel lanes utilize a curve with a radius of 10,000 feet to transition the inside lane line from 19 feet to 22 feet left of the baseline.
- Between the Hyde Park Ave./Plant Ave. overpass and the Hillsborough River, the eastbound and westbound lanes utilize 45 minute deflections to transition from 12' lanes to 11' lanes.

All ramps within the project limits follow the existing ramp horizontal geometry except for the westbound off ramp to Willow Avenue. This ramp is being relocated and therefore has a new horizontal alignment as summarized in **Table 33**. Curve Willow_RampA1 is a low speed turning roadway at the ramp terminal while curve Willow_RampA2 was designed to satisfy 45 mph design speed criteria. More information on this ramp relocation is provided in the following sections.

Table 33: Westbound Willow Off Ramp Horizontal Curves

Curve	Location	PC Sta.	PT Sta.	Curve Direction	Curve Length (feet)	Curve Radius (feet)
Willow_RampA1	Ramp terminal at Willow/Cleveland intersection	10+87.57	13+01.65	Left	214.08	700
Willow_RampA2	West of gore with mainline	14+79.21	19+50.38	Right	471.17	5,754

Abbreviations: PC – Point of Curve, PT – Point of Tangent

7.2.2. Vertical Geometry

The vertical geometry of the Preferred Alternative mainline and ramps will follow the existing vertical alignment of the Selmon Expressway **(Table 5).** Bridge widening will be designed to maintain existing vertical clearances at the overpasses. A conceptual profile was set for the westbound Willow off ramp since it is being relocated to the Willow/Cleveland signal. The westbound off ramp to Willow Avenue concept profile satisfies the criteria for a 45 mph design speed. The concept profile is summarized in **Table 34** and included in the concept plans in **Appendix D**.

Table 34: Westbound Willow Off Ramp Vertical Curves

Curve	Sta. to Sta.	Curve Length (feet)	Grade In	Grade Out	Type
1	15+54.34 to 18+54.34	300	+0.500%	+3.817%	Sag
2	20+00.00 to 24+00.00	400	+3.817%	-0.150%	Crest

7.3. Design Variations and Exceptions

There are seven anticipated design variations and four anticipated design exceptions required to implement the Preferred Alternative as summarized below.

Design Variations

1. Design Speed
2. Stopping Sight Distance
3. Horizontal Curve Radius
4. Vertical Clearance
5. Design Loading Structural Capacity
6. Horizontal Curve Length
7. Cross Slope

Design Exceptions

1. Lane Width
2. Shoulder Width
3. Stopping Sight Distance
4. Vertical Clearance

For more detail on the Design Loading Structural Capacity Variation, see the *Bridge Report*. Information on all other Design Exceptions and Variations associated with the Preferred Alternative is provided in the *Design Exceptions and Variations Report* in **Appendix G**.

7.4. Project Traffic Volumes

As mentioned in Section 3.2, project traffic volumes were analyzed for Existing Year 2019, Opening Year 2026, Interim Year 2036 and Design Year 2046. The Tampa Bay Regional Planning Model (TBRPM) v1.1 that was validated for the Selmon Expressway by others was obtained and used as a source to forecast design year (2046) AADT volumes per direction from THEA officials. **Figure 11** and **Figure 12** show the design year (2046) AADT and DDHV for both the AM and PM peak periods, respectively. For opening year and interim year volumes, or for more detailed information on the project traffic analysis, please see the PTAR.

7.5. Bridge Analysis

The Preferred Alternative proposes outside widening of all bridges within the project limits. Bridges over Himes Avenue, Euclid Avenue, El Prado Boulevard and Platt Street will also be widened to the inside to accommodate ingress and egress at the interchanges. The inside bridge railings will be replaced on all other bridges except for the Downtown Viaduct Segments 1 and 2.

All bridges through the corridor were load rated to see if the existing bridges could be widened or would need to be replaced or strengthened per FDOT SDG Figure 7.1.1-1 "Widening/Rehabilitation Load Rating Flow Chart". Existing beams and girders were updated to reflect the addition of a new inside lightweight concrete 36" single slope traffic railing (Index 521-427) and an outside lightweight concrete 8'-0" traffic railing/ noise wall (Index 521-509).

After meeting with THEA and reviewing the 2013 As-Built Load Rating Report, the following load rating assumptions were changed. The minimum haunch depth at midspan was used for increasing the section properties in the model if it was not rating. A minimum haunch of 0.5" at midspan was assumed for all beams, as was assumed in the 2013 As-Built Load Rating Report. Based on recent shop drawings, it was determined to use a non-composite dead load of 12.4psf for girder spacings of 10'-0" or more and a load of 10.9psf for beam spacings less than 10'-0", rather than the standard 20psf load called out in FDOT SDG Table 2.2-1.

Following the FDOT guidelines and updated assumptions, all existing bridges were able to be widened with the following Design Loading Structural Capacity Design Variations:

1. Service III design variation, which allows the Strength rating results to govern over the Service III results, provided there are no shear or flexural cracks present.
2. Refined LRFR design variation, which allows refined LRFR models rating at 0.95 or better to be rounded up to 1.00.
3. Strength II design variation, which allows Strength II rating results of 0.95 or better to be rounded up to 1.00.

Please note the following design considerations:

- Bridge 100308 & 100309: During full-depth deck patching, it was discovered that only 1-layer of reinforcement was found in the deck. Therefore, replace the deck with a fully composite, lightweight concrete deck per SDG 4.2.2.C. Repaint steel girders.
- Bridge 100312: Replace off-ramp (Spans 1A-10A) with a fully composite, lightweight concrete deck per SDG 4.2.2.C.
- Bridge 100314: Due to widening in the gore area, replace existing Girder 1 in Span 2&3 with 2-prposed girders. Replace deck of the entire structure (including off-ramp) with a fully composite, lightweight concrete deck per SDG 4.2.2.C. Repaint steel girders.
- Bridge 100316 & 100317: Requires modified FIB 36 to maintain existing vertical clearance.
- Bridge 100323: May require modified FIB 36 in Span 2 due to geometric conflict of widening.
- Bridge 100324: replace entire structure due to roadway realignment and new on-ramp. Would be difficult to keep existing beams during phased construction while maintaining 2-lanes during MOT.
- Bridge 100327: May require modified FIB 36 in Span 2 due to geometric conflict of widening.
- Bridge 100329: May require modified FIB 36 in Span 2 due to geometric conflict of widening.
- Bridge 100332 (Viaduct Segment 1): Replace the Tampa Street on-ramp over Brorein Street due to geometric conflicts when widening in the gore area.

For detailed calculations and results, please refer to the *Bridge Report*.

7.6. Intersection and Interchange Concepts

The existing intersections and interchanges within the project limits are summarized in Section 2.1.8. The No Build Alternative, Alternative 2, and Alternative 6 all include the relocation of the eastbound Selmon Expressway/Channelside Drive off ramp to Whiting Street. To prevent gridlock in the traffic model given the traffic demand levels, the No-Build Alternative, Alternative 2, and

Alternative 6 (the Preferred Alternative) assume the following intersection and interchange ramp improvements:

- The westbound Selmon Expressway/Euclid Avenue off ramp includes a left-turn storage lane that extends nearly back to the ramp bridge crossing over the railroad tracks.
- Euclid Avenue ramp terminals are signalized and include an eastbound left-turn bay and pre-storage back to Gunlock Avenue.
- The Euclid Avenue/Himes Avenue intersection signal includes an eastbound and westbound protected-permitted left-turn phase.
- The eastbound Selmon Expressway/Bay-to-Bay Boulevard intersection becomes signalized.
- Signal timing splits were revised for the intersections of Bay-to-Bay Boulevard with the westbound Selmon Expressway off ramp, MacDill Avenue, and Bayshore Boulevard.
- The westbound Selmon Expressway/Willow Avenue off ramp ties into the Willow Avenue/Cleveland Street intersection as one shared left-through lane, one exclusive through lane, and one shared through-right lane to create a fifth leg.
- Signal timing splits were revised for the intersections of Willow Avenue with Platt Street, Cleveland Street, and Kennedy Boulevard.
- Protected left-turn phases were added for all left-turn movements at the Kennedy Boulevard/Willow Avenue intersection, except the southbound left.
- Signal timing splits were revised for the intersections of South Boulevard with Platt Street and Cleveland Street. A protected northbound left-turn phase was added at the intersection of South Boulevard and Cleveland Street.
- Signal timing splits were revised for the Cleveland Street/Hyde Park Avenue intersection, as well as the intersections of Plant Avenue with Platt Street and Brorein Street.
- Signal timing splits were revised for the intersections of Brorein Street with Franklin Street, Florida Avenue, and Morgan Street.

As part of the refinements made to the Preferred Alternative, several enhancements were added to the design to maximize traffic flow. These improvements were not considered with the No Build Alternative as they would only be constructed in conjunction with widening the Selmon Expressway. The enhancements included with Alternatives 2 and 6 are as follows:

- The eastbound Selmon Expressway/Willow Avenue single-lane off ramp becomes a two-lane off ramp, with the inside lane having the option to continue through.
- The westbound Selmon Expressway/Willow Avenue single-lane off ramp becomes a two-lane off ramp, with the inside lane having the option to continue through.
- The westbound Selmon Expressway/Plant Avenue single-lane off ramp becomes a two-lane off ramp, with the inside lane having the option to continue through.

Lastly, the Preferred Alternative was refined to ensure that two lanes of traffic in each direction can be maintained during construction. As such, the Preferred Alternative design assumes replacement of the Tampa Street southbound to Selmon Expressway

Westbound ramp bridge over Brorein Street (bridge no. 100332). The existing three span steel bridge will be replaced with a two-span steel bridge that will properly tie to the Viaduct Segment 1 bridge widening at the ramp gore while maintaining two lanes of traffic in both directions during construction. The existing ramp alignment at the bridge abutment will be maintained so that there are no permanent impacts to surrounding business or parking.

These improvements are shown on the Preferred Alternative Concept Plans in **Appendix D**.

7.7. Access Management

As part of the refinements made to the Preferred Alternative, there are two locations with minor modifications to access to and from the Selmon Expressway.

The first modification is located at the on ramp from Euclid Avenue to the Selmon Expressway eastbound. The ramp terminal is currently a non-signalized intersection. The Preferred Alternative proposes to signalize both ramp terminals along Euclid Avenue. With the new signal at the eastbound on ramp, Lynwood Avenue is allowed access to Access to and from the Selmon Expressway.

The second modification involves the westbound off ramp to Willow Avenue and Cleveland Street. The existing ramp is stop sign controlled and terminates on Cleveland Street. The Preferred Alternative proposes to relocate the westbound off ramp terminal to the Willow Avenue and Cleveland Avenue intersection, bringing the movements into the signal. The ramp gore will be modified to provide a dual lane off ramp with the inside lane being a choice lane. The signal will be modified to add an additional phase for the ramp movements. Details of these access modifications are shown on the Preferred Alternative Concept Plans in **Appendix D**.

7.8. Bicycle and Pedestrian Accommodations

The Selmon Expressway is a limited access facility and as such does not provide any pedestrian or bicycle accommodations. However, as part of the refinements made to the Preferred Alternative and in coordination with the City of Tampa, pedestrian and bicycle accommodations were considered with the improvements shown at the Euclid Avenue and Willow Avenue ramp terminals.

There is a sidewalk on the north side of Euclid Avenue that stops at each ramp terminal and does not continue underneath the Selmon Expressway. An existing mid-block pedestrian crossing signal just east of Lynwood Avenue and the Selmon eastbound on ramp allows for pedestrians to cross and utilize the sidewalk on the south side of Euclid Avenue to cross under the Selmon Expressway. The Preferred Alternative proposes to signalize each ramp terminal on Euclid Avenue as well as connect the sidewalk on the north side of Euclid with a new sidewalk that runs underneath the expressway. The mid-block pedestrian crossing east of Lynwood Avenue will be removed and the pedestrian movements will be accompanied within the new

signal at Euclid Avenue and Lynwood Avenue/Selmon eastbound on ramp. Euclid Avenue currently accommodates bicycle traffic with shared use lanes in each direction. The Preferred Alternative proposes to restripe the roadway between the westbound off ramp and eastbound on ramp terminals to provide dedicated bike lanes in each direction. Details of the pedestrian and bicycle accommodations proposed along Euclid Avenue as part of the Preferred Alternative are shown in **Figure 22** as well as the Preferred Alternative Concept Plans found in **Appendix D**.

Figure 22: Euclid Avenue Interchange Rendering

The other location where pedestrian and bicycle improvements were incorporated into the Preferred Alternative design is at the Willow Avenue and Cleveland Street intersection. As part of the westbound Willow Avenue off ramp terminal being relocated to the Willow Avenue and Cleveland Street intersection, the vehicle and pedestrian signals will be replaced. The alignment of the crosswalks at the intersection will be improved and new American with Disabilities Act (ADA) curb ramps will be constructed. A sidewalk on the south side of south side of Cleveland Street between Willow Avenue and Delaware Avenue will be constructed to provide pedestrian connectivity. Additionally, green pavement markings will be added to the east leg of the intersection to provide a bike box for cyclists to get priority through the signal to head west on Cleveland Street. Details of the pedestrian and bicycle accommodations proposed along Willow Avenue and Cleveland Street as part of the Preferred Alternative are shown in **Figure 23** as well as the Preferred Alternative Concept Plans found in **Appendix D**.

Figure 23: Willow Avenue Interchange Rendering

These pedestrian and bicycle improvements are in line with the Hillsborough County Vision Zero policy which establishes a goal of reducing traffic fatalities and serious injuries to zero. The Preferred Alternative design at Euclid Avenue and Willow Avenue proposes new or improved traffic signals, new or improved pedestrian signals, improved sidewalk connectivity and updated pavement markings directing all modes of transportation, thus improving the overall safety and operation of these roadways.

7.9. Right-of-way

It is anticipated that the Preferred Alternative be constructed within the existing right-of-way. The existing right-of-way varies within the project limits but is typically 150 feet, or 75 feet left and right of the baseline of survey as noted in **Table 1**. The minimum distance from the outside edge of the Preferred Alternative design is noted in **Table 32** above and is typically 13.6 feet. The Preferred Alternative proposes barrier wall on the outside in each direction for the entire project limits. For most of the project limits, the barrier wall sits on top of a proposed retaining wall. This space between the outside edge of proposed wall and the right of way will be used to maintain a small ditch that collects stormwater from offsite properties adjacent to the Selmon Expressway. The space will also be utilized for construction activities and maintenance of the Selmon Expressway. There are a few areas adjacent to auxiliary lanes and ramps where the available space between the outside wall and the right-of-way is less than 13.6 feet (**Table 29**). Those locations will require special attention during construction to limit the disturbance to adjacent properties.

Additionally, there are two areas where construction activities will be required within the CSX right-of-way to the west of the Selmon Expressway. The bridge railing along the westbound ramp bridges over El Prado Blvd. and Bay to Bay Blvd. will be replaced and there is minor outside bridge widening along the outside of the El Prado Blvd. westbound bridge. These construction activities will require close coordination with CSX to safely maintain all modes of transportation during construction.

7.10. Utilities

The existing utilities within the project limits are summarized in **Table 15.** The Preferred Alternative design will have impacts to utilities due to the required construction activities (bridge widening, retaining wall construction and drainage construction, mainly). The extent of the necessary utility adjustments is unknown at this phase of study. The cost to resolve any utility impacts is assumed to be the burden of the utility companies; therefore, utility cost was not included in the construction cost estimate for the Preferred Alternative.

7.11. Transportation Management Plan and Construction Impacts

Two lanes of traffic in each direction will be maintained during construction of the Preferred Alternative. The Transportation Management Plan will be in accordance with FDM 240 and FDOT Standard Plans for Maintenance of Traffic. The first phase of construction will begin on outside. Traffic will be shifted to the inside to allow for the following major construction activities during the first phase of construction:

- Outside roadway and bridge widening
- Retaining wall construction
- Outside wall construction
- Construction of drainage inlets and pipes connecting to the existing system
- Pond construction
- Relocation of the westbound Willow Avenue off ramp
- Replacement of the westbound Tampa Street ramp bridge

Once the outside construction is completed, construction will begin on the inside. Traffic will be shifted to the outside to allow for the following major construction activities during the second phase of construction:

- Inside bridge widening at the Himes, Euclid, El Prado and Platt
- Inside bridge railing replacement at all other overpass locations
- Median barrier wall construction on bridge approaches (where not already provided by the Selmon Median Safety project)
- Highway lighting installation on new median barrier walls

7.12. Preliminary Drainage Analysis

The preliminary drainage analysis assumed build Alternative 2 in determining the stormwater management needs for this project. Alternative 2 is the ultimate 8 lane condition of the Preferred Alternative. A key objective of the drainage analysis was to explore the feasibility of accommodating the required stormwater management needs within the existing THEA right-of-way.

Two separate water quality requirements affect this project. These criteria are referred to as the presumptive water quality treatment requirement and the net nutrient improvement requirement. Presumptive water quality treatment requires either 0.5 or 1.0 inch of runoff, for dry or wet facilities, respectively, from the added impervious area must be stored and treated. Additionally, the impervious area added from the widening of the inside shoulder as part of the South Selmon Safety Improvement project must also be treated once the paved shoulder becomes repurposed as additional travel lanes. No net increase in nutrient loading across the project limits must also be demonstrated, as the project drains to a nutrient impaired waterway.

Required attenuation volumes were estimated for each basin for the 100-year, 24-hour design storm event. Any impacts to existing ditches that provide some form of attenuation storage will be replaced. Proposed stormwater management solutions to meet all regulatory criteria include the following approaches:

- Shifting basin limits
  - Basin divides along the Selmon Expressway are modified to reduce runoff volumes and prevent the need for additional stormwater management facilities
- Wet Detention/Dry Retention Stormwater Management Facilities
  - Conventional ponds are used in any available open spaces within the THEA right-of-way
  - Due to high groundwater tables, most facilities are designed as wet detention ponds
- Underground stormwater vault systems
  - One alternative in the Palma Ceia basin includes an underground stormwater vault system
  - Due to high groundwater tables, this system is designed to be closed and separate from the groundwater. Therefore, only attenuation can be provided.
- Modifying existing stormwater ponds
  - Three stormwater ponds within THEA right-of-way are proposed to be expanded to provide necessary treatment and attenuation volumes.
- Compensatory treatment

  - In some basins without the right-of-way for any form of water quality treatment, compensatory treatment will be utilized.

- New/Expanded Outfall
  - Reduce the need for additional stormwater management facilities
  - Reduce the stresses on existing over-capacity outfalls

Using a combination of these stormwater management approaches, treatment and attenuation requirements can be met within the existing THEA right-of-way.

The recommended stormwater management alternative will be determined after further coordination with the City of Tampa and the outfall construction challenges are investigated in more detail.

Table 28 outlines the required and provided treatment and attenuation volumes across the project limits. The proposed stormwater management facilities are also shown in **Figure 24**.

The Palma Ceia basin (Basin 4) has significant stormwater management needs and limited available ROW. Therefore, three alternatives were investigated for this basin that included underground storage, creating a new/expanded outfall, and a conventional pond site. The conventional pond would require additional ROW to be purchased and the outfall modification would require coordination with the City of Tampa on expanding or replacing the existing outfall within their right-of-way.

Figure 24: Preferred Alternative Stormwater Management Facilities

7.13. Floodplain Analysis

Nearly all the project falls within FEMA's Zone X, which is outside the 100-year floodplain. A small portion of the bridge over the Hillsborough River is within Zone AE, which has a 100-year floodplain elevation of 10 feet (NAVD). However, the bridge and approach sections of the Expressway are well above the floodplain elevation and no impacts to the floodplain are expected for the Preferred Alternative.

Preliminary FEMA information is also available within this corridor. These preliminary maps show similar flooding extents along the Selmon Expressway. At the bridge over the Hillsborough River, the Zone AE floodplain elevation is set at 11 or 12 feet (NAVD), for the west and east sides, respectively. Additionally, a new 500-year floodplain is shown surrounding the Selmon Expressway and Dale Mabry Highway interchange but does not encroach upon the travel lanes.

7.14. Special Features

The following aesthetic improvements along local roadways that cross under the Selmon Expressway are proposed as part of the Preferred Alternative:

- Under-bridge wall mounted LED decorative lighting
- Landscaping at the Euclid Avenue, Willow Avenue and Hyde Park/Plant Avenue interchanges
- Texture on the faces of proposed walls
- Cleaning and sealing the existing vertical wall and sloping concrete bridge abutments

7.15. Cost Estimates

The Preferred Alternative construction cost estimate was prepared using FDOT's LRE tool. The construction cost estimate for the interim phase of Alternative 6 was used as a starting point and edited as necessary for the refinements made to the Preferred Alternative. The following items were added or edited as part of the Preferred Alternative construction cost estimate update prior to the Public Hearing:

- Updated pond sizes; includes expansion of Swann Ave pond and underground vaults
- Added additional stormwater pipe quantity as needed to tie into the existing stormwater collection system
- Added quantities for cleaning and sealing of all remaining vertical wall abutments and sloping abutments
- Refined retaining wall limits
- Added sloping abutment quantities at widening locations
- Updated mainline roadway and shoulder quantities
- Refined signal components
- Adjusted noise and sound/safety wall quantities
- Added a "project unknowns" line item to be 10% of the construction cost subtotal

- Unit costs were determined prior to the February 2021 Public Hearing using the higher value between the TBNext unit cost information provided by THEA and the FDOT Market Area 8 average unit costs from December 2019 to November 2020. For consistency, these unit costs were kept the same for the updates made to the construction cost estimate after the Public Hearing.

The Preferred Alternative LRE's assumed 10%, 12% of the construction cost subtotal for mobilization and maintenance of traffic (MOT), respectively. Project Unknowns, Design and Construction, Engineering, Inspection (CEI) costs were estimated to be 10% of the construction cost each.

The totals for the interim and ultimate Preferred Alternative LRE's presented at the Public Hearing were $197,154,154 and $67,717,508, respectively. After the Public Hearing, the Preferred Alternative was further refined to include the following:

- Re-decking of the Selmon Expressway westbound bridge over Himes Avenue
- Re-decking of the Selmon Expressway westbound ramp bridge over CSX
- Re-decking of the Selmon Expressway westbound bridge and ramp over McDill Avenue, Bay to Bay Boulevard and CSX
- Full replacement of the Selmon Expressway westbound bridge over Platt Street
- Widening of the Selmon Expressway bridges over Willow Avenue to both the inside and outside in the interim phase
- Full replacement of the Tampa Avenue southbound to Selmon Expressway westbound ramp bridge over Brorein Street
- Adjustment of the eastern project limits to tie into the existing conditions (vs. the Whiting Street PD&E concept) in the eastbound direction
- Adjustment of the eastern project limits to allow for the westbound on ramp from Brorein Street to be the added third lane (vs. a merge lane) in the westbound direction

Table 35 summarizes the final cost estimates for the Preferred Alternative interim and ultimate phases taking into account the changes made after the Public Hearing noted above. Detailed reports of the Preferred Alternative interim and ultimate LRE's at both of these project milestones are provided in **Appendix F**.

Table 35: Preferred Alternative Cost Estimate

PREFERRED ALTERNATIVE INTERIM COSTS		
LRE SEQUENCE	**SEQUENCE LIMITS/DESCRIPTION**	**COST**
1	Selmon Expressway from east of Dale Mabry to east of Euclid	$12,787,500
2	Selmon Expressway from east of Euclid to west of Willow	$54,815,419
3	Selmon Expressway from West of Willow to Hyde Park/Plant	$22,076,757
4	Selmon Expressway from Hyde Park to Downtown Viaduct	$6,967,746
5	Selmon Expressway Downtown Viaduct	$13,829,148
6	Selmon Expressway ITS, landscaping and misc. signalization	$10,734,347
7	Selmon Expressway WB Euclid off ramp widening	$301,652
8	Selmon Expressway WB Willow off ramp and Cleveland/Willow signal	$1,149,191
9	Euclid Avenue from east of Himes to east of Lynwood	$491,359
10	Willow Avenue and Cleveland Avenue intersection improvements	$102,909
11	Tampa St westbound on ramp	$1,408,487
	LRE subtotal	$124,664,516
	MOT (12% of LRE subtotal)	$14,959,742
	Mobilization (10% of LRE subtotal + MOT)	$13,962,426
	Contingency	$150,000
	Construction Cost (LRE grand total)	$153,736,683
	Project Unknowns (10% of Construction Cost)	$15,373,668
	Design (10% of Construction Cost)	$15,373,668
	CEI (10% of Construction Cost)	$15,373,668
	INTERIM TOTAL	**$199,857,688**
ULTIMATE (PHASE 2) COSTS		
LRE SEQUENCE	**SEQUENCE LIMITS/DESCRIPTION**	**COST**
1	Selmon Expressway from east of Dale Mabry to east of Euclid	$615,116
2	Selmon Expressway from east of Euclid to west of Willow	$14,324,002
3	Selmon Expressway from West of Willow to Hyde Park/Plant	$2,326,277
4	Selmon Expressway from Hyde Park to Downtown Viaduct	$4,520,070
5	Selmon Expressway Downtown Viaduct	$24,317,557
	LRE subtotal	$46,103,023
	MOT (12% of LRE subtotal)	$5,532,363
	Mobilization (10% of LRE subtotal + MOT)	$5,163,539
	Contingency	$150,000
	Construction Cost (LRE grand total)	$56,948,924
	Project Unknowns (10% of Construction Cost)	$2,431,756
	Design (10% of Construction Cost)	$2,431,756
	CEI (10% of Construction Cost)	$2,431,756
	ULTIMATE TOTAL	**$64,244,191**
	GRAND TOTAL (INTERIM + ULTIMATE)	**$264,101,879**

8.0 Technical Materials

The following technical materials have been prepared to support this engineering document.

- Project Environmental Impact Report (PEIR)
- Project Traffic Analysis Report (PTAR)
- Bridge Report
- Location Hydraulics Report
- Pond Siting Report (PSR)
- Conceptual Design Plan Set (see PER Appendix)
- Typical Section Package (see PER Appendix)
- Geotechnical Report
- Noise Study Report (NSR)
- Air Quality Technical Memorandum
- Contamination Screening Evaluation Report (CSER)
- Water Quality Impact Evaluation (WQIE)
- Natural Resource Evaluation (NRE) Report
- Cultural Resource Assessment (CRAS) Report

Appendices

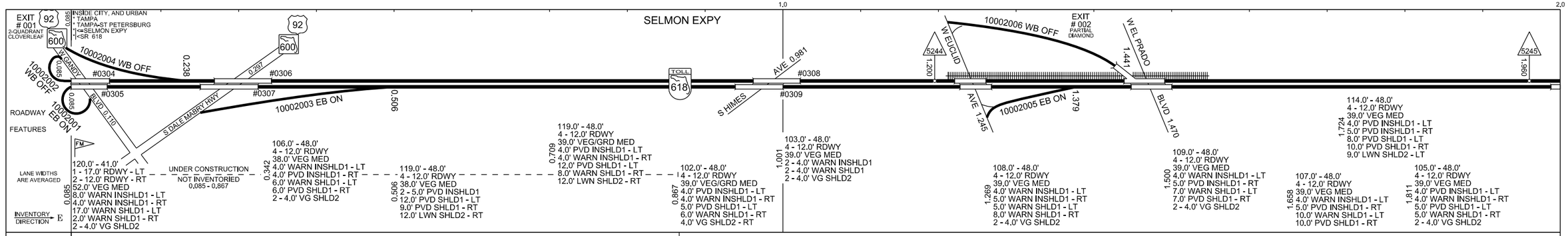
Appendix A
Straight-Line Diagram

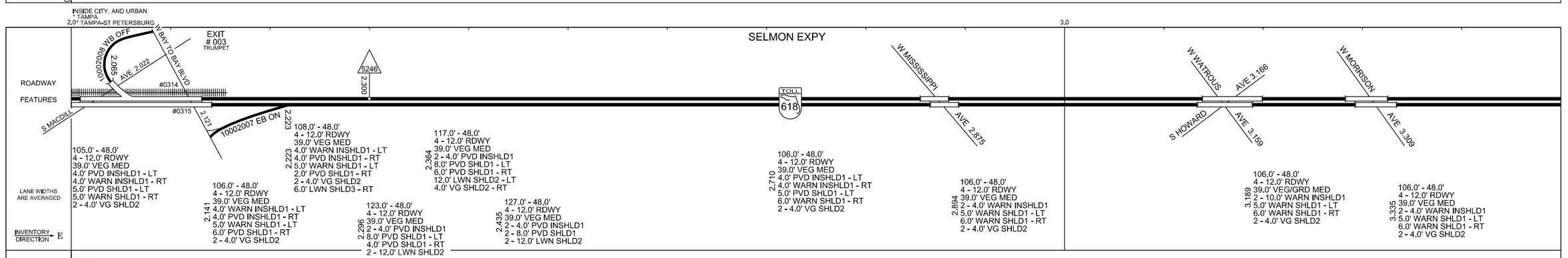
	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	07/25/2018	08/28/2018				
BY	FTE / IM-BK	FTE / KA				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02		SR 618	HILLSBOROUGH	07	10 002 000	1 OF 4





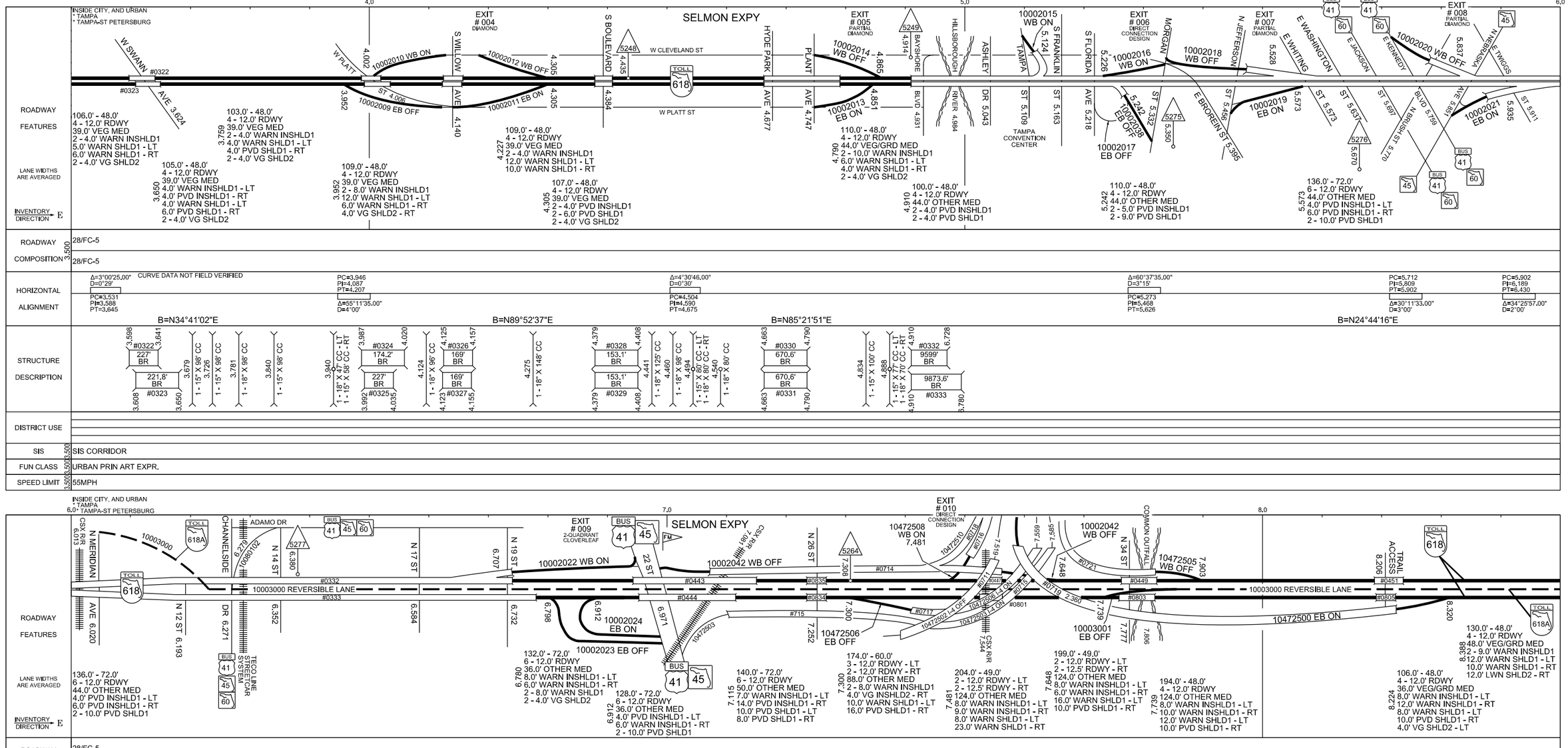
Version: 1.4.2.27 08/27/2018

	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	07/25/2018	08/28/2018				
BY	FTE / IM-BK	FTE / KA				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02		SR 618	HILLSBOROUGH	07	10 002 000	2 OF 4



Version: 1.4.2.27 08/27/2018

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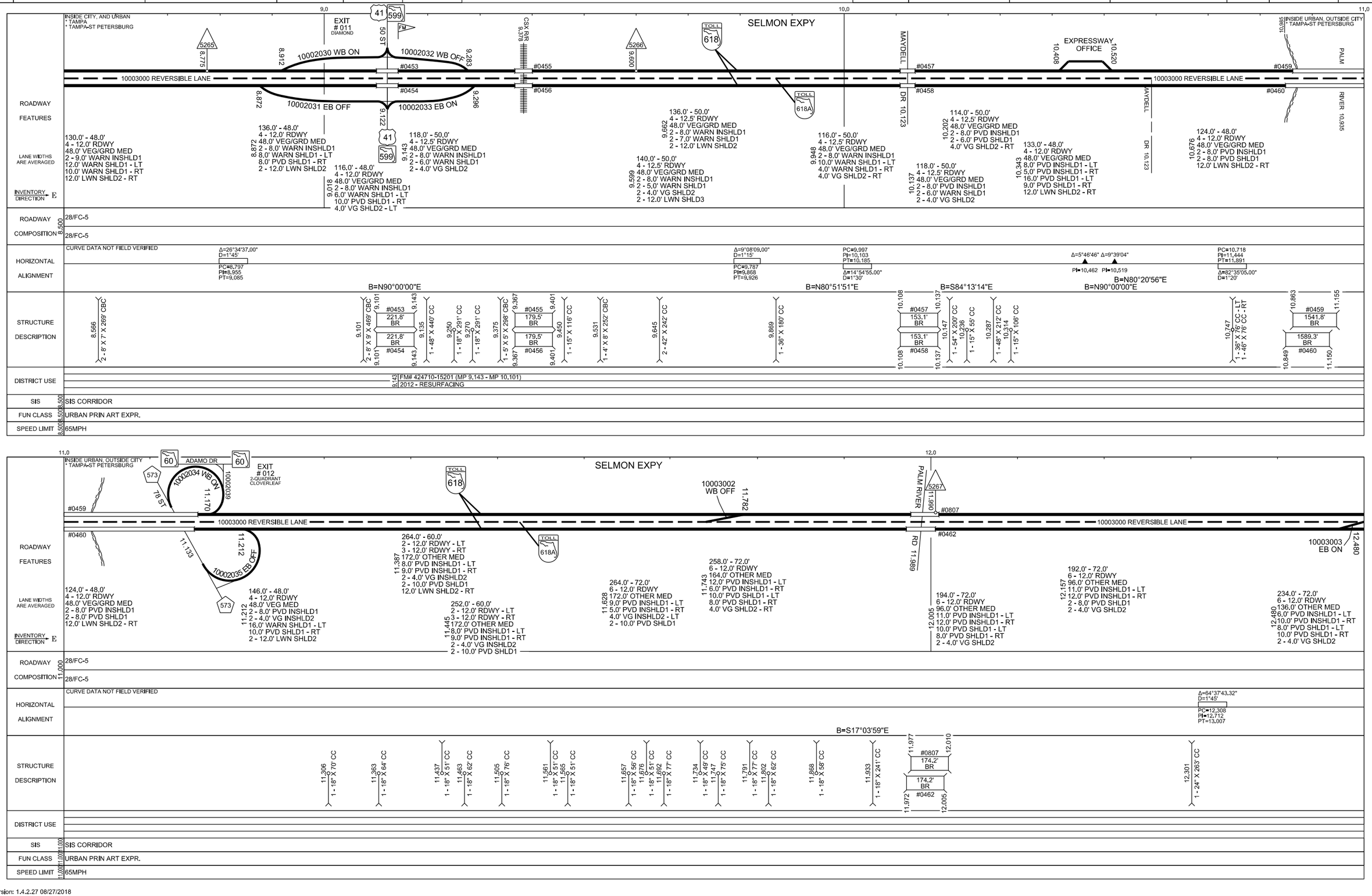
DATE	07/25/2018	08/28/2018				
BY	FTE / IM-BK	FTE / KA				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02		SR 618	HILLSBOROUGH	07	10 002 000	3 OF 4



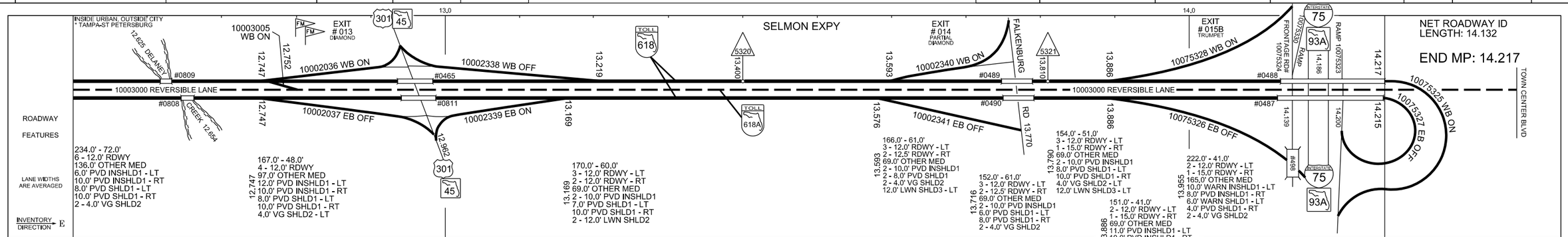
Version: 1.4.2.27 08/27/2018

	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	07/25/2018	08/28/2018				
BY	FTE / IM-BK	FTE / KA				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02		SR 618	HILLSBOROUGH	07	10 002 000	4 OF 4



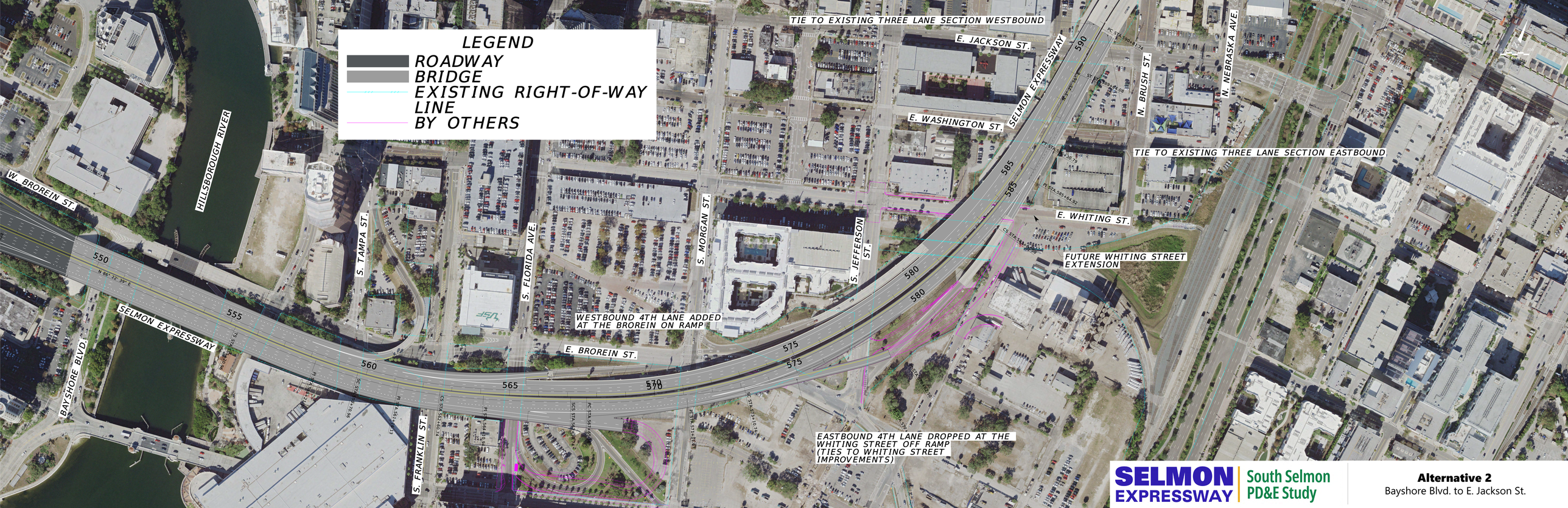
Version: 1.4.2.27 08/27/2018

Appendix B
Alternatives 2 and 6 Concept Roll Plots


TIE TO THE SELMON WEST EXTENSION PROJECT WESTBOUND
S. HIMES AVE
W. EUCLID AVE
WESTBOUND 4TH LANE DROPPED AT THE EUCLID OFF RAMP
W. EL PRADO BLVD
W. BAY TO BAY BLVD
95
100
105
110
115
120
125
130
135
140
145
150
155
160
SELMON EXPRESSWAY
90
80
75
SELMON EXPRESSWAY
S. HIMES AVE
SELMON EXPRESSWAY
S. MACDILL AVE
TIE TO THE SELMON WEST EXTENSION PROJECT EASTBOUND
EASTBOUND 4TH LANE ADDED AT THE DALE MABRY ON RAMP
LEGEND
ROADWAY
BRIDGE
EXISTING RIGHT-OF-WAY LINE
BY OTHERS
SELMON EXPRESSWAY
South Selmon PD&E Study
Alternative 2
S. Himes Ave to W. Bay to Bay Blvd.


W. MISSISSIPPI AVE.
W. WATROUS AVE.
S. HOWARD AVE.
W. MORRISON AVE.
W. SWANN AVE.
SELMON EXPRESSWAY
SELMON EXPRESSWAY
SELMON EXPRESSWAY
165
170
175
180
185
190
195
200
205
210
215
220
225
230
235
240
245
250
LEGEND
ROADWAY
BRIDGE
EXISTING RIGHT-OF-WAY LINE
SELMON EXPRESSWAY
South Selmon PD&E Study
Alternative 2
W. Mississippi Ave. to W. Swann Ave.


W. CLEVELAND ST.
S. BOULEVARD
S. HYDE PARK AVE.
S. PLANT AVE.
W. BROREIN ST.
W. CLEVELAND ST.
SELMON EXPRESSWAY
W. PLATT ST.
S. WILLOW AVE.
W. PLATT ST.
500
505
510
515
520
525
530
535
540
545
255
S 89° 06' 35" E
N 86° 21' 45" E
LEGEND
ROADWAY
BRIDGE
EXISTING RIGHT-OF-WAY LINE
SELMON EXPRESSWAY
South Selmon PD&E Study
Alternative 2
W. Platt St. to S. Plant Ave.



SELMON EXPRESSWAY | South Selmon PD&E Study

Alternative 2

Bayshore Blvd. to E. Jackson St.


TIE TO THE SELMON WEST EXTENSION PROJECT WESTBOUND
S. HIMES AVE
W. EUCLID AVE
W. EL PRADO BLVD
W. BAY TO BAY BLVD
SELMON EXPRESSWAY
SELMON EXPRESSWAY
SELMON EXPRESSWAY
S. HIMES AVE
S. MACDILL AVE
TIE TO THE SELMON WEST EXTENSION PROJECT EASTBOUND
95
100
105
110
115
120
125
130
135
140
145
150
155
160
165
80
85
90
95
80
75
LEGEND
ROADWAY
BRIDGE
EXISTING RIGHT-OF-WAY LINE
BY OTHERS
SELMON EXPRESSWAY
South Selmon PD&E Study
Alternative 6
S. Himes Ave to W. Bay to Bay Blvd.

SELMON EXPRESSWAY | South Selmon PD&E Study

Alternative 6
W. Mississippi Ave. to W. Swann Ave.


W. CLEVELAND ST.
S. BOULEVARD
S. HYDE PARK AVE.
S. PLANT AVE.
W. BROREIN ST.
SELMON EXPRESSWAY
W. PLATT ST.
S. WILLOW AVE.
500
505
510
515
520
525
530
535
540
545
255
LEGEND
ROADWAY
BRIDGE
EXISTING RIGHT-OF-WAY LINE
SELMON EXPRESSWAY
South Selmon PD&E Study
Alternative 6
W. Platt St. to S. Plant Ave.

SELMON EXPRESSWAY | South Selmon PD&E Study

Alternative 6

Bayshore Blvd. to E. Jackson St.

Appendix C
Alternatives 2 and 6 Construction Cost Estimates (LRE's)

Date: 8/25/2020 6:59:29 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 3 Project Grand Total **$175,734,461.75**

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 3 REPRESENTS ALTERNATIVE 2 (8 LANES AT GRADE WITH OUTSIDE WIDENING).

Sequence: 1 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.460 MI 2,429 LF

Description: SEQUENCE 1 REPRESENTS THE WORK FROM EAST OF DALE MABRY TO EAST OF EUCLID (STA 84+60 TO 115+00). THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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
Existing Front Slope L/R	2 to 1 / 2 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	0 to 1 / 0 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	2.23	AC	$13,000.00	$28,990.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	1,762.00	SY	$22.13	$38,993.06
	Comment: 2991 LF OF 3.5' WIDE SHOULDER GUTTER AND 1796 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				

120-6	EMBANKMENT	35,531.00 CY	$15.00	$532,965.00
	Comment: ASSUME AN AVERAGE OF 10' OF FILL FOR THE WIDENED AREAS (43071 SF) AND OUTSIDE PAVED SHOULDERS (52864 SF)			
	Earthwork Component Total			$600,948.06

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	29.90 / 39.30
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	1.20 / 9.20
Widened Inside Pavement Width L/R	2.00 / 5.30
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,221.97	SY	$5.00	$71,109.85
285-710	OPTIONAL BASE,BASE GROUP 10	5,132.86	SY	$32.57	$167,177.25
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	18,674.77	SY	$3.38	$63,120.72
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,050.86	TN	$115.00	$120,848.90
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,540.67	TN	$115.00	$177,177.05
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	191.07	TN	$135.00	$25,794.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	746.99	TN	$135.00	$100,843.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,529.50	TN	$115.00	$290,892.50
	Comment: FOR OVERBUILD				
339-1	MISCELLANEOUS ASPHALT PAVEMENT	107.80	TN	$240.00	$25,872.00
	Comment: 9701 SF = 1078 SY * 2" thick * 100 lb/SY-in				
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	497.00	LF	$20.63	$10,253.11
536-1-3	GUARDRAIL- ROADWAY, DOUBLE FACE	1,259.00	LF	$28.24	$35,554.16
536-8-13	APPROACH TRANS CONN TO RIGID BA, F&I, 3	2.00	EA	$2,921.03	$5,842.06
536-73	GUARDRAIL REMOVAL	947.00	LF	$3.54	$3,352.38
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.21	GM	$4,328.00	$5,236.88
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.88	GM	$1,554.00	$4,475.52
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.08	GM	$4,662.95	$5,035.99

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	310.00	EA	$5.82	$1,804.20

Roadway Component Total $1,114,390.67

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	12.00 / 15.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	8.70 / 13.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	6,034.22	SY	$32.57	$196,534.55
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,288.34	TN	$115.00	$148,159.10
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	234.24	TN	$135.00	$31,622.40
570-1-1	PERFORMANCE TURF	1,079.47	SY	$2.10	$2,266.89

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	4,853.00	LF	$265.00	$1,286,045.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,586.24	LF	$1.37	$7,653.15
104-11	FLOATING TURBIDITY BARRIER	46.00	LF	$9.79	$450.34
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	46.00	LF	$4.06	$186.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00

104-18	INLET PROTECTION SYSTEM	18.00 EA	$113.29	$2,039.22
107-1	LITTER REMOVAL	3.34 AC	$40.27	$134.50
107-2	MOWING	3.34 AC	$58.12	$194.12
	Shoulder Component Total			$1,678,203.03

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
New Total Median Shoulder Width L/R	4.00 / 4.00
New Paved Median Shoulder Width L/R	1.50 / 2.20
Existing Total Median Shoulder Width L/R	8.00 / 8.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-702	OPTIONAL BASE,BASE GROUP 02	1,176.62	SY	$15.00	$17,649.30
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	109.84	TN	$115.00	$12,631.60
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	14.25	TN	$135.00	$1,923.75
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	602.00	LF	$150.00	$90,300.00
	Median Component Total				$122,504.65

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00	EA	$3,162.00	$3,162.00
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	9.00	EA	$5,859.17	$52,732.53
	Comment: 9 new barrier wall inlets				
425-1-885	INLETS ,BARRIER WALL ,RIG, C&G,PARTIAL	6.00	EA	$3,940.00	$23,640.00
	Comment: 6 shoulder gutter inlets to be converted to barrier wall inlet tops				
425-2-43	MANHOLES, P-7, PARTIAL	9.00	EA	$3,383.48	$30,451.32
	Comment: existing shoulder gutter inlets in widened area to be converted to MH tops				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	184.00	LF	$93.70	$17,240.80
	Comment: 20 LF per new inlet (9 new inlets)				

Retention Basin 1

Description	Value

Size	.5 AC
Multiplier	1
Depth	0.74
Description	POND EC-S (SOUTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	596.93	CY	$9.00	$5,372.37
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	2.78
Description	POND EC-N1 (NORTH OF EUCLID 1)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	2,242.53	CY	$9.00	$20,182.77
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00

Retention Basin 3

Description	Value
Size	.5 AC
Multiplier	1
Depth	1.20
Description	

POND EC-N2 (NORTH OF EUCLID 2)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	968.00	CY	$9.00	$8,712.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$589,544.47

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	$342.00	$342.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	$1,288.00	$15,456.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$235.00	$235.00
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$636.00	$7,632.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,159.00	$4,159.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$636.00	$636.00
	Signing Component Total				$28,460.00

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	$709.00	$7,090.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	$2.20	$13,200.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	10.00	EA	$6,413.00	$64,130.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	$556.00	$5,560.00
	Subcomponent Total				$89,980.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	2,800.00	LF	$14.00	$39,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$500.00	$2,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	800.00	LF	$0.94	$752.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	12.00	EA	$550.00	$6,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	30.00	EA	$1,300.00	$39,000.00
715-11-500	LUMINAIRE, REMOVE	16.00	EA	$165.00	$2,640.00
	Lighting Component Total				$185,360.00

BRIDGES COMPONENT

Bridge HIMESW

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	318.00
Width (LF)	20.50
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100308
Removal of Existing Structures area	2,226.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$210.27**
Basic Bridge Cost	**$1,302,496.20**
Description	INSIDE WIDENING OF SELMON WB OVER HIMES (17') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,226.00	SF	$34.00	$75,684.00
400-2-10	CONC CLASS II, APPROACH SLABS	45.56	CY	$533.96	$24,327.22
415-1-9	REINF STEEL- APPROACH SLABS	7,973.00	LB	$1.16	$9,248.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	318.00	LF	$109.00	$34,662.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER HIMES				
	Bridge HIMESW Total				$1,446,418.10

Bridge HIMESE

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	321.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100309
Removal of Existing Structures area	2,247.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$204.90**
Basic Bridge Cost	**$1,859,938.20**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER HIMES. 3.5' OF BRIDGE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,247.00	SF	$34.00	$76,398.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge HIMESE Total				$1,983,825.90

Bridge EUCLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	20.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100310
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$188.47**
Basic Bridge Cost	**$769,918.50**
Description	INSIDE WIDENING OF SELMON WB OVER EUCLID (17') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	45.56	CY	$533.96	$24,327.22
415-1-9	REINF STEEL- APPROACH SLABS	7,973.00	LB	$1.16	$9,248.68

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	214.00 LF	$109.00	$23,326.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER EUCLID			
	Bridge EUCLWB Total			$877,752.40

Bridge EUCLEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100311
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.15**
Basic Bridge Cost	**$1,089,153.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER EUCLID. 3.5' OF BRIDGE REMOVAL ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00 SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44 CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00 LB	$1.16	$13,081.32
	Bridge EUCLEB Total			$1,187,574.70
	Bridges Component Total			$5,495,571.10

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	3,322.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	49,830.00 SF	$29.35	$1,462,510.50

Retaining Wall 2

Description	Value

Length	79.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,975.00	SF	$29.35	$57,966.25
	Retaining Walls Component Total				$1,520,476.75

Sequence 1 Total $11,335,458.73

Sequence: 2 WDR - Widen/Resurface, Divided, Rural **Net Length:** 2.102 MI
11,100 LF

Description: SEQUENCE 2 REPRESENTS THE WORK FROM EAST OF EUCLID TO WEST OF WILLOW (STA 115+00 TO 245+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (DOES NOT INCLUDE BRIDGE LENGTHS).

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	0.000
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	10.19	AC	$13,000.00	$132,470.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	9,712.00	SY	$22.13	$214,926.56
	Comment: 15399 LF OF 3.5' WIDE SHOULDER GUTTER AND 11169 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	127,864.00	CY	$15.00	$1,917,960.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (126507 SF) AND OUTSIDE SHOULDER (218726 SF)				
	Earthwork Component Total				$2,265,356.56

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	43.00 / 45.90
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	5.90 / 5.50
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	43,660.57	SY	$5.00	$218,302.85
285-710	OPTIONAL BASE,BASE GROUP 10	14,874.19	SY	$32.57	$484,452.37
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	109,644.76	SY	$3.38	$370,599.29
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	9,045.69	TN	$115.00	$1,040,254.35
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	3,093.24	TN	$115.00	$355,722.60
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	4,385.79	TN	$135.00	$592,081.65
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	562.41	TN	$135.00	$75,925.35

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	11,559.10	TN	$115.00	$1,329,296.50
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	5,902.00	LF	$3.54	$20,893.08
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.52	GM	$8,960.09	$4,659.25
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	5.16	GM	$4,328.00	$22,332.48
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	14.35	GM	$1,554.00	$22,299.90
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.51	GM	$2,674.95	$1,364.22
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	5.15	GM	$4,662.95	$24,014.19

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,419.00	EA	$5.82	$8,258.58

Roadway Component Total $4,570,456.66

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	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	9.90 / 9.80
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	25,110.99	SY	$32.57	$817,864.94
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	5,345.34	TN	$115.00	$614,714.10
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	971.88	TN	$135.00	$131,203.80
570-1-1	PERFORMANCE TURF	4,933.40	SY	$2.10	$10,360.14

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	22,373.00	LF	$265.00	$5,928,845.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,530.33	LF	$1.37	$34,976.55
104-11	FLOATING TURBIDITY BARRIER	210.23	LF	$9.79	$2,058.15
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	210.23	LF	$4.06	$853.53
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,917.00	$8,751.00
104-18	INLET PROTECTION SYSTEM	76.00	EA	$113.29	$8,610.04
107-1	LITTER REMOVAL	15.28	AC	$40.27	$615.33
107-2	MOWING	15.28	AC	$58.12	$888.07

Shoulder Component Total $7,559,740.65

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,995.00	LF	$150.00	$449,250.00
	Median Component Total				$449,250.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00	EA	$3,162.00	$3,162.00
	Comment: 1 MEDIAN INLET TOPS TO BE REPLACED (THE REST ARE IN SECTIONS OF NEW BARRIER WALL CONSTRUCTED AS PART OF MEDIAN SAFETY PROJECT)				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	54.00	EA	$5,859.17	$316,395.18
	Comment: 54 NEW BARRIER WALL INLETS				
425-2-43	MANHOLES, P-7, PARTIAL	54.00	EA	$3,383.48	$182,707.92
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH in areas of widening				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	1,080.00	LF	$93.70	$101,196.00
	Comment: 20 LF PER NEW INLET ASSUMED				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND PC-1 (SOUTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	161.33	CY	$9.00	$1,451.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1

Depth		0.20
Description	POND PC-2 (NORTH OF MISSISSIPPI)	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	161.33	CY	$9.00	$1,451.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$891,732.16

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$342.00	$1,710.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	51.00	AS	$1,288.00	$65,688.00
700-1-50	SINGLE POST SIGN, RELOCATE	5.00	AS	$235.00	$1,175.00
700-1-60	SINGLE POST SIGN, REMOVE	51.00	AS	$636.00	$32,436.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,159.00	$20,795.00
700-2-60	MULTI- POST SIGN, REMOVE	5.00	AS	$636.00	$3,180.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	6.00	EA	$1,219.00	$7,314.00
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: SIGN PANEL REPLACEMENT ON OH SIGN EAST OF EL PRADO				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	5.00	EA	$4,333.00	$21,665.00
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	6.00	EA	$305.00	$1,830.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$422.28	$422.28
	Comment: REMOVAL OF EXISTING SIGN PANEL ON OH SPAN STR EAST OF EL PRADO				
700-3-606		5.00	EA	$700.00	$3,500.00

	SIGN PANEL, REMOVE, 101-200 SF				
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	4.00	EA	$47,603.00	$190,412.00
	Comment: REPLACEMENT OF OH CANT SIGNS				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SPAN SIGN STRUCTURE EAST OF EL PRADO				
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	5.00	EA	$4,918.00	$24,590.00
	Comment: REMOVAL OF OH CANTILEVER SIGN STRUCTURES (4 WB AND 1 EB)				
	Signing Component Total				$553,861.28

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	30

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	30.00	EA	$709.00	$21,270.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	18,000.00	LF	$2.20	$39,600.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	30.00	EA	$6,413.00	$192,390.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	30.00	EA	$556.00	$16,680.00
	Subcomponent Total				$269,940.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	8,400.00	LF	$14.00	$117,600.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	12.00	EA	$500.00	$6,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	2,400.00	LF	$0.94	$2,256.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	56.00	EA	$550.00	$30,800.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	12.00	EA	$1,297.00	$15,564.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	102.00	EA	$1,300.00	$132,600.00
715-11-500	LUMINAIRE, REMOVE	48.00	EA	$165.00	$7,920.00
	Lighting Component Total				$582,680.00

BRIDGES COMPONENT

Bridge ELPRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100312
Removal of Existing Structures area	6,871.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$201.06**
Basic Bridge Cost	**$1,389,433.50**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON WB OVER EL PRADO. REMOVAL OF 3.5' OF EXISTING BRIDGE ON INSIDE TO WIDEN (273 LF) AND ON OUTSIDE FOR WIDENING/RAIL REPLACEMENT (1690 LF)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	6,871.00	SF	$34.00	$233,614.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	1,421.00	LF	$109.00	$154,889.00
	Comment: REPLACEMENT OF OUTSIDE BRIDGE RAILING FOR WB RAMP BRIDGE OVER CSX				
	Bridge ELPRWB Total				$1,825,426.20

Bridge ELPREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	33.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100313
Removal of Existing Structures area	1,911.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$181.50**
Basic Bridge Cost	**$1,581,079.50**
Description	INSIDE (17') AND OUTSIDE (16') WIDNENING OF SELMON EB OVER EL PRADO. REMOVING 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,911.00 SF	$34.00	$64,974.00
400-2-10	CONC CLASS II, APPROACH SLABS	73.33 CY	$533.96	$39,155.29
415-1-9	REINF STEEL- APPROACH SLABS	12,832.75 LB	$1.16	$14,885.99
	Bridge ELPREB Total			$1,700,094.78

Bridge B2BWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	719.00
Width (LF)	20.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100314
Removal of Existing Structures area	5,908.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$207.78**
Basic Bridge Cost	**$2,873,124.00**
Description	INSIDE (17') AND OUTSIDE (3' AVG; ONLY WIDENING WEST OF GORE) WIDNENING OF SELMON WB BRIDGE OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXIST BRIDGE WHERE WIDENED (936') & WHERE RAIL IS BEING REPL (752')

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,908.00 SF	$34.00	$200,872.00
400-2-10	CONC CLASS II, APPROACH SLABS	44.44 CY	$533.96	$23,729.18
415-1-9	REINF STEEL- APPROACH SLABS	7,777.00 LB	$1.16	$9,021.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	752.00 LF	$109.00	$81,968.00
	Comment: REPLACEMENT OF EXISTING BRIDGE RAILING ON SELMON WB OVER BAY TO BAY/MCDILL AND CSX			
	Bridge B2BWB Total			$3,188,714.50

Bridge B2BEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	754.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100315

Removal of Existing Structures area	5,621.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$201.97**
Basic Bridge Cost	**$4,368,826.80**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXISTING BRIDGE ON INSIDE (740') AND OUTSIDE (866').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,621.00	SF	$34.00	$191,114.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge B2BEB Total				$4,607,430.50

Bridge MISSWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100316
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$783,783.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF SELMON WB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge MISSWB Total				$867,924.70

Bridge MISSEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30

Structure No.	100317
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$783,783.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF SELMON EB BRIDGE OVER MISSISSIPPI. 3.5' OF BRIDGE REMOVAL EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge MISSEB Total				$867,924.70

Bridge HOWAWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	301.00
Width (LF)	31.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100318
Removal of Existing Structures area	2,433.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$180.94**
Basic Bridge Cost	**$1,637,590.50**
Description	INSIDE (17') AND OUTSIDE (14' AVG USING LENGTH ABOVE) WIDENING OF SELMON WB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE (296') AND OUTSIDE (399').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,433.00	SF	$34.00	$82,722.00
400-2-10	CONC CLASS II, APPROACH SLABS	68.89	CY	$533.96	$36,784.50
415-1-9	REINF STEEL- APPROACH SLABS	12,055.75	LB	$1.16	$13,984.67
	Bridge HOWAWB Total				$1,771,081.67

Bridge HOWAEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	292.00
Width (LF)	29.00

Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100319
Removal of Existing Structures area	2,044.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$205.41**
Basic Bridge Cost	**$1,691,906.40**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF SELMON EB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,044.00	SF	$34.00	$69,496.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge HOWAEB Total				$1,808,892.10

Bridge MORRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100320
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.88**
Basic Bridge Cost	**$1,129,869.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF SELMON WB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00	SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge MORRWB Total				$1,230,194.70

Bridge MORREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00

Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100321
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.88**
Basic Bridge Cost	**$1,129,869.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF THE SELMON EB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00	SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge MORREB Total				$1,230,194.70

Bridge SWANWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100322
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.01**
Basic Bridge Cost	**$1,109,511.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF THE SELMON WB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00	SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge SWANWB Total				$1,208,884.70

Bridge SWANEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES

Length (LF)	218.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100323
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.01**
Basic Bridge Cost	**$1,109,511.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF SELMON EB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00	SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge SWANEB Total				$1,208,884.70
	Bridges Component Total				$21,515,647.95

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	21,315.00
Begin height	5.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	319,725.00	SF	$29.35	$9,383,928.75

Retaining Wall 2

Description	Value
Length	344.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	8,600.00	SF	$29.35	$252,410.00
	Retaining Walls Component Total				$9,636,338.75

Sequence 2 Total	$48,025,064.01

Sequence: 3 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.824 MI
4,352 LF

Description: SEQUENCE 3 REPRESENTS THE WORK FROM WEST OF WILLOW TO HYDE PARK (STA 245+00 TO 236+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS NOT INCLUDED).

