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PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY

SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard



DRAFT PRELIMINARY ENGINEERING REPORT



DRAFT PRELIMINARY ENGINEERING REPORT

Florida Department of Transportation



District Four
3400 W Commercial Blvd
Fort Lauderdale, FL 33309

SR 9/Interstate 95 from South of
SR 869 (SW 10 Street- MP 22.00) to North of
SR 810 (Hillsboro Boulevard- MP 25.10)

Financial Management Number 436964-1-22-01
ETDM Number 14244

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

October 2019

Vilma Croft, P.E.

TABLE OF CONTENTS

SECTION	PAGE
TABLE OF CONTENTS	i
LIST OF TABLES	viii
LIST OF FIGURES	x
LIST OF APPENDICES	xii
1 Project Summary	1
1.1 Project Description and Location	1
1.2 Purpose and Need	2
1.2.1 Capacity/Operational Deficiencies	2
1.2.2 Safety.....	3
1.2.3 Evacuation and Emergency Services.....	4
1.2.4 Transportation Demand.....	4
1.2.5 System Linkage.....	4
1.2.6 Modal Interrelationships	5
1.2.7 Social Demands and Economic Development	5
1.3 Description of Preferred Alternative	5
1.4 Commitments	7
2 Existing Conditions	8
2.1 Functional Classification	9
2.1.1 I-95.....	9
2.1.2 SW 10 Street.....	9
2.1.3 Hillsboro Boulevard.....	9
2.1.4 Context Classification.....	9
2.2 Access Management.....	9
2.2.1 I-95.....	9
2.2.2 SW 10 Street	10
2.2.3 Hillsboro Boulevard.....	10

2.3 Typical Sections 10

 2.3.1 I-95..... 10

 2.3.2 SW 10 Street 13

 2.3.3 Hillsboro Boulevard 15

2.4 Right of Way..... 17

 2.4.1 I-95..... 17

 2.4.2 SW 10 Street 17

 2.4.3 Hillsboro Boulevard 17

2.5 Property Lines and Land Use 17

 2.5.1 Existing Land Use 17

2.6 Existing Structural Characteristics..... 19

 2.6.1 Structures 19

 2.6.1.1 Existing Bridges..... 19

 2.6.1.2 Type of Structure..... 28

 2.6.1.3 Condition..... 28

 2.6.1.4 Horizontal and Vertical Clearance 32

2.7 Roadway Geometric Characteristics..... 33

 2.7.1 Horizontal Alignment..... 33

 2.7.1.1 I-95..... 34

 2.7.1.2 SW 10 Street 34

 2.7.1.3 Hillsboro Boulevard 35

 2.7.2 Vertical Alignment 35

 2.7.2.1 I-95..... 35

 2.7.2.2 SW 10 Street I-95 35

 2.7.2.3 Hillsboro Boulevard 36

 2.7.3 Posted Speed 36

 2.7.4 Design Speed..... 36

 2.7.5 Pavement Condition..... 36

2.7.5.1 I-95 36

2.7.5.2 SW 10 Street 38

2.7.5.3 Hillsboro Boulevard 38

2.7.6 Multi-Modal Facilities 38

2.7.6.1 Pedestrian 38

2.7.6.2 Bicycle 38

2.7.6.3 Transit 38

2.7.7 Intersections and Interchanges 40

2.7.8 Physical and Operational Restrictions 42

2.8 Existing Traffic Data 42

2.8.1 Existing Traffic Volumes 42

2.9 Roadway Operational Conditions 45

2.10 Safety Analysis 46

2.10.1 I-95 46

2.10.2 SW 10 Street 52

2.10.3 Hillsboro Boulevard 56

2.10.4 Crash Analysis Summary 60

2.10.5 Economic Loss 60

2.11 Railroad Crossing 61

2.12 Existing Drainage 61

2.12.1 Existing Drainage Conditions 61

2.13 Floodplains 62

2.14 Lighting 62

2.14.1 I-95 62

2.14.2 SW 10 Street 63

2.14.3 Hillsboro Boulevard 63

2.14.4 Utilities 63

2.15 Soils Classification 64

2.16 Aesthetic Features 64

2.17 Traffic Signs 64

3 Future Conditions 65

3.1 Future Land Use..... 65

 3.1.1.1 SW 10 Street 65

 3.1.1.2 Hillsboro Boulevard 65

3.2 Future Context Classification 67

3.3 Future Travel Forecast..... 67

3.4 Future Improvement Plans 72

4 Design Controls and Criteria 73

4.1 Roadway Design Criteria..... 74

5 Alternative Analysis 77

5.1 No-Action Alternative..... 77

5.2 Transportation Systems Management and Operation 77

5.3 Build Alternatives 77

 5.3.1 I-95..... 78

 5.3.2 SW 10 Street..... 78

 5.3.3 Hillsboro Boulevard..... 82

5.4 Alternative Evaluation 85

 5.4.1 Evaluation Criteria 85

 5.4.2 Comparative Alternative Evaluation..... 86

5.5 Alternative Analysis 93

 5.5.1 I-95..... 93

 5.5.2 SW 10 Street 93

 5.5.3 Hillsboro Boulevard 94

6 Public Involvement..... 95

7 Preferred Alternative 96

7.1 I-95..... 96

7.2 SW 10 Street97

7.3 Hillsboro Boulevard97

7.4 Typical Section98

 7.4.1 I-95 98

 7.4.2 SW 10 Street99

7.5 Horizontal and Vertical Geometry99

 7.5.1 Horizontal Geometry99

 7.5.1.1 Interstate 9599

 7.5.1.2 SW 10 Street 101

 7.5.2 Vertical Geometry 102

 7.5.2.1 I-95 102

 7.5.2.2 SW 10 Street 103

7.6 Access Management 104

7.7 Preliminary Drainage 104

7.8 Maintenance of Traffic 104

 7.8.1 I-95 Mainline (under SW 10 Street) 105

 7.8.2 SW 10 Street (over I-95 Mainline) 108

7.9 Variations and Exceptions 111

 7.9.1 I-95 111

 7.9.2 SW 10 Street 111

 7.9.3 Hillsboro Boulevard 111

7.10 Utilities 111

 7.10.1 I-95 111

 7.10.2 SW 10 Street 112

 7.10.3 Hillsboro Boulevard 114

7.11 Proposed Structures 114

 7.11.1 Flyovers - Direct Connect Ramps Between SW 10 Street and I-95 116

7.11.1.1 Flyover - Direct Connect Ramp from I-95 NB to SW 10 Street WB (Bridge No. 1)..... 116

7.11.1.2 Flyover - Direct Connect Ramp From I-95 SB to SW 10 Street WB (Bridge No. 2)..... 118

7.11.1.3 Flyover - Direct Connect Ramp from SW 10 Street EB to I-95 NB (Bridge No. 3) 120

7.11.1.4 Flyover - Direct Connect Ramp from SW 10 Street EB to I-95 SB (Bridge No. 4) 121

7.11.2 Elevated Viaduct..... 122

7.11.2.1 SW 10 Street EB Elevated Viaduct (Bridge No. 9).. 122

7.11.3 Interchanges/Grade Separation 123

7.11.3.1 SW 10 Street Connector Lane WB Ramp Over SFRC Railroad & SW 12 Avenue. (Bridge No. 5) 123

7.11.3.2 SW 10 Street Connector Lane WB Over SFRC Railroad & SW 12 Avenue. (Bridge No. 6)..... 125

7.11.3.3 SW 10 Street General Purpose Lanes WB over SFRC Railroad and SW 12 Avenue (Bridge No. 7) 126

7.11.3.4 SW 10 Street Local Lanes EB over SFRC Railroad and SW 12 Avenue (Bridge No. 8)..... 127

7.11.3.5 SW 10 Street WB Connector Lanes Over Military Trail (Bridge No.10)..... 128

7.11.3.6 SW 10 Street EB Connector Lane Off-Ramp Over Military Trail (Bridge No.11)..... 129

7.11.3.7 SW 10 Street Over I-95 (Bridge No.12)..... 130

7.11.3.8 I-95 SB Off-ramp to SW 10 Street (Bridge No.13) 132

7.11.3.9 I-95 SB On-Ramp Over Hillsboro Blvd. (Bridge No.16) 133

7.11.3.10 I-95 NB Over Hillsboro Boulevard Widening (Bridge No.17) 133

7.11.4 Braided Ramps 134

7.11.4.1 SW 10 Street to I-95 NB Braided On-ramp (Bridge No.14) 134

7.11.4.2 I-95 SB to SW 10 Street Braided Off-ramp (Bridge No.15) 135

7.11.5 Conceptual geotechnical data 137

7.11.6 Aesthetic Level for Bridge and Bridge Approaches 137

7.11.7 Bridge Deck Drainage Considerations 137

7.12 Intersection and Interchange Concepts 139

7.13 Right-of-Way 141

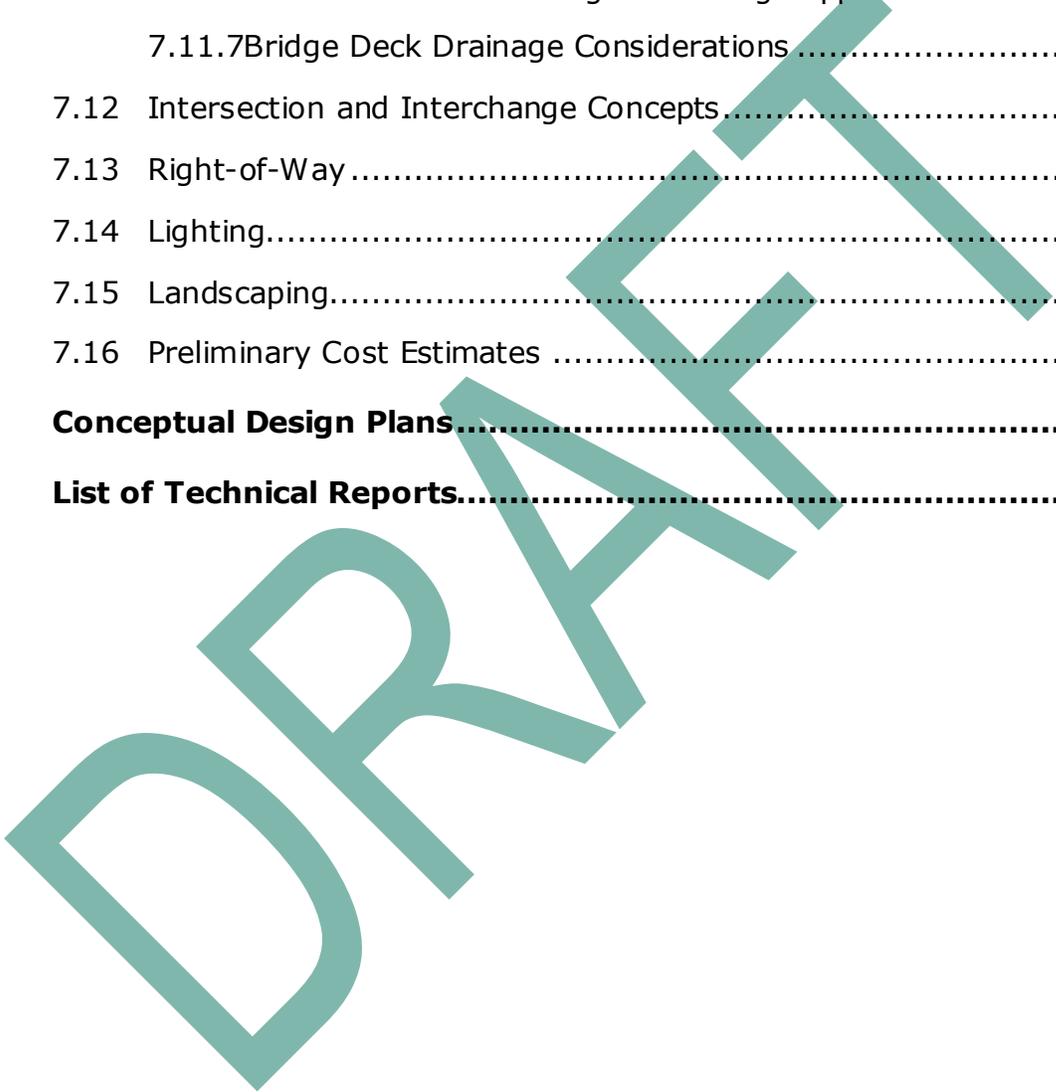
7.14 Lighting 141

7.15 Landscaping 141

7.16 Preliminary Cost Estimates 141

8 Conceptual Design Plans 143

9 List of Technical Reports 144



LIST OF TABLES

TABLE	PAGE
Table 2-1 Summary of Roadway Characteristics	8
Table 2-2 Existing Typical Section Characteristics	10
Table 2- 3 Existing Bridge Characteristics (Hillsboro Boulevard and I-95 Interchange)	20
Table 2-4 Existing Bridge Characteristics (SW 10 Street and I-95 Interchange) ..	23
Table 2-5 Existing Bridge Characteristics (SW 10 Street and SW 12 Avenue / SFRC Railroad Interchange)	26
Table 2-6 Horizontal Alignment I-95	34
Table 2-7 Horizontal Alignment – SW 10 Street.....	34
Table 2- 8 Vertical Alignment I-95.....	35
Table 2-9 Vertical Alignment – SW 10 Street.....	36
Table 2-10 Signalized Intersections	42
Table 2-11 Limits for the Safety Analysis.....	46
Table 2-12 Five Year Crash Summary for I-95.....	48
Table 2-13 Fatal Crashes along I-95	50
Table 2-14 Crash Distribution by Year and Milepost along I-95.....	51
Table 2-15 Five Year Crash Summary for SW 10 Street	53
Table 2-16 Crash Distribution by Year and Milepost along SW 10 Street	55
Table 2-17 Five Year Crash Summary for Hillsboro Boulevard.....	57
Table 2-18 Fatal Crashes along Hillsboro Boulevard	59
Table 2-19 Crash Distribution by Year and Milepost along Hillsboro Boulevard ...	59
Table 2-20 Summary of Cross Drains.....	62
Table 2-21 Utility Agency Owners.....	63
Table 4-1 Roadway Design Controls – Mainline	74
Table 4-2 Roadway Design Controls – I-95 Ramps.....	75
Table 5-1 Evaluation Criteria.....	85
Table 5-2 Comparative Alternative Evaluation – SW 10 Street	87
Table 5-3 Comparative Alternative Evaluation- Hillsboro Blvd.	90
Table 7-1 Design Elements for Direct Connect Ramps.....	99
Table 7-2 Design Elements for I-95 Ingress/Egress ramps	100

Table 7-3 Design Elements for SW 10 Street (Local Lanes) 101

Table 7-4 Design Elements for SW 10 St Connector Lanes 101

Table 7-5 Design Elements for SW 10 St, Connector Ingress Ramps..... 102

Table 7-6 Design Elements for SW 10 St. Connector Egress Ramps..... 102

Table 7-7 Utility Impacts along I-95..... 112

Table 7-8 Utility Impacts along SW 10 Street..... 112

Table 7-9 Utility Impacts along Hillsboro Boulevard..... 114

Table 7-10 Proposed Bridge Improvements for Preferred Alternative 138

Table 7-11 Preliminary Cost Estimates 142

DRAFT

LIST OF FIGURES

FIGURE	PAGE
Figure 1-1 Project Study Area.....	2
Figure 2-1 Roadway Segment – I-95 Corridor.....	12
Figure 2-2 Existing Typical Section – I-95.....	12
Figure 2-3 Existing Roadway Segment – SW 10 Street.....	14
Figure 2-4 Existing Typical Section – SW 10 Street.....	14
Figure 2-5 Existing Roadway Segment – Hillsboro Boulevard.....	16
Figure 2-6 Existing Typical Section – Hillsboro Boulevard.....	16
Figure 2-7 Zoning Map –Existing.....	18
Figure 2-8 Existing Bridge Locations.....	19
Figure 2-9 Bridges at Hillsboro Boulevard and I-95 Interchange (Bridge Nos. 861094 & 860124).....	21
Figure 2-10 Bridge No. 860194 Looking West.....	21
Figure 2-11 Bridge No. 860124 Looking East.....	22
Figure 2-12 Bridges at SW 10 Street and I-95 Interchange (Bridge Nos. 860123 & 860564).....	24
Figure 2-13 Bridge No. 860123 Looking North.....	24
Figure 2-14 Bridge No. 860123 Looking South.....	25
Figure 2-15 Bridge No. 860564 Looking West.....	25
Figure 2-16 Bridges at SW 10 Street and SW 12 Avenue / SFRC Railroad Interchange (Bridge Nos. 860557 & 860553).....	27
Figure 2-17 Bridge No. 860557 Looking North.....	27
Figure 2-18 Bridge No. 860553 Looking South.....	28
Figure 2-19 BCT Route 48.....	39
Figure 2-20 Deerfield Beach Station.....	39
Figure 2-21 Existing Roadway and Intersection Lane Configurations Hillsboro Boulevard.....	40
Figure 2-22 Existing Roadway and Intersection Lane Configurations.....	41
Figure 2-23 Existing Roadway and Intersection Lane Configurations Sample Road.....	41
Figure 2-24 Existing Traffic Volumes – Hillsboro Boulevard.....	43

Figure 2-25 Existing Traffic Volumes – SW 10 Street 44

Figure 2-26 Existing Traffic Volumes – Sample Road..... 44

Figure 2-27 Five Year Crash Characteristics for I-95 49

Figure 2-28 Crash Distribution by Year and Milepost along I-95..... 51

Figure 2-29 Five Year Crash Characteristics for SW 10 Street..... 54

Figure 2-30 Crash Distribution by Year and Milepost along SW 10 Street 55

Figure 2-31 Five Year Crash Characteristics for Hillsboro Boulevard 58

Figure 2-32 Crash Distribution by Year and Milepost along Hillsboro Boulevard... 60

Figure 3-1 Future Land Use Map 66

Figure 3-2 No-Action Roadway and Intersection Lane Configurations..... 68

Figure 3-3 2020 No-Action Volumes – Hillsboro Boulevard 69

Figure 3-4 2020 No-Action Volumes – SW 10 Street 69

Figure 3-5 2020 No-Action Volumes – Sample Road..... 70

Figure 3-6 2040 No-Action Volumes – Hillsboro Boulevard 70

Figure 3-7 2040 No-Action Volumes – SW 10 Street 71

Figure 3-8 2040 No-Action Volumes – Sample Road..... 71

Figure 5-1 SW 10 Street – North Alignment Concept Plan..... 80

Figure 5-2 Hillsboro Boulevard – Concept Plan – Alternative 2..... 84

Figure 7-1 TCP Typical Section SW 10 St – PHASE 1..... 106

Figure 7-2 TCP Typical Section SW 10 St – PHASE 2..... 106

Figure 7-3 TCP Typical Section SW 10 St – PHASE 3..... 107

Figure 7-4 TCP Typical Section I-95 – PHASE 1 109

Figure 7-5 TCP Typical Section I-95 – PHASE 2 109

Figure 7-6 TCP Typical Section I-95 – PHASE 3 110

Figure 7-7 Proposed Bridge Locations (1 of 2)..... 115

Figure 7-8 Proposed Bridge Locations (2 of 2)..... 115

Figure 7-9 Bridge Typical Section (Bridge No. 1) 116

Figure 7-10 Bridge Typical Section (Bridge No. 2) 119

Figure 7-11 Bridge Typical Section (Bridge No. 3) 120

Figure 7-12 Bridge Typical Section (Bridge No. 4) 121

Figure 7-13 Bridge Typical Section (Bridge No. 9) 122

Figure 7-14 Bridge Typical Section (Bridge No. 5) 124

Figure 7-15 Bridge Typical Section (Bridge No. 6) 125
Figure 7-16 Bridge Typical Section (Bridge No. 7) 126
Figure 7-17 Bridge Typical Section (Bridge No. 8) 127
Figure 7-18 Bridge Typical Section (Bridge No. 10)..... 128
Figure 7-19 Bridge Typical Section (Bridge No. 11)..... 129
Figure 7-20 Bridge Typical Section (Bridge No. 12) 1 of 2..... 130
Figure 7-21 Bridge Typical Section (Bridge No. 12) 2 of 2..... 131
Figure 7-22 Bridge Typical Section (Bridge No. 13) 1 of 2..... 132
Figure 7-23 Bridge Typical Section (Bridge No. 13) 2 of 2..... 132
Figure 7-24 Bridge Typical Section (Bridge No. 16)..... 133
Figure 7-25 Bridge Typical Section (Bridge No. 17)..... 134
Figure 7-26 Bridge Typical Section (Bridge No. 14)..... 135
Figure 7-27 Bridge Typical Section (Bridge No. 15)..... 136
Figure 7-28 Roadway and Intersection Lane Configurations 140

LIST OF APPENDICES

- Appendix A** Roadway Concept Plans
- Appendix B** Preliminary Cost Estimates

1 Project Summary

1.1 Project Description and Location

The Florida Department of Transportation (FDOT) District Four is conducting a Project Development and Environment (PD&E) Study, in accordance with the National Environmental Policy Act (NEPA), to assess potential operational and safety improvements along 3.1 miles of Interstate 95 (I-95), from just south of the SW 10 Street interchange [Mile Post (MP) 22.0] to just north of the Hillsboro Boulevard (Blvd) interchange (MP 25.10), in Broward County, Florida.

The project extends along I-95 from just south of SW 10 Street to just north of Hillsboro Boulevard and along both SW 10 Street from just west of Military Trail east to SW Natura Boulevard and along Hillsboro Boulevard from Goolsby Boulevard east to SW Natura Boulevard. The entire project lies within the city of Deerfield Beach. I-95 is part of the Strategic Intermodal System and the National Highway System which is Florida's high priority network of transportation facilities important to the state's economy, mobility and defense.

This study evaluates alternatives for improvements to the I-95 partial cloverleaf interchanges at SW 10 Street and Hillsboro Boulevard and along I-95 from just south of the SW 10 Street interchange to just north of the Hillsboro Boulevard interchange. SW 10 Street provides a direct connection between I-95 and the Sawgrass Expressway. The study also evaluates improvements along both SW 10 Street and Hillsboro Boulevard near I-95.

This study evaluates alternatives to modify the existing merge and diverge ramp areas at the SW 10 Street and Hillsboro Boulevard interchanges, considers the replacement of the existing SW 10 Street bridge over I-95 and providing a grade separation at the existing at-grade railroad crossing at Hillsboro Boulevard.

The construction of express lanes on I-95 within the project area is also analyzed as part of this project.

The project study area is shown in **Figure 1-1**.

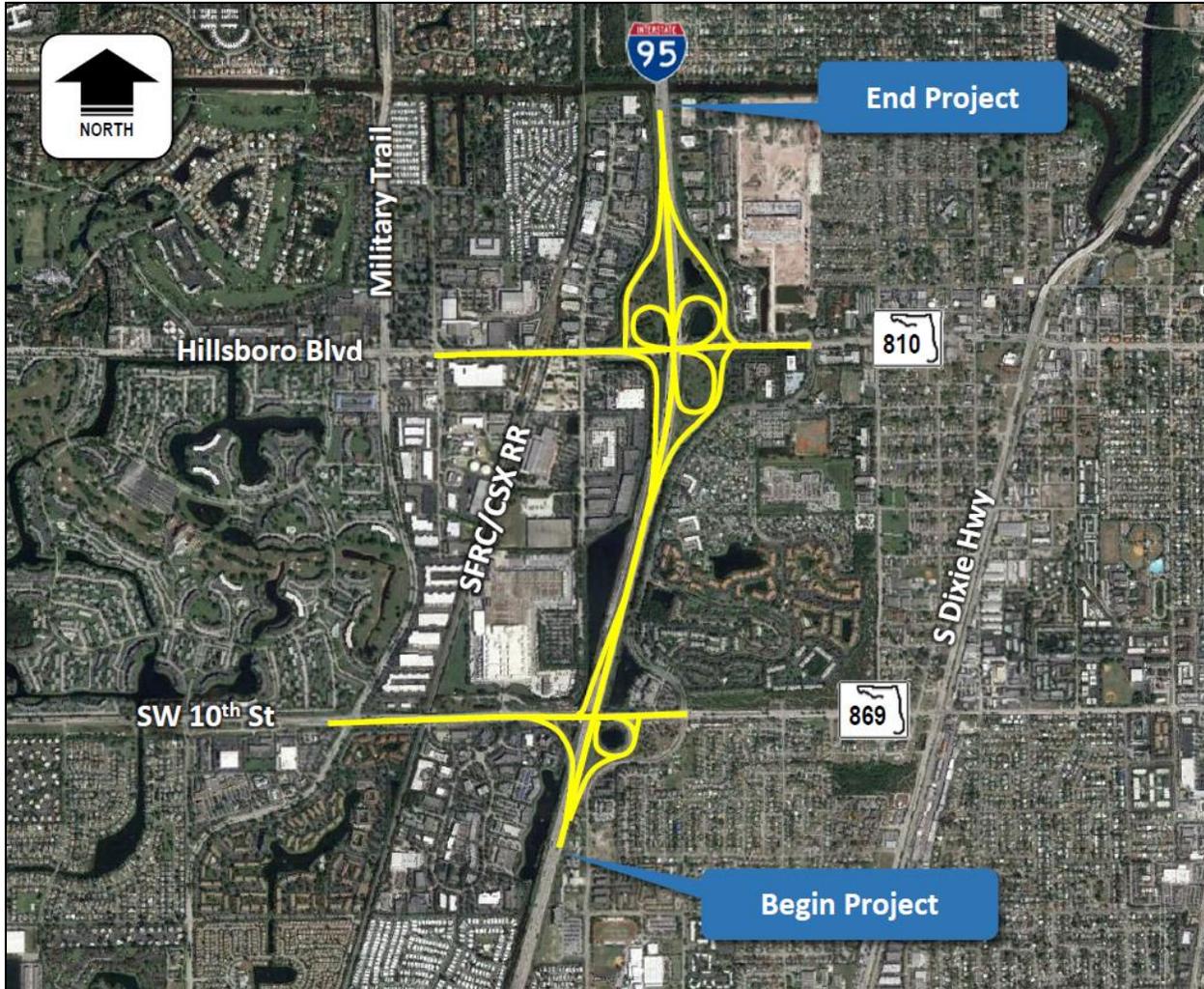


Figure 1-1 Project Study Area

1.2 Purpose and Need

The purpose of this project is to eliminate existing operational and safety deficiencies along I-95 between and including the interchanges at SW 10 Street and Hillsboro Boulevard, and on SW 10 Street and Hillsboro Boulevard in the vicinity of I-95. The primary need for the project is based on capacity/operational and safety issues, with secondary considerations for the needs of evacuation and emergency services, transportation demand, system linkage, modal interrelationships, and social demands and economic development.

1.2.1 Capacity/Operational Deficiencies

FDOT has identified the need to improve traffic operations along I-95 between the SW 10 Street and Hillsboro Boulevard interchanges, especially at existing merge and

diverge ramps that are the sources of traffic turbulence and collisions. The mainline directional volumes range from 4,400 to 5,850 vehicles per hour (vph) with ramp volumes from 800 to 1,250 vph at SW 10 Street and 400 to 1,000 vph at Hillsboro Boulevard.

Operational analyses along I-95 indicate that all freeway segments in the study area operate at Level of Service (LOS) D or better except for the following:

- The diverge segment at I-95 southbound (SB) off-ramp to SW 10 Street EB and WB during the AM and PM peak periods;
- The I-95 mainline segment between I-95 SB on-ramp from SW 10 Street eastbound (EB) and westbound (WB) and I-95 SB off-ramp to Sample Road EB and WB during the PM peak period;
- The I-95 mainline between I-95 SB On-Ramp from Palmetto Park Boulevard EB and I-95 SB Off-Ramp to Hillsboro Boulevard EB and WB during the AM peak period;
- The merge at I-95 SB on-ramp from Hillsboro Boulevard WB during AM and PM peak periods; and
- The diverge segment at I-95 northbound (NB) off-ramp to Hillsboro Boulevard EB during the AM peak period.

These conditions are existing concerns and are projected to worsen in the future if no action is taken. Year 2040 traffic projections show the mainline directional volumes ranging from 6,000 to 7,300 vph. Year 2040 peak hour directional volumes on I-95 Express are forecasted to range an additional 1,300 to 2,550 vph within the I-95 corridor. Operational analyses under the "No Action" option in year 2040 reflects implementation of two major programmed improvements: 1) I-95 Express Phase 3 (two express travel lanes in each direction), and 2) I-95 Ramp Metering. All of the mainline freeway segments in the study area would operate at a deficient LOS (E or F) during one or both peak periods with the exception that the merge segment for I-95 SB On-Ramp from WB Hillsboro Boulevard would operate at LOS D during the PM peak hour.

1.2.2 Safety

A need exists to resolve safety issues within the project limits along I-95 as well as SW 10 Street and Hillsboro Boulevard. Crash analyses for the years 2008 through 2012 reveal that the I-95 segment within the Hillsboro Boulevard interchange area is classified as a high crash segment for four of the five study years. It should also

be noted that the existing interchanges are closely located together and have short weave distances. Crash rates along SW 10 Street in the vicinity of I-95 exceed the statewide average for similar facilities for all five study years, but the segment along Hillsboro Boulevard in the vicinity of I-95 does not. Field observations indicate that the number of crashes along the Hillsboro Boulevard project segment may be influenced by queues extending from the railroad crossing into this area.

1.2.3 Evacuation and Emergency Services

The South Florida region has been identified by the National Oceanic and Atmospheric Administration (NOAA) as an area with a high degree of vulnerability to hurricanes and the Florida Division of Emergency Management has designated specific evacuation routes through the region. Both SW 10 Street and Hillsboro Boulevard are designated as emergency evacuation routes from I-95 to SR 5/US-1 and A1A. I-95 is designated as an emergency evacuation route throughout Broward County. A need exists to enhance capacity and traffic circulation along evacuation routes to improve evacuation and enhance emergency response.

1.2.4 Transportation Demand

A need exists to improve capacity and safety while meeting transportation demand and maintaining consistency with other transportation plans and projects, such as the Broward County Interchange Master Plan (IMP) and I-95 Express Lanes Phase III Project. The project is included in the FDOT Work Program with PE is scheduled for fiscal years 2017 and 2018. The Broward County MPO 2035 Long Range Transportation Plan (LRTP) included improvements to all I-95 interchanges in Broward County under Illustrative Roadway Projects. Illustrative projects are those that cannot be included in the cost feasible plan due to financial constraints but could be included in a future approved Transportation Improvement Program.

1.2.5 System Linkage

A need exists to ensure that I-95 continues to meet the minimum requirements of a component of the state's Strategic Intermodal System (SIS) and the National Highway System (NHS), as well as provides access connectivity to other major arterials such as I-595 and Florida's Turnpike Intermodal System (SIS) and the National Highway System (NHS), as well as provides access and connectivity to other major arterials such as I-595 and Florida's Turnpike.

1.2.6 Modal Interrelationships

There exists a need for capacity improvements along the I-95 project corridor to enhance the mobility of public transit and goods by alleviating current and future congestion along the corridor and on the surrounding freight and transit networks. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area.

Increased mobility to public transit operations are needed and will benefit as a result of this project. Although no designated Broward County Transit (BCT) Routes are provided within the SW 10 Street interchange area, Hillsboro Boulevard is serviced by BCT Route #48, which provides a connection from SR 7 to Deerfield Beach including a direct connection to the Deerfield Tri-Rail Station located just west of the Hillsboro interchange.