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	0.000
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	4.00 AC	$13,000.00	$52,000.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	2,938.00 SY	$22.13	$65,017.94
	Comment: REMOVAL OF 5564 LF OF SHLDR GUTTER * 3.5' = 19474 SF AND 2323 LF OF BARRIER WALL (3' HEIGHT ASSUMED)			
120-6	EMBANKMENT	65,589.00 CY	$15.00	$983,835.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (76254 SF) AND OUTSIDE SHOULDER (100835 SF)			
	Earthwork Component Total			$1,100,852.94

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	47.70 / 50.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	12.70 / 4.90
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	22,049.00	SY	$5.00	$110,245.00
285-710	OPTIONAL BASE,BASE GROUP 10	8,829.27	SY	$32.57	$287,569.32
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	47,240.95	SY	$3.38	$159,674.41
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	3,897.38	TN	$115.00	$448,198.70
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,872.23	TN	$115.00	$215,306.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,889.64	TN	$135.00	$255,101.40
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	340.41	TN	$135.00	$45,955.35

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,532.00	TN	$115.00	$521,180.00
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	5,940.00	LF	$3.54	$21,027.60
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.40	GM	$8,960.09	$3,584.04
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	2.20	GM	$4,328.00	$9,521.60
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	5.82	GM	$1,554.00	$9,044.28
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	2.20	GM	$4,662.95	$10,258.49

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	556.00	EA	$5.82	$3,235.92

Roadway Component Total $2,099,902.56

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	16.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00

Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	13.80 / 9.40
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	11,537.04	SY	$32.57	$375,761.39
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,467.94	TN	$115.00	$283,813.10
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	448.72	TN	$135.00	$60,577.20
570-1-1	PERFORMANCE TURF	1,934.12	SY	$2.10	$4,061.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	9,174.00	LF	$265.00	$2,431,110.00
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	89.00	LF	$527.00	$46,903.00
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	8,052.00	SF	$35.00	$281,820.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	745.00	LF	$483.00	$359,835.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,009.08	LF	$1.37	$13,712.44
104-11	FLOATING TURBIDITY BARRIER	82.42	LF	$9.79	$806.89
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	82.42	LF	$4.06	$334.63
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	43.00	EA	$113.29	$4,871.47
107-1	LITTER REMOVAL	5.99	AC	$40.27	$241.22
107-2	MOWING	5.99	AC	$58.12	$348.14

Shoulder Component Total $3,867,113.13

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,799.00	LF	$150.00	$419,850.00
	Median Component Total				$419,850.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	20.00	EA	$5,859.17	$117,183.40
	Comment: 20 new barrier wall inlets in the areas of widening				
425-2-41	MANHOLES, P-7, <10'	20.00	EA	$5,347.00	$106,940.00
	Comment: EXISTING SHOULDER GUTTER OR BARRIER WALL INLETS TO BE CONVERTED TO MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	400.00	LF	$93.70	$37,480.00
	Comment: 20 LF per new inlet (20 new inlets)				
430-185-124	PIPE CULV,OPT MATL, ROUND, JACK&BORE,24"	125.00	LF	$498.98	$62,372.50
	Comment: CONNECTING PONDS ON EITHER SIDE OF WILLOW AVE				

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	2.40
Description	POND SC-WEST (WEST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$13,000.00	$13,000.00
120-1	REGULAR EXCAVATION	3,872.00	CY	$9.00	$34,848.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$15.84	$13,305.60
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00

570-1-1	PERFORMANCE TURF	4,840.00	SY	$2.10	$10,164.00

Retention Basin 2

Description	Value
Size	2 AC
Multiplier	1
Depth	5.20
Description	POND SC-EAST (EAST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$13,000.00	$26,000.00
120-1	REGULAR EXCAVATION	16,778.67	CY	$9.00	$151,008.03
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	$15.84	$18,691.20
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	9,680.00	SY	$2.10	$20,328.00
	Drainage Component Total				$854,515.85

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	$342.00	$684.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00	AS	$1,288.00	$25,760.00
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	$235.00	$470.00
700-1-60	SINGLE POST SIGN, REMOVE	20.00	AS	$636.00	$12,720.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,159.00	$8,318.00
700-2-60	MULTI- POST SIGN, REMOVE	2.00	AS	$636.00	$1,272.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$953.00	$953.00
	Comment: SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,219.00	$2,438.00
	Comment: SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	2.00	EA	$4,333.00	$8,666.00
	Comment: NEW SIGN PANELS FOR OH SIGN STRUCTURES WEST OF WILLOW				

700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$106.90	$106.90
	Comment: REMOVAL OF SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	2.00	EA	$700.00	$1,400.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF WILLOW				
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00	EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF WILLOW				
	Signing Component Total				$249,065.90

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	15

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	15.00	EA	$709.00	$10,635.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	9,000.00	LF	$2.20	$19,800.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	15.00	EA	$6,413.00	$96,195.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	15.00	EA	$556.00	$8,340.00
	Subcomponent Total				$134,970.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	4,200.00	LF	$14.00	$58,800.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	6.00	EA	$500.00	$3,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,200.00	LF	$0.94	$1,128.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	32.00	EA	$550.00	$17,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	6.00	EA	$1,297.00	$7,782.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	48.00	EA	$1,300.00	$62,400.00
715-11-500	LUMINAIRE, REMOVE	22.00	EA	$165.00	$3,630.00
	Lighting Component Total				$289,310.00

BRIDGES COMPONENT

Bridge PLATWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	228.00
Width (LF)	88.60
Type	Low Level
Cost Factor	1.04
Structure No.	100324
Removal of Existing Structures area	12,192.00
Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$137.18**
Basic Bridge Cost	**$2,626,104.00**
Description	SUPERSTRUCTURE REPLACEMENT OF SELMON WB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	12,192.00	SF	$34.00	$414,528.00
400-2-10	CONC CLASS II, APPROACH SLABS	196.89	CY	$533.96	$105,131.38
415-1-9	REINF STEEL- APPROACH SLABS	34,455.75	LB	$1.16	$39,968.67
	Bridge PLATWB Total				$3,185,732.05

Bridge PLATEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	224.00
Width (LF)	63.10
Type	Low Level
Cost Factor	1.04
Structure No.	100325
Removal of Existing Structures area	8,102.00
Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$137.31**
Basic Bridge Cost	**$1,837,472.00**
Description	SUPERSTRUCTURE REPLACEMENT OF SELMON EB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	8,102.00	SF	$34.00	$275,468.00
400-2-10	CONC CLASS II, APPROACH SLABS	140.22	CY	$533.96	$74,871.87
415-1-9	REINF STEEL- APPROACH SLABS	24,538.50	LB	$1.16	$28,464.66
	Bridge PLATEB Total				$2,216,276.53

Bridge WILLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100326
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**
Basic Bridge Cost	**$870,304.50**
Description	INSIDE (17') AND OUTSIDE (12') WIDENING OF SELMON WB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge WILLWB Total				$958,492.20

Bridge WILLEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100327
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**
Basic Bridge Cost	**$870,304.50**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32

Bridge WILLEB Total $958,492.20

Bridge SOUTWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	47.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100328
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$1,270,269.00**
Description	INSIDE (17') AND OUTSIDE (30') WIDENING OF SELMON WB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	104.44	CY	$533.96	$55,766.78
415-1-9	REINF STEEL- APPROACH SLABS	18,277.00	LB	$1.16	$21,201.32

Bridge SOUTWB Total $1,383,889.10

Bridge SOUTEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	27.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100329
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$729,729.00**
Description	INSIDE (17') AND OUTSIDE (10') WIDENING OF SELMON EB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	60.00	CY	$533.96	$32,037.60
415-1-9	REINF STEEL- APPROACH SLABS	10,500.00	LB	$1.16	$12,180.00

	Bridge SOUTEB Total	$810,598.60
	Bridges Component Total	$9,513,480.68

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	9,373.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	140,595.00	SF	$29.35	$4,126,463.25

Retaining Wall 2

Description	Value
Length	278.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,950.00	SF	$29.35	$203,982.50

	Retaining Walls Component Total	$4,330,445.75
Sequence 3 Total		$22,724,536.81

Sequence: 4 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.119 MI
630 LF

Description: SEQUENCE 4 REPRESENTS THE WORK FROM HYDE PARK TO THE DOWNTOWN VIADUCT BRIDGE (STA 536+00 TO 549+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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	0.58	AC	$13,000.00	$7,540.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	721.00	SY	$22.13	$15,955.73
	Comment: REMOVAL OF 1498 LF SHLDR GUTTER * 3.5' = 5243 SF AND 416 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	7,234.00	CY	$15.00	$108,510.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (8124 SF) AND AREA OF OUTSIDE SHOULDER (11409 SF)				
	Earthwork Component Total				$132,005.73

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	54.70 / 59.40
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	8.20 / 4.70
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,232.66	SY	$5.00	$11,163.30
285-710	OPTIONAL BASE,BASE GROUP 10	949.06	SY	$32.57	$30,910.88
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	7,985.78	SY	$3.38	$26,991.94
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	658.83	TN	$115.00	$75,765.45
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	198.63	TN	$115.00	$22,842.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	319.43	TN	$135.00	$43,123.05
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	36.11	TN	$135.00	$4,874.85

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	656.10	TN	$115.00	$75,451.50
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	1,106.00	LF	$3.54	$3,915.24
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.21	GM	$8,960.09	$1,881.62
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.51	GM	$4,328.00	$2,207.28
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.48	GM	$1,554.00	$2,299.92
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.01	GM	$2,674.95	$26.75
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.52	GM	$4,662.95	$2,424.73

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	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	81.00	EA	$5.82	$471.42

Roadway Component Total $304,350.38

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	11.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	10.30 / 7.80
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	1,313.00	SY	$32.57	$42,764.41
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	278.70	TN	$115.00	$32,050.50
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	50.67	TN	$135.00	$6,840.45

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	1,392.00	LF	$265.00	$368,880.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,448.78	LF	$1.37	$1,984.83
104-11	FLOATING TURBIDITY BARRIER	11.93	LF	$9.79	$116.79
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	11.93	LF	$4.06	$48.44
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.87	AC	$40.27	$35.03
107-2	MOWING	0.87	AC	$58.12	$50.56

Shoulder Component Total $456,820.91

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	632.00 LF	$150.00	$94,800.00
	Median Component Total			$94,800.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	3.00	EA	$3,162.00	$9,486.00
	Comment: 3 median barrier wall inlet tops				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	4.00	EA	$5,859.17	$23,436.68
	Comment: 4 NEW BARRIER WALL INLETS				
425-2-41	MANHOLES, P-7, <10'	4.00	EA	$5,347.00	$21,388.00
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	80.00	LF	$93.70	$7,496.00
	Comment: 20 LF PER NEW INLET ASSUMED (4 NEW INLETS)				

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	1.40
Description	POND BW-1 (EAST OF SOUTH BLVD.)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$13,000.00	$13,000.00
120-1	REGULAR EXCAVATION	2,258.67	CY	$9.00	$20,328.03
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$15.84	$13,305.60
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	4,840.00	SY	$2.10	$10,164.00

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.80
Description	POND BW-2 (WEST OF HYDE PARK)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	645.33	CY	$9.00	$5,807.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$388,693.40

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	$342.00	$342.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,288.00	$3,864.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$235.00	$235.00
700-1-60	SINGLE POST SIGN, REMOVE	3.00	AS	$636.00	$1,908.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,159.00	$4,159.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$636.00	$636.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$953.00	$953.00
	Comment: REPLACEMENT OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,219.00	$2,438.00
	Comment: REPLACEMENT OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	1.00	EA	$4,333.00	$4,333.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$106.90	$106.90
	Comment: REMOVAL OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$422.28	$422.28

	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	1.00	EA	$700.00	$700.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00	EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
	Signing Component Total				$209,976.18

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	**Value**
Multiplier (Number of Poles)	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$709.00	$4,254.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	$2.20	$7,920.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	$6,413.00	$38,478.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$556.00	$3,336.00
	Subcomponent Total				$53,988.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	2,000.00	LF	$14.00	$28,000.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$500.00	$2,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	800.00	LF	$0.94	$752.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	13.00	EA	$550.00	$7,150.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	28.00	EA	$1,300.00	$36,400.00
715-11-500	LUMINAIRE, REMOVE	12.00	EA	$165.00	$1,980.00
	Lighting Component Total				$135,458.00

BRIDGES COMPONENT

Bridge HYDEWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100330
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$177.96**
Basic Bridge Cost	**$3,384,517.50**
Description	INSIDE (19') AND OUTSIDE (10') WIDENING OF SELMON WB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00	SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge HYDEWB Total				$3,590,277.20

Bridge HYDEEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100331
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$177.96**
Basic Bridge Cost	**$3,384,517.50**
Description	INSIDE (19') AND OUTSIDE (10') WIDNEING OF SELMON EB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00	SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge HYDEEB Total				$3,590,277.20

	Bridges Component Total	$7,180,554.40

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	1,346.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	20,190.00	SF	$29.35	$592,576.50

Retaining Wall 2

Description	Value
Length	40.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,000.00	SF	$29.35	$29,350.00

	Retaining Walls Component Total	$621,926.50

Sequence 4 Total	$9,524,585.50

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.796 MI
4,200 LF

Description: SEQUENCE 5 REPRESENTS THE WORK ON THE SELMON EXPRESSWAY DOWNTOWN VIADUCT BRIDGE (STA 549+00 TO 591+00)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.50	GM	$8,960.09	$4,480.04
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.79	GM	$4,143.00	$7,415.97
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	3.76	GM	$1,431.00	$5,380.56
711-16-133	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 12"	0.58	GM	$2,704.98	$1,568.89
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	1.69	GM	$4,168.12	$7,044.12
711-17-1	THERMOPLASTIC, REMOVE	18,321.00	SF	$3.52	$64,489.92
	Comment: 36642 LF OF 6" STRIPES TO BE REMOVED				
	Roadway Component Total				$90,379.51

DRAINAGE COMPONENT

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.40
Description	POND M-1 (BROREIN)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	322.67	CY	$9.00	$2,904.03
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$145,587.59

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	3.00	EA	$953.00	$2,859.00

700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	$3,601.00	$7,202.00
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	$4,333.00	$12,999.00
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	3.00	EA	$106.90	$320.70
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	$422.28	$844.56
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	$700.00	$2,100.00
700-4-140	OH STATIC SIGN STR, F&I, O BR MOUNT	3.00	EA	$11,252.00	$33,756.00
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	1.00	EA	$4,918.00	$4,918.00
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	2.00	EA	$10,125.00	$20,250.00
	Signing Component Total				$85,249.26

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	25

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	25.00	EA	$709.00	$17,725.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	15,000.00	LF	$2.20	$33,000.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	25.00	EA	$6,413.00	$160,325.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	25.00	EA	$556.00	$13,900.00
	Subcomponent Total				$224,950.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	5,000.00	LF	$27.12	$135,600.00
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	4,800.00	LF	$14.00	$67,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	24.00	EA	$500.00	$12,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	4,800.00	LF	$0.94	$4,512.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	25.00	EA	$550.00	$13,750.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	24.00	EA	$1,297.00	$31,128.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	132.00	EA	$1,300.00	$171,600.00
715-11-500	LUMINAIRE, REMOVE	108.00	EA	$165.00	$17,820.00
	Lighting Component Total				$678,560.00

BRIDGES COMPONENT

Bridge VIADWB

Description	Value

Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	2,532.00
Width (LF)	23.40
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100332
Removal of Existing Structures area	14,854.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.65**
Basic Bridge Cost	**$11,198,023.20**
Description	INSIDE AND OUTSIDE WIDENING OF THE WB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE (2532') AND OUTSIDE (1712').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	14,854.00	SF	$34.00	$505,036.00
400-2-10	CONC CLASS II, APPROACH SLABS	52.00	CY	$533.96	$27,765.92
415-1-9	REINF STEEL- APPROACH SLABS	9,100.00	LB	$1.16	$10,556.00
	Bridge VIADWB Total				$11,741,381.12

Bridge VIAEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	4,200.00
Width (LF)	32.90
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100333
Removal of Existing Structures area	25,697.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.39**
Basic Bridge Cost	**$26,116,020.00**
Description	INSIDE AND OUTSIDE WIDENING OF THE EB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE (4200') AND OUTSIDE (3142')

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	25,697.00	SF	$34.00	$873,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	73.11	CY	$533.96	$39,037.82
415-1-9	REINF STEEL- APPROACH SLABS	12,794.25	LB	$1.16	$14,841.33
	Bridge VIAEB Total				$27,043,597.15
	Bridges Component Total				$38,784,978.27

Sequence 5 Total	$39,784,754.63

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: SEQUENCE 6 REPRESENTS THE PRELIMINARY ITS, SIGNALIZATION AND LANDSCAPE COSTS FOR THE SELMON EXPRESSWAY WITHIN THE PROJECT LIMITS.

Special Conditions: LANDSCAPE COST WAS ESTIMATED AT $100,000 FOR THE FOLLOWING 6 LOCATIONS: EUCLID EB ON RAMP, EUCLID WB OFF RAMP, WILLOW EB OFF RAMP, WILLOW WB ON RAMP, WILLOW EB ON RAMP AND WILLOW WB OFF RAMP.

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EB EUCLID RAMP TERMINAL

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$8.43	$6,744.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$20.45	$4,090.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,103.02	$5,103.02
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$709.00	$8,508.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.68	$280.80
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00	EA	$46,830.22	$93,660.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00	AS	$950.55	$7,604.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$595.27	$4,762.16
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00	EA	$320.96	$2,567.68
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00	AS	$714.09	$5,712.72
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$221.57	$1,772.56
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$27,602.51	$27,602.51
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00	EA	$3,347.61	$13,390.44

Signalization 2

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT WB EUCLID RAMP TERMINAL

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	600.00	LF	$8.43	$5,058.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00	LF	$20.45	$3,067.50

632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,103.02	$5,103.02
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	$709.00	$5,672.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.68	$280.80
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00 EA	$46,830.22	$93,660.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$950.55	$5,703.30
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	6.00 AS	$595.27	$3,571.62
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$320.96	$1,925.76
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$714.09	$4,284.54
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$221.57	$1,329.42
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$27,602.51	$27,602.51
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	3.00 EA	$3,347.61	$10,042.83

Signalization 3

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EB BAY TO BAY RAMP TERMINAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	600.00 LF	$8.43	$5,058.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00 LF	$20.45	$3,067.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,103.02	$5,103.02
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	$709.00	$5,672.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.68	$280.80
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00 EA	$46,830.22	$93,660.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$950.55	$5,703.30
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	6.00 AS	$595.27	$3,571.62
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$320.96	$1,925.76
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$714.09	$4,284.54
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$221.57	$1,329.42
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$27,602.51	$27,602.51
700-5-21		3.00 EA	$3,347.61	$10,042.83

INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF

Signalization 4

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	REMOVAL AND REPLACEMENT OF THE TRAFFIC SIGNALS AT WILLOW AVE/CLEAVELAND ST/SELMON WB RAMP TERMINAL TO BRING THE SELMONG WB OFF RAMP INTO THE SIGNAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	$8.43	$6,322.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	$20.45	$4,090.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,103.02	$5,103.02
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00 PI	$6,363.17	$6,363.17
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00 LF	$4.68	$140.40
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$950.55	$5,703.30
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$320.96	$1,925.76
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$714.09	$4,284.54
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00 EA	$3,347.61	$13,390.44

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
634-4-600	SPAN WIRE ASSEMBLY, REMOVE- POLES REMAIN	1.00 PI	$932.45	$932.45
650-1-60	VEH TRAF SIGNAL, REMOVE- POLES TO REMAIN	6.00 AS	$115.52	$693.12

Signalizations Component Total $575,455.63

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
676-000	ITS EQUIPTMENT	1.00 LS	$4,950,000.00	$4,950,000.00
	Comment: ITS COST ESTIMATED AT $1.1M PER MILE FOR 4.5 MILES			
735-000	TOLLING EQUIPTMENT	1.00 LS	$5,000,000.00	$5,000,000.00

Comment: MAINLINE AND RAMP TOLLING
ESTIAMTED AT $5M FOR THE PROJECT LIMITS

Intelligent Traffic System (ITS) Component Total	$9,950,000.00

LANDSCAPING COMPONENT

User Input Data

Description	**Value**
Lump Sum	600,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	$600,000.00

Sequence 6 Total	$11,125,455.63

Date: 8/25/2020 6:59:32 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 3 Project Grand Total **$175,734,461.75**

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 3 REPRESENTS ALTERNATIVE 2 (8 LANES AT GRADE WITH OUTSIDE WIDENING).

Project Sequences Subtotal			**$142,519,855.31**
102-1	Maintenance of Traffic	12.00 %	$17,102,382.64
101-1	Mobilization	10.00 %	$15,962,223.80
Project Sequences Total			**$175,584,461.75**
Project Unknowns		0.00 %	$0.00
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 3 Project Grand Total					**$175,734,461.75**

Date: 8/25/2020 6:54:03 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 4 Project Grand Total **$149,544,726.00**

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 4 REPRESENTS ALTERNATIVE 6 (6 LANES AT GRADE WITH OUTSIDE WIDENING AND MINIMAL INSIDE BRIDGE WIDENING). ALTERNATIVE 6 ASSUMES WALLS ON BOTH SIDES OF THE EXPRESSWAY FOR THE ENTIRE STUDY LIMITS.

Sequence: 1 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.460 MI 2,429 LF

Description: SEQUENCE 1 REPRESENTS THE WORK FROM EAST OF DALE MABRY TO EAST OF EUCLID (STA 84+60 TO 115+00). THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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
Existing Front Slope L/R	2 to 1 / 2 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	0 to 1 / 0 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	2.23	AC	$13,000.00	$28,990.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	1,762.00	SY	$22.13	$38,993.06

	Comment: REMOVAL OF 2991 OF 3.5' WIDE SHOULDER GUTTER AND 1796 LF OF BARRIER WALL (3' HEIGHT ASSUMED)			
120-6	EMBANKMENT	35,531.00 CY	$15.00	$532,965.00
	Comment: ASSUME AN AVERAGE OF 10' OF FILL FOR THE WIDENED AREAS (43071 SF) AND OUTSIDE PAVED SHOULDERS (52864 SF)			
	Earthwork Component Total			$600,948.06

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	29.90 / 39.30
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	1.20 / 9.20
Widened Inside Pavement Width L/R	2.00 / 5.30
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,221.97	SY	$5.00	$71,109.85
285-710	OPTIONAL BASE,BASE GROUP 10	5,132.86	SY	$32.57	$167,177.25
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	18,674.77	SY	$3.38	$63,120.72
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,050.86	TN	$115.00	$120,848.90
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,540.67	TN	$115.00	$177,177.05
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	191.07	TN	$135.00	$25,794.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	746.99	TN	$135.00	$100,843.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,529.50	TN	$115.00	$290,892.50
	Comment: FOR OVERBUILD				
339-1	MISCELLANEOUS ASPHALT PAVEMENT	107.80	TN	$240.00	$25,872.00
	Comment: 9701 SF = 1078 SY * 2" thick * 100 lb/SY-in				
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	497.00	LF	$20.63	$10,253.11
536-1-3	GUARDRAIL- ROADWAY, DOUBLE FACE	1,259.00	LF	$28.24	$35,554.16
536-8-13	APPROACH TRANS CONN TO RIGID BA, F&I, 3	2.00	EA	$2,921.03	$5,842.06
536-73	GUARDRAIL REMOVAL	947.00	LF	$3.54	$3,352.38
710-11-103	PAINTED PAVT MARK,STD,WHITE,SOLID,12"	0.19	GM	$2,936.94	$558.02
711-11-224		970.00	LF	$4.06	$3,938.20

	THERMOPLASTIC, STD, YELLOW, SOLID, 18"			
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.28 GM	$4,328.00	$5,539.84
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.20 GM	$1,554.00	$3,418.80
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.09 GM	$4,662.95	$5,082.62

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	310.00	EA	$5.82	$1,804.20

Roadway Component Total $1,118,179.76

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	12.00 / 15.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	8.70 / 13.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	6,034.22	SY	$32.57	$196,534.55
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,288.34	TN	$115.00	$148,159.10
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	234.24	TN	$135.00	$31,622.40
570-1-1	PERFORMANCE TURF	1,079.47	SY	$2.10	$2,266.89

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	2,437.00	LF	$265.00	$645,805.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	2,417.00 LF	$483.00	$1,167,411.00

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,586.24 LF	$1.37	$7,653.15
104-11	FLOATING TURBIDITY BARRIER	46.00 LF	$9.79	$450.34
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	46.00 LF	$4.06	$186.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	18.00 EA	$113.29	$2,039.22
107-1	LITTER REMOVAL	3.34 AC	$40.27	$134.50
107-2	MOWING	3.34 AC	$58.12	$194.12
	Shoulder Component Total			$2,205,374.03

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
New Total Median Shoulder Width L/R	4.00 / 4.00
New Paved Median Shoulder Width L/R	1.50 / 2.20
Existing Total Median Shoulder Width L/R	8.00 / 8.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-702	OPTIONAL BASE,BASE GROUP 02	1,176.62 SY	$15.00	$17,649.30
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	109.84 TN	$115.00	$12,631.60
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	14.25 TN	$135.00	$1,923.75
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	683.00 LF	$150.00	$102,450.00
	Median Component Total			$134,654.65

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00 EA	$3,162.00	$3,162.00
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	9.00 EA	$5,859.17	$52,732.53
	Comment: 9 new barrier wall inlets			

425-1-885	INLETS ,BARRIER WALL ,RIG, C&G,PARTIAL	6.00	EA	$3,940.00	$23,640.00
	Comment: 6 shoulder gutter inlets to be converted to barrier wall inlet tops				
425-2-43	MANHOLES, P-7, PARTIAL	9.00	EA	$3,383.48	$30,451.32
	Comment: existing shoulder gutter inlets in widened area to be converted to MH tops				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	184.00	LF	$93.70	$17,240.80
	Comment: 20 LF per new inlet (9 new inlets)				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$19,084.00	$19,084.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.74
Description	POND EC-S (SOUTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	596.93	CY	$9.00	$5,372.37
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	2.78
Description	POND EC-N1 (NORTH OF EUCLID 1)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00

120-1	REGULAR EXCAVATION	2,242.53	CY	$9.00	$20,182.77
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00

Retention Basin 3

Description	Value
Size	.5 AC
Multiplier	1
Depth	1.20
Description	POND EC-N2 (NORTH OF EUCLID 2)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	968.00	CY	$9.00	$8,712.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$608,628.47

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	$342.00	$342.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	$1,288.00	$15,456.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$235.00	$235.00
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$636.00	$7,632.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,159.00	$4,159.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$636.00	$636.00

	Signing Component Total	$28,460.00

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	**Value**
Multiplier (Number of Poles)	10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	$709.00	$7,090.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	$2.20	$13,200.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	10.00	EA	$6,413.00	$64,130.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	$556.00	$5,560.00
	Subcomponent Total				$89,980.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	2,800.00	LF	$14.00	$39,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$500.00	$2,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	800.00	LF	$0.94	$752.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	12.00	EA	$550.00	$6,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	30.00	EA	$1,300.00	$39,000.00
715-11-500	LUMINAIRE, REMOVE	16.00	EA	$165.00	$2,640.00
	Lighting Component Total				$185,360.00

BRIDGES COMPONENT

Bridge HIMESW

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	318.00
Width (LF)	20.50
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100308
Removal of Existing Structures area	2,226.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$210.27**
Basic Bridge Cost	**$1,302,496.20**
Description	INSIDE WIDENING OF SELMON WB OVER HIMES (17') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,226.00	SF	$34.00	$75,684.00
400-2-10	CONC CLASS II, APPROACH SLABS	45.56	CY	$533.96	$24,327.22
415-1-9	REINF STEEL- APPROACH SLABS	7,973.00	LB	$1.16	$9,248.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	318.00	LF	$109.00	$34,662.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER HIMES				
	Bridge HIMESW Total				$1,446,418.10

Bridge HIMESE

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	321.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100309
Removal of Existing Structures area	2,247.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$204.90**
Basic Bridge Cost	**$1,859,938.20**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER HIMES. 3.5' OF BRIDGE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,247.00	SF	$34.00	$76,398.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge HIMESE Total				$1,983,825.90

Bridge EUCLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	20.50
Type	Low Level, Widen
Cost Factor	1.30

Structure No.	100310
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$188.47**
Basic Bridge Cost	**$769,918.50**
Description	INSIDE WIDENING OF SELMON WB OVER EUCLID (17') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	45.56	CY	$533.96	$24,327.22
415-1-9	REINF STEEL- APPROACH SLABS	7,973.00	LB	$1.16	$9,248.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	214.00	LF	$109.00	$23,326.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER EUCLID				
	Bridge EUCLWB Total				$877,752.40

Bridge EUCLEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100311
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.15**
Basic Bridge Cost	**$1,089,153.00**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER EUCLID. 3.5' OF BRIDGE REMOVAL ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge EUCLEB Total				$1,187,574.70

	Bridges Component Total	$5,495,571.10

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	3,322.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	49,830.00	SF	$29.35	$1,462,510.50

Retaining Wall 2

Description	Value
Length	79.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,975.00	SF	$29.35	$57,966.25

	Retaining Walls Component Total	$1,520,476.75

Sequence 1 Total	$11,897,652.82

Sequence: 2 WDR - Widen/Resurface, Divided, Rural **Net Length:** 2.102 MI
11,100 LF

Description: SEQUENCE 2 REPRESENTS THE WORK FROM EAST OF EUCLID TO WEST OF WILLOW (STA 115+00 TO 245+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (DOES NOT INCLUDE BRIDGE LENGTHS).

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	0.000
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	10.19	AC	$13,000.00	$132,470.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	9,712.00	SY	$22.13	$214,926.56
	Comment: REMOVAL OF 15399 LF OF 3.5' WIDE SHOULDER GUTTER AND 11169 LF OF BARRIER WALL (3' HEIGHT)				
120-6	EMBANKMENT	127,864.00	CY	$15.00	$1,917,960.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (126507 SF) AND OUTSIDE SHOULDER (218726 SF)				
	Earthwork Component Total				$2,265,356.56

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	43.00 / 45.90
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	5.90 / 5.50
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	43,660.57	SY	$5.00	$218,302.85
285-710	OPTIONAL BASE,BASE GROUP 10	14,874.19	SY	$32.57	$484,452.37
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	109,644.76	SY	$3.38	$370,599.29
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	3,093.24	TN	$115.00	$355,722.60
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	9,045.69	TN	$115.00	$1,040,254.35
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	4,385.79	TN	$135.00	$592,081.65
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	562.41	TN	$135.00	$75,925.35

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	11,559.10	TN	$115.00	$1,329,296.50
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	5,902.00	LF	$3.54	$20,893.08
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.31	GM	$8,960.09	$2,777.63
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	8,788.00	LF	$4.06	$35,679.28
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	5.22	GM	$4,328.00	$22,592.16
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	9.85	GM	$1,554.00	$15,306.90
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.15	GM	$2,674.95	$401.24
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	5.06	GM	$4,662.95	$23,594.53

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,419.00	EA	$5.82	$8,258.58

Roadway Component Total $4,596,138.36

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	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	9.90 / 9.80
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	25,110.99	SY	$32.57	$817,864.94
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	5,345.34	TN	$115.00	$614,714.10
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	971.88	TN	$135.00	$131,203.80
570-1-1	PERFORMANCE TURF	4,933.40	SY	$2.10	$10,360.14

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	22,220.00	LF	$483.00	$10,732,260.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,530.33	LF	$1.37	$34,976.55
104-11	FLOATING TURBIDITY BARRIER	210.23	LF	$9.79	$2,058.15
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	210.23	LF	$4.06	$853.53
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,917.00	$8,751.00
104-18	INLET PROTECTION SYSTEM	76.00	EA	$113.29	$8,610.04
107-1	LITTER REMOVAL	15.28	AC	$40.27	$615.33
107-2	MOWING	15.28	AC	$58.12	$888.07

Shoulder Component Total $12,363,155.65

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,980.00	LF	$150.00	$447,000.00
	Median Component Total				$447,000.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00	EA	$3,162.00	$3,162.00
	Comment: 1 MEDIAN INLET TOPS TO BE REPLACED (THE REST ARE IN SECTIONS OF NEW BARRIER WALL CONSTRUCTED AS PART OF MEDIAN SAFETY PROJECT)				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	54.00	EA	$5,859.17	$316,395.18
	Comment: 54 NEW BARRIER WALL INLETS				
425-2-43	MANHOLES, P-7, PARTIAL	54.00	EA	$3,383.48	$182,707.92
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH in areas of widening				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	1,080.00	LF	$93.70	$101,196.00
	Comment: 20 LF PER NEW INLET ASSUMED				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$90,519.00	$90,519.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND PC-1 (SOUTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	161.33	CY	$9.00	$1,451.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220		600.00	LF	$15.84	$9,504.00

	FENCING, TYPE B, 5.1-6.0', STANDARD				
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND PC-2 (NORTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	161.33	CY	$9.00	$1,451.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$982,251.16

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$342.00	$1,710.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	51.00	AS	$1,288.00	$65,688.00
700-1-50	SINGLE POST SIGN, RELOCATE	5.00	AS	$235.00	$1,175.00
700-1-60	SINGLE POST SIGN, REMOVE	51.00	AS	$636.00	$32,436.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,159.00	$20,795.00
700-2-60	MULTI- POST SIGN, REMOVE	5.00	AS	$636.00	$3,180.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	6.00	EA	$1,219.00	$7,314.00
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: SIGN PANEL REPLACEMENT ON OH SIGN EAST OF EL PRADO				

700-3-206	SIGN PANEL, F&I OM, 101-200 SF	5.00	EA	$4,333.00	$21,665.00
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	6.00	EA	$305.00	$1,830.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$422.28	$422.28
	Comment: REMOVAL OF EXISTING SIGN PANEL ON OH SPAN STR EAST OF EL PRADO				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	5.00	EA	$700.00	$3,500.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	4.00	EA	$47,603.00	$190,412.00
	Comment: REPLACEMENT OF OH CANT SIGNS				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SPAN SIGN STRUCTURE EAST OF EL PRADO				
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	5.00	EA	$4,918.00	$24,590.00
	Comment: REMOVAL OF OH CANTILEVER SIGN STRUCTURES (4 WB AND 1 EB)				
	Signing Component Total				$553,861.28

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	30

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	30.00	EA	$709.00	$21,270.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	18,000.00	LF	$2.20	$39,600.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	30.00	EA	$6,413.00	$192,390.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	30.00	EA	$556.00	$16,680.00
	Subcomponent Total				$269,940.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	7,800.00	LF	$14.00	$109,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	12.00	EA	$500.00	$6,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,800.00	LF	$0.94	$1,692.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	57.00	EA	$550.00	$31,350.00
715-7-21		12.00	EA	$1,297.00	$15,564.00

	LOAD CENTER, REWORK, SECONDARY VOLTAGE			
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	78.00 EA	$1,300.00	$101,400.00
715-11-500	LUMINAIRE, REMOVE	48.00 EA	$165.00	$7,920.00
	Lighting Component Total			$543,066.00

BRIDGES COMPONENT

Bridge ELPRWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100312
Removal of Existing Structures area	6,871.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$201.06**
Basic Bridge Cost	**$1,389,433.50**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON WB OVER EL PRADO. REMOVAL OF 3.5' OF EXISTING BRIDGE ON INSIDE TO WIDEN (273 LF) AND ON OUTSIDE FOR WIDENING/RAIL REPLACEMENT (1690 LF)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	6,871.00	SF	$34.00	$233,614.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	1,421.00	LF	$109.00	$154,889.00
	Comment: REPLACEMENT OF OUTSIDE BRIDGE RAILING FOR WB RAMP BRIDGE OVER CSX				
	Bridge ELPRWB Total				$1,825,426.20

Bridge ELPREB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	33.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100313
Removal of Existing Structures area	1,911.00

Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$181.50**
Basic Bridge Cost	**$1,581,079.50**
Description	INSIDE (17') AND OUTSIDE (16') WIDNENING OF SELMON EB OVER EL PRADO. REMOVING 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,911.00	SF	$34.00	$64,974.00
400-2-10	CONC CLASS II, APPROACH SLABS	73.33	CY	$533.96	$39,155.29
415-1-9	REINF STEEL- APPROACH SLABS	12,832.75	LB	$1.16	$14,885.99
	Bridge ELPREB Total				$1,700,094.78

Bridge B2BWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	719.00
Width (LF)	10.90
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100314
Removal of Existing Structures area	5,926.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$212.54**
Basic Bridge Cost	**$1,565,852.58**
Description	OUTSIDE WIDENING(ONLY WIDENING WEST OF GORE) OF SELMON WB BRIDGE OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXIST BRIDGE WHERE WIDENED (240') & WHERE RAIL IS BEING REPL (1453')

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,926.00	SF	$34.00	$201,484.00
400-2-10	CONC CLASS II, APPROACH SLABS	24.22	CY	$533.96	$12,932.51
415-1-9	REINF STEEL- APPROACH SLABS	4,238.50	LB	$1.16	$4,916.66

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	752.00	LF	$109.00	$81,968.00
	Comment: REPLACEMENT OF EXISTING BRIDGE RAILING ON SELMON WB OVER BAY TO BAY/MCDILL AND CSX				
	Bridge B2BWB Total				$1,867,153.75

Bridge B2BEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	754.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100315
Removal of Existing Structures area	5,653.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$209.82**
Basic Bridge Cost	**$2,335,062.60**
Description	OUTSIDE (12') WIDNENING OF SELMON EB OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXISTING BRIDGE ON INSIDE FOR RAIL REPLACEMENT (773') AND OUTSIDE FOR WIDENING(842').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,653.00	SF	$34.00	$192,202.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	842.00	LF	$109.00	$91,778.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER BAY TO BAY				
	Bridge B2BEB Total				$2,644,423.50

Bridge MISSWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100316
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.17**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00	LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER MISSISSIPP1				
	Bridge MISSWB Total				$497,737.40

Bridge MISSEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100317
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.17**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00	LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER MISSISSIPP1				
	Bridge MISSEB Total				$497,737.40

Bridge HOWAWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	301.00
Width (LF)	18.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100318
Removal of Existing Structures area	2,433.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$187.01**
Basic Bridge Cost	**$977,271.75**
Description	OUTSIDE WIDENING (15' AVG. PER LENGTH) AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,433.00	SF	$34.00	$82,722.00
400-2-10	CONC CLASS II, APPROACH SLABS	41.11	CY	$533.96	$21,951.10
415-1-9	REINF STEEL- APPROACH SLABS	7,194.25	LB	$1.16	$8,345.33

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	310.00	LF	$109.00	$33,790.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER HOWARD/WATROUS				
	Bridge HOWAWB Total				$1,124,080.18

Bridge HOWAEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	292.00
Width (LF)	13.60
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100319
Removal of Existing Structures area	2,044.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$213.42**
Basic Bridge Cost	**$793,445.76**
Description	OUTSIDE WIDENING (10.1' AVG. PER LENGTH) AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,044.00	SF	$34.00	$69,496.00
400-2-10	CONC CLASS II, APPROACH SLABS	30.22	CY	$533.96	$16,136.27
415-1-9	REINF STEEL- APPROACH SLABS	5,288.50	LB	$1.16	$6,134.66

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	292.00	LF	$109.00	$31,828.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER HOWARD/WATROUS				
	Bridge HOWAEB Total				$917,040.69

Bridge MORRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100320
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$189.91**
Basic Bridge Cost	**$603,895.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00	SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	222.00	LF	$109.00	$24,198.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER MORRISON				
	Bridge MORRWB Total				$706,310.40

Bridge MORREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100321
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$189.91**
Basic Bridge Cost	**$603,895.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00	SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	222.00	LF	$109.00	$24,198.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WE OVER MORRISON				
	Bridge MORREB Total				$706,310.40

Bridge SWANWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100322
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$190.04**
Basic Bridge Cost	**$593,014.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00	SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	218.00	LF	$109.00	$23,762.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER SWANN				
	Bridge SWANWB Total				$694,041.40

Bridge SWANEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100323
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$190.04**
Basic Bridge Cost	**$593,014.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00	SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	218.00	LF	$109.00	$23,762.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER SWANN				
	Bridge SWANEB Total				$694,041.40
	Bridges Component Total				$13,874,397.50

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	21,811.00
Begin height	5.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	327,165.00	SF	$29.35	$9,602,292.75

Retaining Wall 2

Description	Value
Length	335.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	8,375.00	SF	$29.35	$245,806.25

Retaining Walls Component Total $9,848,099.00

Sequence 2 Total $45,473,325.51

Sequence: 3 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.824 MI
4,352 LF

Description: SEQUENCE 3 REPRESENTS THE WORK FROM WEST OF WILLOW TO HYDE PARK (STA 245+00 TO 236+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS NOT INCLUDED).

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	0.000
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	4.00 AC	$13,000.00	$52,000.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	2,938.00 SY	$22.13	$65,017.94
	Comment: REMOVAL OF 5564 LF OF SHLDR GUTTER * 3.5' = 19474 SF AND 2323 LF OF BARRIER WALL (3' HEIGHT ASSUMED)			
120-6	EMBANKMENT	65,589.00 CY	$15.00	$983,835.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (76254 SF) AND OUTSIDE SHOULDER (100835 SF)			
	Earthwork Component Total			$1,100,852.94

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	47.70 / 50.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	12.70 / 4.90
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	22,049.00	SY	$5.00	$110,245.00
285-710	OPTIONAL BASE,BASE GROUP 10	8,829.27	SY	$32.57	$287,569.32
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	47,240.95	SY	$3.38	$159,674.41
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,872.23	TN	$115.00	$215,306.45
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	3,897.38	TN	$115.00	$448,198.70
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	340.41	TN	$135.00	$45,955.35
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,889.64	TN	$135.00	$255,101.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,532.00	TN	$115.00	$521,180.00
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	5,940.00	LF	$3.54	$21,027.60
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.42	GM	$8,960.09	$3,763.24
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	32.00	LF	$3.98	$127.36
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	3,852.00	LF	$4.06	$15,639.12
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	2.20	GM	$4,328.00	$9,521.60
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.72	GM	$1,554.00	$5,780.88
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.34	GM	$2,674.95	$909.48
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	2.21	GM	$4,662.95	$10,305.12

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	556.00	EA	$5.82	$3,235.92

Roadway Component Total $2,113,540.95

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	16.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	13.80 / 9.40
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	11,537.04	SY	$32.57	$375,761.39
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,467.94	TN	$115.00	$283,813.10
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	448.72	TN	$135.00	$60,577.20
570-1-1	PERFORMANCE TURF	1,934.12	SY	$2.10	$4,061.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	1,250.00	LF	$265.00	$331,250.00
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	212.00	LF	$527.00	$111,724.00
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	4,720.00	SF	$35.00	$165,200.00
	Comment: 236' long x 20' high at RW line				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	9,061.00	LF	$483.00	$4,376,463.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,009.08	LF	$1.37	$13,712.44
104-11	FLOATING TURBIDITY BARRIER	82.42	LF	$9.79	$806.89
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	82.42	LF	$4.06	$334.63
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	43.00	EA	$113.29	$4,871.47
107-1	LITTER REMOVAL	5.99	AC	$40.27	$241.22
107-2	MOWING	5.99	AC	$58.12	$348.14
	Shoulder Component Total				$5,732,082.13

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,943.00	LF	$150.00	$441,450.00
	Median Component Total				$441,450.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	20.00	EA	$5,859.17	$117,183.40
	Comment: 20 new barrier wall inlets in the areas of widening				
425-2-41	MANHOLES, P-7, <10'	20.00	EA	$5,347.00	$106,940.00
	Comment: EXISTING SHOULDER GUTTER OR BARRIER WALL INLETS TO BE CONVERTED TO MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	400.00	LF	$93.70	$37,480.00
	Comment: 20 LF per new inlet (20 new inlets)				
430-185-124	PIPE CULV,OPT MATL, ROUND, JACK&BORE,24"	125.00	LF	$498.98	$62,372.50
	Comment: CONNECTING PONDS ON EITHER SIDE OF WILLOW AVE				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$48,596.39	$48,596.39
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	2.40
Description	POND SC-WEST (WEST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$13,000.00	$13,000.00
120-1	REGULAR EXCAVATION	3,872.00	CY	$9.00	$34,848.00
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$15.84	$13,305.60
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	4,840.00	SY	$2.10	$10,164.00

Retention Basin 2

Description	Value
Size	2 AC
Multiplier	1
Depth	5.20
Description	POND SC-EAST (EAST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$13,000.00	$26,000.00
120-1	REGULAR EXCAVATION	16,778.67	CY	$9.00	$151,008.03
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	$15.84	$18,691.20
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	9,680.00	SY	$2.10	$20,328.00

Drainage Component Total $903,112.24

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	$342.00	$684.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00	AS	$1,288.00	$25,760.00
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	$235.00	$470.00
700-1-60	SINGLE POST SIGN, REMOVE	20.00	AS	$636.00	$12,720.00

700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,159.00	$8,318.00
700-2-60	MULTI- POST SIGN, REMOVE	2.00	AS	$636.00	$1,272.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$953.00	$953.00
	Comment: SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,219.00	$2,438.00
	Comment: SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	2.00	EA	$4,333.00	$8,666.00
	Comment: NEW SIGN PANELS FOR OH SIGN STRUCTURES WEST OF WILLOW				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$106.90	$106.90
	Comment: REMOVAL OF SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	2.00	EA	$700.00	$1,400.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF WILLOW				
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00	EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF WILLOW				
	Signing Component Total				$249,065.90

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	15

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	15.00	EA	$709.00	$10,635.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	9,000.00	LF	$2.20	$19,800.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	15.00	EA	$6,413.00	$96,195.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	15.00	EA	$556.00	$8,340.00
	Subcomponent Total				$134,970.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	4,000.00 LF	$14.00	$56,000.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	6.00 EA	$500.00	$3,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,000.00 LF	$0.94	$940.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	32.00 EA	$550.00	$17,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	6.00 EA	$1,297.00	$7,782.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	42.00 EA	$1,300.00	$54,600.00
715-11-500	LUMINAIRE, REMOVE	22.00 EA	$165.00	$3,630.00
	Lighting Component Total			$278,522.00

BRIDGES COMPONENT

Bridge PLATWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	228.00
Width (LF)	88.60
Type	Low Level
Cost Factor	1.04
Structure No.	100324
Removal of Existing Structures area	12,192.00
Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$137.18**
Basic Bridge Cost	**$2,626,104.00**
Description	SUPERSTRUCTURE REPLACEMENT OF SELMON WB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	12,192.00 SF	$34.00	$414,528.00
400-2-10	CONC CLASS II, APPROACH SLABS	196.89 CY	$533.96	$105,131.38
415-1-9	REINF STEEL- APPROACH SLABS	34,455.75 LB	$1.16	$39,968.67
	Bridge PLATWB Total			$3,185,732.05

Bridge PLATEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	224.00
Width (LF)	63.10
Type	Low Level
Cost Factor	1.04
Structure No.	100325
Removal of Existing Structures area	8,102.00

Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$137.31**
Basic Bridge Cost	**$1,837,472.00**
Description	SUPERSTRUCTURE REPLACEMENT OF SELMON EB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	8,102.00	SF	$34.00	$275,468.00
400-2-10	CONC CLASS II, APPROACH SLABS	140.22	CY	$533.96	$74,871.87
415-1-9	REINF STEEL- APPROACH SLABS	24,538.50	LB	$1.16	$28,464.66
	Bridge PLATEB Total				$2,216,276.53

Bridge WILLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100326
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.11**
Basic Bridge Cost	**$465,162.75**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	171.00	LF	$109.00	$18,639.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER WILLOW				
	Bridge WILLWB Total				$549,880.65

Bridge WILLEB

Description	Value

Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100327
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.11**
Basic Bridge Cost	**$465,162.75**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	171.00	LF	$109.00	$18,639.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER WILLOW				
	Bridge WILLEB Total				$549,880.65

Bridge SOUTWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	32.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100328
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$189.54**
Basic Bridge Cost	**$864,864.00**
Description	OUTSIDE WIDENING (28.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3		1,078.00	SF	$34.00	$36,652.00

	REMOVAL OF EXISTING STRUCTURES/BRIDGES			
400-2-10	CONC CLASS II, APPROACH SLABS	71.11 CY	$533.96	$37,969.90
415-1-9	REINF STEEL- APPROACH SLABS	12,444.25 LB	$1.16	$14,435.33

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00 LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER SOUTH			
	Bridge SOUTWB Total			$970,707.23

Bridge SOUTEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100329
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.17**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00 SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44 CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00 LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00 LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER SOUTH			
	Bridge SOUTEB Total			$497,737.40
	Bridges Component Total			$7,970,214.51

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	9,439.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	141,585.00	SF	$29.35	$4,155,519.75

Retaining Wall 2

Description	Value
Length	144.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,600.00	SF	$29.35	$105,660.00

Retaining Walls Component Total $4,261,179.75

Sequence 3 Total $23,050,020.42

Sequence: 4 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.119 MI
630 LF

Description: SEQUENCE 4 REPRESENTS THE WORK FROM HYDE PARK TO THE DOWNTOWN VIADUCT BRIDGE (STA 536+00 TO 549+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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	0.58	AC	$13,000.00	$7,540.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	721.00	SY	$22.13	$15,955.73
	Comment: REMOVAL OF 1498 LF SHLDR GUTTER * 3.5' = 5243 SF AND 416 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	7,234.00	CY	$15.00	$108,510.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (8124 SF) AND AREA OF OUTSIDE SHOULDER (11409 SF)				
	Earthwork Component Total				$132,005.73

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	34.10 / 36.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	11.60 / 9.70
Widened Inside Pavement Width L/R	21.10 / 21.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	5,767.12	SY	$5.00	$28,835.60
285-710	OPTIONAL BASE,BASE GROUP 10	4,529.71	SY	$32.57	$147,532.65
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	4,906.25	SY	$3.38	$16,583.12
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	404.77	TN	$115.00	$46,548.55
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	976.21	TN	$115.00	$112,264.15
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	196.25	TN	$135.00	$26,493.75
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	177.49	TN	$135.00	$23,961.15

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	656.10	TN	$115.00	$75,451.50
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	1,106.00	LF	$3.54	$3,915.24
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.17	GM	$8,960.09	$1,523.22
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.51	GM	$4,328.00	$2,207.28
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.09	GM	$1,554.00	$1,693.86
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.50	GM	$4,662.95	$2,331.48

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	81.00	EA	$5.82	$471.42

Roadway Component Total $489,812.97

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	11.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00

Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	10.30 / 7.80
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	1,313.00	SY	$32.57	$42,764.41
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	278.70	TN	$115.00	$32,050.50
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	50.67	TN	$135.00	$6,840.45

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	66.00	LF	$265.00	$17,490.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	1,325.00	LF	$483.00	$639,975.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,448.78	LF	$1.37	$1,984.83
104-11	FLOATING TURBIDITY BARRIER	11.93	LF	$9.79	$116.79
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	11.93	LF	$4.06	$48.44
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.87	AC	$40.27	$35.03
107-2	MOWING	0.87	AC	$58.12	$50.56

Shoulder Component Total $745,405.91

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	632.00	LF	$150.00	$94,800.00
	Median Component Total				$94,800.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	3.00	EA	$3,162.00	$9,486.00
	Comment: 3 median barrier wall inlet tops				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	4.00	EA	$5,859.17	$23,436.68
	Comment: 4 NEW BARRIER WALL INLETS				
425-2-41	MANHOLES, P-7, <10'	4.00	EA	$5,347.00	$21,388.00
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	80.00	LF	$93.70	$7,496.00
	Comment: 20 LF PER NEW INLET ASSUMED (4 NEW INLETS)				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$9,163.00	$9,163.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	1.40
Description	POND BW-1 (EAST OF SOUTH BLVD.)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$13,000.00	$13,000.00
120-1	REGULAR EXCAVATION	2,258.67	CY	$9.00	$20,328.03
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$15.84	$13,305.60
550-60-234		1.00	EA	$2,097.00	$2,097.00

	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN				
570-1-1	PERFORMANCE TURF	4,840.00	SY	$2.10	$10,164.00

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.80
Description	POND BW-2 (WEST OF HYDE PARK)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	645.33	CY	$9.00	$5,807.97
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$397,856.40

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	$342.00	$342.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,288.00	$3,864.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$235.00	$235.00
700-1-60	SINGLE POST SIGN, REMOVE	3.00	AS	$636.00	$1,908.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,159.00	$4,159.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$636.00	$636.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$953.00	$953.00
	Comment: REPLACEMENT OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,219.00	$2,438.00
	Comment: REPLACEMENT OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00

	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER			
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	1.00 EA	$4,333.00	$4,333.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER			
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00 EA	$106.90	$106.90
	Comment: REMOVAL OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER			
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00 EA	$305.00	$610.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER			
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00 EA	$422.28	$422.28
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER			
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	1.00 EA	$700.00	$700.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER			
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00 EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER			
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00 EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER			
	Signing Component Total			$209,976.18

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	**Value**
Multiplier (Number of Poles)	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$709.00	$4,254.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	$2.20	$7,920.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	$6,413.00	$38,478.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$556.00	$3,336.00
	Subcomponent Total				$53,988.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	1,800.00	LF	$14.00	$25,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$500.00	$2,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00	LF	$0.94	$564.00
715-4-71		11.00	EA	$550.00	$6,050.00

	LIGHT POLE COMPLETE, REMOVE POLE			
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00 EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	24.00 EA	$1,300.00	$31,200.00
715-11-500	LUMINAIRE, REMOVE	12.00 EA	$165.00	$1,980.00
	Lighting Component Total			$126,170.00

BRIDGES COMPONENT

Bridge HYDEWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100330
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.75**
Basic Bridge Cost	**$1,633,905.00**
Description	AND OUTSIDE WIDENING (10.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5') OF SELMON WB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00 SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.11 CY	$533.96	$16,611.50
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25 LB	$1.16	$6,315.33

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	665.00 LF	$109.00	$72,485.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER HYDE PARK/PLANT			
	Bridge HYDEWB Total			$1,887,586.83

Bridge HYDEEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	13.50
Type	Low Level, Widen

Cost Factor	1.30
Structure No.	100331
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.04**
Basic Bridge Cost	**$1,575,551.25**
Description	OUTSIDE WIDNEING (10') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5') OF SELMON EB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00	SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	30.00	CY	$533.96	$16,018.80
415-1-9	REINF STEEL- APPROACH SLABS	5,250.00	LB	$1.16	$6,090.00

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	665.00	LF	$109.00	$72,485.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER HYDE PARK/PLANT				
	Bridge HYDEEB Total				$1,828,415.05
	Bridges Component Total				$3,716,001.88

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	2,721.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	40,815.00	SF	$29.35	$1,197,920.25

Retaining Wall 2

Description	Value
Length	35.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	875.00	SF	$29.35	$25,681.25
	Retaining Walls Component Total				$1,223,601.50
Sequence 4 Total					$7,135,630.57

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.796 MI
4,200 LF

Description: SEQUENCE 5 REPRESENTS THE WORK ON THE SELMON EXPRESSWAY DOWNTOWN VIADUCT BRIDGE (STA 549+00 TO 591+00)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.54	GM	$8,960.09	$4,838.45
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.84	GM	$4,143.00	$7,623.12
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	3.29	GM	$1,431.00	$4,707.99
711-16-133	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 12"	0.54	GM	$2,704.98	$1,460.69
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	1.82	GM	$4,168.12	$7,585.98
711-17-1	THERMOPLASTIC, REMOVE	18,321.00	SF	$3.52	$64,489.92
	Comment: 36642 LF OF 6" STRIPES TO BE REMOVED				
	Roadway Component Total				$90,706.15

DRAINAGE COMPONENT

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.40
Description	POND M-1 (BROREIN)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$13,000.00	$6,500.00
120-1	REGULAR EXCAVATION	322.67	CY	$9.00	$2,904.03
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,985.89	$3,985.89
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$6,664.77	$6,664.77
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$15.84	$9,504.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$2.10	$5,082.00
	Drainage Component Total				$145,587.59

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	3.00	EA	$953.00	$2,859.00

700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	$3,601.00	$7,202.00
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	$4,333.00	$12,999.00
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	3.00	EA	$106.90	$320.70
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	$422.28	$844.56
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	$700.00	$2,100.00
700-4-140	OH STATIC SIGN STR, F&I, O BR MOUNT	3.00	EA	$11,252.00	$33,756.00
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	1.00	EA	$4,918.00	$4,918.00
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	2.00	EA	$10,125.00	$20,250.00
	Signing Component Total				$85,249.26

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	25

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	25.00	EA	$709.00	$17,725.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	15,000.00	LF	$2.20	$33,000.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	25.00	EA	$6,413.00	$160,325.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	25.00	EA	$556.00	$13,900.00
	Subcomponent Total				$224,950.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	5,000.00	LF	$27.12	$135,600.00
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	3,600.00	LF	$14.00	$50,400.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	24.00	EA	$500.00	$12,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	3,600.00	LF	$0.94	$3,384.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	25.00	EA	$550.00	$13,750.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	24.00	EA	$1,297.00	$31,128.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	110.00	EA	$1,300.00	$143,000.00
715-11-500	LUMINAIRE, REMOVE	108.00	EA	$165.00	$17,820.00
	Lighting Component Total				$632,032.00

BRIDGES COMPONENT

Bridge VIADWB

Description	Value

Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	2,666.00
Width (LF)	14.10
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100332
Removal of Existing Structures area	9,331.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.61**
Basic Bridge Cost	**$7,104,623.40**
Description	OUTSIDE WIDENING (14.1' AVG) OF THE WB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE OUTSIDE (2666').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	9,331.00	SF	$34.00	$317,254.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.33	CY	$533.96	$16,728.97
415-1-9	REINF STEEL- APPROACH SLABS	5,482.75	LB	$1.16	$6,359.99
	Bridge VIADWB Total				$7,444,966.36

Bridge VIAEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	4,200.00
Width (LF)	17.20
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100333
Removal of Existing Structures area	14,700.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.39**
Basic Bridge Cost	**$13,653,360.00**
Description	OUTSIDE WIDENING (17.2' AVG) OF THE EB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE OUTSIDE (4200').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	14,700.00	SF	$34.00	$499,800.00
400-2-10	CONC CLASS II, APPROACH SLABS	38.22	CY	$533.96	$20,407.95
415-1-9	REINF STEEL- APPROACH SLABS	6,688.50	LB	$1.16	$7,758.66
	Bridge VIAEB Total				$14,181,326.61
	Bridges Component Total				$21,626,292.97

Sequence 5 Total	$22,579,867.97

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: SEQUENCE 6 REPRESENTS THE PRELIMINARY ITS, SIGNALIZATION AND LANDSCAPE COSTS FOR THE SELMON EXPRESSWAY WITHIN THE PROJECT LIMITS.

Special Conditions: LANDSCAPE COST WAS ESTIMATED AT $100,000 FOR THE FOLLOWING 6 LOCATIONS: EUCLID EB ON RAMP, EUCLID WB OFF RAMP, WILLOW EB OFF RAMP, WILLOW WB ON RAMP, WILLOW EB ON RAMP AND WILLOW WB OFF RAMP.

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EB EUCLID RAMP TERMINAL

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$8.43	$6,744.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$20.45	$4,090.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,103.02	$5,103.02
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$709.00	$8,508.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.68	$280.80
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00	EA	$46,830.22	$93,660.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00	AS	$950.55	$7,604.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$595.27	$4,762.16
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00	EA	$320.96	$2,567.68
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00	AS	$714.09	$5,712.72
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$221.57	$1,772.56
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$27,602.51	$27,602.51
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00	EA	$3,347.61	$13,390.44

Signalization 2

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT WB EUCLID RAMP TERMINAL

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	600.00	LF	$8.43	$5,058.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00	LF	$20.45	$3,067.50

632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,103.02	$5,103.02
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	$709.00	$5,672.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.68	$280.80
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00 EA	$46,830.22	$93,660.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$950.55	$5,703.30
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	6.00 AS	$595.27	$3,571.62
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$320.96	$1,925.76
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$714.09	$4,284.54
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$221.57	$1,329.42
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$27,602.51	$27,602.51
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	3.00 EA	$3,347.61	$10,042.83

Signalization 3

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EB BAY TO BAY RAMP TERMINAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	600.00 LF	$8.43	$5,058.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00 LF	$20.45	$3,067.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,103.02	$5,103.02
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	$709.00	$5,672.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.68	$280.80
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00 EA	$46,830.22	$93,660.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$950.55	$5,703.30
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	6.00 AS	$595.27	$3,571.62
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$320.96	$1,925.76
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$714.09	$4,284.54
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$221.57	$1,329.42
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$27,602.51	$27,602.51
700-5-21		3.00 EA	$3,347.61	$10,042.83

INTERNAL ILLUM SIGN, F&I OM,
UP TO 12 SF

Signalization 4

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	REMOVAL AND REPLACEMENT OF THE TRAFFIC SIGNALS AT WILLOW AVE/CLEAVELAND ST/SELMON WB RAMP TERMINAL TO BRING THE SELMONG WB OFF RAMP INTO THE SIGNAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	$8.43	$6,322.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	$20.45	$4,090.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,103.02	$5,103.02
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00 PI	$6,363.17	$6,363.17
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,526.18	$2,526.18
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00 LF	$4.68	$140.40
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$950.55	$5,703.30
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$320.96	$1,925.76
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$714.09	$4,284.54
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00 EA	$3,347.61	$13,390.44

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
634-4-600	SPAN WIRE ASSEMBLY, REMOVE- POLES REMAIN	1.00 PI	$932.45	$932.45
650-1-60	VEH TRAF SIGNAL, REMOVE- POLES TO REMAIN	6.00 AS	$115.52	$693.12

Signalizations Component Total $575,455.63

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
676-000	ITS EQUIPTMENT	1.00 LS	$4,950,000.00	$4,950,000.00
	Comment: ITS COST ESTIMATED AT $1.1M PER MILE FOR 4.5 MILES			
735-000	TOLLING EQUIPTMENT	1.00 LS	$5,000,000.00	$5,000,000.00

Comment: MAINLINE AND RAMP TOLLING
ESTIMATED AT $5M FOR THE PROJECT LIMITS

Intelligent Traffic System (ITS) Component Total	$9,950,000.00

LANDSCAPING COMPONENT

User Input Data

Description	**Value**
Lump Sum	600,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	$600,000.00

Sequence 6 Total	$11,125,455.63

Date: 8/25/2020 6:54:06 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 4 Project Grand Total **$149,544,726.00**

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 4 REPRESENTS ALTERNATIVE 6 (6 LANES AT GRADE WITH OUTSIDE WIDENING AND MINIMAL INSIDE BRIDGE WIDENING). ALTERNATIVE 6 ASSUMES WALLS ON BOTH SIDES OF THE EXPRESSWAY FOR THE ENTIRE STUDY LIMITS.

Project Sequences Subtotal			**$121,261,952.92**
102-1	Maintenance of Traffic	12.00 %	$14,551,434.35
101-1	Mobilization	10.00 %	$13,581,338.73
Project Sequences Total			**$149,394,726.00**
Project Unknowns		0.00 %	$0.00
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 4 Project Grand Total					**$149,544,726.00**

Date: 8/27/2020 9:53:40 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 6 Project Grand Total **$53,883,487.59**

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 6 REPRESENTS ALTERNATIVE 6 ULTIMATE ESTIMATE (WIDENING ALTERNATIVE 6 BRIDGES TO THE INSIDE TO ACCOMMODATE THE ULTIMATE 8 LANE SECTION).

Sequence: 1 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.460 MI 2,429 LF

Description: SEQUENCE 1 REPRESENTS THE WORK FROM EAST OF DALE MABRY TO EAST OF EUCLID (STA 84+60 TO 115+00). THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	38.60 / 53.80
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	24,935.68	SY	$3.38	$84,282.60
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,057.19	TN	$115.00	$236,576.85
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	997.43	TN	$135.00	$134,653.05

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.21	GM	$4,328.00	$5,236.88
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.88	GM	$1,554.00	$4,475.52
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.08	GM	$4,662.95	$5,035.99

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	310.00	EA	$5.82	$1,804.20
	Roadway Component Total				$472,065.09

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,586.24	LF	$1.37	$7,653.15
104-11	FLOATING TURBIDITY BARRIER	46.00	LF	$9.79	$450.34
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	46.00	LF	$4.06	$186.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	18.00	EA	$113.29	$2,039.22
107-1	LITTER REMOVAL	3.34	AC	$40.27	$134.50
107-2	MOWING	3.34	AC	$58.12	$194.12
	Shoulder Component Total				$13,575.09

Sequence 1 Total $485,640.18

Sequence: 2 WDR - Widen/Resurface, Divided, Rural **Net Length:** 2.102 MI
11,100 LF

Description: SEQUENCE 2 REPRESENTS THE WORK FROM EAST OF EUCLID TO WEST OF WILLOW (STA 115+00 TO 245+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (DOES NOT INCLUDE BRIDGE LENGTHS).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	53.70 / 55.60
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	134,805.08	SY	$3.38	$455,641.17
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	11,121.42	TN	$115.00	$1,278,963.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	5,392.20	TN	$135.00	$727,947.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.52	GM	$8,960.09	$4,659.25
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	5.16	GM	$4,328.00	$22,332.48
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	14.35	GM	$1,554.00	$22,299.90
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.51	GM	$2,674.95	$1,364.22
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	5.15	GM	$4,662.95	$24,014.19

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,419.00	EA	$5.82	$8,258.58

	Roadway Component Total	$2,545,480.09

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,530.33	LF	$1.37	$34,976.55
104-11	FLOATING TURBIDITY BARRIER	210.23	LF	$9.79	$2,058.15
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	210.23	LF	$4.06	$853.53
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,917.00	$8,751.00
104-18	INLET PROTECTION SYSTEM	76.00	EA	$113.29	$8,610.04
107-1	LITTER REMOVAL	15.28	AC	$40.27	$615.33
107-2	MOWING	15.28	AC	$58.12	$888.07

	Shoulder Component Total	$56,752.67

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	150.00	LF	$150.00	$22,500.00

	Median Component Total	$22,500.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	6.00	EA	$1,219.00	$7,314.00
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: SIGN PANEL REPLACEMENT ON OH SIGN EAST OF EL PRADO				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	5.00	EA	$4,333.00	$21,665.00
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	6.00	EA	$305.00	$1,830.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$422.28	$422.28
	Comment: REMOVAL OF EXISTING SIGN PANEL ON OH SPAN STR EAST OF EL PRADO				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	5.00	EA	$700.00	$3,500.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
	Signing Component Total				$38,332.28

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$709.00	$4,254.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	$2.20	$7,920.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	$6,413.00	$38,478.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$556.00	$3,336.00
	Subcomponent Total				$53,988.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	3,000.00	LF	$14.00	$42,000.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	12.00	EA	$500.00	$6,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,800.00	LF	$0.94	$1,692.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	6.00	EA	$550.00	$3,300.00
715-7-21		12.00	EA	$1,297.00	$15,564.00

	LOAD CENTER, REWORK, SECONDARY VOLTAGE			
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	22.00 EA	$1,300.00	$28,600.00
	Lighting Component Total			$151,144.00

BRIDGES COMPONENT

Bridge ELPRWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100312
Removal of Existing Structures area	956.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$181.50**
Basic Bridge Cost	**$814,495.50**
Description	INSIDE WIDNENING (17') OF SELMON WB OVER EL PRADO. REMOVAL OF 3.5' OF EXISTING BRIDGE ON INSIDE TO WIDEN (273 LF).

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	956.00 SF	$34.00	$32,504.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge ELPRWB Total			$874,841.85

Bridge ELPREB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100313
Removal of Existing Structures area	956.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$181.50**
Basic Bridge Cost	**$814,495.50**
Description	INSIDE WIDNENING (17') OF SELMON EB OVER EL PRADO. REMOVING 3.5' OF BRIDGE ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	956.00 SF	$34.00	$32,504.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge ELPREB Total			$874,841.85

Bridge B2BWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	719.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100314
Removal of Existing Structures area	2,516.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$202.08**
Basic Bridge Cost	**$2,442,155.40**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXIST BRIDGE WHERE WIDENED.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,516.00 SF	$34.00	$85,544.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge B2BWB Total			$2,555,541.75

Bridge B2BEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	754.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100315
Removal of Existing Structures area	2,947.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$201.97**
Basic Bridge Cost	**$2,561,036.40**
Description	INSIDE WIDNENING (17') OF SELMON EB OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXISTING BRIDGE ON OUTSIDE FOR WIDENING (842').

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,947.00 SF	$34.00	$100,198.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge B2BEB Total			$2,689,076.75

Bridge MISSWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100316
Removal of Existing Structures area	539.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00 SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge MISSWB Total			$505,627.35

Bridge MISSEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100317
Removal of Existing Structures area	539.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**

Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00	SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge MISSEB Total				$505,627.35

Bridge HOWAWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	301.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100318
Removal of Existing Structures area	1,054.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$180.94**
Basic Bridge Cost	**$898,033.50**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSDIE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,054.00	SF	$34.00	$35,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge HOWAWB Total				$961,711.85

Bridge HOWAEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	292.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100319
Removal of Existing Structures area	1,022.00
Default Cost per SF	$135.00

Factored Cost per SF	$199.80
Final Cost per SF	**$205.41**
Basic Bridge Cost	**$991,807.20**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,022.00 SF	$34.00	$34,748.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge HOWAEB Total			$1,054,397.55

Bridge MORRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100320
Removal of Existing Structures area	777.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.88**
Basic Bridge Cost	**$662,337.00**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	777.00 SF	$34.00	$26,418.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge MORRWB Total			$716,597.35

Bridge MORREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30

Structure No.	100321
Removal of Existing Structures area	777.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.88**
Basic Bridge Cost	**$662,337.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	777.00	SF	$34.00	$26,418.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge MORREB Total				$716,597.35

Bridge SWANWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100322
Removal of Existing Structures area	763.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.01**
Basic Bridge Cost	**$650,403.00**
Description	INSDIE WIDENING (17') OF SELMON WB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	763.00	SF	$34.00	$25,942.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge SWANWB Total				$704,187.35

Bridge SWANEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00

Width (LF)		17.00
Type		Low Level, Widen
Cost Factor		1.30
Structure No.		100323
Removal of Existing Structures area		763.00
Default Cost per SF		$135.00
Factored Cost per SF		$175.50
Final Cost per SF		**$183.01**
Basic Bridge Cost		**$650,403.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.	

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	763.00 SF	$34.00	$25,942.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge SWANEB Total			$704,187.35
	Bridges Component Total			$12,863,235.70
Sequence 2 Total				$15,677,444.74

Sequence: 3 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.824 MI
4,352 LF

Description: SEQUENCE 3 REPRESENTS THE WORK FROM WEST OF WILLOW TO HYDE PARK (STA 245+00 TO 236+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS NOT INCLUDED).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	49.20 / 50.30
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	48,111.30	SY	$3.38	$162,616.19
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	3,969.18	TN	$115.00	$456,455.70
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,924.45	TN	$135.00	$259,800.75

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.37	GM	$8,960.09	$3,315.23
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.86	GM	$4,328.00	$8,050.08
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	5.82	GM	$1,554.00	$9,044.28
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.89	GM	$4,662.95	$8,812.98

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	556.00	EA	$5.82	$3,235.92

Roadway Component Total $911,331.13

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,009.08	LF	$1.37	$13,712.44
104-11	FLOATING TURBIDITY BARRIER	82.42	LF	$9.79	$806.89
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	82.42	LF	$4.06	$334.63
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	43.00	EA	$113.29	$4,871.47
107-1	LITTER REMOVAL	5.99	AC	$40.27	$241.22
107-2	MOWING	5.99	AC	$58.12	$348.14
	Shoulder Component Total				$23,231.79

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	75.00	LF	$150.00	$11,250.00
	Median Component Total				$11,250.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$953.00	$953.00
	Comment: SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,219.00	$2,438.00
	Comment: SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	2.00	EA	$4,333.00	$8,666.00
	Comment: NEW SIGN PANELS FOR OH SIGN STRUCTURES WEST OF WILLOW				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$106.90	$106.90
	Comment: REMOVAL OF SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	2.00	EA	$700.00	$1,400.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
	Signing Component Total				$14,173.90

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	1.00	EA	$709.00	$709.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	600.00	LF	$2.20	$1,320.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	1.00	EA	$6,413.00	$6,413.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	1.00	EA	$556.00	$556.00
	Subcomponent Total				$8,998.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	800.00	LF	$14.00	$11,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$500.00	$2,000.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00	LF	$0.94	$564.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	1.00	EA	$550.00	$550.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00

715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	10.00 EA	$1,300.00	$13,000.00
	Lighting Component Total			$41,500.00

BRIDGES COMPONENT

Bridge WILLWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100326
Removal of Existing Structures area	599.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**
Basic Bridge Cost	**$510,178.50**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	599.00	SF	$34.00	$20,366.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge WILLWB Total				$558,386.85

Bridge WILLEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100327
Removal of Existing Structures area	599.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**
Basic Bridge Cost	**$510,178.50**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Extended Amount

			Unit Price	
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	599.00 SF	$34.00	$20,366.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge WILLEB Total			$558,386.85

Bridge SOUTWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100328
Removal of Existing Structures area	539.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00 SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge SOUTWB Total			$505,627.35

Bridge SOUTEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100329
Removal of Existing Structures area	539.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00	SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge SOUTEB Total				$505,627.35
	Bridges Component Total				$2,128,028.40
Sequence 3 Total					$3,129,515.22

Sequence: 4 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.119 MI
630 LF

Description: SEQUENCE 4 REPRESENTS THE WORK FROM HYDE PARK TO THE DOWNTOWN VIADUCT BRIDGE (STA 536+00 TO 549+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	66.70 / 66.80
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	9,343.58	SY	$3.38	$31,581.30
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	770.85	TN	$115.00	$88,647.75
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	373.74	TN	$135.00	$50,454.90

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.21	GM	$8,960.09	$1,881.62
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.51	GM	$4,328.00	$2,207.28
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.47	GM	$1,554.00	$2,284.38
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.51	GM	$4,662.95	$2,378.10

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	81.00	EA	$5.82	$471.42

Roadway Component Total $179,906.75

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,448.78	LF	$1.37	$1,984.83
104-11	FLOATING TURBIDITY BARRIER	11.93	LF	$9.79	$116.79
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	11.93	LF	$4.06	$48.44
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.87	AC	$40.27	$35.03
107-2	MOWING	0.87	AC	$58.12	$50.56
	Shoulder Component Total				$6,285.55

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	30.00	LF	$150.00	$4,500.00
	Median Component Total				$4,500.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$953.00	$953.00
	Comment: REPLACEMENT OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,219.00	$2,438.00
	Comment: REPLACEMENT OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	1.00	EA	$4,333.00	$4,333.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$106.90	$106.90
	Comment: REMOVAL OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$422.28	$422.28
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	1.00	EA	$700.00	$700.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
	Signing Component Total				$13,164.18

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	3.00	EA	$709.00	$2,127.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,800.00	LF	$2.20	$3,960.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	3.00	EA	$6,413.00	$19,239.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	3.00	EA	$556.00	$1,668.00
	Subcomponent Total				$26,994.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	600.00	LF	$14.00	$8,400.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$500.00	$2,000.00

715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00 LF	$0.94	$564.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	6.00 EA	$550.00	$3,300.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00 EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	8.00 EA	$1,300.00	$10,400.00
	Lighting Component Total			$56,846.00

BRIDGES COMPONENT

Bridge HYDEWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100330
Removal of Existing Structures area	2,328.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$177.96**
Basic Bridge Cost	**$1,984,027.50**
Description	INSIDE WIDENING (17') OF SELMON WB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,328.00	SF	$34.00	$79,152.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge HYDEWB Total				$2,091,021.85

Bridge HYDEEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100331
Removal of Existing Structures area	2,328.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$177.96**

Basic Bridge Cost **$1,984,027.50**

Description INSIDE WIDNEING (17') OF SELMON EB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,328.00	SF	$34.00	$79,152.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge HYDEEB Total				$2,091,021.85
	Bridges Component Total				$4,182,043.70

Sequence 4 Total $4,442,746.18

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.796 MI
4,200 LF

Description: SEQUENCE 5 REPRESENTS THE WORK ON THE SELMON EXPRESSWAY DOWNTOWN VIADUCT BRIDGE (STA 549+00 TO 591+00)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.50	GM	$8,960.09	$4,480.04
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.79	GM	$4,143.00	$7,415.97
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	3.76	GM	$1,431.00	$5,380.56
711-16-133	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 12"	0.60	GM	$2,704.98	$1,622.99
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	1.69	GM	$4,168.12	$7,044.12
711-17-1	THERMOPLASTIC, REMOVE	18,321.00	SF	$3.52	$64,489.92
	Comment: 36642 LF OF 6" STRIPES TO BE REMOVED				
	Roadway Component Total				$90,433.61

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	3.00	EA	$953.00	$2,859.00
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	$3,601.00	$7,202.00
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	$4,333.00	$12,999.00
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	3.00	EA	$106.90	$320.70
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	$422.28	$844.56
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	$700.00	$2,100.00
700-4-140	OH STATIC SIGN STR, F&I, O BR MOUNT	3.00	EA	$11,252.00	$33,756.00
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	1.00	EA	$4,918.00	$4,918.00
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	2.00	EA	$10,125.00	$20,250.00
	Signing Component Total				$85,249.26

LIGHTING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	1,950.00	LF	$27.12	$52,884.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	13.00	EA	$500.00	$6,500.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,950.00	LF	$0.94	$1,833.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	13.00	EA	$1,297.00	$16,861.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	46.00	EA	$1,300.00	$59,800.00

Lighting Component Total	$137,878.00

BRIDGES COMPONENT

Bridge VIADWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	2,530.00
Width (LF)	15.90
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100332
Removal of Existing Structures area	8,855.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.65**
Basic Bridge Cost	**$7,602,903.00**
Description	INSIDE WIDENING (15.9' AVG) OF THE WB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE (2530').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	8,855.00	SF	$34.00	$301,070.00
400-2-10	CONC CLASS II, APPROACH SLABS	35.33	CY	$533.96	$18,864.81
415-1-9	REINF STEEL- APPROACH SLABS	6,182.75	LB	$1.16	$7,171.99
	Bridge VIADWB Total				$7,930,009.80

Bridge VIAEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	4,200.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100333
Removal of Existing Structures area	14,700.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.39**
Basic Bridge Cost	**$11,113,200.00**
Description	INSIDE WIDENING (14' AVG) OF THE EB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE (4200').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	14,700.00	SF	$34.00	$499,800.00
400-2-10		31.11	CY	$533.96	$16,611.50

	CONC CLASS II, APPROACH SLABS			
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25 LB	$1.16	$6,315.33
	Bridge VIAEB Total			$11,635,926.83
	Bridges Component Total			$19,565,936.63
Sequence 5 Total				$19,879,497.50

Date: 8/27/2020 9:53:42 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 6 Project Grand Total **$53,883,487.59**

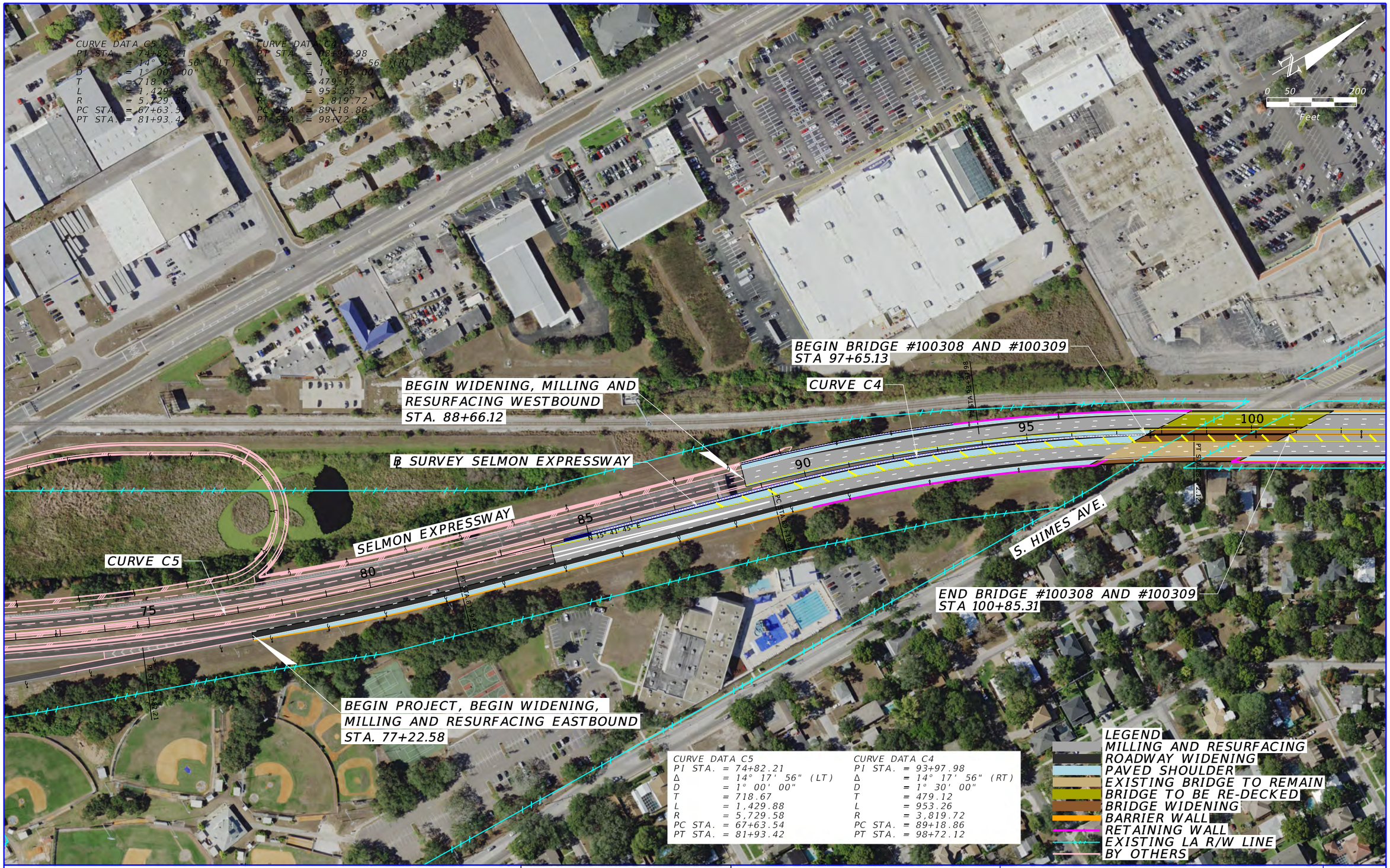
Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 6 REPRESENTS ALTERNATIVE 6 ULTIMATE ESTIMATE (WIDENING ALTERNATIVE 6 BRIDGES TO THE INSIDE TO ACCOMMODATE THE ULTIMATE 8 LANE SECTION).

Project Sequences Subtotal			**$43,614,843.82**
102-1	Maintenance of Traffic	12.00 %	$5,233,781.26
101-1	Mobilization	10.00 %	$4,884,862.51
Project Sequences Total			**$53,733,487.59**
Project Unknowns		0.00 %	$0.00
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					**$53,883,487.59**

Appendix D
Preferred Alternative Concept Plans



CURVE DATA C5

PI STA.	= 74+82.21
Δ	= 14° 17' 56" (LT)
D	= 1° 00' 00"
T	= 718.67
L	= 1,429.88
R	= 5,729.58
PC STA.	= 67+63.54
PT STA.	= 81+93.42

CURVE DATA C4

PI STA.	= 93+97.98
Δ	= 14° 17' 56" (RT)
D	= 1° 30' 00"
T	= 479.12
L	= 953.26
R	= 3,819.72
PC STA.	= 89+18.86
PT STA.	= 98+72.12

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

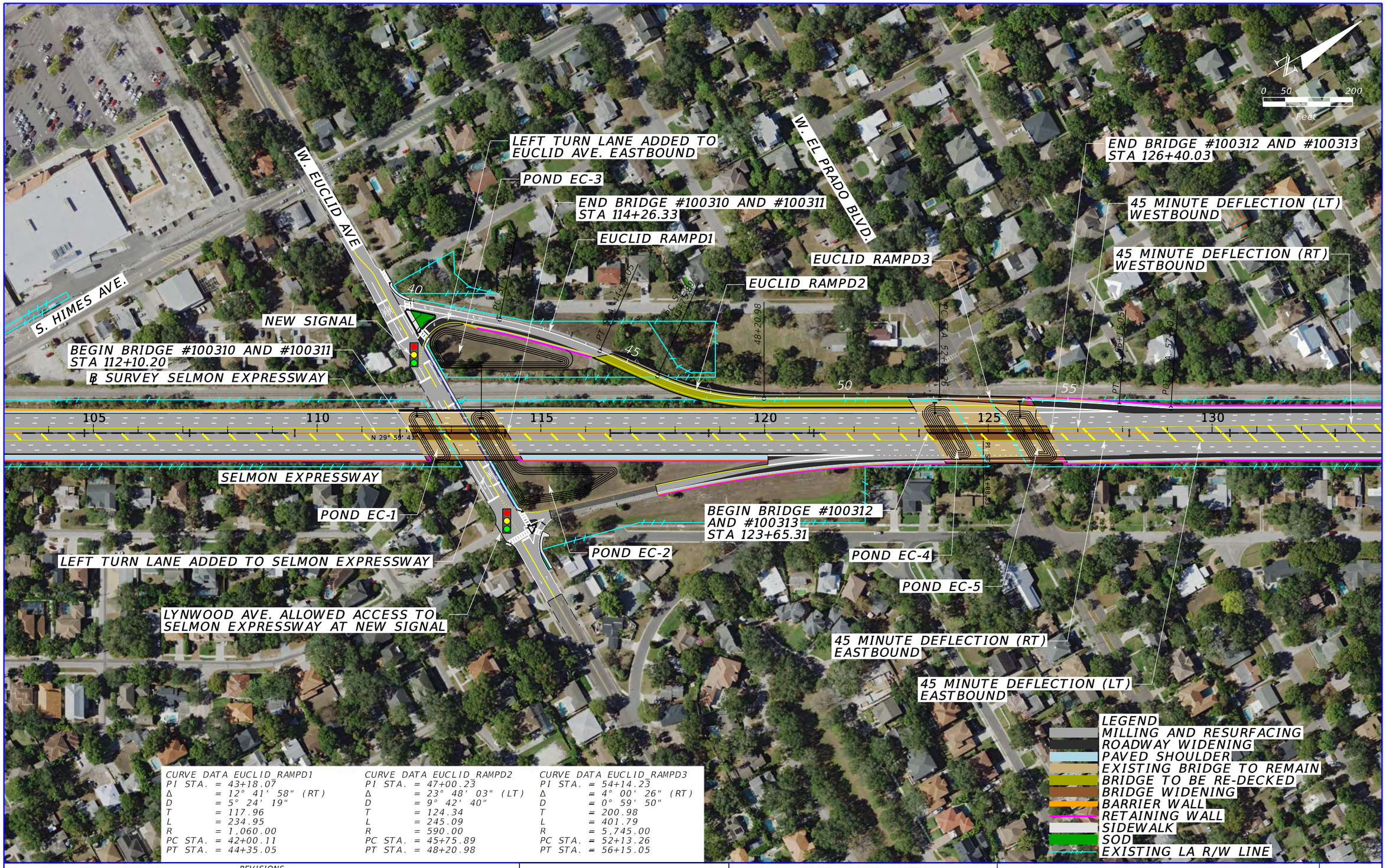
HDR Engineering, Inc.
4830 W. Kennedy Blvd.
Suite 400
Tampa, FL 33609-2548

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 1



CURVE DATA EUCLID_RAMPD1
PI STA. = 43+18.07
Δ = 12° 41' 58" (RT)
D = 5° 24' 19"
T = 117.96
L = 234.95
R = 1,060.00
PC STA. = 42+00.11
PT STA. = 44+35.05

CURVE DATA EUCLID_RAMPD2
PI STA. = 47+00.23
Δ = 23° 48' 03" (LT)
D = 9° 42' 40"
T = 124.34
L = 245.09
R = 590.00
PC STA. = 45+75.89
PT STA. = 48+20.98

CURVE DATA EUCLID_RAMPD3
PI STA. = 54+14.23
Δ = 4° 00' 26" (RT)
D = 0° 59' 50"
T = 200.98
L = 401.79
R = 5,745.00
PC STA. = 52+13.26
PT STA. = 56+15.05

REVISIONS			
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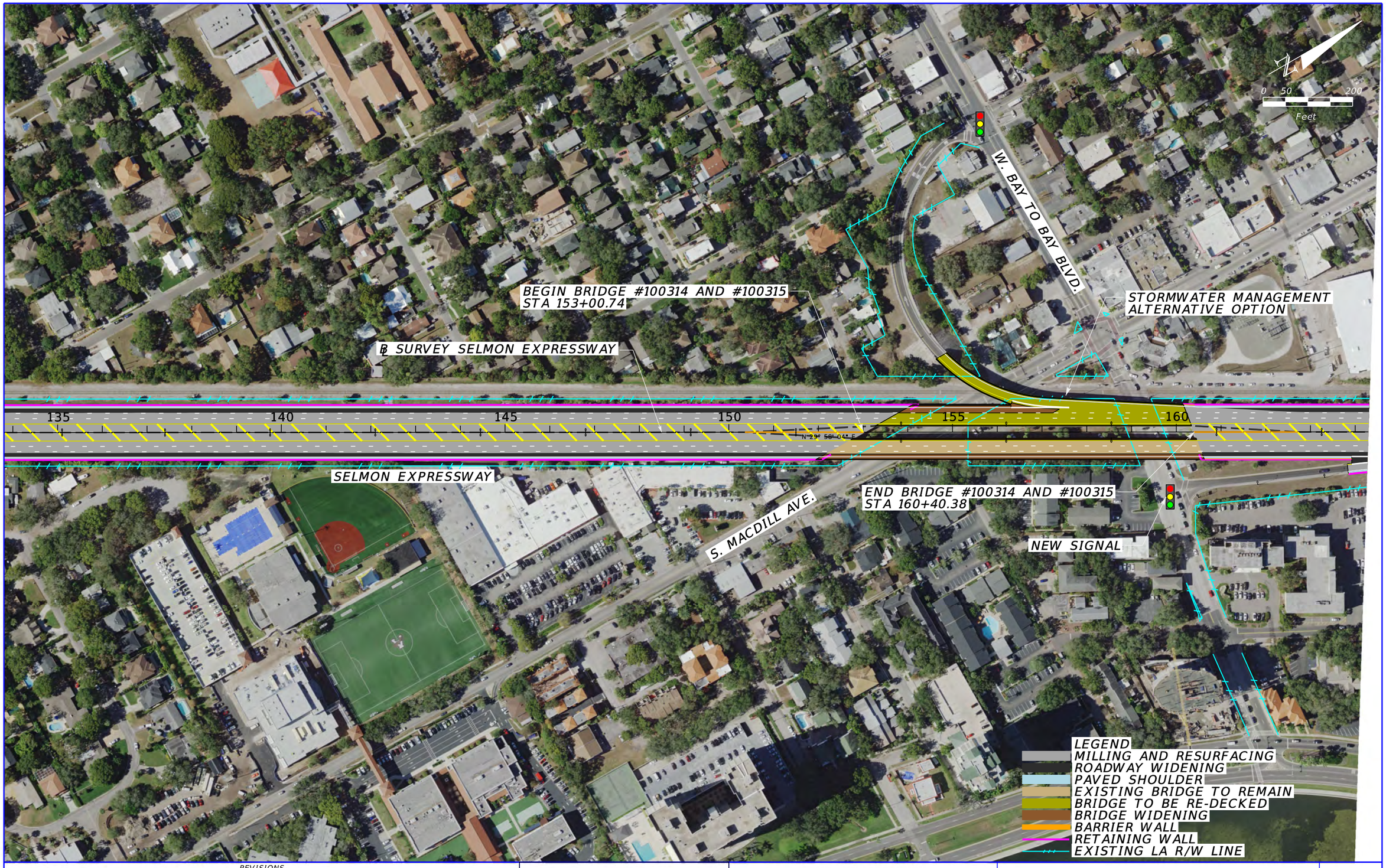
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 2



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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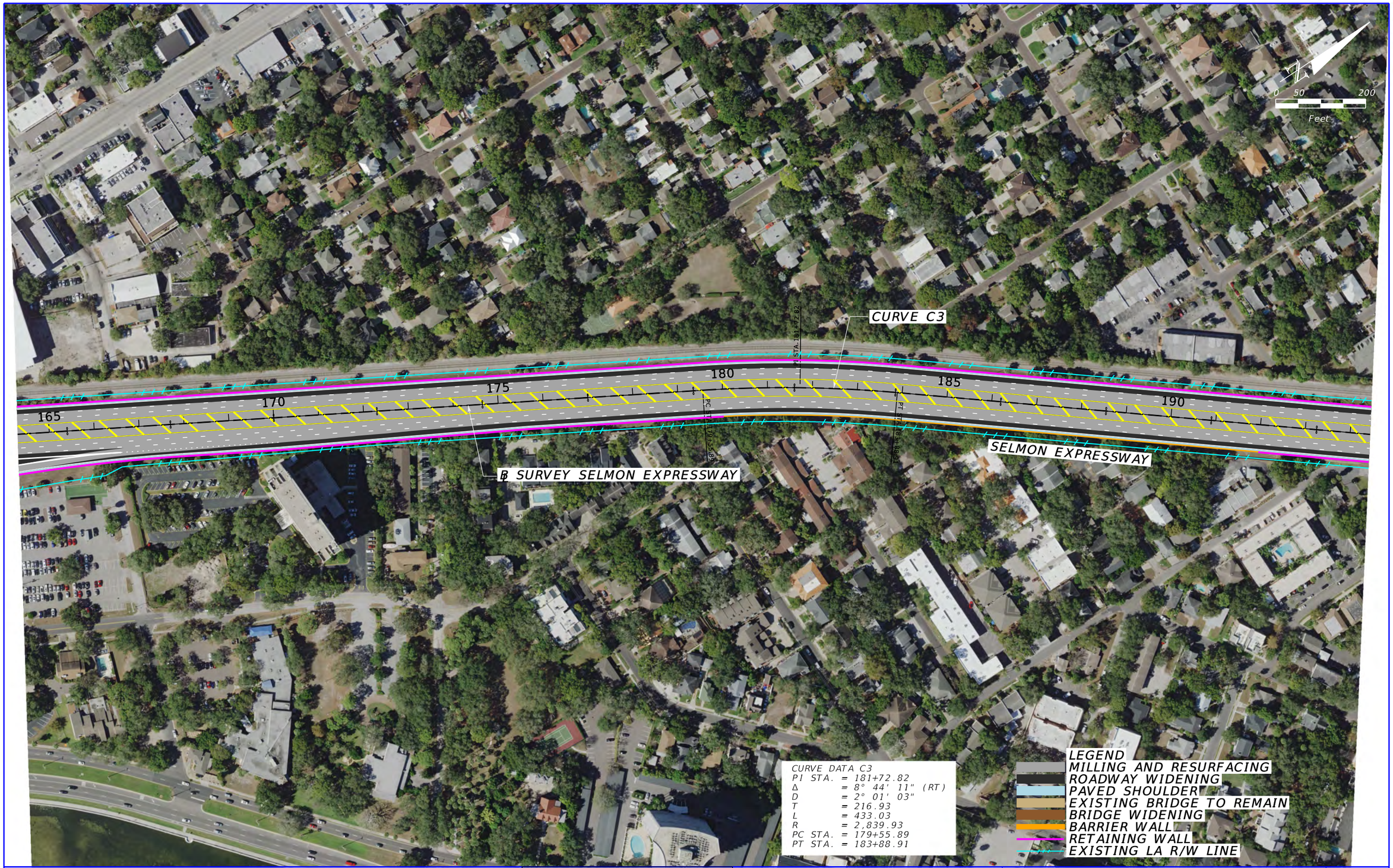
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 3



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HDR Engineering, Inc.
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ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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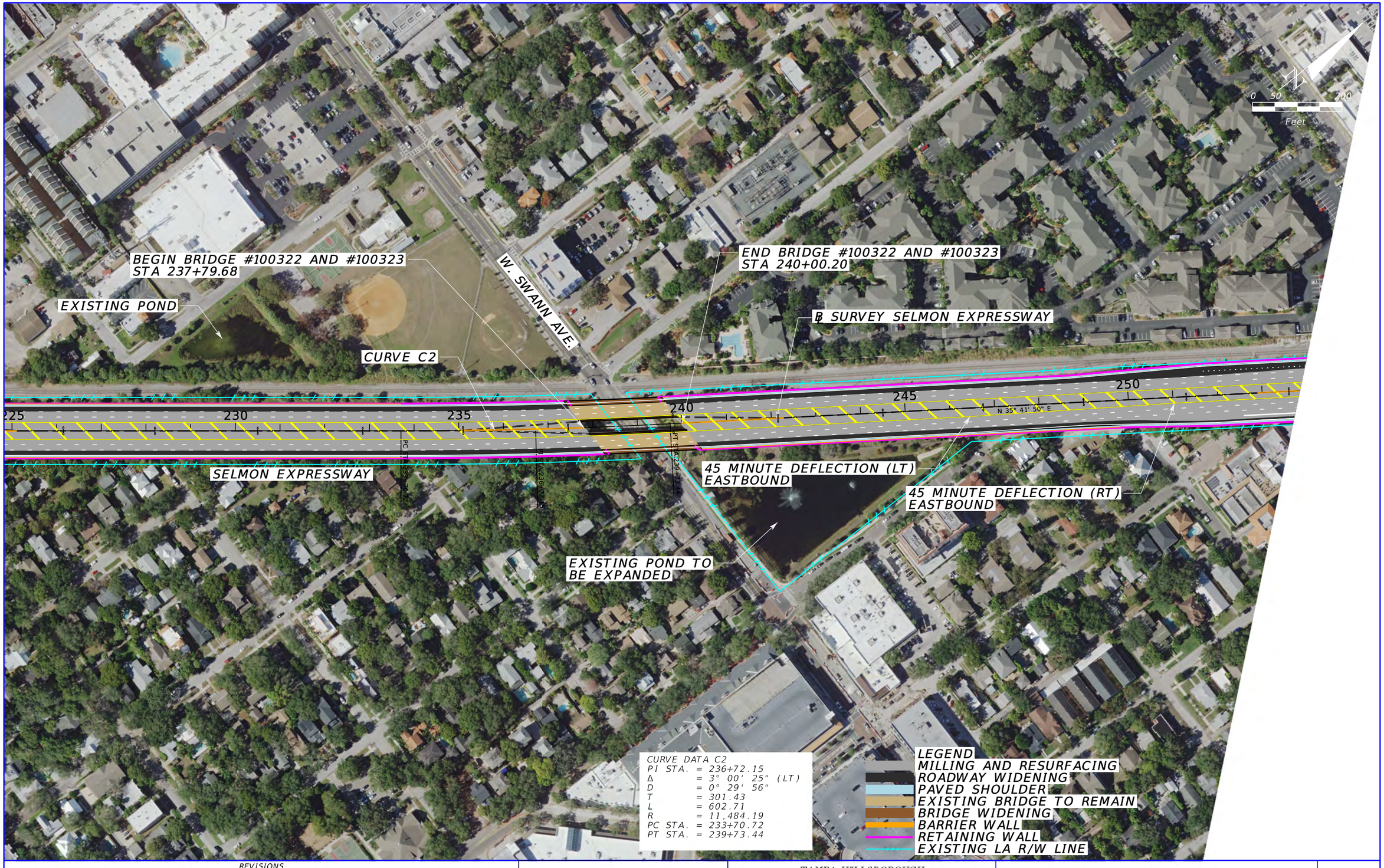
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 5



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 6

EASTBOUND COMPOUND CURVE
(R1 = 1419', R2= 1350')

℄ SURVEY SELMON EXPRESSWAY

BEGIN BRIDGE #100326 AND #100327
STA 507+45.99

END BRIDGE #100324
AND #100325
STA 502+42.89

WESTBOUND OFF RAMP RELOCATED TO
WILLOW AVE./CLEVELAND ST. SIGNAL

CURVE C1_2

WILLOW_RAMPA1

END BRIDGE #100326 AND #100327
509+35.72

W. PLATT ST.

PI STA 505+05.59

AC STA 504+87.97

PT STA 513+01.65

PC STA 14+79.21

WILLOW_RAMPA2

TWO LANE EXIT TO
WILLOW AVE./CLEVELAND ST.
INTERSECTION

BEGIN BRIDGE #100328
AND #100329
STA 520+96.04

W. CLEVELAND ST.

PC STA 19+43.36

S. BOULEVARD

PT STA 24+09.25

BEGIN BRIDGE #100324
AND #100325
STA 499+86.17

POND SC-1

S. WILLOW AVE.

TWO LANE EXIT TO
WILLOW AVE./PLATT ST.
INTERSECTION

POND BW-1

SELMON EXPRESSWAY

W. PLATT ST.

END BRIDGE #100328
AND #100329
STA 522+68.02

POND BW-2

0 50 200
Feet

LEGEND
- MILLING AND RESURFACING
- ROADWAY WIDENING
- PAVED SHOULDER
- EXISTING BRIDGE TO REMAIN
- BRIDGE WIDENING OR REPLACEMENT
- BARRIER WALL
- RETAINING WALL
- SIDEWALK
- SOD
- EXISTING LA R/W LINE

CURVE DATA C1_2		CURVE DATA WILLOW_RAMPA1		CURVE DATA WILLOW_RAMPA2	
PI STA.	= 505+05.59	PI STA.	= 11+95.46	PI STA.	= 17+14.93
Δ	= 55° 11' 33" (RT)	Δ	= 17° 31' 22" (LT)	Δ	= 4° 41' 30" (RT)
D	= 4° 00' 00"	D	= 8° 11' 06"	D	= 0° 59' 45"
T	= 748.72	T	= 107.88	T	= 235.72
L	= 1,379.81	L	= 214.08	L	= 471.17
R	= 1,432.39	R	= 700.00	R	= 5,754.00
PC STA.	= 497+56.87	PC STA.	= 10+87.57	PC STA.	= 14+79.21
PT STA.	= 511+36.68	PT STA.	= 13+01.65	PT STA.	= 19+50.38

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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Tampa, FL 33609-2548

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 7

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO.
8

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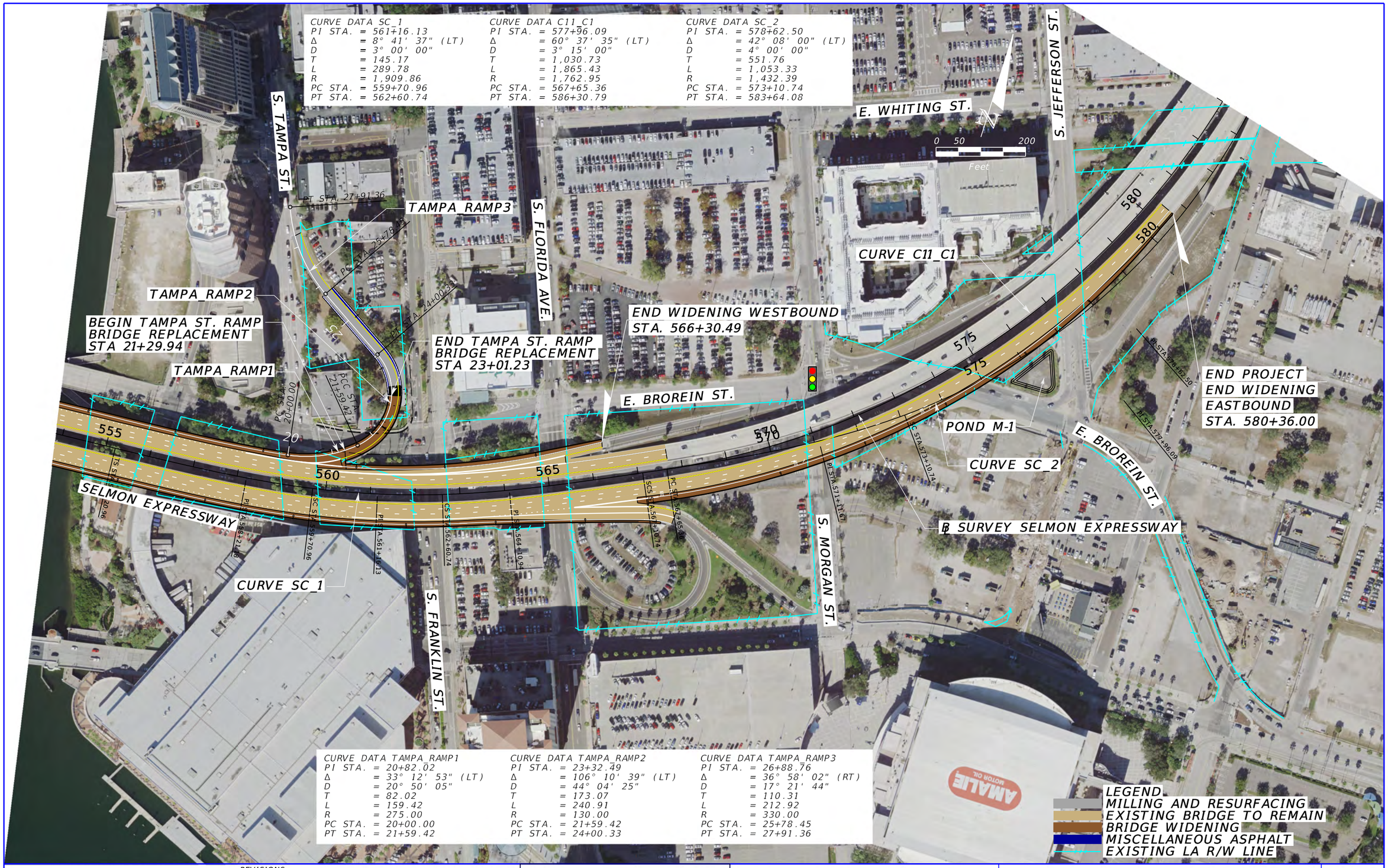

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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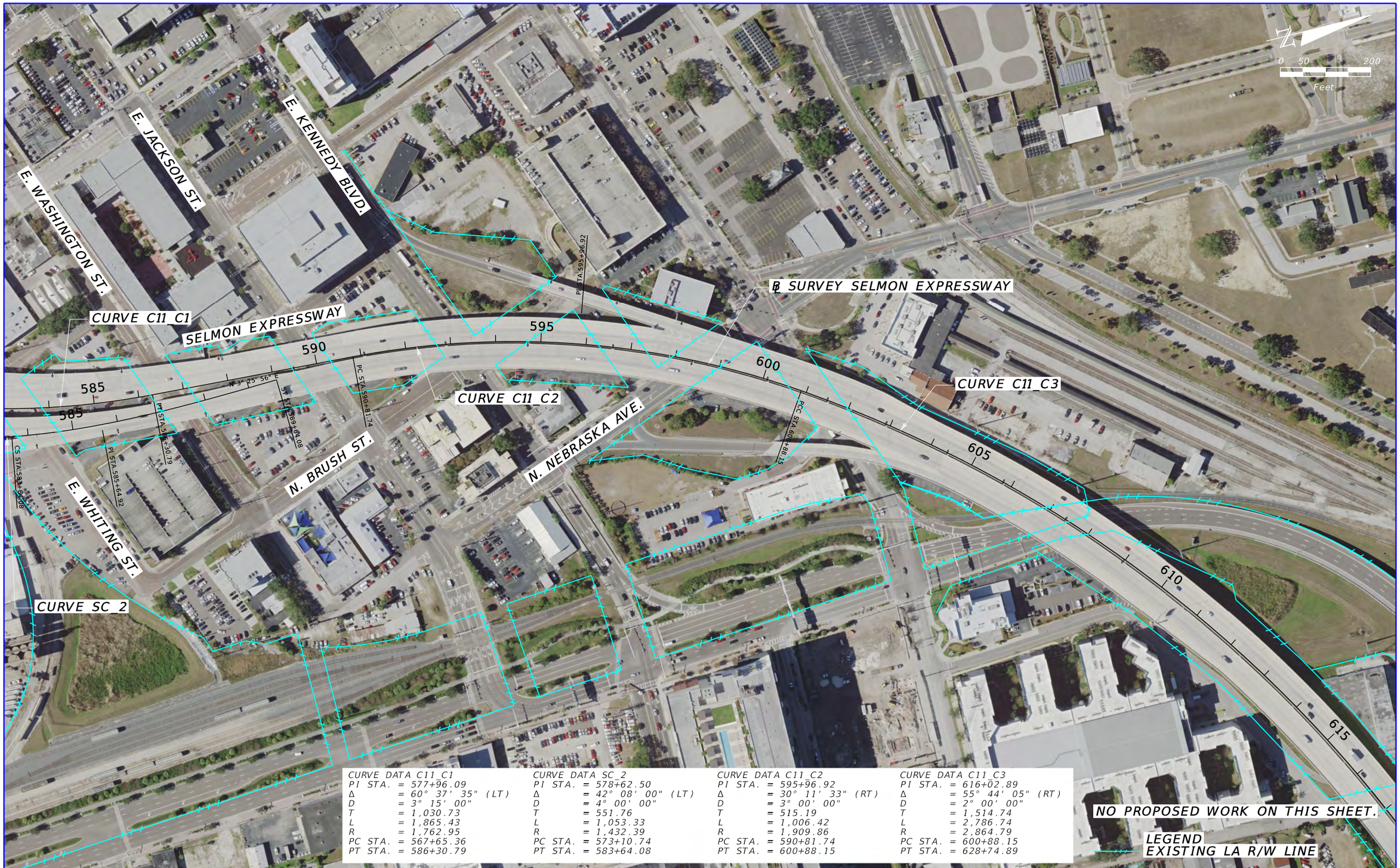
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 9



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Δ	= 60° 37' 35" (LT)	Δ	= 42° 08' 00" (LT)	Δ	= 30° 11' 33" (RT)	Δ	= 55° 44' 05" (RT)
D	= 3° 15' 00"	D	= 4° 00' 00"	D	= 3° 00' 00"	D	= 2° 00' 00"
T	= 1,030.73	T	= 551.76	T	= 515.19	T	= 1,514.74
L	= 1,865.43	L	= 1,053.33	L	= 1,006.42	L	= 2,786.74
R	= 1,762.95	R	= 1,432.39	R	= 1,909.86	R	= 2,864.79
PC STA.	= 567+65.36	PC STA.	= 573+10.74	PC STA.	= 590+81.74	PC STA.	= 600+88.15
PT STA.	= 586+30.79	PT STA.	= 583+64.08	PT STA.	= 600+88.15	PT STA.	= 628+74.89

NO PROPOSED WORK ON THIS SHEET.

LEGEND
EXISTING LA R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HDR Engineering, Inc.
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Suite 400
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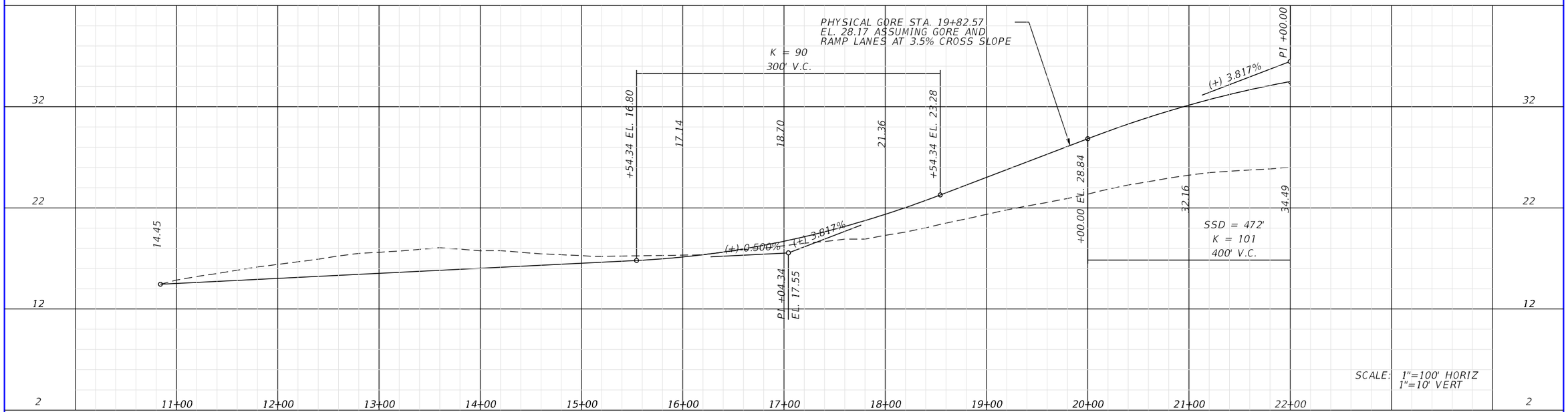
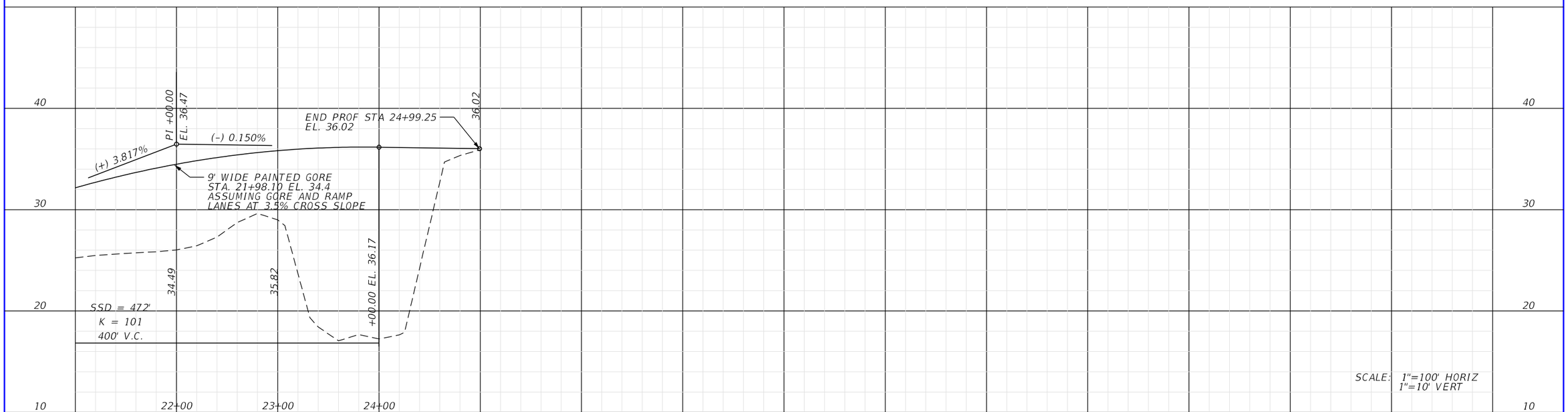
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	THEA PROJECT NO.
SR 618	HILLSBOROUGH	HI-0012

PREFERRED ALTERNATIVE CONCEPT PLANS

SHEET NO. 10





REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HDR Engineering, Inc.
4830 W. Kennedy Blvd.
Suite 400
Tampa, FL 33609-2548
FBPR Certificate of
Authorization No. 4213

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0012

WILLOW WB OFF RAMP PROFILE

SHEET NO. 11

Appendix E
Preferred Alternative Typical Section Package

STATE OF FLORIDA

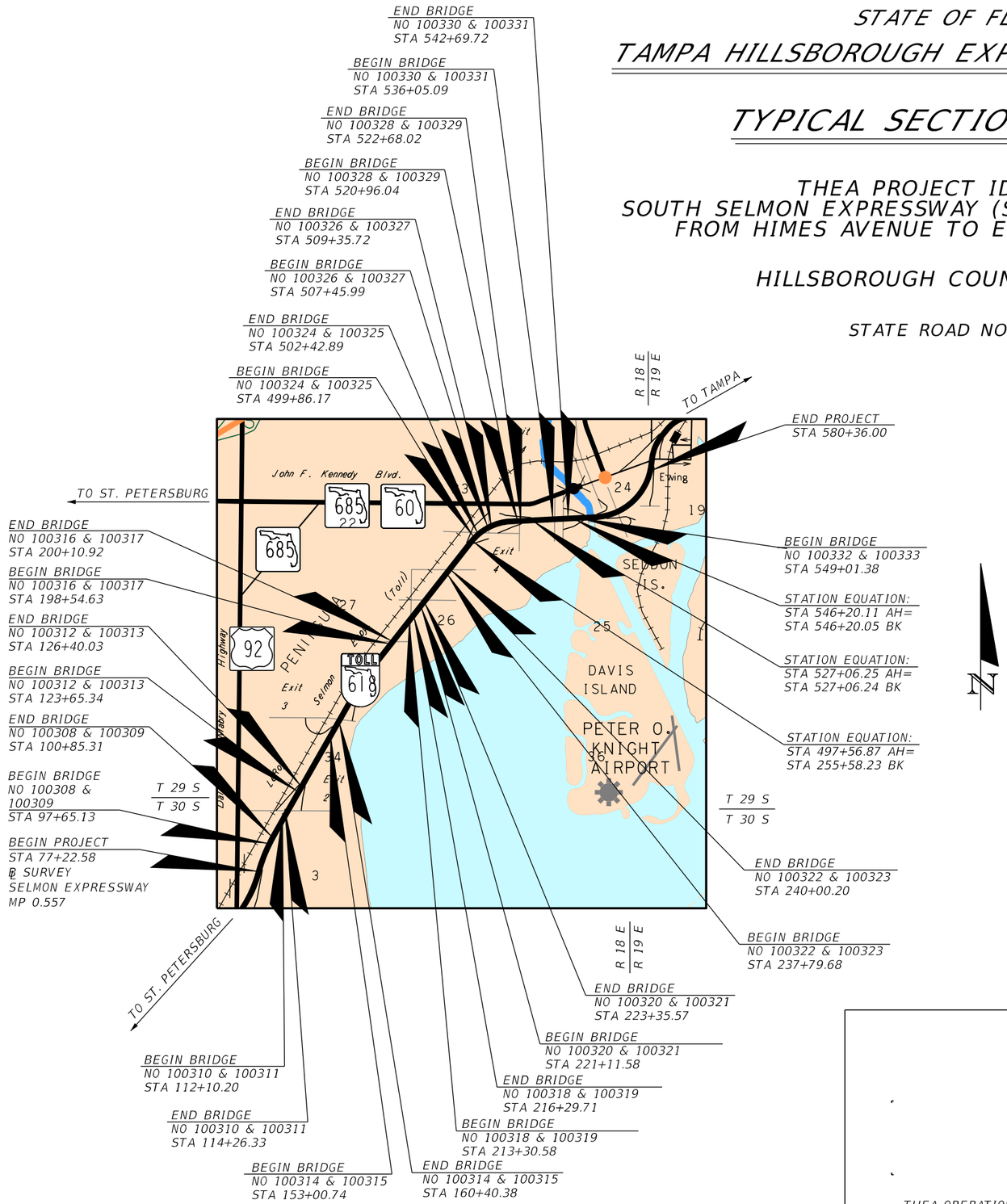
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY

TYPICAL SECTION PACKAGE

THEA PROJECT ID HI-0012
SOUTH SELMON EXPRESSWAY (SR 618) IMPROVEMENTS
FROM HIMES AVENUE TO E. JACKSON STREET

HILLSBOROUGH COUNTY (10130)

STATE ROAD NO. 618



APPROVED BY:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL

TALLEY FOX ROBERTS
LICENSE
No 74782
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

HDR ENGINEERING, INC.
76 SOUTH LAURA STREET, SUITE 1600
JACKSONVILLE, FL 32202
TALLEY ROBERTS, P.E. NO. 74782

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

TYPICAL SECTION CONCURRENCE

THEA OPERATIONS DIRECTOR

THEA GENERAL ENGINEERING CONSULTANT

SHEET NO.
1

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

- (X) 1 - FREEWAY
- ( ) 2 - RESTRICTIVE w/Service Roads
- ( ) 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

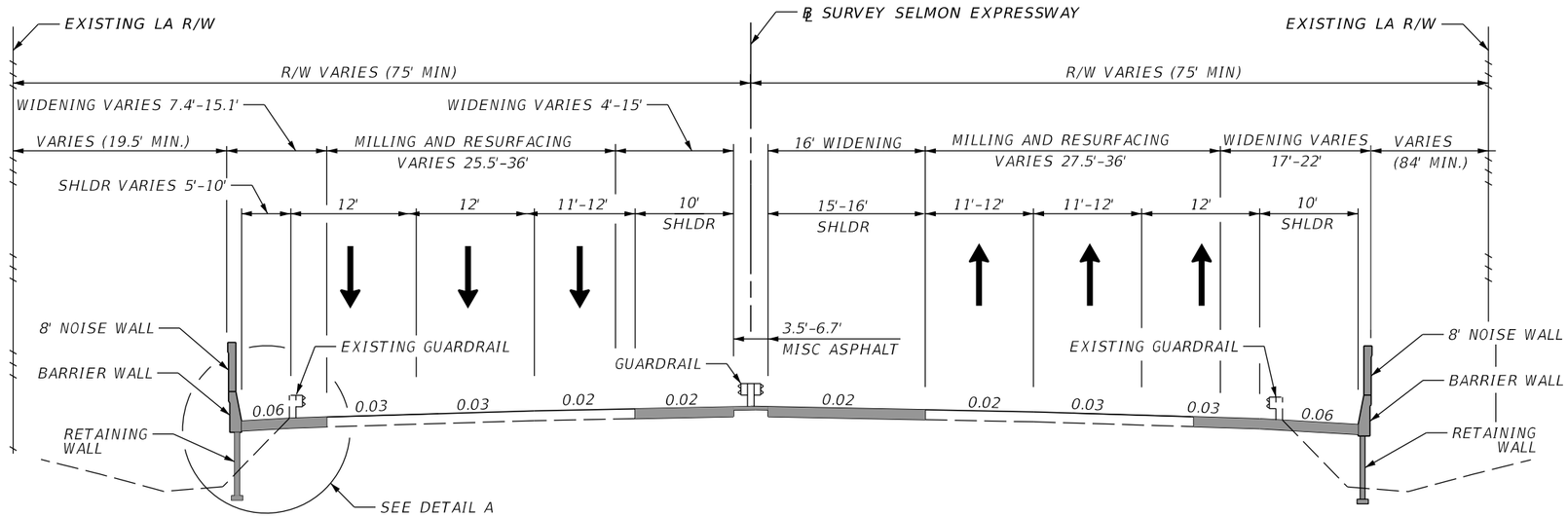
- (X) NEW CONSTRUCTION / RECONSTRUCTION
- ( ) RESURFACING (LA FACILITIES)
- ( ) RRR (ARTERIALS & COLLECTORS)

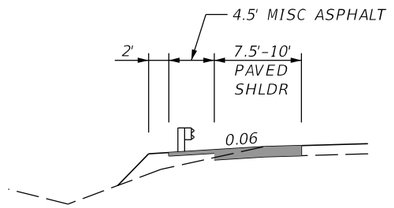
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
LANE WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED
CROSS SLOPE - INSIDE SHOULDER

TYPICAL SECTION No. 1





DETAIL A
STA 88+66.12 TO STA 93+41.60

TYPICAL SECTION No. 1
SR 618 (SELMON EXPRESSWAY)

STA 77+22.58 TO STA 97+65.13

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 31,100
ESTIMATED OPENING YEAR = 2026 AADT = 46,400
ESTIMATED DESIGN YEAR = 2046 AADT = 90,100
K = 8 % D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	2

5/25/2021 4:58:33 PM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

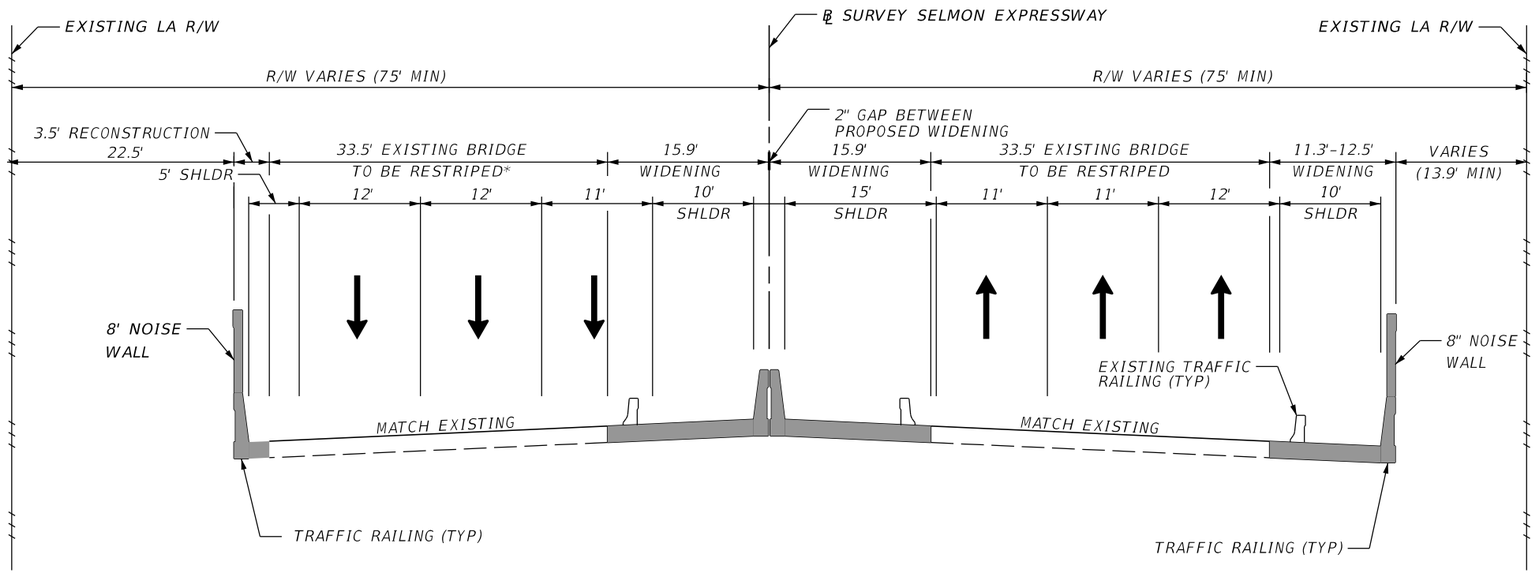
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
LANE WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 2