1.2.7 Social Demands and Economic Development

Social and economic demands on the I-95 corridor will continue to increase as population and employment increase. The Broward County MPO 2035 LRTP predicted that the population would grow from 1.7 million in 2005 to 2.3 million by 2035, an increase of 29 percent. Jobs were predicted to increase from 0.7 to 1 million during the same time period, an increase of 37 percent. A need exists for the proposed improvements to support the predicted social and economic travel.

1.3 Description of Preferred Alternative

This project and the recommended improvements were closely coordinated with the SW 10 Street Connector PD&E Study Project (FM 439891-1) which is studying the feasibility of connecting the existing Sawgrass Expressway with the proposed connector lanes along SW 10 Street. An Alternatives Analysis Memorandum documenting the development and screening of various alternatives including No-Build, Partial Build and Build concepts was submitted to FDOT District 4 on June 29, 2018 and is included in Appendix I of the Systems Interchange Modification Report (SIMR) prepared for this PD&E Study.

The preferred alternative for the I-95 corridor is Build Alternative 2. Build Alternative 2 proposes to add one tolled express lane in each direction in the median along I-95 while maintaining the existing access points south of the SW 10 Street interchange and north of the Hillsboro Boulevard interchange. The existing number of general-purpose lanes throughout the I-95 corridor will be maintained and the express lanes

will be separated from the general-purpose lanes with tubular markers and a 4-ft wide buffer. A Collector-Distributor (CD) road and braided ramps are proposed on the east side of I-95 for the NB traffic and a separate CD road on the west side of I-95 is proposed for the SB traffic.

The preferred alternative for SW 10 Street is the modified north alignment alternative. This alternative provides three 11-ft lanes with 7-ft buffered bike lanes and 6-ft sidewalks in each direction for the SW 10 Street local traffic. Additionally, two 12-ft elevated connector lanes are provided in each direction with direct connect ramps to/from the I-95 express lanes providing regional connectivity to the express lanes network. A WB ingress ramp is proposed west of the Newport Center Drive intersection that provides access from the SW 10 Street WB local lanes to the connector lanes. In the EB direction along the connector lanes an egress ramp departs from the connector lanes west of the Military Trail intersection braiding over the EB SW 10 Street local lanes connecting along the outside. The egress ramp allows access to the Newport Center and to ramps to NB and SB I-95.

On SW 10 Street at the NB and SB legs of the East Newport Center Drive intersection triple right turn lanes and no left turn or through lanes are provided. In addition, dual left turn lanes and exclusive right turn lanes are provided for the EB and WB movements at this intersection. This configuration allows improved operations and mitigates congestion for the intersection, the interchange ramp intersections and along SW 10 Street.

A roundabout is provided at the intersection of West and East Newport Center Drive to improve left turn movements at the Newport Center. A loop ramp is provided along SW 12 Avenue that connects directly to the SW 10 Street connector lanes to improve operations of the East Newport Center Drive intersection with SW 10 Street by allowing WB traffic making a right turn to bypass the signal.

The NB exit ramp terminal will be widened to accommodate triple left and triple right turn lanes. The intersection at Natura Boulevard is expanded to accommodate double left and single right turn lanes on all intersection approaches.

Alternatives 1 and 2 along Hillsboro Boulevard which evaluated a depressed profile under the South Florida Rail Corridor (SFRC) and a grade separation over the railroad tracks were considered non-viable due to significant impacts to property access, right of way, utilities, and major temporary traffic control impacts for both the railroad tracks and Hillsboro Boulevard. Therefore, the proposed improvements along

Hillsboro Boulevard are limited to the ramp terminals. The improvements include an additional left turn movement for the NB egress ramp terminal while maintaining the dual right turn movement which resulted in the elimination of the NB off-ramp loop to WB Hillsboro Boulevard. In addition, the NB on-ramp from WB Hillsboro Blvd was realigned to be within the proximity of I-95. Moreover, a new configuration was proposed for the WB to NB on-ramp and the WB to SB on-ramp to minimize the weaving maneuvers within the interchange area. Additionally, a new bridge is proposed to be constructed on the west side of the I-95 mainline, due to the existing vertical clearance above Hillsboro Boulevard.

1.4 Commitments

Continue coordination with the City of Deerfield Beach and Newport area businesses during design and construction.

Bicycle lanes and sidewalks will be provided along local SW 10 Street. Sidewalk will be provided along the north side from East Newport Center Drive to east of Natura Boulevard and along the south side from Military Trail to east of SW Natura/FAU Research Park Boulevard.

Landscaping will be coordinated with the local communities and the City of Deerfield Beach and will be constructed as a separate project.

2 Existing Conditions

Due to the uniqueness of this project, the analysis and evaluation of the existing conditions were separated into three corridors; I-95 (SR 9), SW 10 Street (SR 869) and Hillsboro Boulevard (SR 810). Data gathering for each of these corridors focused on the areas of roadway, bridge and environmental characteristics. Field reviews were conducted. The FDOT’s Roadway Characteristics Inventory, Straight Line Diagrams (SLDs), Broward County MPO traffic counts, traffic and roadway data from Broward County Traffic and Engineering Division and other documents were reviewed and collected. A summary of the characteristics of the roadway facilities is presented in **Table 2-1**.

Table 2-1 Summary of Roadway Characteristics			
Typical Section Element	Roadway		
	I-95	SW 10 Street	Hillsboro Boulevard
Facility Type	Freeway, Limited Access, SIS Facility	Arterial	Arterial
Functional Classification	Urban Principal Arterial - Interstate	Urban Principal Arterial - Other	Urban Principal Arterial - Other
Access Management Classification (FDOT)	Class 1	Class 3	Class 5
Typical Section	North of Sample Road to North of Hillsboro Boulevard Interchange: NB and SB: 3 GP, 1 EP / BW South of Sample Road Interchange: NB and SB: 1 AUX, 3 GP, 1 EP / BW Wall Median	EB & WB: 3 Lanes/Raised Median	EB & WB: 3 Lanes/Raised Median
Posted Speed Limit	65 mph	45 mph	45 mph
Legend: AUX-Auxiliary Lane GP-General Purpose Lane EP-Express Lane BW-Barrier			

2.1 Functional Classification

The roadway network within the project study area is comprised of interstate expressways, state roads, county roads and local roads that provide access and traffic circulation within residential, commercial and industrial areas.

2.1.1 I-95

Within the limits of the study for access management, I-95 is defined as Limited Access Class 1.2 Freeway in an Existing Urbanized Area with a functional classification as an urban principal arterial interstate. I-95 is an essential part of the Strategic Intermodal System (SIS) and National Highway System (NHS) networks. Within the limits of the project, I-95 has six general purpose lanes (three in each direction) and two Express lanes (EP) lanes (one in each direction).

2.1.2 SW 10 Street

SW 10 Street has a functional classification as an urban principal arterial other. SW 10 Street is classified as a six-lane divided State Principal Arterial west of I-95 and as a six-lane divided City Minor Arterial east of I-95. In addition, it is on the State Highway System (SHS) and SIS systems being classified as a SIS corridor.

2.1.3 Hillsboro Boulevard

Hillsboro Boulevard has a functional classification as an urban principal arterial other. Hillsboro Boulevard is classified as a six-lane divided State Minor Arterial west of I-95 and as a State Principal Arterial east of I-95. In addition, it is on the SHS and SIS systems being classified as a SIS connector classification as an urban principal arterial from the intersection at Goolsby Boulevard (MP 4.760) to I-95 (MP 5.365) since it connects the I-95 Expressway to South Florida Rail Corridor (SFRC).

2.1.4 Context Classification

Hillsboro Boulevard and SW 10 Street are classified as Suburban Commercial (C3C) which includes facilities that have mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.

2.2 Access Management

2.2.1 I-95

The access management classification for the I-95 corridor is Class 1.2, Freeway in an existing urbanized area with limited access.

2.2.2 SW 10 Street

SW 10 Street is designated as Class 3 for access management, where the highway is distinguished by restrictive medians, and the adjacent land is highly developed.

2.2.3 Hillsboro Boulevard

Hillsboro Boulevard is designated as Class 5 for access management, where the highway is distinguished by restrictive medians, and the adjacent land is highly developed.

2.3 Typical Sections

Table 2-2 summarizes the typical section characteristics for each corridor.

Table 2-2 Existing Typical Section Characteristics			
Typical Section Element	Roadway		
	I- 95	SW 10 Street	Hillsboro Boulevard
Number of Travel Lanes	8	6	6
Travel Lane Width	12-ft	11 to 12-ft	11-ft
Parking Lane Width	n/a	n/a	n/a
Curb and Gutter	n/a	Type F	Type F
Inside Shoulders Width	12-ft	n/a	n/a
Outside Shoulders Width (Bike Lane)	12-ft	Varies 4-ft to 8-ft	Varies 4-ft to 6-ft
Median Width	26.5 ft	14 to 17.5 ft	15.5 ft
Sidewalk Width	n/a	Varies 5-6 ft	Varies 6-7 ft
Right-of-Way Width	240 ft – 300 ft	106 ft (+)	106 – 136 ft

2.3.1 I-95

Within the limits of the study, I-95 is an eight-lane divided limited access facility consisting primarily of a 2.5-ft center barrier wall with two 12-ft paved inside shoulders (one in each direction). The inside lane in each direction is a 12-ft wide EL with a 2-ft striped buffer area separating the EP lane from the three 12-ft general-purpose lanes. In each direction, along the outside of the general-purpose lanes is a 12-ft shoulder [10-ft paved and 2-ft unpaved]. In the NB direction, a 12-ft auxiliary lane exists between the SW 10 Street on-ramp and Hillsboro Boulevard off-ramp. Additionally, in the SB direction a 12-ft auxiliary lane exists between the Hillsboro

Boulevard on-ramp and SW 10 Street off-ramp. The existing roadway segment is depicted in **Figure 2-1** and typical section for this corridor is shown in **Figure 2-2**.

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Figure 2-1 Roadway Segment – I-95 Corridor

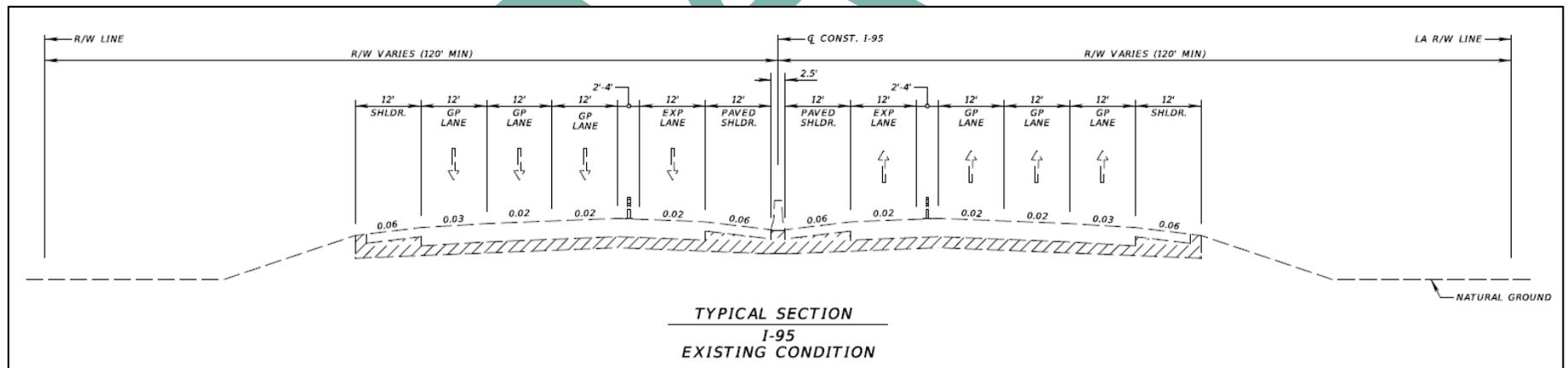


Figure 2-2 Existing Typical Section – I-95

2.3.2 SW 10 Street

Along SW 10 Street EB from approximately 1,000-ft west of the intersection of Military Trail to the intersection there are three 11-ft lanes, a 4- to 5-ft bike lane, and a 6-ft sidewalk. In the center, there is a 17.5-ft raised curb and gutter median.

Along SW 10 Street WB from approximately 1,000-ft west of the intersection of Military Trail to the intersection there are two 12-ft lanes, a 4-ft bike lane and a 4-ft unpaved shoulder.

In each direction, from the intersection at Military Trail to East Newport Center Drive there are three 11-ft lanes, a 4-ft bike lane, 2-ft curb and gutter and a 6-ft concrete sidewalk running along at the back of curb. In the center of the roadway there is a raised curb and gutter median that varies in width from 14-ft to 17.5-ft. In the WB direction, the outside lane is an auxiliary lane used for right turns and/or acceleration that terminates at the intersection with Military Trail. In the EB direction, a fourth (outside) 12-ft to 14-ft wide lane exists as an auxiliary lane used for right turns and/or acceleration and terminates at the SB on-ramp to I-95.

From East Newport Center Drive to SW Natura Boulevard/FAU Research Park Boulevard there are three 11-ft lanes in each direction, 2-ft curb and gutter with a 6-ft concrete sidewalk running along at the back of curb with no bicycle lane or shoulder. The outside EB lane terminates at the NB entrance ramp to I-95 and then remerges west of the NB I-95 off-ramp intersection continuing to the FAU Research Park Boulevard intersection. WB are three 11-ft lanes, 2-ft curb and gutter with a 6-ft concrete sidewalk running along at the back of curb with no bike lane or shoulder present. A fourth WB lane emerges at the SB I-95 off-ramp intersection and terminates at the East Newport Center Drive intersection. In the center of the roadway there is a raised curb and gutter median that varies in width from 14-ft to 20-ft.

The existing roadway segment is depicted in **Figure 2-3** and typical section for this corridor is shown in **Figure 2-4**.



Figure 2-3 Existing Roadway Segment – SW 10 Street

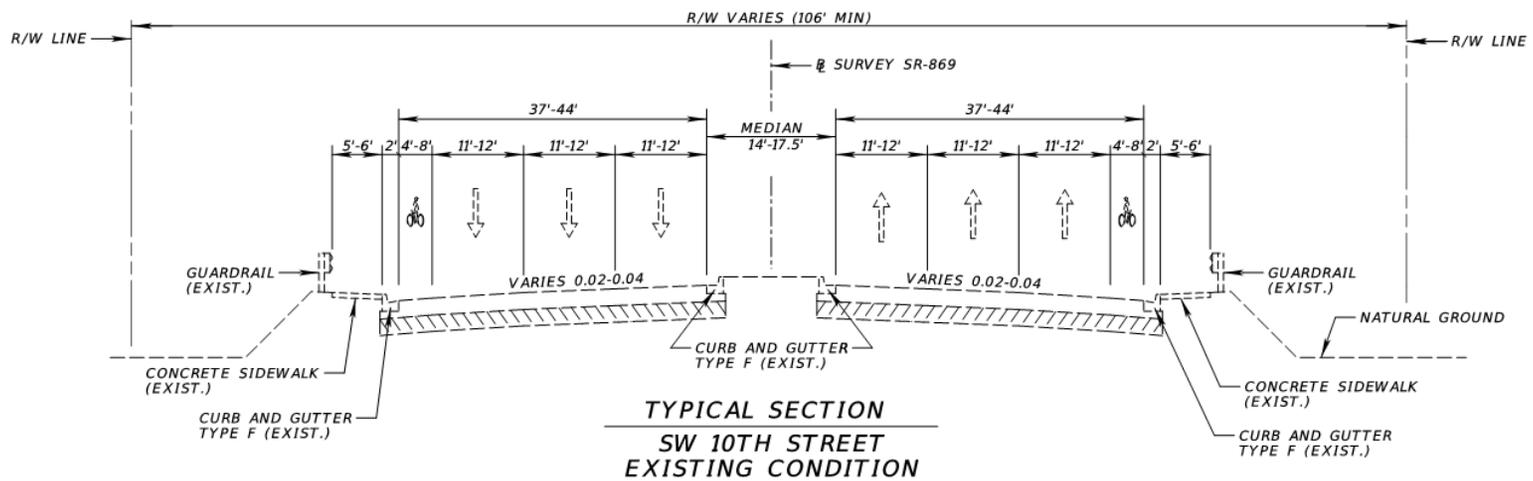


Figure 2-4 Existing Typical Section – SW 10 Street

2.3.3 Hillsboro Boulevard

Hillsboro Boulevard from east of the Military Trail intersection to the intersection with Natura Boulevard/Fairway Drive is an urban arterial typical section with a 15.5 ft raised median, six 11-ft thru lanes (3 lanes in each direction) and two 4-ft bicycle lanes (one in each direction) with Type F curb and gutter on both sides of the roadway. In each direction outside the bicycle lanes is a 2-ft curb and gutter with 6-ft concrete sidewalk running along at the back of curb. The right of way varies from 53-ft to 68-ft on each side.

The existing roadway segment is depicted in **Figure 2-5** and typical section for this corridor is shown in **Figure 2-6**.

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Figure 2-5 Existing Roadway Segment – Hillsboro Boulevard

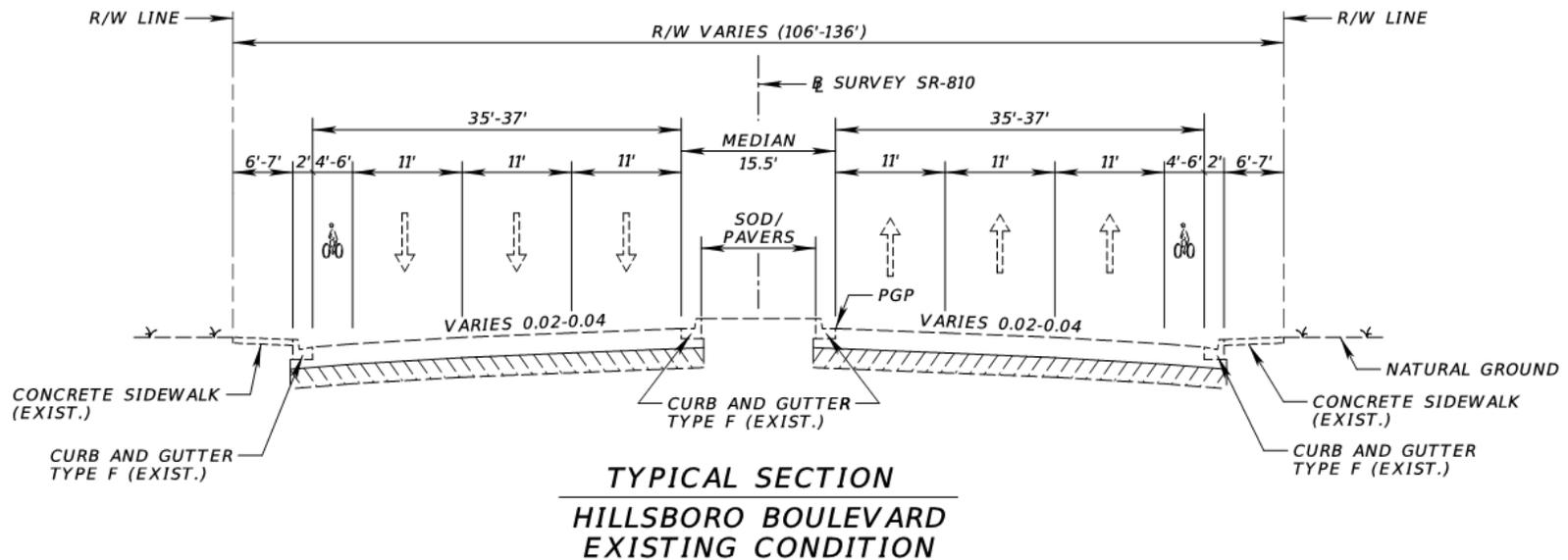


Figure 2-6 Existing Typical Section – Hillsboro Boulevard

2.4 Right of Way

2.4.1 I-95

The existing right of way along I-95 varies with a minimum of 240-ft and varies based on shoulder width and natural ground.

2.4.2 SW 10 Street

The existing right of way along SW 10 Street varies with a minimum of 106-ft and varies based on median width.

2.4.3 Hillsboro Boulevard

The existing right of way along Hillsboro Boulevard varies from 106- to 136-ft based on median width, shoulder width and natural ground.

2.5 Property Lines and Land Use

2.5.1 Existing Land Use

This project lies within the City of Deerfield Beach. West of I-95 within the project limits, the dominant land uses are industrial and commercial, including a Publix distribution center and several hotels in the vicinity of the interchanges. Additional land uses west of I-95 include City of Deerfield government offices located west of the SFRC and south of Hillsboro Boulevard, and a residential development southwest of SW 10 Street and the railroad. East of I-95 and south of Hillsboro Boulevard, land use is mainly single and multi-family residential with a mixture of commercial development at the interchanges. North of Hillsboro Boulevard, land use is mainly commercial along I-95 and Hillsboro Boulevard. Set behind the commercial development is the former Deerfield Country Club Golf Course.

The City of Deerfield Beach Zoning Map shown in **Figure 2-7** shows the NW quadrant of SW 10 Street interchange as zone I (Industrial), the SW quadrant as zone PID (Planned Industrial Development), the SE quadrants as zone B-2 (Business) and the NE quadrant as zones B-2 (Business) and PUD (Planned Unit Development).

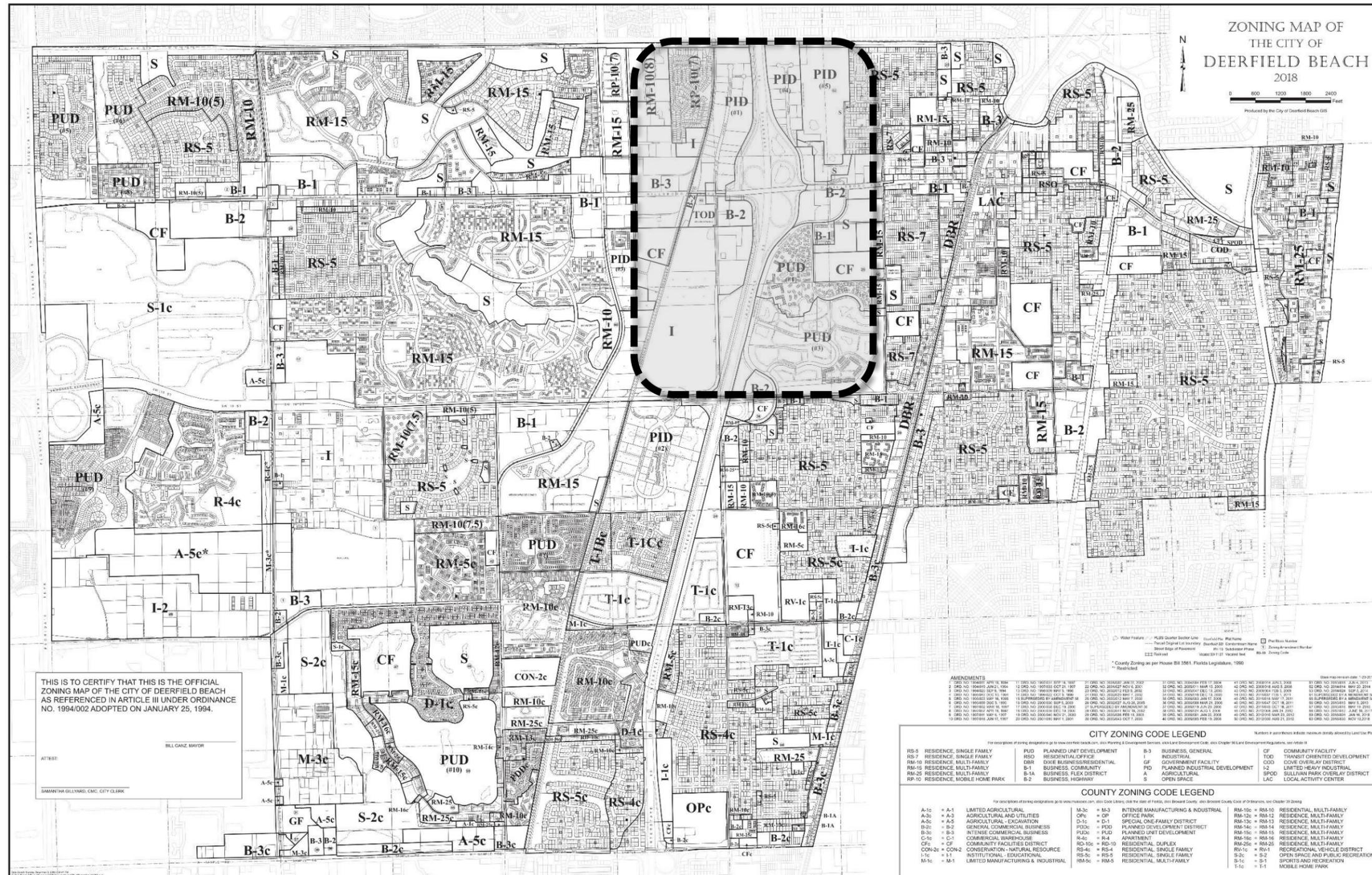


Figure 2-7 Zoning Map – Existing

2.6 Existing Structural Characteristics

2.6.1 Structures

As part of this PD&E study, six bridge structures were evaluated. Bridge locations are identified in **Figure 2-8**.

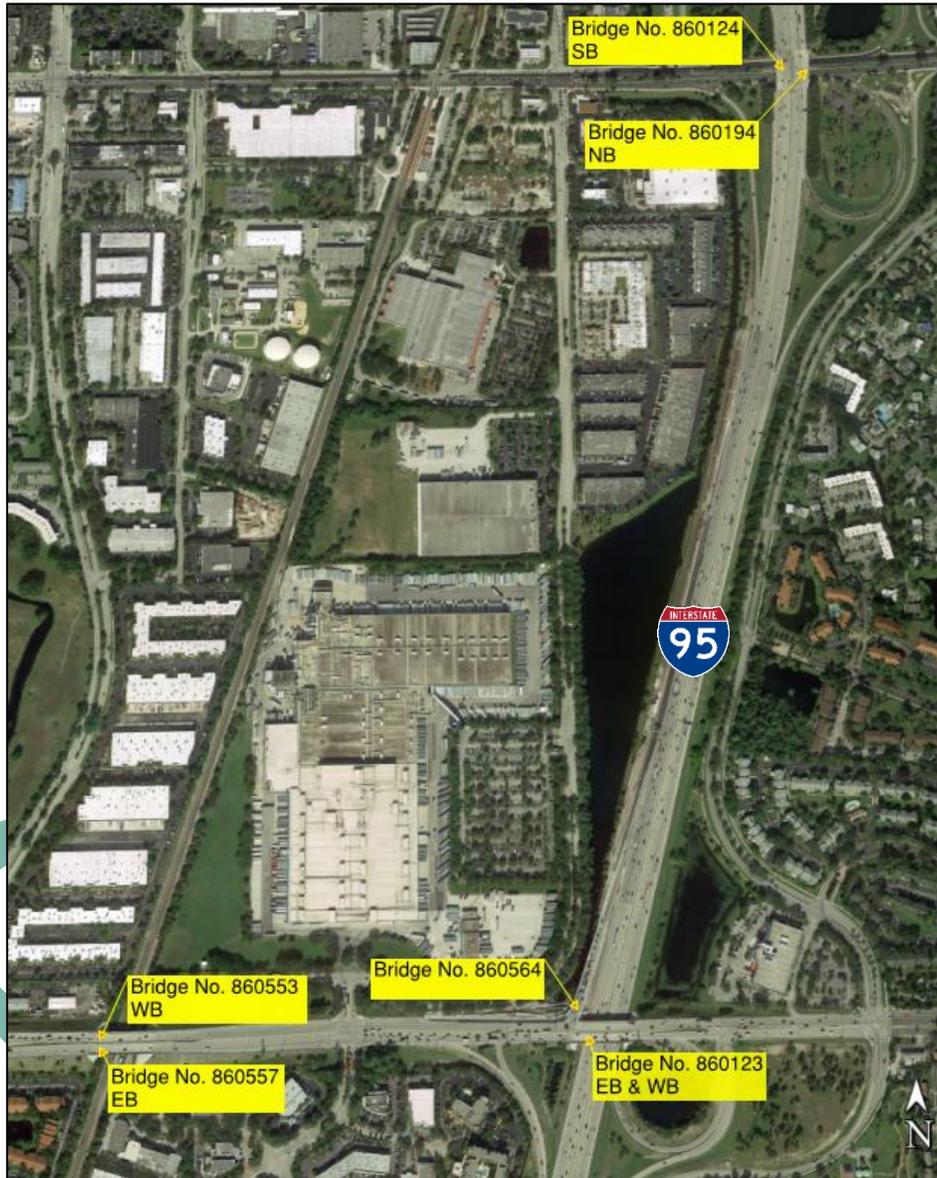


Figure 2-8 Existing Bridge Locations

2.6.1.1 Existing Bridges

There are six bridge structures within the project limits including:

- I-95 NB over Hillsboro Boulevard (Bridge No. 860194),

- I-95 SB over Hillsboro Boulevard (Bridge No. 860124),
- SW 10 Street EB and WB over I-95 (Bridge No. 860123),
- I-95 SB off-ramp connecting to SW 10 Street (Bridge No. 860564),
- SW 10 Street EB and WB over SW 12 Avenue and SFRC railroad (Bridge Nos. 860557, 860553).

Existing bridges are shown in **Figure 2-9** through **Figure 2-18**. The location, geometrics, alignment, type of structure, and condition of the above-mentioned bridges are listed in **Table 2-3**, **Table 2-4**, and **Table 2-5**.

2.6.1.1.1 Hillsboro Boulevard and I-95 Interchange

Table 2- 3 Existing Bridge Characteristics (Hillsboro Boulevard and I-95 Interchange)			
Bridge ID No.		860194 (NB)	860124 (SB)
Location	Bridge Location	I-95 over Hillsboro Boulevard	I-95 over Hillsboro Boulevard
	Direction	NB	SB
Geometrics	Bridge Length (ft)	231	231
	Deck Width (ft)	87.17	87.17
	No. of Lanes	5 (3 GP, 1 HOV, 1 merge)	5 (3 GP, 1 HOV, 1 merge)
Alignment	Skew Angles (Degrees)	6	6
	Minimum Horizontal Clearance	Inside (LT)	8'-1"
		Outside (RT)	14'-1 3/4", 14'-6 7/8" ⁽¹⁾
	Min. Vertical Clearance	N/A ⁽²⁾	15.39 ft ⁽²⁾
Structural	Number of Spans	4	4
	Interior Span Length (ft)	74.25	74.25
	Outer Span Length (ft)	41.25	41.25
	Superstructure Type	AASHTO Type III/II	AASHTO Type III/II
	Substructure Type	Multicolumn Pier/Bent/18" Prest. Piles	Multicolumn Pier/Bent/18" Prest. Piles
Condition	Year Built / Widened	1972/1990	1972/1990
	Sufficiency Rating (percent)	98.0	98.0
	Health Index (percent)	99.81	99.93
	Inspection Date	5/8/2017	5/8/2017
	Number of Documented Hits	None	None
	Significant Deficiencies	None	None
	Load Rating (Inventory Rating Factor- IRF)	(IRF>1) 1.011	(IRF>1) 1.011

Notes:

1. Minimum horizontal clearance per existing bridge plans.
2. Minimum vertical clearance per the existing bridge plans for SB bridge, not available for NB bridge but larger than that of SB bridge due to superelevation.