TYPICAL SECTION No. 2
SR 618 (SELMON EXPRESSWAY)

OVER HIMES AVE
STA 97+65.13 TO STA 100+85.31

OVER W. EUCLID AVE
STA 112+10.20 TO STA 114+26.33

*SELMON EXPRESSWAY WESTBOUND OVER HIMES AVENUE TO BE RE-DECKED

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 31,100
ESTIMATED OPENING YEAR = 2026 AADT = 46,400
ESTIMATED DESIGN YEAR = 2046 AADT = 90,100
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	3

5/25/2021 4:58:34 PM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X)	1 – FREEWAY
( )	2 – RESTRICTIVE w/Service Roads
( )	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

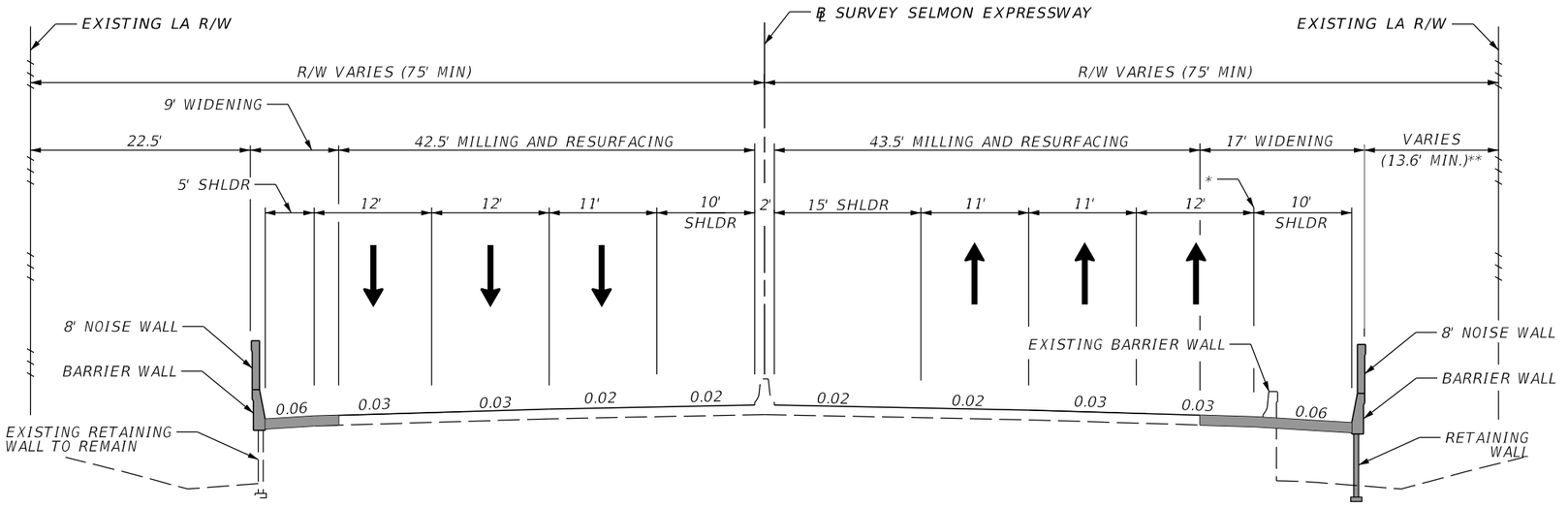
(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
LANE WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED
CROSS SLOPE – INSIDE SHOULDER

TYPICAL SECTION No. 3



TYPICAL SECTION No. 3
SR 618 (SELMON EXPRESSWAY)

STA 100+85.31 TO STA 112+10.20
STA 114+26.33 TO STA 123+65.31

*LIMITS OF 12' AUXILIARY LANE (**MIN DISTANCE TO R/W)
EASTBOUND STA 120+07.64 TO STA 123+65.31 (2')

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 31,100
ESTIMATED OPENING YEAR = 2026 AADT = 46,400
ESTIMATED DESIGN YEAR = 2046 AADT = 90,100
K = 8 % D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	4

5/25/2021 4:58:35 PM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

- (X) 1 - FREEWAY
- ( ) 2 - RESTRICTIVE w/Service Roads
- ( ) 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

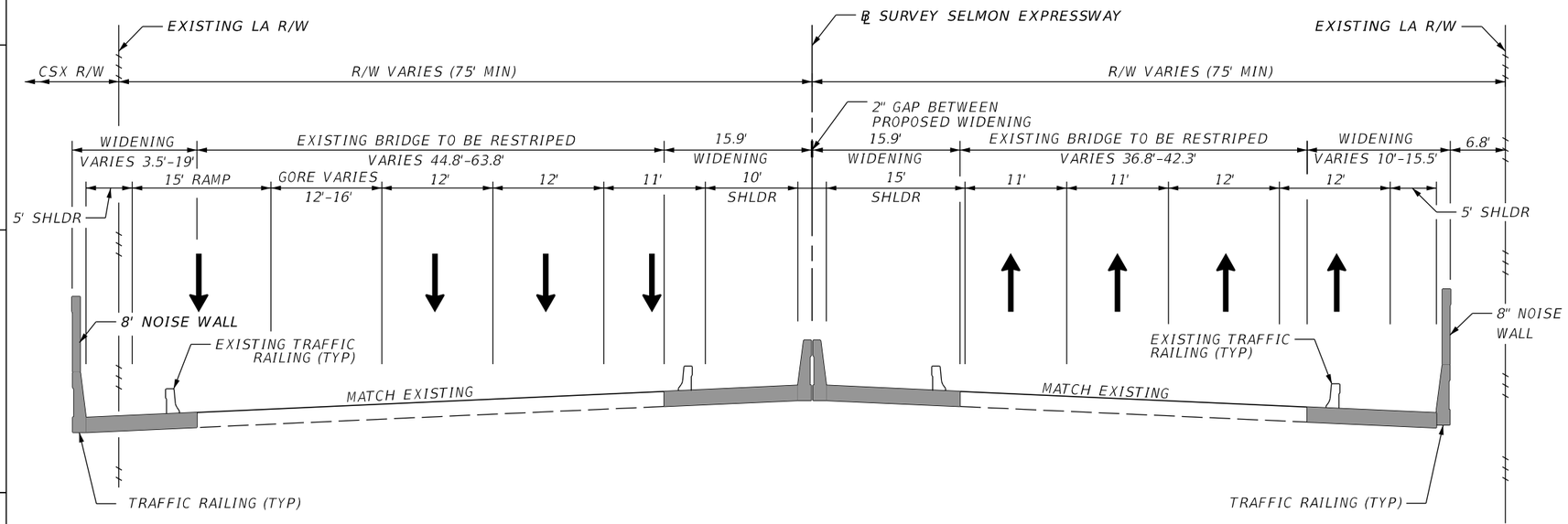
- (X) NEW CONSTRUCTION / RECONSTRUCTION
- ( ) RESURFACING (LA FACILITIES)
- ( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
LANE WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 4



TYPICAL SECTION No. 4
SR 618 (SELMON EXPRESSWAY)

OVER EL PRADO BLVD
STA 123+65.34 TO STA 126+40.03

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 43,700
ESTIMATED OPENING YEAR = 2026 AADT = 61,200
ESTIMATED DESIGN YEAR = 2046 AADT = 111,300
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	5

5/25/2021 4:58:36 PM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

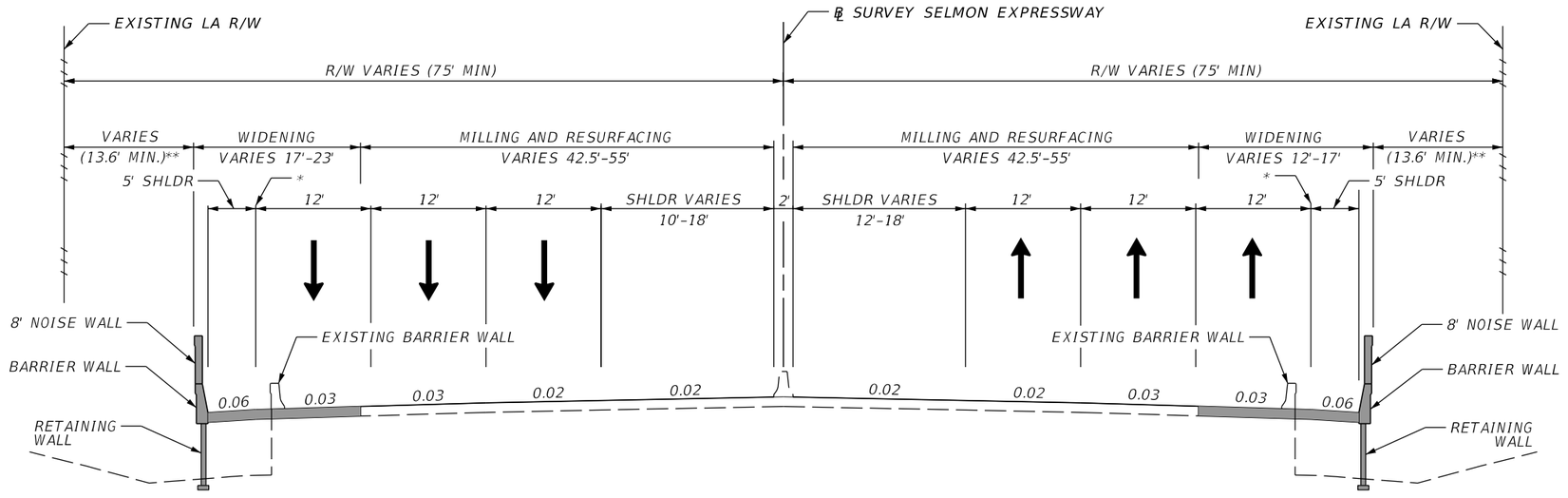
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
LANE WIDTH

DESIGN VARIATION:
DESIGN SPEED
CROSS SLOPE - INSIDE SHOULDER

TYPICAL SECTION No. 5



TYPICAL SECTION No. 5
SR 618 (SELMON EXPRESSWAY)

STA 126+40.03 TO STA 133+11.12
STA 246+44.58 TO STA 499+86.17
STA 502+42.89 TO STA 505+36.30
STA 509+35.72 TO STA 511+36.38

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 49,200
ESTIMATED OPENING YEAR = 2026 AADT = 65,400
ESTIMATED DESIGN YEAR = 2046 AADT = 111,600
K = 8 % D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

*LIMITS OF AUXILIARY LANE OR RAMP AND GORE (**MIN DISTANCE TO R/W)
15' RAMP AND GORE - WESTBOUND STA 126+40.03 TO STA 129+07.78 (INTO CSX RW)
11' AUXILIARY LANE - WESTBOUND STA 251+69.70 TO STA 499+86.17 (2.5')
12' AUXILIARY LANE - EASTBOUND STA 252+56.22 TO STA 497+80.11 (6.9')

THEA PROJECT ID	SHEET NO.
HI-0012	6

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

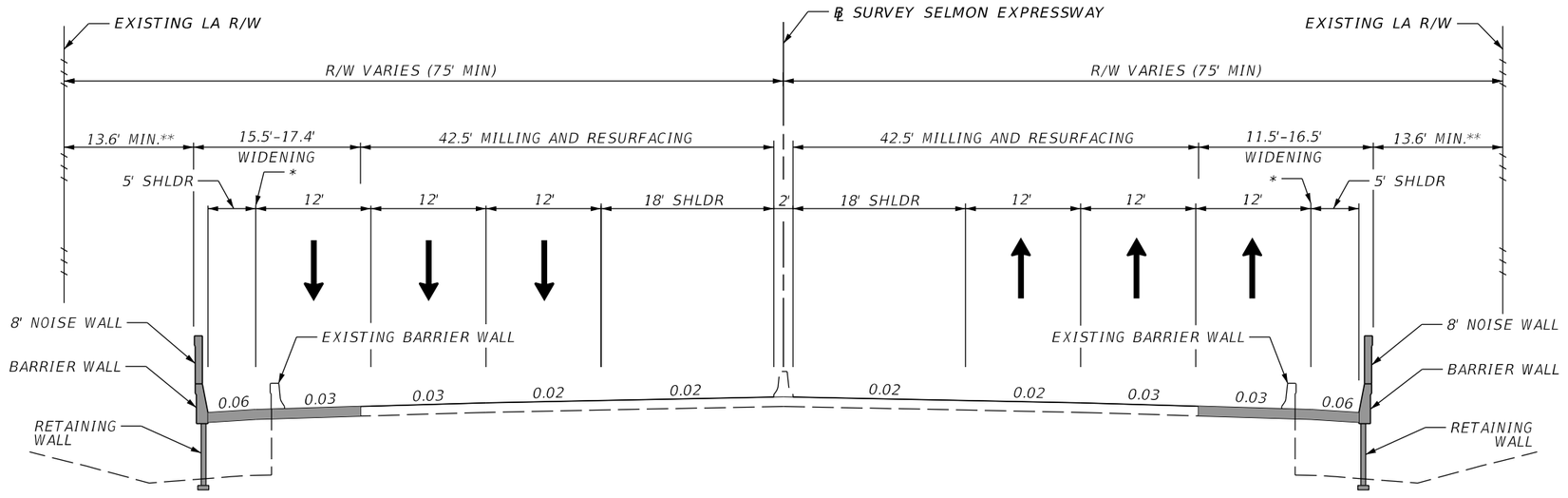
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED
CROSS SLOPE - INSIDE SHOULDER

TYPICAL SECTION No. 6



TYPICAL SECTION No. 6
SR 618 (SELMON EXPRESSWAY)

STA 133+11.12 TO STA 153+00.74
STA 160+40.38 TO STA 198+54.63
STA 200+10.92 TO STA 213+30.58
STA 216+29.71 TO STA 221+11.58
STA 223+35.57 TO STA 237+79.68
STA 240+00.20 TO STA 246+44.58
STA 511+36.38 TO STA 520+96.04

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 56,000
ESTIMATED OPENING YEAR = 2026 AADT = 75,600
ESTIMATED DESIGN YEAR = 2046 AADT = 131,600
K = 8 % D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

*LIMITS OF AUXILIARY LANE OR RAMP AND GORE (**MIN DISTANCE TO R/W)
15' RAMP AND GORE TO 12' AUX. LANE - STA 163+92.10 TO 170+09.60 EB (7.2')
24' RAMP AND GORE - STA 517+85.02 TO STA 520+96.04 WB (69')
15' RAMP AND GORE TO 12' AUX. LANE - STA 517+15.98 TO STA 520+96.04 EB (75.7')

THEA PROJECT ID	SHEET NO.
HI-0012	7

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

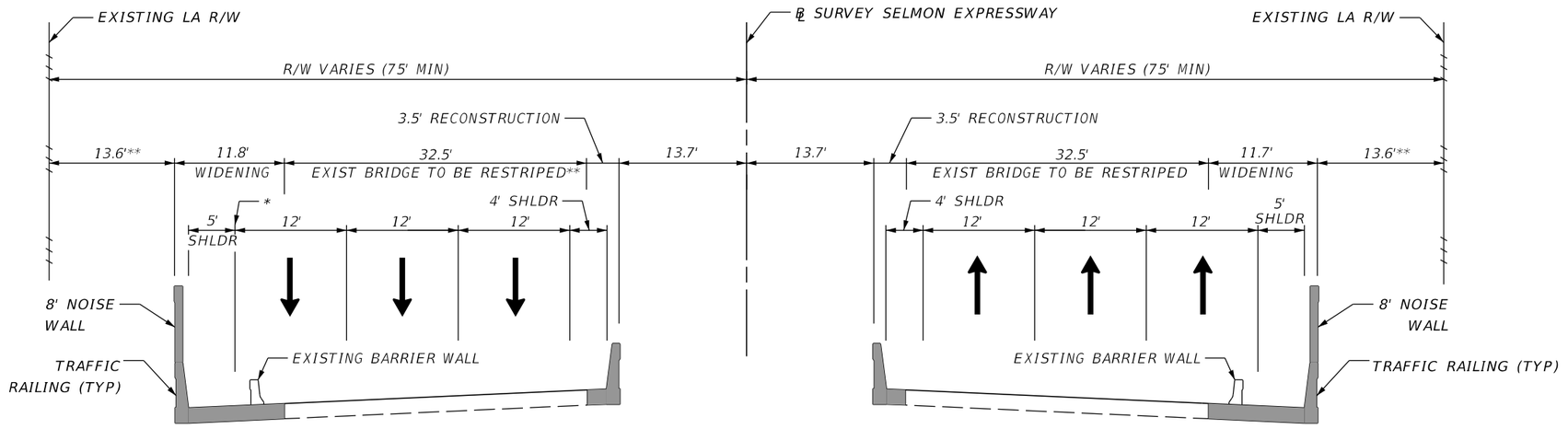
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
INSIDE SHOULDER WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 7



TYPICAL SECTION No. 7
SR 618 (SELMON EXPRESSWAY)

OVER S. MACDILL AVE & W. BAY TO BAY BLVD.
STA 153+00.74 TO STA 160+40.38

OVER W. MISSISSIPPI AVE
STA 198+54.63 TO STA 200+10.92

OVER W. WATROUS AVE & S. HOWARD AVE
STA 213+30.58 TO STA 216+29.71

OVER W. MORRISON AVE
STA 221+11.58 TO STA 223+35.57

OVER W. SWANN AVE
STA 237+79.68 TO STA 240+00.20

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 56,000
ESTIMATED OPENING YEAR = 2026 AADT = 75,600
ESTIMATED DESIGN YEAR = 2046 AADT = 131,600
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

*LIMITS OF 15' RAMP AND GORE (** MINIMUM DISTANCE TO R/W): 156+30.00 TO 160+40.38 (INTO CSX R/W)

**SELMON EXPRESSWAY WESTBOUND OVER S. MACDILL AVE. & W. BAY TO BAY BLVD TO BE RE-DECKED

THEA PROJECT ID	SHEET NO.
HI-0012	8

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

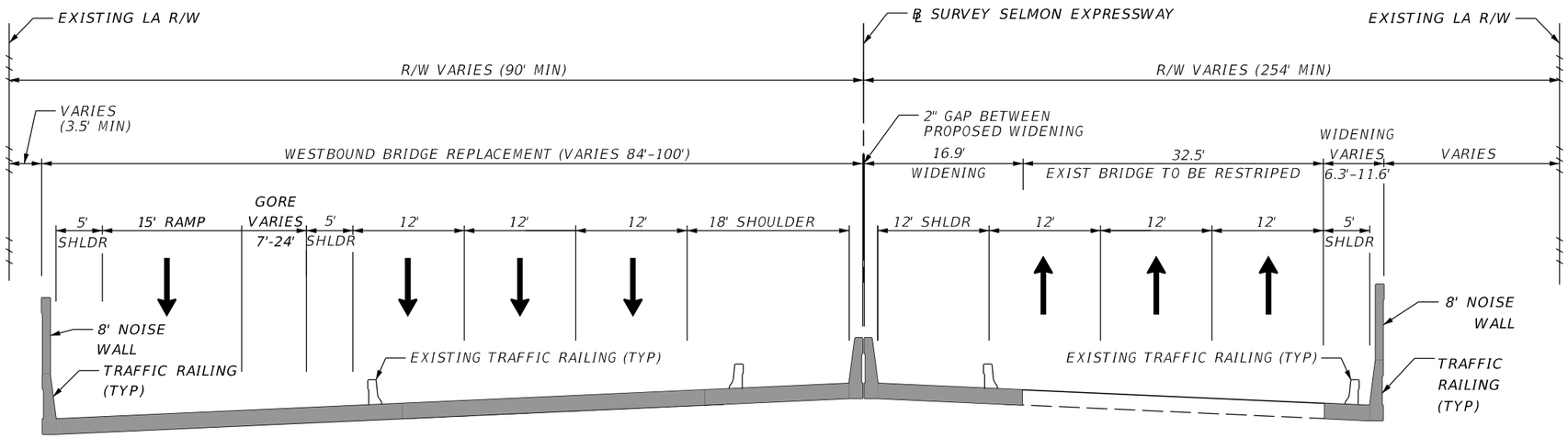
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION 8



TYPICAL SECTION No. 8
SR 618 (SELMON EXPRESSWAY)

OVER PLATT AVE
STA 499+86.17 TO STA 502+42.89

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 49,200
ESTIMATED OPENING YEAR = 2026 AADT = 65,400
ESTIMATED DESIGN YEAR = 2046 AADT = 111,600
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	9

5/25/2021 4:58:40 PM

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	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

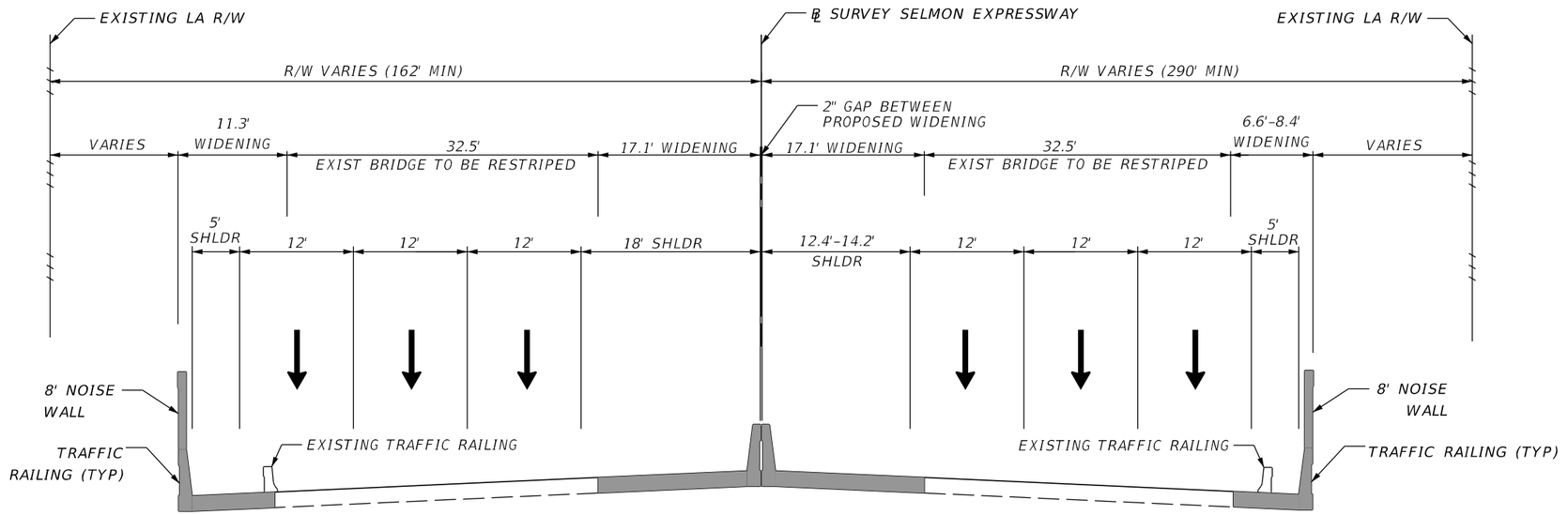
(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 9



TYPICAL SECTION No. 9
SR 618 (SELMON EXPRESSWAY)

OVER S. WILLOW AVE
STA 507+45.99 TO STA 509+35.72

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 49,200
ESTIMATED OPENING YEAR = 2026 AADT = 65,400
ESTIMATED DESIGN YEAR = 2046 AADT = 111,600
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	10

5/25/2021 4:58:41 PM

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

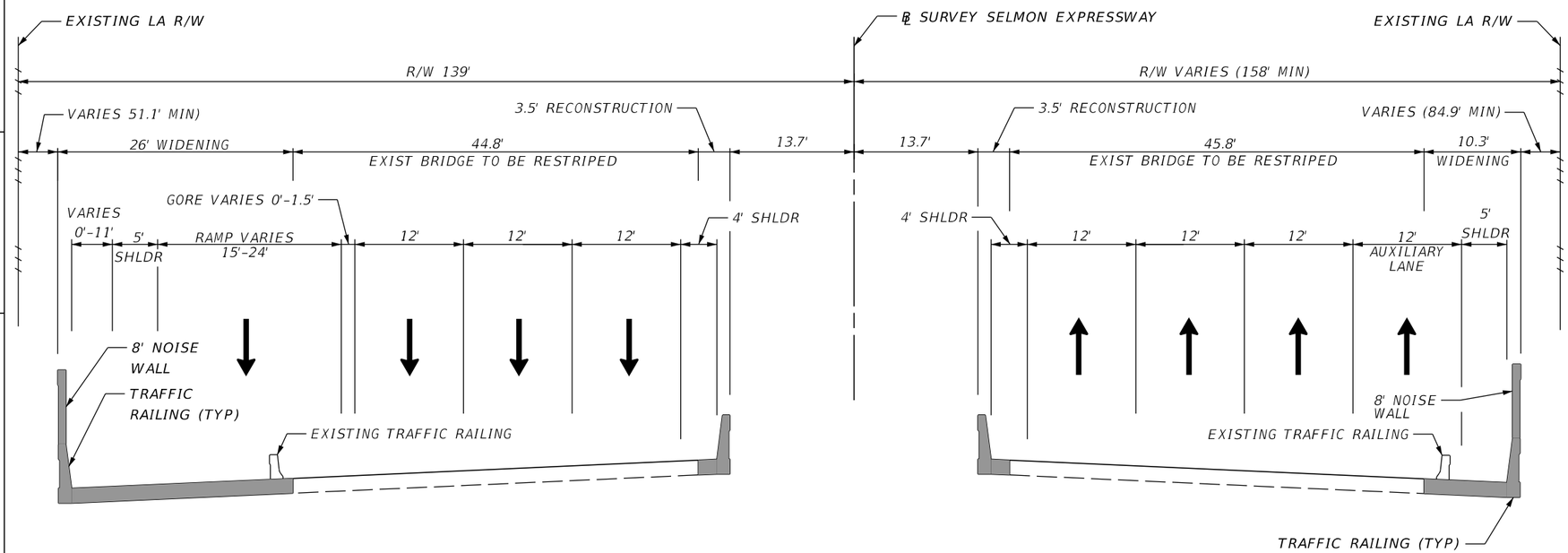
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
INSIDE SHOULDER WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 10



TYPICAL SECTION No. 10
SR 618 (SELMON EXPRESSWAY)

OVER S. BOULEVARD
STA 520+96.04 TO STA 522+68.02

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 65,000
ESTIMATED OPENING YEAR = 2026 AADT = 83,700
ESTIMATED DESIGN YEAR = 2046 AADT = 137,300
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	11

5/25/2021 4:58:42 PM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 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

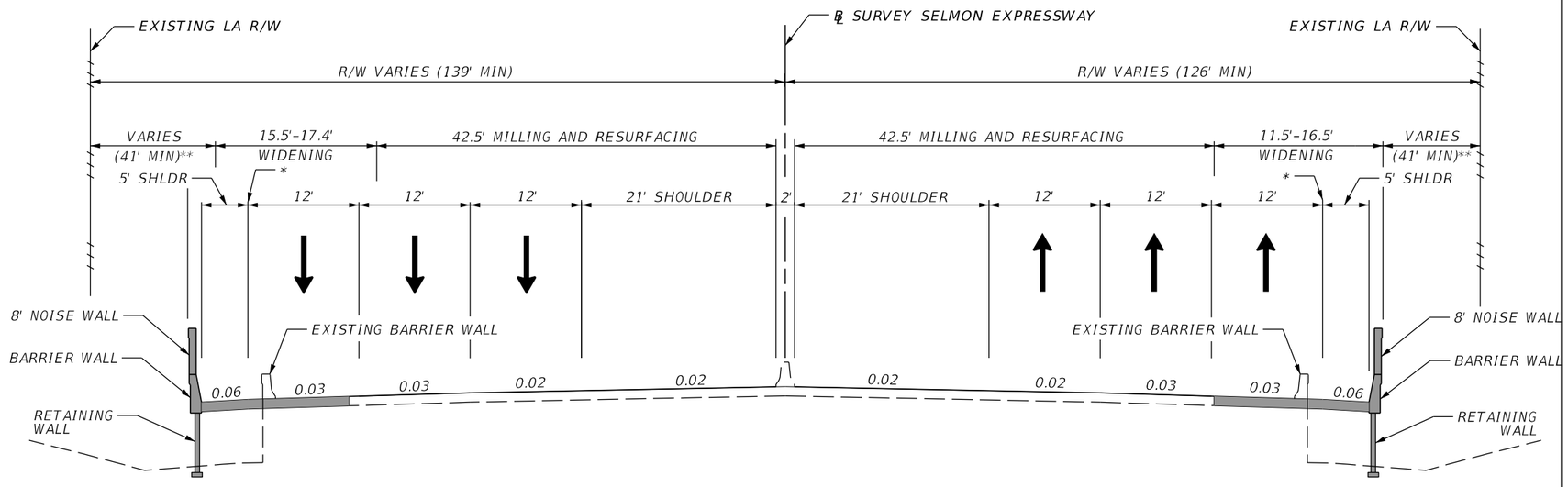
(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED
CROSS SLOPE - INSIDE SHOULDER

TYPICAL SECTION No. 11



TYPICAL SECTION No. 11
SR 618 (SELMON EXPRESSWAY)
STA 522+68.02 TO STA 536+05.09
STA 542+69.72 TO STA 549+01.38

*LIMITS OF AUXILIARY LANE OR RAMP AND GORE (**MIN DISTANCE TO R/W)
12' AUXILIARY LANE - STA 522+68.02 TO STA 529+32.64 EB (80.2')
12' AUXILIARY LANE - STA 522+68.02 TO STA 533+35.34 WB (48.0')
15' RAMP AND GORE TO 11' AUX. LANE - STA 545+54.86 TO STA 549+01.38 EB (18.3')
24' RAMP AND GORE - STA 545+86.01 TO STA 549+01.38 WB (34.0')

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 65,000
ESTIMATED OPENING YEAR = 2026 AADT = 83,700
ESTIMATED DESIGN YEAR = 2046 AADT = 137,300
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	12

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	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

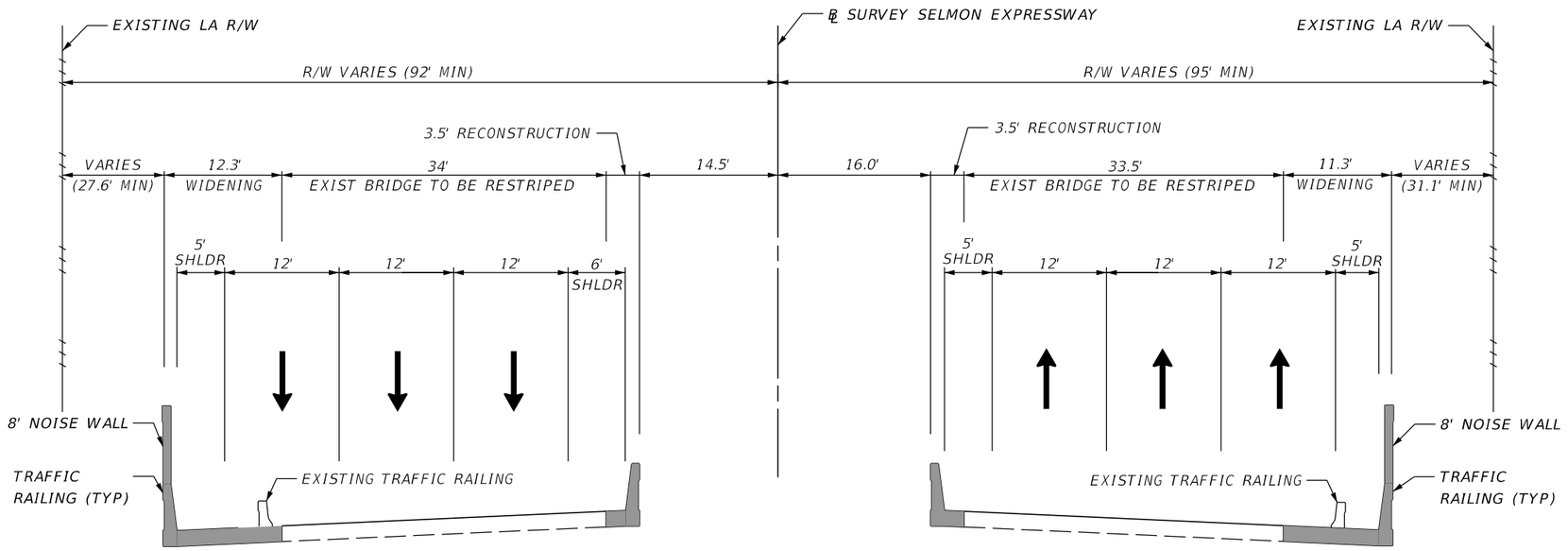
(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
INSIDE SHOULDER WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 12



TYPICAL SECTION No. 12
SR 618 (SELMON EXPRESSWAY)

OVER S. HYDE PARK AVE / S. PLANT AVE
STA 536+05.09 TO STA 542+69.72

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 65,000
ESTIMATED OPENING YEAR = 2026 AADT = 83,700
ESTIMATED DESIGN YEAR = 2046 AADT = 137,300
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	13

5/25/2021 4:58:44 PM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

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

FUNCTIONAL CLASSIFICATION

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

HIGHWAY SYSTEM

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

ACCESS CLASSIFICATION

(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	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

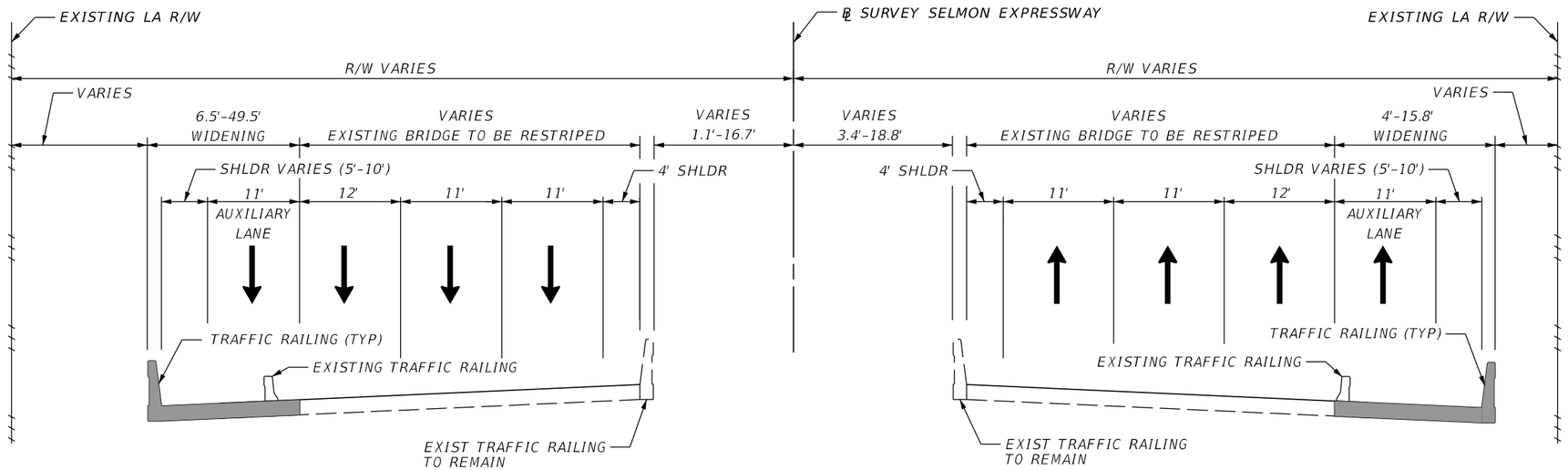
(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

DESIGN EXCEPTION:
INSIDE SHOULDER WIDTH
OUTSIDE SHOULDER WIDTH

DESIGN VARIATION:
DESIGN SPEED

TYPICAL SECTION No. 13



TYPICAL SECTION No. 13
SR 618 (SELMON EXPRESSWAY)

VIADUCT SEGMENTS 1 AND 2 TO END PROJECT
STA 549+01.38 TO STA 580+36.00

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 31,100
ESTIMATED OPENING YEAR = 2026 AADT = 46,400
ESTIMATED DESIGN YEAR = 2046 AADT = 90,100
K = 10% D = 57% T = 8 % (24 HOUR)
DESIGN HOUR T = 4 %
DESIGN SPEED = 50 MPH

THEA PROJECT ID	SHEET NO.
HI-0012	14

5/25/2021 4:58:45 PM

Appendix F
Preferred Alternative Construction Cost Estimate (LRE)

Preferred Alternative LRE Presented at Public Hearing

Date: 1/18/2021 6:05:13 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 8 Project Grand Total **$151,657,041.64**

Description: PD&E ESTIMATE FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 8 REPRESENTS THE PREFERRED ALTERNATIVE WITH THE UNIT COST UPDATE PRIOR TO THE PUBLIC HEARING. THE PREFERRED ALTERNATIVE PROVIDES 6 LANES AT GRADE WITH OUTSIDE WIDENING AND MINIMAL INSIDE BRIDGE WIDENING WITH WALLS ON BOTH SIDES OF THE EXPRESSWAY FOR THE ENTIRE STUDY LIMITS.

Sequence: 1 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.460 MI 2,429 LF

Description: SEQUENCE 1 REPRESENTS THE WORK FROM EAST OF DALE MABRY TO EAST OF EUCLID (STA 84+60 TO 115+00). THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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
Existing Front Slope L/R	2 to 1 / 2 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	0 to 1 / 0 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	2.23	AC	$31,259.83	$69,709.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	1,768.00	SY	$22.41	$39,620.88

	Comment: REMOVAL OF 2968 OF 3.5' WIDE SHOULDER GUTTER, 138 SF CONC FLUME AND 1796 LF OF BARRIER WALL (3' HEIGHT ASSUMED)			
120-6	EMBANKMENT	30,595.00 CY	$15.00	$458,925.00
	Comment: ASSUME AN AVERAGE OF 10' OF FILL FOR THE WIDENED AREAS (37909 SF) AND OUTSIDE PAVED SHOULDERS (44697 SF)			
	Earthwork Component Total			$568,255.30

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	31.30 / 37.10
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	3.30 / 11.60
Widened Inside Pavement Width L/R	0.70 / 0.00
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,194.99	SY	$6.73	$95,532.28
285-710	OPTIONAL BASE,BASE GROUP 10	4,477.09	SY	$26.82	$120,075.55
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	18,458.88	SY	$3.38	$62,391.01
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	926.18	TN	$115.00	$106,510.70
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,522.86	TN	$115.00	$175,128.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	168.40	TN	$142.14	$23,936.38
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	738.36	TN	$142.14	$104,950.49

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,529.50	TN	$115.00	$290,892.50
	Comment: FOR OVERBUILD				
339-1	MISCELLANEOUS ASPHALT PAVEMENT	119.80	TN	$240.00	$28,752.00
	Comment: 10782 SF = 1198 SY * 2" thick * 100 lb/SY-in				
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	497.00	LF	$20.63	$10,253.11
536-1-3	GUARDRAIL- ROADWAY, DOUBLE FACE	1,259.00	LF	$22.28	$28,050.52
536-8-13	APPROACH TRANS CONN TO RIGID BA, F&I, 3	2.00	EA	$2,976.03	$5,952.06
536-73	GUARDRAIL REMOVAL	1,929.00	LF	$3.54	$6,828.66
710-11-103	PAINTED PAVT MARK,STD,WHITE,SOLID,12"	0.19	GM	$2,166.66	$411.67
711-11-224		970.00	LF	$3.68	$3,569.60

	THERMOPLASTIC, STD, YELLOW, SOLID, 18"			
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.28 GM	$4,715.78	$6,036.20
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.20 GM	$1,554.00	$3,418.80
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.09 GM	$4,670.08	$5,090.39

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	310.00	EA	$6.61	$2,049.10
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.68	GM	$1,064.00	$3,915.52
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.68	GM	$448.57	$1,650.74

Roadway Component Total $1,085,396.18

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 / 15.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	5.40 / 13.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	5,143.66	SY	$26.82	$137,952.96
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,092.42	TN	$115.00	$125,628.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	198.62	TN	$142.14	$28,231.85
570-1-1	PERFORMANCE TURF	1,079.47	SY	$1.82	$1,964.64

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7		2,437.00	LF	$265.00	$645,805.00

CONC BARRIER, W/JUNCT SL, 36 SS

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	2,420.00	LF	$483.00	$1,168,860.00

Erosion Control Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,586.24	LF	$1.60	$8,937.98
104-11	FLOATING TURBIDITY BARRIER	46.00	LF	$9.79	$450.34
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	46.00	LF	$5.19	$238.74
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	18.00	EA	$113.29	$2,039.22
107-1	LITTER REMOVAL	3.34	AC	$40.27	$134.50
107-2	MOWING	3.34	AC	$58.12	$194.12
	Shoulder Component Total				$2,123,354.65

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
New Total Median Shoulder Width L/R	4.00 / 8.00
New Paved Median Shoulder Width L/R	2.50 / 7.30
Existing Total Median Shoulder Width L/R	8.00 / 8.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-702	OPTIONAL BASE,BASE GROUP 02	2,822.81	SY	$24.58	$69,384.67
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	290.92	TN	$115.00	$33,455.80
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	14.25	TN	$142.14	$2,025.50
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	683.00	LF	$150.00	$102,450.00
	Median Component Total				$207,315.97

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00	EA	$3,162.00	$3,162.00
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	10.00	EA	$5,859.17	$58,591.70
	Comment: 9 new barrier wall inlets				
425-1-885	INLETS ,BARRIER WALL ,RIG, C&G,PARTIAL	6.00	EA	$3,940.00	$23,640.00
	Comment: 6 shoulder gutter inlets to be converted to barrier wall inlet tops				
425-2-43	MANHOLES, P-7, PARTIAL	10.00	EA	$3,826.42	$38,264.20
	Comment: existing shoulder gutter inlets in widened area to be converted to MH tops				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	200.00	LF	$93.70	$18,740.00
	Comment: 20 LF per new inlet (10 new inlets)				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$20,695.00	$20,695.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.74
Description	POND EC-1 (SOUTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	596.93	CY	$9.39	$5,605.17
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	2.78
Description	POND EC-2 (NORTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	2,242.53	CY	$9.39	$21,057.36
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 3

Description	Value
Size	.5 AC
Multiplier	1
Depth	1.20
Description	POND EC-3 (NORTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	968.00	CY	$9.39	$9,089.52
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Drainage Component Total $665,563.74

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	$359.01	$359.01
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	$1,288.00	$15,456.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09

700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$41.95	$503.40
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47
	Signing Component Total				$21,941.57

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	$762.60	$7,626.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	$2.22	$13,320.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	10.00	EA	$6,413.00	$64,130.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	$700.95	$7,009.50
	Subcomponent Total				$92,085.50

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	2,800.00	LF	$14.00	$39,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$684.09	$2,736.36
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	800.00	LF	$1.19	$952.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	12.00	EA	$550.00	$6,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	30.00	EA	$1,300.00	$39,000.00
715-11-500	LUMINAIRE, REMOVE	16.00	EA	$165.00	$2,640.00
	Lighting Component Total				$188,401.86

BRIDGES COMPONENT

Bridge HIMESW

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	318.00
Width (LF)	20.50
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100308
Removal of Existing Structures area	2,226.00
Default Cost per SF	$135.00

Factored Cost per SF	$199.80
Final Cost per SF	**$210.73**
Basic Bridge Cost	**$1,302,496.20**
Description	INSIDE WIDENING OF SELMON WB OVER HIMES (17') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,226.00	SF	$34.00	$75,684.00
400-2-10	CONC CLASS II, APPROACH SLABS	45.56	CY	$533.96	$24,327.22
415-1-9	REINF STEEL- APPROACH SLABS	7,973.00	LB	$1.16	$9,248.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	1,751.00	SF	$1.71	$2,994.21
	Comment: FOR VERTICAL WALL ABUTMENTS TO REMAIN AT HIMES OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	318.00	LF	$109.00	$34,662.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER HIMES				
	Bridge HIMESW Total				$1,449,412.31

Bridge HIMESE

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	321.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100309
Removal of Existing Structures area	2,247.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$204.90**
Basic Bridge Cost	**$1,859,938.20**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER HIMES. 3.5' OF BRIDGE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,247.00	SF	$34.00	$76,398.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge HIMESE Total				$1,983,825.90

Bridge EUCLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	20.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100310
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$190.04**
Basic Bridge Cost	**$769,918.50**
Description	INSIDE WIDENING OF SELMON WB OVER EUCLID (17') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	45.56	CY	$533.96	$24,327.22
415-1-9	REINF STEEL- APPROACH SLABS	7,973.00	LB	$1.16	$9,248.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,015.00	SF	$1.71	$6,865.65
	Comment: FOR VERTICAL WALL ABUTMENTS TO REMAIN AT EUCLID OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	214.00	LF	$109.00	$23,326.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER EUCLID				
	Bridge EUCLWB Total				$884,618.05

Bridge EUCLEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100311
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.15**
Basic Bridge Cost	**$1,089,153.00**
Description	

INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER EUCLID. 3.5' OF BRIDGE REMOVAL ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32
	Bridge EUCLEB Total				$1,187,574.70
	Bridges Component Total				$5,505,430.96

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	3,322.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	49,830.00	SF	$29.35	$1,462,510.50

Retaining Wall 2

Description	Value
Length	79.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,975.00	SF	$29.35	$57,966.25
	Retaining Walls Component Total				$1,520,476.75

Sequence 1 Total $11,886,136.98

Sequence: 2 WDR - Widen/Resurface, Divided, Rural **Net Length:** 2.102 MI
11,100 LF

Description: SEQUENCE 2 REPRESENTS THE WORK FROM EAST OF EUCLID TO WEST OF WILLOW (STA 115+00 TO 245+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (DOES NOT INCLUDE BRIDGE LENGTHS).

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	0.000
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	10.19	AC	$31,259.83	$318,537.67

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	9,713.00	SY	$22.41	$217,668.33
	Comment: REMOVAL OF 15405 LF OF 3.5' WIDE SHOULDER GUTTER AND 11169 LF OF BARRIER WALL (3' HEIGHT)				
120-6	EMBANKMENT	126,787.00	CY	$15.00	$1,901,805.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (226111 SF) AND OUTSIDE SHOULDER (116214 SF)				
	Earthwork Component Total				$2,438,011.00

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	43.40 / 46.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	10.50 / 9.80
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	42,920.56	SY	$6.73	$288,855.37
285-710	OPTIONAL BASE,BASE GROUP 10	25,851.00	SY	$26.82	$693,323.82
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	110,261.43	SY	$3.38	$372,683.63
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	5,508.14	TN	$115.00	$633,436.10
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	9,096.57	TN	$115.00	$1,046,105.55
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	4,410.46	TN	$142.14	$626,902.78
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,001.48	TN	$142.14	$142,350.37

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	11,559.10	TN	$115.00	$1,329,296.50
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	5,923.00	LF	$3.54	$20,967.42
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.31	GM	$8,831.83	$2,737.87
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	8,788.00	LF	$3.68	$32,339.84
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	5.22	GM	$4,715.78	$24,616.37
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	9.85	GM	$1,554.00	$15,306.90
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.15	GM	$2,848.01	$427.20
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	5.06	GM	$4,670.08	$23,630.60

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,419.00	EA	$6.61	$9,379.59
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	16.82	GM	$1,064.00	$17,896.48
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	16.82	GM	$448.57	$7,544.95

Roadway Component Total $5,287,801.34

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	7.00 / 7.50
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	5.00 / 5.40
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	13,640.84	SY	$26.82	$365,847.33
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,821.90	TN	$115.00	$324,518.50
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	513.07	TN	$142.14	$72,927.77
570-1-1	PERFORMANCE TURF	4,933.40	SY	$1.82	$8,978.79

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	1,092.00	LF	$527.00	$575,484.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	21,044.00	LF	$483.00	$10,164,252.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,530.33	LF	$1.60	$40,848.53
104-11	FLOATING TURBIDITY BARRIER	210.23	LF	$9.79	$2,058.15
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	210.23	LF	$5.19	$1,091.09
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,917.00	$8,751.00
104-18	INLET PROTECTION SYSTEM	76.00	EA	$113.29	$8,610.04
107-1	LITTER REMOVAL	15.28	AC	$40.27	$615.33
107-2	MOWING	15.28	AC	$58.12	$888.07

Shoulder Component Total $11,574,870.60

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00

Performance Turf Width	0.00
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	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,980.00	LF	$150.00	$447,000.00
	Median Component Total				$447,000.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00	EA	$3,162.00	$3,162.00
	Comment: 1 MEDIAN INLET TOPS TO BE REPLACED (THE REST ARE IN SECTIONS OF NEW BARRIER WALL CONSTRUCTED AS PART OF MEDIAN SAFETY PROJECT)				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	56.00	EA	$5,859.17	$328,113.52
	Comment: 54 NEW BARRIER WALL INLETS				
425-2-43	MANHOLES, P-7, PARTIAL	56.00	EA	$3,826.42	$214,279.52
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH in areas of widening				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	1,120.00	LF	$93.70	$104,944.00
	Comment: 20 LF PER NEW INLET ASSUMED				
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	10,824.00	LF	$126.60	$1,370,318.40
	Comment: NEW TRUNKLINE TO REPLACE OUTSIDE DITCH AS NEEDED				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-XXX	UNDERGROUND VAULT COMPONENTS	1.00	LS	$982,000.00	$982,000.00
	Comment: Cost estimate for the Palma Ceia basin underground stormwater vault. Includes 2,450' of 72? Duromax Pipe, HP Bell & Spigot Joint, 72? Bulkheads (46), 36? Risers (44), 30? Pipe Stubs (44) 30? Pi				
430-XXX	DRAINAGE MISC	1.00	LS	$299,402.00	$299,402.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS OR UNDERGROUND VAULT) ADDED TO ACCOUNT FOR SHOULDER SPREAD				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND EC-4 (SOUTH OF EL PRADO AVE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND EC-5 (NORTH OF EL PRADO AVE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 3

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	EXPANSION OF EXISTING POND ADJACENT TO SWANN AVE

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-982-138	MITERED END SECT, OPTIONAL RD, 36" CD	2.00	EA	$3,383.12	$6,766.24

Retention Basin 4

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND PC-1 (SOUTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 5

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND PC-2 (NORTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30

425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00 EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00 LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00 SY	$1.82	$4,404.40
	Drainage Component Total			$3,924,184.57

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$359.01	$1,795.05
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	51.00	AS	$1,288.00	$65,688.00
700-1-50	SINGLE POST SIGN, RELOCATE	5.00	AS	$302.09	$1,510.45
700-1-60	SINGLE POST SIGN, REMOVE	51.00	AS	$41.95	$2,139.45
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,556.60	$22,783.00
700-2-60	MULTI- POST SIGN, REMOVE	5.00	AS	$764.47	$3,822.35

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	6.00	EA	$1,295.14	$7,770.84
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: SIGN PANEL REPLACEMENT ON OH SIGN EAST OF EL PRADO				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	5.00	EA	$5,193.94	$25,969.70
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	6.00	EA	$305.00	$1,830.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$243.15	$243.15
	Comment: REMOVAL OF EXISTING SIGN PANEL ON OH SPAN STR EAST OF EL PRADO				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	5.00	EA	$700.00	$3,500.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	4.00	EA	$47,603.00	$190,412.00
	Comment: REPLACEMENT OF OH CANT SIGNS				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00

	Comment: REPLACEMENT OF OH SPAN SIGN STRUCTURE EAST OF EL PRADO				
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	5.00	EA	$5,114.17	$25,570.85
	Comment: REMOVAL OF OH CANTILEVER SIGN STRUCTURES (4 WB AND 1 EB)				
	Signing Component Total				$532,178.84

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	30

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	30.00	EA	$762.60	$22,878.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	18,000.00	LF	$2.22	$39,960.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	30.00	EA	$6,413.00	$192,390.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	30.00	EA	$700.95	$21,028.50
	Subcomponent Total				$276,256.50

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	7,800.00	LF	$14.00	$109,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	12.00	EA	$684.09	$8,209.08
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,800.00	LF	$1.19	$2,142.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	57.00	EA	$550.00	$31,350.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	12.00	EA	$1,297.00	$15,564.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	78.00	EA	$1,300.00	$101,400.00
715-11-500	LUMINAIRE, REMOVE	48.00	EA	$165.00	$7,920.00
	Lighting Component Total				$552,041.58

BRIDGES COMPONENT

Bridge ELPRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	29.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100312

Removal of Existing Structures area	6,871.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$201.98**
Basic Bridge Cost	**$1,389,433.50**
Description	INSIDE (17') AND OUTSIDE (12') WIDNENING OF SELMON WB OVER EL PRADO. REMOVAL OF 3.5' OF EXISTING BRIDGE ON INSIDE TO WIDEN (273 LF) AND ON OUTSIDE FOR WIDENING/RAIL REPLACEMENT (1690 LF)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	6,871.00	SF	$34.00	$233,614.00
400-2-10	CONC CLASS II, APPROACH SLABS	64.44	CY	$533.96	$34,408.38
415-1-9	REINF STEEL- APPROACH SLABS	11,277.00	LB	$1.16	$13,081.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,242.00	SF	$1.71	$7,253.82
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT EL PRADO OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	1,421.00	LF	$109.00	$154,889.00
	Comment: REPLACEMENT OF OUTSIDE BRIDGE RAILING FOR WB RAMP BRIDGE OVER CSX				
	Bridge ELPRWB Total				$1,832,680.02

Bridge ELPREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	33.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100313
Removal of Existing Structures area	1,911.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$181.50**
Basic Bridge Cost	**$1,581,079.50**
Description	INSIDE (17') AND OUTSIDE (16') WIDNENING OF SELMON EB OVER EL PRADO. REMOVING 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,911.00	SF	$34.00	$64,974.00
400-2-10	CONC CLASS II, APPROACH SLABS	73.33	CY	$533.96	$39,155.29
415-1-9	REINF STEEL- APPROACH SLABS	12,832.75	LB	$1.16	$14,885.99

Bridge ELPREB Total $1,700,094.78

Bridge B2BWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	719.00
Width (LF)	10.90
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100314
Removal of Existing Structures area	5,926.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$213.98**
Basic Bridge Cost	**$1,565,852.58**
Description	OUTSIDE WIDENING(ONLY WIDENING WEST OF GORE) OF SELMON WB BRIDGE OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXIST BRIDGE WHERE WIDENED (240') & WHERE RAIL IS BEING REPL (1453')

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,926.00	SF	$34.00	$201,484.00
400-2-10	CONC CLASS II, APPROACH SLABS	24.22	CY	$533.96	$12,932.51
415-1-9	REINF STEEL- APPROACH SLABS	4,238.50	LB	$1.16	$4,916.66

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	6,618.00	SF	$1.71	$11,316.78
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT MCDILL/BAY TO BAY OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	752.00	LF	$109.00	$81,968.00
	Comment: REPLACEMENT OF EXISTING BRIDGE RAILING ON SELMON WB OVER BAY TO BAY/MCDILL AND CSX				

Bridge B2BWB Total $1,878,470.53

Bridge B2BEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	754.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100315
Removal of Existing Structures area	5,653.00
Default Cost per SF	$135.00

Factored Cost per SF	$199.80
Final Cost per SF	**$209.82**
Basic Bridge Cost	**$2,335,062.60**
Description	OUTSIDE (12') WIDNENING OF SELMON EB OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXISTING BRIDGE ON INSIDE FOR RAIL REPLACEMENT (773') AND OUTSIDE FOR WIDENING(842').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,653.00	SF	$34.00	$192,202.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	842.00	LF	$109.00	$91,778.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER BAY TO BAY				
	Bridge B2BEB Total				$2,644,423.50

Bridge MISSWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100316
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$196.26**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,314.00 SF	$1.71	$7,376.94
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT MISSISSIPPI OVERPASS			
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00 LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER MISSISSIPP1			
	Bridge MISSWB Total			$505,114.34

Bridge MISSEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100317
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.17**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00	LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER MISSISSIPP1				
	Bridge MISSEB Total				$497,737.40

Bridge HOWAWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	301.00
Width (LF)	18.50
Type	Low Level, Widen

Cost Factor	1.30
Structure No.	100318
Removal of Existing Structures area	2,433.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$188.61**
Basic Bridge Cost	**$977,271.75**
Description	OUTSIDE WIDENING (15' AVG. PER LENGTH) AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,433.00	SF	$34.00	$82,722.00
400-2-10	CONC CLASS II, APPROACH SLABS	41.11	CY	$533.96	$21,951.10
415-1-9	REINF STEEL- APPROACH SLABS	7,194.25	LB	$1.16	$8,345.33

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	5,225.00	SF	$1.71	$8,934.75
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT HOWARD/WATROUS OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	310.00	LF	$109.00	$33,790.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER HOWARD/WATROUS				
	Bridge HOWAWB Total				$1,133,014.93

Bridge HOWAEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	292.00
Width (LF)	13.60
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100319
Removal of Existing Structures area	2,044.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$213.42**
Basic Bridge Cost	**$793,445.76**
Description	OUTSIDE WIDENING (10.1' AVG. PER LENGTH) AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,044.00	SF	$34.00	$69,496.00
400-2-10	CONC CLASS II, APPROACH SLABS	30.22	CY	$533.96	$16,136.27
415-1-9	REINF STEEL- APPROACH SLABS	5,288.50	LB	$1.16	$6,134.66

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	292.00	LF	$109.00	$31,828.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER HOWARD/WATROUS				
	Bridge HOWAEB Total				$917,040.69

Bridge MORRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100320
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.05**
Basic Bridge Cost	**$603,895.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00	SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,300.00	SF	$1.71	$7,353.00
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT MORRISON OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	222.00	LF	$109.00	$24,198.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER MORRISON				
	Bridge MORRWB Total				$713,663.40

Bridge MORREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100321
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$189.91**
Basic Bridge Cost	**$603,895.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00	SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	222.00	LF	$109.00	$24,198.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WE OVER MORRISON				
	Bridge MORREB Total				$706,310.40

Bridge SWANWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100322
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.30**
Basic Bridge Cost	**$593,014.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00	SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,453.00	SF	$1.71	$7,614.63
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT SWANN OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	218.00	LF	$109.00	$23,762.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER SWANN				
	Bridge SWANWB Total				$701,656.03

Bridge SWANEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100323
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$190.04**
Basic Bridge Cost	**$593,014.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00	SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	218.00	LF	$109.00	$23,762.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER SWANN				

	Bridge SWANEB Total	$694,041.40
	Bridges Component Total	$13,924,247.42

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	21,753.00
Begin height	5.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	326,295.00	SF	$29.35	$9,576,758.25

Retaining Wall 2

Description	Value
Length	335.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	8,375.00	SF	$29.35	$245,806.25

	Retaining Walls Component Total	$9,822,564.50
Sequence 2 Total		$48,502,899.85

Sequence: 3 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.824 MI
4,352 LF

Description: SEQUENCE 3 REPRESENTS THE WORK FROM WEST OF WILLOW TO HYDE PARK (STA 245+00 TO 236+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS NOT INCLUDED).

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	0.000
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	4.00	AC	$31,259.83	$125,039.32

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	2,882.00	SY	$22.41	$64,585.62
	Comment: REMOVAL OF 5420 LF OF SHLDR GUTTER * 3.5' AND 2323 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	62,767.00	CY	$15.00	$941,505.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (110272 SF) AND OUTSIDE SHOULDER (59199 SF)				
	Earthwork Component Total				$1,131,129.94

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	48.30 / 53.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	15.00 / 10.30
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	21,903.94	SY	$6.73	$147,413.52
285-710	OPTIONAL BASE,BASE GROUP 10	12,552.46	SY	$26.82	$336,656.98
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	48,981.66	SY	$3.38	$165,558.01
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,691.33	TN	$115.00	$309,502.95
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,040.99	TN	$115.00	$464,713.85
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,959.27	TN	$142.14	$278,490.64
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	489.33	TN	$142.14	$69,553.37

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,532.00	TN	$115.00	$521,180.00
	Comment: FOR OVERBUILD				
350-3-1	PLAIN CEMENT CONC PAVT, 6"	1,920.00	SY	$65.00	$124,800.00
	Comment: CONCRETE SLOPED ABUTMENT TO TIE INTO EXISTING SLOPING ABUTMENT AT THE PLATT, WILLOW AND BOULEVARD OVERPASSES				
536-73	GUARDRAIL REMOVAL	5,940.00	LF	$3.54	$21,027.60
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.42	GM	$8,831.83	$3,709.37
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	42.00	LF	$3.38	$141.96
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	3,637.00	LF	$3.68	$13,384.16
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	2.42	GM	$4,715.78	$11,412.19
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.80	GM	$1,554.00	$5,905.20
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.39	GM	$2,848.01	$1,110.72
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	2.09	GM	$4,670.08	$9,760.47

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	556.00	EA	$6.61	$3,675.16

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.59	GM	$1,064.00	$7,011.76
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.59	GM	$448.57	$2,956.08

Roadway Component Total $2,497,963.99

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	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	6.50 / 7.10
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	6,895.15	SY	$26.82	$184,927.92
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,446.72	TN	$115.00	$166,372.80
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	263.04	TN	$142.14	$37,388.51
570-1-1	PERFORMANCE TURF	1,934.12	SY	$1.82	$3,520.10

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	1,364.00	LF	$265.00	$361,460.00
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	230.00	LF	$527.00	$121,210.00
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	4,720.00	SF	$53.06	$250,443.20
	Comment: 236' long x 20' high at RW line				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	8,872.00	LF	$483.00	$4,285,176.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,009.08	LF	$1.60	$16,014.53
104-11	FLOATING TURBIDITY BARRIER	82.42	LF	$9.79	$806.89
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	82.42	LF	$5.19	$427.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00

104-18	INLET PROTECTION SYSTEM	43.00 EA	$113.29	$4,871.47
107-1	LITTER REMOVAL	5.99 AC	$40.27	$241.22
107-2	MOWING	5.99 AC	$58.12	$348.14
	Shoulder Component Total			$5,436,125.54

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,070.00 LF	$150.00	$310,500.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
102-71-15	TEMPORARY BARRIER, F&I, ANCHORED	177.00 LF	$25.41	$4,497.57
	Median Component Total			$314,997.57

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	20.00 EA	$5,859.17	$117,183.40
	Comment: 20 new barrier wall inlets in the areas of widening			
425-2-41	MANHOLES, P-7, <10'	20.00 EA	$5,347.00	$106,940.00
	Comment: EXISTING SHOULDER GUTTER OR BARRIER WALL INLETS TO BE CONVERTED TO MH			
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	400.00 LF	$93.70	$37,480.00
	Comment: 20 LF per new inlet (20 new inlets)			
430-185-124	PIPE CULV,OPT MATL, ROUND, JACK&BORE,24"	285.00 LF	$656.00	$186,960.00
	Comment: CONNECTING PONDS ON EITHER SIDE OF WILLOW AVE			

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00 LS	$60,572.00	$60,572.00

Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	2.40
Description	POND SC-1 (WEST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$31,259.83	$31,259.83
120-1	REGULAR EXCAVATION	3,872.00	CY	$9.39	$36,358.08
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$19.51	$16,388.40
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	4,840.00	SY	$1.82	$8,808.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	2,593.00	CY	$9.39	$24,348.27
	Comment: REMOVAL OF EXISTING FILL SLOPE FOR POND; ASSUME 200 SF PER LINEAR FOOT OF ROADWAY ADJACENT TO POND (350' ADJACENT TO POND SC-WEST)				

Retention Basin 2

Description	Value
Size	2 AC
Multiplier	1
Depth	5.20
Description	POND BW-1 (EAST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$31,259.83	$62,519.66
120-1	REGULAR EXCAVATION	16,778.67	CY	$9.39	$157,551.71
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60

430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	$19.51	$23,021.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	9,680.00	SY	$1.82	$17,617.60

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	3,333.00	CY	$9.39	$31,296.87
	Comment: FOR REMOVAL OF FILL SLOPE ADJACENT TO POND SC-EAST; ASSUME 200 SF PER FOOT OF ROADWAY ADJACENT TO POND (450' FOR POND SC-EAST)				
	Drainage Component Total				$1,165,971.64

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	$359.01	$718.02
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00	AS	$1,288.00	$25,760.00
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	$302.09	$604.18
700-1-60	SINGLE POST SIGN, REMOVE	20.00	AS	$41.95	$839.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,556.60	$9,113.20
700-2-60	MULTI- POST SIGN, REMOVE	2.00	AS	$764.47	$1,528.94

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$1,178.64	$1,178.64
	Comment: SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,295.14	$2,590.28
	Comment: SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	2.00	EA	$5,193.94	$10,387.88
	Comment: NEW SIGN PANELS FOR OH SIGN STRUCTURES WEST OF WILLOW				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$138.01	$138.01
	Comment: REMOVAL OF SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	2.00	EA	$700.00	$1,400.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00

	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF WILLOW			
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00 EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF WILLOW			
	Signing Component Total			$240,536.15

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	15

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	15.00	EA	$762.60	$11,439.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	9,000.00	LF	$2.22	$19,980.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	15.00	EA	$6,413.00	$96,195.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	15.00	EA	$700.95	$10,514.25
	Subcomponent Total				$138,128.25

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	4,000.00	LF	$14.00	$56,000.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	6.00	EA	$684.09	$4,104.54
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,000.00	LF	$1.19	$1,190.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	32.00	EA	$550.00	$17,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	6.00	EA	$1,297.00	$7,782.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	42.00	EA	$1,300.00	$54,600.00
715-11-500	LUMINAIRE, REMOVE	22.00	EA	$165.00	$3,630.00
	Lighting Component Total				$283,034.79

BRIDGES COMPONENT

Bridge PLATWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	228.00
Width (LF)	56.00
Type	Low Level
Cost Factor	1.04
Structure No.	100324

Removal of Existing Structures area	1,596.00
Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$140.25**
Basic Bridge Cost	**$1,659,840.00**
Description	INSIDE AND OUTSIDE WIDENING OF SELMON WB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,596.00	SF	$34.00	$54,264.00
400-2-10	CONC CLASS II, APPROACH SLABS	124.44	CY	$533.96	$66,445.98
415-1-9	REINF STEEL- APPROACH SLABS	21,777.00	LB	$1.16	$25,261.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	22,874.00	SF	$1.71	$39,114.54
	Comment: CLEANING AND COATING OF CONCRETE SLOPING ABUTMENT TO REMAIN AT THE PLATT OVERPASS				
	Bridge PLATWB Total				$1,844,925.84

Bridge PLATEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	224.00
Width (LF)	25.20
Type	Low Level
Cost Factor	1.04
Structure No.	100325
Removal of Existing Structures area	1,568.00
Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$137.31**
Basic Bridge Cost	**$733,824.00**
Description	INSIDE AND OUTSIDE WIDENING OF SELMON EB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,568.00	SF	$34.00	$53,312.00
400-2-10	CONC CLASS II, APPROACH SLABS	56.00	CY	$533.96	$29,901.76
415-1-9	REINF STEEL- APPROACH SLABS	9,800.00	LB	$1.16	$11,368.00
	Bridge PLATEB Total				$828,405.76

Bridge WILLWB

Description	Value

Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	15.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100326
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$199.60**
Basic Bridge Cost	**$450,157.50**
Description	OUTSIDE WIDENING (11.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	33.33	CY	$533.96	$17,796.89
415-1-9	REINF STEEL- APPROACH SLABS	5,832.75	LB	$1.16	$6,765.99

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	10,882.00	SF	$1.71	$18,608.22
	Comment: CLEANING AND SEALING OF THE SLOPING CONCRETE ABUTMENTS AT THE WILLOW OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	171.00	LF	$109.00	$18,639.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER WILLOW				
	Bridge WILLWB Total				$552,665.60

Bridge WILLEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100327
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.11**
Basic Bridge Cost	**$465,162.75**
Description	OUTSIDE WIDENING (7.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (8')OF SELMON EB BRIDGE

OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	171.00	LF	$109.00	$18,639.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER WILLOW				
	Bridge WILLEB Total				$549,880.65

Bridge SOUTWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	29.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100328
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$194.19**
Basic Bridge Cost	**$797,296.50**
Description	OUTSIDE WIDENING (26') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	65.56	CY	$533.96	$35,006.42
415-1-9	REINF STEEL- APPROACH SLABS	11,473.00	LB	$1.16	$13,308.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	11,587.00	SF	$1.71	$19,813.77
	Comment: CLEANING AND COATING OF THE CONCRETE SLOPED ABUTMENT TO REMAIN AT S. BLVD OVERPASS				
521-5-13		154.00	LF	$109.00	$16,786.00

	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE **Comment:** REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER SOUTH	
	Bridge SOUTWB Total	$918,863.37

Bridge SOUTEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100329
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.92**
Basic Bridge Cost	**$378,378.00**
Description	OUTSIDE WIDENING (10.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.11	CY	$533.96	$16,611.50
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25	LB	$1.16	$6,315.33

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE **Comment:** REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER SOUTH	154.00	LF	$109.00	$16,786.00
	Bridge SOUTEB Total				$454,742.83
	Bridges Component Total				$5,149,484.05

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	7,842.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	117,630.00	SF	$29.35	$3,452,440.50

Retaining Wall 2

Description	Value
Length	100.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,500.00	SF	$29.35	$73,375.00

Retaining Walls Component Total $3,525,815.50

Sequence 3 Total $19,745,059.17

Sequence: 4 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.119 MI
630 LF

Description: SEQUENCE 4 REPRESENTS THE WORK FROM HYDE PARK TO THE DOWNTOWN VIADUCT BRIDGE (STA 536+00 TO 549+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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	0.58	AC	$31,259.83	$18,130.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	1,132.00	SY	$22.41	$25,368.12
	Comment: REMOVAL OF 1239 LF SHLDR GUTTER * 3.5', 518 LF OF 8' WIDE CONC DITCH AND 569 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	11,570.00	CY	$15.00	$173,550.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (17889 SF) AND AREA OF OUTSIDE SHOULDER (13350 SF)				
	Earthwork Component Total				$217,048.82

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	41.70 / 38.90
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	18.60 / 9.80
Widened Inside Pavement Width L/R	19.20 / 21.10
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,292.04	SY	$6.73	$42,345.43
285-710	OPTIONAL BASE,BASE GROUP 10	4,900.65	SY	$26.82	$131,435.43
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	5,641.14	SY	$3.38	$19,067.05
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	465.39	TN	$115.00	$53,519.85
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,057.82	TN	$115.00	$121,649.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	225.65	TN	$142.14	$32,073.89
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	192.33	TN	$142.14	$27,337.79

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	656.10	TN	$115.00	$75,451.50
	Comment: FOR OVERBUILD				
350-3-1	PLAIN CEMENT CONC PAVT, 6"	225.00	SY	$65.00	$14,625.00
	Comment: CONCRETE SLOPED ABUTMENT TO TIE INTO EXISTING SLOPED ABUTMENT ON THE WEST SIDE OF THE HYDE PARK/PLANT OVERPASS				
536-73	GUARDRAIL REMOVAL	2,283.00	LF	$3.54	$8,081.82
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.17	GM	$8,831.83	$1,501.41
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.51	GM	$4,715.78	$2,405.05
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.09	GM	$1,554.00	$1,693.86
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.50	GM	$4,670.08	$2,335.04

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	81.00	EA	$6.61	$535.41
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.95	GM	$1,064.00	$1,010.80
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.95	GM	$448.57	$426.14

Roadway Component Total $535,494.77

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	13.00 / 8.20
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	13.00 / 8.20
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	1,529.97	SY	$26.82	$41,033.80
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	326.43	TN	$115.00	$37,539.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	59.35	TN	$142.14	$8,436.01

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	536.00	LF	$265.00	$142,040.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	1,292.00	LF	$483.00	$624,036.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,448.78	LF	$1.60	$2,318.05
104-11	FLOATING TURBIDITY BARRIER	11.93	LF	$9.79	$116.79
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	11.93	LF	$5.19	$61.92
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.87	AC	$40.27	$35.03
107-2	MOWING	0.87	AC	$58.12	$50.56

Shoulder Component Total $859,717.51

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00

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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	632.00	LF	$150.00	$94,800.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-71-15	TEMPORARY BARRIER, F&I, ANCHORED	251.00	LF	$25.41	$6,377.91

Median Component Total $101,177.91

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	3.00	EA	$3,162.00	$9,486.00
	Comment: 3 median barrier wall inlet tops				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	4.00	EA	$5,859.17	$23,436.68
	Comment: 4 NEW BARRIER WALL INLETS				
425-2-41	MANHOLES, P-7, <10'	4.00	EA	$5,347.00	$21,388.00
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	80.00	LF	$93.70	$7,496.00
	Comment: 20 LF PER NEW INLET ASSUMED (4 NEW INLETS)				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$9,163.00	$9,163.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	6.00
Description	POND BW-2 (EAST OF SOUTH BLVD.)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	4,840.00	CY	$9.39	$45,447.60
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 2

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	POND BW-3 (WEST OF HYDE PARK)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$31,259.83	$31,259.83
120-1	REGULAR EXCAVATION	9,680.00	CY	$9.39	$90,895.20
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$19.51	$16,388.40
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	4,840.00	SY	$1.82	$8,808.80
	Drainage Component Total				$494,670.45

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	$359.01	$359.01
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,288.00	$3,864.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	3.00	AS	$41.95	$125.85
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$1,178.64	$1,178.64
	Comment: REPLACEMENT OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,295.14	$2,590.28
	Comment: REPLACEMENT OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	1.00	EA	$5,193.94	$5,193.94
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$138.01	$138.01
	Comment: REMOVAL OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$243.15	$243.15
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	1.00	EA	$700.00	$700.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00	EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
	Signing Component Total				$209,895.04

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$762.60	$4,575.60
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	$2.22	$7,992.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	$6,413.00	$38,478.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$700.95	$4,205.70
	Subcomponent Total				$55,251.30

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	1,800.00 LF	$14.00	$25,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00 EA	$684.09	$2,736.36
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00 LF	$1.19	$714.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	11.00 EA	$550.00	$6,050.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00 EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	24.00 EA	$1,300.00	$31,200.00
715-11-500	LUMINAIRE, REMOVE	12.00 EA	$165.00	$1,980.00
	Lighting Component Total			$128,319.66

BRIDGES COMPONENT

Bridge HYDEWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100330
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.84**
Basic Bridge Cost	**$1,633,905.00**
Description	AND OUTSIDE WIDENING (10.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5') OF SELMON WB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00 SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.11 CY	$533.96	$16,611.50
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25 LB	$1.16	$6,315.33

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	5,956.00 SF	$1.71	$10,184.76
	Comment: CLEANING 4357 OF SLOPING ABUTMENT AND 1599 SF OF VERTICAL WALL ABUTMENTS TO REMAIN AT THE HYDE PARK/PLANT OVERPASS			
521-5-13		665.00 LF	$109.00	$72,485.00

CONC TRAF RAIL- BRIDGE, 36"
SING SLOPE

Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER HYDE PARK/PLANT

Bridge HYDEWB Total $1,897,771.59

Bridge HYDEEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	13.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100331
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.04**
Basic Bridge Cost	**$1,575,551.25**
Description	OUTSIDE WIDNEING (10') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5') OF SELMON EB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00	SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	30.00	CY	$533.96	$16,018.80
415-1-9	REINF STEEL- APPROACH SLABS	5,250.00	LB	$1.16	$6,090.00

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE **Comment:** REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER HYDE PARK/PLANT	665.00	LF	$109.00	$72,485.00

Bridge HYDEEB Total $1,828,415.05

Bridges Component Total $3,726,186.64

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	1,477.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	22,155.00	SF	$29.35	$650,249.25

Retaining Wall 2

Description	Value
Length	56.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,400.00	SF	$29.35	$41,090.00

Retaining Walls Component Total $691,339.25

Sequence 4 Total $6,963,850.05

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.796 MI
4,200 LF

Description: SEQUENCE 5 REPRESENTS THE WORK ON THE SELMON EXPRESSWAY DOWNTOWN VIADUCT BRIDGE (STA 549+00 TO 591+00)

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	1,286.00	CY	$15.00	$19,290.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING AND OUTSIDE PAVED SHOULDER (WB BROREIN ON RAMP) (3471 SF)				
	Earthwork Component Total				$19,290.00

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	580.00	SY	$6.73	$3,903.40
	Comment: WB BROREIN ON RAMP WIDENING (INCLUDES SHOULDER PAVEMENT WHICH IS ASSUMED TO BE FULL DEPTH)				
285-710	OPTIONAL BASE,BASE GROUP 10	505.00	SY	$26.82	$13,544.10
	Comment: WB BROREIN ON RAMP WIDENING (INCLUDES SHOULDER PAVEMENT WHICH IS ASSUMED TO BE FULL DEPTH)				
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	360.00	SY	$3.38	$1,216.80
	Comment: WB BROREIN ON RAMP MILLING				
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	140.00	TN	$115.00	$16,100.00
	Comment: WB BROREIN ON RAMP RESURFACING AND WIDENING (INCLUDES SHOULDER PAVEMENT WHICH IS ASSUMED TO BE FULL DEPTH)				
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	35.00	TN	$142.14	$4,974.90
	Comment: WB BROREIN ON RAMP RESURFACING AND WIDENING				
350-3-1	PLAIN CEMENT CONC PAVT, 6"	448.00	SY	$65.00	$29,120.00
	Comment: CONCRETE SLOPED ABUTMENT TO TIE INTO EXISTING SLOPED ABUTMENT ON THE NORTH SIDE OF THE BROREIN WB ON RAMP				
521-8-8	CONC BARRIER, W/JUNCT SL, 42 SS	537.00	LF	$300.00	$161,100.00
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.54	GM	$8,831.83	$4,769.19
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.84	GM	$4,143.00	$7,623.12
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	3.29	GM	$1,431.00	$4,707.99
711-16-133		0.54	GM	$2,936.25	$1,585.58

	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 12"			
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	1.82 GM	$4,128.81	$7,514.43
711-17-1	THERMOPLASTIC, REMOVE	18,321.00 SF	$1.56	$28,580.76
	Comment: 36642 LF OF 6" STRIPES TO BE REMOVED			
	Roadway Component Total			$284,740.27

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	1.00	EA	$5,859.17	$5,859.17
425-2-43	MANHOLES, P-7, PARTIAL	1.00	EA	$3,826.42	$3,826.42
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	24.00	LF	$93.70	$2,248.80

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.40
Description	POND M-1 (BROREIN)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	322.67	CY	$9.39	$3,029.87
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40
	Drainage Component Total				$170,537.19

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	3.00	EA	$1,178.64	$3,535.92
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	$3,601.00	$7,202.00
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	$5,193.94	$15,581.82
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	3.00	EA	$138.01	$414.03
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	$243.15	$486.30

700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	$700.00	$2,100.00
700-4-140	OH STATIC SIGN STR, F&I, O BR MOUNT	3.00	EA	$11,252.00	$33,756.00
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	1.00	EA	$5,114.17	$5,114.17
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	2.00	EA	$10,125.00	$20,250.00
	Signing Component Total				$88,440.24

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	30

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	30.00	EA	$762.60	$22,878.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	18,000.00	LF	$2.22	$39,960.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	30.00	EA	$6,413.00	$192,390.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	30.00	EA	$700.95	$21,028.50
	Subcomponent Total				$276,256.50

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	6,000.00	LF	$31.83	$190,980.00
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	3,600.00	LF	$14.00	$50,400.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	24.00	EA	$684.09	$16,418.16
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	3,600.00	LF	$1.19	$4,284.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	30.00	EA	$550.00	$16,500.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	24.00	EA	$1,297.00	$31,128.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	110.00	EA	$1,300.00	$143,000.00
715-11-500	LUMINAIRE, REMOVE	108.00	EA	$165.00	$17,820.00
	Lighting Component Total				$746,786.66

BRIDGES COMPONENT

Bridge VIADWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	2,666.00
Width (LF)	14.20

Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100332
Removal of Existing Structures area	9,331.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.61**
Basic Bridge Cost	**$7,155,010.80**
Description	OUTSIDE WIDENING (14.2' AVG) OF THE WB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE OUTSIDE (2666').

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	9,331.00 SF	$34.00	$317,254.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.56 CY	$533.96	$16,851.78
415-1-9	REINF STEEL- APPROACH SLABS	5,523.00 LB	$1.16	$6,406.68
	Bridge VIADWB Total			$7,495,523.26

Bridge VIAEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	4,200.00
Width (LF)	17.20
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100333
Removal of Existing Structures area	14,700.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.39**
Basic Bridge Cost	**$13,653,360.00**
Description	OUTSIDE WIDENING (17.2' AVG) OF THE EB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE OUTSIDE (4200').

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	14,700.00 SF	$34.00	$499,800.00
400-2-10	CONC CLASS II, APPROACH SLABS	38.22 CY	$533.96	$20,407.95
415-1-9	REINF STEEL- APPROACH SLABS	6,688.50 LB	$1.16	$7,758.66
	Bridge VIAEB Total			$14,181,326.61
	Bridges Component Total			$21,676,849.87

RETAINING WALLS COMPONENT

Retaining Wall 2

Description	Value
Length	244.00
Begin height	5.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,660.00	SF	$29.35	$107,421.00
	Retaining Walls Component Total				$107,421.00

Sequence 5 Total $23,094,065.23

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: SEQUENCE 6 REPRESENTS THE PRELIMINARY ITS AND LANDSCAPE COSTS FOR THE SELMON EXPRESSWAY WITHIN THE PROJECT LIMITS.

Special Conditions: LANDSCAPE COST WAS ESTIMATED AT $100,000 FOR THE FOLLOWING 6 LOCATIONS: EUCLID EB ON RAMP, EUCLID WB OFF RAMP, WILLOW EB OFF RAMP, WILLOW WB ON RAMP, WILLOW EB ON RAMP AND WILLOW WB OFF RAMP.

SIGNALIZATIONS COMPONENT

Signalization 3

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EB BAY TO BAY RAMP TERMINAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	600.00 LF	$8.43	$5,058.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00 LF	$25.66	$3,849.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,952.50	$5,952.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	$762.60	$6,100.80
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$6.55	$393.00
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00 EA	$48,000.00	$96,000.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$982.38	$5,894.28
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	6.00 AS	$673.85	$4,043.10
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$468.00	$2,808.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$1,051.28	$6,307.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$312.59	$1,875.54
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$33,949.00	$33,949.00
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	3.00 EA	$2,994.30	$8,982.90
	Signalizations Component Total			$184,347.11

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
676-000	ITS EQUIPTMENT	1.00 LS	$4,950,000.00	$4,950,000.00
	Comment: ITS COST ESTIMATED AT $1.1M PER MILE FOR 4.5 MILES			
735-000	TOLLING EQUIPTMENT	1.00 LS	$5,000,000.00	$5,000,000.00

Comment: MAINLINE AND RAMP TOLLING
ESTIMATED AT $5M FOR THE PROJECT LIMITS

Intelligent Traffic System (ITS) Component Total	$9,950,000.00

LANDSCAPING COMPONENT

User Input Data

Description	**Value**
Lump Sum	600,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	$600,000.00

Sequence 6 Total	$10,734,347.11

Sequence: 7 WUU - Widen/Resurface, Undivided, Urban **Net Length:** 0.089 MI 472 LF

Description: SEQUENCE 7 REPRESENTS THE IMPROVEMENTS TO THE WB EUCLID OFF RAMP SOUTH OF THE BRIDGE OVER CSX.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
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	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
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	0.16	AC	$31,259.83	$5,001.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	88.00	SY	$22.41	$1,972.08
	Comment: REMOVAL OF 227 LF OF 3.5' WIDE SHOULDER GUTTER				
120-6	EMBANKMENT	1,803.00	CY	$15.00	$27,045.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF RAMP WIDENING AND PAVED SHOULDER (4868 SF)				
	Earthwork Component Total				$34,018.65

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Existing Roadway Pavement Width L/R	0.00 / 17.80
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 3.70
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	329.37	SY	$6.73	$2,216.66

285-710	OPTIONAL BASE,BASE GROUP 10	211.37 SY	$26.82	$5,668.94
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	933.57 SY	$3.38	$3,155.47
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	42.69 TN	$115.00	$4,909.35
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	77.02 TN	$115.00	$8,857.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	37.34 TN	$142.14	$5,307.51
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	7.76 TN	$142.14	$1,103.01

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
536-73	GUARDRAIL REMOVAL	227.00	LF	$3.54	$803.58
711-11-102	THERMOPLASTIC, STD, WHITE, SOLID, 8"	0.08	GM	$5,755.00	$460.40
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	82.00	LF	$2.55	$209.10
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	80.00	LF	$3.72	$297.60
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	2.00	EA	$104.80	$209.60
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	4.00	EA	$56.82	$227.28
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.11	GM	$4,715.78	$518.74
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.08	GM	$4,670.08	$373.61

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	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	60.00	EA	$6.61	$396.60
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.72	GM	$1,064.00	$766.08
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.54	GM	$448.57	$242.23
	Roadway Component Total				$35,723.06

SHOULDER COMPONENT

User Input Data

Description	Value

Existing Total Outside Shoulder Width L/R	12.25 / 12.25
New Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	180.00	LF	$26.00	$4,680.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	187.00	LF	$24.58	$4,596.46
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	294.00	LF	$265.00	$77,910.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	944.06	LF	$1.60	$1,510.50
104-11	FLOATING TURBIDITY BARRIER	8.94	LF	$9.79	$87.52
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	8.94	LF	$5.19	$46.40
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	5.00	EA	$113.29	$566.45
107-1	LITTER REMOVAL	0.41	AC	$40.27	$16.51
107-2	MOWING	0.41	AC	$58.12	$23.83
	Shoulder Component Total				$92,354.67

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-2-41	MANHOLES, P-7, <10'	1.00	EA	$5,347.00	$5,347.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	2.00	EA	$5,859.17	$11,718.34
	Drainage Component Total				$17,065.34

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	$359.01	$718.02
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,288.00	$1,288.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09

700-1-60	SINGLE POST SIGN, REMOVE	2.00 AS	$41.95	$83.90
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00 AS	$764.47	$764.47
	Signing Component Total			$7,713.08

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	263.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,945.00	SF	$29.35	$115,785.75
	Retaining Walls Component Total				$115,785.75

Sequence 7 Total $302,660.55

Sequence: 8 WUU - Widen/Resurface, Undivided, Urban **Net Length:** 0.188 MI
990 LF

Description: SEQUENCE 8 REPRESENTS THE IMPROVEMENTS TO THE SELMON WB OFF RAMP TO BRING IT INTO THE WILLOW/CLEVELAND SIGNAL.

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	0.000
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	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
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	0.91 AC	$31,259.83	$28,446.45

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	211.00 SY	$22.41	$4,728.51
	Comment: REMOVAL OF 372' OF TYPE F CURB AND 1154 SF OF CONC DITCH			
120-6	EMBANKMENT	13,009.00 CY	$15.00	$195,135.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF RAMP WIDENING AND PAVED SHOULDER (35123 SF)			
	Earthwork Component Total			$228,309.96

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	35.50 / 0.00
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,188.80 SY	$6.73	$28,190.62
285-710	OPTIONAL BASE,BASE GROUP 10	3,941.30 SY	$26.82	$105,705.67
334-1-54		859.10 TN	$115.00	$98,796.50

	SUPERPAVE ASPH CONC, TRAF D, PG76-22			
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	156.20 TN	$120.00	$18,744.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
524-1-1	CONCRETE DITCH PAVT, NR, 3"	96.00 SY	$73.89	$7,093.44
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	70.00 LF	$2.55	$178.50
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	85.00 LF	$3.72	$316.20
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	3.00 EA	$56.82	$170.46
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.20 GM	$4,715.78	$943.16
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	0.17 GM	$1,554.00	$264.18
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.22 GM	$4,670.08	$1,027.42

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
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	25.00 EA	$6.61	$165.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.50 GM	$1,064.00	$1,596.00
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.38 GM	$448.57	$170.46
	Roadway Component Total			$263,361.86

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	12.25 / 12.25
New Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,075.00 LF	$24.58	$26,423.50
521-8-7		984.00 LF	$265.00	$260,760.00

CONC BARRIER, W/JUNCT SL, 36 SS

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,980.00	LF	$1.60	$3,168.00
104-11	FLOATING TURBIDITY BARRIER	18.75	LF	$9.79	$183.56
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	18.75	LF	$5.19	$97.31
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.86	AC	$40.27	$34.63
107-2	MOWING	0.86	AC	$58.12	$49.98
	Shoulder Component Total				$294,766.88

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	3.00	EA	$5,211.58	$15,634.74
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00	EA	$4,053.74	$4,053.74
425-2-43	MANHOLES, P-7, PARTIAL	3.00	EA	$3,826.42	$11,479.26
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	160.00	LF	$93.70	$14,992.00
	Drainage Component Total				$46,159.74

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	$359.01	$1,436.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,288.00	$1,288.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	4.00	AS	$41.95	$167.80
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47
	Signing Component Total				$8,515.00

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	REMOVAL AND REPLACEMENT OF THE TRAFFIC SIGNALS AT WILLOW AVE/CLEAVELAND

ST/SELMON WB RAMP
TERMINAL TO BRING THE
SELMONG WB OFF RAMP
INTO THE SIGNAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	$8.43	$6,322.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	$25.66	$5,132.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,952.50	$5,952.50
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00 PI	$7,070.96	$7,070.96
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00 EA	$762.60	$10,676.40
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00 LF	$6.55	$196.50
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	10.00 AS	$982.38	$9,823.80
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$673.85	$5,390.80
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	10.00 EA	$468.00	$4,680.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	10.00 AS	$1,051.28	$10,512.80
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$312.59	$2,500.72
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$33,949.00	$33,949.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$194.00	$776.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
634-4-600	SPAN WIRE ASSEMBLY, REMOVE-POLES REMAIN	1.00 PI	$1,668.74	$1,668.74
650-1-60	VEH TRAF SIGNAL, REMOVE-POLES TO REMAIN	6.00 AS	$101.99	$611.94
653-1-12	PEDESTRIAN SIGNAL, F&I LED COUNT, 2 WAYS	2.00 AS	$1,052.25	$2,104.50
653-1-60	PEDESTRIAN SIGNAL, REMOVE	4.00 AS	$87.25	$349.00

Signalizations Component Total $110,851.47

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	452.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount

548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,780.00 SF	$29.35	$198,993.00
	Retaining Walls Component Total			$198,993.00
Sequence 8 Total				$1,150,957.91

Sequence: 9 WUU - Widen/Resurface, Undivided, Urban **Net Length:** 0.177 MI
936 LF

Description: SEQUENCE 9 REPRESENTS THE MILLING, RESURFACING, PEDESTRIAN IMPROVEMENTS AND SIGNALIZATION OF EUCLID AVE. FROM EAST OF HIMES AVENUE TO EAST OF LYNWOOD AVENUE.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	10.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
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	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
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	0.21 AC	$31,259.83	$6,564.56

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	76.00 SY	$22.41	$1,703.16
	Comment: 518 SF ISLAND + 85 LF * 2' CURB = 76 SY			
	Earthwork Component Total			$8,267.72

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	3
Existing Roadway Pavement Width L/R	23.40 / 23.30
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.34 / 3.70
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	956.95 SY	$6.73	$6,440.27
285-710	OPTIONAL BASE,BASE GROUP 10	488.88 SY	$26.82	$13,111.76
327-70-8	MILLING EXIST ASPH PAVT,2 1/2" AVG DEPTH	4,857.55 SY	$2.29	$11,123.79

334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	69.34 TN	$115.00	$7,974.10
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	400.75 TN	$115.00	$46,086.25
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	194.30 TN	$120.00	$23,316.00
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	16.81 TN	$120.00	$2,017.20

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	18.00 LF	$20.63	$371.34
536-73	GUARDRAIL REMOVAL	40.00 LF	$3.54	$141.60
550-10-110	FENCING, TYPE A, 0.0-5.0', STANDARD	64.00 LF	$7.70	$492.80
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	281.00 LF	$2.55	$716.55
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	437.00 LF	$3.72	$1,625.64
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	12.00 EA	$104.80	$1,257.60
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	10.00 EA	$56.82	$568.20
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.36 GM	$4,715.78	$1,697.68
711-15-102	THERMOPLASTIC, STD-OP, WHITE, SOLID, 8"	0.02 GM	$5,562.09	$111.24
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.29 GM	$4,670.08	$1,354.32

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
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	96.00 EA	$6.61	$634.56
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.42 GM	$1,064.00	$1,510.88
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.71 GM	$448.57	$318.48
	Roadway Component Total			$120,870.26

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	4.25 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 0.00
Sidewalk Width L/R	0.00 / 0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	936.14	LF	$24.58	$23,010.32
570-1-2	PERFORMANCE TURF, SOD	208.03	SY	$3.20	$665.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	56.00	LF	$26.00	$1,456.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	120.00	LF	$24.58	$2,949.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	493.00	SY	$46.00	$22,678.00
527-2	DETECTABLE WARNINGS	72.00	SF	$28.26	$2,034.72

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,872.29	LF	$1.60	$2,995.66
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	17.73	LF	$5.19	$92.02
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.82	AC	$40.27	$33.02
107-2	MOWING	0.82	AC	$58.12	$47.66

Shoulder Component Total $60,012.60

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-2-41	MANHOLES, P-7, <10'	1.00	EA	$5,347.00	$5,347.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-355	INLETS, CURB, TYPE P-5, PARTIAL	1.00	EA	$3,846.29	$3,846.29

Drainage Component Total $9,193.29

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	$359.01	$1,436.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,288.00	$1,288.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	4.00	AS	$41.95	$167.80
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47
	Signing Component Total				$8,515.00

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EUCLID AVENUE AND SELMON WB OFF RAMP

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$8.43	$6,744.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$25.66	$5,132.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,952.50	$5,952.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$762.60	$9,151.20
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$6.55	$393.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	5.00	AS	$982.38	$4,911.90
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	5.00	AS	$673.85	$3,369.25
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	5.00	EA	$468.00	$2,340.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	5.00	AS	$1,051.28	$5,256.40
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	5.00	EA	$312.59	$1,562.95
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$33,949.00	$33,949.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	3.00	EA	$194.00	$582.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-21-12	STEEL MAST ARM ASSEMBLY, F&I, 60'- 40'	1.00	EA	$56,477.77	$56,477.77

Signalization 2

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EUCLID AVENUE AND SELMON EB ON RAMP

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$8.43	$6,744.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$25.66	$5,132.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,952.50	$5,952.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$762.60	$9,151.20
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$6.55	$393.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	5.00	AS	$982.38	$4,911.90
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	4.00	AS	$673.85	$2,695.40
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	4.00	EA	$468.00	$1,872.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	4.00	AS	$1,051.28	$4,205.12
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	5.00	EA	$312.59	$1,562.95
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$33,949.00	$33,949.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	3.00	EA	$194.00	$582.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
634-4-600	SPAN WIRE ASSEMBLY, REMOVE-POLES REMAIN	1.00	PI	$1,668.74	$1,668.74
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
641-2-70	PREST CNC POLE, REMOVE SHALLOW	2.00	EA	$4,750.04	$9,500.08
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
649-21-13	STEEL MAST ARM ASSEMBLY, F&I, 60'- 50'	1.00	EA	$53,977.39	$53,977.39
653-1-12	PEDESTRIAN SIGNAL, F&I LED COUNT, 2 WAYS	1.00	AS	$1,052.25	$1,052.25
653-1-60	PEDESTRIAN SIGNAL, REMOVE	2.00	AS	$87.25	$174.50
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
670-5-600	TRAF CNTL ASSEM, REMOVE	1.00	AS	$717.32	$717.32
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
	Signalizations Component Total				$286,329.94

Sequence 9 Total	$493,188.81

Sequence: 10 RSU - Resurfacing, Undivided **Net Length:** 0.057 MI
300 LF

Description: SEQUENCE 10 REPRESENTS THE MILLING, RESURFACING AND PEDESTRIAN IMPROVEMENTS AT THE WILLOW/CLEVELAND INTERSECTION

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	27.40 / 27.40
Structural Spread Rate	165
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	1,826.08	SY	$3.96	$7,231.28
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	150.65	TN	$115.00	$17,324.75
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	150.65	TN	$120.00	$18,078.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	85.00	SY	$22.41	$1,904.85
	Comment: 139 LF OF 2' WIDE CURB AND 483 SF OF SIDEWALK				
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	421.00	LF	$2.55	$1,073.55
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	24.00	LF	$3.38	$81.12
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	435.00	LF	$3.72	$1,618.20
711-11-141	THERMOPLASTIC, STD, WHITE, DOT GUIDE, 6"	0.08	GM	$2,020.56	$161.64
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	5.00	EA	$104.80	$524.00
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	10.00	EA	$56.82	$568.20
711-11-241	THERMOPLASTIC,STD,YELLOW,DOT / GUIDE, 6"	0.03	GM	$2,322.27	$69.67
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.07	GM	$4,143.00	$290.01
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	0.03	GM	$4,128.81	$123.86

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	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	38.00	EA	$6.61	$251.18
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	$1,064.00	$244.72
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.34	GM	$515.78	$175.37
	Roadway Component Total				$49,720.40

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside 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 ï¿½No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	139.00	LF	$24.58	$3,416.62
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	512.00	SY	$46.00	$23,552.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-11	FLOATING TURBIDITY BARRIER	5.68	LF	$9.79	$55.61
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	5.68	LF	$5.19	$29.48
104-18	INLET PROTECTION SYSTEM	1.00	EA	$113.29	$113.29
107-1	LITTER REMOVAL	0.14	AC	$40.27	$5.64
107-2	MOWING	0.14	AC	$58.12	$8.14
	Shoulder Component Total				$27,180.78

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-359	INLETS, CURB, TYPE P-5, MODIFY	1.00	EA	$6,110.40	$6,110.40
	Drainage Component Total				$6,110.40

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	299.90	LF	$8.43	$2,528.16
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	39.14	LF	$25.66	$1,004.33
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	2.00	EA	$762.60	$1,525.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,017.12	LF	$2.22	$2,258.01
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	2.00	EA	$5,800.00	$11,600.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	2.00	EA	$700.95	$1,401.90
	Subcomponent Total				$20,317.60
	Lighting Component Total				$20,317.60
Sequence 10 Total					$103,329.18

Date: 1/18/2021 6:05:17 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: 02 **County:** 72 DUVAL **Market Area:** 05 **Units:** English
Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 8 Project Grand Total **$151,657,041.64**

Description: PD&E ESTIMATE FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 8 REPRESENTS THE PREFERRED ALTERNATIVE WITH THE UNIT COST UPDATE PRIOR TO THE PUBLIC HEARING. THE PREFERRED ALTERNATIVE PROVIDES 6 LANES AT GRADE WITH OUTSIDE WIDENING AND MINIMAL INSIDE BRIDGE WIDENING WITH WALLS ON BOTH SIDES OF THE EXPRESSWAY FOR THE ENTIRE STUDY LIMITS.

Project Sequences Subtotal			**$122,976,494.84**
102-1	Maintenance of Traffic	12.00 %	$14,757,179.38
101-1	Mobilization	10.00 %	$13,773,367.42
Project Sequences Total			**$151,507,041.64**
Project Unknowns		0.00 %	$0.00
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 8 Project Grand Total					**$151,657,041.64**

Date: 1/18/2021 6:03:50 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 9 Project Grand Total **$52,090,390.48**

Description: PD&E ESTIMATE FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 9 REPRESENTS PREFERRED ALTERNATIVE ULTIMATE PHASE CONSTRUCTION COST ESTIMATE. THE PREFERRED ALTERNATIVE ULTIMATE PHASE WILL WIDEN BRIDGES TO THE INSIDE TO ACCOMMODATE THE ULTIMATE 8 LANE SECTION.

Sequence: 1 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.460 MI 2,429 LF

Description: SEQUENCE 1 REPRESENTS THE WORK FROM EAST OF DALE MABRY TO EAST OF EUCLID (STA 84+60 TO 115+00). THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	38.60 / 53.80
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	24,935.68	SY	$3.38	$84,282.60
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,057.19	TN	$115.00	$236,576.85
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	997.43	TN	$142.14	$141,774.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.21	GM	$4,715.78	$5,706.09
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.88	GM	$1,554.00	$4,475.52
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.08	GM	$4,670.08	$5,043.69

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	310.00	EA	$6.61	$2,049.10
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.68	GM	$1,064.00	$3,915.52
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.68	GM	$448.57	$1,650.74
	Roadway Component Total				$485,474.81

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,586.24	LF	$1.60	$8,937.98
104-11	FLOATING TURBIDITY BARRIER	46.00	LF	$9.79	$450.34
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	46.00	LF	$5.19	$238.74
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	18.00	EA	$113.29	$2,039.22
107-1	LITTER REMOVAL	3.34	AC	$40.27	$134.50
107-2	MOWING	3.34	AC	$58.12	$194.12
	Shoulder Component Total				$14,911.90

Sequence 1 Total $500,386.71

Sequence: 2 WDR - Widen/Resurface, Divided, Rural **Net Length:** 2.102 MI
11,100 LF

Description: SEQUENCE 2 REPRESENTS THE WORK FROM EAST OF EUCLID TO WEST OF WILLOW (STA 115+00 TO 245+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (DOES NOT INCLUDE BRIDGE LENGTHS).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	53.70 / 55.60
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	134,805.08	SY	$3.38	$455,641.17
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	11,121.42	TN	$115.00	$1,278,963.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	5,392.20	TN	$142.14	$766,447.31

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.52	GM	$8,831.83	$4,592.55
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	5.16	GM	$4,715.78	$24,333.42
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	14.35	GM	$1,554.00	$22,299.90
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.51	GM	$2,848.01	$1,452.49
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	5.15	GM	$4,670.08	$24,050.91

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,419.00	EA	$6.61	$9,379.59

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	16.82 GM	$1,064.00	$17,896.48
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	16.82 GM	$448.57	$7,544.95
	Roadway Component Total			$2,612,602.07

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,530.33	LF	$1.60	$40,848.53
104-11	FLOATING TURBIDITY BARRIER	210.23	LF	$9.79	$2,058.15
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	210.23	LF	$5.19	$1,091.09
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,917.00	$8,751.00
104-18	INLET PROTECTION SYSTEM	76.00	EA	$113.29	$8,610.04
107-1	LITTER REMOVAL	15.28	AC	$40.27	$615.33
107-2	MOWING	15.28	AC	$58.12	$888.07
	Shoulder Component Total				$62,862.21

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	150.00 LF	$150.00	$22,500.00
	Median Component Total			$22,500.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	6.00	EA	$1,295.14	$7,770.84
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: SIGN PANEL REPLACEMENT ON OH SIGN EAST OF EL PRADO				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	5.00	EA	$5,193.94	$25,969.70
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	6.00	EA	$305.00	$1,830.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$243.15	$243.15
	Comment: REMOVAL OF EXISTING SIGN PANEL ON OH SPAN STR EAST OF EL PRADO				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	5.00	EA	$700.00	$3,500.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
	Signing Component Total				$42,914.69

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$762.60	$4,575.60
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	$2.22	$7,992.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	$6,413.00	$38,478.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$700.95	$4,205.70
	Subcomponent Total				$55,251.30

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	3,000.00	LF	$14.00	$42,000.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	12.00	EA	$684.09	$8,209.08
715-1-11		1,800.00	LF	$1.19	$2,142.00

	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<			
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	6.00 EA	$550.00	$3,300.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	12.00 EA	$1,297.00	$15,564.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	22.00 EA	$1,300.00	$28,600.00
	Lighting Component Total			$155,066.38

BRIDGES COMPONENT

Bridge B2BWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	719.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100314
Removal of Existing Structures area	2,516.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$202.08**
Basic Bridge Cost	**$2,442,155.40**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXIST BRIDGE WHERE WIDENED.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,516.00 SF	$34.00	$85,544.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge B2BWB Total			$2,555,541.75

Bridge B2BEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	754.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100315
Removal of Existing Structures area	2,947.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$201.97**

Basic Bridge Cost	**$2,561,036.40**
Description	INSIDE WIDNENING (17') OF SELMON EB OVER MCDILL/BAY TO BAY. REMOVE 3.5' OF EXISTING BRIDGE ON OUTSIDE FOR WIDENING (842').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,947.00	SF	$34.00	$100,198.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge B2BEB Total				$2,689,076.75

Bridge MISSWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100316
Removal of Existing Structures area	539.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00	SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge MISSWB Total				$505,627.35

Bridge MISSEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100317
Removal of Existing Structures area	539.00

Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00 SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge MISSEB Total			$505,627.35

Bridge HOWAWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	301.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100318
Removal of Existing Structures area	1,054.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$180.94**
Basic Bridge Cost	**$898,033.50**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSDIE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,054.00 SF	$34.00	$35,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge HOWAWB Total			$961,711.85

Bridge HOWAEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	292.00
Width (LF)	17.00
Type	Low Level, Widen

Cost Factor	1.48
Structure No.	100319
Removal of Existing Structures area	1,022.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$205.41**
Basic Bridge Cost	**$991,807.20**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,022.00	SF	$34.00	$34,748.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge HOWAEB Total				$1,054,397.55

Bridge MORRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100320
Removal of Existing Structures area	777.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.88**
Basic Bridge Cost	**$662,337.00**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	777.00	SF	$34.00	$26,418.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge MORRWB Total				$716,597.35

Bridge MORREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES

Length (LF)	222.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100321
Removal of Existing Structures area	777.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.88**
Basic Bridge Cost	**$662,337.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	777.00	SF	$34.00	$26,418.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge MORREB Total				$716,597.35

Bridge SWANWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100322
Removal of Existing Structures area	763.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.01**
Basic Bridge Cost	**$650,403.00**
Description	INSDIE WIDENING (17') OF SELMON WB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	763.00	SF	$34.00	$25,942.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge SWANWB Total				$704,187.35

Bridge SWANEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100323
Removal of Existing Structures area	763.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.01**
Basic Bridge Cost	**$650,403.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	763.00 SF	$34.00	$25,942.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78 CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50 LB	$1.16	$7,669.34
	Bridge SWANEB Total			$704,187.35
	Bridges Component Total			$11,113,552.00
Sequence 2 Total				$14,009,497.35

Sequence: 3 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.824 MI
4,352 LF

Description: SEQUENCE 3 REPRESENTS THE WORK FROM WEST OF WILLOW TO HYDE PARK (STA 245+00 TO 236+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS NOT INCLUDED).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	59.80 / 59.50
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	57,685.21	SY	$3.38	$194,976.01
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,759.03	TN	$115.00	$547,288.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,307.41	TN	$142.14	$327,975.26

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.29	GM	$8,831.83	$2,561.23
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.86	GM	$4,715.78	$8,771.35
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	6.13	GM	$1,554.00	$9,526.02
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.89	GM	$4,670.08	$8,826.45

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	556.00	EA	$6.61	$3,675.16
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.59	GM	$1,064.00	$7,011.76

710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.59 GM	$448.57	$2,956.08
	Roadway Component Total			$1,113,567.77

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,009.08	LF	$1.60	$16,014.53
104-11	FLOATING TURBIDITY BARRIER	82.42	LF	$9.79	$806.89
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	82.42	LF	$5.19	$427.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	43.00	EA	$113.29	$4,871.47
107-1	LITTER REMOVAL	5.99	AC	$40.27	$241.22
107-2	MOWING	5.99	AC	$58.12	$348.14
	Shoulder Component Total				$25,627.01

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	75.00	LF	$150.00	$11,250.00

	Median Component Total	$11,250.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$1,178.64	$1,178.64
	Comment: SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,295.14	$2,590.28
	Comment: SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	2.00	EA	$5,193.94	$10,387.88
	Comment: NEW SIGN PANELS FOR OH SIGN STRUCTURES WEST OF WILLOW				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$138.01	$138.01
	Comment: REMOVAL OF SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	2.00	EA	$700.00	$1,400.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				

	Signing Component Total	$16,304.81

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	1.00	EA	$762.60	$762.60
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	600.00	LF	$2.22	$1,332.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	1.00	EA	$6,413.00	$6,413.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	1.00	EA	$700.95	$700.95
	Subcomponent Total				$9,208.55

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	800.00	LF	$14.00	$11,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$684.09	$2,736.36
715-1-11		600.00	LF	$1.19	$714.00

	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<			
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	1.00 EA	$550.00	$550.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00 EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	10.00 EA	$1,300.00	$13,000.00
	Lighting Component Total			$42,596.91

BRIDGES COMPONENT

Bridge WILLWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100326
Removal of Existing Structures area	599.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**
Basic Bridge Cost	**$510,178.50**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	599.00	SF	$34.00	$20,366.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge WILLWB Total				$558,386.85

Bridge WILLEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100327
Removal of Existing Structures area	599.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**

Basic Bridge Cost	**$510,178.50**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	599.00	SF	$34.00	$20,366.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge WILLEB Total				$558,386.85

Bridge SOUTWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100328
Removal of Existing Structures area	539.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON WB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00	SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge SOUTWB Total				$505,627.35

Bridge SOUTEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100329
Removal of Existing Structures area	539.00

Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.13**
Basic Bridge Cost	**$459,459.00**
Description	INSIDE WIDENING (17') OF SELMON EB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	539.00	SF	$34.00	$18,326.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge SOUTEB Total				$505,627.35
	Bridges Component Total				$2,128,028.40
Sequence 3 Total					$3,337,374.90

Sequence: 4 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.119 MI
630 LF

Description: SEQUENCE 4 REPRESENTS THE WORK FROM HYDE PARK TO THE DOWNTOWN VIADUCT BRIDGE (STA 536+00 TO 549+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	70.20 / 66.00
Structural Spread Rate	165
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	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	9,532.55	SY	$3.38	$32,220.02
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	786.44	TN	$115.00	$90,440.60
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	381.30	TN	$142.14	$54,197.98

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.19	GM	$8,831.83	$1,678.05
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.49	GM	$4,715.78	$2,310.73
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.54	GM	$1,554.00	$2,393.16
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.49	GM	$4,670.08	$2,288.34

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	81.00	EA	$6.61	$535.41
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.95	GM	$1,064.00	$1,010.80

710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.95 GM	$448.57	$426.14
	Roadway Component Total			$187,501.23

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 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,448.78	LF	$1.60	$2,318.05
104-11	FLOATING TURBIDITY BARRIER	11.93	LF	$9.79	$116.79
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	11.93	LF	$5.19	$61.92
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.87	AC	$40.27	$35.03
107-2	MOWING	0.87	AC	$58.12	$50.56
	Shoulder Component Total				$6,632.25

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	30.00	LF	$150.00	$4,500.00

	Median Component Total	$4,500.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$1,178.64	$1,178.64
	Comment: REPLACEMENT OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,295.14	$2,590.28
	Comment: REPLACEMENT OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	1.00	EA	$5,193.94	$5,193.94
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$138.01	$138.01
	Comment: REMOVAL OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$243.15	$243.15
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	1.00	EA	$700.00	$700.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
	Signing Component Total				$14,255.02

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	3.00	EA	$762.60	$2,287.80
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,800.00	LF	$2.22	$3,996.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	3.00	EA	$6,413.00	$19,239.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	3.00	EA	$700.95	$2,102.85
	Subcomponent Total				$27,625.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	600.00 LF	$14.00	$8,400.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00 EA	$684.09	$2,736.36
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00 LF	$1.19	$714.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	6.00 EA	$550.00	$3,300.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00 EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	8.00 EA	$1,300.00	$10,400.00
	Lighting Component Total			$58,364.01

BRIDGES COMPONENT

Bridge HYDEWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100330
Removal of Existing Structures area	2,328.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$177.96**
Basic Bridge Cost	**$1,984,027.50**
Description	INSIDE WIDENING (17') OF SELMON WB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,328.00	SF	$34.00	$79,152.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge HYDEWB Total				$2,091,021.85

Bridge HYDEEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	17.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100331

Removal of Existing Structures area		2,328.00
Default Cost per SF		$135.00
Factored Cost per SF		$175.50
Final Cost per SF		**$177.96**
Basic Bridge Cost		**$1,984,027.50**
Description	INSIDE WIDNEING (17') OF SELMON EB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON INSIDE.	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,328.00	SF	$34.00	$79,152.00
400-2-10	CONC CLASS II, APPROACH SLABS	37.78	CY	$533.96	$20,173.01
415-1-9	REINF STEEL- APPROACH SLABS	6,611.50	LB	$1.16	$7,669.34
	Bridge HYDEEB Total				$2,091,021.85
	Bridges Component Total				$4,182,043.70
Sequence 4 Total					$4,453,296.21

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.796 MI
4,200 LF

Description: SEQUENCE 5 REPRESENTS THE WORK ON THE SELMON EXPRESSWAY DOWNTOWN VIADUCT BRIDGE (STA 549+00 TO 591+00)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.50	GM	$8,831.83	$4,415.92
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.79	GM	$4,143.00	$7,415.97
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	3.76	GM	$1,431.00	$5,380.56
711-16-133	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 12"	0.60	GM	$2,936.25	$1,761.75
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	1.69	GM	$4,128.81	$6,977.69
711-17-1	THERMOPLASTIC, REMOVE	18,321.00	SF	$1.56	$28,580.76
	Comment: 36642 LF OF 6" STRIPES TO BE REMOVED				
	Roadway Component Total				$54,532.65

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	3.00	EA	$1,178.64	$3,535.92
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	$3,601.00	$7,202.00
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	$5,193.94	$15,581.82
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	3.00	EA	$138.01	$414.03
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	$243.15	$486.30
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	$700.00	$2,100.00
700-4-140	OH STATIC SIGN STR, F&I, O BR MOUNT	3.00	EA	$11,252.00	$33,756.00
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	1.00	EA	$5,114.17	$5,114.17
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	2.00	EA	$10,125.00	$20,250.00
	Signing Component Total				$88,440.24

LIGHTING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	1,950.00	LF	$31.83	$62,068.50
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	13.00	EA	$684.09	$8,893.17
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,950.00	LF	$1.19	$2,320.50
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	13.00	EA	$1,297.00	$16,861.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	46.00	EA	$1,300.00	$59,800.00

Lighting Component Total	$149,943.17

BRIDGES COMPONENT

Bridge VIADWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	2,530.00
Width (LF)	15.90
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100332
Removal of Existing Structures area	8,855.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.65**
Basic Bridge Cost	**$7,602,903.00**
Description	INSIDE WIDENING (15.9' AVG) OF THE WB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE (2530').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	8,855.00	SF	$34.00	$301,070.00
400-2-10	CONC CLASS II, APPROACH SLABS	35.33	CY	$533.96	$18,864.81
415-1-9	REINF STEEL- APPROACH SLABS	6,182.75	LB	$1.16	$7,171.99
	Bridge VIADWB Total				$7,930,009.80

Bridge VIAEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	4,200.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100333
Removal of Existing Structures area	14,700.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.39**
Basic Bridge Cost	**$11,113,200.00**
Description	INSIDE WIDENING (14' AVG) OF THE EB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE INSIDE (4200').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	14,700.00	SF	$34.00	$499,800.00
400-2-10		31.11	CY	$533.96	$16,611.50

	CONC CLASS II, APPROACH SLABS			
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25 LB	$1.16	$6,315.33
	Bridge VIAEB Total			$11,635,926.83
	Bridges Component Total			$19,565,936.63
Sequence 5 Total				$19,858,852.69

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 9 Project Grand Total **$52,090,390.48**

Description: PD&E ESTIMATE FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 9 REPRESENTS PREFERRED ALTERNATIVE ULTIMATE PHASE CONSTRUCTION COST ESTIMATE. THE PREFERRED ALTERNATIVE ULTIMATE PHASE WILL WIDEN BRIDGES TO THE INSIDE TO ACCOMMODATE THE ULTIMATE 8 LANE SECTION.

Project Sequences Subtotal			**$42,159,407.86**
102-1	Maintenance of Traffic	12.00 %	$5,059,128.94
101-1	Mobilization	10.00 %	$4,721,853.68
Project Sequences Total			**$51,940,390.48**
Project Unknowns		0.00 %	$0.00
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 9 Project Grand Total					**$52,090,390.48**

Final Preferred Alternative LRE

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:**08 **Units:** English
Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 10 Project Grand Total **$153,736,683.26**

Description: PD&E ESTIMATE FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 10 REPRESENTS THE PREFERRED ALTERNATIVE WITH THE UPDATES MADE AFTER THE PUBLIC HEARING. THE PREFERRED ALTERNATIVE PROVIDES 6 LANES AT GRADE WITH OUTSIDE WIDENING AND MINIMAL INSIDE BRIDGE WIDENING WITH WALLS ON BOTH SIDES OF THE EXPRESSWAY FOR THE ENTIRE STUDY LIMITS.

Sequence: 1 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.460 MI
2,429 LF

Description: SEQUENCE 1 REPRESENTS THE WORK FROM EAST OF DALE MABRY TO EAST OF EUCLID (STA 84+60 TO 115+00). THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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
Existing Front Slope L/R	2 to 1 / 2 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	0 to 1 / 0 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	2.23	AC	$31,259.83	$69,709.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	1,768.00	SY	$22.41	$39,620.88

	Comment: REMOVAL OF 2968 OF 3.5' WIDE SHOULDER GUTTER, 138 SF CONC FLUME AND 1796 LF OF BARRIER WALL (3' HEIGHT ASSUMED)			
120-6	EMBANKMENT	30,595.00 CY	$15.00	$458,925.00
	Comment: ASSUME AN AVERAGE OF 10' OF FILL FOR THE WIDENED AREAS (37909 SF) AND OUTSIDE PAVED SHOULDERS (44697 SF)			
	Earthwork Component Total			$568,255.30

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	31.30 / 37.10
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	3.30 / 11.60
Widened Inside Pavement Width L/R	0.70 / 0.00
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,194.99	SY	$6.73	$95,532.28
285-710	OPTIONAL BASE,BASE GROUP 10	4,477.09	SY	$26.82	$120,075.55
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	18,458.88	SY	$3.38	$62,391.01
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	926.18	TN	$115.00	$106,510.70
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,522.86	TN	$115.00	$175,128.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	738.36	TN	$142.14	$104,950.49
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	168.40	TN	$142.14	$23,936.38

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,529.50	TN	$115.00	$290,892.50
	Comment: FOR OVERBUILD				
339-1	MISCELLANEOUS ASPHALT PAVEMENT	119.80	TN	$240.00	$28,752.00
	Comment: 10782 SF = 1198 SY * 2" thick * 100 lb/SY-in				
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	497.00	LF	$20.63	$10,253.11
536-1-3	GUARDRAIL- ROADWAY, DOUBLE FACE	1,259.00	LF	$22.28	$28,050.52
536-8-13	APPROACH TRANS CONN TO RIGID BA, F&I, 3	2.00	EA	$2,976.03	$5,952.06
536-73	GUARDRAIL REMOVAL	1,929.00	LF	$3.54	$6,828.66
710-11-103	PAINTED PAVT MARK,STD,WHITE,SOLID,12"	0.19	GM	$2,166.66	$411.67
711-11-224		970.00	LF	$3.68	$3,569.60

	THERMOPLASTIC, STD, YELLOW, SOLID, 18"				
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.08	GM	$4,715.78	$5,093.04
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.88	GM	$1,554.00	$2,921.52
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.89	GM	$4,670.08	$4,156.37
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.20	GM	$25,839.00	$5,167.80
713-103-131	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC	0.32	GM	$8,430.00	$2,697.60
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.20	GM	$25,889.00	$5,177.80
713-107	PREFORMED/PERMANENT TAPE, REMOVE	1,605.00	SF	$2.42	$3,884.10

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	310.00	EA	$6.61	$2,049.10

Roadway Component Total $1,094,382.76

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 / 15.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	5.40 / 13.00
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	5,143.66	SY	$26.82	$137,952.96
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,092.42	TN	$115.00	$125,628.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	198.62	TN	$142.14	$28,231.85
570-1-1	PERFORMANCE TURF	1,079.47	SY	$1.82	$1,964.64

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	2,437.00	LF	$265.00	$645,805.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	2,420.00	LF	$483.00	$1,168,860.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,586.24	LF	$1.60	$8,937.98
104-11	FLOATING TURBIDITY BARRIER	46.00	LF	$9.79	$450.34
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	46.00	LF	$5.19	$238.74
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	18.00	EA	$113.29	$2,039.22
107-1	LITTER REMOVAL	3.34	AC	$40.27	$134.50
107-2	MOWING	3.34	AC	$58.12	$194.12

Shoulder Component Total $2,123,354.65

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
New Total Median Shoulder Width L/R	4.00 / 8.00
New Paved Median Shoulder Width L/R	2.50 / 7.30
Existing Total Median Shoulder Width L/R	8.00 / 8.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-702	OPTIONAL BASE,BASE GROUP 02	2,822.81	SY	$24.58	$69,384.67
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	290.92	TN	$115.00	$33,455.80
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	14.25	TN	$142.14	$2,025.50
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	683.00	LF	$150.00	$102,450.00

Median Component Total $207,315.97

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00	EA	$3,162.00	$3,162.00
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	10.00	EA	$5,859.17	$58,591.70
	Comment: 9 new barrier wall inlets				
425-1-885	INLETS ,BARRIER WALL ,RIG, C&G,PARTIAL	6.00	EA	$3,940.00	$23,640.00
	Comment: 6 shoulder gutter inlets to be converted to barrier wall inlet tops				
425-2-43	MANHOLES, P-7, PARTIAL	10.00	EA	$3,826.42	$38,264.20
	Comment: existing shoulder gutter inlets in widened area to be converted to MH tops				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	200.00	LF	$93.70	$18,740.00
	Comment: 20 LF per new inlet (10 new inlets)				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$20,695.00	$20,695.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.74
Description	POND EC-1 (SOUTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	596.93	CY	$9.39	$5,605.17
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 2

Description	Value
Size	.5 AC

Multiplier	1
Depth	2.78
Description	POND EC-2 (NORTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	2,242.53	CY	$9.39	$21,057.36
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 3

Description	Value
Size	.5 AC
Multiplier	1
Depth	1.20
Description	POND EC-3 (NORTH OF EUCLID)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	968.00	CY	$9.39	$9,089.52
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Drainage Component Total $665,563.74

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	$359.01	$359.01

700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	$1,288.00	$15,456.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$41.95	$503.40
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47
	Signing Component Total				$21,941.57

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	$762.60	$7,626.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	$2.22	$13,320.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	10.00	EA	$6,413.00	$64,130.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	$700.95	$7,009.50
	Subcomponent Total				$92,085.50

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	2,800.00	LF	$14.00	$39,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$684.09	$2,736.36
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	800.00	LF	$1.19	$952.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	12.00	EA	$550.00	$6,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	30.00	EA	$1,300.00	$39,000.00
715-11-500	LUMINAIRE, REMOVE	16.00	EA	$165.00	$2,640.00
	Lighting Component Total				$188,401.86

BRIDGES COMPONENT

Bridge HIMESW

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	318.00
Width (LF)	16.00
Type	Low Level, Widen
Cost Factor	1.48

Structure No.	100308
Removal of Existing Structures area	12,516.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$404.95**
Basic Bridge Cost	**$1,016,582.40**
Description	INSIDE WIDENING OF SELMON WB OVER HIMES (16'). REMOVING AND REPLACING THE BRIDGE DECK AND OUTSIDE BRIDGE RAILING.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	12,516.00	SF	$34.00	$425,544.00
400-2-10	CONC CLASS II, APPROACH SLABS	35.56	CY	$533.96	$18,987.62
415-1-9	REINF STEEL- APPROACH SLABS	6,223.00	LB	$1.16	$7,218.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	1,751.00	SF	$1.71	$2,994.21
	Comment: FOR VERTICAL WALL ABUTMENTS TO REMAIN AT HIMES OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	318.00	LF	$109.00	$34,662.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER HIMES				

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-X	BRIDGE RE-DECKING	11,529.00	SF	$85.00	$979,965.00
	Comment: Includes concrete, rebar, approach slabs and joints; it does not include existing deck removal traffic railings or noise walls (these items are accounted for with separate pay items)				
	Bridge HIMESW Total				$2,485,953.91

Bridge HIMESE

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	321.00
Width (LF)	28.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100309
Removal of Existing Structures area	2,247.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$204.90**
Basic Bridge Cost	**$1,795,802.40**
Description	INSIDE (16') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER HIMES. 3.5' OF BRIDGE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,247.00	SF	$34.00	$76,398.00
400-2-10	CONC CLASS II, APPROACH SLABS	62.22	CY	$533.96	$33,222.99
415-1-9	REINF STEEL- APPROACH SLABS	10,888.50	LB	$1.16	$12,630.66
	Bridge HIMESE Total				$1,918,054.05

Bridge EUCLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00
Width (LF)	19.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100310
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$190.39**
Basic Bridge Cost	**$732,361.50**
Description	INSIDE WIDENING OF SELMON WB OVER EUCLID (16') AND OUTSIDE BRIDGE RECONSTRUCTION TO REPLACE RAILING (3.5'). REMOVE 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	43.33	CY	$533.96	$23,136.49
415-1-9	REINF STEEL- APPROACH SLABS	7,582.75	LB	$1.16	$8,795.99

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,015.00	SF	$1.71	$6,865.65
	Comment: FOR VERTICAL WALL ABUTMENTS TO REMAIN AT EUCLID OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	214.00	LF	$109.00	$23,326.00
	Comment: REPLACEMENT OF EXISTING OUTSIDE BRIDGE RAILING FOR SELMON WB OVER EUCLID				
	Bridge EUCLWB Total				$845,417.63

Bridge EUCLEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	214.00

Width (LF)	28.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100311
Removal of Existing Structures area	1,498.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$183.15**
Basic Bridge Cost	**$1,051,596.00**
Description	INSIDE (16') AND OUTSIDE (12') WIDNENING OF SELMON EB OVER EUCLID. 3.5' OF BRIDGE REMOVAL ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,498.00	SF	$34.00	$50,932.00
400-2-10	CONC CLASS II, APPROACH SLABS	62.22	CY	$533.96	$33,222.99
415-1-9	REINF STEEL- APPROACH SLABS	10,888.50	LB	$1.16	$12,630.66
	Bridge EUCLEB Total				$1,148,381.65
	Bridges Component Total				$6,397,807.24

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	3,322.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	49,830.00	SF	$29.35	$1,462,510.50

Retaining Wall 2

Description	Value
Length	79.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,975.00	SF	$29.35	$57,966.25
	Retaining Walls Component Total				$1,520,476.75

Sequence 1 Total	$12,787,499.84

Sequence: 2 WDR - Widen/Resurface, Divided, Rural **Net Length:** 2.102 MI
11,100 LF

Description: SEQUENCE 2 REPRESENTS THE WORK FROM EAST OF EUCLID TO WEST OF WILLOW (STA 115+00 TO 245+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (DOES NOT INCLUDE BRIDGE LENGTHS).