Figure 2-9 Bridges at Hillsboro Boulevard and I-95 Interchange (Bridge Nos. 861094 & 860124)



Figure 2-10 Bridge No. 860194 Looking West



Figure 2-11 Bridge No. 860124 Looking East

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2.6.1.1.2 SW 10 Street and I-95 Interchange

Table 2-4 Existing Bridge Characteristics (SW 10 Street and I-95 Interchange)			
Bridge ID No.		860123	860564
Location	Bridge Location		SW 10 Street over I-95
	Direction		EB/WB
Geometrics	Bridge Length (ft)		272
	Deck Width (ft)		97.75
	No. of Lanes		7
Alignment	Skew Angles (Degrees)		16
	Minimum Horizontal Clearance	Inside (LT)	10'-4" (+/-) ¹
		Outside (RT)	30.04 ²
	Min. Vertical Clearance		16.16
Structural	Number of Spans		4
	Interior Span Length (ft)		103.75
	Outer Span Length (ft)		32.25
	Superstructure Type		AASHTO Type IV/II
	Substructure Type		Multicolumn Pier/Bent/18" Prest. Piles
Condition	Year Built / Widened		1972
	Sufficiency Rating (percent)		83
	Health Index (percent)		99.78
	Inspection Date		6/14/2016
	Number of Documented Hits		None
	Significant Deficiencies		None
	Load Rating (Inventory Rating Factor- IRF)		(IRF > 1) 1.389

Notes:

1. Horizontal clearance: measured from the edge of the travel lane to the pier, per existing bridge plans.
2. Minimum vertical clearance: per the bridge inspection report.

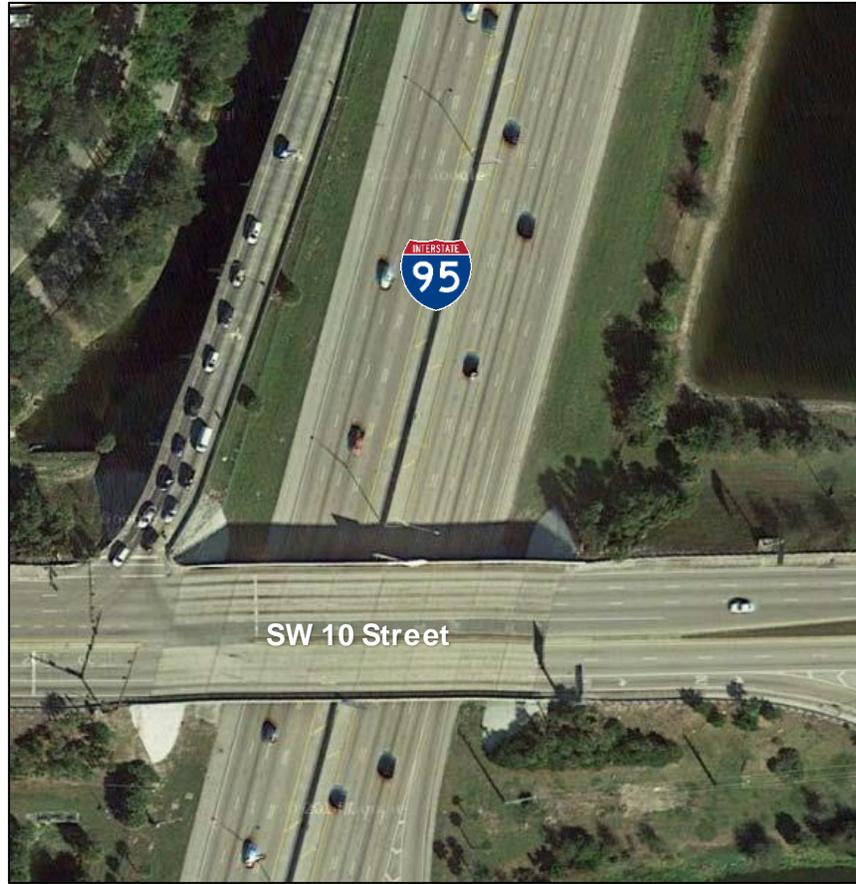


Figure 2-12 Bridges at SW 10 Street and I-95 Interchange (Bridge Nos. 860123 & 860564)



Figure 2-13 Bridge No. 860123 Looking North



Figure 2-14 Bridge No. 860123 Looking South



Figure 2-15 Bridge No. 860564 Looking West

2.6.1.1.3 SW 10 Street and SW 12 Avenue / SFRC Rail Interchange

Table 2-5 Existing Bridge Characteristics (SW 10 Street and SW 12 Avenue / SFRC Railroad Interchange)			
Bridge ID No.		860553	860557
Location	Bridge Location		SW 10 Street over SW 12 Avenue / SFRC Railroad
	Direction		WB
Geometrics	Bridge Length (ft)		286
	Deck Width (ft)		49.83
	No. of Lanes		3
Alignment	Skew Angles (Degrees)		17
	Minimum Horizontal Clearance	Inside (LT)	20'-5 3/4" ⁽²⁾ (to center of track)
		Outside (RT)	16'-8 3/4" ⁽²⁾
	Min. Vertical Clearance		23.03 ft ⁽¹⁾
Structural	Number of Spans		4
	Interior Span Length (ft)		71
	Outer Span Length (ft)		82, 62
	Superstructure Type		AASHTO Type III
	Substructure Type		Multicolumn Pier/Bent/18" Prest. Piles
Condition	Year Built / Widened		1982
	Sufficiency Rating (percent)		81.4
	Health Index (percent)		84.04
	Inspection Date		8/10/2016
	Number of Documented Hits		None
	Significant Deficiencies		None
	Load Rating (Inventory Rating Factor- IRF)		(IRF>1) 1.244

Notes:

1. Minimum vertical clearance per the bridge inspection report.
2. Minimum horizontal clearance per existing bridge plans.



Figure 2-16 Bridges at SW 10 Street and SW 12 Avenue / SFRC Railroad Interchange (Bridge Nos. 860557 & 860553)



Figure 2-17 Bridge No. 860557 Looking North



Figure 2-18 Bridge No. 860553 Looking South

2.6.1.2 Type of Structure

Per the existing bridge plans, the superstructure of all existing six bridges consists of cast-in-place (CIP) deck supported on pre-stressed AASHTO girders. The bridge inspection reports indicate that the deck of the bridges over SFRC (Bridge Nos. 86553 and 860557) was constructed with a partially CIP deck on precast panels. The substructure for all bridges except Bridge No. 860564 consists of multicolumn piers and pile end bents supported by 18 inches square pre-stressed concrete piles. The substructure of Bridge No. 860564 consists of pile bents supported by 18 inches square pre-stressed concrete piles and steel H piles (HP 14 x 89). The type of structure for each bridge within the project is summarized in **Table 2-3, Table 2-4, and Table 2-5.**

2.6.1.3 Condition

Per the National Bridge Inventory (NBI) and Structural Inventory and Appraisal Program, FDOT is required by FHWA to perform biennial bridge inspections and produce Bridge Inspection Reports (BIR) to determine the overall condition of all its fixed bridges.

The most recent bridge inspection reports for the six existing bridges that traverse the proposed project corridor were obtained from FDOT. The key identifiers from the bridge inspection reports are **Sufficiency Rating, Health Index, Noted Deficiencies, and Load Rating.**

The Sufficiency Rating is a measure used to evaluate a highway bridge to determine whether it should be repaired or replaced using the following factors:

- Structural Adequacy and Safety
- Serviceability and Functional Obsolescence

- Essentiality for Public Use
- Special Reductions

Approximately half of the above factors relate to the actual condition of the bridge. The Sufficiency Rating can vary between 0 (percent) to 100 (percent) with 0 indicating a bridge that is completely deficient and 100 indicating a bridge that is completely sufficient. Bridges with sufficiency rating of less than 80 but greater than 50 are eligible for rehabilitation using federal funding. Bridges with sufficiency rating less than 50 are eligible for replacement using federal funding.

The health index is a tool that measures the overall condition of a bridge. A health index of 100 (percent) represents a perfect bridge (entirely sufficient for its current use). A health index of 0 (percent) is the worst possible bridge (entirely insufficient for its current use). A lower health index means that more work would be required to improve the bridge to an ideal condition. A health index below 85 generally indicates that some repairs are needed, although it doesn't mean the bridge is unsafe. A low health index may also indicate that it would be more economical to replace the bridge than to repair it. The bridge inspection reports were obtained from the FDOT District 4 Structures and Facilities library for each structure.

The existing I-95 NB bridge over Hillsboro Boulevard (Bridge No. 860194) is a slightly curved and skewed precast pre-stressed concrete AASHTO girder type structure. The bridge was constructed originally around 1972 and widened around 1990. The bridge was widened along the inside, and the original outside traffic railing was replaced with a F Shape Traffic Railing (Index No. 14286). The bridge is comprised of two outer and two middle spans, 41'-3" for each outer span and 74'-3" for each middle span with a total overall length of 231'-0". The total bridge width is approximately 87'-2". The bridge currently carries three travel lanes, one merge lane, an HOV lane, and shoulders on both sides. A concrete traffic railing barrier satisfying the current standards borders the bridge on each side. The minimum vertical clearance of the SB bridge is 15.39-ft. The minimum vertical clearance of the NB bridge is not given on the existing bridge plans. However, the minimum vertical clearance of the SB bridge governs, since both bridges are super-elevated toward the east side. The bridge inspection report for this bridge indicates a good to excellent overall NBI ratings for this bridge. The Sufficiency Rating is 98 out of a possible 100 and the health index is 99.81 out of a possible 100. The report also provides descriptions and pictures of the deficiencies that exist on this bridge.

The existing I-95 SB bridge over Hillsboro Boulevard (Bridge No. 860124) is a slightly curved and skewed precast pre-stressed concrete AASHTO girder type structure. The bridge was constructed originally around 1972 and widened around 1990. The bridge was widened along the inside, and the original outside traffic railing was replaced with a F Shape Traffic Railing (Index No. 14286). The bridge is comprised of two outer and two middle spans, 41'-3" for each outer span and 74'-3" for each middle span with a total overall length of 231'-0". The total bridge width is approximately 87'-2". The bridge currently carries three travel lanes, one merge lane, an HOV lane, and shoulders on both sides. A concrete traffic railing barrier satisfying the current standards borders the bridge on each side. The minimum vertical clearance is approximately 15.40' per the existing bridge plans. The bridge inspection report for this bridge indicates a good to excellent overall NBI ratings for this bridge. The Sufficiency Rating is 98 out of a possible 100 and the health index is 99.93 out of a possible 100. The reports also provide descriptions and pictures of the deficiencies that exist on this bridge.

The existing SW 10 Street bridge over I-95 (Bridge No. 860123) is a slightly skewed precast pre-stressed concrete AASHTO girder type structure constructed originally around 1972. The bridge is comprised of two outer and two middle spans, approximately 32'-3" for each outer span and approximately 103'-9" for each middle span with an approximate total overall length of 272'-0". The total bridge width is approximately 97'-9". The bridge currently carries five travel lanes, two turn lanes, and a sidewalk on both sides of the bridge. A concrete traffic railing barrier borders the bridge on each side. The minimum vertical clearance is approximately 16.16' per the BIR. The bridge inspection report for this bridge indicates a good to excellent overall NBI ratings for this bridge. The Sufficiency Rating is 83.0 out of a possible 100 and the health index is 99.78 out of a possible 100. The report also provides descriptions and pictures of the deficiencies that exist on this bridge.

The existing I-95 SB off-ramp bridge connecting to SW 10 St (Bridge No. 860564) is a precast pre-stressed concrete AASHTO girder type structure. This bridge was constructed originally around 1988 and widened around 2018. The bridge is comprised of seven 65'-0" equally spaced spans, for a total overall length of 455'-0". The bridge width varies between 64'-1 1/4" to 43'-1/8". The bridge currently carries 3 travel lanes with shoulders on each side. A concrete traffic railing barrier satisfying the current standards borders the bridge on each side. The bridge inspection report for this bridge indicates a good to excellent overall National NBI ratings for this

bridge. The Sufficiency Rating is 80.5 out of a possible 100 and the health index is 99.39 out of a possible 100. The report also provides descriptions and pictures of the deficiencies that exist on this bridge.

The existing SW 10 Street EB bridge over SW 12 Avenue and SFRC railroad (Bridge No. 860557), constructed originally around 1982, is a slightly skewed precast prestressed concrete AASHTO girder type structure. The bridge is comprised of two outer and two middle spans, 82'-0" and 62'-0" for each outer span and 71'-0" for each middle span with a total overall length of 286'-0". The total bridge width is 49'-10". The bridge currently carries three travel lanes, with a 4'-6" shoulder on the North side and 5'-0" sidewalk on the South side. A concrete traffic railing barrier satisfying the current standards borders the bridge on each side. The minimum vertical clearance is approximately 23'-0" to the top of rail. The bridge inspection report for this bridge indicates a good to excellent overall NBI ratings for this bridge. The Sufficiency Rating is 81.4 out of a possible 100 and the health index is 85.32 out of a possible 100. The report also provides descriptions and pictures of the deficiencies that exist on this bridge. The bridge deck was constructed with CIP concrete deck on top of precast concrete panels per the BIR. The reinforced concrete deck on top of the precast panels has several longitudinal and transverse cracks with combined area of distress more than 25% but less than 50% of the total deck area. The deck is rated in satisfactory condition per the BIR but District 4 has slated it for replacement.

The existing SW 10 Street WB bridge over SW 12 Avenue and SFRC railroad (Bridge No. 860553), constructed originally around 1982, is a slightly skewed precast prestressed concrete AASHTO girder type structure. The bridge is comprised of two outer and two middle spans, 82'-0" and 62'-0" for each outer span and 71'-0" for each middle span with a total overall length of 286'-0". The total bridge width is 49'-10". The bridge currently carries two travel lanes and one turn lane, with a 4'-6" shoulder on the South side and 5'-0" sidewalk on the north side. A concrete traffic railing barrier satisfying the current standards borders the bridge on each side. The minimum vertical clearance is approximately 23'-0" to the of rail. The bridge inspection reports for this bridge indicate a good to excellent overall NBI ratings for this bridge. The Sufficiency Rating is 81.4 out of a possible 100 and the health index is 84.04 out of a possible 100. The reports also provide descriptions and pictures of the deficiencies that exist on this bridge. The bridge deck was constructed with CIP concrete deck on top of precast concrete panels per the BIR. The reinforced concrete deck on top of the precast panels has several longitudinal and transverse cracks with

combined area of distress more than 25% but less than 50% of the total deck area. The deck is rated in satisfactory condition per the BIR but District 4 has slated it for replacement.

Per the existing bridge inspection reports, all bridges have acceptable Sufficiency Ratings varying from 80.5 to 98.0 and acceptable Health Indexes varying from 84.04 to 99.93.

Currently, there is no load posted on any of the existing bridges.

Per the load rating summary forms or load capacity forms included in the bridge inspection reports, the IRF of each bridge except I-95 of-ramp to SW 10 Street (Bridge No. 860564) was derived and summarized in **Table 2-3**, **Table 2-4**, and **Table 2-5** above. The IRF of Bridge No. 860564 was obtained from the as-built load rating dated September 25, 2018 for the widened bridge provided by District 4, and summarized in **Table 2-4** above. All bridges have load rating factors greater than 1.0. Based on the BIRs, none of the bridges has any structural deficiencies, the superstructures and substructures of all bridge are in good conditions and very good conditions, respectively. Therefore, all bridges have sufficient structural capacities to carry traffic safely.

2.6.1.4 Horizontal and Vertical Clearance

Horizontal Clearance – The Horizontal Clearance underneath the existing bridges is the lateral distance from the edge of the travel lane to the bridge abutment or pier. The Horizontal Clearance is used to provide an area or Clear Zone to allow drivers of errant vehicles to regain control in case of an emergency. Per the FDOT 2018 Design Manual (FDM) and AASHTO requirements, bridge piers and abutments are to be placed either outside the Clear Zone or protected by FDOT approved barriers. For Hillsboro Boulevard with the Design Speed of 45 mph, the FDM calls for the Clear Zone to be 24-ft from the edge of travel lanes and multilane ramps, and 14 ft for auxiliary lanes and single lane ramps. For I-95, the width of the Clear Zone is 36 ft from the edge of travel lanes and multilane ramps, and 24 ft with auxiliary lanes and single lane ramps. Per the project survey and field reviews, proper Horizontal Clearance requirements and/or adequate pier protection barriers have been provided for all the existing bridge piers and abutments except for Bridge No. 860123.

The I-95 bridges over Hillsboro Boulevard (Bridge Nos. 860194 and 860124), with a horizontal clearance of 8'-1" to the median piers, do not have sufficient horizontal clearance required by FDM Table 215.2.2, and a concrete barrier wall is in place to

protect the piers. The outer piers on both side of Hillsboro Boulevard have a horizontal clearance of 14'-1 3/4" and 14'-6 7/8" for piers on the south side and north side respectively. Given that the adjacent lane is an auxiliary lane, both outer piers exceed the 14 ft minimum horizontal clearance from an auxiliary lane required by the FDM.

The SW 10 Street EB and WB bridge over I-95 (Bridge No. 860123) has a median pier located within the Clear Zone with a horizontal clearance of approximately 10'-4". A concrete barrier is in place to protect the pier. The outer piers with horizontal clearance of approximately 30.04' are located within the Clear Zone, and no concrete barriers are in place to protect the piers.

For the bridges over SFRC railroad (Bridge Nos. 860553 and 860557), the pier on the west side of the rail has a horizontal clearance of 20'-5 3/4" less than 25 ft, and a crash wall is in place to protect the pier meeting the requirements of FDM, Section 220.3.2 and Structures Design Guidelines, Section 2.6.7. The bridges' piers along both sides of SW 12 Avenue are located within the Clear Zone with a horizontal clearance of 16'-8 3/4", and guardrails are in place along both sides of the street to protect the piers.

Vertical Clearance – FDM Section 260.6 defines the Vertical Clearance for bridges as the "least distance measured between the lowest bridge superstructure element and the traffic lane or shoulder directly below the element." Table 260.6.1 of the FDM lists the Minimum Vertical Clearance of a roadway bridge over a roadway as 16'-6", 23'-6" for a roadway bridge over a railroad. Per AASHTO article 2.3.3.2, the Minimum Vertical Clearance required is 16'-0". Five of the existing bridges, except the I-95 SB off-ramp over SW 10 Street (Br. No. 860564), do not meet the Minimum Vertical Clearance set by FDOT, two (2) bridges (Br. Nos. 860194 & 860124) do not meet the Minimum Vertical Clearance set by AASHTO. The Minimum Vertical Clearance for each bridge is summarized in **Table 2-3**, **Table 2-4**, and **table 2-5** above.

2.7 Roadway Geometric Characteristics

2.7.1 Horizontal Alignment

The existing horizontal alignment was reviewed and evaluated to verify if the existing facility meets the current design standards for horizontal curves and sight distance. The design elements reviewed during the evaluation of the existing horizontal alignment conditions include curve radius, curve length, stopping sight distance (SSD), and superelevation of the roadway surface.

2.7.1.1 I-95

I-95 mainline contains one horizontal curve within the study limits. The curve occurs at the Hillsboro Boulevard interchange. The following **Table 2-6** contains the horizontal curve data.

Table 2-6 Horizontal Alignment I-95							
Standard/Location	Station	Radius	Length	Degree	Deflection Angle	Superelevation	Stopping Sight Distance
FDM (65mph)	-	7639	1950	00°45'00"	-	0.025	360
Hillsboro Boulevard Interchange	PC 1393+75.35 PI 1406+27.93 PT 1418+58.41	7639.44	2483.06	00°45'00"	18°37'22" (LT)	0.030	1050

2.7.1.2 SW 10 Street

With the exception of the interchange at I-95, as built plans for SW 10 Street were not available. Within the Limited Access right of way, SW 10 Street contains one horizontal curve over I-95. Observation of survey data outside of the Limited Access right of way shows various deflections/curves that appear to not meet FDM criteria.

The following **Table 2-7** contains the horizontal curve data for the one curve within the Limited Access right of way.

Table 2-7 Horizontal Alignment – SW 10 Street							
Standard/Location	Station	Radius	Length	Degree	Deflection Angle	Superelevation	Stopping Sight Distance
FDM (45mph)	-	2865	675	02°00'00"	-	NC	730
I-95 Interchange	PC 20+56.79 PI 23+33.19 PT 26+09.57	22918.31	552.78	00°15'00"	1°22'55" (LT)	NC	1816

2.7.1.3 Hillsboro Boulevard

Hillsboro Boulevard contains no horizontal curves within the study limits. Therefore, Hillsboro Boulevard meets the current design standards for horizontal curves and sight distance.

2.7.2 Vertical Alignment

The existing vertical alignment was reviewed and evaluated to verify if the existing alignment meets the current design standards for vertical curves and sight distance. The following components were verified during the review: percent grade, changes in grade, stopping sight distance, length of vertical curve and K value.

The minimum K value set forth in the FDM Part 2, Chapter 210 Section 2.10.2 are based on the minimum stopping sight distance criteria.

2.7.2.1 I-95

I-95 mainline contains one vertical curve within the study limits. The curve occurs at the Hillsboro Boulevard interchange. The following **Table 2-8** contains the vertical curve data.

Table 2- 8 Vertical Alignment I-95							
Standard/ Location	Station	Grade Back (%)	Grade Ahead (%)	Length (Sag) (ft)	Length (Crest) (ft)	K Value (Sag)	K Value (Crest)
FDM (65mph)	-	3	3	800	1800	157	313
Hillsboro Boulevard	PC 1404+33.49 PI 1411+33.49 PT 1418+33.49	2.5	2.68	-	1400	-	270

2.7.2.2 SW 10 Street I-95

SW 10 Street contains two vertical curves within the study limits. The curves occur at the SFRC railroad crossing and I-95 interchange. The following **Table 2-9** contains the vertical curve data.

Table 2-9 Vertical Alignment – SW 10 Street							
Standard/ Location	Station	Grade Back (%)	Grade Ahead (%)	Length (Sag) (ft)	Length (Crest) (ft)	K Value (Sag)	K Value (Crest)
FDM (45mph)	-	6	6	135	135	79	98
SFRC Railroad	PC 181+85.30 PI 183+95.30 PT 186+05.30	1.67	1.67		420		125.75
I-95 Interchange	PC 20+10.30 PI 24+10.30 PT 28+10.30	5	5		800		80

2.7.2.3 Hillsboro Boulevard

Hillsboro Boulevard contains no vertical curves within the study limits.

2.7.3 Posted Speed

The posted speed limit for I-95 is 65 mph. The posted speed limit for SW 10 Street is 35 mph EB between Military Trail and Natura/FAU Research Park Boulevard and 45 mph WB. The posted speed limit for Hillsboro Boulevard is 40 mph.

2.7.4 Design Speed

The design speed for I-95 is 65 mph. The design speed for SW 10 Street is 35 mph EB between Military Trail and Natura/FAU Research Park Boulevard and 45 mph WB. The design speed for Hillsboro Boulevard is 40 mph.

2.7.5 Pavement Condition

FDOT performs annual surveys of the entire State Highway System in support of the Department's Pavement Management Program. The data collected (in terms of crack, ride, and rut measurements) is used to assess the condition and performance of the State's roadways as well as to predict future rehabilitation needs.

2.7.5.1 I-95

The existing pavement type along I-95 is asphalt pavement (FC-5). Based on data obtained from the Pavement Condition Survey, I-95 was last resurfaced in 2008. The NB lanes along I-95 have adequate pavement ratings. The SB lanes along I-95 has

adequate pavement ratings for Rideability and Rutting. I-95 is currently under construction to add lanes for I-95 Express within the limits of this study (FM 433108-6, Phase 3B-1) and will be completely resurfaced as part of that project.

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2.7.5.2 SW 10 Street

The existing pavement type along SW 10 Street is asphalt pavement (FC-9.5). Based on data obtained from the Pavement Condition Survey, SW 10 Street was last resurfaced in 2014. Both the EB and WB lanes have adequate pavement ratings.

2.7.5.3 Hillsboro Boulevard

The existing pavement type along Hillsboro Boulevard is asphalt pavement (FC-9.5). Within the limits of this study, Hillsboro Boulevard was last resurfaced in 2017 (FM 430602-1). Therefore, both the EB and WB lanes have adequate pavement ratings.

2.7.6 Multi-Modal Facilities

Multi-modal facilities include pedestrian and bicycle features as well as existing transit services along each I-95, SW 10 Street and Hillsboro Boulevard.

2.7.6.1 Pedestrian

Continuous sidewalks exist on the north and south side of SW 10 Street and Hillsboro Boulevard. I-95 is limited access facility and as such does not provide sidewalks along the corridor.

2.7.6.2 Bicycle

Continuous bicycle lanes exist on the north and south side of SW 10 Street and Hillsboro Boulevard. I-95 is limited access facility and as such does not provide bicycle facilities along the corridor.

2.7.6.3 Transit

No designated transit services including Broward County Transit (BCT) Routes or commuter rail services are provided on the I-95 corridor or within the area of the SW 10 Street interchange.

Hillsboro Boulevard is serviced by BCT Route #48, which provides a connection from SR 7 to Deerfield Beach including a direct connection to the Deerfield Beach Station located just west of the Hillsboro interchange (**Figure 2-19**).

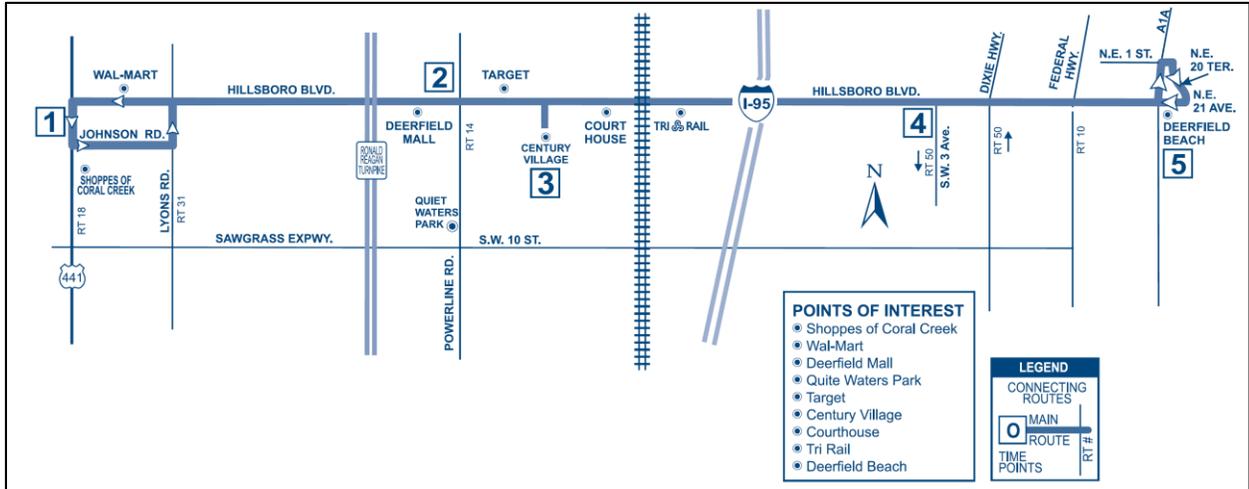


Figure 2-19 BCT Route 48

The Deerfield Beach Station provides commuter rail service for Tri-Rail and Amtrak which provide connections south to Miami-Dade County including Tri-Rail’s southernmost terminus at Miami Airport Station (Miami Intermodal Center) and Amtrak’s southernmost terminus at Miami Station, and to the north with Tri-Rail’s northernmost terminus in West Palm Beach at Mangonia Park Station and Amtrak providing service throughout the state of Florida (**Figure 2-20**).



Figure 2-20 Deerfield Beach Station

2.7.7 Intersections and Interchanges

The following **Figure 2-21** depicts the existing roadway and lane configurations for the I-95 corridor including interchanges with SW 10 Street and Hillsboro Boulevard.

Table 2-10 lists the locations of signalized intersections along SW 10 Street and the Hillsboro Boulevard corridors.

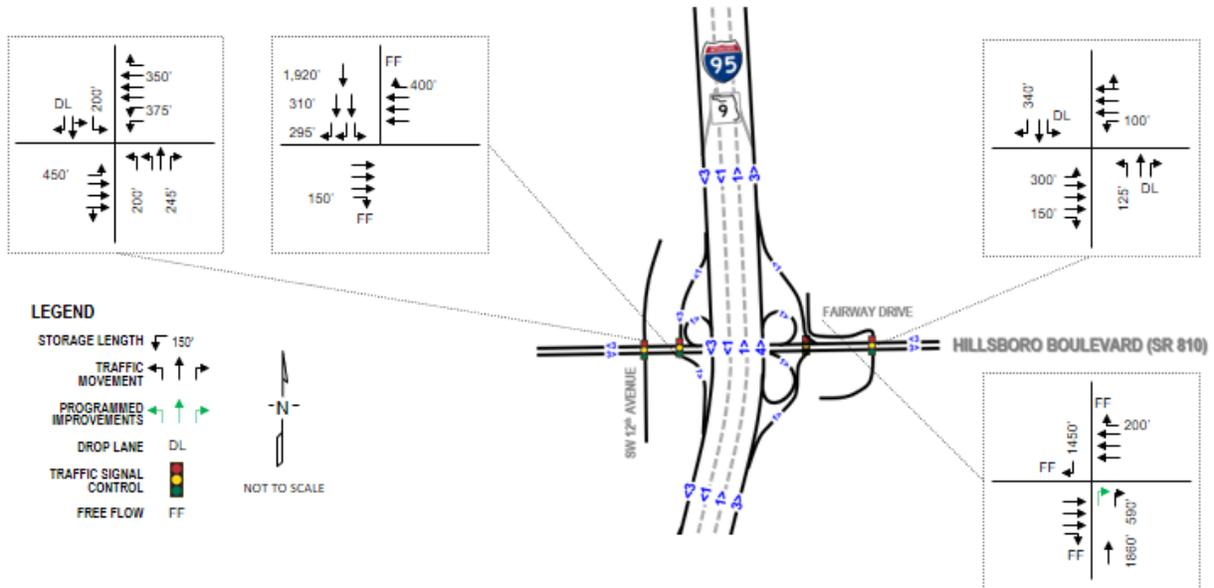
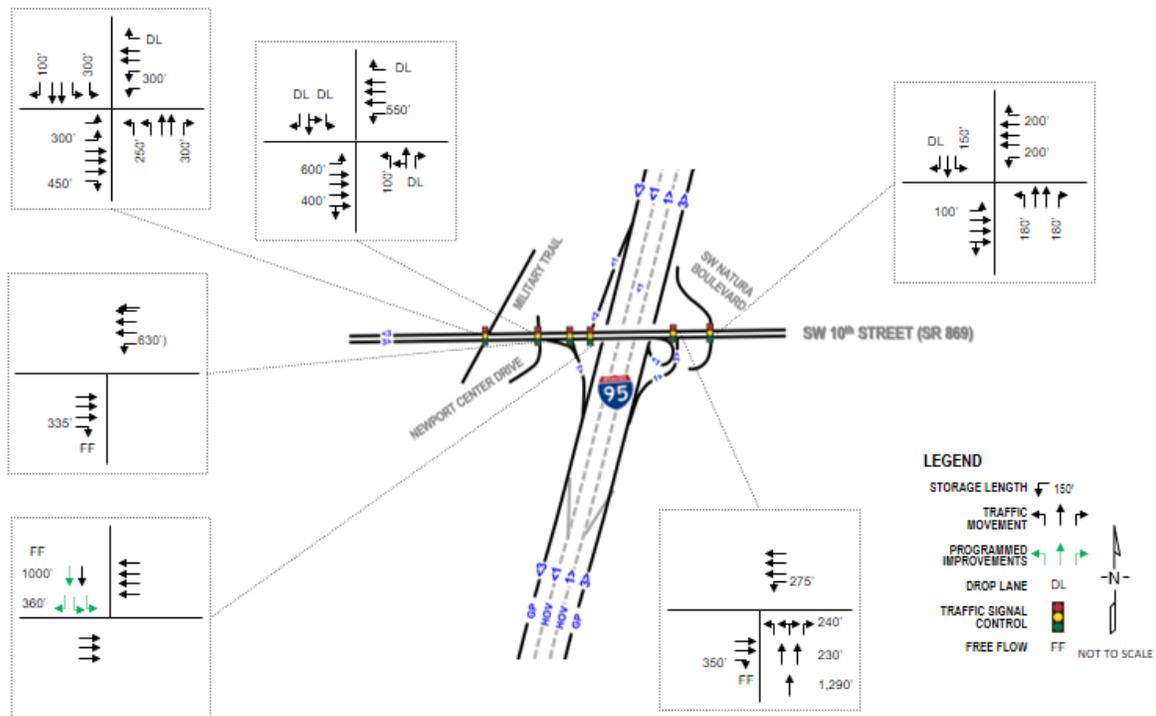
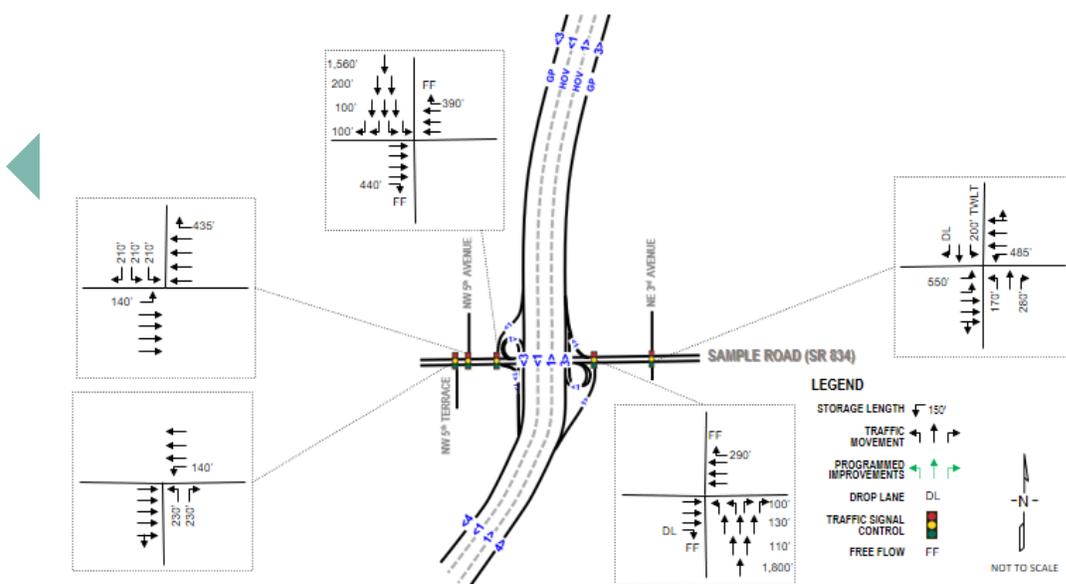


Figure 2-21 Existing Roadway and Intersection Lane Configurations Hillsboro Boulevard



**Figure 2-22 Existing Roadway and Intersection Lane Configurations
SW 10 Street**



**Figure 2-23 Existing Roadway and Intersection Lane Configurations
Sample Road**

Table 2-10 Signalized Intersections			
Hillsboro Boulevard			
Intersection	Type	Technology	Operational Considerations
Jim Moran Boulevard / SW 12 Avenue	Mast Arm	Standard	All directions of traffic
I-95 (West side of interchange)	Dual Mast Arm	Standard	SB off-ramp / WB traffic
Fairway Drive / Natura Boulevard	Concrete Strain Pole	Standard	All directions of traffic
SW 10 Street			
Military Trail	Concrete Strain Pole	Standard	All directions of traffic
E Newport Center Drive	Concrete Strain Pole	Standard	All directions of traffic
I-95 (West side of interchange)	Single Mast Arm	Standard	EB traffic
I-95 (West side of interchange)	Single Mast Arm	Standard	WB traffic
I-95 (West side of interchange)	Dual Mast Arm	Standard	SB to EB off-ramp traffic
I-95 (East side of interchange)	Mast Arm	Standard	EB traffic
I-95 (East side of interchange)	Dual Mast Arm	Standard	WB traffic / off-ramp traffic
SW Natura Boulevard	Concrete Strain Pole	Standard	All directions of traffic

2.7.8 Physical and Operational Restrictions

The South Florida region has been identified by the National Oceanic and Atmospheric Administration (NOAA) as an area with a high degree of vulnerability to hurricanes and the Florida Division of Emergency Management has designated specific evacuation routes through the region. Both SW 10 Street and Hillsboro Boulevard are designated as emergency evacuation routes from I-95 to SR 5/US-1 and A1A. I-95 is designated as an emergency evacuation route throughout Broward County.

2.8 Existing Traffic Data

2.8.1 Existing Traffic Volumes

FDOT District 4 provided existing 2016 volumes that had been summarized in the Traffic Data Collection & Traffic Projections for I-95 PD&E Study from SW 10 Street

to Hillsboro Boulevard, dated May 19, 2016. The data collection effort was completed March 8 through March 10, 2016.

As part of the SW 10 Street Connector PD&E Study (FPID 439891-1), a comparison of these volumes with volumes from previous studies revealed significant differences. In most cases, the District’s March 2016 data showed lower volumes. To address the discrepancies and to supplement existing data, additional 4-hour turning movement counts were conducted at 16 locations and 2-day to 7-day directional machine counts were collected at 3 locations. These additional counts were collected by Florida’s Turnpike Enterprise (FTE) between October 18 and October 25, 2016. The locations and summaries are documented in the SW 10 Street PD&E Project Traffic Forecast Memorandum dated September 2018 prepared by FTE and included here for reference.

The additional counts verified that the March 2016 data presented lower volumes. Therefore, adjustments were made to develop balanced existing 2016 traffic volumes throughout the study area. I-95 ramp volumes were adjusted to volumes obtained as part of the Broward County Interchange Master Plan reports.

Figure 2-22 presents a summary of the balanced 2016 existing traffic volumes. The raw traffic counts and the existing signal timing are provided in The Systems Interchange Modification Report included here by reference. These volumes are consistent with the ongoing SW 10 Street Connector PD&E Study.

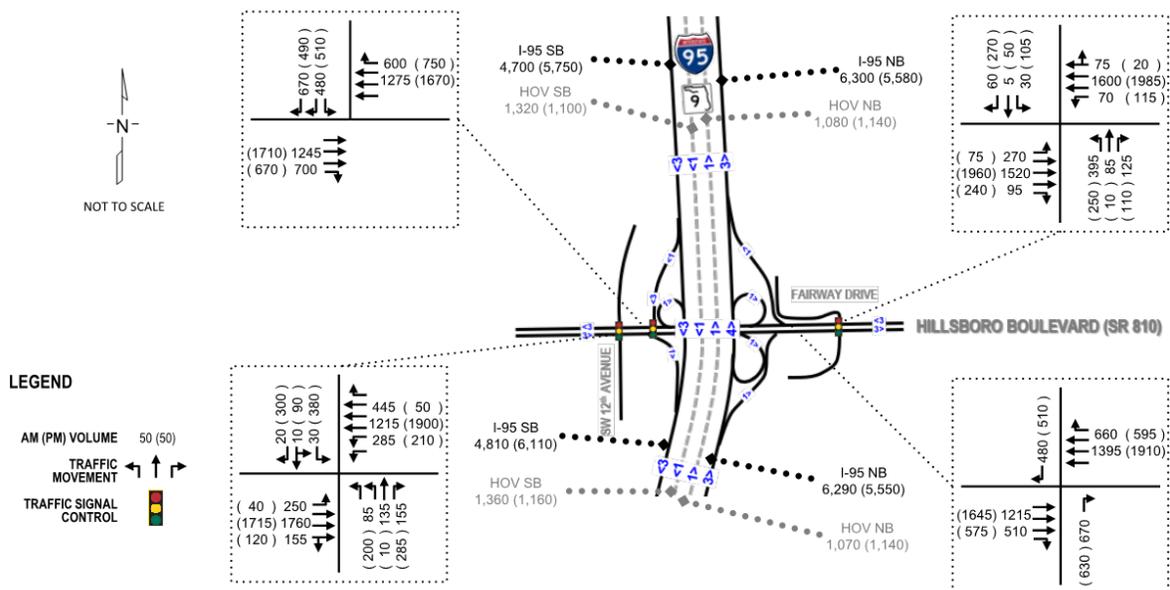


Figure 2-24 Existing Traffic Volumes – Hillsboro Boulevard

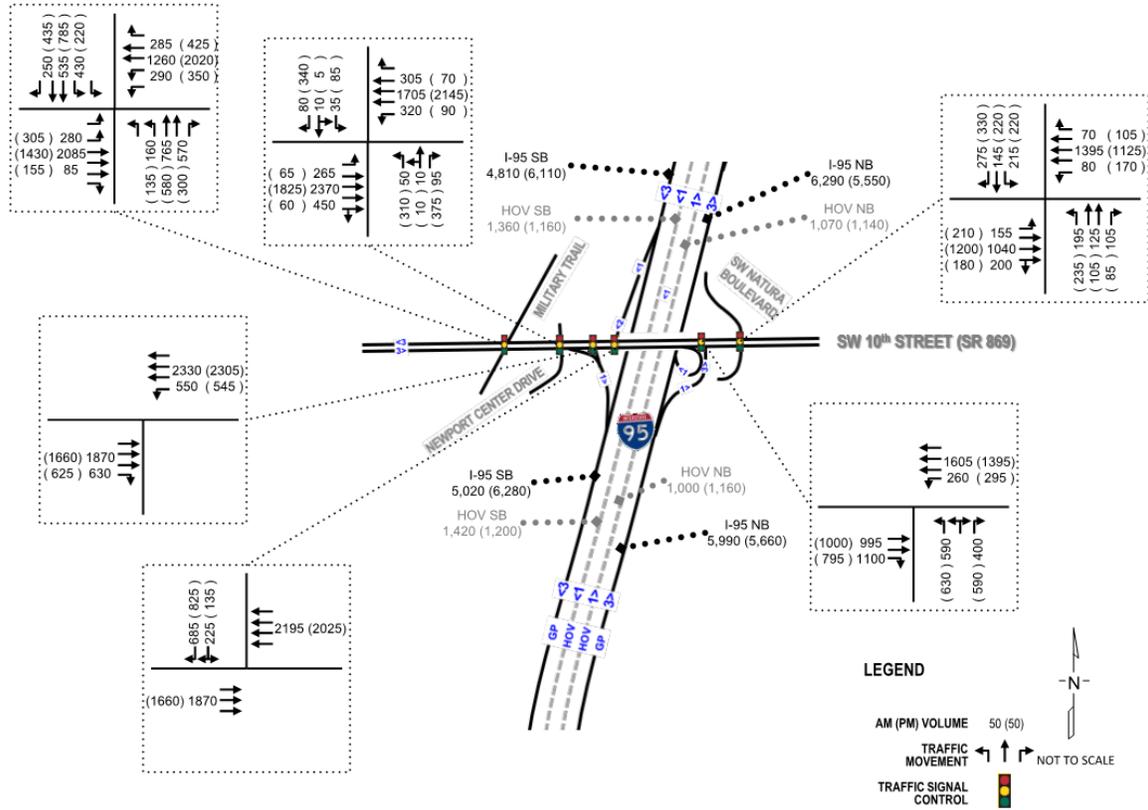


Figure 2-25 Existing Traffic Volumes – SW 10 Street

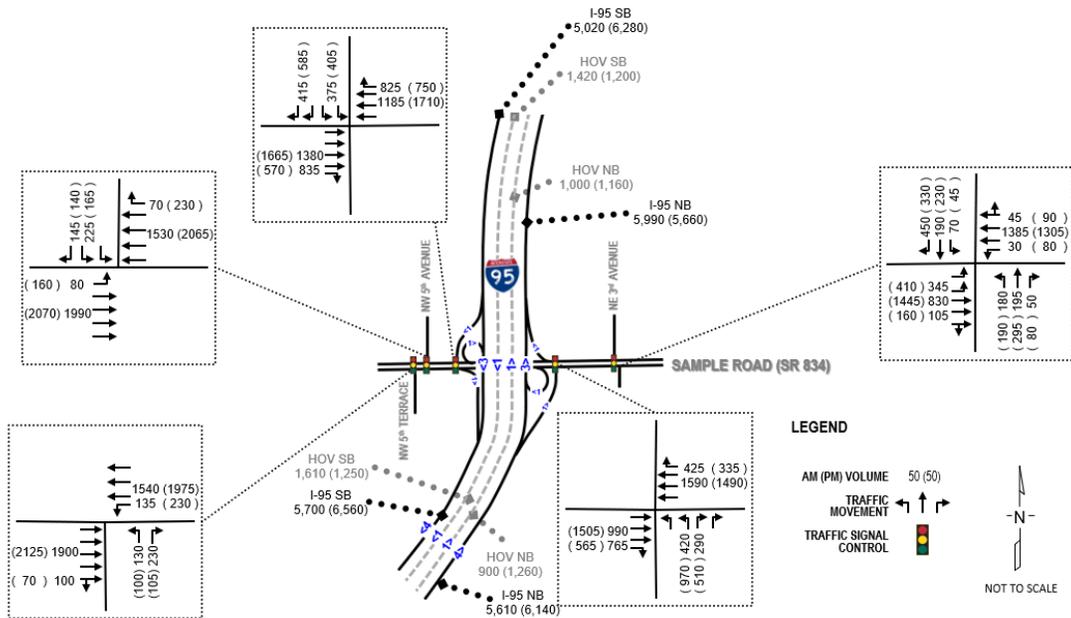


Figure 2-26 Existing Traffic Volumes – Sample Road

2.9 Roadway Operational Conditions

Traffic operational analyses were performed for the existing conditions and future No-Action alternative. Analyses were performed using the Highway Capacity Software (HCS2010), Version 6.60 and Synchro Version 9. HCS2010 was used for operational analyses of freeway segments - mainline, ramps, merge, diverge and weaving segments. Synchro analyses were performed for adjacent signalized intersections and interchange ramp terminal intersections. The HCS and Synchro operations analyses were performed for the following conditions:

- Existing year 2016 conditions, AM and PM peak hours
- Year 2020 conditions for No-Build, AM and PM peak hours
- Year 2040 No-Build, AM and PM peak hours

Design Hour Truck (DHT) values were calculated based on historical data from the FDOT count sites within the study area, mechanical classification counts and turning movement counts were conducted as part of the I-95 PD&E Study data collection efforts. Peak hour values from mechanical counts were calculated as half the daily value in accordance with the FDOT Project Traffic Forecasting Handbook. The calculated DHT used for the I-95 mainline was 3.0%. The calculated DHT used was 2.0% for the ramps and for the interchange cross-streets.

The measure of effectiveness used to estimate the LOS was density and volume to capacity ratio. The LOS for each freeway segment was determined using the corresponding HCS Freeways, Weaving or Ramps modules when applicable. When required by the specific geometry of a segment, additional ramp roadway (capacity checks) and/or major diverge analyses were conducted. Similarly, overlapping influence areas of on-ramp and off-ramp segments were analyzed both ways and the most restrictive output was reported. The upstream density of the major diverge areas was estimated using Equation 13-26 of the HCM. The capacity checks were documented as under capacity (Under) or over capacity (Over).

The HOV lane and corresponding volumes were excluded for the HCS analysis in order to be able to analyze the operating conditions of the general purpose lanes. The HOV lane demand was based on the data collection and analysis documented in the 2010 I-95 High-Occupancy Vehicle Lane Monitoring Report, dated May 2011. The report documents that the HOV NB lane demand is approximately 16% of the total traffic for the AM and PM peak hours and the HOV SB lane demand is approximately 16% and 18% for AM and PM peak hours, respectively. The percentile demand was applied

to the provided existing volumes. Documentation of the existing traffic freeway operational analysis is provided in detail in the I-95/SW 10 Street SIMR study. The results indicate that eight (8) of the sixteen (16) NB freeway segments in the study area operate at LOS E or F during one or both of the peak hours and three (3) of the fifteen (15) SB freeway segments in the study area operate at LOS E only during the PM peak hour.

2.10 Safety Analysis

The safety analysis included the evaluation of crash data for the freeway segment along I-95 as well as the arterial segments along SW 10 Street and Hillsboro Boulevard within the limits of the project shown in **Table 2-11**.

Table 2-11 Limits for the Safety Analysis				
Road Name	Roadway ID	Segment	BMP	EMP
SW 10 Street	86012000	SW 10 Street from SW 24 Avenue to just east of I-95	1.014	2.152
I-95	86070000	I-95 from NE 48 Street to Hillsboro Canal	22.625	25.334
Hillsboro Boulevard	86120000	Hillsboro Boulevard from Century Boulevard to Natura Boulevard	4.465	5.712

Crash data was obtained from the FDOT Crash Analysis Reporting System (CARS) for the five-year analysis period from 2011 to 2015.

The analysis also looked at identifying major hotspots with crash accumulations, as described in the following sections.

2.10.1 I-95

Table 2-12 and **Figure 2-23** show the summary of crashes between 2011 and 2015 along I-95. A total of 1,429 crashes were recorded for the section of I-95 (Roadway ID: 86070000) between NE 48 Street (MP 22.625) and Hillsboro Canal (MP 25.334). A total of 223 of those crashes took place in 2011, 229 in 2012, 295 in 2013, 327 in 2014 and 355 in 2015. Based on the distribution of crashes by year it can be concluded that crashes along I-95 have increased in the last five years of available data. Crashes between 2011 and 2015 had an average growth rate of 13 percent.

Based on the crash severity, out of the 1,429 crashes reported, a total of 873 or 61 percent were property damage only (PDO) a total of 549 or 38 percent resulted in

injuries and 7 crashes resulted in fatalities. **Table 2-13** shows the location of the fatal crashes.

Based on crash type distribution it can be concluded that rear-end crashes are the most common type of crash along SW 10 Street with 834 crashes or 58 percent followed by sideswipe crashes with 194 or 39 percent and fix object crashes with 166 or 33 percent. The relatively high percentage of crashes could be an indication of unfavorable conditions within merging and weaving areas.

The lighting conditions recorded at the time of the crashes indicate that 67 percent of the crashes occurred during daylight conditions while the remaining 23 percent occurred at dusk, dawn or at night, which is lower than the 33 percent State average during the same period (2011-2015) according to Florida's Integrated Report Exchange System (FIRES). The surface conditions reveal that 74 percent of the crashes occurred on a dry surface while the remaining 26 percent took place while the pavement was wet, which is higher than the 15 percent State average. Drainage conditions should be inspected along the corridor to discard any connection between the number of crashes on wet pavement and the conditions of the road. The distribution of crashes by day indicate that most of the crashes take place during weekdays. The distribution of crashes by hour indicate that most of the crashes take place during the peak periods (21 percent between 6:00 and 9:00 AM and 25 percent between 3:00 and 6:00 PM) and at night (24 percent between 6:00 PM and midnight).

Table 2-12 Five Year Crash Summary for I-95									
I-95 from NE 48 Street to Hillsboro Canal		Number of Crashes					5 Year Total Crashes	Mean Crashes Per Year	%
		Year							
		2011	2012	2013	2014	2015			
CRASH TYPE	Rear End	118	118	179	197	222	834	167	58.4%
	Head On	0	0	0	0	0	0	0	0.0%
	Angle	15	9	9	8	12	53	11	3.7%
	Left Turn	0	0	0	0	0	0	0	0.0%
	Right Turn	0	0	0	0	0	0	0	0.0%
	Sideswipe	33	36	41	40	44	194	39	13.6%
	Backed Into	1	0	0	0	0	1	0	0.1%
	Pedestrian	0	0	0	1	0	1	0	0.1%
	Bicycle	0	0	0	0	0	0	0	0.0%
	Fixed Object	30	28	30	33	45	166	33	11.6%
	Other Non-Fixed Object Collisions	4	13	6	14	5	42	8	2.9%
	Non-Collisions	11	16	9	12	9	57	11	4.0%
	Others	11	9	21	22	18	81	16	5.7%
	Total Crashes	223	229	295	327	355	1,429	286	100.0%
SEVERITY	PDO Crashes	121	138	176	211	227	873	175	61.1%
	Fatal Crashes	2	2	2	0	1	7	1	0.5%
	Injury Crashes	100	89	117	116	127	549	110	38.4%
LIGHTING CONDITIONS	Daylight	135	156	205	218	247	961	192	67.2%
	Dusk	4	6	4	13	9	36	7	2.5%
	Dawn	2	1	2	11	4	20	4	1.4%
	Dark	82	66	84	85	95	412	82	28.8%
	Unknown	0	0	0	0	0	0	0	0.0%
SURFACE CONDITIONS	Dry	153	177	214	247	263	1,054	211	73.8%
	Wet	70	52	81	80	92	375	75	26.2%
	Others	0	0	0	0	0	0	0	0.0%
DAY OF WEEK	Monday	29	33	52	43	59	216	43	15.1%
	Tuesday	42	28	49	48	66	233	47	16.3%
	Wednesday	34	30	49	82	43	238	48	16.7%
	Thursday	36	41	39	46	46	208	42	14.6%
	Friday	41	51	54	52	58	256	51	17.9%
	Saturday	20	23	31	36	46	156	31	10.9%
	Sunday	21	23	21	20	37	122	24	8.5%
HOUR OF DAY	00:00-06:00	22	22	22	38	43	147	29	10.3%
	06:00-09:00	42	44	72	69	71	298	60	20.9%
	09:00-11:00	12	9	26	22	21	90	18	6.3%
	11:00-13:00	8	14	17	16	21	76	15	5.3%
	13:00-15:00	9	30	15	23	40	117	23	8.2%
	15:00-18:00	63	56	70	81	89	359	72	25.1%
	18:00-24:00	67	54	73	78	70	342	68	23.9%

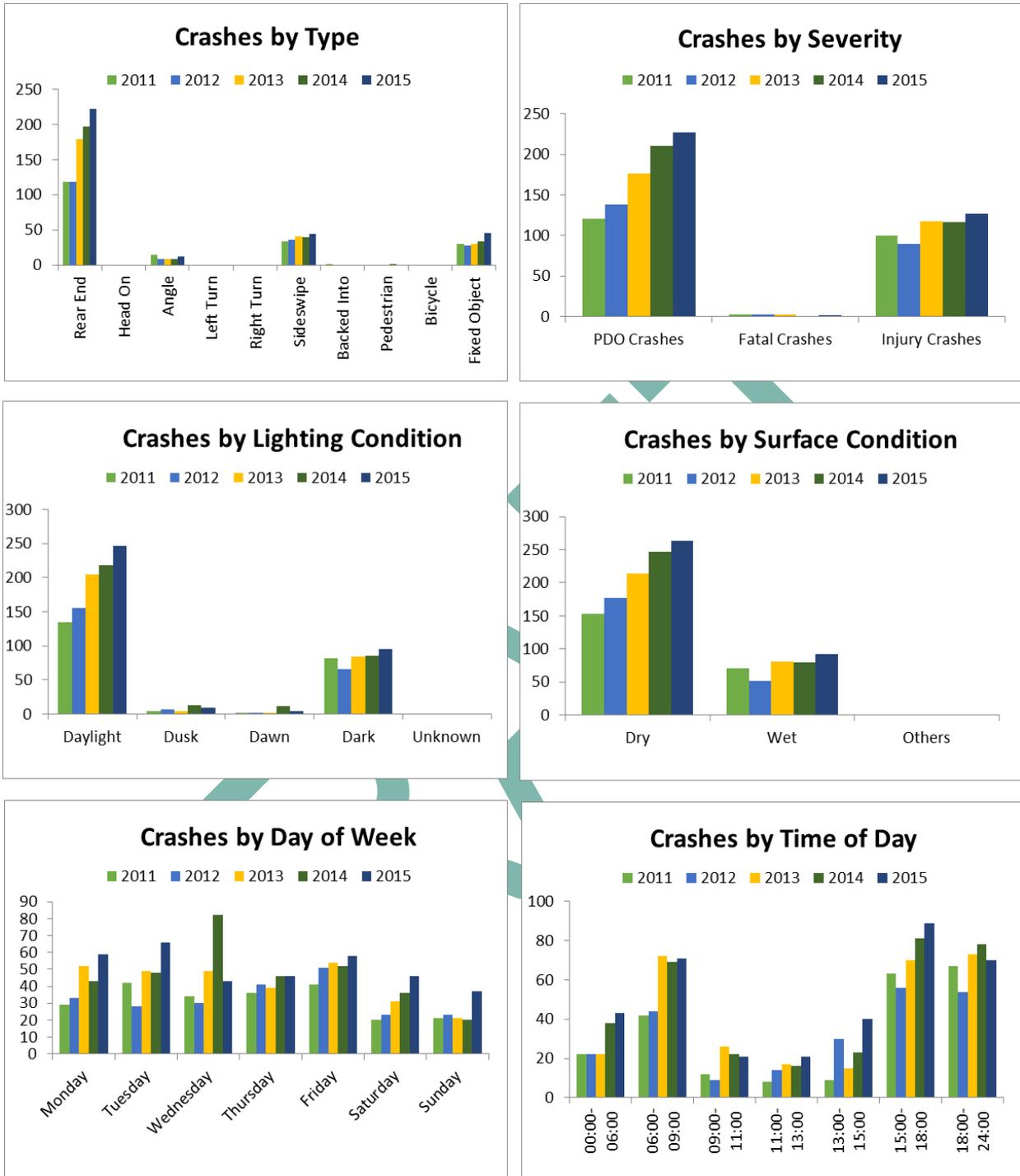


Figure 2-27 Five Year Crash Characteristics for I-95

Some of the description information shown in **Table 2-13** about the fatal crashes was found in FDOT State Safety Office Geographic Information System (SSOGis) Crash Query Tool.

Table 2-13 Fatal Crashes along I-95				
Crash No.	Year	Roadway ID	MP	Description
820871910	2011	86070000	23.665	Located on I-95 near SW 10 Street.
822706990	2011	86070000	23.933	Located just north of SW 10 Street along the NB direction of I-95.
829104240	2012	86070000	22.865	The crash took place on Saturday May 12 th at 8:26 AM just north of NW 48 Street along the NB direction of I-95.
820037480	2012	86070000	23.165	The crash took place on Sunday November 11 th at 1:45 PM between SW 10 Street and NW 48 Street on the SB direction of I-95.
832878780	2013	86070000	23.165	The crash took place on Monday April 1 st at 9:30 PM between SW 10 Street and NW 48 Street on the SB direction of I-95.
832686520	2013	86070000	24.392	The crash took place on Wednesday January 2 nd at 10:03 PM within the influence area of the SB I-95 on-ramp from Hillsboro Boulevard.
820121670	2015	86070000	25.262	The crash took place on Friday November 20 th at 10:40 PM within the influence area of the SB I-95 off-ramp to Hillsboro Boulevard.

Table 2-14 and **Figure 2-24** show the crash distribution by year and by milepost along I-95. The entire segment of I-95 was divided into 0.25-mile sections. The last section from mileposts 25.125 and 25.334 is slightly shorter than the other sections (approximately 0.21 mile). The data shows a higher concentration of crashes starting just south of the SW 10 Street interchange (MP 23.375) and ending just north of the Hillsboro Boulevard interchange (MP 25.125). The 0.25-mile segment with the highest number of crashes is located within the influence area of the Hillsboro Boulevard interchange between MP 24.375 and MP 24.625.

Table 2-14 Crash Distribution by Year and Milepost along I-95						
Section	2011	2012	2013	2014	2015	Total Crashes
22.625 to 22.875	6	10	9	14	10	49
22.875 to 23.125	3	2	1	5	1	12
23.125 to 23.375	8	7	24	21	15	75
23.375 to 23.625	25	31	35	43	36	170
23.625 to 23.875	23	17	25	38	37	140
23.875 to 24.125	28	27	33	23	35	146
24.125 to 24.375	24	24	40	37	33	158
24.375 to 24.625	33	32	34	49	44	192
24.625 to 24.875	32	24	39	38	96	229
24.875 to 25.125	24	33	37	36	27	157
25.125 to 25.334	9	17	12	13	12	63

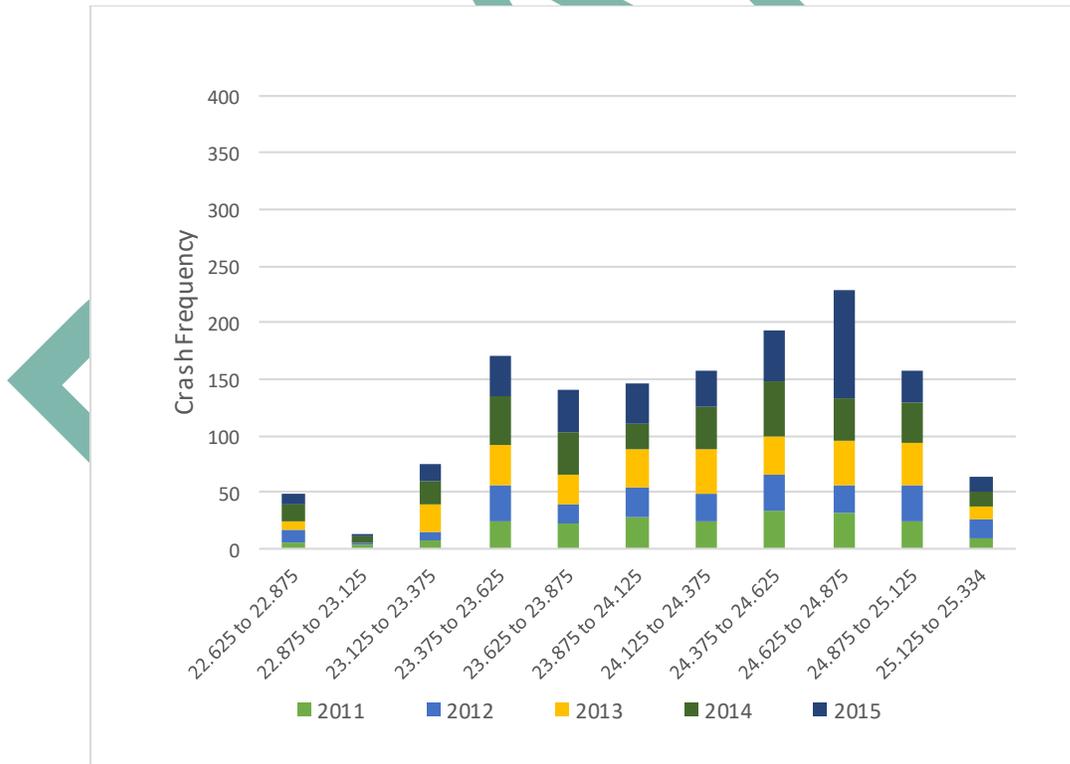


Figure 2-28 Crash Distribution by Year and Milepost along I-95

2.10.2 SW 10 Street

Table 2-15 and **Figure 2-25** show the summary of crashes between 2011 and 2015 along SW 10 Street. A total of 463 crashes were recorded for the section of SW 10 Street (Roadway ID: 86012000) between SW 24 Avenue (MP 1.014) and just east of I-95 (MP 2.152). A total of 65 of those crashes took place in 2011, 85 in 2012, 80 in 2013, 113 in 2014 and 120 in 2015. Based on the distribution of crashes by year it can be concluded that crashes along SW 10 Street have increased in the last five years of available data. Crashes between 2011 and 2015 had an average growth rate of 18 percent with a small decline between 2012 and 2013.