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	0.000
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	10.19 AC	$31,259.83	$318,537.67

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	9,713.00 SY	$22.41	$217,668.33
	Comment: REMOVAL OF 15405 LF OF 3.5' WIDE SHOULDER GUTTER AND 11169 LF OF BARRIER WALL (3' HEIGHT)			
120-6	EMBANKMENT	126,787.00 CY	$15.00	$1,901,805.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (226111 SF) AND OUTSIDE SHOULDER (116214 SF)			
	Earthwork Component Total			$2,438,011.00

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	43.40 / 46.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	10.50 / 9.80
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	42,920.56	SY	$6.73	$288,855.37
285-710	OPTIONAL BASE,BASE GROUP 10	25,851.00	SY	$26.82	$693,323.82
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	110,261.43	SY	$3.38	$372,683.63
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	5,508.14	TN	$115.00	$633,436.10
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	9,096.57	TN	$115.00	$1,046,105.55
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,001.48	TN	$142.14	$142,350.37
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	4,410.46	TN	$142.14	$626,902.78

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	11,559.10	TN	$115.00	$1,329,296.50
	Comment: FOR OVERBUILD				
536-73	GUARDRAIL REMOVAL	5,923.00	LF	$3.54	$20,967.42
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.31	GM	$8,831.83	$2,737.87
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	8,788.00	LF	$3.68	$32,339.84
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	4.10	GM	$4,715.78	$19,334.70
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	8.45	GM	$1,554.00	$13,131.30
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.15	GM	$2,848.01	$427.20
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	3.94	GM	$4,670.08	$18,400.12
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	1.12	GM	$25,839.00	$28,939.68
713-103-131	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC	1.40	GM	$8,430.00	$11,802.00
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	1.12	GM	$25,889.00	$28,995.68
713-107	PREFORMED/PERMANENT TAPE, REMOVE	6,803.50	SF	$2.42	$16,464.47

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,419.00	EA	$6.61	$9,379.59

Roadway Component Total $5,335,873.99

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	7.00 / 7.50
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	5.00 / 5.40
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	13,640.84	SY	$26.82	$365,847.33
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,821.90	TN	$115.00	$324,518.50
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	513.07	TN	$142.14	$72,927.77
570-1-1	PERFORMANCE TURF	4,933.40	SY	$1.82	$8,978.79

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	1,092.00	LF	$527.00	$575,484.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	21,044.00	LF	$483.00	$10,164,252.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	25,530.33	LF	$1.60	$40,848.53
104-11	FLOATING TURBIDITY BARRIER	210.23	LF	$9.79	$2,058.15
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	210.23	LF	$5.19	$1,091.09
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,917.00	$8,751.00
104-18	INLET PROTECTION SYSTEM	76.00	EA	$113.29	$8,610.04
107-1	LITTER REMOVAL	15.28	AC	$40.27	$615.33
107-2	MOWING	15.28	AC	$58.12	$888.07

	Shoulder Component Total	$11,574,870.60

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,980.00 LF	$150.00	$447,000.00
	Median Component Total			$447,000.00

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	1.00 EA	$3,162.00	$3,162.00
	Comment: 1 MEDIAN INLET TOPS TO BE REPLACED (THE REST ARE IN SECTIONS OF NEW BARRIER WALL CONSTRUCTED AS PART OF MEDIAN SAFETY PROJECT)			
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	56.00 EA	$5,859.17	$328,113.52
	Comment: 54 NEW BARRIER WALL INLETS			
425-2-43	MANHOLES, P-7, PARTIAL	56.00 EA	$3,826.42	$214,279.52
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH in areas of widening			
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	1,120.00 LF	$93.70	$104,944.00
	Comment: 20 LF PER NEW INLET ASSUMED			
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	10,824.00 LF	$126.60	$1,370,318.40
	Comment: NEW TRUNKLINE TO REPLACE OUTSIDE DITCH AS NEEDED			

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-XXX	UNDERGROUND VAULT COMPONENTS	1.00 LS	$1,188,220.00	$1,188,220.00
	Comment: Cost estimate for the Palma Ceia basin underground stormwater vault. Includes 2,450' of 72" Duromax Pipe, HP Bell & Spigot Joint, 72" Bulkheads (46), 36" Risers (44), 30" Pipe Stubs (44) 30? Pi			

430-XXX	DRAINAGE MISC	1.00 LS	$299,402.00	$299,402.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS OR UNDERGROUND VAULT) ADDED TO ACCOUNT FOR SHOULDER SPREAD			

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND EC-4 (SOUTH OF EL PRADO AVE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 2

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND EC-5 (NORTH OF EL PRADO AVE)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 3

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	EXPANSION OF EXISTING POND ADJACENT TO SWANN AVE

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-982-138	MITERED END SECT, OPTIONAL RD, 36" CD	2.00	EA	$3,383.12	$6,766.24

Retention Basin 4

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	POND PC-1 (SOUTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33	CY	$9.39	$1,514.89
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 5

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.20
Description	

POND PC-2 (NORTH OF MISSISSIPPI)

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50 AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	161.33 CY	$9.39	$1,514.89
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00 EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00 LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00 SY	$1.82	$4,404.40
	Drainage Component Total			$4,130,404.57

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00 AS	$359.01	$1,795.05
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	51.00 AS	$1,288.00	$65,688.00
700-1-50	SINGLE POST SIGN, RELOCATE	5.00 AS	$302.09	$1,510.45
700-1-60	SINGLE POST SIGN, REMOVE	51.00 AS	$41.95	$2,139.45
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	$4,556.60	$22,783.00
700-2-60	MULTI- POST SIGN, REMOVE	5.00 AS	$764.47	$3,822.35

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	6.00 EA	$1,295.14	$7,770.84
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS			
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00 EA	$3,601.00	$3,601.00
	Comment: SIGN PANEL REPLACEMENT ON OH SIGN EAST OF EL PRADO			
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	5.00 EA	$5,193.94	$25,969.70
	Comment: SIGN PANELS REPLACEMENTS ON OH SIGNS			
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	6.00 EA	$305.00	$1,830.00
	Comment: REMOVAL OF EXISTING OH SIGN PANELS			
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00 EA	$243.15	$243.15
	Comment: REMOVAL OF EXISTING SIGN PANEL ON OH SPAN STR EAST OF EL PRADO			
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	5.00 EA	$700.00	$3,500.00

	Comment: REMOVAL OF EXISTING OH SIGN PANELS				
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	4.00	EA	$47,603.00	$190,412.00
	Comment: REPLACEMENT OF OH CANT SIGNS				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SPAN SIGN STRUCTURE EAST OF EL PRADO				
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	5.00	EA	$5,114.17	$25,570.85
	Comment: REMOVAL OF OH CANTILEVER SIGN STRUCTURES (4 WB AND 1 EB)				
	Signing Component Total				$532,178.84

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	30

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	30.00	EA	$762.60	$22,878.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	18,000.00	LF	$2.22	$39,960.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	30.00	EA	$6,413.00	$192,390.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	30.00	EA	$700.95	$21,028.50
	Subcomponent Total				$276,256.50

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	7,800.00	LF	$14.00	$109,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	12.00	EA	$684.09	$8,209.08
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,800.00	LF	$1.19	$2,142.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	57.00	EA	$550.00	$31,350.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	12.00	EA	$1,297.00	$15,564.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	78.00	EA	$1,300.00	$101,400.00
715-11-500	LUMINAIRE, REMOVE	48.00	EA	$165.00	$7,920.00
	Lighting Component Total				$552,041.58

BRIDGES COMPONENT

Bridge ELPRWB

Description	Value

Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	28.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100312
Removal of Existing Structures area	21,062.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$415.67**
Basic Bridge Cost	**$1,341,522.00**
Description	INSIDE (16') AND OUTSIDE (12') WIDNENING OF SELMON WB OVER EL PRADO. DECK TO BE REMOVED AND REPLACED ON WB RAMP BRIDGE (19151 SF) PLUS 3.5' OF MAINLINE BRIDGE TO BE REMOVED ON EACH SIDE FOR WIDENING.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	21,062.00	SF	$34.00	$716,108.00
400-2-10	CONC CLASS II, APPROACH SLABS	62.22	CY	$533.96	$33,222.99
415-1-9	REINF STEEL- APPROACH SLABS	10,888.50	LB	$1.16	$12,630.66

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,242.00	SF	$1.71	$7,253.82
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT EL PRADO OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	1,421.00	LF	$109.00	$154,889.00
	Comment: REPLACEMENT OF OUTSIDE BRIDGE RAILING FOR WB RAMP BRIDGE OVER CSX				

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-X	BRIDGE RE-DECKING	19,151.00	SF	$85.00	$1,627,835.00
	Comment: Includes concrete, rebar, approach slabs and joints; it does not include existing deck removal traffic railings or noise walls (these items are accounted for with separate pay items)				

Bridge ELPRWB Total $3,893,461.47

Bridge ELPREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	273.00
Width (LF)	33.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100313

Removal of Existing Structures area	1,911.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$181.50**
Basic Bridge Cost	**$1,581,079.50**
Description	INSIDE (17') AND OUTSIDE (16') WIDNENING OF SELMON EB OVER EL PRADO. REMOVING 3.5' OF BRIDGE ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,911.00 SF	$34.00	$64,974.00
400-2-10	CONC CLASS II, APPROACH SLABS	73.33 CY	$533.96	$39,155.29
415-1-9	REINF STEEL- APPROACH SLABS	12,832.75 LB	$1.16	$14,885.99
	Bridge ELPREB Total			$1,700,094.78

Bridge B2BWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	345.00
Width (LF)	16.50
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100314
Removal of Existing Structures area	39,072.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$745.24**
Basic Bridge Cost	**$1,137,361.50**
Description	OUTSIDE WIDENING(ONLY WIDENING FROM THE GORE WEST - 345') OF SELMON WB BRIDGE OVER MCDILL/BAY TO BAY. EXISTING DECK TO BE REMOVED AND REPLACED.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	39,072.00 SF	$34.00	$1,328,448.00
400-2-10	CONC CLASS II, APPROACH SLABS	36.67 CY	$533.96	$19,580.31
415-1-9	REINF STEEL- APPROACH SLABS	6,417.25 LB	$1.16	$7,444.01

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	6,618.00 SF	$1.71	$11,316.78
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT MCDILL/BAY TO BAY OVERPASS			
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	752.00 LF	$109.00	$81,968.00

Comment: REPLACEMENT OF EXISTING BRIDGE RAILING ON SELMON WB OVER BAY TO BAY/MCDILL AND CSX

Bridge EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-X	BRIDGE RE-DECKING	35,113.00 SF	$85.00	$2,984,605.00
	Comment: Includes concrete, rebar, approach slabs and joints; it does not include existing deck removal traffic railings or noise walls (these items are accounted for with separate pay items)			
	Bridge B2BWB Total			$5,570,723.60

Bridge B2BEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	828.00
Width (LF)	16.00
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100315
Removal of Existing Structures area	5,653.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$208.14**
Basic Bridge Cost	**$2,646,950.40**
Description	OUTSIDE (12.5') WIDNENING OF SELMON EB OVER MCDILL/BAY TO BAY AND INSIDE RECONSTRUCTION FOR RAIL REPL. (3.5') REMOVE 3.5' OF EXISTING BRIDGE ON INSIDE FOR RAIL (773') & OUTSIDE FOR WIDENING(842').

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	5,653.00 SF	$34.00	$192,202.00
400-2-10	CONC CLASS II, APPROACH SLABS	35.56 CY	$533.96	$18,987.62
415-1-9	REINF STEEL- APPROACH SLABS	6,223.00 LB	$1.16	$7,218.68

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	773.00 LF	$109.00	$84,257.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER BAY TO BAY			
	Bridge B2BEB Total			$2,949,615.70

Bridge MISSWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES

Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100316
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$196.26**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44	CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00	LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,314.00	SF	$1.71	$7,376.94
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT MISSISSIPPI OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00	LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER MISSISSIPP1				
	Bridge MISSWB Total				$505,114.34

Bridge MISSEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100317
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.17**
Basic Bridge Cost	**$418,918.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER MISSISSIPPI. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00 SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44 CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00 LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00 LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER MISSISSIPP1			
	Bridge MISSEB Total			$497,737.40

Bridge HOWAWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	301.00
Width (LF)	18.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100318
Removal of Existing Structures area	2,433.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$188.61**
Basic Bridge Cost	**$977,271.75**
Description	OUTSIDE WIDENING (15' AVG. PER LENGTH) AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,433.00 SF	$34.00	$82,722.00
400-2-10	CONC CLASS II, APPROACH SLABS	41.11 CY	$533.96	$21,951.10
415-1-9	REINF STEEL- APPROACH SLABS	7,194.25 LB	$1.16	$8,345.33

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	5,225.00 SF	$1.71	$8,934.75
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT HOWARD/WATROUS OVERPASS			
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	310.00 LF	$109.00	$33,790.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER HOWARD/WATROUS			

Bridge HOWAWB Total $1,133,014.93

Bridge HOWAEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	292.00
Width (LF)	13.60
Type	Low Level, Widen
Cost Factor	1.48
Structure No.	100319
Removal of Existing Structures area	2,044.00
Default Cost per SF	$135.00
Factored Cost per SF	$199.80
Final Cost per SF	**$213.42**
Basic Bridge Cost	**$793,445.76**
Description	OUTSIDE WIDENING (10.1' AVG. PER LENGTH) AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER HOWARD/WATROUS. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,044.00 SF	$34.00	$69,496.00
400-2-10	CONC CLASS II, APPROACH SLABS	30.22 CY	$533.96	$16,136.27
415-1-9	REINF STEEL- APPROACH SLABS	5,288.50 LB	$1.16	$6,134.66

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	292.00 LF	$109.00	$31,828.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER HOWARD/WATROUS			

Bridge HOWAEB Total $917,040.69

Bridge MORRWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100320
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.05**
Basic Bridge Cost	**$603,895.50**

Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00 SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44 CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00 LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,300.00 SF	$1.71	$7,353.00
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT MORRISON OVERPASS			
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	222.00 LF	$109.00	$24,198.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER MORRISON			
	Bridge MORRWB Total			$713,663.40

Bridge MORREB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	222.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100321
Removal of Existing Structures area	1,554.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$189.91**
Basic Bridge Cost	**$603,895.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER MORRISON. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,554.00 SF	$34.00	$52,836.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44 CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00 LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount

521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	222.00 LF	$109.00	$24,198.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WE OVER MORRISON			
	Bridge MORREB Total			$706,310.40

Bridge SWANWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	15.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100322
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$192.30**
Basic Bridge Cost	**$593,014.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00 SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44 CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00 LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	4,453.00 SF	$1.71	$7,614.63
	Comment: VERTICAL WALL ABUTMENTS TO REMAIN AT SWANN OVERPASS			
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	218.00 LF	$109.00	$23,762.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER SWANN			
	Bridge SWANWB Total			$701,656.03

Bridge SWANEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	218.00
Width (LF)	15.50
Type	Low Level, Widen

Cost Factor	1.30
Structure No.	100323
Removal of Existing Structures area	1,526.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$190.04**
Basic Bridge Cost	**$593,014.50**
Description	OUTSIDE WIDENING (12') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER SWANN. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,526.00 SF	$34.00	$51,884.00
400-2-10	CONC CLASS II, APPROACH SLABS	34.44 CY	$533.96	$18,389.58
415-1-9	REINF STEEL- APPROACH SLABS	6,027.00 LB	$1.16	$6,991.32

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	218.00 LF	$109.00	$23,762.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER SWANN			
	Bridge SWANEB Total			$694,041.40
	Bridges Component Total			$19,982,474.14

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	21,753.00
Begin height	5.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	326,295.00 SF	$29.35	$9,576,758.25

Retaining Wall 2

Description	Value
Length	335.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount

548-12	RET WALL SYSTEM, PERM, EX BARRIER	8,375.00 SF	$29.35	$245,806.25
	Retaining Walls Component Total			$9,822,564.50
Sequence 2 Total				$54,815,419.22

Sequence: 3 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.824 MI
4,352 LF

Description: SEQUENCE 3 REPRESENTS THE WORK FROM WEST OF WILLOW TO HYDE PARK (STA 245+00 TO 236+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS NOT INCLUDED).

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	0.000
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	4.00	AC	$31,259.83	$125,039.32

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	2,882.00	SY	$22.41	$64,585.62
	Comment: REMOVAL OF 5420 LF OF SHLDR GUTTER * 3.5' AND 2323 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	62,767.00	CY	$15.00	$941,505.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (110272 SF) AND OUTSIDE SHOULDER (59199 SF)				
	Earthwork Component Total				$1,131,129.94

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	48.00 / 52.90
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	14.00 / 10.10
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	21,323.70	SY	$6.73	$143,508.50
285-710	OPTIONAL BASE,BASE GROUP 10	11,972.22	SY	$26.82	$321,094.94
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	48,788.24	SY	$3.38	$164,904.25
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	2,563.68	TN	$115.00	$294,823.20
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,025.03	TN	$115.00	$462,878.45
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,951.53	TN	$142.14	$277,390.47
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	466.12	TN	$142.14	$66,254.30

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	4,532.00	TN	$115.00	$521,180.00
	Comment: FOR OVERBUILD				
350-3-1	PLAIN CEMENT CONC PAVT, 6"	1,920.00	SY	$65.00	$124,800.00
	Comment: CONCRETE SLOPED ABUTMENT TO TIE INTO EXISTING SLOPING ABUTMENT AT THE PLATT, WILLOW AND BOULEVARD OVERPASSES				
536-73	GUARDRAIL REMOVAL	5,940.00	LF	$3.54	$21,027.60
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.42	GM	$8,831.83	$3,709.37
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	42.00	LF	$3.38	$141.96
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	3,637.00	LF	$3.68	$13,384.16
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	2.21	GM	$4,715.78	$10,421.87
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.39	GM	$1,554.00	$5,268.06
711-15-133	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"	0.39	GM	$2,848.01	$1,110.72
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.88	GM	$4,670.08	$8,779.75
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.21	GM	$25,839.00	$5,426.19
713-103-131	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC	0.41	GM	$8,430.00	$3,456.30
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.21	GM	$25,889.00	$5,436.69
713-107	PREFORMED/PERMANENT TAPE, REMOVE	1,641.00	SF	$2.42	$3,971.22

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	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	556.00	EA	$6.61	$3,675.16

Roadway Component Total $2,462,643.16

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	2.00 / 2.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	6.20 / 7.20
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	6,798.44	SY	$26.82	$182,334.16
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,425.45	TN	$115.00	$163,926.75
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	259.17	TN	$142.14	$36,838.42
570-1-1	PERFORMANCE TURF	1,934.12	SY	$1.82	$3,520.10

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	1,364.00	LF	$265.00	$361,460.00
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	230.00	LF	$527.00	$121,210.00
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	4,720.00	SF	$53.06	$250,443.20
	Comment: 236' long x 20' high at RW line				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	8,872.00	LF	$483.00	$4,285,176.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,009.08	LF	$1.60	$16,014.53
104-11	FLOATING TURBIDITY BARRIER	82.42	LF	$9.79	$806.89

104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	82.42 LF	$5.19	$427.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	43.00 EA	$113.29	$4,871.47
107-1	LITTER REMOVAL	5.99 AC	$40.27	$241.22
107-2	MOWING	5.99 AC	$58.12	$348.14
	Shoulder Component Total			$5,430,535.64

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	2,070.00	LF	$150.00	$310,500.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-71-15	TEMPORARY BARRIER, F&I, ANCHORED	177.00	LF	$25.41	$4,497.57
	Median Component Total				$314,997.57

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	20.00	EA	$5,859.17	$117,183.40
	Comment: 20 new barrier wall inlets in the areas of widening				
425-2-41	MANHOLES, P-7, <10'	20.00	EA	$5,347.00	$106,940.00
	Comment: EXISTING SHOULDER GUTTER OR BARRIER WALL INLETS TO BE CONVERTED TO MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	400.00	LF	$93.70	$37,480.00
	Comment: 20 LF per new inlet (20 new inlets)				
430-185-124	PIPE CULV,OPT MATL, ROUND, JACK&BORE,24"	285.00	LF	$656.00	$186,960.00
	Comment: CONNECTING PONDS ON EITHER SIDE OF WILLOW AVE				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$60,572.00	$60,572.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	2.40
Description	POND SC-1 (WEST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$31,259.83	$31,259.83
120-1	REGULAR EXCAVATION	3,872.00	CY	$9.39	$36,358.08
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$19.51	$16,388.40
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	4,840.00	SY	$1.82	$8,808.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	2,593.00	CY	$9.39	$24,348.27
	Comment: REMOVAL OF EXISTING FILL SLOPE FOR POND; ASSUME 200 SF PER LINEAR FOOT OF ROADWAY ADJACENT TO POND (350' ADJACENT TO POND SC-WEST)				

Retention Basin 2

Description	Value
Size	2 AC
Multiplier	1
Depth	5.20
Description	POND BW-1 (EAST OF WILLOW)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$31,259.83	$62,519.66
120-1	REGULAR EXCAVATION	16,778.67	CY	$9.39	$157,551.71
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30

425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	$19.51	$23,021.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	9,680.00	SY	$1.82	$17,617.60

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	3,333.00	CY	$9.39	$31,296.87
	Comment: FOR REMOVAL OF FILL SLOPE ADJACENT TO POND SC-EAST; ASSUME 200 SF PER FOOT OF ROADWAY ADJACENT TO POND (450' FOR POND SC-EAST)				

Drainage Component Total $1,165,971.64

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	$359.01	$718.02
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00	AS	$1,288.00	$25,760.00
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	$302.09	$604.18
700-1-60	SINGLE POST SIGN, REMOVE	20.00	AS	$41.95	$839.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,556.60	$9,113.20
700-2-60	MULTI- POST SIGN, REMOVE	2.00	AS	$764.47	$1,528.94

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$1,178.64	$1,178.64
	Comment: SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,295.14	$2,590.28
	Comment: SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	2.00	EA	$5,193.94	$10,387.88
	Comment: NEW SIGN PANELS FOR OH SIGN STRUCTURES WEST OF WILLOW				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$138.01	$138.01
	Comment: REMOVAL OF SIGN PANEL ON OH SIGN WEST OF WILLOW				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	2.00	EA	$700.00	$1,400.00

	Comment: REMOVAL OF SIGN PANELS ON OH SIGN WEST OF WILLOW				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF WILLOW				
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00	EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF WILLOW				
	Signing Component Total				$240,536.15

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	15

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	15.00	EA	$762.60	$11,439.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	9,000.00	LF	$2.22	$19,980.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	15.00	EA	$6,413.00	$96,195.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	15.00	EA	$700.95	$10,514.25
	Subcomponent Total				$138,128.25

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	4,000.00	LF	$14.00	$56,000.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	6.00	EA	$684.09	$4,104.54
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	1,000.00	LF	$1.19	$1,190.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	32.00	EA	$550.00	$17,600.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	6.00	EA	$1,297.00	$7,782.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	44.00	EA	$1,300.00	$57,200.00
715-11-500	LUMINAIRE, REMOVE	22.00	EA	$165.00	$3,630.00
	Lighting Component Total				$285,634.79

BRIDGES COMPONENT

Bridge PLATWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	224.00

Width (LF)	87.40
Type	Low Level
Cost Factor	1.04
Structure No.	100324
Removal of Existing Structures area	13,045.00
Default Cost per SF	$125.00
Factored Cost per SF	$130.00
Final Cost per SF	**$139.31**
Basic Bridge Cost	**$2,545,088.00**
Description	REPLACEMENT OF SELMON WB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	13,045.00	SF	$34.00	$443,530.00
400-2-10	CONC CLASS II, APPROACH SLABS	194.22	CY	$533.96	$103,705.71
415-1-9	REINF STEEL- APPROACH SLABS	33,988.50	LB	$1.16	$39,426.66

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	22,874.00	SF	$1.71	$39,114.54
	Comment: CLEANING AND COATING OF CONCRETE SLOPING ABUTMENT TO REMAIN AT THE PLATT OVERPASS				
	Bridge PLATWB Total				$3,170,864.91

Bridge PLATEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	224.00
Width (LF)	28.10
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100325
Removal of Existing Structures area	1,568.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$182.81**
Basic Bridge Cost	**$1,104,667.20**
Description	INSIDE AND OUTSIDE WIDENING OF SELMON EB OVER PLATT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,568.00	SF	$34.00	$53,312.00
400-2-10	CONC CLASS II, APPROACH SLABS	62.44	CY	$533.96	$33,340.46
415-1-9	REINF STEEL- APPROACH SLABS	10,927.00	LB	$1.16	$12,675.32
	Bridge PLATEB Total				$1,203,994.98

Bridge WILLWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	28.30
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100326
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$188.92**
Basic Bridge Cost	**$849,297.15**
Description	INSIDE AND OUTSIDE WIDENING OF SELMON WB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	62.89	CY	$533.96	$33,580.74
415-1-9	REINF STEEL- APPROACH SLABS	11,005.75	LB	$1.16	$12,766.67

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	10,882.00	SF	$1.71	$18,608.22
	Comment: CLEANING AND SEALING OF THE SLOPING CONCRETE ABUTMENTS AT THE WILLOW OVERPASS				
	Bridge WILLWB Total				$954,950.78

Bridge WILLEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	171.00
Width (LF)	24.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100327
Removal of Existing Structures area	1,197.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$185.08**
Basic Bridge Cost	**$735,257.25**
Description	INSIDE AND OUTSIDE WIDENING OF SELMON EB BRIDGE OVER WILLOW. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,197.00	SF	$34.00	$40,698.00
400-2-10	CONC CLASS II, APPROACH SLABS	54.44	CY	$533.96	$29,068.78
415-1-9	REINF STEEL- APPROACH SLABS	9,527.00	LB	$1.16	$11,051.32
	Bridge WILLEB Total				$816,075.35

Bridge SOUTWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	154.00
Width (LF)	29.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100328
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$194.19**
Basic Bridge Cost	**$797,296.50**
Description	OUTSIDE WIDENING (26') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON WB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	65.56	CY	$533.96	$35,006.42
415-1-9	REINF STEEL- APPROACH SLABS	11,473.00	LB	$1.16	$13,308.68

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	11,587.00	SF	$1.71	$19,813.77
	Comment: CLEANING AND COATING OF THE CONCRETE SLOPED ABUTMENT TO REMAIN AT S. BLVD OVERPASS				
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00	LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER SOUTH				
	Bridge SOUTWB Total				$918,863.37

Bridge SOUTEB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES

Length (LF)	154.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100329
Removal of Existing Structures area	1,078.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$193.92**
Basic Bridge Cost	**$378,378.00**
Description	OUTSIDE WIDENING (10.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5')OF SELMON EB BRIDGE OVER SOUTH. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,078.00	SF	$34.00	$36,652.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.11	CY	$533.96	$16,611.50
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25	LB	$1.16	$6,315.33

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	154.00	LF	$109.00	$16,786.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER SOUTH				
	Bridge SOUTEB Total				$454,742.83
	Bridges Component Total				$7,519,492.22

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	7,842.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	117,630.00	SF	$29.35	$3,452,440.50

Retaining Wall 2

Description	Value
Length	100.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,500.00	SF	$29.35	$73,375.00
	Retaining Walls Component Total				$3,525,815.50
Sequence 3 Total					$22,076,756.61

Sequence: 4 WDR - Widen/Resurface, Divided, Rural **Net Length:** 0.119 MI 630 LF

Description: SEQUENCE 4 REPRESENTS THE WORK FROM HYDE PARK TO THE DOWNTOWN VIADUCT BRIDGE (STA 536+00 TO 549+00). SEQUENCE LENGTH IS THE LENGTH OF ROADWAY (BRIDGE LENGTHS ARE NOT INCLUDED).

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	0.000
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	0.58	AC	$31,259.83	$18,130.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	1,132.00	SY	$22.41	$25,368.12
	Comment: REMOVAL OF 1239 LF SHLDR GUTTER * 3.5', 518 LF OF 8' WIDE CONC DITCH AND 569 LF OF BARRIER WALL (3' HEIGHT ASSUMED)				
120-6	EMBANKMENT	11,570.00	CY	$15.00	$173,550.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF WIDENING (17889 SF) AND AREA OF OUTSIDE SHOULDER (13350 SF)				
	Earthwork Component Total				$217,048.82

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	41.70 / 38.90
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	18.60 / 11.60
Widened Inside Pavement Width L/R	19.20 / 21.10
Widened Structural Spread Rate	440

Widened Friction Course Spread Rate 80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,341.03	SY	$6.73	$42,675.13
285-710	OPTIONAL BASE,BASE GROUP 10	5,026.63	SY	$26.82	$134,814.22
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	5,641.14	SY	$3.38	$19,067.05
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,085.53	TN	$115.00	$124,835.95
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	465.39	TN	$115.00	$53,519.85
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	197.37	TN	$142.14	$28,054.17
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	225.65	TN	$142.14	$32,073.89

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	656.10	TN	$115.00	$75,451.50
	Comment: FOR OVERBUILD				
350-3-1	PLAIN CEMENT CONC PAVT, 6"	225.00	SY	$65.00	$14,625.00
	Comment: CONCRETE SLOPED ABUTMENT TO TIE INTO EXISTING SLOPED ABUTMENT ON THE WEST SIDE OF THE HYDE PARK/PLANT OVERPASS				
536-73	GUARDRAIL REMOVAL	2,283.00	LF	$3.54	$8,081.82
711-11-103	THERMOPLASTIC, STD, WHITE, SOLID, 12"	0.17	GM	$8,831.83	$1,501.41
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.26	GM	$4,715.78	$1,226.10
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	0.59	GM	$1,554.00	$916.86
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.25	GM	$4,670.08	$1,167.52
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.25	GM	$25,839.00	$6,459.75
713-103-131	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC	0.50	GM	$8,430.00	$4,215.00
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.25	GM	$25,889.00	$6,472.25
713-107	PREFORMED/PERMANENT TAPE, REMOVE	1,998.00	SF	$2.42	$4,835.16

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	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	81.00 EA	$6.61	$535.41

Roadway Component Total $560,528.04

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	13.00 / 7.10
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	13.00 / 7.10
Structural Spread Rate	440
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-710	OPTIONAL BASE,BASE GROUP 10	1,452.98	SY	$26.82	$38,968.92
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	309.49	TN	$115.00	$35,591.35
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	56.27	TN	$142.14	$7,998.22

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	586.00	LF	$265.00	$155,290.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-11	CONCRETE BARRIER, WITH JUNCTION SLAB, 8'-0" NOISE WALL	1,292.00	LF	$483.00	$624,036.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,448.78	LF	$1.60	$2,318.05
104-11	FLOATING TURBIDITY BARRIER	11.93	LF	$9.79	$116.79
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	11.93	LF	$5.19	$61.92
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.87	AC	$40.27	$35.03
107-2	MOWING	0.87	AC	$58.12	$50.56

Shoulder Component Total $868,516.74

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	40.00
Performance Turf Width	0.00
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	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	632.00	LF	$150.00	$94,800.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-71-15	TEMPORARY BARRIER, F&I, ANCHORED	251.00	LF	$25.41	$6,377.91

Median Component Total $101,177.91

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-795	INLETS, MED BARRIER, TYPE 2, PARTIAL	3.00	EA	$3,162.00	$9,486.00
	Comment: 3 median barrier wall inlet tops				
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	4.00	EA	$5,859.17	$23,436.68
	Comment: 4 NEW BARRIER WALL INLETS				
425-2-41	MANHOLES, P-7, <10'	4.00	EA	$5,347.00	$21,388.00
	Comment: existing shoulder gutter or barrier wall inlets to be converted to MH				
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	80.00	LF	$93.70	$7,496.00
	Comment: 20 LF PER NEW INLET ASSUMED (4 NEW INLETS)				

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-XXX	DRAINAGE MISC	1.00	LS	$9,163.00	$9,163.00
	Comment: 15% OF DRAINAGE COMPONENT SUBTOTAL (NOT INCLUDING PONDS) ADDED TO ACCOUNT FOR SHOULDER SPREAD IN ALT 6				

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	6.00

Description	POND BW-2 (EAST OF SOUTH BLVD.)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	4,840.00	CY	$9.39	$45,447.60
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40

Retention Basin 2

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	POND BW-3 (WEST OF HYDE PARK)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00	AC	$31,259.83	$31,259.83
120-1	REGULAR EXCAVATION	9,680.00	CY	$9.39	$90,895.20
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00	LF	$19.51	$16,388.40
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	4,840.00	SY	$1.82	$8,808.80

Drainage Component Total $494,670.45

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	$359.01	$359.01
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,288.00	$3,864.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	3.00	AS	$41.95	$125.85

700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	1.00	EA	$1,178.64	$1,178.64
	Comment: REPLACEMENT OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-203	SIGN PANEL, F&I OM, 21-30 SF	2.00	EA	$1,295.14	$2,590.28
	Comment: REPLACEMENT OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	1.00	EA	$3,601.00	$3,601.00
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	1.00	EA	$5,193.94	$5,193.94
	Comment: NEW SIGN PANEL ON OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	1.00	EA	$138.01	$138.01
	Comment: REMOVAL OF OH SIGN PANEL WEST OF HILLSBOROUGH RIVER				
700-3-603	SIGN PANEL, REMOVE, 21-30 SF	2.00	EA	$305.00	$610.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	1.00	EA	$243.15	$243.15
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	1.00	EA	$700.00	$700.00
	Comment: REMOVAL OF OH SIGN PANELS WEST OF HILLSBOROUGH RIVER				
700-4-126	OH STATIC SIGN STR, F&I, S 101-150 FT	1.00	EA	$175,543.00	$175,543.00
	Comment: REPLACEMENT OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	1.00	EA	$10,125.00	$10,125.00
	Comment: REMOVAL OF OH SIGN STRUCTURE WEST OF THE HILLSBOROUGH RIVER				
	Signing Component Total				$209,895.04

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$762.60	$4,575.60
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	$2.22	$7,992.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	$6,413.00	$38,478.00

715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00 EA	$700.95	$4,205.70
	Subcomponent Total			$55,251.30

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	1,800.00	LF	$14.00	$25,200.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	4.00	EA	$684.09	$2,736.36
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00	LF	$1.19	$714.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	11.00	EA	$550.00	$6,050.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	4.00	EA	$1,297.00	$5,188.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	24.00	EA	$1,300.00	$31,200.00
715-11-500	LUMINAIRE, REMOVE	12.00	EA	$165.00	$1,980.00
	Lighting Component Total				$128,319.66

BRIDGES COMPONENT

Bridge HYDEWB

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	14.00
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100330
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.84**
Basic Bridge Cost	**$1,633,905.00**
Description	AND OUTSIDE WIDENING (10.5') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5') OF SELMON WB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00	SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.11	CY	$533.96	$16,611.50
415-1-9	REINF STEEL- APPROACH SLABS	5,444.25	LB	$1.16	$6,315.33

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-143	CLEAN & COAT CONCRETE SURF , CLASS 5	5,956.00	SF	$1.71	$10,184.76

	Comment: CLEANING 4357 OF SLOPING ABUTMENT AND 1599 SF OF VERTICAL WALL ABUTMENTS TO REMAIN AT THE HYDE PARK/PLANT OVERPASS			
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	665.00 LF	$109.00	$72,485.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON WB OVER HYDE PARK/PLANT			
	Bridge HYDEWB Total			$1,897,771.59

Bridge HYDEEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	665.00
Width (LF)	13.50
Type	Low Level, Widen
Cost Factor	1.30
Structure No.	100331
Removal of Existing Structures area	4,655.00
Default Cost per SF	$135.00
Factored Cost per SF	$175.50
Final Cost per SF	**$186.04**
Basic Bridge Cost	**$1,575,551.25**
Description	OUTSIDE WIDNEING (10') AND INSIDE RECONSTRUCTION FOR RAIL REPLACEMENT (3.5') OF SELMON EB OVER HYDE PARK/PLANT. 3.5' OF EXISTING BRIDGE TO BE REMOVED EACH SIDE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,655.00 SF	$34.00	$158,270.00
400-2-10	CONC CLASS II, APPROACH SLABS	30.00 CY	$533.96	$16,018.80
415-1-9	REINF STEEL- APPROACH SLABS	5,250.00 LB	$1.16	$6,090.00

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	665.00 LF	$109.00	$72,485.00
	Comment: REPLACEMENT OF EXISTING INSIDE BRIDGE RAILING FOR SELMON EB OVER HYDE PARK/PLANT			
	Bridge HYDEEB Total			$1,828,415.05
	Bridges Component Total			$3,726,186.64

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	**Value**
Length	1,409.00

Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	21,135.00	SF	$29.35	$620,312.25

Retaining Wall 2

Description	Value
Length	56.00
Begin height	25.00
End Height	25.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,400.00	SF	$29.35	$41,090.00

Retaining Walls Component Total $661,402.25

Sequence 4 Total $6,967,745.55

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.796 MI
4,200 LF

Description: SEQUENCE 5 REPRESENTS THE WORK ON THE SELMON EXPRESSWAY DOWNTOWN VIADUCT BRIDGE (STA 549+00 TO 591+00)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	3.00	EA	$104.80	$314.40
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	3.00	EA	$56.82	$170.46
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.98	GM	$25,839.00	$25,322.22
713-103-102	PERM TAPE, WHITE, S, 8" EXIT CONC PAVMT	0.14	GM	$30,927.79	$4,329.89
713-103-103	PERMANENT TAPE, WHITE,SOLID,12" CONC BR	0.36	GM	$47,476.75	$17,091.63
713-103-131	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC	2.05	GM	$8,430.00	$17,281.50
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.98	GM	$25,889.00	$25,371.22
713-107	PREFORMED/PERMANENT TAPE, REMOVE	9,872.00	SF	$2.42	$23,890.24
	Comment: 19744 LF OF 6" STRIPES TO BE REMOVED				
	Roadway Component Total				$113,771.56

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	1.00	EA	$5,859.17	$5,859.17
425-2-43	MANHOLES, P-7, PARTIAL	1.00	EA	$3,826.42	$3,826.42
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	24.00	LF	$93.70	$2,248.80

Retention Basin 1

Description	Value
Size	.5 AC
Multiplier	1
Depth	0.40
Description	POND M-1 (BROREIN)

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	$31,259.83	$15,629.92
120-1	REGULAR EXCAVATION	322.67	CY	$9.39	$3,029.87
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,347.35	$24,252.30
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$4,475.40	$4,475.40
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$8,410.31	$8,410.31
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$157.60	$8,825.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$378.86	$75,772.00

550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	600.00	LF	$19.51	$11,706.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,097.00	$2,097.00
570-1-1	PERFORMANCE TURF	2,420.00	SY	$1.82	$4,404.40
	Drainage Component Total				$170,537.19

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-202	SIGN PANEL, F&I OM, 12-20 SF	3.00	EA	$1,178.64	$3,535.92
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	$3,601.00	$7,202.00
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	$5,193.94	$15,581.82
700-3-602	SIGN PANEL, REMOVE, 12-20 SF	3.00	EA	$138.01	$414.03
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	$243.15	$486.30
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	$700.00	$2,100.00
700-4-140	OH STATIC SIGN STR, F&I, O BR MOUNT	3.00	EA	$11,252.00	$33,756.00
700-4-610	OH STATIC SIGN STR, REMOVE, CANT	1.00	EA	$5,114.17	$5,114.17
700-4-620	OH STATIC SIGN STR, REMOVE, SPAN	2.00	EA	$10,125.00	$20,250.00
	Signing Component Total				$88,440.24

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	23

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	23.00	EA	$762.60	$17,539.80
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	13,800.00	LF	$2.22	$30,636.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	23.00	EA	$6,413.00	$147,499.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	23.00	EA	$700.95	$16,121.85
	Subcomponent Total				$211,796.65

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	5,000.00	LF	$31.83	$159,150.00
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	3,200.00	LF	$14.00	$44,800.00
635-3-12	JUNCTION BOX, FURNISH & INSTALL, MOUNTED	22.00	EA	$684.09	$15,049.98
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	3,200.00	LF	$1.19	$3,808.00

715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	23.00 EA	$550.00	$12,650.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	22.00 EA	$1,297.00	$28,534.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	98.00 EA	$1,300.00	$127,400.00
715-11-500	LUMINAIRE, REMOVE	96.00 EA	$165.00	$15,840.00
	Lighting Component Total			$619,028.63

BRIDGES COMPONENT

Bridge VIADWB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,707.00
Width (LF)	14.13
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100332
Removal of Existing Structures area	9,715.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.96**
Basic Bridge Cost	**$4,558,662.99**
Description	OUTSIDE WIDENING (14.13' AVG) OF THE WB SELMON DOWNTOWN VIADUCT BRIDGE.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	9,715.00 SF	$34.00	$330,310.00
400-2-10	CONC CLASS II, APPROACH SLABS	31.40 CY	$533.96	$16,766.34
415-1-9	REINF STEEL- APPROACH SLABS	5,495.00 LB	$1.16	$6,374.20
	Bridge VIADWB Total			$4,912,113.53

Bridge VIAEB

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	3,210.00
Width (LF)	12.40
Type	Low Level, Widen
Cost Factor	1.40
Structure No.	100333
Removal of Existing Structures area	11,235.00
Default Cost per SF	$135.00
Factored Cost per SF	$189.00
Final Cost per SF	**$189.51**
Basic Bridge Cost	**$7,522,956.00**
Description	OUTSIDE WIDENING (12.4' AVG) OF THE EB SELMON DOWNTOWN VIADUCT BRIDGE. 3.5' OF EXISTING BRIDGE TO BE REMOVED ON THE OUTSIDE (3210').

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	11,235.00	SF	$34.00	$381,990.00
400-2-10	CONC CLASS II, APPROACH SLABS	27.56	CY	$533.96	$14,715.94
415-1-9	REINF STEEL- APPROACH SLABS	4,823.00	LB	$1.16	$5,594.68
	Bridge VIAEB Total				$7,925,256.62
	Bridges Component Total				$12,837,370.15
Sequence 5 Total					$13,829,147.77

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: SEQUENCE 6 REPRESENTS THE PRELIMINARY ITS AND LANDSCAPE COSTS FOR THE SELMON EXPRESSWAY WITHIN THE PROJECT LIMITS.

Special Conditions: LANDSCAPE COST WAS ESTIMATED AT $100,000 FOR THE FOLLOWING 6 LOCATIONS: EUCLID EB ON RAMP, EUCLID WB OFF RAMP, WILLOW EB OFF RAMP, WILLOW WB ON RAMP, WILLOW EB ON RAMP AND WILLOW WB OFF RAMP.

SIGNALIZATIONS COMPONENT

Signalization 3

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EB BAY TO BAY RAMP TERMINAL

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	600.00 LF	$8.43	$5,058.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00 LF	$25.66	$3,849.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,952.50	$5,952.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	$762.60	$6,100.80
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$6.55	$393.00
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	2.00 EA	$48,000.00	$96,000.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	$982.38	$5,894.28
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	6.00 AS	$673.85	$4,043.10
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	$468.00	$2,808.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	$1,051.28	$6,307.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$312.59	$1,875.54
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$33,949.00	$33,949.00
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	3.00 EA	$2,994.30	$8,982.90
	Signalizations Component Total			$184,347.11

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
676-000	ITS EQUIPTMENT	1.00 LS	$4,950,000.00	$4,950,000.00
	Comment: ITS COST ESTIMATED AT $1.1M PER MILE FOR 4.5 MILES			
735-000	TOLLING EQUIPTMENT	1.00 LS	$5,000,000.00	$5,000,000.00

Comment: MAINLINE AND RAMP TOLLING
ESTIMATED AT $5M FOR THE PROJECT LIMITS

Intelligent Traffic System (ITS) Component Total	$9,950,000.00

LANDSCAPING COMPONENT

User Input Data

Description	**Value**
Lump Sum	600,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	$600,000.00

Sequence 6 Total	$10,734,347.11

Sequence: 7 WUU - Widen/Resurface, Undivided, Urban **Net Length:** 0.089 MI 472 LF

Description: SEQUENCE 7 REPRESENTS THE IMPROVEMENTS TO THE WB EUCLID OFF RAMP SOUTH OF THE BRIDGE OVER CSX.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
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	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
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	0.16	AC	$31,259.83	$5,001.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	88.00	SY	$22.41	$1,972.08
	Comment: REMOVAL OF 227 LF OF 3.5' WIDE SHOULDER GUTTER				
120-6	EMBANKMENT	1,803.00	CY	$15.00	$27,045.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF RAMP WIDENING AND PAVED SHOULDER (4868 SF)				
	Earthwork Component Total				$34,018.65

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Existing Roadway Pavement Width L/R	0.00 / 17.80
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 3.70
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	329.37	SY	$6.73	$2,216.66

285-710	OPTIONAL BASE,BASE GROUP 10	211.37 SY	$26.82	$5,668.94
327-70-11	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH	933.57 SY	$3.38	$3,155.47
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	42.69 TN	$115.00	$4,909.35
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	77.02 TN	$115.00	$8,857.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	37.34 TN	$142.14	$5,307.51
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	7.76 TN	$142.14	$1,103.01

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
536-73	GUARDRAIL REMOVAL	227.00	LF	$3.54	$803.58
711-11-102	THERMOPLASTIC, STD, WHITE, SOLID, 8"	0.08	GM	$5,755.00	$460.40
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	82.00	LF	$2.55	$209.10
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	80.00	LF	$3.72	$297.60
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	2.00	EA	$104.80	$209.60
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	4.00	EA	$56.82	$227.28
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.11	GM	$4,715.78	$518.74
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.08	GM	$4,670.08	$373.61

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	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	60.00	EA	$6.61	$396.60

Roadway Component Total $34,714.75

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	12.25 / 12.25
New Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	180.00	LF	$26.00	$4,680.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	187.00	LF	$24.58	$4,596.46
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	294.00	LF	$265.00	$77,910.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	944.06	LF	$1.60	$1,510.50
104-11	FLOATING TURBIDITY BARRIER	8.94	LF	$9.79	$87.52
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	8.94	LF	$5.19	$46.40
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	5.00	EA	$113.29	$566.45
107-1	LITTER REMOVAL	0.41	AC	$40.27	$16.51
107-2	MOWING	0.41	AC	$58.12	$23.83
	Shoulder Component Total				$92,354.67

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-2-41	MANHOLES, P-7, <10'	1.00	EA	$5,347.00	$5,347.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-881	INLETS, BARRIER WALL, RIG, C&G, <=10'	2.00	EA	$5,859.17	$11,718.34
	Drainage Component Total				$17,065.34

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	$359.01	$718.02
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,288.00	$1,288.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	2.00	AS	$41.95	$83.90
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60

700-2-60	MULTI- POST SIGN, REMOVE	1.00 AS	$764.47	$764.47
	Signing Component Total			$7,713.08

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	263.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,945.00	SF	$29.35	$115,785.75
	Retaining Walls Component Total				$115,785.75

Sequence 7 Total $301,652.24

Sequence: 8 WUU - Widen/Resurface, Undivided, Urban **Net Length:** 0.188 MI 990 LF

Description: SEQUENCE 8 REPRESENTS THE IMPROVEMENTS TO THE SELMON WB OFF RAMP TO BRING IT INTO THE WILLOW/CLEVELAND SIGNAL.

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	0.000
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	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
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	0.91 AC	$31,259.83	$28,446.45

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	211.00 SY	$22.41	$4,728.51
	Comment: REMOVAL OF 372' OF TYPE F CURB AND 1154 SF OF CONC DITCH			
120-6	EMBANKMENT	13,009.00 CY	$15.00	$195,135.00
	Comment: ESTIMATE 10' OF FILL OVER THE AREA OF RAMP WIDENING AND PAVED SHOULDER (35123 SF)			
	Earthwork Component Total			$228,309.96

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	35.50 / 0.00
Widened Structural Spread Rate	440
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,188.80 SY	$6.73	$28,190.62
285-710	OPTIONAL BASE,BASE GROUP 10	3,941.30 SY	$26.82	$105,705.67
334-1-54		859.10 TN	$115.00	$98,796.50

	SUPERPAVE ASPH CONC, TRAF D, PG76-22			
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	156.20 TN	$120.00	$18,744.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
524-1-1	CONCRETE DITCH PAVT, NR, 3"	96.00 SY	$73.89	$7,093.44
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	70.00 LF	$2.55	$178.50
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	85.00 LF	$3.72	$316.20
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	3.00 EA	$56.82	$170.46
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.20 GM	$4,715.78	$943.16
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	0.17 GM	$1,554.00	$264.18
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.22 GM	$4,670.08	$1,027.42

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
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	25.00 EA	$6.61	$165.25

Roadway Component Total $261,595.40

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	12.25 / 12.25
New Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,075.00 LF	$24.58	$26,423.50
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	984.00 LF	$265.00	$260,760.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,980.00	LF	$1.60	$3,168.00
104-11	FLOATING TURBIDITY BARRIER	18.75	LF	$9.79	$183.56
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	18.75	LF	$5.19	$97.31
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.86	AC	$40.27	$34.63
107-2	MOWING	0.86	AC	$58.12	$49.98
	Shoulder Component Total				$294,766.88

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	3.00	EA	$5,211.58	$15,634.74
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00	EA	$4,053.74	$4,053.74
425-2-43	MANHOLES, P-7, PARTIAL	3.00	EA	$3,826.42	$11,479.26
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	160.00	LF	$93.70	$14,992.00
	Drainage Component Total				$46,159.74

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	$359.01	$1,436.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,288.00	$1,288.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	4.00	AS	$41.95	$167.80
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$764.47	$764.47
	Signing Component Total				$8,515.00

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Strain Pole
Multiplier	1
Description	REMOVAL AND REPLACEMENT OF THE TRAFFIC SIGNALS AT WILLOW AVE/CLEAVELAND ST/SELMON WB RAMP TERMINAL TO BRING THE SELMONG WB OFF RAMP INTO THE SIGNAL

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$8.43	$6,322.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$25.66	$5,132.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,952.50	$5,952.50
634-4-143	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, BOX	1.00	PI	$7,070.96	$7,070.96
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	$762.60	$10,676.40
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30.00	LF	$6.55	$196.50
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	10.00	AS	$982.38	$9,823.80
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$673.85	$5,390.80
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	10.00	EA	$468.00	$4,680.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	10.00	AS	$1,051.28	$10,512.80
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$312.59	$2,500.72
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$33,949.00	$33,949.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$194.00	$776.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
634-4-600	SPAN WIRE ASSEMBLY, REMOVE-POLES REMAIN	1.00	PI	$1,668.74	$1,668.74
650-1-60	VEH TRAF SIGNAL, REMOVE-POLES TO REMAIN	6.00	AS	$101.99	$611.94
653-1-12	PEDESTRIAN SIGNAL, F&I LED COUNT, 2 WAYS	2.00	AS	$1,052.25	$2,104.50
653-1-60	PEDESTRIAN SIGNAL, REMOVE	4.00	AS	$87.25	$349.00

Signalizations Component Total $110,851.47

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	452.00
Begin height	25.00
End Height	5.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,780.00	SF	$29.35	$198,993.00

Retaining Walls Component Total $198,993.00

Sequence 8 Total	$1,149,191.45

Sequence: 9 WUU - Widen/Resurface, Undivided, Urban **Net Length:** 0.177 MI 936 LF

Description: SEQUENCE 9 REPRESENTS THE MILLING, RESURFACING, PEDESTRIAN IMPROVEMENTS AND SIGNALIZATION OF EUCLID AVE. FROM EAST OF HIMES AVENUE TO EAST OF LYNWOOD AVENUE.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	10.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
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	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
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	0.21 AC	$31,259.83	$6,564.56

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	76.00 SY	$22.41	$1,703.16
	Comment: 518 SF ISLAND + 85 LF * 2' CURB = 76 SY			
	Earthwork Component Total			$8,267.72

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	3
Existing Roadway Pavement Width L/R	23.40 / 23.30
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.34 / 3.70
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	956.95 SY	$6.73	$6,440.27
285-710	OPTIONAL BASE,BASE GROUP 10	488.88 SY	$26.82	$13,111.76
327-70-8	MILLING EXIST ASPH PAVT,2 1/2" AVG DEPTH	4,857.55 SY	$2.29	$11,123.79

334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	69.34 TN	$115.00	$7,974.10
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	400.75 TN	$115.00	$46,086.25
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	194.30 TN	$120.00	$23,316.00
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	16.81 TN	$120.00	$2,017.20

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	18.00 LF	$20.63	$371.34
536-73	GUARDRAIL REMOVAL	40.00 LF	$3.54	$141.60
550-10-110	FENCING, TYPE A, 0.0-5.0', STANDARD	64.00 LF	$7.70	$492.80
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	281.00 LF	$2.55	$716.55
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	437.00 LF	$3.72	$1,625.64
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	12.00 EA	$104.80	$1,257.60
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	10.00 EA	$56.82	$568.20
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.36 GM	$4,715.78	$1,697.68
711-15-102	THERMOPLASTIC, STD-OP, WHITE, SOLID, 8"	0.02 GM	$5,562.09	$111.24
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.29 GM	$4,670.08	$1,354.32

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
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	96.00 EA	$6.61	$634.56

Roadway Component Total $119,040.90

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	4.25 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 0.00

Sidewalk Width L/R 0.00 / 0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	936.14	LF	$24.58	$23,010.32
570-1-2	PERFORMANCE TURF, SOD	208.03	SY	$3.20	$665.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	56.00	LF	$26.00	$1,456.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	120.00	LF	$24.58	$2,949.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	493.00	SY	$46.00	$22,678.00
527-2	DETECTABLE WARNINGS	72.00	SF	$28.26	$2,034.72

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,872.29	LF	$1.60	$2,995.66
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	17.73	LF	$5.19	$92.02
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,917.00	$2,917.00
104-18	INLET PROTECTION SYSTEM	10.00	EA	$113.29	$1,132.90
107-1	LITTER REMOVAL	0.82	AC	$40.27	$33.02
107-2	MOWING	0.82	AC	$58.12	$47.66

Shoulder Component Total $60,012.60

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-2-41	MANHOLES, P-7, <10'	1.00	EA	$5,347.00	$5,347.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-355	INLETS, CURB, TYPE P-5, PARTIAL	1.00	EA	$3,846.29	$3,846.29

Drainage Component Total $9,193.29

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11		4.00	AS	$359.01	$1,436.04

	SINGLE POST SIGN, F&I GM, <12 SF			
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	$1,288.00	$1,288.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00 AS	$302.09	$302.09
700-1-60	SINGLE POST SIGN, REMOVE	4.00 AS	$41.95	$167.80
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	$4,556.60	$4,556.60
700-2-60	MULTI- POST SIGN, REMOVE	1.00 AS	$764.47	$764.47
	Signing Component Total			$8,515.00

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	NEW SIGNAL AT EUCLID AVENUE AND SELMON WB OFF RAMP

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$8.43	$6,744.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$25.66	$5,132.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,952.50	$5,952.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$762.60	$9,151.20
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$6.55	$393.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	5.00	AS	$982.38	$4,911.90
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	5.00	AS	$673.85	$3,369.25
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	5.00	EA	$468.00	$2,340.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	5.00	AS	$1,051.28	$5,256.40
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	5.00	EA	$312.59	$1,562.95
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$33,949.00	$33,949.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	3.00	EA	$194.00	$582.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-21-12	STEEL MAST ARM ASSEMBLY, F&I, 60'- 40'	1.00	EA	$56,477.77	$56,477.77

Signalization 2

Description	Value
Type	2 Lane Mast Arm

Multiplier	1
Description	NEW SIGNAL AT EUCLID AVENUE AND SELMON EB ON RAMP

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$8.43	$6,744.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$25.66	$5,132.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,952.50	$5,952.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$762.60	$9,151.20
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$3,133.31	$3,133.31
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$6.55	$393.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	5.00	AS	$982.38	$4,911.90
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	4.00	AS	$673.85	$2,695.40
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	4.00	EA	$468.00	$1,872.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	4.00	AS	$1,051.28	$4,205.12
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	5.00	EA	$312.59	$1,562.95
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$33,949.00	$33,949.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	3.00	EA	$194.00	$582.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
634-4-600	SPAN WIRE ASSEMBLY, REMOVE-POLES REMAIN	1.00	PI	$1,668.74	$1,668.74
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
641-2-70	PREST CNC POLE, REMOVE SHALLOW	2.00	EA	$4,750.04	$9,500.08
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
649-21-13	STEEL MAST ARM ASSEMBLY, F&I, 60'- 50'	1.00	EA	$53,977.39	$53,977.39
653-1-12	PEDESTRIAN SIGNAL, F&I LED COUNT, 2 WAYS	1.00	AS	$1,052.25	$1,052.25
653-1-60	PEDESTRIAN SIGNAL, REMOVE	2.00	AS	$87.25	$174.50
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
670-5-600	TRAF CNTL ASSEM, REMOVE	1.00	AS	$717.32	$717.32
	Comment: REMOVAL OF PEDESTRIAN SIGNAL EAST OF LYNWOOD AVE.				
	Signalizations Component Total				$286,329.94

Sequence 9 Total $491,359.45

Sequence: 10 RSU - Resurfacing, Undivided **Net Length:** 0.057 MI 300 LF

Description: SEQUENCE 10 REPRESENTS THE MILLING, RESURFACING AND PEDESTRIAN IMPROVEMENTS AT THE WILLOW/CLEVELAND INTERSECTION

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	27.40 / 27.40
Structural Spread Rate	165
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	1,826.08	SY	$3.96	$7,231.28
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	150.65	TN	$115.00	$17,324.75
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	150.65	TN	$120.00	$18,078.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	85.00	SY	$22.41	$1,904.85
	Comment: 139 LF OF 2' WIDE CURB AND 483 SF OF SIDEWALK				
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	421.00	LF	$2.55	$1,073.55
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	24.00	LF	$3.38	$81.12
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	435.00	LF	$3.72	$1,618.20
711-11-141	THERMOPLASTIC, STD, WHITE, DOT GUIDE, 6"	0.08	GM	$2,020.56	$161.64
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	5.00	EA	$104.80	$524.00
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	10.00	EA	$56.82	$568.20
711-11-241	THERMOPLASTIC,STD,YELLOW,DOT / GUIDE, 6"	0.03	GM	$2,322.27	$69.67
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.07	GM	$4,143.00	$290.01
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	0.03	GM	$4,128.81	$123.86

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	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	38.00	EA	$6.61	$251.18
	Roadway Component Total				$49,300.31

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside 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 ï¿½No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	139.00	LF	$24.58	$3,416.62
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	512.00	SY	$46.00	$23,552.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-11	FLOATING TURBIDITY BARRIER	5.68	LF	$9.79	$55.61
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	5.68	LF	$5.19	$29.48
104-18	INLET PROTECTION SYSTEM	1.00	EA	$113.29	$113.29
107-1	LITTER REMOVAL	0.14	AC	$40.27	$5.64
107-2	MOWING	0.14	AC	$58.12	$8.14
	Shoulder Component Total				$27,180.78

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-359	INLETS, CURB, TYPE P-5, MODIFY	1.00	EA	$6,110.40	$6,110.40
	Drainage Component Total				$6,110.40

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	299.90	LF	$8.43	$2,528.16
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	39.14	LF	$25.66	$1,004.33
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	2.00	EA	$762.60	$1,525.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,017.12	LF	$2.22	$2,258.01
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	2.00	EA	$5,800.00	$11,600.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	2.00	EA	$700.95	$1,401.90
	Subcomponent Total				$20,317.60
	Lighting Component Total				$20,317.60

Sequence 10 Total $102,909.09

Sequence: 11 RSU - Resurfacing, Undivided **Net Length:** 0.077 MI
405 LF

Description: SEQUENCE 11 REPRESENTS THE RECONSTRUCTION OF THE SB TAMPA STREET TO WB SELMON EXPRESSWAY RAMP BRIDGE.

Special Conditions: THE SEQUENCE LENGTH IS THE LENGTH OF ROADWAY WORK ALONG THE BRIDGE APPROACH (MILLING, RESURFACING AND GUARDRAIL REPLACEMENT) AND DOES NOT INCLUDE BRIDGE LENGTH.

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	5.20 / 15.00
Structural Spread Rate	165
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	908.95	SY	$3.96	$3,599.44
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	74.99	TN	$115.00	$8,623.85
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	74.99	TN	$120.00	$8,998.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	27.00	TN	$240.00	$6,480.00
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	565.00	LF	$20.63	$11,655.95
536-8-123	APPROACH TRANS CONN TO RIGID BA, F&I, ET	2.00	EA	$2,504.08	$5,008.16
536-85-24	GUARDRAIL END TREATMENT-PARA APP TERM	2.00	EA	$2,848.95	$5,697.90
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.07	GM	$4,715.78	$330.10
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.07	GM	$4,670.08	$326.91
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.04	GM	$25,839.00	$1,033.56
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.04	GM	$25,889.00	$1,035.56

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

Roadway Component Total $52,790.23

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside 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 ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	7.67	LF	$5.19	$39.81
104-18	INLET PROTECTION SYSTEM	2.00	EA	$113.29	$226.58
107-1	LITTER REMOVAL	0.19	AC	$40.27	$7.65
107-2	MOWING	0.19	AC	$58.12	$11.04
	Shoulder Component Total				$285.08

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	2.00	EA	$762.60	$1,525.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,373.47	LF	$2.22	$3,049.10
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	2.00	EA	$5,800.00	$11,600.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	2.00	EA	$700.95	$1,401.90
	Subcomponent Total				$17,576.20

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	200.00	LF	$31.83	$6,366.00
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	3.00	EA	$1,480.00	$4,440.00
715-1-11	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<	600.00	LF	$1.19	$714.00
715-4-71	LIGHT POLE COMPLETE, REMOVE POLE	2.00	EA	$550.00	$1,100.00
715-7-21	LOAD CENTER, REWORK, SECONDARY VOLTAGE	3.00	EA	$1,297.00	$3,891.00
715-11-125	LUMINAIRE,F&I,UNDER DECK, WALL MOUNT	6.00	EA	$1,300.00	$7,800.00
	Lighting Component Total				$41,887.20

BRIDGES COMPONENT

Bridge TAMPAW

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	172.30
Width (LF)	31.67
Type	Medium Level
Cost Factor	1.43
Structure No.	100332
Removal of Existing Structures area	4,977.00
Default Cost per SF	$140.00
Factored Cost per SF	$200.20
Final Cost per SF	**$209.71**
Basic Bridge Cost	**$1,092,439.55**
Description	SOUTHBOUND TAMPA ST TO WESTBOUND SELMON EXPRESSWAY RAMP BRIDGE

Bridge Pay Items

Pay item	**Description**	**Quantity Unit**	**Unit Price**	**Extended Amount**
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,977.00 SF	$34.00	$169,218.00
400-2-10	CONC CLASS II, APPROACH SLABS	70.38 CY	$533.96	$37,580.10
415-1-9	REINF STEEL- APPROACH SLABS	12,316.50 LB	$1.16	$14,287.14
	Bridge TAMPAW Total			$1,313,524.79
	Bridges Component Total			$1,313,524.79
Sequence 11 Total				$1,408,487.30

Date: 5/13/2021 3:41:45 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: SELMON-E-XP-WY **Letting Date:** 01/2099

Description: PD&E ESTIMATES FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY.