Based on the crash severity, out of the 463 crashes reported, a total of 289 or 62 percent were PDO, a total of 174 or 38 percent resulted in injuries and no crashes resulted in fatalities.

Based on crash type distribution it can be concluded that rear-end crashes are the most common type of crash along SW 10 Street with 260 crashes or 56 percent followed by angle and sideswipe crashes with 11 percent. It is important to mention that rear-end crashes are common on congested urban corridors.

The lighting conditions recorded at the time of the crashes indicate that 73 percent of the crashes occurred during daylight conditions while the remaining 27 percent occurred at dusk, dawn or at night, which is lower than the 33 percent State average during the same period (2011-2015) according to FIRES. The surface conditions reveal that 83 percent of the crashes occurred on a dry surface while the remaining 17 percent took place while the pavement was wet, which is slightly higher than the 15 percent State average. Drainage conditions should be inspected along the corridor to discard any connection between the number of crashes on wet pavement and the conditions of the road. The distribution of crashes by day indicate that most of the crashes take place during weekdays. The distribution of crashes by hour on the other hand indicate that most of the crashes take place during the afternoon or at night (22 percent took place between 3:00 and 6:00 PM while 23 percent between 6:00 PM and midnight).

The detailed crash data is provided in the Safety Analysis Technical Memorandum prepared as part of this study and included here by reference.

Table 2-15 Five Year Crash Summary for SW 10 Street									
SW 10 Street from SW 24 Avenue to just east of I-95		Number of Crashes					5 Year Total Crashes	Mean Crashes Per Year	%
		Year							
		2011	2012	2013	2014	2015			
CRASH TYPE	Rear End	41	49	43	56	71	260	52	56.2%
	Head On	0	0	1	0	0	1	0	0.2%
	Angle	6	11	9	14	12	52	10	11.2%
	Left Turn	4	1	3	8	6	22	4	4.8%
	Right Turn	0	0	0	0	2	2	0	0.4%
	Sideswipe	5	14	7	14	10	50	10	10.8%
	Backed Into	0	0	0	0	0	0	0	0.0%
	Pedestrian	0	0	0	0	1	1	0	0.2%
	Bicycle	0	0	1	0	1	2	0	0.4%
	Fixed Object	5	5	5	11	3	29	6	6.3%
	Other Non-Fixed Object Collisions	0	0	0	0	0	0	0	0.0%
	Non-Collisions	1	1	1	2	2	7	1	1.5%
	Others	3	4	10	8	12	37	7	8.0%
	Total Crashes	65	85	80	113	120	463	93	100.0%
SEVERITY	PDO Crashes	37	56	55	74	67	289	58	62.4%
	Fatal Crashes	0	0	0	0	0	0	0	0.0%
	Injury Crashes	28	29	25	39	53	174	35	37.6%
LIGHTING CONDITIONS	Daylight	56	60	57	77	89	339	68	73.2%
	Dusk	0	6	3	6	3	18	4	3.9%
	Dawn	1	3	0	1	1	6	1	1.3%
	Dark	8	16	20	29	27	100	20	21.6%
	Unknown	0	0	0	0	0	0	0	0.0%
SURFACE CONDITIONS	Dry	55	68	65	90	105	383	77	82.7%
	Wet	10	17	15	23	15	80	16	17.3%
	Others	0	0	0	0	0	0	0	0.0%
DAY OF WEEK	Monday	12	19	15	18	20	84	17	18.1%
	Tuesday	10	18	9	16	22	75	15	16.2%
	Wednesday	8	10	14	19	18	69	14	14.9%
	Thursday	13	9	8	20	18	68	14	14.7%
	Friday	14	20	14	17	22	87	17	18.8%
	Saturday	4	4	15	12	11	46	9	9.9%
	Sunday	4	5	5	11	9	34	7	7.3%
HOUR OF DAY	00:00-06:00	2	5	5	7	8	27	5	5.8%
	06:00-09:00	18	14	14	13	17	76	15	16.4%
	09:00-11:00	7	10	13	14	13	57	11	12.3%
	11:00-13:00	3	9	9	6	13	40	8	8.6%
	13:00-15:00	8	8	7	14	17	54	11	11.7%
	15:00-18:00	18	21	15	27	22	103	21	22.2%
	18:00-24:00	9	18	17	32	30	106	21	22.9%

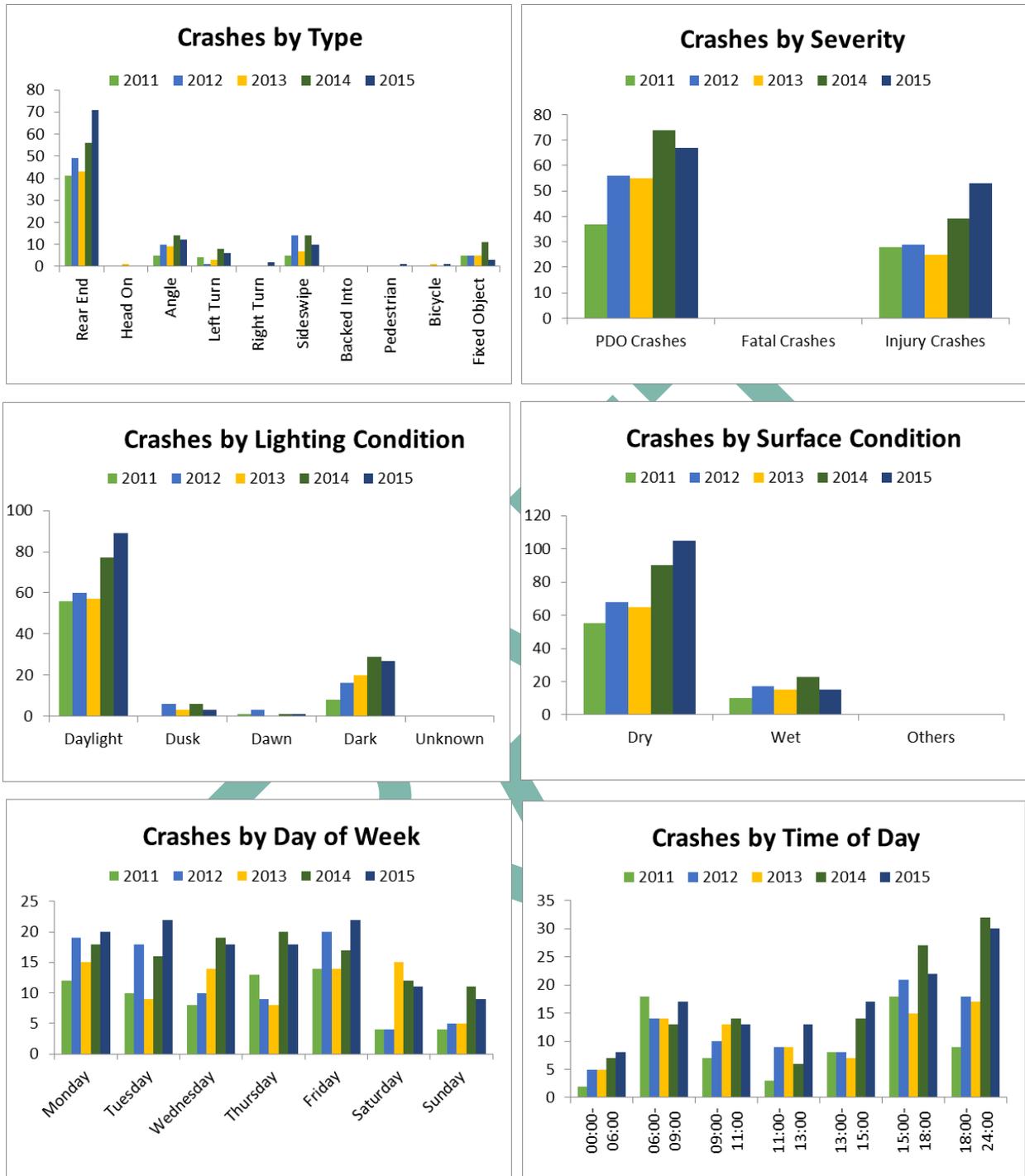


Figure 2-29 Five Year Crash Characteristics for SW 10 Street

Table 2-16 and **Figure 2-26** show the crash distribution by year and by milepost along SW 10 Street. The entire segment of SW 10 Street was divided into 0.25-mile sections. It is important to note that the last section from mileposts 2.014 and 2.152 is a relative short section (approximately 0.14 mile) and for that reason it only contains 45 crashes during the five years analyzed. The data shows two sections of roadway where most of the crashes are concentrated. The first section from MP 1.264 to MP 1.514 covers the area of the signalized intersection at Military Trail. The second section from MP 1.764 to MP 2.014 covers the area of the signalized intersections at E Newport Center Drive / SW 12 Avenue and at the SB I-95 ramps.

Table 2-16 Crash Distribution by Year and Milepost along SW 10 Street						
MP Section	2011	2012	2013	2014	2015	Total Crashes
1.014 to 1.264	1	2	4	4	1	12
1.264 to 1.514	18	28	23	33	40	142
1.514 to 1.764	1	2	1	0	2	6
1.764 to 2.014	24	26	32	32	43	157
2.014 to 2.152	5	13	5	13	9	45

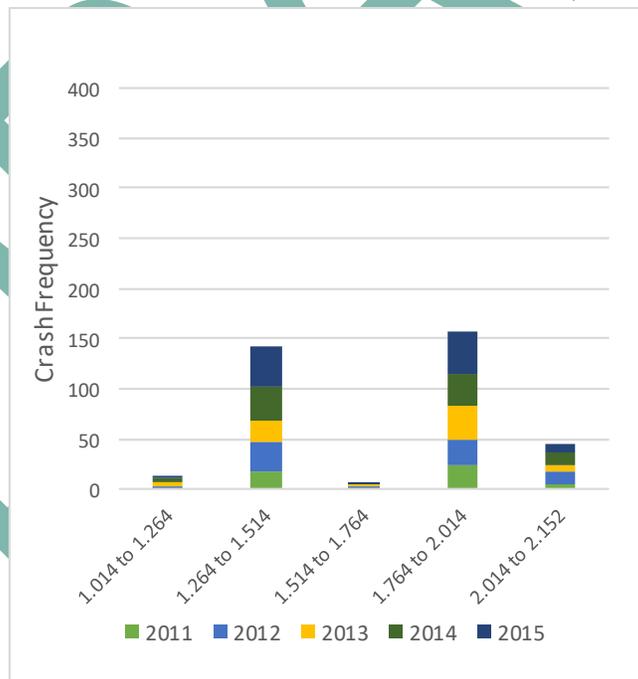


Figure 2-30 Crash Distribution by Year and Milepost along SW 10 Street

2.10.3 Hillsboro Boulevard

Table 2-17 and **Figure 2-27** show the summary of crashes between 2011 and 2015 along I-95. A total of 440 crashes were recorded for the section of Hillsboro Boulevard (Roadway ID: 86120000) between Century Boulevard (MP 4.465) and Natura Boulevard (MP 5.712). A total of 57 of those crashes took place in 2011, 105 in 2012, 87 in 2013, 85 in 2014 and 106 in 2015. Based on the distribution of crashes by year it can be concluded that crashes along Hillsboro Boulevard have increased in the last five years of available data. Crashes between 2011 and 2015 had an average growth rate of 22 percent.

Based on the crash severity, out of the 440 crashes reported, a total of 248 or 56 percent were PDO, a total of 188 or 43 percent resulted in injuries and 4 or 1 percent resulted in fatalities. **Table 2-18** shows the location of the fatal crashes.

Based on crash type distribution it can be concluded that rear-end crashes are the most common type of crash along Hillsboro Boulevard with 225 crashes or 51 percent followed by angle crashes with 58 or 13 percent. The relatively high percentage of angle crashes could be an indication of unfavorable operations at the signalized intersections.

The lighting conditions recorded at the time of the crashes indicate that 67 percent of the crashes occurred during daylight conditions while the remaining 23 percent occurred at dusk, dawn or at night, which is lower than the 33 percent State average during the same period (2011-2015) according to FIRES. The surface conditions reveal that 85 percent of the crashes occurred on a dry surface while the remaining 15 percent took place while the pavement was wet, which is equal to the 15 percent State average. The distribution of crashes by day indicate that most of the crashes take place during weekdays. The distribution of crashes by hour indicate that most of the crashes take place during the peak afternoon and evening hours (24 percent between 3:00 and 6:00 PM and 28 percent between 6:00 PM and midnight).

Table 2-17 Five Year Crash Summary for Hillsboro Boulevard									
Hillsboro Boulevard from Century Boulevard to Natura Boulevard		Number of Crashes					5 Year Total Crashes	Mean Crashes Per Year	%
		Year							
		2011	2012	2013	2014	2015			
CRASH TYPE	Rear End	28	55	50	43	49	225	45	51.1%
	Head On	0	0	0	1	0	1	0	0.2%
	Angle	5	11	12	14	16	58	12	13.2%
	Left Turn	0	1	1	3	3	8	2	1.8%
	Right Turn	1	0	0	1	2	4	1	0.9%
	Sideswipe	6	9	7	5	12	39	8	8.9%
	Backed Into	0	0	0	0	1	1	0	0.2%
	Pedestrian	1	2	2	3	2	10	2	2.3%
	Bicycle	3	2	1	1	4	11	2	2.5%
	Fixed Object	7	10	9	7	9	42	8	9.5%
	Other Non-Fixed Object Collisions	0	0	2	2	1	5	1	1.1%
	Non-Collisions	0	0	2	3	3	8	2	1.8%
	Others	6	15	1	2	4	28	6	6.4%
	Total Crashes	57	105	87	85	106	440	88	100.0%
SEVERITY	PDO Crashes	33	63	51	42	59	248	50	56.4%
	Fatal Crashes	2	0	0	1	1	4	1	0.9%
	Injury Crashes	22	42	36	42	46	188	38	42.7%
LIGHTING CONDITIONS	Daylight	34	65	60	55	80	294	59	66.8%
	Dusk	0	4	3	3	3	13	3	3.0%
	Dawn	3	2	0	3	0	8	2	1.8%
	Dark	20	34	23	24	23	124	25	28.2%
	Unknown	0	0	1	0	0	1	0	0.2%
SURFACE CONDITIONS	Dry	50	90	72	68	94	374	75	85.0%
	Wet	7	15	15	17	12	66	13	15.0%
	Others	0	0	0	0	0	0	0	0.0%
DAY OF WEEK	Monday	14	16	10	20	18	78	16	17.7%
	Tuesday	12	9	13	10	28	72	14	16.4%
	Wednesday	9	10	14	11	15	59	12	13.4%
	Thursday	8	15	13	13	16	65	13	14.8%
	Friday	6	29	17	13	11	76	15	17.3%
	Saturday	3	13	16	13	9	54	11	12.3%
	Sunday	5	13	4	5	9	36	7	8.2%
HOUR OF DAY	00:00-06:00	4	12	7	8	5	36	7	8.2%
	06:00-09:00	5	9	10	8	13	45	9	10.2%
	09:00-11:00	2	14	8	9	9	42	8	9.5%
	11:00-13:00	3	6	11	9	12	41	8	9.3%
	13:00-15:00	6	13	6	8	15	48	10	10.9%
	15:00-18:00	18	20	21	18	30	107	21	24.3%
	18:00-24:00	19	31	24	25	22	121	24	27.5%

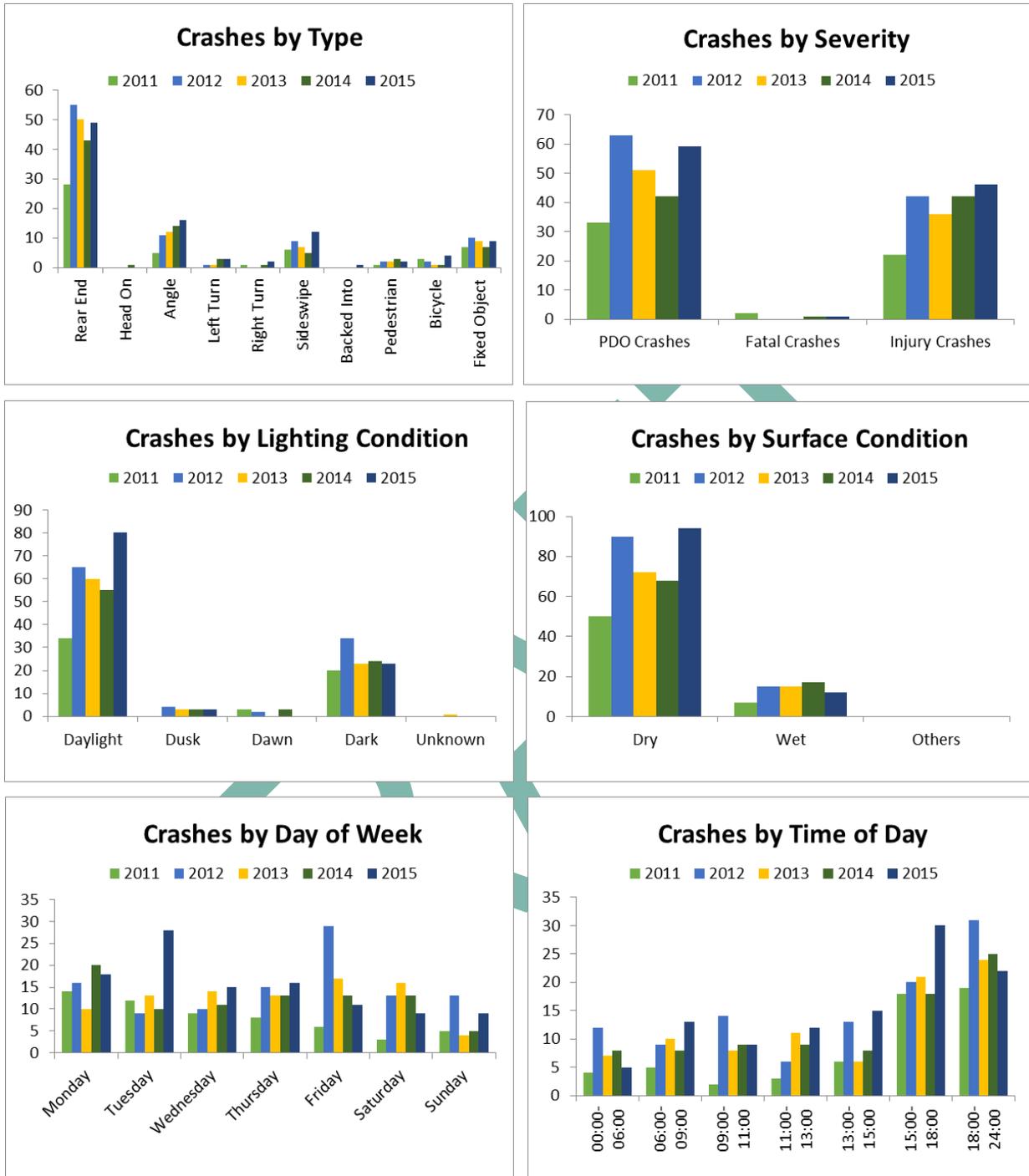


Figure 2-31 Five Year Crash Characteristics for Hillsboro Boulevard

Table 2-18 Fatal Crashes along Hillsboro Boulevard				
Crash No.	Year	Roadway ID	MP	Description
827429420	2011	86120000	5.712	The crash took place at the intersection of Hillsboro Boulevard and Natura Boulevard.
906725940	2011	86120000	5.636	The crash took place along the EB direction of Hillsboro Boulevard, just west of the intersection at Hillsboro Boulevard and Natura Boulevard.
843934590	2014	86120000	5.117	The crash took place on Tuesday April 22 nd at 6:41 AM at the intersection of Hillsboro Boulevard and SW 12 Avenue/Jim Moran Boulevard.
847530960	2015	86120000	4.465	The crash took place on Friday May 15 th at 10:17 AM at the intersection of Hillsboro Boulevard and Century Boulevard.

Table 2-19 and **Figure 2-28** show the crash distribution by year and by milepost along Hillsboro Boulevard. The entire segment of Hillsboro Boulevard was divided into 0.25-mile sections. The data shows that a high concentration of crashes take place between MP 4.465 and MP 4.715 which covers the signalized intersections at Century Boulevard, Military Trail, and Goolsby Boulevard. This coincides with the high percentage of angle crashes which is generally related to the operation at the intersections.

Table 2-19 Crash Distribution by Year and Milepost along Hillsboro Boulevard						
MP Section	2011	2012	2013	2014	2015	Total Crashes
4.465 to 4.715	18	32	19	20	33	122
4.715 to 4.965	13	25	24	17	16	95
4.965 to 5.215	8	25	20	20	18	91
5.215 to 5.465	2	3	2	7	8	22
5.465 to 5.712	10	16	8	13	17	64

- Property Damage Only (O) \$7,700

Using these values, the annual economic loss was estimated as follows:

$$\begin{aligned}
 \text{Annual Economic Loss} &= (\text{fatal crashes} \times \$10,670,000 + \text{injury crashes} \times \\
 &\quad \$383,615 + \text{property damage only} \times \$7,700) / \text{no. of years} \\
 &= \{[(11) \times \$10,670,000 + (911) \times \$383,615 + (1,410) \times \\
 &\quad \$7,700]\} / 5 \\
 &= \mathbf{\$95,540,053} \text{ (\$95.5 million)}
 \end{aligned}$$

2.11 Railroad Crossing

The SFRC runs parallel to the west side of the I-95 interchange and SW 10 Street crosses over the tracks with a bridge. The SW 10 Street typical section within the limits of the limited access right of way is a six-lane urban divided roadway with a raised, landscaped median. In the EB direction, a drop right-turn lane is provided for the I-95 NB on-ramp and in the WB direction, a single left turn is provided for the I-95 SB on-ramp.

The SFRC runs parallel to the west side of the I-95 interchange and crosses Hillsboro Boulevard at grade. The Hillsboro Boulevard typical section within the limits of the limited access right of way is a six-lane urban divided roadway with a raised, landscaped median. Underneath the I-95 overpass, the EB and WB lanes are separated by median containing a raised concrete barrier wall as well as support piers for the I-95 overpass. In the EB direction, a right-turn lane is provided for the I-95 NB on-ramp and in the WB direction, an auxiliary lane is provided for the transition between the I-95 NB off-ramp merge lane and the right-turn lane provided for the I-95 SB on-ramp.

2.12 Existing Drainage

2.12.1 Existing Drainage Conditions

The project discharges into the Broward County Water Control District (BCWCD) #2 C-1 and C-2 canals. SW 10 Street, west of the railroad tracks, sheet flows into the BCWCD #2 C-2 canal. Hillsboro Boulevard, west of the railroad tracks, discharges into the BCWCD #2 C-2 canal via a closed storm drain system. East of the railroad tracks along SW 10 Street and Hillsboro Boulevard and SR 9 (I-95) discharge to BCWCD #2 C-1 canal by sheet flow or through closed storm drain systems. There are 13 cross drains within the project limits along SW 10 Street, Hillsboro Boulevard and

I-95 corridors. **Table 2-20** includes a summary of the existing cross drains. The BCWCD#2 C-1 and C-2 canals discharge north to the Hillsboro canal.

Table 2-20 Summary of Cross Drains		
Cross Drain (CD)	Station (CL I-95)	Description
CD - 1	1333+50	1 - 36" RCP
CD - 2	1346+13	1 - 18" RCP
CD - 3	1352+15	1 - 72" RCP
CD - 4	1360+00	C-1 Control Structure
CD - 5	1368+14	1 - 18" RCP
CD - 6	1383+16	2 - 66" RCP
CD - 7	1396+34	1 - 18" RCP
CD - 8	1406+13	1 - 36" RCP
CD - 9	1410+37	C-1 Control Structure
CD - 10	1422+14	1 - 18" RCP
CD - 11	1428+13	1 - 18" RCP
CD - 12	1434+13	1 - 72" RCP
CD - 13	1441+14	1 - 18" RCP

2.13 Floodplains

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) were used to evaluate the 100-year floodplain encroachment. The project area is located within four FEMA FIRM panels (August 2014). The floodplain encroachments are within the zones AE and AH with base flood elevations (BFE) ranging from 12 to 16 feet (NAVD 88).

2.14 Lighting

2.14.1 I-95

The I-95 existing lighting system consists of dual arm poles with conventional cobra head luminaires installed on the median barrier wall, and single arm pole luminaries along the outside shoulder at the NB and SB exit and entrance ramps.

2.14.2 SW 10 Street

The existing lighting along SW 10 Street consists of single arm poles with cobra head luminaires on the south side of the road and joint use FP&L poles on the north side of the road.

2.14.3 Hillsboro Boulevard

The lighting along Hillsboro Boulevard consists of single arm poles with cobra head luminaires on the south side of the road and joint use FPL transmission poles on the north side of the road.

2.14.4 Utilities

The following utility companies and government utility owners have facilities located near or within the project limits. Existing utility owners and contact information is listed in **Table 2-21**.

No.	Utility Company	Address	Contact	Phone Number	Email
1	AT&T Distribution	8601 W. Sunrise Boulevard – 1st Floor Plantation, FL 33322	Mr. Otis Keeve	(954) 723-2540	ok1184@att.com
2	Broward County Traffic Engineering	2300 W. Commercial Blvd. Fort Lauderdale, Florida 33309	Bret Henderson	(954) 847-2702	brhenderson@broward.org
3	Broward County Water and Wastewater Services	2555 West Copans Road, Pompano Beach, FL 33069	Latissa Collins	(954) 831-4132	lcollins@broward.org
4	Comcast Cable	2601 SW 145 Ave. Miramar, FL 33027	Leonard Maxwell-Newbold	(954) 447-8405	Leonard_Maxwell-Newbold@cable.comcast.com
5	City of Deerfield Beach	200 Goolsby Blvd. Deerfield Beach, FL 33442	Rocky Figueroa	(954) 422-5822	rfigueroa@deerfield-beach.com
6	CVE Master Management Co Inc. **	277 Goolsby Blvd. Unit 4C Deerfield Beach, FL 33442	Craig A Smith and Associates Inc. (Jim Driscoll)	(561) 314-4445	jdriscoll@craigasmith.com
7	Florida Department of Transportation (FDOT)	3400 W Commercial Blvd, Fort Lauderdale, FL 33309	Carolyn Leach	(954) 847-2690	Carolyn.Leach@dot.state.fl.us
8	Florida Power & Light - Broward	Post Office Box 8248 Ft. Lauderdale, FL 33340-8248	Byron Sample	(954) 321-2056	byron.a.sample@fpl.com
9	FPL Fibernet LLC	810-B Charlotte Ave. West Palm Beach, FL 33401	Jacob Marroney	(561) 616-1884	Jacob.Marroney@fpl.com
10	Level 3 Communications	2121 W. Prospect Rd Tamarac, FL 33309	Jake Jacobson	(877) 366-8344	jake.jacobson@level3.com
11	MCI (Verizon Business Communications) *	2400 N. Glenville Drive Richardson, TX 75082	John Bachelder	(972) 729-6322	John.bachelder@verizon.com
12	TECO Peoples Gas South Florida	5101 NW 21 Avenue Suite 460 Ft. Lauderdale, FL 33309	Max Chamorro	(954) 453-0812	mjchamorro@tecoenergy.com

*Hillsboro Boulevard and SW 10 Street only, **SW 10 Street only

2.15 Soils Classification

Soils and soil profiles found in borings drilled for the roadway alignment study generally consisted of seven (7) general types:

Stratum 1: Brown sand with trace roots, sometimes with trace limerock fragments (Topsoil/A-8).

Stratum 2: Brown to light brown sand, sometimes with trace silt, trace limerock fragments (A-3).

Stratum 2A: Light brown sand and little to some limerock fragments with silt to silty (A-1-b).

Stratum 2B: Dark brown sand with silt, with trace organic (A-3).

Stratum 3: Light brown sandy to silty limestone.

Stratum 4: Light brown silty sand (A-2-4).

Stratum 5: Dark brown sand with silt, with few organic (A-8).

The majority of the project corridor is underlain with interlayering of Strata 1 and 2. Stratum 2A, 2B, 3 and 4 soils were found at some isolated boring locations at various depths along the project corridor. Stratum 5 soils were found at only one boring locations between 4 and 6 feet depth interval.

2.16 Aesthetic Features

There are no existing aesthetic features within the project corridor. Existing landscaping is limited to the I-95 interchange.

2.17 Traffic Signs

There are numerous single post signs along both SW 10 Street and Hillsboro Boulevard corridors on both sides of the road and includes speed limit signs and wayfinding signage. Signs are located primarily at the intersections.

3 Future Conditions

3.1 Future Land Use

The City of Deerfield Beach Future Land Use Map (adopted December 3, 2013) shown in **Figure 3-1** predicts that land uses within the project area will remain similar except for the conversion of the former Deerfield Country Club Golf Course into an employment center. The anticipated employment center has been branded as the Hillsboro Technology Center.

3.1.1.1 SW 10 Street

The City of Deerfield Beach Future Land Use Map shows the area west of the SW 10 Street Interchange as Industrial. The NE quadrant of the interchange is shown as Residential Moderate (10 DU/AC), Commercial and Conservation. The SE quadrant shows as Community Facility, Recreation Open Space, Residential- Medium (15 DU/AC), Residential Moderate (10 DU/AC) and Residential Low (5 DU/AC).

3.1.1.2 Hillsboro Boulevard

The City of Deerfield Beach Future Land Use Map shows the NW quadrant of the Hillsboro Boulevard Interchange as Industrial and Commercial while the NE quadrant is shown as Industrial, Commercial, Recreation Commercial, Recreation Open Space and Employment Center. The SE quadrant shows as Commercial, Residential Moderate (10 DU/AC) and Recreation Open Space. The SW quadrant shows as Commercial, Industrial and York Residential Transit Oriented Development.

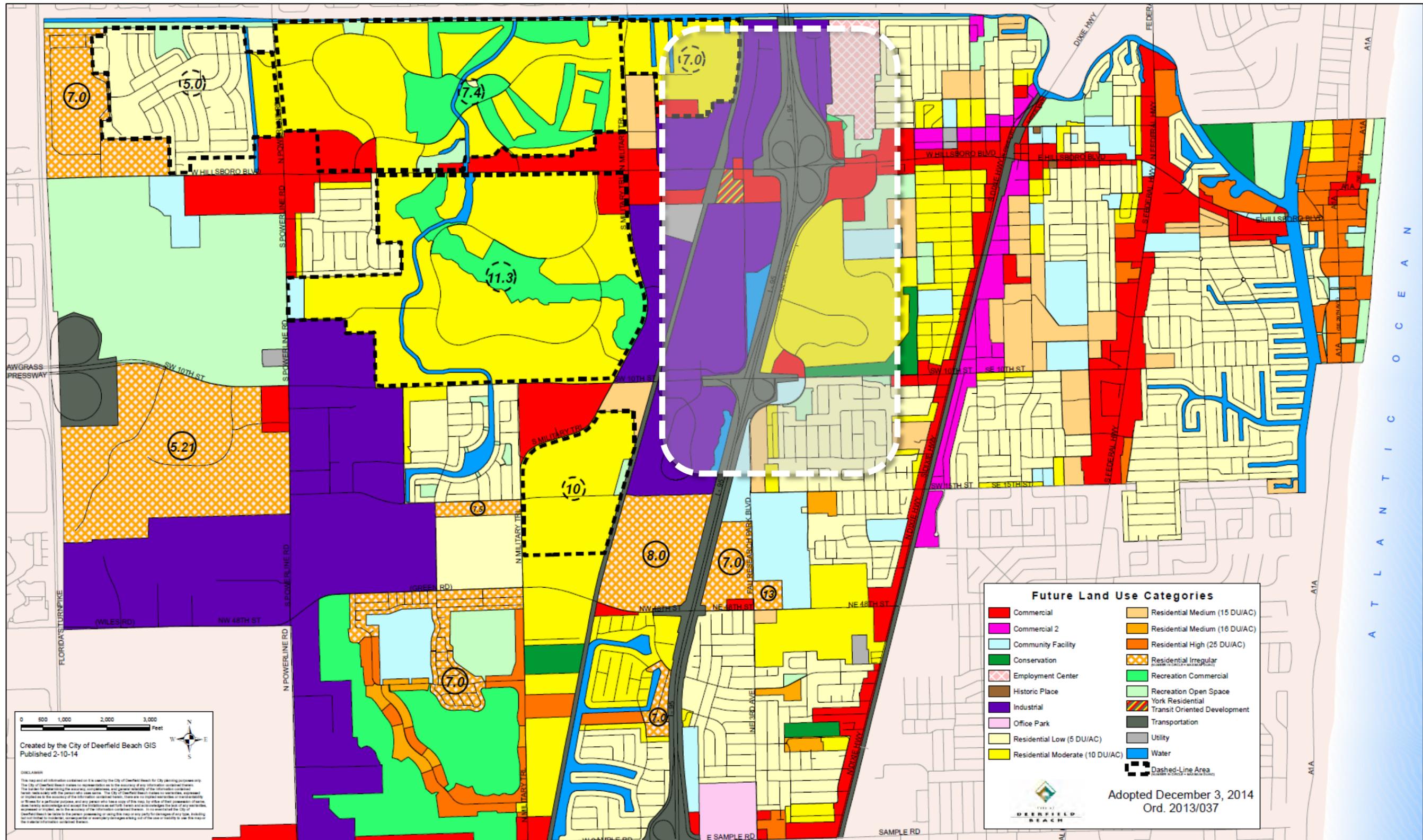


Figure 3-1 Future Land Use Map

3.2 Future Context Classification

Hillsboro Boulevard and SW 10 Street should be considered **Suburban Commercial (C3C)** as context classification for future conditions with no anticipated changes from existing.

3.3 Future Travel Forecast

To maintain consistency with the on-going SW 10 Street Connector PD&E Study, traffic projections for both the No-Action and Build conditions were obtained from the recently published SW 10 Street Connector PD&E Study Project Traffic Forecast Memorandum (PTFM) dated September 2018 (FM 439891-1) and included here by reference. Section 4 of the PTFM provides a detailed description of the modeling methodology and the development of the Directional Design Hour volumes (DDHVs).

Figure 3-2 presents the Future No-Action Alternative Lane Configuration. **Figure 3-3** and **Figure 3-4** depict the No-Action Traffic Projection Volumes for Opening Year 2020 and Design Year 2040.

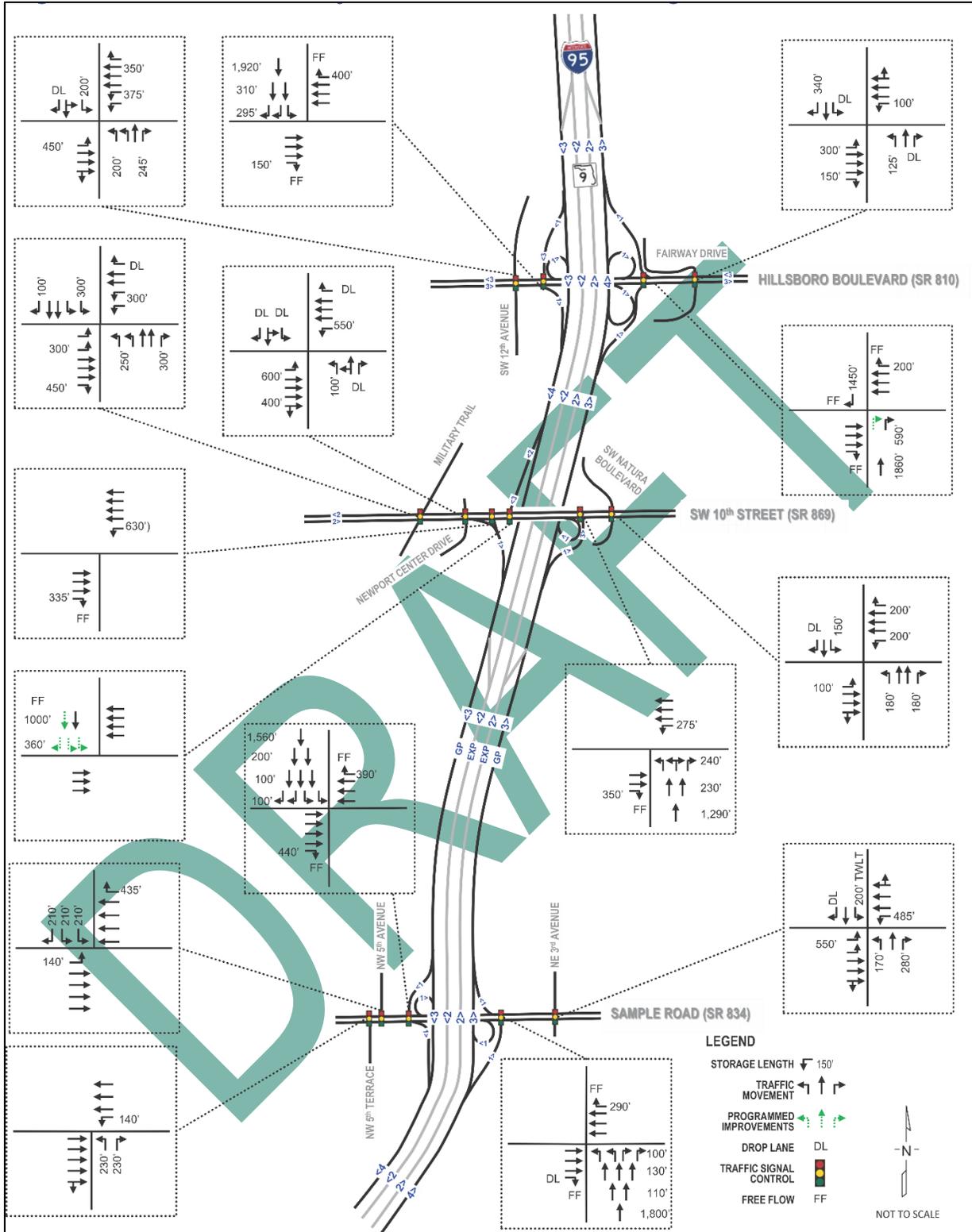


Figure 3-2 No-Action Roadway and Intersection Lane Configurations

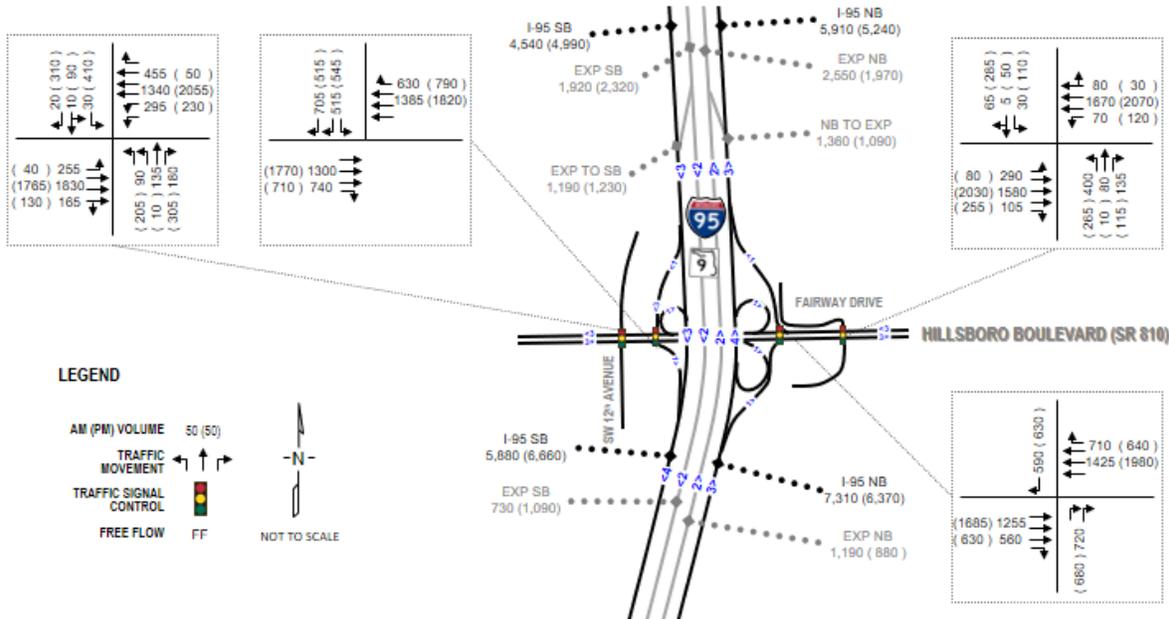


Figure 3-3 2020 No-Action Volumes – Hillsboro Boulevard

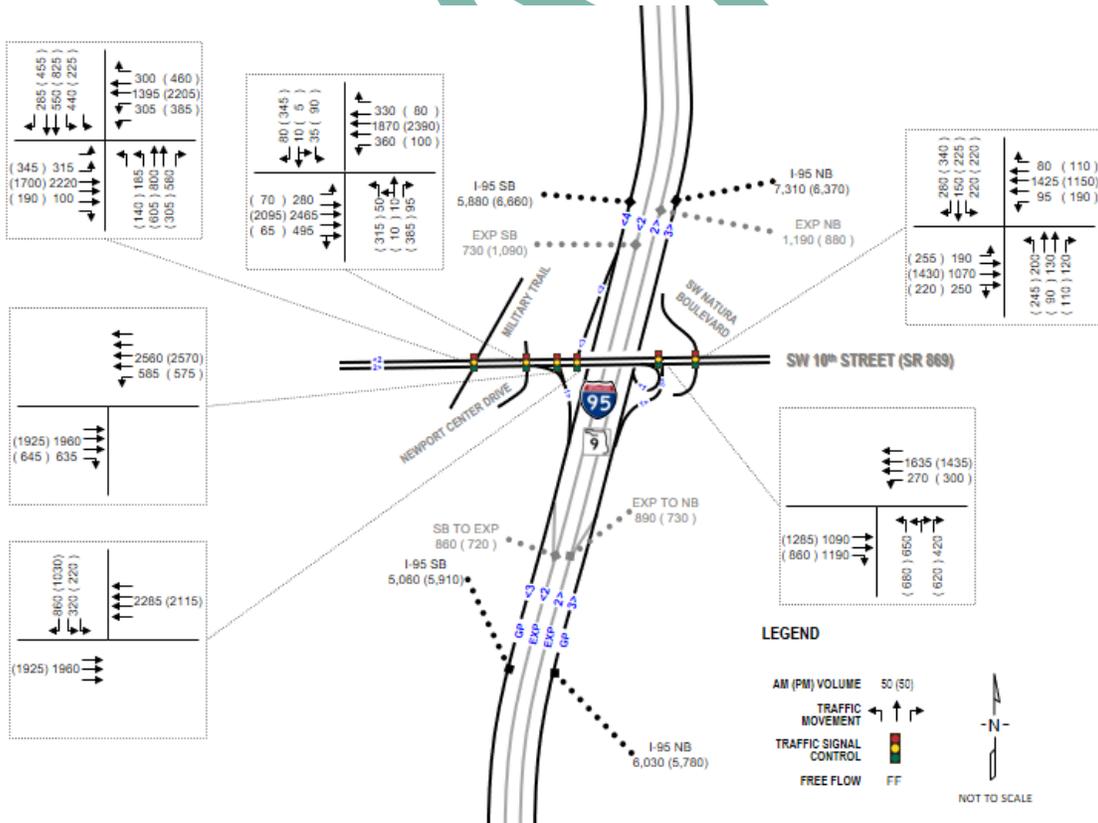


Figure 3-4 2020 No-Action Volumes – SW 10 Street

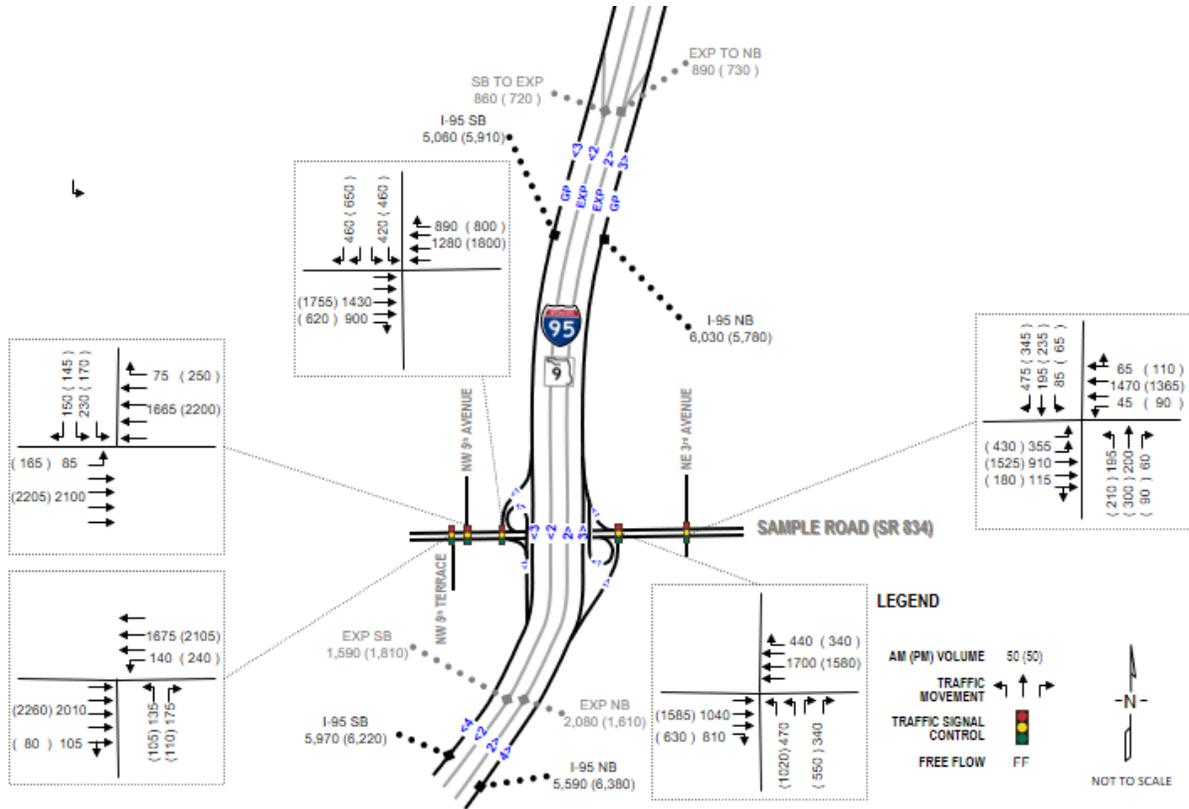


Figure 3-5 2020 No-Action Volumes – Sample Road

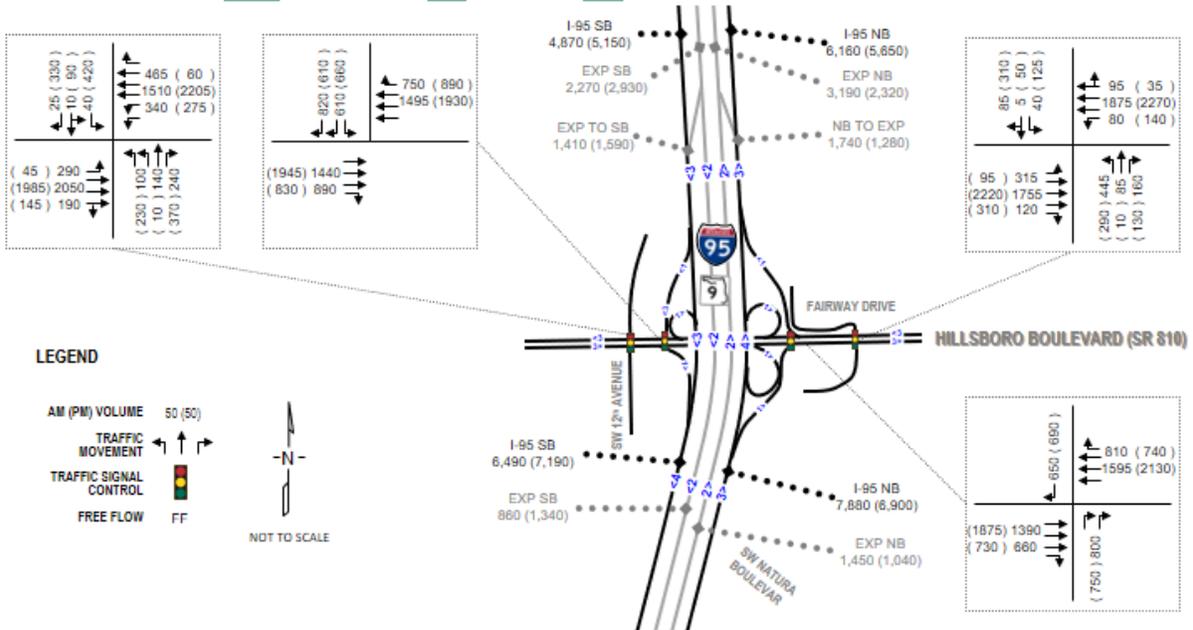


Figure 3-6 2040 No-Action Volumes – Hillsboro Boulevard

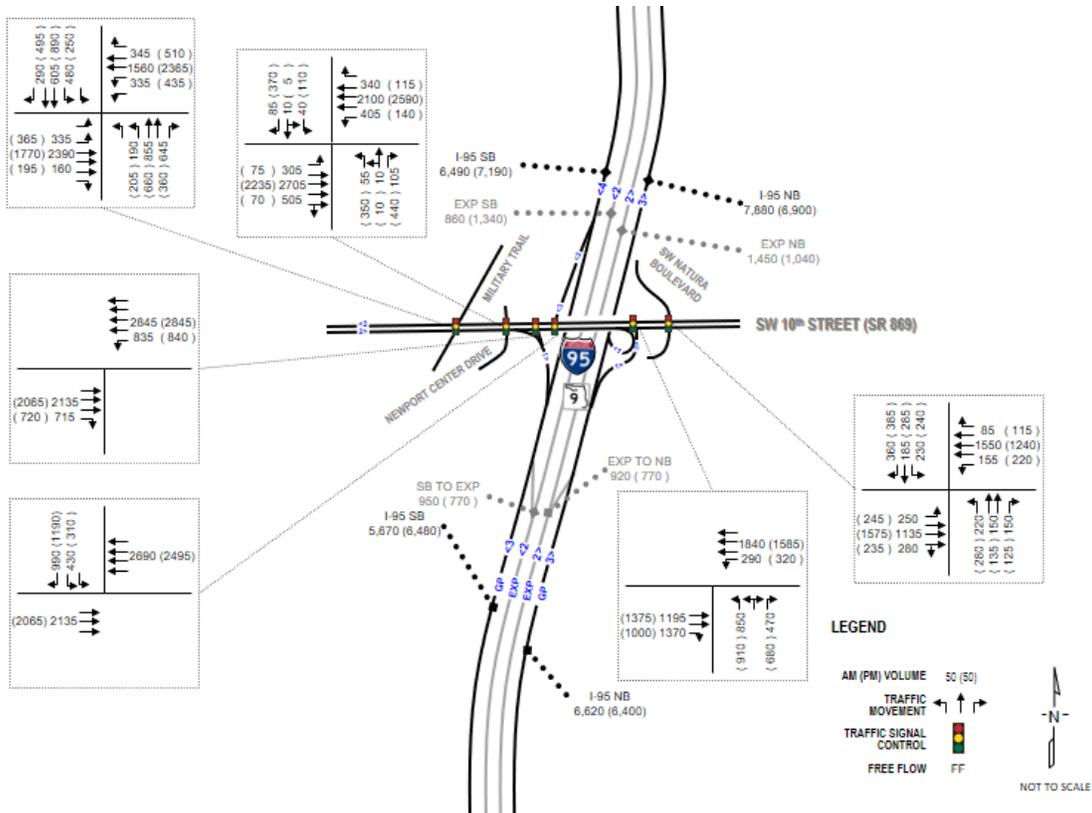


Figure 3-7 2040 No-Action Volumes – SW 10 Street

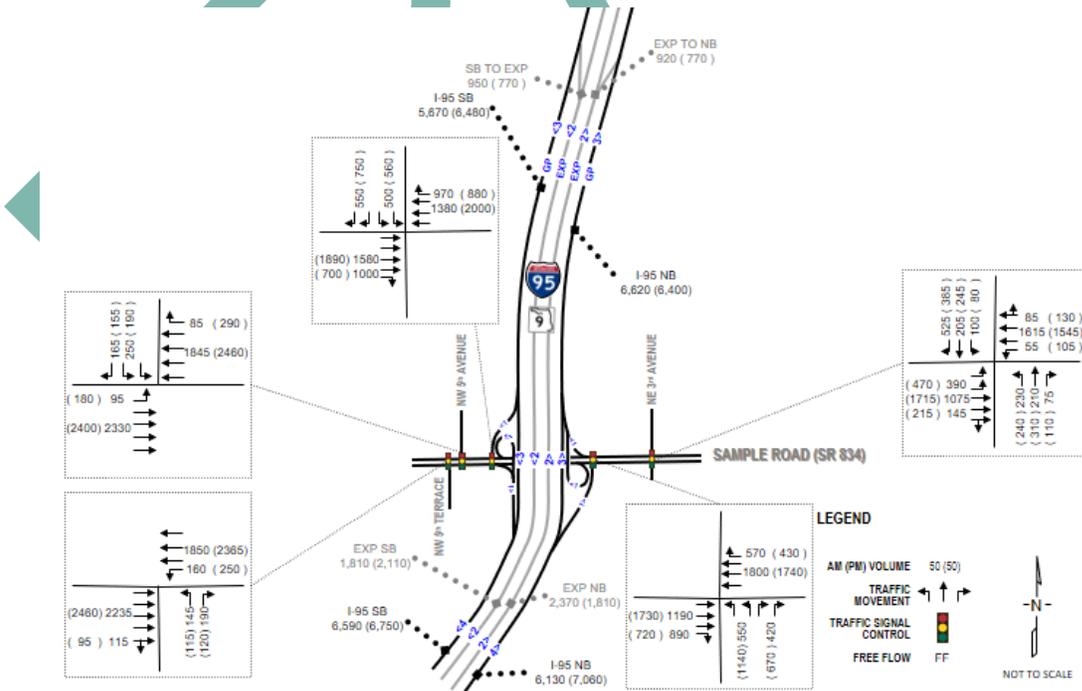


Figure 3-8 2040 No-Action Volumes – Sample Road

3.4 Future Improvement Plans

The Broward County MPO 2035 LRTP included improvements to all I-95 interchanges in Broward County under Illustrative Roadway Projects. Illustrative projects are those that cannot be included in the cost feasible plan due to financial constraints but could be included in a future approved Transportation Improvement Program.

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4 Design Controls and Criteria

Several design standards and manuals were consulted to establish the final design criteria for this PD&E Study. The design criteria are based on design parameters outlined in the current editions of the following publications:

- Project Development and Environment Manual, FDOT, 2019
- FDOT Design Manual (FDM), FDOT, 2019
- A Policy on Geometric Design of Highways and Streets, American Association of State Highway Transportation Officials (AASHTO), 2011
- FDOT Standards Plans, FDOT, FY 2019-2020
- Manual of Uniform Minimum Standards for Design, Construction and Maintenance of Streets and Highways, "Florida Greenbook (FGB)", FDOT, 2016
- Drainage Manual, FDOT, 2019
- Flexible Pavement Design Manual, FDOT, 2018
- Pavement Type Selection Manual, FDOT, 2019
- Highway Capacity Manual 6, Transportation Research Board, 2016
- Manual of Uniform Traffic Control Devices (MUTCD), FHWA, 2009
- Project Traffic Forecasting Handbook, FDOT, 2014
- Roadside Design Guide, AASHTO, 2011
- Standard Specifications, FDOT, 2019
- Structures Manual, FDOT, 2019
- Utility Accommodation Manual, FDOT, 2010

4.1 Roadway Design Criteria

Table 4-1 Roadway Design Controls – Mainline		
Design Element	Design Standard	FDM January 2018
Design Speed		
Arterial	Urban Collector 35-50 mph	
Lane Widths		
Through Lane	11-ft	FDM Table 210.2.1
Turn Lane	11-ft	
Median Widths		
Arterial and Collectors	22-ft	FDM Table 210.3.1
Design Speed ≤ 45 mph		
Border Width		
Arterial Collectors = 45 mph	Bicycle Lanes or Other Auxiliary Lane, 12-ft	FDM Table 210.7.1
Pedestrian and Bicycle		
Bike Lanes	Required in or within 1 mile of urban area	FDM Chapter 223
Bike Lane Width	7-ft, Buffered Bike Lane	FDM Chapter 223.2.1.1
Sidewalks	6-ft, Adjacent to curb	FDM Chapter 222.2.1
Roadway Cross Section Slope		
Roadway Pavement	0.02	FDM Figure 210.2.1
Roadway Grades		
Maximum Grade-Industrial	30-45 mph- 4%	FDM Table 210.10.1
Maximum Change-in-grade	Without a VC 30 mph - 1%, 40 mph - 0.80%	FDM Table 210.10.2
Base Clearance	Urban, 1-ft	FDM Chapter 210.10.3 (2)
Distance Between VPI's	250-ft	FDM Chapter 210.10.1.1
Minimum Grade	0.30%	
Horizontal Alignment- Arterials and Collectors, V= Design Speed in mph		
Maximum Deflection	Without a Horizontal Curve $V \leq 40$ mph- 2 Degrees	FDM Chapter 210.8.1
Length of Horizontal Curve	15V, minimum 400-ft	FDM Table 210.8.1
Maximum Curvature	Curb and Gutter, e max= 0.05 40 mph 14°15'	FDM Table 210.9.2

Table 4-2 Roadway Design Controls – I-95 Ramps			
Controlling Element	AASHTO Criteria	FDOT Criteria, FDM	
Design Speed	35 to 60 mph	30 MPH to 60 mph	
Lane Width Bridge Width	15-ft one-lane, 24-ft two-lanes Approach Roadway Width	15-ft one-lane, 24-ft two-lanes Approach Roadway width	
Shoulder Width	10-ft outside 10-ft inside	Outside Full Width (Paved Width)	Median Full Width (Paved Width)
1-Lane Ramp (without shoulder gutter)		6-ft (4-ft)	6-ft (2-ft)
1-Lane Ramp (with shoulder gutter)		11.5 ft (4 ft)	11.5-ft (4-ft)
2-Lane Ramp Non-Interstate (without shoulder gutter)		10-ft (8-ft)	8-ft (4-ft)
2-Lane Ramp Non-Interstate (with shoulder gutter)		15.5-ft (8-ft)	13.5-ft (6-ft)
2-Lane Ramp Interstate (without shoulder gutter)		12-ft (10-ft)	8-ft (4-ft)
2-Lane Ramp Interstate (with shoulder gutter)		15.5-ft (8-ft)	13.5-ft (6-ft)
Auxiliary Lanes (without shoulder gutter)		12-ft (10-ft)	8-ft (4-ft)
Auxiliary Lanes (with shoulder gutter)		15.5-ft (8-ft)	8-ft (4-ft)
Horizontal Curve Radius Min. Radius		30 mph, 35 mph, 40 mph, 50 mph	30 mph to 45 mph
Min. Radius (e-max 10%)	200-ft, 292-ft, 410-ft, 694-ft	300-ft (@30 mph)	
Superelevation	0.10 max	0.10 max	
Stopping Sight Distance		30 mph, 35 mph, 40 mph	
Vertical Alignment, SSD Minimum	200-ft, 250-ft, 305-ft, 360-ft, 425-ft (@ 30, 35, 40, 45, 50 mph)	182-ft, 226-ft, 275-ft upgrade (@7%) 218-ft, 276-ft, 339-ft downgrade (@ 7%)	
K Value – Sag SSD Minimum	37, 49, 64, 79, 96 (@ 30, 35, 40, 45, 50 mph)	37, 49, 64, 79, 96 (@ 30, 35, 40, 45, 50 mph)	
K Value – Crest (New Construction) SSD Minimum	19, 29, 44, 61, 84 (@ 30, 35, 40, 45, 50 mph)	31,47, 70 (@ 30 mph, 35 mph, 40 mph)	
K Value – Crest (RRR Criteria) SSD	19, 29, 44, 61, 84 (@ 30, 35, 40, 45, 50 mph)	19,29,44 (@ 30 mph, 35 mph, 40 mph)	
Maximum Grades	(@ 30, 35, 40, 45, 50 mph)	30 mph to 50 mph	
	8%, 7%, 7%, 6%, 6% upgrade	7% (<30 mph), 6% (35-40 mph), 5%(45-50 mph) upgrades	
	Downgrades may be increased by 2%	Downgrades may be increased by 2%	

Table 4-2 Roadway Design Controls – I-95 Ramps		
Controlling Element	AASHTO Criteria	FDOT Criteria, FDM
Min. Vertical Curve Length		90-ft, 105-ft, 120-ft (@ 30 mph, 35 mph, 40 mph) Sag or Crest
Cross Slope (Travel Lanes) Cross Slope (shoulder)	0.015-0.003 (0.030 allowed on additional outside lanes) 0.06 on shoulders 0.05 max algebraic difference in cross slope	0.02-0.03 0.06 on shoulders 0.06 max algebraic difference < 35 MPH 0.05 max algebraic difference ≥ 35 MPH
Vertical Clearance Over Roadway Over water (Drainage)	16.0-ft minimum for traveled structures 17.0-ft min for overhead sign structures and pedestrian bridges	16.5-ft for traveled structures (16-ft existing) 17.5-ft for sign structures, pedestrian bridges and signals (17-ft existing) 19.5-ft for Dynamic Message Signs (19-ft existing) 2.0-ft min over design flood stage
Design Loading Structural Capacity	HL-93 (LRFD)	HL-93 (LRFD)

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5 Alternative Analysis

5.1 No-Action Alternative

The No-Action Alternative assumes that no improvements would be implemented within the project corridor. It serves as a baseline for comparison against the Build Alternatives. It will however, include on-going construction projects and all funded or programmed improvements scheduled to be opened to traffic in the analysis years being considered. These improvements must be part of the FDOT's adopted Five-Year Work Program, Broward County Metropolitan Planning Organization Cost Feasible LRTP, transportation elements of Local Government Comprehensive Plans (LGCP), or developer-funded transportation improvements specified in approved development orders.

The advantage of the No-Action Alternative is that it does not require any expenditure of public funds for design, right-of-way acquisition, construction or utility relocation. In addition, there would not be any traffic delays or disruptions due to construction, no direct or indirect impacts to the environment and/or the socio-economic characteristics from the project. However, the No-Action Alternative does not address the purpose and need of the project.