District: **County:** HILLSBOROUGH **Market Area:** 08 **Units:** English

Contract Class: **Lump Sum Project:** N **Design/Build:** N **Project Length:** 4.900 MI

Project Manager:

Version 10 Project Grand Total **$153,736,683.26**

Description: PD&E ESTIMATE FOR THE EXPANSION OF THE SOUTH SELMON EXPRESSWAY. VERSION 10 REPRESENTS THE PREFERRED ALTERNATIVE WITH THE UPDATES MADE AFTER THE PUBLIC HEARING. THE PREFERRED ALTERNATIVE PROVIDES 6 LANES AT GRADE WITH OUTSIDE WIDENING AND MINIMAL INSIDE BRIDGE WIDENING WITH WALLS ON BOTH SIDES OF THE EXPRESSWAY FOR THE ENTIRE STUDY LIMITS.

Project Sequences Subtotal			**$124,664,515.63**
102-1	Maintenance of Traffic	12.00 %	$14,959,741.88
101-1	Mobilization	10.00 %	$13,962,425.75
Project Sequences Total			**$153,586,683.26**
Project Unknowns		0.00 %	$0.00
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 10 Project Grand Total					**$153,736,683.26**

Appendix G
Design Exception and Design Variation Reports

SELMON EXPRESSWAY

South Selmon PD&E Study

Design Exception Report

June 2021

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PROJECT DESCRIPTION, SCHEDULE AND LIFESPAN

The Tampa Hillsborough Expressway Authority (THEA) is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvements along Selmon Expressway [State Road (SR) 618] in Hillsborough County, Florida. The project limits extend from the eastern project limit of the Selmon Expressway West Extension Project to the beginning of the six-lane section near Whiting Street, a distance of approximately 4.5 miles, as shown in **Figure 1**. Capacity improvements being evaluated include widening inside to the median, adding inside paved shoulders, and potentially adding lanes by widening to the outside or constructing elevated lanes along the median. The improvements would primarily be accommodated within existing right-of-way.

The Selmon Expressway is a limited access, tolled facility providing east-west connectivity from Interstate 75 (I-75) to downtown Tampa and United States Highway 92 (US 92). It currently consists of two 12-foot wide travel lanes in each direction separated by a 38-foot paved median with a concrete barrier wall. The outside shoulders are eight feet wide and contain either shoulder gutter with guardrail or shoulder gutter with barrier wall. The facility is elevated through downtown Tampa and includes structures over Hillsborough River and multiple roadway facilities.

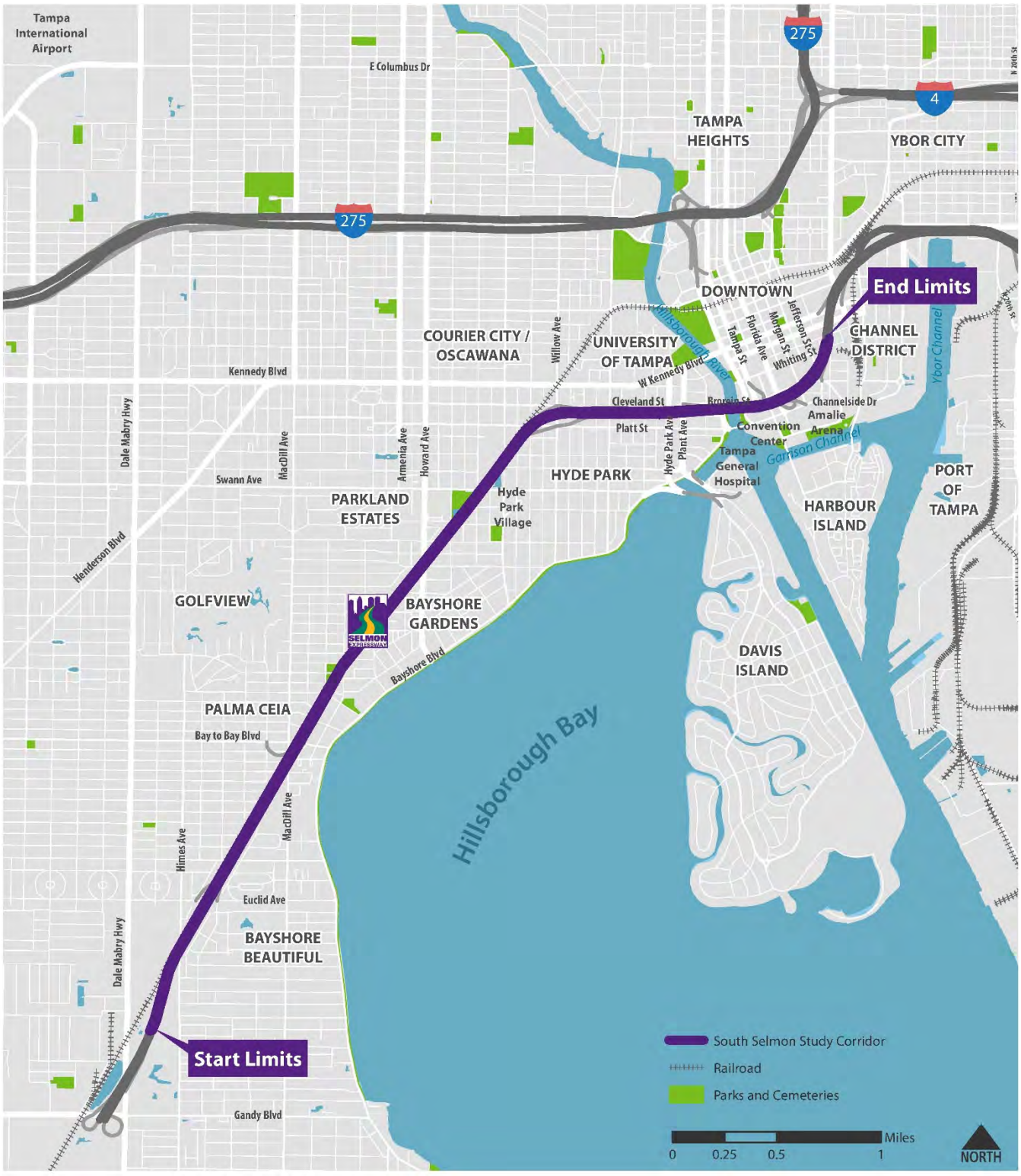
The facility is classified as an Urban Principal Arterial Expressway. It is on the Florida Intrastate Highway System (FIHS) and Strategic Intermodal System (SIS). Since the roadway is a limited access facility, Context Classification does not apply. Within the project limits, the minimum and typical right-of-way is 150 feet wide, but varies in multiple locations. The Selmon Expressway has a posted speed of 55 mph within the project limits with an exception of the segment west of Himes Avenue which has a posted speed of 45 mph.

This Project is currently in a PD&E phase.

The South Selmon Widening Design Build Project is currently projected for advertisement on 5/6/2022. Board Approval is scheduled for 1/23/2023 and an estimated start date is 2/1/2023. The Design Build Project would construct the initial 6-lane facility with the traffic demand showing the need for an 8-lane facility in 2033.

The Design Exception Report is for permanent conditions.

Figure 1: Project Location



1.0 Lane Width Design Exception

A Design Exception is requested for lane width on the mainline of Selmon Expressway (SR 681). The proposed 11 foot wide travel lanes do not meet the AASHTO Green Book: A Policy on Geometric Design of Highways and Streets, 2011 criteria for Freeway facilities.

1.1 Form 122A

FDM Form 122A for the Lane Width Design Exception is provided in **Appendix A**.

1.2 Design Exception Description

1.2.1 FDOT Criteria

FDM Section 211.2

- "Provide 12-foot travel lanes and auxiliary lanes on Limited Access Facilities."

1.2.2 AASHTO Criteria

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- "Through-traffic lanes should be 12 ft wide."

1.2.3 Preferred Alternative Proposed Design

Interim Phase (6 Lane)

11-ft wide travel lanes are proposed for the following Applicable Limits of the Project:

- Sta. 88+66.12 to Sta. 97+65.13 [Typical Section No. 1] (Roadway)
- Sta. 97+65.13 to Sta. 100+85.31 [Typical Section No. 2] (Bridge)
- Sta. 112+10.20 to Sta. 114+26.33 [Typical Section No. 2] (Bridge)
- Sta. 100+85.31 to Sta. 112+10.20 [Typical Section No. 3] (Roadway)
- Sta. 114+26.33 to Sta. 123+65.31 [Typical Section No. 3] (Roadway)
- Sta. 123+65.34 to Sta. 126+40.03 [Typical Section No. 4] (Bridge)
- Sta. 251+69.70 to Sta. 499+86.17 [Typical Section No. 5] (Roadway)
- Sta. 542+69.72 to Sta. 549+01.38 [Typical Section No. 11] (Roadway)
- Sta. 549+01.38 to Sta. 590+81.75 [Typical Section No. 13] (Bridge)

Ultimate Phase (8 Lane) [2033]

The Ultimate Phase, projected for 2033, would consist of a uniform typical section for the entire South Selmon Project corridor. This section would have three (3) 11 ft travel lanes and one (1) outside lane that is 12-ft wide.

Figure 2 and **Figure 3** provide comparisons of the roadway and bridge typical sections for the Interim Phase and Ultimate Phase, respectively.

Figure 2: South Selmon Interim Phase Roadway and Bridge Typical Sections

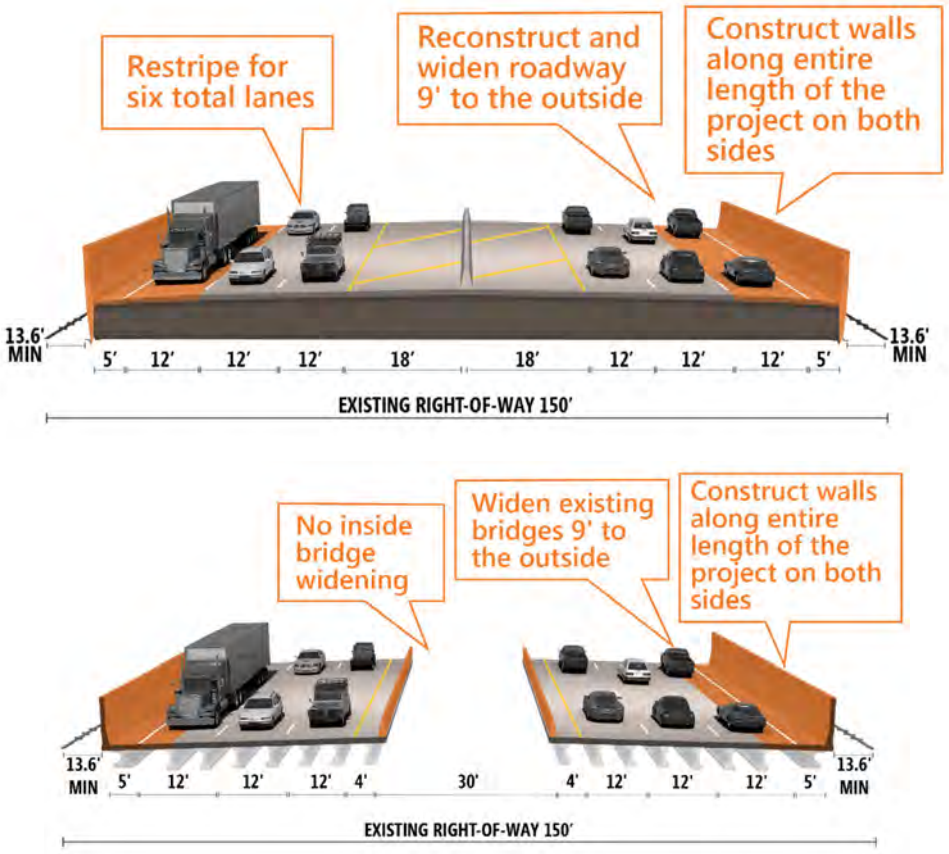


Figure 3: South Selmon Ultimate Phase Roadway and Bridge Typical Sections

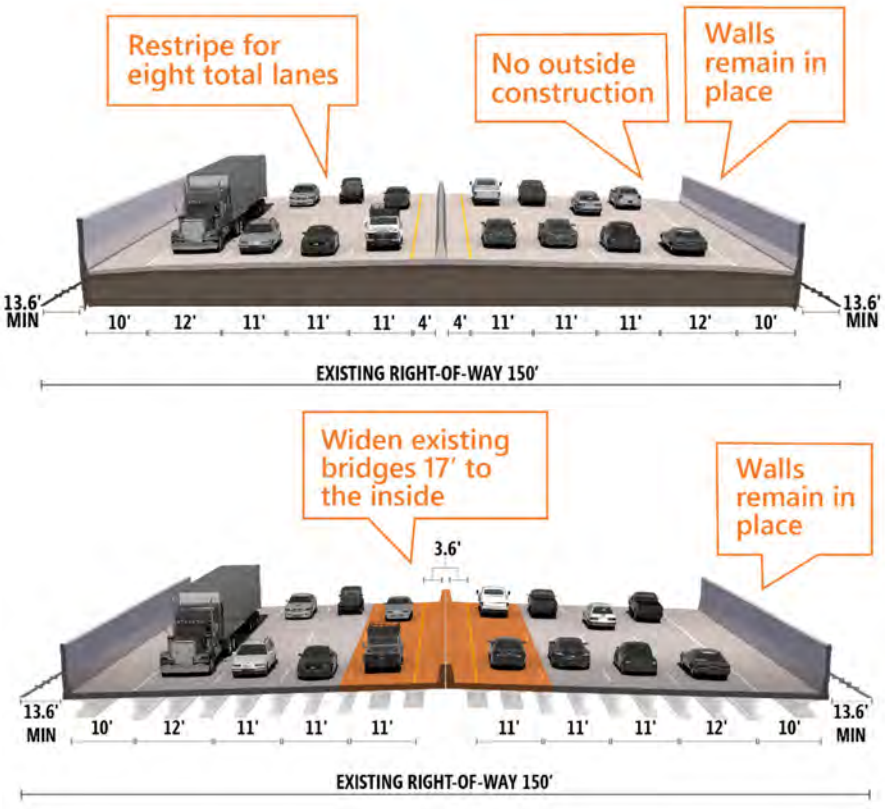


Figure 4 provides a graphical breakdown of the Interim Phase typical sections within the South Selmon Project corridor. The Preferred Alternative Typical Section Package is provided in Appendix E of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

Figure 4: South Selmon Typical Sections Map

The first four typical sections at the beginning of the project limits are compared in **Table 1**.

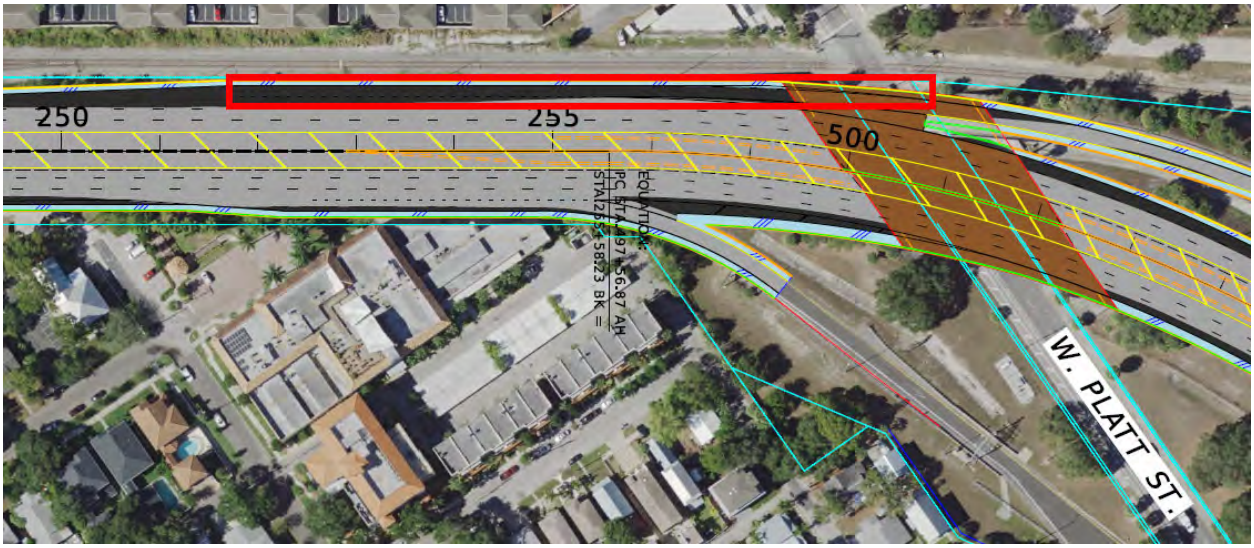
Table 1: Begin Project Interim Phase Typical Section Comparison

			Westbound			Eastbound		
Typical Section	Length	Roadway or Bridge	Outside Lane Width	Middle Lane Width	Inside Lane Width	Inside Lane Width	Middle Lane Width	Outside Lane Width
1	899 LF	Roadway	12 ft	12 ft	11-12 ft	11-12 ft	11-12 ft	12 ft
2	320 LF	Himes Ave. Bridge	12 ft	12 ft	11 ft	11 ft	11 ft	12 ft
3	1,125 LF	Roadway	12 ft	12 ft	11 ft	11 ft	11 ft	12 ft
2	216 LF	Euclid Ave. Bridge	12 ft	12 ft	11 ft	11 ft	11 ft	12 ft
3	939 LF	Roadway	12 ft	12 ft	11 ft	11 ft	11 ft	12 ft
4	275 LF	El Prado Blvd. Bridge	12 ft	12 ft	11 ft	11 ft	11 ft	12 ft

The El Prado Blvd. Bridge contains on and off ramps that are accommodated outside of the mainline travel lanes. East of the bridge is a transition to three (3) 12 ft lanes in both directions of travel. The total length of the beginning project limits with the use of 11 ft lanes is 3,774 LF or 0.72 miles.

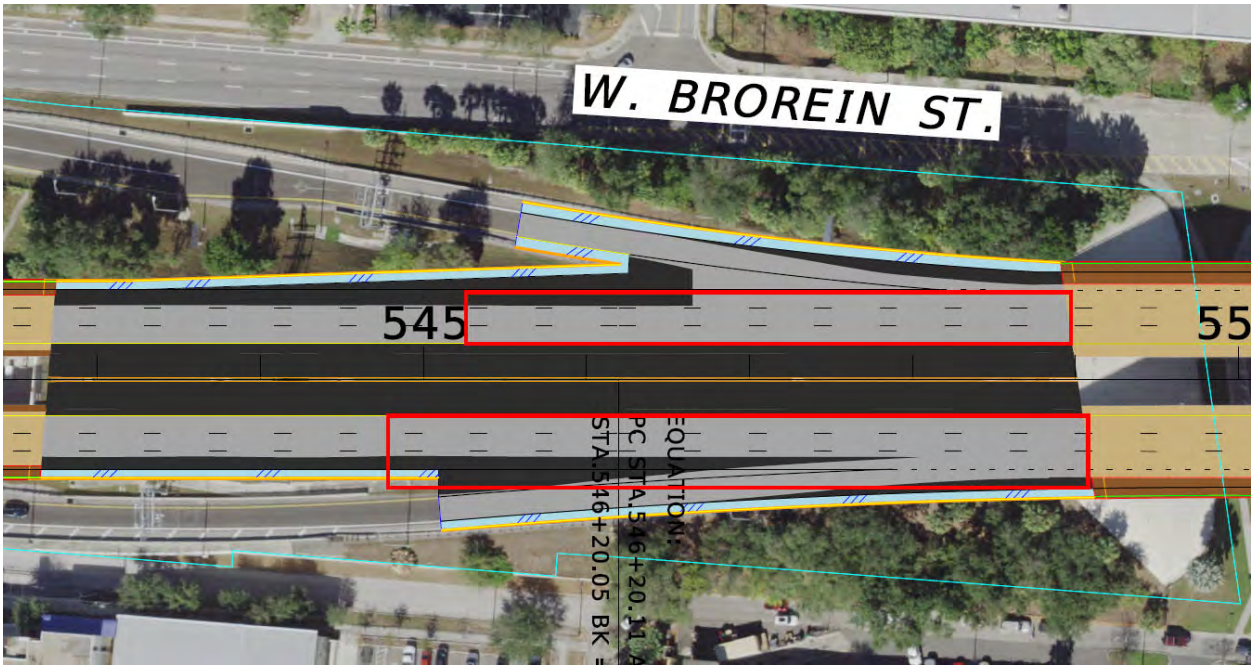
The 11 ft auxiliary lane in Typical Section No. 5 occurs at the WB Platt Street on-ramp and extends for 690 ft before merging into the mainline. This on-ramp is shown in **Figure 5**. The single lane ramp is 15 ft wide at the gore point on the structure and transitions to an 11 ft lane for a majority of the 690 ft length.

Figure 5: WB Platt Street On-Ramp



The viaduct over the Hillsborough River to the end of the project limits (Typical Section No. 13) is proposed as two (2) 11 ft lanes, one (1) 12 ft lane with 11 ft auxiliary lanes in both directions of travel. West of the viaduct is a transition area from the S. Hyde Park Ave. / S. Plant Ave. bridge (all 12 ft lanes). This area is the reference to Typical Section No. 11 in the Applicable Limits listed above and is shown in **Figure 6**.

Figure 6: Transition Area West of Viaduct



The Preferred Alternative Concept Plans are provided in Appendix D of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

1.2.4 Reason the Design Criteria is not Appropriate

The South Selmon PD&E Study reviewed five engineering alternatives based on the purpose and need for the project and an understanding of the existing conditions and constraints along the corridor. The alternatives were developed to limit the need to expand beyond the existing right-of-way, to avoid impacting adjacent properties along the corridor, and to avoid impacts to the CSX railroad on the west side of the project corridor. Existing ramp locations are also maintaining the same access with the proposed alternative analysis.

The resulting analysis discovered that the future traffic (2046) showed a need for 8-lanes, so a sixth alternative was developed that would provide an interim 6-lane condition and an ultimate 8-lane condition. This alternative became the Recommended Alternative of this study and the interim phase widens the project corridor to the outside to allow for future expansion.

The Ultimate 8-lane typical section maintains a single 12-foot-wide outside lane in both directions of travel with the other travel lanes shown at 11 feet wide. The interim 6-lane condition maintains as many 12-foot-wide travel lanes as possible with the ultimate outside widening footprint. In addition to the design exception for lane width due to the existing constraints with this PD&E, a shoulder width design exception is also needed for the project.

Widening for the Interim 6-lane / Ultimate 8-lane to achieve 12-foot lanes would impact properties along the South Selmon Expressway existing right-of-way and the CSX railroad. This would be a conflict with THEA Project Goals and Objectives for the South Selmon PD&E Study.

1.3 Alternative Design Considered

The process for developing the Build Alternatives included four steps to develop, screen, and refine alternatives. The following describes the process for developing the Build Alternatives during this study.

STEP 1 – IDENTIFY PRELIMINARY ALTERNATIVES. Five preliminary alternatives (shown in **Figure 7**) were initially developed based on the purpose and need for the project and an understanding of the existing conditions and constraints along the corridor. The alternatives were developed to limit the need to expand beyond the existing right-of-way and to avoid impacting adjacent properties and the CSX railroad while maintaining the same access at existing ramp locations. Alternatives initially identified are described below:

- **Alternative 1** – Widen bridges to the inside and restripe the existing lanes and inside paved shoulders to accommodate six lanes. No outside widening is proposed.
- **Alternative 2** - Widen bridges to the inside, widen roadway and bridges 9-feet to the outside directions and restripe the existing lanes and inside paved shoulders to accommodate an eight-lane section.

- **Alternative 3** - Maintain the four-lane at-grade typical section and add two elevated limited access lanes (one in each direction) in the median.
- **Alternative 4** - Maintain the four-lane at-grade typical section and add four elevated limited access lanes (two in each direction) in the median.
- **Alternative 5** – Widen bridges to the inside and restripe the existing lanes and inside paved shoulders to accommodate six lanes at grade; add four elevated limited access lanes (two in each direction) in the median.

Figure 7: Preliminary Alternatives

With respect to this Design Exception request, **Table 2** shows the alternatives that were considered and whether they are able to meet the AASHTO/FDOT lane width criteria.

Table 2: Alternative Designs Considered

Alternative	Number of Lanes	Description	Meets AASHTO / FDOT Criteria?	Other Design Exceptions Required
1	6	Widen existing bridges to the inside; restripe existing lanes and inside shoulders	No	Shoulder Width; Stopping Sight Distance; Vertical Clearance
2	8	Widen existing bridges to the inside, widen roadway and bridges to the outside; restripe existing lanes and inside shoulders	No	Shoulder Width; Stopping Sight Distance; Vertical Clearance
3	6	Maintain existing roadway and bridges; add an elevated 2-lane limited access section in the median	Yes	Shoulder Width; Stopping Sight Distance; Vertical Clearance
4	8	Maintain existing roadway and bridges; add an elevated 4-lane limited access section in the median	No	Shoulder Width; Stopping Sight Distance; Vertical Clearance

Alternative	Number of Lanes	Description	Meets AASHTO / FDOT Criteria?	Other Design Exceptions Required
5	10	Widen existing bridges to the inside; restripe existing lanes and inside shoulders; add an elevated 4-lane limited access section in the median	No	Shoulder Width; Stopping Sight Distance; Vertical Clearance

STEP 2 – SCREEN PRELIMINARY ALTERNATIVES. Based on a preliminary evaluation of future traffic needs for 2046 and an evaluation of costs, Alternatives 3, 4 and 5 were eliminated from consideration (as shown in **Figure 8**). Because future traffic (2046) shows a need for 8-lanes, Alternative 1 was modified and a new Alternative 6 was developed to provide an interim 6-lane condition and an ultimate 8-lane condition. In the interim or near-term phase, Alternative 1 widens to the inside first and Alternative 6 widens to the outside first.

Figure 8: Preliminary Alternatives – Initial Screening

STEP 3 – SECONDARY SCREENING. Following further analysis, Alternative 1 was eliminated (as shown in **Figure 9**) because it would require demolition of interim improvements and significant reconstruction to widen to the outside in the ultimate phase.

Figure 9: Preliminary Alternatives – Secondary Screening

STEP 4 – REFINE ALTERNATIVES. The two remaining build alternatives (Alternative 2 and 6) were further developed and refined based on study analysis results. These Alternatives include the same currently programmed and assumed ramp terminal improvements as the No Build Alternative.

1.4 Impacts of the Design Exception

1.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

A preliminary safety analysis was conducted using historical crashes and estimated Crash Reduction Factors (CRFs). Adding one travel lane to achieve a 6-lane section may be expected to reduce crashes by 15%. Adding two travel lanes to achieve an 8-lane section may be expected to reduce crashes by 21%. The Recommended Alternative is expected to reduce South Selmon Expressway mainline and ramp crashes by 7.11 crashes per year. Over the project's twenty-year design life, the total number of Selmon Expressway mainline and ramp crashes are reduced by 142.

A Highway Safety Manual (HSM) Predictive Crash Analysis was conducted to compare the anticipated number of crashes between the No Build Alternative and the Recommended Alternative within the study period. With respect to this Design Exception, the ISATe worksheets for the Recommended Alternative were reviewed utilizing AASHTO minimum standards for comparative purposes. The Design Exception is requesting the use of 11 ft travel lanes. This accounts for an increase of approximately 10 crashes over the study period compared to the use of 12 ft lanes.

1.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The reduced lane widths transition to full 12-ft wide lanes within the Project Limits outside of the applicable limits indicated with this Design Exception.

Based on HSM Exhibit 11-8, the reduction of free flow speed for the use of 11 ft lanes is 1.9 mph.

1.4.3 Right of Way

This Design Exception is requested to avoid right-of-way impacts that would be caused by providing full width 12-ft lanes in the Ultimate Phase (8-lane) section.

1.4.4 Community

This Design Exception will not adversely impact the community surrounding the Selmon Expressway. Project Goals and Objectives are to keep community impacts to a minimum. The proposed Design Exception helps facilitate this Objective.

1.4.5 Environment

This Design Exception will not adversely impact the environment.

1.4.6 Usability by All Modes of Transportation

This Design Exception will not adversely impact the usability by all modes of transportation.

1.5 Costs

A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

In order to provide 12 ft lanes for the ultimate condition while focusing construction to the outside during the interim phase, the South Selmon Expressway would need to be widened three (3) feet on each side for the entire project limits. This additional three (3) feet on each side would allow for all lanes to be 12 feet wide within the project limits. Using the costs tabulated in the Interim and Ultimate LRE's, an additional three (3) feet of widening costs approximately $20 per linear foot of roadway and $525 per linear foot of bridge on each side. The cost for the additional roadway pavement and bridge needed to provide 12 ft lanes summarized in **Table 3**.

Table 3: Additional Costs to Meet AASHTO Design Criteria

	Westbound Length (ft)	Eastbound Length (ft)	Cost/LF (to widen 3 ft)	Westbound Cost	Eastbound Cost	Total Cost
Roadway	18,511	18,511	$20	$370,220	$370,220	$740,440
Bridge	5,315	6,940	$525	$2,790,375	$3,643,500	$6,433,875
Total Cost for additional pavement and bridge to widen lanes to meet criteria =						**$7,174,315**

Other ancillary costs would also be incurred if the lanes were widened to 12 ft for the ultimate condition. These costs include additional earthwork, drainage modifications, pond modifications, and impacts to surrounding properties.

1.6 Mitigation Measures

1.6.1 Interim Phase

The PD&E Study Alternatives were developed according to the Project Goals and Objectives. The lane widths and shoulder widths were reviewed based on site characteristics and by distributing the available cross section width. The Project proposes at least one 12-ft lane in each direction of travel on the outside lane to meet this AASHTO and FDM criteria for Freeways.

Lane width reduction advanced warning signage can be provided. The Project is also seeking a Design Variation for design speed. The posted speed for the corridor should be 50 mph based on that Design Variation request.

1.6.2 Ultimate Phase

The ultimate typical section maintains a 10-ft outside shoulder adjacent to the 12-ft travel lane. This allows for refuge for the entire Project corridor.

1.7 Summary and Conclusions

It is recommended that this Design Exception for Lane Width be approved.

2.0 Shoulder Width Design Exception

A Design Exception is requested for inside and outside shoulder widths on the mainline and ramps of the Selmon Expressway (SR 681). Portions of the proposed design do not meet the *AASHTO Green Book: A Policy on Geometric Design of Highways and Streets, 2011* criteria for Freeway facilities.

2.1 Form 122A

FDM Form 122A for the Shoulder Width Design Exception is provided in **Appendix A**.

2.2 Design Exception Description

2.2.1 FDOT Criteria

FDM Table 211.4.1 Minimum Shoulder Widths

- Travel Lanes (3-Lane or More) – Median or Left = 12 ft full / 10 ft paved
- Travel Lanes (3-Lane or More) – Right or Outside = 12 ft full / 10 ft paved
- Ramps (1 Lane) – Median or Left = 6 ft full / 2 ft paved
- Ramps (1 Lane) – Right or Outside = 6 ft full / 4 ft paved
- Ramps (2 Lane Non-Interstate) – Median or Left = 8 ft full / 4 ft paved
- Ramps (2 Lane Non-Interstate) – Right or Outside = 10 ft full / 8 ft paved

FDM Figure 260.1.1 Partial Bridge Sections for Limited Access Facilities and Divided Arterials Design Speed 50 mph and Greater

- Travel Lanes (3-4 Lanes) – Median or Left = 10 ft
- Travel Lanes (3-4 Lanes) – Right or Outside = 10 ft
- Ramps (1 Lane) – Median or Left = 6 ft
- Ramps (1 Lane) – Right or Outside = 6 ft
- Ramps (2 Lanes) – Median or Left = 6 ft
- Ramps (2 Lanes) – Right or Outside = 10 ft

2.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Page 8-3

- Freeway (6+ Lanes) – Median or Left = 10 ft paved
- Freeway (6+ Lanes) – Right = 10 ft paved

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- Freeway – New Bridges = Approach Roadway Width

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Section 10.9.6 Ramps

- When paved shoulders are provided on ramps, they should have a uniform width for the full length of the ramp. For one-way operation, the sum of the right and left shoulder widths is

typically between 10 to 14 ft. A paved shoulder width of 2 to 4 ft is desirable on the left with the remaining width of 8 to 10 ft used for the paved right shoulder.

- Ramps should have a lateral offset on the right outside of the edge of the traveled way of at least 6 ft, and preferably 8 to 10 ft, and a lateral offset of the left of at least 4 ft beyond the edge of traveled way.

2.2.3 Preferred Alternative Proposed Design

Interim Phase (6 Lane)

In the Interim Phase, the Preferred Alternative provides for a 6-lane section by widening to the outside and therefore does not require inside bridge widening at all overpass locations. The Interim Phase focuses near-term construction to the outside and minimizes future reconstruction; and provides walls for the full length of the project on both sides of the roadway.

Inside shoulders in the Interim Phase utilize the South Selmon Median Safety Project for the majority of the project limits. While this project increased the inside shoulders for the mainline, it did not widen any existing overpass bridges.

The existing bridges to remain in the Interim Phase are shown in **Table 4** with the inside shoulder widths requested with this Design Exception.

Table 4: Interim Phase Inside Shoulder Widths for Design Exceptions

Typical Section	Station Range	Length	Bridge	Westbound Inside Shoulder	Eastbound Inside Shoulder
7	153+00.74 to 160+40.38	740 LF	S. MacDill Ave. and W. Bay to Bay Blvd.	4 ft	4 ft
7	198+54.63 to 200+10.92	156 LF	W. Mississippi Ave.	4 ft	4 ft
7	213+30.58 to 216+29.71	300 LF	W. Watrous Ave. and S. Howard Ave.	4 ft	4 ft
7	221+11.58 to 223+35.57	224 LF	W. Morrison Ave.	4 ft	4 ft
7	237+79.68 to 240+00.20	221 LF	W. Swann Ave.	4 ft	4 ft
10	520+96.04 to 522+68.02	172 LF	S. Boulevard	4 ft	4 ft
12	536+05.09 to 542+69.72	665 LF	S. Hyde Park Ave. and S. Plant Ave.	6 ft	5 ft
13	549+01.38 to 567+65.36 (WB) and 580+71.74 (EB)	1,864 LF (WB) and 3,170 LF (EB)	Viaduct Segments 1 and 2	4 ft	4 ft

Outside widening and walls are constructed with the Interim Phase so that future work in 2033 to achieve the Ultimate Phase eight lane section will require inside bridge widening only. In the Ultimate Phase, the mainline outside shoulders will be 10 ft wide, meeting AASHTO and FDOT Criteria. A Project Goal is to provide 10 ft refuge shoulders on at least one side of the mainline in the Interim Phase. With inside bridge widening occurring in the Ultimate Phase, this means that aligning the travel lanes during the Interim Phase provides the refuge on the inside shoulders. A result of this travel lane alignment is that outside shoulders require a Design Exception in the Interim Phase. These locations are shown in **Table 5**.

Table 5: Interim Phase Outside Shoulder Widths for Design Exceptions

Station Range	Length	Description	Outside Shoulder Width
88+66.12 to 567+65.36	4.49 miles	Westbound direction including bridges and ramp connections	4 ft
120+07.64 to 567+10.74	3.89 miles	Eastbound direction including bridges and ramp connections	4 ft

Ramps connections for the South Selmon Expressway were included in the PD&E Study. The Project Goals and Objectives for ramps were to improve conditions if possible, but to limit impacts and tie to existing conditions. Most of the existing ramps do not meet AASHTO criteria of a 2-4 ft inside shoulder and 8 to 10 ft outside shoulder. The ramps locations are identified in **Table 6**.

Table 6: Interim Phase Ramp Shoulder Widths for Design Exceptions

Ramp	Inside Shoulder	Outside Shoulder	Comments
W. Euclid Ave. On-Ramp	2 ft	5 ft	Doesn't meet AASHTO intent
W. Euclid Ave. Off-Ramp	4 to 5 ft	5 ft	Doesn't meet AASHTO intent
W. Bay to Bay Blvd. Off-Ramp	6 ft	4 ft	Combined width exceeds AASHTO minimum
W. Bay to Bay Blvd. On-Ramp	2 ft	5 ft	Doesn't meet AASHTO intent
W. Platt St. Off-Ramp (EB)	4 ft	4 ft	Doesn't meet AASHTO intent
W. Cleveland St. On-Ramp (WB)	6 ft	6 ft	Meets FDOT Criteria
W. Platt St. On-Ramp (EB)	6 ft	5 ft	Combined width exceeds AASHTO minimum
W. Cleveland St. Off-Ramp (WB)	8 ft	6 ft	Combined width exceeds AASHTO minimum

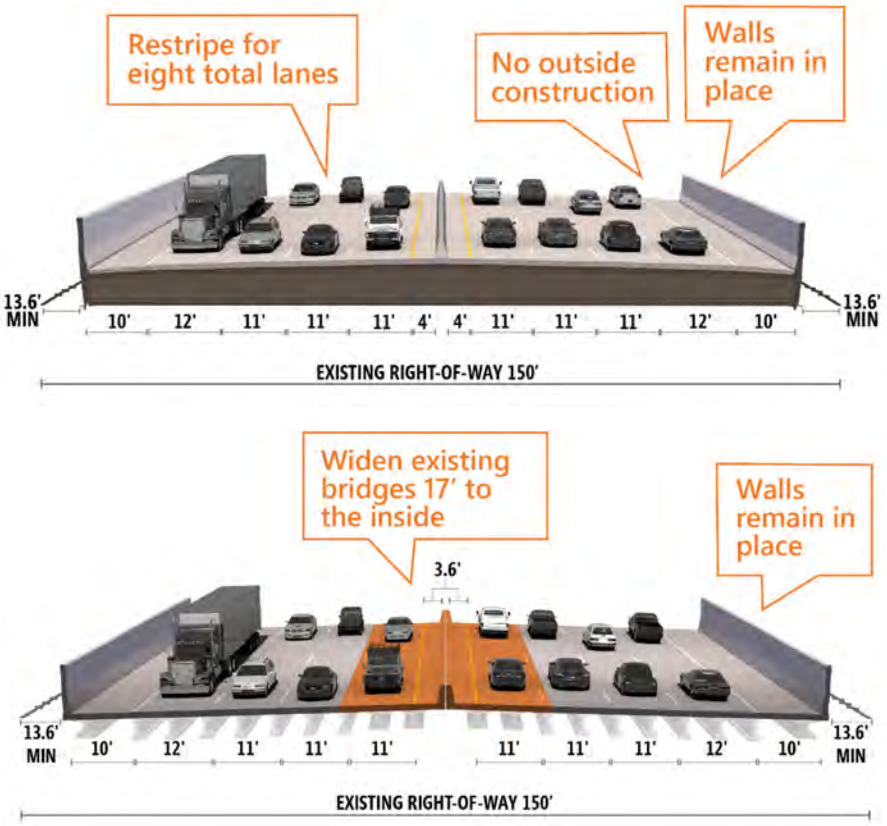
Ramp	Inside Shoulder	Outside Shoulder	Comments
S. Plant Ave. On-Ramp	5 ft	5 to 6 ft	Combined width exceeds AASHTO minimum
S. Plant Ave. Off-Ramp	6 ft	10 ft	Meets FDOT Criteria
S. Tampa St. On-Ramp	6 ft	6 ft	Meets FDOT Criteria
S. Florida Ave. Off-Ramp	5 ft	5 ft	Combined width exceeds AASHTO minimum

Ultimate Phase (8 Lane) [2033]

The Ultimate Phase, projected for 2033, would consist of a uniform typical section for the entire South Selmon Project corridor. Alternative 6 in the ultimate phase would be able to accommodate a future 8 lane section without outside widening.

With respect to the paved shoulders, the outside shoulders would be 10 ft wide and the inside shoulders would be 4 ft wide as shown in **Figure 10**. This Design Exception would apply to the entire Ultimate Phase project limits for the inside shoulder.

Figure 10: South Selmon Ultimate Phase Roadway and Bridge Typical Sections



2.2.4 Reason the Design Criteria is not Appropriate

Interim Phase

The existing conditions for the South Selmon Expressway PD&E Study limits provide 18 ft shoulders in the median due to the South Selmon Median Safety Project. The existing bridges were not widened with that project, so corridor constraints do not maintain the 18 ft shoulder widths across the bridges. The existing outside shoulders are 8 ft wide. A refuge area in excess of 10 ft is provided for the corridor on the inside shoulders.

This Design Exception provides for corridor consistency in the Interim Phase and the Ultimate Phase. In the Interim Phase, the bridges are not being widened to the inside unless other circumstances already dictate the need for reconstruction. Outside widening is proposed to locate walls in their Ultimate Phase location. Alignment of the six (6) travel lanes in the Interim Phase is constrained by the 4-ft wide bridge shoulders that will remain. For the corridor, this maintains the wide inside shoulder that exceeds 10 ft with the exception of the bridges. The outside shoulder is primarily 5-ft wide due to the alignment of the Interim Phase travel lanes.

Ultimate Phase

The Ultimate Phase typical section meets THEA Project Goals and Objectives for the following elements: at least one (1) 12-ft wide travel lane in each direction and at least one (1) 10-ft wide shoulder in each direction. A Design Exception is being requested for travel lane widths less than 12-ft wide. The inside shoulder would be 4-ft wide for the entire Project Corridor, but refuge would be in the outside 10-ft wide shoulder. The Ultimate Phase would retain the same existing ramp shoulders as the Interim Phase unless separate projects update the ramp typical sections.

Widening for the Interim Phase 6-lane / Ultimate Phase 8-lane to achieve 10-foot wide inside and outside shoulder would impact properties along the South Selmon Expressway existing right-of-way and the CSX railroad. This would be a conflict with THEA Project Goals and Objectives for the South Selmon PD&E Study.

The Preferred Alternative Concept Plans and Typical Section Package are provided in Appendix D and Appendix E, respectively, of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

2.3 Alternative Design Considered

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the alternatives development. With respect to this Design Exception request, there were no build alternatives that met AASHTO criteria for shoulder widths. The existing condition does not currently meet AASHTO criteria for the No-Build option.

2.4 Impacts of the Design Exception

2.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

A preliminary safety analysis was conducted using historical crashes and estimated Crash Reduction Factors (CRFs). Adding one travel lane to achieve a 6-lane section may be expected to reduce crashes by 15%. Adding two travel lanes to achieve an 8-lane section may be expected to reduce crashes by 21%. The Recommended Alternative is expected to reduce South Selmon Expressway mainline and ramp crashes by 7.11 crashes per year. Over the project's twenty-year design life, the total number of Selmon Expressway mainline and ramp crashes are reduced by 142.

A Highway Safety Manual (HSM) Predictive Crash Analysis was conducted to compare the anticipated number of crashes between the No Build Alternative and the Recommended Alternative within the study period. With respect to this Design Exception, the ISATe worksheets for the Recommended Alternative were reviewed utilizing AASHTO minimum standards for comparative purposes. The Design Exception is requesting the use of reduced shoulder widths. This accounts for an increase of approximately 204 total crashes over the study period compared to the use of 10 ft shoulders. Of these 204 total crashes, 182 involve single vehicles only. Possible injury crashes make up approximately 168 of the 204 total crashes. Fatal crashes would increase by approximately 2 and incapacitating crashes increase by approximately 4.

2.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The reduced shoulder widths transition to existing conditions outside of the applicable limits indicated with this Design Exception.

2.4.3 Right of Way

This Design Exception is requested to avoid right-of-way impacts that would be caused by providing full width 10-ft shoulders in the Ultimate Phase (8-lane) section.

2.4.4 Community

This Design Exception will not adversely impact the community surrounding the Selmon Expressway. Project Goals and Objectives are to keep community impacts to a minimum. The proposed Design Exception helps facilitate this Objective.

2.4.5 Environment

This Design Exception will not adversely impact the environment. Project Goals and Objectives are to keep environmental impacts to a minimum. The proposed Design Exception helps facilitate this Objective.

2.4.6 Usability by All Modes of Transportation

This Design Exception will not adversely impact the usability by all modes of transportation.

2.5 Costs

A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of this Study. In order to provide 10 ft inside and outside shoulders for the ultimate condition while focusing construction to the outside during the interim phase, the Selmon Expressway would need to be widened 6 feet on each side for the entire project limits. This additional 6 ft on each side would allow for 10 ft inside shoulders vs. the proposed 4 ft inside shoulders in the Ultimate Phase. Using the costs tabulated in the Interim and Ultimate LRE's, an additional 6 ft of widening costs approximately $40 per linear foot of roadway and $1,050 per linear foot of bridge on each side. The cost for the additional shoulder pavement and bridge needed to provide 10 ft inside and outside shoulders is summarized in **Table 7**.

Table 7: Additional Costs to Meet AASHTO Design Criteria

	Westbound Length (ft)	Eastbound Length (ft)	Cost/LF (to widen 6 ft)	Westbound Cost	Eastbound Cost	Total Cost
Roadway	18,511	18,511	$40	$740,440	$740,440	$1,480,880
Bridge	5,315	6,940	$1,050	$5,580,750	$7,287,000	$12,867,750
Total Cost for additional pavement and bridge to widen lanes to meet criteria =						**$14,438,630**

Other ancillary costs would also be incurred if the shoulders were widened to 10 ft for the ultimate condition. These costs include additional earthwork, drainage modifications, pond modifications, and impacts to surrounding properties.

2.6 Mitigation Measures

Interim Phase

The PD&E Study Alternatives were developed according to the Project Goals and Objectives. The lane widths and shoulder widths were reviewed based on site characteristics and by distributing the available cross section width. The Project proposes at least one 12-ft lane in each direction of travel on the outside lane to meet this AASHTO and FDOT criteria for Freeways. The inside shoulders are maintained from the South Selmon Median Safety Project which also maintains driver expectancy.

Shoulder width reduction advanced warning signage can be provided. Corridor lighting in the median shall be maintained and will be replaced where outside widening impacts existing lighting. Audible and vibratory treatment was not considered due to the noise sensitivity of the corridor, including the noise wall provisions for the Project.

The bridge railings for this Project are being replaced to meet current safety requirements. A barrier wall / noise wall combination is being provided for the Project corridor to shield drop off conditions. The location of this combination wall is in the Ultimate Phase location.

Ultimate Phase

The Ultimate Phase typical section maintains a 10-ft wide outside shoulder adjacent to the 12-ft wide outside travel lane. This allows for refuge for the entire Project corridor. In addition to the inside bridge widening that leaves a 2" gap between structures, the Project corridor will be restriped to provide the eight (8) lane section. The 4-ft wide inside shoulder can be mitigated with advanced warning signage and is consistent for the Project corridor limits.

2.7 Summary and Conclusions

It is recommended that this Design Exception for Shoulder Width be approved.

3.0 Stopping Sight Distance Design Exception

A Design Exception is requested for stopping sight distance on the mainline vertical curvature of the Selmon Expressway (SR 681). The proposed design does not meet the *AASHTO Green Book: A Policy on Geometric Design of Highways and Streets, 2011* criteria for Freeway facilities. This Design Exception request also applies to the Tampa Street Ramp due to Horizontal Sight Line Offset (HSO).

3.1 Form 122A

FDM Form 122A for the Stopping Sight Distance Design Exception is provided in **Appendix A**.

3.2 Design Exception Description

3.2.1 FDOT Criteria

FDM Table 211.9.2 K Values for Vertical Curves

- 50 mph design speed
  - Sag – 96
  - Crest (New Construction) – 136
  - Crest Resurfacing – 84

FDM Table 211.10.2 Minimum Stopping Sight Distance for Freeways, Expressways, and Ramps

- 25 mph design speed, 7% upgrade
  - 142 ft

3.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Table 3-34, Table 3-36, and Table 6-3

- Minimum K Value for Vertical Curves – 50 mph
  - Sag – 96
  - Crest - 84

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Figure 3-22b Design Controls for Stopping Sight Distance on Horizontal Curves; Equation (3-36)

- 130 ft curve radius, 142 ft SSD
  - HSO = 18.9 ft

3.2.3 Preferred Alternative Proposed Design

Mainline

Table 8 below identifies the 20 vertical curves within the Project Limits, providing the existing location, curve length, K value, and type. **Table 8** highlights curves in yellow where a Design Exception is being requested based on existing K values.

Table 8: Vertical Curves (South to North)

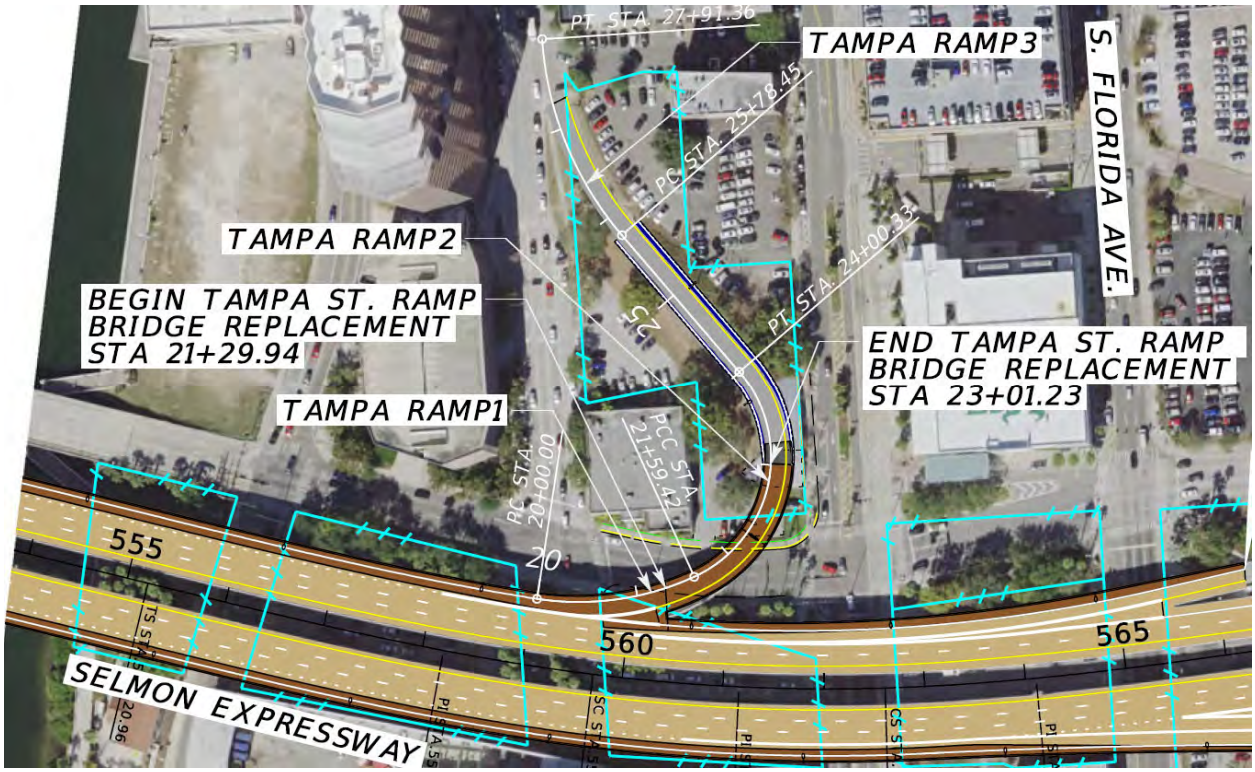
Curve	Location	Curve Length (feet)	K Value	Grade In	Grade Out	Type
1	W. of Himes St	400	143	+0.2%	+2.9878%	Sag
2	Himes St	600	100	+2.9878%	-3.0%	Crest
3	E. of Himes St	500	83	-3.0%	+3.0%	Sag
4	Euclid Ave	400	152	+3.0%	+0.36%	Crest
5	MacDill Ave	600	100	+3.0%	-3.0%	Crest
6	N. of Bay to Bay Blvd	500	156	-3.0%	+0.1999%	Sag
7	S. of Mississippi Ave	300	107	+0.1999%	+3.0%	Sag
8	Mississippi Ave	600	100	+3.0%	-3.0%	Crest
9	N. of Mississippi Ave	500	83	-3.0%	+3.0%	Sag
10	Watrous Ave	500	182	+3.0%	+0.25%	Crest
11	Morrison Ave	400	186	+0.25%	+2.4%	Crest
12	S. of Swann Ave	500	833	+2.4%	+3.0%	Sag
13	Swann Ave	550	92	+3.0%	-3.0%	Crest
14	Platt Ave	600	214	+2.155%	-0.649%	Crest
15	Willow Ave	400	263	-0.649%	-2.1686%	Crest
16	E. of South Blvd	500	97	-2.1686%	3.0%	Sag
17	South Blvd	600	100	+3.0%	-3.0%	Crest
18	N. of South Blvd	550	94	-3.0%	+2.787%	Sag
19	E. of Hyde Park Ave	500	150	+2.787%	-0.550%	Crest
20	N. of Plant Ave	500	196	-0.550%	+2.0%	Sag

Tampa Street Ramp

Figure 11 below identifies the proposed improvements to the Tampa Street Ramp with the Interim Phase. The existing bridge abutment is the tie in point per Project Goals and Objectives. The inside and outside shoulders are both 6-ft wide, which meets FDM 260 criteria for a single lane ramp.

With the concrete railing, the SSD requirements from AASHTO are not being met. Per AASHTO Equation (3-36), the HSO for a 130 ft radius, 142 ft SSD curve is 18.9 ft. With the location of the concrete railing outside of the 6-ft wide shoulder, the HSO provided for this curve is 13.5 ft.

Figure 11: Tampa Street Ramp



3.2.4 Reason the Design Criteria is not Appropriate

Mainline

There are three curves being requested for this Design Exception. Curves 3 and 9 are sag curves upstation of crest curves were Design Variations are being requested. These two vertical curves have existing K values of 83 compared to the AASHTO minimum of 96. Curve 18 is north of South Blvd where a crest curve is requesting a Design Variation. Curve 18 is a sag curve with an existing K value of 94.

The three curve locations are sag curves between existing bridges with crest vertical curvature that do not meet FDOT Criteria and require Design Variations. Reconstruction of the sag vertical curves would ultimately require reconstruction of the existing bridges.

The Selmon Expressway has been operating safely since it was built. Crash data does not indicate that the substandard K values are directly related to a higher number of crashes. Reconstructing the roadway to meet current standards would be economically disproportional.

Tampa Street Ramp

The Tampa Street Ramp provides shoulders that meet FDM 260 criteria for a single lane ramp. Reconstruction of the bridge to meet AASHTO HSO criteria for a 142 ft Stopping Sight Distance (SSD) would be economically disproportional. Utilizing AASHTO Equation (3-36) to solve for SSD with a 13.5 ft HSO yields a result of 119.5 ft. The profile is on a maximum 7% incline which provides for the reduction in SSD from FDM Table 211.10.2 for the 25-mph design speed of this ramp.

3.3 Alternative Design Considered

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the alternatives development. There were no alternatives that reconstructed the vertical alignment while also meeting the Project Goals and Objectives.

All alternatives considered for the Tampa Street Ramp would impact the surrounding properties in conflict with the Project Goals and Objectives. The Recommended Alternative ramp connection minimizes the replacement limits for this bridge.

3.4 Impacts of the Design Exception

3.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

For the Tampa Street Ramp, there were 2 crashes in 2017. Both were rear-end crashes with one occurring on the ramp and the other on the South Selmon Expressway. The ramp crash was a result of following too closely and the mainline crash was related to carless or negligent vehicle operation.

3.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The existing vertical curves will remain with this Design Exception and widening will occur to the outside of the existing travel lanes. For the Tampa Street on-ramp, the existing structure will be replaced at the existing bridge abutment.

3.4.3 Right of Way

This Design Exception will not adversely impact the existing right of way.

3.4.4 Community

This Design Exception will not adversely impact the community.

3.4.5 Environment

This Design Exception will not adversely impact the environment.

3.4.6 Usability by All Modes of Transportation

This Design Exception will not adversely impact the usability by all modes of transportation.

3.5 Costs

In order to provide the required AASHTO Stopping Sight Distance, the three (3) sag vertical curves along the mainline would need to be fully reconstructed. Additionally, since these sag vertical curves are flanked by crest vertical curves, it can be assumed that the entire vertical profile of the South Selmon Expressway would need to be reconstructed within the project limits. Current FDOT cost per mile models for new construction were used to estimate the roadway reconstruction costs as detailed below.

- New Construction, Divided Urban 6 Lane Interstate with 22-ft Closed Median with Barrier Wall, 10-ft Shoulders Inside and Out = $14,227,316.41
- New Construction, Extra Cost for Additional Lane on Urban Interstate = $729,027.64
- Estimated cost per mile for full roadway reconstruction (8-lane ultimate) = $15,685,372
- Roadway length in miles = 3.5 miles
- Roadway reconstruction cost = $54,898,802

A bridge unit cost of $200/SF was used to estimate the cost of replacing all bridges within the project limits. The total bridge area within the project limits assumes the lane and shoulders widths proposed as part of the Preferred Alternative and totals 711,237 SF. This would result in a bridge reconstruction cost of $142,247,400.

These reconstruction costs are compared to the widening costs that were prepared as part of the PD&E Study. A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of the PD&E Study. The subtotal for the Interim Phase LRE is $124,664,516 and includes items such as retaining walls, ponds, noise walls, ITS, local roadway improvements and signalization that are not included in the cost per mile models. It can be assumed that full reconstruction would double the overall construction cost of this project when compared to widening the existing expressway.

3.6 Mitigation Measures

To mitigate the sight distance restrictions on the mainline, advanced warning signing advisory plaques can be installed. Project corridor lighting will be maintained in the Interim Phase and the Ultimate Phase. The travel lanes have been optimized within the roadway cross section, although other Design Exceptions are requested for cross sectional elements. These include creation of consistent roadway sections in the Interim Phase and Ultimate Phase to allow for refuge / recovery areas.

The Tampa Street Ramp has been mitigated by the E. Brorein St. on-ramp treatment. In the existing condition, this on-ramp has a substandard merge to the mainline ahead of the Tampa Street on-ramp gore point. At that point, the on-ramp carries across the Hillsborough River Bridge for a weaving area before exiting the South Selmon Expressway at the S Plant Ave off-ramp. The Project provides the E. Brorein St. on-ramp with its own lane as the southbound South Selmon Expressway expands to a six (6) lane Interim Phase typical section. The Tampa Street on-ramp maintains the same weaving area condition in the Interim Phase and Ultimate Phase relative to the S. Plant Ave. off-ramp.

3.7 Summary and Conclusions

It is recommended that this Design Exception for Stopping Sight Distance be approved.

4.0 Vertical Clearance Design Exception

A Design Exception is requested for vertical clearance (roadway over railroad) of the Selmon Expressway (SR 681). The proposed design does not meet the *AASHTO Green Book: A Policy on Geometric Design of Highways and Streets, 2011* criteria for Freeway facilities.

4.1 Form 122A

FDM Form 122A for the Vertical Clearance Design Exception is provided in **Appendix A**.

4.2 Design Exception Description

4.2.1 FDOT Criteria

FDM Table 260.6.1 Minimum Vertical Clearances for Bridges

- Roadway or Pedestrian Bridge over Railroad
    - 23.5 ft

4.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Page 10-22

- Railroads
    - 23 ft

4.2.3 Preferred Alternative Proposed Design

The vertical clearances over the CSX railroad are existing conditions for the project corridor. Due to redecking efforts with the Preferred Alternative, these locations are identified due to the substantial work effort involved over the railroad.

Bridge Number 100312 (Selmon WB & Ramp – El Prado Blvd) has an existing vertical clearance over the railroad of 14.7 ft

Bridge Number 100314 (Selmon WB – MacDill Ave. and Bay to Bay Blvd.) has an existing vertical clearance over the railroad of 19.1 ft.

4.2.4 Reason the Design Criteria is not Appropriate

These three bridges are existing conditions with vertical clearances that are not being reduced due to proposed widening of the South Selmon Expressway. Bringing these vertical clearances into tolerance would impact properties along the South Selmon Expressway existing right-of-way and the CSX railroad as well as nearly complete reconstruction of the corridor. This would be a conflict with THEA Project Goals and Objectives for the South Selmon PD&E Study.

4.3 Alternative Design Considered

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the PER development. There were no alternatives that reconstructed the vertical alignment while also meeting the Project Goals and Objectives.

4.4 Impacts of the Design Exception

4.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. There were no crashes attributed to the existing vertical clearance over the CSX railroad.

4.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The redecking over the existing CSX railroad will not reduce the existing vertical clearance.

4.4.3 Right of Way

This Design Exception will not adversely impact the existing right of way.

4.4.4 Community

This Design Exception will not adversely impact the community.

4.4.5 Environment

This Design Exception will not adversely impact the environment.

4.4.6 Usability by All Modes of Transportation

This Design Exception will not adversely impact the usability by all modes of transportation.

4.5 Costs

In order to provide the required AASHTO Stopping Sight Distance, the three (3) sag vertical curves along the mainline would need to be fully reconstructed. Additionally, since these sag vertical curves are flanked by crest vertical curves, it can be assumed that the entire vertical profile of the South Selmon Expressway would need to be reconstructed within the project limits. Current FDOT cost per mile models for new construction were used to estimate the roadway reconstruction costs as detailed below.

- New Construction, Divided Urban 6 Lane Interstate with 22-ft Closed Median with Barrier Wall, 10-ft Shoulders Inside and Out = $14,227,316.41
- New Construction, Extra Cost for Additional Lane on Urban Interstate = $729,027.64
- Estimated cost per mile for full roadway reconstruction (8-lane ultimate) = $15,685,372
- Roadway length in miles = 3.5 miles
- Roadway reconstruction cost = $54,898,802

A bridge unit cost of $200/SF was used to estimate the cost of replacing all bridges within the project limits. The total bridge area within the project limits assumes the lane and shoulders widths proposed as part of the Preferred Alternative and totals 711,237 SF. This would result in a bridge reconstruction cost of $142,247,400.

These reconstruction costs are compared to the widening costs that were prepared as part of the PD&E Study. A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of the PD&E Study. The subtotal for the Interim Phase LRE is $124,664,516 and includes items such as retaining walls, ponds, noise walls, ITS, local roadway improvements and signalization that are not included in the cost per mile models. It can be assumed that full reconstruction would double the overall construction cost of this project when compared to widening the existing expressway.