5.2 Transportation Systems Management and Operation

Transportation Systems Management and Operations (TSM&O) aims to optimize the performance of existing multimodal infrastructure through implementation of systems and services to preserve capacity and improve the safety and reliability of our transportation system. TSM&O improvements include traffic management and operations solutions such as Information Technology System (ITS) devices, signal retiming, and adaptive signal control.

The TSM&O alternative, however, will not significantly improve the capacity issues through the corridor by the design year 2040. Long term improvements are necessary to address the existing traffic congestion and meet the safety and capacity needs of the corridor.

5.3 Build Alternatives

Build alternatives were developed along I-95, SW 10 Street and Hillsboro Boulevard to address the purpose and need of the project.

5.3.1 I-95

All Build Alternatives considered for I-95 include:

- Two 12-foot wide express lanes (one in each direction)
- Six 12-foot wide general purpose lanes (three in each direction)
- Four-foot wide buffer with tubular markers separating the general purpose lanes from the express lanes
- A 12-foot wide paved inside shoulder
- A 12-foot wide outside shoulder (ten-feet paved and two-feet unpaved)
- A 2.5-foot wide center barrier wall
- Twelve-foot wide auxiliary lanes at selected locations

Alternative 1:

Alternative 1 provides a 3-lane, physically separated NB collector distributor (CD) road on the east side of I-95 between SW 10 Street and Hillsboro Boulevard that combines the EB to NB and WB to NB on-ramps. A proposed auxiliary lane on the west side of I-95 combines the EB to SB and WB to SB on-ramps. Widening is proposed in the median along I-95 to provide one 12-ft express lane in each direction.

Alternative 2:

Alternative 2 provides a braided ramp for the 3-lane proposed NB CD roadway on the east side of I-95 to separate the traffic destined to I-95 mainline from traffic exiting at Hillsboro Boulevard. A braided ramp is also proposed on the west side of I-95 for the SB CD roadway to separate the traffic destined to I-95 mainline from traffic exiting at SW 10 Street. Widening is proposed in the median along I-95 to provide one 12-ft express lane in each direction.

5.3.2 SW 10 Street

Build alternatives considered along SW 10 Street provide two connector lanes in each direction along SW 10 Street with direct connect access ramps to/from the I-95 express lanes. A WB on-ramp and EB off-ramp access to the connector lanes is provided just east of the Military Trail intersection. Improvements at the NB ramp terminal to accommodate triple lefts and triple rights as well as relocating the WB to NB entrance ramp from the SE quadrant of the interchange to the NE quadrant remain the same for both build alternatives.

Three 11-ft lanes with 7-ft buffered bike lanes and 6-ft sidewalks are proposed along SW 10 Street. A roundabout is provided at the intersection of W. and E. Newport

Center Drive. Triple rights are provided at the NB and SB legs of the SW 12 Avenue/E. Newport Center Drive intersection. Two alignments were considered for the connector lanes.

- North Alignment
- Center Alignment

Both north and center alignment options are basically the same. The north alignment, however, provides direct access to the connector lanes from SW 12 Avenue. Minor right-of-way acquisition is required on the north and south sides of SW 10 Street including six privately owned and three government owned parcels. No relocations are required.

The center alignment alternative also requires minor right-of-way acquisition on the north side as well as on the south side including 15 privately owned and nine government owned parcels. No relocations are required.

DRAFT

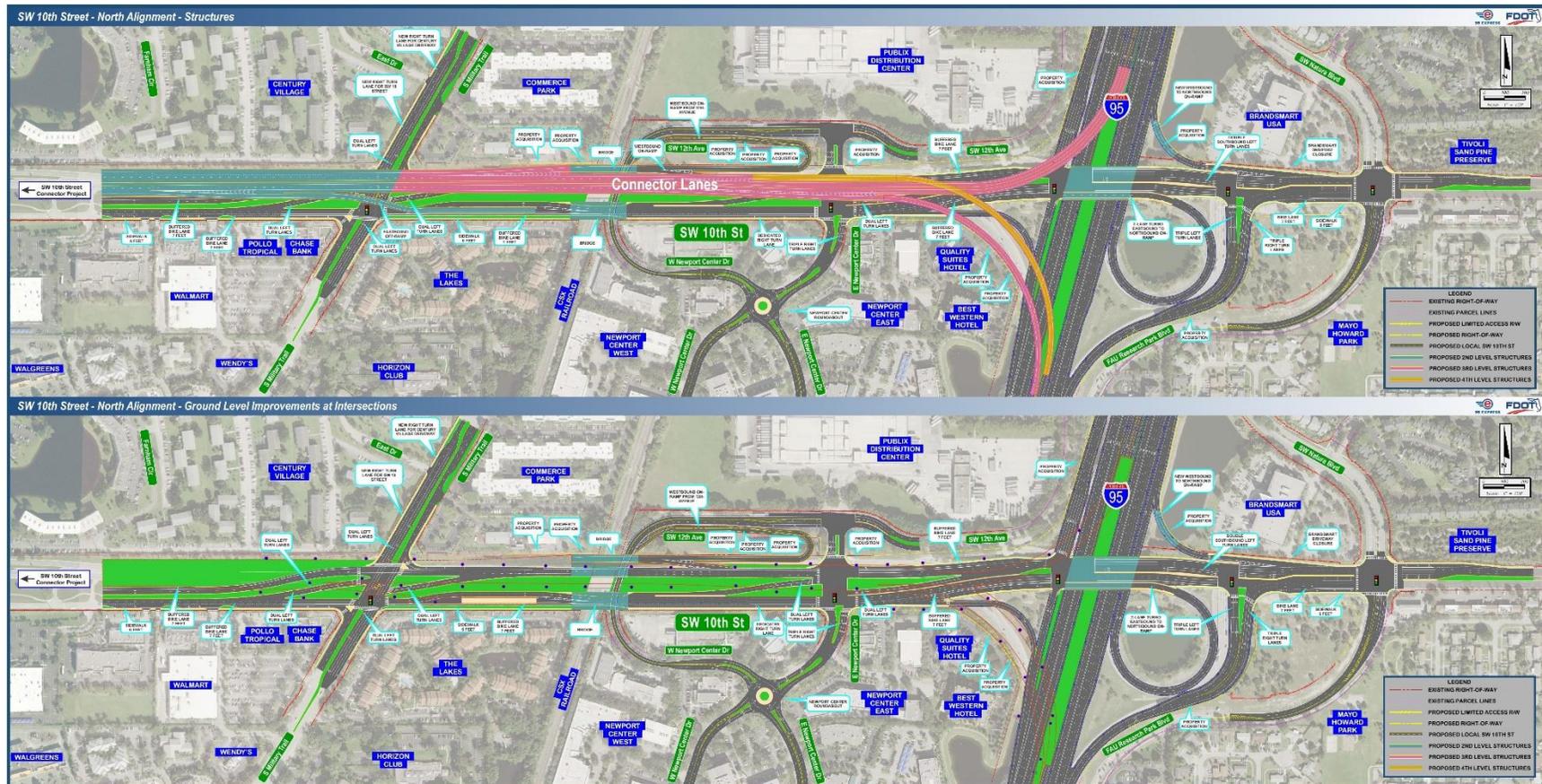


Figure 5-1 SW 10 Street – North Alignment Concept Plan

Figure 5-1 shows the North Alignment concept. The top figure illustrates the proposed connector lanes to be constructed above local SW 10 Street. The lower figure illustrates the local SW 10 Street configuration and intersection design.

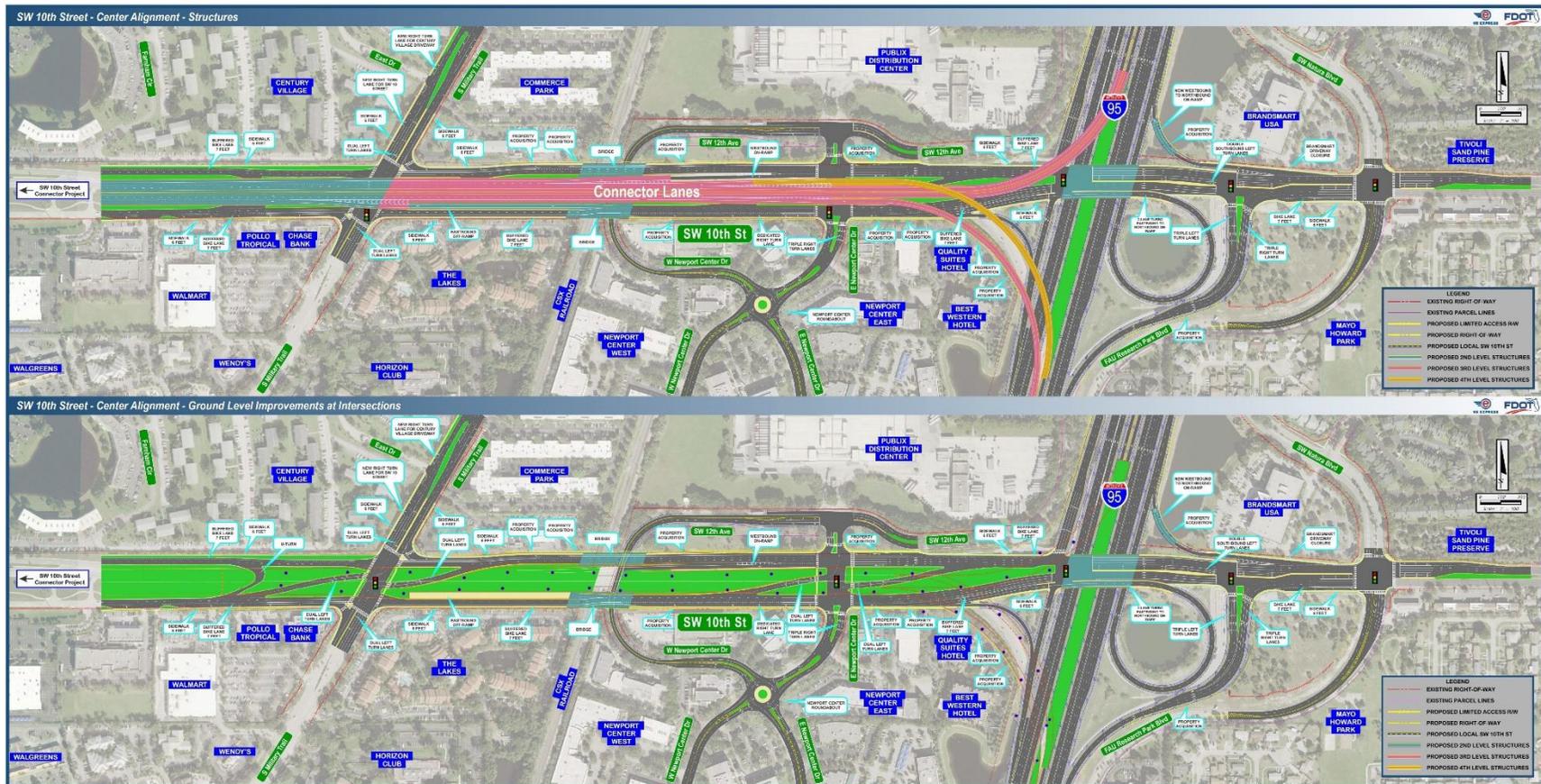


Figure 5-2 SW 10 Street – Center Alignment Concept Plan

Figure 5-2 shows the Center Alignment concept. The top figure illustrates the proposed connector lanes to be constructed above local SW 10 Street. The lower figure illustrates the local SW 10 Street configuration and intersection design.

5.3.3 Hillsboro Boulevard

Two Build Alternatives were considered along Hillsboro Boulevard. Alternative 1 proposes a depressed section while Alternative 2 proposes an elevated section. Improvements at the I-95 ramp terminals remained the same for both Build Alternatives and include providing a 2-lane NB exit ramp combining both exit ramps into a single ramp with a signal controlled. The NB exit ramp terminal will provide expanded storage for a triple left and double right turn lanes. Additional improvements include expanding the north leg of Jim Moran Boulevard to allow for SB double left and double right turn lanes, extending the NB to WB left turn lane storage and the EB to SB right turn storage at Natura Boulevard.

Alternative 1:

Alternative 1 proposes a depressed section from Goolsby Boulevard to SW 12 Avenue with two 11-ft lanes in each direction and a 7.5-ft inside shoulder. An access road is proposed on each side with one 11-ft lane, 7-ft buffered bike lane and 6-ft sidewalk. This alternative was deemed not viable due to impacts to the SFRC line and access to adjacent properties.

Alternative 2:

Alternative 2 proposes an elevated section from Goolsby Boulevard to SW 12 Avenue with two 11-ft lanes in each direction, a 7.5-ft inside shoulder, and 13-ft median. An access road is proposed on each side with one 11-ft lane, 7-ft buffered bike lane and 6-ft sidewalk. This alternative was deemed not viable due to access impacts to adjacent properties and the steep profile grade required to meet existing grade before the I-95 interchange.

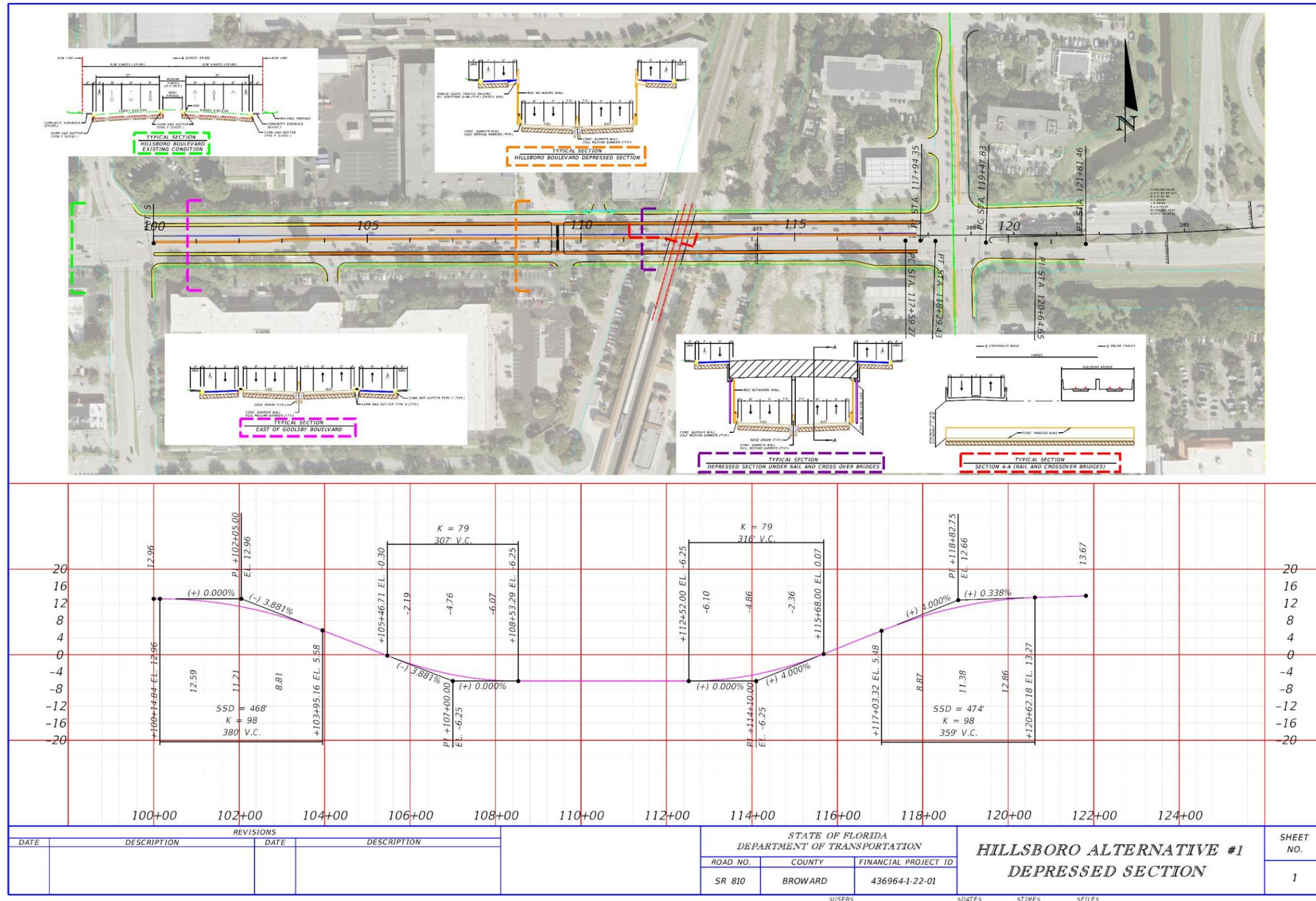


Figure 5-2 Hillsboro Boulevard – Concept Plan – Alternative 1

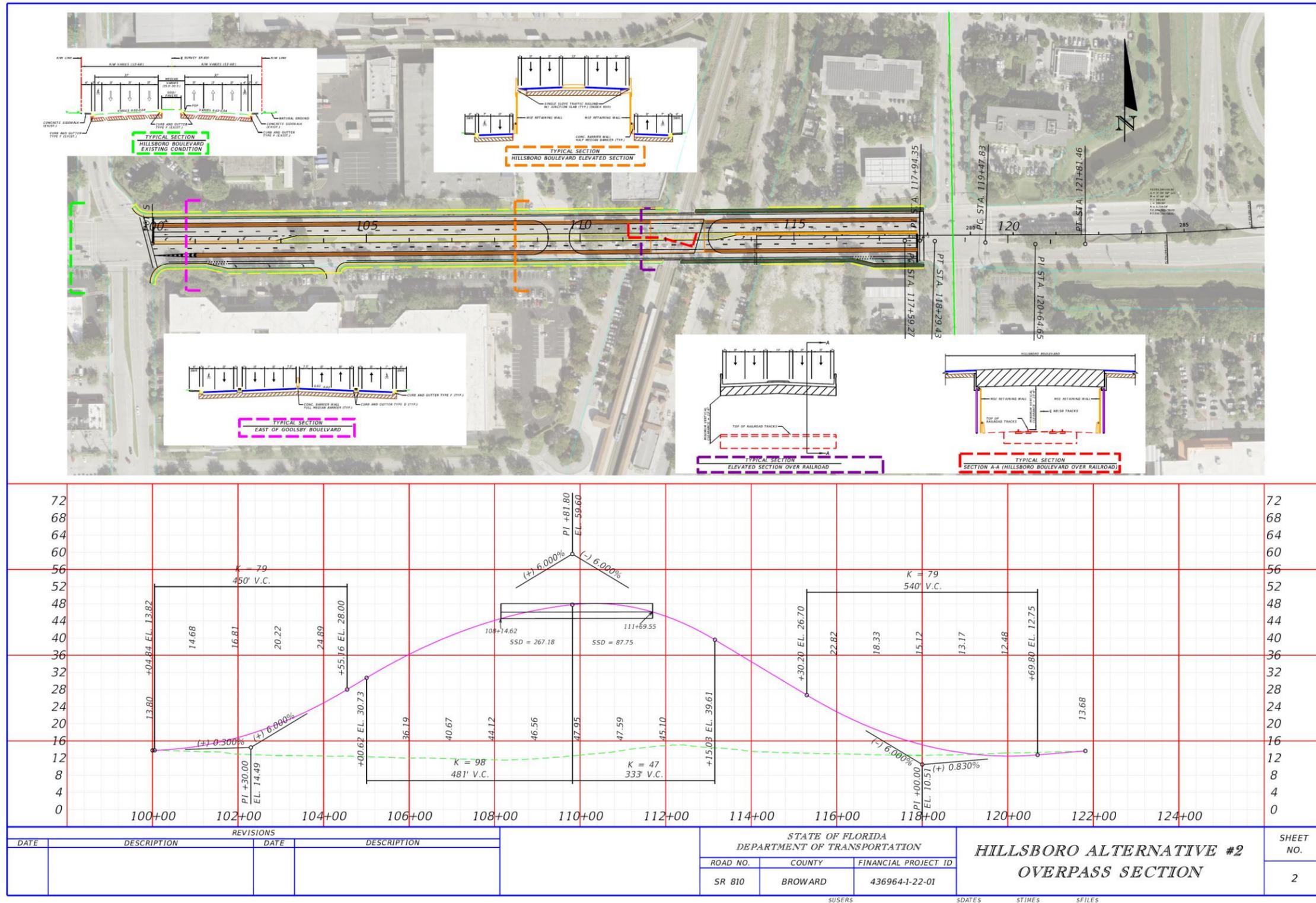


Figure 5-2 Hillsboro Boulevard – Concept Plan – Alternative 2

5.4 Alternative Evaluation

A qualitative Comparative Evaluation Matrix was used to determine the alternative that best addressed the purpose and need of the project, minimized impacts to the natural and physical environment and incorporated stakeholder’s input.

5.4.1 Evaluation Criteria

The criteria selected for the evaluation matrix was based on engineering and environmental analysis and stakeholder’s coordination. The criteria used in the evaluation matrix is described in **Table 5-1**.

Table 5-1 Evaluation Criteria	
Project Cost	
Design Phase:	Compares the cost of the design phase for each alternative.
Right of Way Acquisition:	Compares right-of-way costs between alternatives.
Construction:	Compares each alternative based on construction costs.
Construction Engineering and Inspection (CEI):	Measures the potential cost of construction engineering inspection.
Social and Economic Environment	
Right of Way Acquisition:	Compares the potential right-of-way acquisition impacts of each alternative.
Number of Relocations: (Commercial, Residential, and Government Owned):	Measures the total number of potential relocation for each alternative.
Social and Neighborhood Effects (includes aesthetics):	Measures the potential effect of each alternative on the social and neighborhood effects.
Economic and Employment Effects:	Measures the potential economic and employment effects of each alternative.
Mobility:	Measures the potential mobility improvements or congestion effects of each alternative.
Cultural Environment	
Section 4(f):	Measures the alternative’s potential effect on Section 4(f).
Historic Sites and Districts:	Measures the degree of impact associated with existing historic sites within the project corridor for each alternative.
Recreational Areas:	Measures each alternative’s potential effect on recreational areas.
Natural Environment	
Wetlands/Surface Waters:	Measures the potential effect on wetlands and/or surface waters for each alternative.
Protected Species and Habitat:	Measures the potential effect on protected species and habitat for each alternative.
Physical Environment	
Contamination:	Measures the impact on existing or potential hazardous material sites and or generators.
Noise Receptors:	Measures the alternative’s potential impact on noise.

Table 5-1 Evaluation Criteria
Air Quality: Measures each alternative’s impact against pre-established air quality standards.
Utility Impacts: Measures the utility impacts of the alternatives. This includes potential conflicts and relocation of the utility lines that are located within the existing and/or proposed right of way.
Bicycles and Pedestrians: Measures the impacts of each alternative on bicycles and pedestrians.
Traffic Operations and Safety
Bicycles and Pedestrians: Measures each alternative’s improvements for bicycles and pedestrians .
Local Throughput (Vehicle Trips): Measures the amount of throughput of each alternative on local SW 10 Street.
Connector Throughput (Vehicle Trips): Measures the amount of throughput of each alternative on the connector lanes on SW 10 Street.
Travel Time: Compares travel time between alternatives.
Safety: Measures potential safety impacts for each alternative.
Emergency Evacuation Response: Compares impacts of each alternative on emergency evacuation .
Travel Time Reliability: Measures the travel time reliability of each alternative.

5.4.2 Comparative Alternative Evaluation

The Comparative Alternative Evaluation matrix for the No-Action and Build Alternatives for SW 10 Street is shown in **Table 5-2**. **Table 5-3** shows the Comparative Alternative Evaluation matrix for the No-Action and Build Alternatives for Hillsboro Boulevard.

Table 5-2 Comparative Alternative Evaluation – SW 10 Street

LEGEND: Substantial Improvement or Best Alternative = 5 points Major Improvement or Good Alternative = 4 points Moderate Improvement or Moderate Alternative = 3 points Minor Improvement or Inferior Alternative = 2 points Negative Effect or Worst Alternative = 1 point

EVALUATION CRITERIA	PROJECT COST					SOCIAL AND ECONOMIC ENVIRONMENT				
	Design Phase	Right of Way Acquisition	Construction	Construction Engineering and Inspection (CEI)	Utility Relocation Cost	Right of Way Acquisition	Number of Relocations (Commercial, Residential and Government owned)	Social and Neighborhood Effects (includes aesthetics)	Economic and Employment Effects	Mobility
No-Action Alternative	No cost 5	No cost 5	No cost 5	No cost 5	No cost 5	None 5	None 5	No effects 5	Increased congestion will impact access to businesses and employment centers. 1	Increased congestion. 1
TSM&O	Very Low cost 4	No cost 5	Very Low cost 4	Low cost 5	No cost 5	None 5	None 5	No effects 5	Increased congestion will impact access to businesses and employment centers. 1	Increased congestion. 1
Build Alternative 2 North Alignment	Low cost 3	Medium Cost 3	High Cost 3	Low Cost 3	Highest Cost 2	Minimal 4	None 5	Community Focal Points unaffected. Limited right of way acquisition. Limited visual effects. 4	Reduced congestion will improve access to employment centers, Tri-Rail and Amtrak services. 5	Reduced congestion improves regional connectivity, transit, and freight operations. 5
Build Alternative 2 Center Alignment	Low cost 3	Highest Cost 2	High Cost 3	Low Cost 3	Medium Cost 3	Minor 3	None 5	Community Focal Points unaffected. Minor right of way acquisition. Limited visual effects. 3	Reduced congestion will improve access to employment centers, Tri-Rail and Amtrak services. 5	Reduced congestion improves regional connectivity, transit, and freight operations. 5

Comparative Alternative Evaluation – SW 10 Street																				
LEGEND: Substantial Improvement or Best Alternative = 5 points Major Improvement or Good Alternative= 4 points Mode rate Improvement or Moderate Alternative = 3 points Minor Improvement or Inferior Alternative = 2 points Negative Effect or Worst Alternative= 1 point																				
EVALUATION CRITERIA	CULTURAL ENVIRONMENT						NATURAL ENVIRONMENT				PHYSICAL ENVIRONMENT									
	Section 4(f)		Historic Sites and Districts		Recreational Areas		Wetlands/Surface Waters		Protected Species and Habitat		Contamination		Noise Receptors		Water Quality and Quantity		Air Quality		Utility Impacts	
No-Action Alternative	No use	5	No impacts	5	No use.	5	No impacts.	5	No impacts.	5	No impacts.	5	No increase in capacity and therefore no noise abatement considerations.	2	No improvement.	1	No realized benefits due to congestion.	1	No impacts.	5
TSM&O	No use	5	No impacts	5	No use.	5	No impacts.	5	No impacts.	5	No impacts.	5	No increase in capacity and therefore no noise abatement considerations.	2	Existing system has minimal treatment. Minimal improvement – confined to intersections	2	Improved benefits due to congestion.	2	No impacts.	5
Build Alternative 2 North Alignment	No use	5	No impacts	5	No use.	5	No impacts to wetlands. Less than 2 acres of impact to surface water/drainage features which will be mitigated with construction of new drainage system.	3	Not likely to adversely affect 4 federally listed wildlife species, and no effect to 8 federally listed wildlife species and 4 federally listed plant species	3	Three medium risk concerns identified, two low risk concerns, three no risk concerns. Concerns will be addressed during design.	3	Traffic noise impacts expected. Noise barriers being evaluated for feasibility and reasonableness.	4	Existing system has minimal treatment. The new drainage system proposed will meet or exceed water quality and quantity criteria.	5	Slight benefit due to increased mobility.	4	Minor Utility Impacts	3
Build Alternative 2 Center Alignment	No use	5	No impacts	5	No use.	5	No impacts to wetlands. Less than 2 acres of impact to surface water/drainage features which will be mitigated with construction of new drainage system.	3	Not likely to adversely affect 4 federally listed wildlife species, and no effect to 8 federally listed wildlife species and 4 federally listed plant species	3	Three medium risk concerns identified, two low risk concerns, three no risk concerns. Concerns will be addressed during design.	3	Traffic noise impacts expected. Noise barriers being evaluated for feasibility and reasonableness.	4	Existing system has minimal treatment. The new drainage system proposed will meet or exceed water quality and quantity criteria.	5	Slight benefit due to increased mobility.	4	Minimal utility Impacts.	4

Comparative Alternative Evaluation – SW 10 Street											
LEGEND: Substantial Improvement or Best Alternative = 5 points Major Improvement or Good Alternative = 4 points Moderate Improvement or Moderate Alternative = 3 points Minor Improvement or Inferior Alternative = 2 points Negative Effect or Worst Alternative = 1 point											
EVALUATION CRITERIA	TRAFFIC OPERATIONS AND SAFETY										RANKING
	Bicycles and Pedestrians	Local Throughput (Vehicle Trips)	Connector Lanes Throughput (Vehicle Trips)	Travel Time	Safety	Emergency Evacuation Response	Travel Time Reliability				
No-Action Alternative	1	1	1	1	1	1	1	1	1	1	89
TSM&O	1	1	1	1	1	1	1	1	1	1	94
Build Alternative 2 North Alignment	5	5	5	5	5	5	5	5	5	5	112
Build Alternative 2 Center Alignment	5	4	5	4	4	4	4	4	4	4	102

Table 5-3 Comparative Alternative Evaluation- Hillsboro Blvd.