4.6 Mitigation Measures

The vertical clearance of the existing bridges will not be reduced with the redecking efforts. There are not mitigation opportunities for this Design Exception request.

4.7 Summary and Conclusions

It is recommended that this Design Exception for Vertical Clearance be approved.

Appendix A – Form 122A

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☑ Design Variation ☐ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☑ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Exception Report for details.

1. Recommend a Design Exception be granted for the use of 11 ft travel lanes in the Interim Phase and Ultimate Phase.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☑ Design Variation ☐ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☑ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Exception Report for details.

1. Recommend a Design Exception be granted for the use of 4 ft (minimum) inside shoulders for the existing bridges in the Interim Phase

2. Recommend a Design Exception be granted for the use of 4 ft (minimum) outside shoulders in the Interim Phase

3. Recommend a Design Exception be granted for the use of existing inside and outside substandard shoulder widths on the Ramps within the Project Limits.

4. Recommend a Design Exception be granted for the use of 4 ft inside shoulders in the Ultimate Phase.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☑ Design Variation ☐ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☑ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Exception Report for details.

1. Recommend a Design Exception be granted for the use of existing substandard Vertical Curvature (K values) for sag curves 3, 9, and 18 within the Project Limits.

2. Recommend a Design Exception be granted for the use of existing substandard Stopping Sight Distance on the Tampa Street Ramp.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☑ Design Variation ☐ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☑ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Exception Report for details.

1. Recommend a Design Exception be granted for the use of existing substandard Vertical Clearance of Bridge Number 100312 and Number 100314 over the CSX Railroad.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____ Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____ Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

SELMON EXPRESSWAY

South Selmon PD&E Study

Design Variation Report

June 2021

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PROJECT DESCRIPTION, SCHEDULE AND LIFESPAN

The Tampa Hillsborough Expressway Authority (THEA) is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvements along Selmon Expressway [State Road (SR) 618] in Hillsborough County, Florida. The project limits extend from the eastern project limit of the Selmon Expressway West Extension Project to the beginning of the six-lane section near Whiting Street, a distance of approximately 4.5 miles, as shown in **Figure 1**. Capacity improvements being evaluated include widening inside to the median, adding inside paved shoulders, and potentially adding lanes by widening to the outside or constructing elevated lanes along the median. The improvements would primarily be accommodated within existing right-of-way.

The Selmon Expressway is a limited access, tolled facility providing east-west connectivity from Interstate 75 (I-75) to downtown Tampa and United States Highway 92 (US 92). It currently consists of two 12-foot wide travel lanes in each direction separated by a 38-foot paved median with a concrete barrier wall. The outside shoulders are eight feet wide and contain either shoulder gutter with guardrail or shoulder gutter with barrier wall. The facility is elevated through downtown Tampa and includes structures over Hillsborough River and multiple roadway facilities.

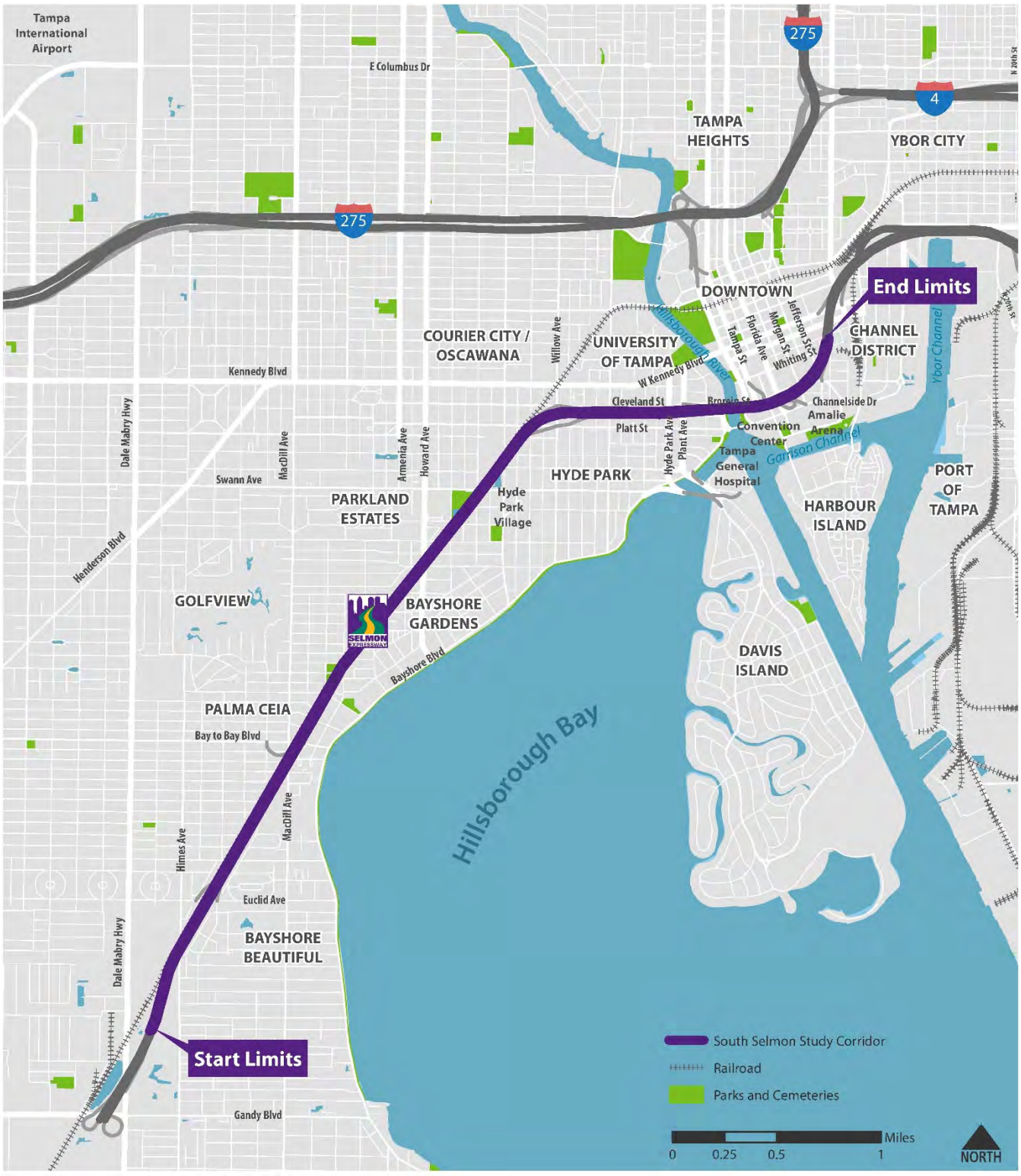
The facility is classified as an Urban Principal Arterial Expressway. It is on the Florida Intrastate Highway System (FIHS) and Strategic Intermodal System (SIS). Since the roadway is a limited access facility, Context Classification does not apply. Within the project limits, the minimum and typical right-of-way is 150 feet wide, but varies in multiple locations. The Selmon Expressway has a posted speed of 55 mph within the project limits with an exception of the segment west of Himes Avenue which has a posted speed of 45 mph.

This Project is currently in a PD&E phase.

The South Selmon Widening Design Build Project is currently projected for advertisement on 5/6/2022. Board Approval is scheduled for 1/23/2023 and an estimated start date is 2/1/2023. The Design Build Project would construct the initial 6-lane facility with the traffic demand showing the need for an 8-lane facility in 2033.

The Design Variation Report is for permanent conditions.

Figure 1: Project Location



1.0 Design Speed Design Variation

A Design Variation is requested for design speed on the mainline of Selmon Expressway (SR 681). The proposed design speed of 50 mph does not meet the 2021 FDOT Design Manual (FDM) Table 201.5.1 design speed for SIS facilities. This Design Variation request also applies to the Tampa Street Ramp due to a design speed of 25 mph.

1.1 Form 122A

FDM Form 122A for the Design Speed Formal Design Variation is provided in **Appendix A**.

1.2 Design Variation Description

1.2.1 FDOT Criteria

FDM Table 201.5.1

- SIS Minimum Design Speed for Limited Access Facilities in Urbanized Area = 60 mph

FDM Section 211.13 Ramp Terminals

- The minimum speed used to design the first curve adjacent to the Limited Access highway is 20 mph below the design speed of the highway.

1.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Section 8.2.1, Page 8-1

- Minimum Design Speed for Urban Freeways = 50 mph

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Table 10-1 Guide Values for Ramp Design Speed as Related to Highway Design Speed

- Minimum Design Speed for 50 mph Highway Design Speed = 25 mph

1.2.3 Preferred Alternative Proposed Design

A mainline design speed of 50 mph is proposed for the Project Limits.

A design speed of 25 mph is proposed for the Tampa Street Ramp.

The Preferred Alternative Concept Plans and Typical Section Package are provided in Appendix D and Appendix E, respectively, of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

1.2.4 Corridor Project History

THEA Project ID O-00518 is the Median Safety Improvements Project from Himes Avenue to Hyde Park Avenue. This project used a design speed of 50 mph for the Selmon Expressway.

THEA Project ID O-17-00217 is the Selmon West Extension Project. This project used a design speed of 45 mph for Gandy Boulevard, 50 mph for the Selmon Expressway ramps, and 60 mph for the Selmon Expressway from the ramps to Himes Avenue.

The original Selmon Expressway was designed and posted as 50 mph. In 1976, THEA requested an increase of speed limit from 50 to 55 mph based on a traffic study showing the 85th percentile speed as 62.0 mph.

1.2.5 Reason the Design Criteria is not Appropriate

Mainline

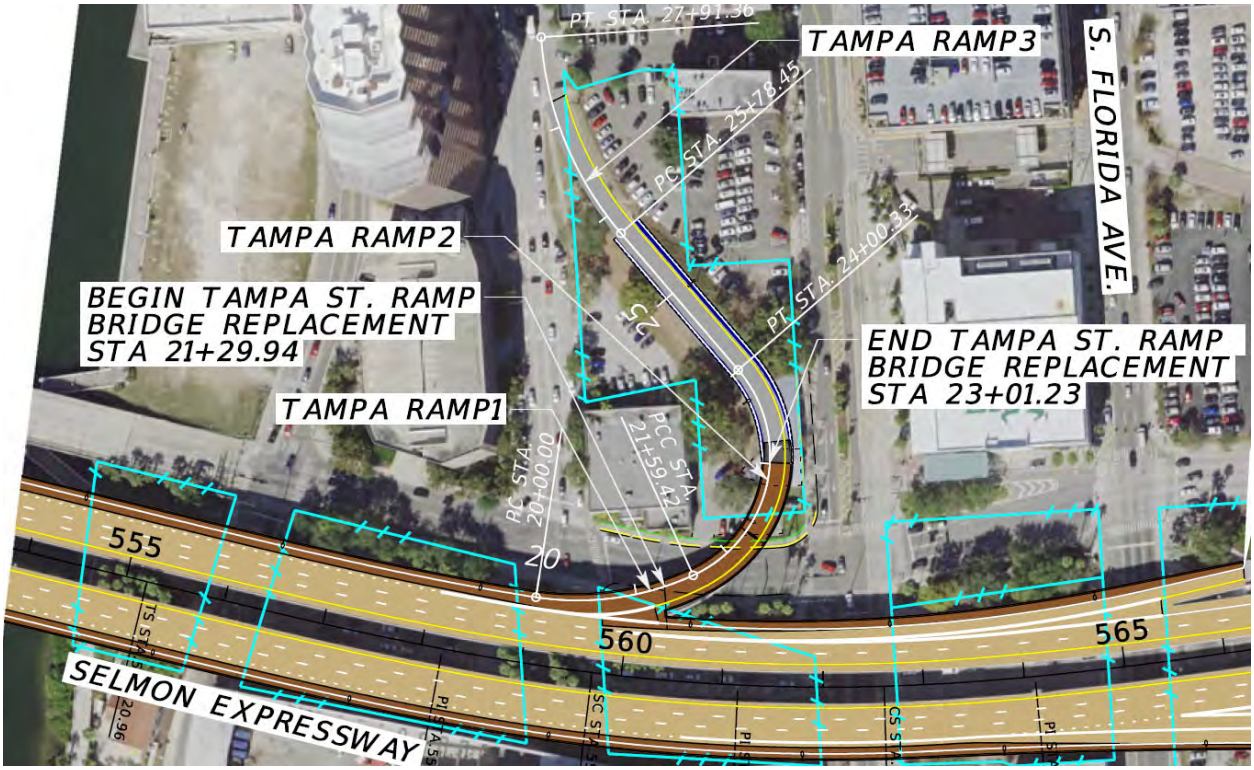
The original Selmon Expressway corridor was based on a 50-mph design speed. Within the project limits there are 20 vertical curves and 9 horizontal curves or spirals. Speed dependent items like stopping sight distance still require Design Exceptions and Design Variations with the use of a 50-mph design speed, although it is less severe than use of 60-mph design speed criteria.

Utilizing 60-mph design criteria would impact properties along the South Selmon Expressway existing right-of-way and the CSX railroad as well as nearly complete reconstruction of the corridor. This would be a conflict with THEA Project Goals and Objectives for the South Selmon PD&E Study.

Tampa Street Ramp

Figure 2 below identifies the proposed improvements to the Tampa Street Ramp with the Interim Phase. The existing bridge abutment is the tie in point per Project Goals and Objectives. The inside and outside shoulders are both 6-ft wide, which meets FDM 260 criteria for a single lane ramp. The profile is on a 7% upgrade and a Stopping Sight Distance Design Exception is being requested for the Project. Utilization of the lowest design speed allowed by AASHTO criteria still requires a Design Exception for this existing condition.

Figure 2: Tampa Street Ramp



1.3 Alternative Design Considered

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the alternatives development. There were no alternatives that were able to meet a 60-mph design speed while also meeting the Project Goals and Objectives. Design Exceptions and Design Variations are still required for the project to meet a 50-mph design speed and would be further out of compliance with a higher design speed.

All alternatives considered for the Tampa Street Ramp would impact the surrounding properties in conflict with the Project Goals and Objectives. The Preferred Alternative ramp connection minimizes the replacement limits for this bridge.

1.4 Impacts of the Design Variation

1.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The

majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

A preliminary safety analysis was conducted using historical crashes and estimated Crash Reduction Factors (CRFs). Adding one travel lane to achieve a 6-lane section may be expected to reduce crashes by 15%. Adding two travel lanes to achieve an 8-lane section may be expected to reduce crashes by 21%. The Preferred Alternative is expected to reduce South Selmon Expressway mainline and ramp crashes by 7.11 crashes per year. Over the project's twenty-year design life, the total number of Selmon Expressway mainline and ramp crashes are reduced by 142.

A Highway Safety Manual (HSM) Predictive Crash Analysis was conducted to compare the anticipated number of crashes between the No Build Alternative and the Preferred Alternative within the study period. There were no adjustments for design speed as 55 mph is the minimum value used for the analysis.

1.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The posted speeds can be lowered for the project limits using advanced warning signage.

Based on HSM criteria, capacity is not shown to be reduced due to design speed. It may be assumed that if the posted speed is reduced by 5 mph, then the base Free-Flow Speed (FFS) would also be reduced by 5 mph on the assumption that enforceable road signage is followed by drivers. This would also reduce the FFS by 5 mph. Although capacity estimates are not explicitly provided for all Freeway FFS in HSM, the 5-mph incremental trends that are provided show that capacity may be reduced by 0-50 passenger cars per hour per lane.

1.4.3 Right of Way

This Design Variation is requested to avoid right-of-way impacts that would be caused by meeting a 60-mph design speed.

1.4.4 Community

This Design Variation will not adversely impact the community.

1.4.5 Environment

This Design Variation will not adversely impact the environment.

1.4.6 Usability by All Modes of Transportation

This Design Variation will not adversely impact the usability by all modes of transportation.

1.5 Costs

In order to satisfy a design speed of 60 mph, the entire corridor would need to be fully reconstructed within the project limits. Current FDOT cost per mile models for new construction were used to estimate the roadway reconstruction costs as detailed below.

- New Construction, Divided Urban 6 Lane Interstate with 22-ft Closed Median with Barrier Wall, 10-ft Shoulders Inside and Out = $14,227,316.41
- New Construction, Extra Cost for Additional Lane on Urban Interstate = $729,027.64
- Estimated cost per mile for full roadway reconstruction (8-lane ultimate) = $15,685,372
- Roadway length in miles = 3.5 miles
- Roadway reconstruction cost = $54,898,802

A bridge unit cost of $200/SF was used to estimate the cost of replacing all bridges within the project limits. The total bridge area within the project limits assumes the lane and shoulders widths proposed as part of the Preferred Alternative and totals 711,237 SF. This would result in a bridge reconstruction cost of $142,247,400.

These reconstruction costs are compared to the widening costs that were prepared as part of the PD&E Study. A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of the PD&E Study. The subtotal for the Interim Phase LRE is $124,664,516 and includes items such as retaining walls, ponds, noise walls, ITS, local roadway improvements and signalization that are not included in the cost per mile models. It can be assumed that full reconstruction would double the overall construction cost of this project when compared to widening the existing expressway.

1.6 Mitigation Measures

1.6.1 Mainline

A potential mitigation strategy is to use cross-sectional elements to reduce operating speeds to the design speed (FDM 122). The travel lanes have been optimized within the roadway cross section, although other Design Exceptions and Design Variations are requested for cross sectional elements. These include creation of consistent roadway sections in the Interim Phase and Ultimate Phase to allow for refuge / recovery areas.

1.6.2 Tampa Street Ramp

The Tampa Street Ramp has been mitigated by the E. Brorein St. on-ramp treatment. In the existing condition, this on-ramp has a substandard merge to the mainline ahead of the Tampa Street on-ramp gore point. At that point, the on-ramp carries across the Hillsborough River Bridge for a weaving area before exiting the South Selmon Expressway at the S Plant Ave off-ramp. The Project provides the E. Brorein St. on-ramp with its own lane as the southbound South Selmon Expressway expands to a six (6) lane Interim Phase typical section. The Tampa Street on-ramp maintains the same weaving area condition in the Interim Phase and Ultimate Phase relative to the S. Plant Ave. off-ramp.

1.7 Summary and Conclusions

It is recommended that this Design Variation for Design Speed be approved.

2.0 Stopping Sight Distance Design Variation

A Design Exception is requested for stopping sight distance on the mainline vertical curvature of the Selmon Expressway (SR 681). The proposed design does not meet the 2021 FDOT Design Manual (FDM) Table 211.9.2 K Values for Vertical Curves and FDM Table 211.9.3 Minimum Vertical Curve Length.

2.1 Form 122A

FDM Form 122A for the Stopping Sight Distance Formal Design Variation is provided in **Appendix A**.

2.2 Design Exception Description

2.2.1 FDOT Criteria

FDM Table 211.9.2 K Values for Vertical Curves

- 50 mph design speed
  - Sag – 96
  - Crest (New Construction) – 136
  - Crest Resurfacing – 84

FDM Table 211.9.3 Minimum Vertical Curve Length

- 50 mph design speed
  - Sag – 800 ft
  - Crest (Open Highway) – 1,000 ft
  - Crest (Within Interchanges) – 1,800 ft

2.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Table 3-34, Table 3-36, and Table 6-3

- Minimum K Value for Vertical Curves – 50 mph
  - Sag – 96
  - Crest - 84

2.2.3 Preferred Alternative Proposed Design

Table 1 below identifies the 20 vertical curves within the Project Limits, providing the existing location, curve length, K value, and type. None of the existing vertical curves meet FDM minimum length requirements. **Table 1** highlights curves in yellow where a Design Variation is being requested based on existing K values and highlights curves in blue where a Design Exception is being requested.

Table 1: Vertical Curves (South to North)

Curve	Location	Curve Length (feet)	K Value	Grade In	Grade Out	Type
1	W. of Himes St	400	143	+0.2%	+2.9878%	Sag
2	Himes St	600	100	+2.9878%	-3.0%	Crest
3	E. of Himes St	500	83	-3.0%	+3.0%	Sag
4	Euclid Ave	400	152	+3.0%	+0.36%	Crest
5	MacDill Ave	600	100	+3.0%	-3.0%	Crest
6	N. of Bay to Bay Blvd	500	156	-3.0%	+0.1999%	Sag
7	S. of Mississippi Ave	300	107	+0.1999%	+3.0%	Sag
8	Mississippi Ave	600	100	+3.0%	-3.0%	Crest
9	N. of Mississippi Ave	500	83	-3.0%	+3.0%	Sag
10	Watrous Ave	500	182	+3.0%	+0.25%	Crest
11	Morrison Ave	400	186	+0.25%	+2.4%	Crest
12	S. of Swann Ave	500	833	+2.4%	+3.0%	Sag
13	Swann Ave	550	92	+3.0%	-3.0%	Crest
14	Platt Ave	600	214	+2.155%	-0.649%	Crest
15	Willow Ave	400	263	-0.649%	-2.1686%	Crest
16	E. of South Blvd	500	97	-2.1686%	3.0%	Sag
17	South Blvd	600	100	+3.0%	-3.0%	Crest
18	N. of South Blvd	550	94	-3.0%	+2.787%	Sag
19	E. of Hyde Park Ave	500	150	+2.787%	-0.550%	Crest
20	N. of Plant Ave	500	196	-0.550%	+2.0%	Sag

The Preferred Alternative Concept Plans and Typical Section Package are provided in Appendix D and Appendix E, respectively, of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

2.2.4 Reason the Design Criteria is not Appropriate

The five curves being requested for this Design Variation are all crest vertical curves. Curves 2, 5, 8, and 17 have K values of 100. Curve 13 has an existing K value of 92. These values are above the resurfacing minimum K value of 84, but below the new construction K value of 136.

The vertical curve lengths for all 20 curves are below the FDM requirements and are not intended for reconstruction to correct.

The Selmon Expressway has been operating safely since it was built. Crash data does not indicate that the substandard K values are directly related to a higher number of crashes. Reconstructing the roadway to meet current standards would be economically disproportional.

2.3 Alternative Design Considered

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the alternatives development. There were no alternatives that reconstructed the vertical alignment while also meeting the Project Goals and Objectives.

2.4 Impacts of the Design Exception

2.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

2.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The existing vertical curves will remain with this Design Variation and widening will occur to the outside of the existing travel lanes.

2.4.3 Right of Way

This Design Variation will not adversely impact the existing right of way.

2.4.4 Community

This Design Variation will not adversely impact the community.

2.4.5 Environment

This Design Variation will not adversely impact the environment.

2.4.6 Usability by All Modes of Transportation

This Design Variation will not adversely impact the usability by all modes of transportation.

2.5 Costs

In order to provide the required Stopping Sight Distance, the five (5) crest vertical curves along the mainline would need to be fully reconstructed. Additionally, since these crest vertical curves are flanked by sag vertical curves in need of a Design Exception, it can be assumed that the entire vertical profile of the South Selmon Expressway would need to be reconstructed within the project limits. Current FDOT cost per mile models for new construction were used to estimate the roadway reconstruction costs as detailed below.

- New Construction, Divided Urban 6 Lane Interstate with 22-ft Closed Median with Barrier Wall, 10-ft Shoulders Inside and Out = $14,227,316.41
- New Construction, Extra Cost for Additional Lane on Urban Interstate = $729,027.64
- Estimated cost per mile for full roadway reconstruction (8-lane ultimate) = $15,685,372
- Roadway length in miles = 3.5 miles
- Roadway reconstruction cost = $54,898,802

A bridge unit cost of $200/SF was used to estimate the cost of replacing all bridges within the project limits. The total bridge area within the project limits assumes the lane and shoulders widths proposed as part of the Preferred Alternative and totals 711,237 SF. This would result in a bridge reconstruction cost of $142,247,400.

These reconstruction costs are compared to the widening costs that were prepared as part of the PD&E Study. A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of the PD&E Study. The subtotal for the Interim Phase LRE is $124,664,516 and includes items such as retaining walls, ponds, noise walls, ITS, local roadway improvements and signalization that are not included in the cost per mile models. It can be assumed that full reconstruction would double the overall construction cost of this project when compared to widening the existing expressway.

2.6 Mitigation Measures

To mitigate the sight distance restrictions on the mainline, advanced warning signing advisory plaques can be installed. Project corridor lighting will be maintained in the Interim Phase and the Ultimate Phase. The travel lanes have been optimized within the roadway cross section, although other Design Exceptions are requested for cross sectional elements. These include creation of consistent roadway sections in the Interim Phase and Ultimate Phase to allow for refuge / recovery areas.

2.7 Summary and Conclusions

It is recommended that this Design Variation for Stopping Sight Distance be approved.

3.0 Horizontal Curve Radius Design Variation

A Design Variation is requested for the horizontal curve radius for the Tampa Street Ramp. The proposed design does not meet the 2021 FDOT Design Manual (FDM) Table 210.9.1 Superelevation Rates for e_{max} = 0.10.

3.1 Form 122A

FDM Form 122A for the Horizontal Curve Radius Formal Design Variation is provided in **Appendix A**.

3.2 Design Variation Description

3.2.1 FDOT Criteria

FDM Table 210.9.1 Superelevation Rates for e_{max} = 0.10

- 30 mph design speed, 0.100 superelevation
    - Radius = 239 ft

3.2.2 AASHTO Criteria

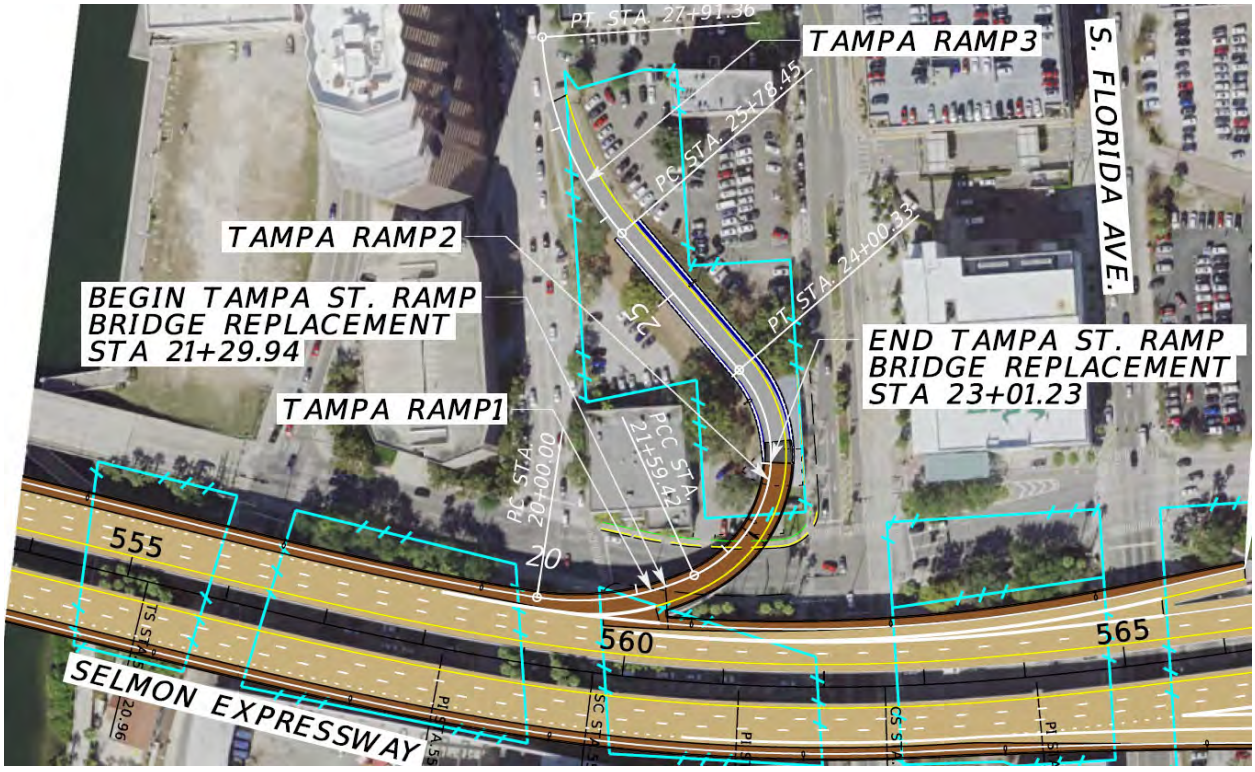
AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Table 3-11b Minimum Radii for Design Superelevation Rates, Design Speeds, and e_{max} = 10%

- 25 mph design speed
    - Radius = 125 ft

3.2.3 Preferred Alternative Proposed Design

Figure 3 below identifies the proposed improvements to the Tampa Street Ramp with the Interim Phase. Due to geometric conflicts when widening in the gore area, the Preferred Alternative recommends replacement of the Tampa Street southbound to Selmon Expressway Westbound ramp bridge over Brorein Street (bridge no. 100332). The existing three span steel bridge will be replaced with a two-span steel bridge that will properly tie to the Viaduct Segment 1 bridge widening at the ramp gore while maintaining two lanes of traffic in both directions during construction. The existing ramp alignment at the bridge abutment (radius of 130 ft) will be maintained so that there are no permanent impacts to surrounding businesses or parking. The inside and outside shoulders are both 6-ft wide, which meets FDM 260 criteria for a single lane ramp.

Figure 3: Tampa Street Ramp



The Preferred Alternative Concept Plans and Typical Section Package are provided in Appendix D and Appendix E, respectively, of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

3.2.4 Reason the Design Criteria is not Appropriate

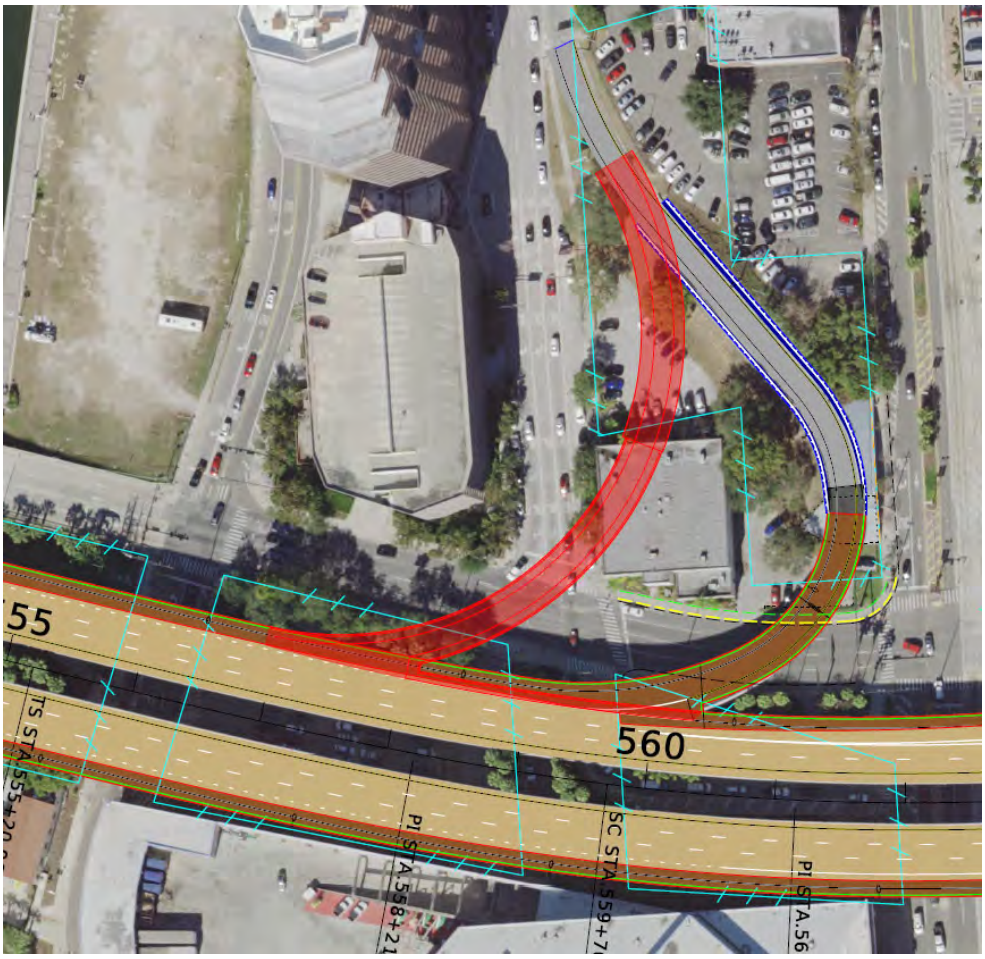
To meet FDOT Criteria for horizontal curve radius, the entire ramp would need to be reconstructed. A full ramp reconstruction would impact the ramp alignment to its connection point on Tampa Street, surrounding businesses and parking and therefore would not meet Project Goals and Objectives. Therefore, The Preferred Alternative recommends maintaining the existing ramp alignment at the north bridge abutment for the replacement of the Tampa Street southbound to Selmon Expressway Westbound ramp bridge over Brorein Street (bridge no. 100332).

3.3 Alternative Design Considered

Any alternative horizontal alignment for the Tampa Street Ramp that meets FDOT Criteria would impact the surrounding properties, would conflict with the Project Goals and Objectives and was therefore not considered. Consideration was given to full reconstruction of the ramp bridge and bridge approach along a slightly different alignment (R=150') verses replacing the ramp bridge using the same horizontal alignment at the northern abutment (R=130'). However, a Horizontal Curve Radius of 150 ft would still require a Design Variation. The Preferred Alternative recommends the existing ramp alignment at the bridge abutment be maintained so that there are no permanent impacts to surrounding businesses or parking.

Figure 4 below identifies the 239 ft radius for the Tampa Street Ramp that would meet FDOT Criteria in red, superimposed over the Preferred Alternative. In addition to the business and right of way impacts, the weaving distance would be reduced heading toward the Hillsborough River.

Figure 4: Tampa Street Ramp Without Design Variation



3.4 Impacts of the Design Exception

3.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the Project Traffic Analysis Report (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

3.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The existing structure will be replaced at the existing bridge abutment.

3.4.3 Right of Way

This Design Variation will not adversely impact the existing right of way.

3.4.4 Community

This Design Variation will not adversely impact the community.

3.4.5 Environment

This Design Variation will not adversely impact the environment.

3.4.6 Usability by All Modes of Transportation

This Design Variation will not adversely impact the usability by all modes of transportation.

3.5 Costs

To provide the horizontal curve radius required to meet FDOT standards, the entire ramp would need to be re-constructed which would impact surrounding properties. Alternative horizontal alignments that meet FDOT Criteria were therefore not considered. Consideration was given to full reconstruction of the ramp bridge and bridge approach along a slightly different alignment verses replacing the ramp bridge using the same horizontal alignment at the northern abutment.

A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of this Study. Sequence 11 in the Interim LRE was used to compare the cost of reconstruction of the ramp on a slightly different alignment (R= 150 ft) vs. bridge replacement keeping the existing horizontal curve radius (R=130 ft). Cost estimates of these two options are detailed in **Table 2**. The Preferred Alternative recommends maintaining the existing horizontal curve radius of 130 ft.

Table 2: Additional Cost Considerations

Components	Ramp and Bridge Reconstruction (R=150 ft)	Bridge Replacement on Existing Alignment (R=130 ft)
Earthwork	$218,630.09	-
Roadway	$80,701.30	$52,790.23
Shoulder	$278,364.66	$285.08
Drainage	$47,894.73	$41,887.20
Signing	$8,617.88	-

Components	Ramp and Bridge Reconstruction (R=150 ft)	Bridge Replacement on Existing Alignment (R=130 ft)
Lighting	$68,986.41	-
Bridges	$1,623,404.56	$1,313,524.79
Retaining Walls	$127,672.50	-
Sequence 11 Subtotal	**$2,454,272.13**	**$1,408,487.30**

3.6 Mitigation Measures

To mitigate the horizontal curve radius, advanced warning signing advisory plaques can be installed. Shoulders on the bridge meet FDM 260 Criteria and have barriers on either side. The travel lane is 15 ft wide and lighting will be provided. A Design Exception is requested for the stopping sight distance associated with this radius.

The Tampa Street Ramp has been mitigated by the E. Brorein St. on-ramp treatment. In the existing condition, this on-ramp has a substandard merge to the mainline ahead of the Tampa Street on-ramp gore point. At that point, the on-ramp carries across the Hillsborough River Bridge for a weaving area before exiting the South Selmon Expressway at the S Plant Ave off-ramp. The Project provides the E. Brorein St. on-ramp with its own lane as the southbound South Selmon Expressway expands to a six (6) lane Interim Phase typical section. The Tampa Street on-ramp maintains the same weaving area condition in the Interim Phase and Ultimate Phase relative to the S. Plant Ave. off-ramp.

3.7 Summary and Conclusions

It is recommended that this Design Variation for Horizontal Curve Radius be approved.

4.0 Vertical Clearance Design Variation

A Design Variation is requested for vertical clearance (roadway over roadway) of the Selmon Expressway (SR 681). The proposed design does not meet the 2021 FDOT Design Manual (FDM) Table 260.6.1 Minimum Vertical Clearances for Bridges.

4.1 Form 122A

FDM Form 122A for the Vertical Clearance Formal Design Variation is provided in **Appendix A**.

4.2 Design Exception Description

4.2.1 FDOT Criteria

FDM Table 260.6.1 Minimum Vertical Clearances for Bridges

- Roadway or Railroad Bridge over Arterial or Collector Roadway
  - Construction Affecting Existing Bridge = 16.0 ft

4.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Pages 5-8, 7-38, 8-4, and 10-21

- Arterials (Existing Structures), Urban
  - 14 ft
- Other Highways
  - 14 ft

4.2.3 Preferred Alternative Proposed Design

The following **Table 3** shows the existing bridges for the South Selmon Expressway within the Project Limits and where the existing vertical clearance is less than 16.0 ft. The proposed bridge widening as part of this Project will not reduce the existing vertical clearances.

Table 3: Vertical Clearances of Existing Bridge Structures

Bridge Number	Facility Crossed	Vertical Clearance (ft) over Roadway
100309	Himes Avenue (EB Selmon Bridge)	15.1
100310	Euclid Avenue (WB Selmon Bridge)	14.6
100311	Euclid Avenue (EB Selmon Bridge)	15.0
100312	El Prado Boulevard (WB Selmon Bridge and Ramp)	14.7
100313	El Prado Boulevard (EB Selmon Bridge)	14.9
100317	Mississippi Avenue (EB Selmon Bridge)	15.6
100318	Howard Avenue and Watrous Avenue (SB Selmon Bridge)	15.0

Bridge Number	Facility Crossed	Vertical Clearance (ft) over Roadway
100322	Swann Avenue (WB and EB Selmon Bridges)	15.2
100323	Swann Avenue (WB and EB Selmon Bridges)	15.5
100325	Platt Street (EB Selmon Bridge)	15.3
100326	Willow Avenue (WB and EB Selmon Bridges)	14.7
100327	Willow Avenue (WB and EB Selmon Bridges)	15.1
100328	South Boulevard (WB and EB Selmon Bridges)	15.1
100329	South Boulevard (WB and EB Selmon Bridges)	15.1
100330	Hyde Park and Plant Avenue (WB and EB Selmon Bridges)	15.3
100331	Hyde Park and Plant Avenue (WB and EB Selmon Bridges)	15.2
100332	Hillsborough River Viaducts (WB and EB Selmon Bridges)	14.5

4.2.4 Reason the Design Criteria is not Appropriate

These 17 bridges are existing conditions with vertical clearances that are not being reduced due to proposed widening of the South Selmon Expressway. Bringing these vertical clearances into tolerance would impact properties along the South Selmon Expressway existing right of way and the CSX railroad as well as nearly complete reconstruction of the corridor. This would be a conflict with THEA Project Goals and Objectives for the South Selmon PD&E Study.

Alternate routes exist that provide 16 ft of vertical clearance through the Project limits. This meets AASHTO criteria.

4.3 Alternative Design Considered

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the alternatives development. There were no alternatives that reconstructed the vertical alignment while also meeting the Project Goals and Objectives.

4.4 Impacts of the Design Variation

4.4.1 Safety Performance

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. There were no crashes attributed to the existing vertical clearance over the surface roadway network.

4.4.2 Operational Performance

The Design Year (2046) AADT for the Project is 131,600 vehicles with a 24-hour truck volume of 8%.

The widening of the existing bridges will not reduce the existing vertical clearance.

4.4.3 Right of Way

This Design Variation will not adversely impact the existing right of way.

4.4.4 Community

This Design Variation will not adversely impact the community.

4.4.5 Environment

This Design Variation will not adversely impact the environment.

4.4.6 Usability by All Modes of Transportation

This Design Variation will not adversely impact the usability by all modes of transportation.

4.5 Costs

In order to provide the required AASHTO Stopping Sight Distance, the three (3) sag vertical curves along the mainline would need to be fully reconstructed. Additionally, since these sag vertical curves are flanked by crest vertical curves, it can be assumed that the entire vertical profile of the South Selmon Expressway would need to be reconstructed within the project limits. Current FDOT cost per mile models for new construction were used to estimate the roadway reconstruction costs as detailed below.

- New Construction, Divided Urban 6 Lane Interstate with 22-ft Closed Median with Barrier Wall, 10-ft Shoulders Inside and Out = $14,227,316.41
- New Construction, Extra Cost for Additional Lane on Urban Interstate = $729,027.64
- Estimated cost per mile for full roadway reconstruction (8-lane ultimate) = $15,685,372
- Roadway length in miles = 3.5 miles
- Roadway reconstruction cost = $54,898,802

A bridge unit cost of $200/SF was used to estimate the cost of replacing all bridges within the project limits. The total bridge area within the project limits assumes the lane and shoulders widths proposed as part of the Preferred Alternative and totals 711,237 SF. This would result in a bridge reconstruction cost of $142,247,400.

These reconstruction costs are compared to the widening costs that were prepared as part of the PD&E Study. A construction cost estimate was developed for the Interim Phase and Ultimate Phase of the Preferred Alternative using the FDOT Long Range Estimate (LRE) tool. These LRE's are provided in Appendix F of the *Preliminary Engineering Report* prepared as part of the PD&E Study. The subtotal for the Interim Phase LRE is $124,664,516 and includes items such as retaining walls, ponds, noise walls, ITS, local roadway improvements and signalization that are not included in the cost per mile models. It can be assumed that full reconstruction would double the overall construction cost of this project when compared to widening the existing expressway.

4.6 Mitigation Measures

To mitigate the vertical clearance issues at these existing bridges, preliminary design of the proposed outside widening considered the beams required to avoid further reduction of vertical clearance on the low side of the bridges. Advanced warning signage will be maintained and upgraded during the design phase.

4.7 Summary and Conclusions

It is recommended that this Design Variation for Vertical Clearance be approved.

5.0 Horizontal Curvature Design Variation

A Design Variation is requested for the length of horizontal curves on the mainline of Selmon Expressway (SR 681). The proposed design maintains existing horizontal curvature and does not meet the 2021 FDOT Design Manual (FDM) Table 211.7.1 Length of Horizontal Curve for a 50-mph design speed (mainline) or 25 to 35-mph design speed (ramps).

5.1 Form 122A

FDM Form 122A for the Horizontal Curvature Design Variation Memorandum is provided in **Appendix A**.

5.2 Design Variation Description

5.2.1 FDOT Criteria

FDM Table 211.7.1 Length of Horizontal Curve

- Freeway / Expressway Desirable (50 mph) – 1,500 LF
- Freeway / Expressway Minimum (50 mph) – 750 LF

FDM Table 211.7.1 Length of Horizontal Curve

- Ramps Desirable (35 mph) – 525 LF
- Ramps Desirable (30 mph) – 450 LF
- Ramps Desirable (25 mph) – 400 LF
- Ramps Minimum (25 to 35 mph) – 400 LF

5.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Section 3.3.13 General Controls for Horizontal Alignment

- The minimum length for horizontal curves on main highways, L_{min}, should be 15 times the design speed expressed in mph or $L_{min} = 15V$

5.2.3 Preferred Alternative Proposed Design

The proposed design for the Project consists of outside widening to the Ultimate Phase (8-lane) limits with the Interim Phase (6-lane) initially. The future widening that is required in 2033 to achieve the Ultimate Phase typical section will then require inside widening to complete. There are no changes to the proposed horizontal and vertical alignments due to the Project Goals and Objectives of maintaining the existing right of way for the Project corridor.

There are two (2) existing horizontal curves that do not meet the minimum curve length of 750 ft for the mainline. Of the 16 ramps in the Project study area, only five (5) locations have horizontal curves that meet the minimum curve length of 400 ft. The applicable limits for this Design Variation are shown in the **Table 4** and **Table 5** below.

Table 4: Mainline Horizontal Curves

Curve	Location	PC Station	PT Station	Curve Length (ft)
C3	West of Mississippi Ave.	179+55.89	183+88.91	433.03
C2	Swann Ave.	233+70.72	239+73.44	602.71

Table 5: Ramp Horizontal Curves

Location	Curve Length (ft)
Euclid Avenue (EB On-Ramp)	255
Euclid Avenue (WB Off-Ramp gore)	156
Euclid Avenue (WB Off-Ramp over CSX)	245
Bay to Bay Boulevard (EB On-Ramp)	229
Willow Avenue (EB Off-Ramp)	259
Willow Avenue (WB On-Ramp)	194
Willow Avenue (WB Off-Ramp)	190
Plant Street (EB On-Ramp)	194
Plant Street (WB On-Ramp)	204
Tampa Street (WB On-Ramp)	235
Jefferson Street (EB On-Ramp)	363

The Preferred Alternative Concept Plans are provided in Appendix D of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

5.3 Reason the Design Criteria is Not Appropriate

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the PER development. The alternatives were developed to limit the need to expand beyond the existing right of way, to avoid impacting adjacent properties along the corridor, and to avoid impacts to the CSX railroad on the west side of the project corridor. Existing ramp locations are also maintaining the same access with the proposed alternative analysis.

Providing horizontal curvature that meets FDOT requirements on the mainline would shift the alignment at the two locations and would encroach right of way on the inside of the curves. For the ramp locations, any alternatives to increase curve length would impact right of way. These corrections would be in conflict with the Project Goals and Objectives.

5.4 Safety Impacts / Review of Crash History

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

A preliminary safety analysis was conducted using historical crashes and estimated Crash Reduction Factors (CRFs). Adding one travel lane to achieve a 6-lane section may be expected to reduce crashes by 15%. Adding two travel lanes to achieve an 8-lane section may be expected to reduce crashes by 21%. The Preferred Alternative is expected to reduce South Selmon Expressway mainline and ramp crashes by 7.11 crashes per year. Over the project's twenty-year design life, the total number of Selmon Expressway mainline and ramp crashes are reduced by 142.

5.4.1 Mainline

The mainline curve west of Mississippi Ave. was the location of 2 crashes in the review period. One vehicle struck a concrete traffic barrier and the other is was a wet weather sideswipe crash.

At Swann Ave. there were 8 crashes in the vicinity of the horizontal curve. The crashes included 3 rear ends, 2 striking fixed objects, 1 single vehicle, 1 angle, and 1 sideswipe.

5.4.2 Ramps

The Euclid Ave. ramps did not experience any crashes within the review period.

The Bay to Bay Blvd. EB off-ramp horizontal curve was the location of 2 crashes within the review period. One vehicle struck a fixed object and the other was a sideswipe crash.

The Willow Ave. area experienced the most amount of crashes on the Project corridor with 71 total crashes in the vicinity. This area includes the Willow Ave. and Plant St. on- and off- ramps. For the ramp horizontal curves, there were 8 crashes within the review period, with 5 rear ends, 2 striking fixed objects, and 1 sideswipe.

Figure 5 shows the locations of crashes at the Willow Avenue interchange.

Figure 5: Willow Avenue Interchange Crashes (2013-2017)

The Tampa St. WB on-ramp and Jefferson St. EB on-ramp horizontal curves did not experience any crashes within the review period.

5.5 Justification for Proposed Criteria

The horizontal curves identified in this Design Variation request are existing conditions. For the mainline the proposed widening to a 6-lane Interim Phase and 8-lane Ultimate Phase require additional Design Exceptions and Variations based on cross sectional elements. Refuge areas are being provided within the cross section in both Interim and Ultimate Phases. Advanced warning signage can be included in the design phase for these horizontal curves.

The ramp locations are termination points of the Project study area and are limited with upgrades. These existing conditions will remain as right of way impacts are not considered as part of the Project Goals and Objectives. The Willow Avenue area is being improved with ramp connections and connections to the surface roads at Willow Ave, Plant St, and Cleveland St.

5.6 Conclusion and Recommendation

With the Project PTAR analysis and Crash Reduction Factors for the Project as a whole, it is recommended that this Design Variation be approved. The mainline horizontal curves with substandard lengths are not locations with a high percentage of crashes. These crashes are not directly related to the length of the curves either. For the ramp locations, improvements are being proposed, but the overall goal is to tie into existing conditions. Most of the existing horizontal curves are not being modified with the Project and existing conditions will remain. Gore connections to the widened South Selmon Expressway are being improved which improve the curves immediately adjacent to the mainline.

6.0 Cross Slope Design Variation

A Design Variation is requested for cross slope of the inside shoulder on the mainline of Selmon Expressway (SR 681). The proposed design does not meet the 2021 FDOT Design Manual (FDM) Table 211.2.3 Allowable Range for Existing Pavement Cross Slopes for Median (left) Shoulder.

6.1 Form 122A

FDM Form 122A for the Cross Slope Design Variation Memorandum is provided in **Appendix A**.

6.2 Design Variation Description

6.2.1 FDOT Criteria

FDM Table 211.2.3 Allowable Range for Existing Pavement Cross Slopes

- Median (left) Shoulder, Standard (ft/ft) – 0.05
- Median (left) Shoulder, Allowable Range (ft/ft) – 0.020 – 0.080

FDM Section 260.4 Bridge Cross Slopes

- Bridge cross slope is typically 0.02 for non-superelevated bridge deck sections. Bridges with one-way traffic have a uniform cross slope applied over all travel lanes and required shoulders.

6.2.2 AASHTO Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011 Section 4.4.3 Shoulder Cross Sections

- With a raised narrow median, the median shoulders may slope in the same direction as the traveled way.

6.2.3 Preferred Alternative Proposed Design

There are 26 existing bridge structures on the South Selmon Expressway in the Project limits. The roadway segments between these structures are listed below along with proposed inside shoulder width.

Interim Phase (6 Lane)

Table 6 below provides the station range and segment length of roadway section between bridges along with the inside shoulder widths for each direction of travel.

Table 6: Interim Phase Roadway Inside Shoulder Widths

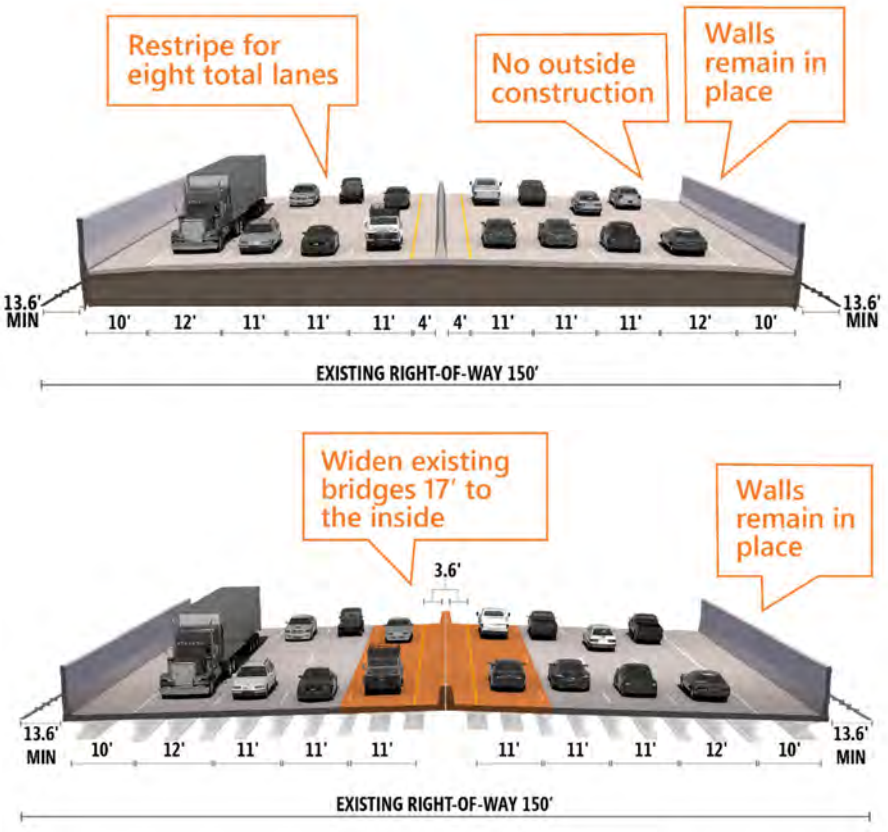
Typical Section	Station Range	Length	Westbound Inside Shoulder	Eastbound Inside Shoulder
1	88+66.12 to 97+65.13	899 LF	10 ft	15-16 ft
3	110+85.31 to 112+10.20	185 LF	10 ft	15 ft
3	114+26.33 to 123+65.31	939 LF	10 ft	15 ft

Typical Section	Station Range	Length	Westbound Inside Shoulder	Eastbound Inside Shoulder
5	126+40.03 to 133+11.12	671 LF	10-18 ft	15-18 ft
5	246+44.58 to 499+86.17	1,143 LF	18 ft	12-18 ft
5	502+42.89 to 505+36.30	293 LF	18 ft	12 ft
5	509+35.72 to 511+36.38	201 LF	18 ft	14-18 ft
6	133+11.12 to 153+00.74	1,990 LF	18 ft	18 ft
6	160+40.38 to 198+54.63	3,814 LF	18 ft	18 ft
6	200+10.92 to 213+30.58	1,320 LF	18 ft	18 ft
6	216+29.71 to 221+11.58	482 LF	18 ft	18 ft
6	223+35.57 to 237+79.68	1,444 LF	18 ft	18 ft
6	240+00.20 to 246+44.58	644 LF	18 ft	18 ft
6	511+36.38 to 520+96.04	960 LF	18 ft	18 ft
11	522+68.02 to 536+05.09	1,337 LF	21 ft	21 ft
11	542+69.72 to 549+01.38	632 LF	21 ft	21 ft

Ultimate Phase (8 Lane) [2033]

The Ultimate Phase, projected for 2033, would consist of a uniform typical section for the entire South Selmon Project corridor. With respect to the paved shoulders, the inside shoulder width would be 4 ft wide as shown in **Figure 6**. This Design Variation would apply to the entire Ultimate Phase Project limits for the inside shoulder.

Figure 6: South Selmon Ultimate Phase Roadway and Bridge Typical Sections



The Preferred Alternative Concept Plans and Typical Section Package are provided in Appendix D and Appendix E, respectively, of the *Preliminary Engineering Report* prepared as part of the PD&E Study.

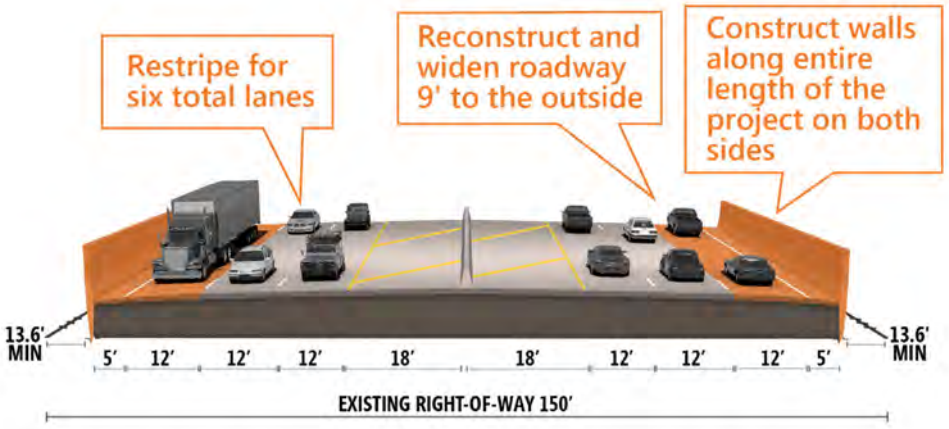
6.3 Reason the Design Criteria is Not Appropriate

The PD&E Study identified five preliminary build alternatives that included a mix of 6-lane and 8-lane options while also meeting the Project Goals and Objectives. A No-Build alternative was also considered during the alternatives development. The alternatives were developed to limit the need to expand beyond the existing right of way, to avoid impacting adjacent properties along the corridor, and to avoid impacts to the CSX railroad on the west side of the project corridor.

THEA Project ID O-00518 – Median Safety Improvements from Himes Avenue to Hyde Park Avenue constructed a continuous median barrier between the structures in the Project limits. The South Selmon PD&E Study Recommended Alternative constructs the outside widening along the corridor with the Interim Phase (6-Lane). This allows for the Ultimate Phase (8-Lane) typical section to be constructed with inside widening of the 26 bridge structures. The roadway typical section will restripe the travel way and inside shoulder area for the additional lane in each direction as shown in **Figure 6**.

The Median Safety Improvement project provided cross slope correction for the project corridor and also widening towards the median with an upward 0.02 cross slope. The proposed design maintains those shoulders with the Interim Phase as shown in **Figure 7**.

Figure 7: South Selmon Interim Phase Roadway Typical Section



There are 16 roadway segments between the 26 bridge structures in the Project limits. Of these segments, the longest stretch is 0.72 miles and 10 of the segments are less than 1,000 LF. The bridges have shoulders sloped in the same direction of travel per FDM Section 260.4. To transition to a downward 0.02 cross slope would create an inconsistent inside shoulder cross slope for the Project limits.

The Ultimate Phase reconfiguration of the Project corridor would add cross slope correction efforts for the restriped travel lane limits that occupy the Interim Phase inside shoulder. The Ultimate Phase bridge widening would remain consistent with FDM Section 260.4 with a uniform cross slope across the structures.

6.4 Safety Impacts / Review of Crash History

A crash analysis was conducted along the South Selmon Expressway within the Project limits as documented in the *Project Traffic Analysis Report* (PTAR). Five-year historic crash data from 2013 to 2017 was obtained from the Crash Data Management System (CDMS) database. Over the five-year period, a total of 237 crashes occurred on the South Selmon Expressway mainline and ramps. The majority of these were rear-end crashes, comprising 41% of the total. Hitting fixed objects accounted for 27% of the total and sideswipes accounted for 16% of the total. There were 2 crashes involving a fatality, both cases involved intoxicated drivers. Injuries were documented in 93 of the 237 crashes and 142 crashes were property damage only.

A preliminary safety analysis was conducted using historical crashes and estimated Crash Reduction Factors (CRFs). Adding one travel lane to achieve a 6-lane section may be expected to reduce crashes by 15%. Adding two travel lanes to achieve an 8-lane section may be expected to reduce crashes by 21%. The Preferred Alternative is expected to reduce South Selmon Expressway mainline and ramp

crashes by 7.11 crashes per year. Over the project's twenty-year design life, the total number of Selmon Expressway mainline and ramp crashes are reduced by 142.

6.5 Justification for Proposed Criteria

The inside shoulders identified in this Design Variation request are existing conditions from the Median Safety Improvements project. The wider inside shoulders will remain on the Project corridor until the Ultimate Phase is needed, estimated as 2033. At that point the inside shoulder widths will be reduced in width, but the upward 0.02 cross slopes shall remain sloped towards the median safety barriers. The CRFs identified in the PTAR indicate that both the Interim Phase and Ultimate Phase will reduce South Selmon Expressway crashes per year.

AASHTO criteria recommends that with a narrow raised median, inside shoulders can be sloped in the same direction as the travel way. This median barrier is narrow in width and continuous on the corridor. Freezing cycles are not a concern, as cautioned by AASHTO, so the intention can be met with this Design Variation request.

6.6 Conclusion and Recommendation

It is recommended that this Design Variation be approved. The wide inside shoulders will remain intact until the Ultimate Phase. Corridor consistency is maintained from the existing conditions through the Interim Phase and Ultimate Phase.

Appendix A – Form 122A

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☐ Design Variation ☑ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☑ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Variation Report for details.

1. Recommend a Design Variation be granted for the use of a 50 mph mainline design speed within the Project Limits.

2. Recommend a Design Variation be granted for the use of a 25 mph design speed for the Tampa Street Ramp.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☐ Design Variation ☑ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☑ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Variation Report for details.

1. Recommend a Design Variation be granted for the use of existing substandard Vertical Curvature (K values) for crest curves 2, 5, 8, 13, and 17 within the Project Limits.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☐ Design Variation ☑ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☑ Horizontal Curve Radius	☐ Other _____	

See Design Variation Report for details.

1. Recommend a Design Variation be granted for the use of an existing 130 ft Horizontal Curve Radius on the Tampa Street Ramp.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☐ Design Variation ☑ Design Variation Memorandum ☐
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☑ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☐ Other _____	

See Design Variation Report for details.

1. Recommend a Design Variation be granted for the use of existing substandard Vertical Clearance of 17 South Selmon Expressway bridges over the surface roads. Existing Vertical Clearance will not be reduced with proposed bridge widening.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☐ Design Variation ☐ Design Variation Memorandum ☑
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☑ Other Horizontal Curve Length	

See Design Variation Report for details.

1. Recommend a Design Variation be granted for the use of existing substandard Horizontal Curve Lengths on the mainline within the Project Limits. There are two (2) existing mainline Horizontal Curves, west of Mississippi Ave. and at Swann Ave., with lengths less than 750 ft.

2. Recommend a Design Variation be granted for the use of existing substandard Horizontal Curve Lengths on the ramps within the Project Limits. There are 11 existing ramp Horizontal Curves with lengths less than 400 ft.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____ Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____ Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA

Form 122-A

Submittal/Approval Letter

To: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

Date: 6/7/2021

Financial Project ID: _____ New Const. ☑ RRR ☐
Federal Aid Number: _____
Project Name: South Selmon PD&E Study
State Road Number: SR 618 Co./Sec./Sub. _____
Begin Project MP: S. Selmon Ext. End Project MP: Whiting St.
FHWA Project of Division Interest: Yes ☐ No ☑
Request for: Design Exception ☐ Design Variation ☐ Design Variation Memorandum ☑
Community Aesthetic Feature: Conceptual ☑ Final ☐
Re-submittal: Yes ☐ No ☑ Original Ref# _____ - ____ - _____
Requested for the following element(s):

☐ Design Speed	☐ Lane Width	☐ Shoulder Width	☐ Cross Slope
☐ Design Loading Structural Capacity	☐ Vertical Clearance	☐ Maximum Grade	☐ Stopping Sight Distance
☐ Superelevation	☐ Horizontal Curve Radius	☑ Other Inside Shoulder Cross Slope	

See Design Variation Report for details.

1. Recommend a Design Variation be granted for the use of existing Inside Shoulder Cross Slopes for the mainline within the Project Limits. This Design Variation applies to the Interim Phase and Ultimate Phase where the Inside Shoulder Cross Slope is 0.02 upwards to the median barrier.

Recommended by:

_____ Date _____
Name: Jason L. Starr, PE
Responsible Professional Engineer or Landscape Architect (Lanscape-Only Projects)

Approvals:

_____Date _____
Name: Brian W. Pickard, PE
Tampa Hillsborough Expressway Authority Engineer

_____Date _____
Name: James Drapp, PE
General Engineering Consultant for THEA