LEGEND: Substantial Improvement or Best Alternative = 5 points Major Improvement or Good Alternative = 4 points Moderate Improvement or Moderate Alternative = 3 points Minor Improvement or Inferior Alternative = 2 points Negative Effect or Worst Alternative = 1 point

EVALUATION CRITERIA	PROJECT COST										SOCIAL AND ECONOMIC ENVIRONMENT									
	Design Phase		Right of Way Acquisition		Construction		Construction Engineering and Inspection (CEI)		Utility Relocation Cost		Right of Way Acquisition		Number of Relocations (Commercial, Residential and Government owned)		Social and Neighborhood Effects (includes aesthetics)		Economic and Employment Effects		Mobility	
No-Action Alternative	No cost	5	No cost	5	No cost	5	No cost	5	No cost	5	None	5	None	5	No effects	5	Increased congestion will impact access to businesses and employment centers.	1	Increased congestion.	1
Build Alternative 1 – Depressed Section	High cost	1	Moderate cost	3	Very high cost	1	Very high cost	1	Very high cost	1	Moderate	3	None	5	Limited visual effects. Major accessibility impacts for residents.	1	Reduced congestion will improve access to employment centers, Tri-Rail and Amtrak services.	3	Reduced congestion improves regional connectivity, transit, and freight operations.	3
Build Alternative 2 – Elevated Section	Moderate cost	3	High cost	1	High cost	2	High cost	2	Moderate cost	3	High	1	None	5	Limited visual effects.	3	Reduced congestion will improve access to employment centers, Tri-Rail and Amtrak services.	3	Reduced congestion improves regional connectivity, transit, and freight operations.	3



Comparative Alternative Evaluation- Hillsboro Blvd.																				
LEGEND: Substantial Improvement or Best Alternative = 5 points Major Improvement or Good Alternative= 4 points Moderate Improvement or Moderate Alternative = 3 points Minor Improvement or Inferior Alternative = 2 points Negative Effect or Worst Alternative = 1 point																				
EVALUATION CRITERIA	CULTURAL ENVIRONMENT						NATURAL ENVIRONMENT				PHYSICAL ENVIRONMENT									
	Section 4(f)		Historic Sites and Districts		Recreational Areas		Wetlands/Surface Waters		Protected Species and Habitat		Contamination		Noise Receptors		Water Quality and Quantity		Air Quality		Utility Impacts	
No-Action Alternative	No use.	5	No impacts.	5	No use.	5	No impacts.	5	No impacts.	5	No impacts.	5	No increase in capacity and therefore no noise abatement considerations.	3	No impacts to groundwater basins. No water quality improvements.	3	No realized benefits due to congestion.	1	No impacts.	5
Build Alternative 1 – Depressed Section	No use.	5	Limited coordination needed for visual impacts.	3	No use.	5	Minor impacts.	3	No to low impacts	3	Low to moderate contamination concerns along corridor.	2	Depressed traffic therefore, less traffic noise impacts.	4	Major impacts to groundwater basins and drainage structures. The new drainage system will meet or exceed water quality and quantity criteria.	1	Improved benefits due to reduced congestion.	3	Major impacts.	1
Build Alternative 2 – Elevated Section	No use.	5	Limited coordination needed for visual impacts.	3	No use.	5	Minor impacts.	3	No to low impacts	3	Low to moderate contamination concerns along corridor.	2	Traffic noise impacts expected. Noise barriers to be evaluated for feasibility and reasonableness.	2	Minor impacts to drainage structures. The new drainage system will meet or exceed water quality and quantity criteria.	2	Improved benefits due to reduced congestion.	3	Moderate utility impacts.	2

Comparative Alternative Evaluation- Hillsboro Blvd.														
LEGEND: Substantial Improvement or Best Alternative = 5 points Major Improvement or Good Alternative = 4 points Moderate Improvement or Moderate Alternative = 3 points Minor Improvement or Inferior Alternative = 2 points Negative Effect or Worst Alternative = 1 point														
EVALUATION CRITERIA	TRAFFIC OPERATIONS AND SAFETY										RANKING			
	Bicycles and Pedestrians		Local Throughput (Vehicle Trips)		Driveway Access		Safety		Emergency Evacuation Response				Travel Time Reliability	
No-Action Alternative	No improvements.	3	Lowest throughput.	1	No impacts.	5	Increased congestion would most likely increase number of crashes.	1	Will get worse with congestion.	1	No improvements	1	1	93
Build Alternative 1 – Depressed Section	Reduces accessibility for pedestrians and bicycles.	1	Improved throughput	3	Major access impacts.	1	Safety improves with reduced congestion.	3	Improved accessibility and travel times would result in improved emergency responses.	3	Improve travel time reliability.	3	3	66
Build Alternative 2 – Elevated Section	Improves connectivity. Adds bicycle lanes and ADA ramps.	5	Improved throughput	3	Moderate access impacts.	3	Safety improves with reduced congestion.	3	Improved accessibility and travel times would result in improved emergency responses.	3	Improve travel time reliability.	3	2	76

5.5 Alternative Analysis

5.5.1 I-95

Alternative 2 is the preferred alternative for I-95. Alternative 2 proposes to add one tolled express lane in each direction in the median with NB braided ramps at the SW 10 Street interchange and SB braided ramps at the Hillsboro Boulevard interchange. The braided ramps not only reduce the number of merge and diverge points along I-95 but also provide for longer off-ramp storage lengths. Freeway analysis projects significant improvements over the No-Action conditions in the merge, diverge and mainline operations in both directions. The System Interchange Modification report prepared for the project and included here by reference includes the traffic analysis for the I-95 interchange.

5.5.2 SW 10 Street

The north alignment was selected as the preferred alternative. The north alignment was further refined to improve operations and reduce right of way impacts. Refinements to the north alignment include:

- Connector lanes along SW 10 Street were shifted slightly to the north to allow shifting the EB to SB direct connect ramp to avoid right of way impacts at the southwest corner of I-95 and SW 10 Street.
- The WB ingress ramp was placed on the inside of the WB connector lanes to reduce weaving and improve operations.
- The WB direct connect ramps were realigned/braided. To minimize weaving and improve operations the SB to WB ramp connection was placed on the inside lane of the connector lanes along SW 10 Street. The NB to WB direct connect ramp showing lower traffic volumes was placed on the outside lane of the connector lanes along SW 10 Street.
- The roundabout located at the intersection of SW 12 Avenue and East/West Newport Center Drive south of SW 10 Street was modified from a double lane roundabout to a single lane roundabout with separate right turn by-pass lanes for the heavier right turn movements. This change minimized right of way impacts.
- The right turn directional islands along Newport Center Drive were redesigned to better align the drivers with SW 10 Street in a directional right turn movement and eliminate the through movement across the intersection.

- The SW 10 Street local lanes were slightly realigned to accommodate more cost feasible placement of piers in medians for the connector lanes and direct connect ramp structures.
- The WB to NB ingress ramp was realigned and the curve radius reduced to minimize right of way impacts, eliminate a bridge over the existing drainage pond, and increase the merge distance along the I-95 NB CD road.
- Adjustments were made to the SB ingress ramp from EB SW 10 Street local lanes to SB I-95 that extended the merge further to the north thereby eliminating a bridge structure over the existing drainage pond along the west side of I-95.

5.5.3 Hillsboro Boulevard

Alternatives 1 and 2 were both determined non-viable due to construction impacts to the SFRC line and access impacts to adjacent properties. Proposed improvements at Hillsboro Boulevard are limited to the ramp terminals at the I-95 interchange.

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6 Public Involvement

A Project Involvement Plan (PIP) was developed for the project and is included here by reference. The PIP documents the appropriate level of public involvement for this project in compliance with the Florida Department of Transportation's (FDOT) *Project Development and Environment (PD&E) Manual, Part 1, Chapter 11, and Part 2, Chapter 9*; the FDOT *Public Involvement Handbook*; *Section 339.155, Florida Statutes*; *Executive Orders 11990 and 11988*; *Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA)*; and *23 Code of Federal Regulations (CFR) 771*. The results of the PIP will be supportive of the NEPA process and local needs.

The objectives of the PIP are to ensure that the concerns and issues of those living and working within the study area, and those near the corridor who may be affected by the project, are identified; that stakeholders are given opportunities to review and comment on the findings of the alternative analysis; and that stakeholder concerns are addressed in the analysis process. The PIP provides an outline for:

- Early and continuous involvement of stakeholders;
- Reasonable availability of technical and other project information;
- Collaborative input on alternative transportation improvements for the study area and the criteria against which they will be measured and evaluated; and,
- Open access to the decision-making process

A project website was developed for the project. The project website was updated regularly and included the project information as well as a summary of all public meetings and presentations.

7 Preferred Alternative

7.1 I-95

The preferred alternative for the I-95 corridor is Build Alternative 2. Build Alternative 2 proposes to add one tolled express lane in each direction in the median along I-95 while maintaining the existing access points south of the SW 10 Street interchange and north of the Hillsboro Boulevard interchange. The existing number of general-purpose lanes throughout the I-95 corridor will be maintained and the express lanes will be separated from the general-purpose lanes with tubular markers and a 4-ft wide buffer. A CD road and braided ramps are proposed on the east side of I-95 for the NB traffic and a separate CD road and braided ramps on the west side of I-95 is proposed for the SB traffic.

The proposed direct connect ramps will connect I-95 express lanes to the SW 10 Street connector lanes. In addition, outside widening of the I-95 NB mainline is proposed to provide an auxiliary lane for traffic exiting to Hillsboro Boulevard.

For WB traffic on SW 10 Street a new NB ramp is introduced to eliminate the left turn movement at the current intersection. For EB traffic, the existing NB ingress loop ramp is expanded to two lanes for added capacity. Both ingress ramps intersect and braid over the NB egress ramp that is heading to Hillsboro Boulevard.

For NB traffic, the I-95 egress ramp that serves vehicles exiting to Hillsboro Boulevard starts north of the SW 10 Street overpass bridge and goes under the braided ingress ramp for the NB traffic coming from SW 10 Street. Traffic from the NB ingress ramps from SW 10 Street braid over the egress ramp and serve the SW 10 Street EB and WB traffic heading NB on I-95. This NB ingress begins the I-95 auxiliary lane just south of the Hillsboro Boulevard overpass bridge and continues north connecting with the auxiliary lane being built by the I-95 Express Phase 3B-1 project to the north of Hillsboro Boulevard.

A similar braided CD road configuration is also proposed on the west side of I-95 for the SB traffic on I-95 and coming from EB/WB Hillsboro Boulevard ingress ramps. At Hillsboro Boulevard traffic from both the SB ingress ramps merge and braid under the egress ramp from SB I-95 that is heading to SW 10 Street.

The WB traffic on Hillsboro Boulevard heading SB will utilize a realigned loop ingress ramp that has a new bridge over Hillsboro Boulevard separate from the existing bridge. The new bridge provides the desired 16'6" vertical clearance over Hillsboro

Boulevard and reduces traffic impacts during construction. For EB traffic from Hillsboro Boulevard heading SB the existing ramp is maintained with minor alignment adjustments to merge with the WB traffic from the loop ramp to braid under the SB egress ramp that is heading to SW 10 Street.

7.2 SW 10 Street

The preferred alternative for SW 10 Street is the modified north alignment. The modified north alignment provides three 11-ft lanes with 7-ft buffered bike lanes and 6-ft sidewalks in each direction for the SW 10 Street local traffic. However, no sidewalk is provided along the north side from East Newport Center Drive/SW 12 Avenue intersection to Military Trail. Two 12-ft connector lanes are provided in each direction with direct connect ramps to/from the I-95 express lanes providing regional connectivity to the express lanes network. In the EB direction along the connector lanes an egress ramp departs from the connector lanes west of the Military Trail intersection braiding over the EB SW 10 Street local lanes connecting along the outside. The egress ramp allows access to the Newport Center and to ramps to NB and SB I-95.

On SW 10 Street at the NB and SB legs of the East Newport Center Drive intersection triple right turn lanes and no left turn or through lanes are provided. In addition, dual left turn lanes and exclusive right turn lanes are provided for the EB and WB movements at this intersection. This configuration allows improved operations and mitigates congestion for the intersection, the interchange ramp intersections and along SW 10 Street.

A roundabout is provided at the intersection of West and East Newport Center Drive to improve left turn movements at the Newport Center. A loop ramp is provided along SW 12 Avenue that connects directly to the SW 10 Street connector lanes to improve operations of the East Newport Center Drive intersection with SW 10 Street by allowing WB traffic making a right turn to bypass the signal.

Expand the NB exit ramp terminal to accommodate triple left and triple right turn lanes. The intersection at Natura Boulevard is expanded to accommodate double left and single right turn lanes on all intersection approaches.

7.3 Hillsboro Boulevard

Alternatives 1 and 2 along Hillsboro Boulevard proposing a depressed profile under the SFRC or a grade separation over the railroad tracks were considered non-viable

due to significant impacts to property access, right of way, utilities, and major temporary traffic control impacts for both the railroad tracks and Hillsboro Boulevard. Therefore, the proposed improvements along Hillsboro Boulevard are limited to the ramp terminals. The improvements include an additional left turn movement for the NB egress ramp terminal while maintaining the dual right turn movement which resulted in the elimination of the NB off-ramp loop to WB Hillsboro Boulevard. In addition, the NB on-ramp from WB Hillsboro Blvd was realigned to be within the proximity of I-95. Moreover, a new configuration was proposed for the WB to NB on-ramp and the WB to SB on-ramp to minimize the weaving maneuvers within the interchange area. Additionally, a new bridge is proposed to be constructed on the west side of the I-95 mainline, due to the existing vertical clearance above Hillsboro Boulevard.

7.4 Typical Section

7.4.1 I-95

The preferred alternative mainline I-95 typical section will consist of the following:

- Four 12-ft wide express lanes (two in each direction)
- Six 12-ft wide general-purpose lanes (three in each direction)
- Four-ft wide buffer with tubular markers separating the general-purpose lanes from the express lanes
- A 12-ft wide paved inside shoulder
- A 12-ft wide outside shoulder (10-ft paved and 2-ft unpaved)
- A 2.5-ft wide center barrier wall

The typical section for the CD roads serving vehicles from the SW 10 Street and Hillsboro Boulevard arterials include:

- Two 12-ft wide travel lanes
- Two 6-ft paved shoulders

The typical section for all the direct connect ramps between I-95 and SW 10 Street connector lanes consist of the following:

- One 15-ft travel lane
- One inside 8-ft shoulder
- One outside 4-ft shoulder

The preferred alternative typical sections for I-95, the CD roads, and direct connect ramps are shown in **Figure 7-1, 7-2 and 7-3**.

7.4.2 SW 10 Street

The preferred alternative typical section for SW 10 Street includes:

- Three 11-ft wide WB through lanes from Natura Boulevard intersection to Military Trail
- Two 11-ft wide EB through lanes from Military Trail that add one additional 11-ft wide through lane with the connection of the EB egress ramp from the connector lanes.
- Raised median 40 to 60-ft wide
- A 7-ft buffered bike lane (in each direction)
- A 6-ft sidewalk along the north side from East Newport Center Drive to east of Natura Boulevard and along south side from Military Trail to east of SW Natura/FAU Research Park Boulevard
- Two 12-ft elevated connector lanes, with 12-ft inside and 12-ft outside shoulders in each direction connecting to the direct connect ramps from I-95.

7.5 Horizontal and Vertical Geometry

7.5.1 Horizontal Geometry

7.5.1.1 Interstate 95

The I-95 mainline contains one horizontal curve within the study limits. The curve occurs at the Hillsboro Boulevard interchange. The curve radius (7639 feet) meets design criteria for a 70 mph with 3% superelevation rate of cross slope.

The direct connect ramps at SW 10 Street are designed to meet criteria for a 50-mph design speed. The following are the design elements for each direct connect ramp.

Direct Connect Ramp	Radius	Length	Design Speed
NB I-95 to WB SW 10 Street	720.00	1,321.44	50
EB SW 10 Street to SB I-95	716.00	1,371.63	50
EB SW 10 Street to NB I-95	746.50	915.13	50
SB I-95 to WB SW 10 Street	716.00	874.81	50

The design elements for the horizontal curves for the I-95 on/off-ramps (including braided ingress-egress ramps) within the study limits are shown in the table below.

Table 7-2 Design Elements for I-95 Ingress/Egress ramps			
Ramp	Radius	Length	Design Speed
SW 10 Street			
NB off-ramp (Curve 1)	573.00	560.18	50
NB off-ramp (Curve 2)	270.84	315.40	30
EB to NB LOOP on-ramp (Curve 1)	249.90	138.99	30
EB to NB LOOP on-ramp (Curve 2)	213.00	941.56	30
WB to NB on-ramp (Curve 1) Ramp from SW 10 WB lanes, RT	100.00	175.69	25
NB on-ramp (Curve 1)	12,024.00	527.42	50
NB on-ramp (Curve 2)	9,286.00	407.32	50
NB on-ramp (Curve 3)	36,088.00	838.62	50
NB on-ramp (Curve 4)	26,677.49	265.31	50
NB on-ramp (Curve 5)	26,677.49	614.44	50
SB off-ramp (Curve 1)	13,993.01	502.77	50
SB off-ramp (Curve 2)	60,940.00	470.00	50
SB off-ramp (Curve 3)	6,156.65	281.90	50
SB off-ramp (Curve 4)	18,859.08	616.65	50
EB to SB on-ramp (Curve 1)	301.67	346.94	30
EB to SB on-ramp (Curve 2)	654.08	432.74	50
WB to SB on-ramp (Curve 1)	478.00	460.74	50
WB to SB on-ramp (Curve 2)	235.00	446.27	50
WB to SB on-ramp (Curve 3)	235.00	446.27	50
WB to SB on-ramp (Curve 4)	7,515.61	420.14	50
WB to SB on-ramp (Curve 5)	3,349.00	511.45	50
WB to SB on-ramp (Curve 6)	13,974.47	378.67	50
WB to SB on-ramp (Curve 7)	6,878.00	424.55	50
WB to SB on-ramp (Curve 8)	6,878.00	792.41	50
Hillsboro Boulevard			
NB off-ramp (Curve 1)	5,139.20	701.31	50
NB off-ramp (Curve 2)	5,575.00	274.28	50
NB off-ramp (Curve 3)	1,447.00	735.87	30
NB off-ramp (Curve 4)	756.31	457.32	30
EB to NB on-ramp (Curve 1)	310.00	176.03	30
EB to NB on-ramp (Curve 2)	478.00	473.78	30
EB to NB on-ramp (Curve 3)	239.00	390.29	30
EB to NB on-ramp (Curve 4)	239.00	390.29	50
EB to NB on-ramp (Curve 5)	7,761.69	229.74	50
EB to NB on-ramp (Curve 6)	8,352.00	243.87	50
EB to NB on-ramp (Curve 7)	8,337.00	853.36	50
EB to NB on-ramp (Curve 8)	10,287.53	601.60	50
WB to NB on-ramp (Curve 1)	368.21	515.23	30
WB to NB on-ramp (Curve 2)	1,241.50	262.81	30
WB to NB on-ramp (Curve 3)	8,361.00	280.00	30
WB to NB on-ramp (Curve 4)	8,352.00	86.84	30
WB to NB on-ramp (Curve 5)	12,027.56	703.35	30

Table 7-2 Design Elements for I-95 Ingress/Egress ramps			
Ramp	Radius	Length	Design Speed
SB off-ramp	1,029.25	459.26	30
WB to SB on-ramp (Curve 1)	478.00	460.73	30
WB to NB on-ramp (Curve 2)	235.00	446.27	30
WB to NB on-ramp (Curve 3)	235.00	446.27	30
WB to NB on-ramp (Curve 4)	7,515.61	420.14	30
WB to NB on-ramp (Curve 5)	3,349.00	511.45	50

7.5.1.2 SW 10 Street

There are two proposed grade lines (PGL) along SW 10 Street local lanes within the study limits. All horizontal curves are designed for 35 mph. The following are the design elements for each horizontal curve along the general-purpose lanes.

Table 7-3 Design Elements for SW 10 Street (Local Lanes)					
Curve	Radius	Length	Curve	Radius	Length
PGL_EB (Curve 1)	4,377.00	333.49	PGL_WB (Curve 1)	5,627.10	450.12
PGL_EB (Curve 2)	4,443.00	338.52	PGL_WB (Curve 2)	3,464.00	672.24
PGL_EB (Curve 3)	3,415.00	270.75	PGL_WB (Curve 3)	3,349.00	265.51
PGL_EB (Curve 4)	5,597.31	442.17	PGL_WB (Curve 4)	3,349.00	264.56
PGL_EB (Curve 5)	3,383.69	242.76	PGL_WB (Curve 5)	12,797.00	372.85
PGL_EB (Curve 6)	8,331.38	355.41			

There are three PGL along SW 10 Street connector lanes within the study limits. There is one PGL in the EB direction and two PGLs in the WB direction. For the PGLs in the WB direction, one serves I-95 NB to WB SW 10 Street connector lane traffic. The other PGL serves I-95 SB to WB SW 10 Street connector lane traffic. The following are the design elements for each horizontal curve along the connector lanes.

Table 7-4 Design Elements for SW 10 St Connector Lanes			
Ramp Direction	Radius	Length	Design Speed
EB to NB			
Curve 1 to I-95 Ramp	746.50	915.13	50
Curve 2 Ramp	8,337.00	669.89	50
Curve 3	8,337.00	654.13	60
Curve 4	8,361.00	632.75	60
EB to SB			
Curve 1 Ramp	716.00	1371.63	50
SB to WB			
Curve 1 Ramp	716.00	875.33	50
Curve 2	6,166.56	832.89	60

Table 7-4 Design Elements for SW 10 St Connector Lanes			
Ramp Direction	Radius	Length	Design Speed
Curve 3	8,358.92	725.01	60
Curve 4	6,183.00	223.35	60
NB to WB			
Curve 1 Ramp	720.00	1298.36	50
Curve 2 Ramp	8,337.00	612.00	50
Curve 3 Ramp	6,171.00	450.42	50

Table 7-5 Design Elements for SW 10 St, Connector Ingress Ramps			
Ramp	Radius	Length	Design Speed
12 Ave Loop Ramp (Curve 1) to connector Lanes	150	59.69	25
12 Ave Loop Ramp (Curve 2) to connector Lanes	86.00	202.34	25
12 Ave Loop Ramp (Curve 3) to connector Lanes	150.00	59.69	25

Table 7-6 Design Elements for SW 10 St. Connector Egress Ramps			
Ramp	Radius	Length	Design Speed
EB connector lanes to EB GP off-ramp (Curve 1)	3,200.00	406.61	50
EB connector lanes to EB GP off-ramp (Curve 2)	2,880.00	376.75	30

7.5.2 Vertical Geometry

7.5.2.1 I-95

The I-95 mainline contains one vertical crest curve with two sag vertical curves on either side of the crest at the overpass of Hillsboro Boulevard. The sag vertical curves have K-Values of 262 & 274 respectively and meet FDM (Table 211.9.2) design criteria K-Value for 65 mph for Interstate sag curves (K-Value = 181). The existing crest vertical curve for I-95 mainline over Hillsboro Boulevard does not meet the new construction (K-Value=401) criteria but does meet the resurfacing criteria (K-Value=247) with a K-Value of 262 and length of curve of 1,169-ft (Minimum Length of vertical curve = 900-ft, FDM Table 211.7.1). A design variation will not be needed for this crest vertical curve since the existing I-95 bridges are being maintained and this area of I-95 only requires widening and resurfacing to maintain the profile of I-95 avoiding reconstruction. To meet the new construction criteria for the crest vertical curve I-95 would need to be raised by reconstruction and the bridges over I-95 replaced.

7.5.2.1.1 I-95 Express Lane Direct Connect Ramps

The NB to WB direct connect ramp is the highest-level ramp over all the other direct connect ramps. This ramp is designed with two sag vertical curves on either side of the crest vertical curve. The two vertical curves beyond the ramp terminal (gore) are designed using 50-mph design speed criteria for ramps with the crest vertical curve having 5% grades, K-Value of 140 and a 1,400-ft length of vertical curve. The sag curve coming from I-95 is 634-ft long with a K-Value of 96 at a 65-mph design speed. This is designed using the freeway/expressway criteria based upon note 4, FDM Table 211.9.2. The west end sag curve leading to the merge with the other WB connector lane has grades of 5% & -0.12%, sag K-Value of 96 and length of curve of 468-ft using a 50-mph design speed for sag curve on a ramp.

The SB to WB direct connect ramp is designed with three sag vertical curves and two large crest vertical curves. The three vertical curves beyond the ramp terminal (gore) are designed using 50-mph design speed criteria for ramps with the first vertical curve (sag curve) having -2% % 3% grades, K-Value of 136 and a 800-ft length of vertical curve, and the second curve (crest curve) having 3% & -5% grades, K-Value of 137 and a 1100-ft length of vertical curve, and third vertical curve (sag curve) having -5% % -0.06% grades, K-Value of 96 and a 475-ft length of vertical curve. The second crest vertical curve before the ramp terminal has +3% & -2% grades, K-Value of 151 and a 1,225-ft length of vertical curve. The sag curve west of Military Trail is 800-ft long with a K-Value of 136 at a 60-mph design speed.

The EB to NB direct connect ramp is designed with one sag vertical curve and two large crest vertical curves.

The EB to SB direct connect ramp is designed with one sag vertical curve and one crest vertical curve.

7.5.2.2 SW 10 Street

The SW 10 Street corridor contains two vertical crest curves with three sag vertical curves within the study limits. The sag vertical curve at Military Trail intersection has a length of curve of 220-ft, with a K-Value of 37 and grades of 0.05% and 6.00%. The crest curve that occur over the SFRC railroad crossing and over I-95 mainline travel lanes has a length of curve of 800-ft, with a K-Value of 74 and grades of 6.0% and -4.9%. The crest curves meet design criteria for a 35-mph urban arterial (FDM Tables 210.10.3, 210.10.4). The sag vertical curve at Newport Center Drive intersection has a length of curve of 1,100-ft, with a K-Value of 117 and grades of -

4.85% and 4.5%. The crest vertical curve over the I-95 has a length of curve of 800-ft, with a K-Value of 84 and grades of 4.5% and -5.0%. The sag vertical curve east of I-95 has a length of curve of 600-ft, with a K-Value of 123 and grades of 5% and 0.13%. From FDM for an urban low speed arterial roadway with a 35 mph design speed, the minimum vertical curve length is 105, minimum K-Value is 47 crest vertical curve and 49 for a sag with a maximum grade of 7%.

7.6 Access Management

No changes to the existing Access Management classification are needed for the proposed improvements for I-95, SW 10 Street, and Hillsboro Boulevard. The Access Management classification will remain as Class 1.2, Freeway in an existing urbanized area with limited access for the I-95 corridor. SW 10 Street will remain as Access Management Class 3 and Hillsboro Boulevard will remain as Class 5.

7.7 Preliminary Drainage

A Pond Siting report and Location Hydraulics report were prepared for this project and are included here by reference. Except for SW 10 Street west of the railroad tracks to west of Military Trail, the project will discharge to the BCWCD#2 C-1 canal. Along SW 10 Street, Hillsboro Boulevard, and portions of I-95, the discharge will be through a closed storm drain system. The remaining portions of I-95 will sheet flow and discharge directly into the BCWCD#2 C-1 canal. Proposed wet and dry storm water management facilities will provide the required attenuation and water quality treatment per the SFWMD (2016) and FDOT (2017) standards. Moreover, additional storm water ponds are proposed in Basin 2, Basin 25, Basin 26, and Basin 27 within the limits of the project. The location and size of all cross drains will be determined in the design phase.

7.8 Maintenance of Traffic

The recommended alternative traffic control plan proposes to keep all travel lanes open during construction. Lane closures will be required during off-peak hours to modify or change construction phasing. Advanced notice of any lane closure should be given to minimize disruption to roadway users. Figures 7-1 to Figure 7-6 show the construction phases typical sections for I-95 and SW 10 Street.

7.8.1 I-95 Mainline (under SW 10 Street)

Phase I – Shift SB traffic to the outside.

The intent of Phase 1 is to provide a work zone on I-95 for foundation construction of the SW 10 overpass bridge. See Figure 7-1.

- Remove SB Connector lane designation. The connector lanes will become a general-purpose lane.
- Perform temporary widening to the outside in the SB direction.
- Reduce the SB inside shoulder width to 2-ft and the outside shoulder width to 10-ft.
- Reduce the NB inside shoulder width to 2-ft and the outside shoulder width to 10-ft.
- Shift SB traffic to temporary widened roadway.
- NB traffic to remain in existing configuration.
- Place temporary concrete barrier as need to protect work zone and construct foundations.

Phase 2 – Shift NB and SB traffic to the east.

The intent of Phase 2 is to shift NB and SB traffic under the NB span of overpass bridge in order to construct the direct connect foundations in the I-95 median. See Figure 7-2.

- Perform temporary widening to the outside in the NB direction and median of I-95.
- Reduce the SB inside shoulder width to 2-ft and the outside shoulder width to 2-ft at median foundations.
- Reduce the NB inside shoulder width to 2-ft and the outside shoulder width to 6-ft.
- Shift NB and SB traffic onto temporary widening and
- Place temporary concrete barrier as need to protect work zone.

Phase 3 – Shift SB traffic to final condition.

The intent of Phase 3 is to shift SB traffic to the final condition. See Figure 7-3.

- Shift SB traffic under the west side of SW 10 Street overpass.
- Under nighttime lane closures overbuild and reconstruct the NB pavement under SW 10 Street overpass.
- Place temporary concrete barrier as need to protect work zone.

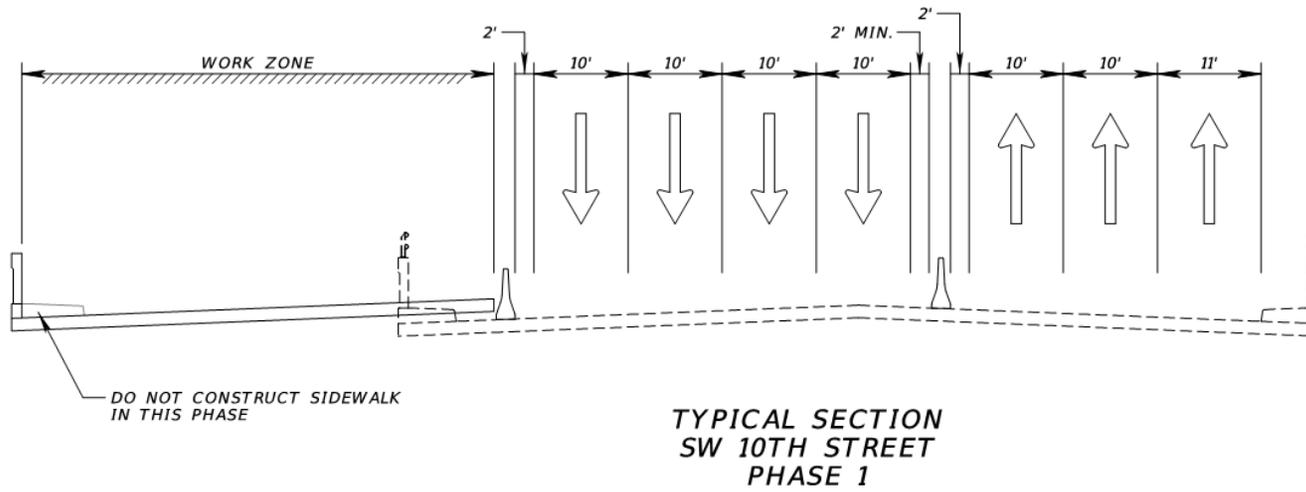


Figure 7-1 TCP Typical Section SW 10 St – PHASE 1

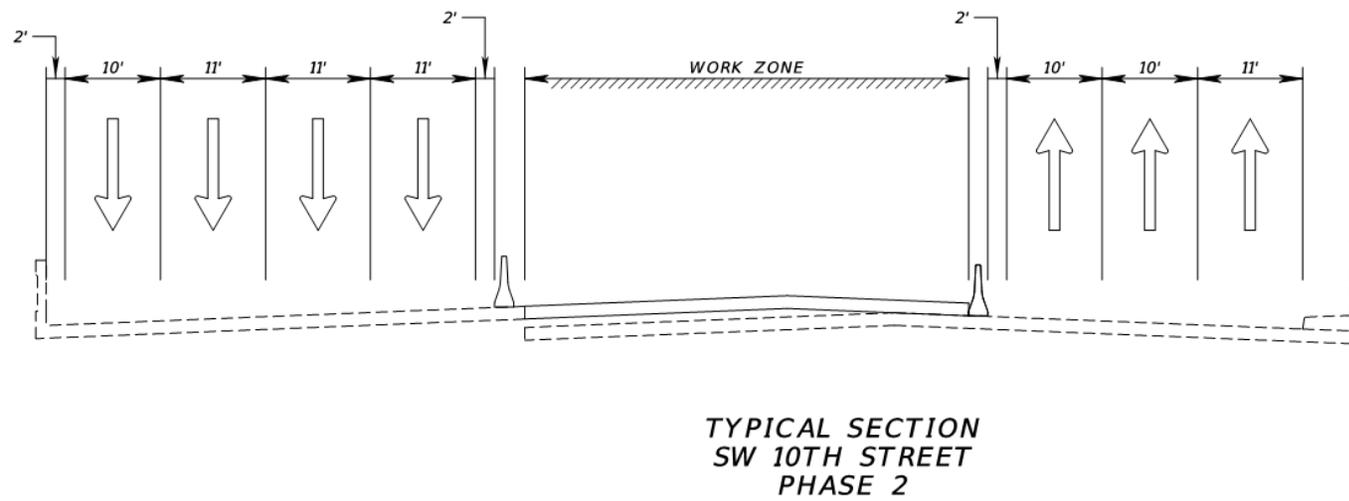


Figure 7-2 TCP Typical Section SW 10 St – PHASE 2

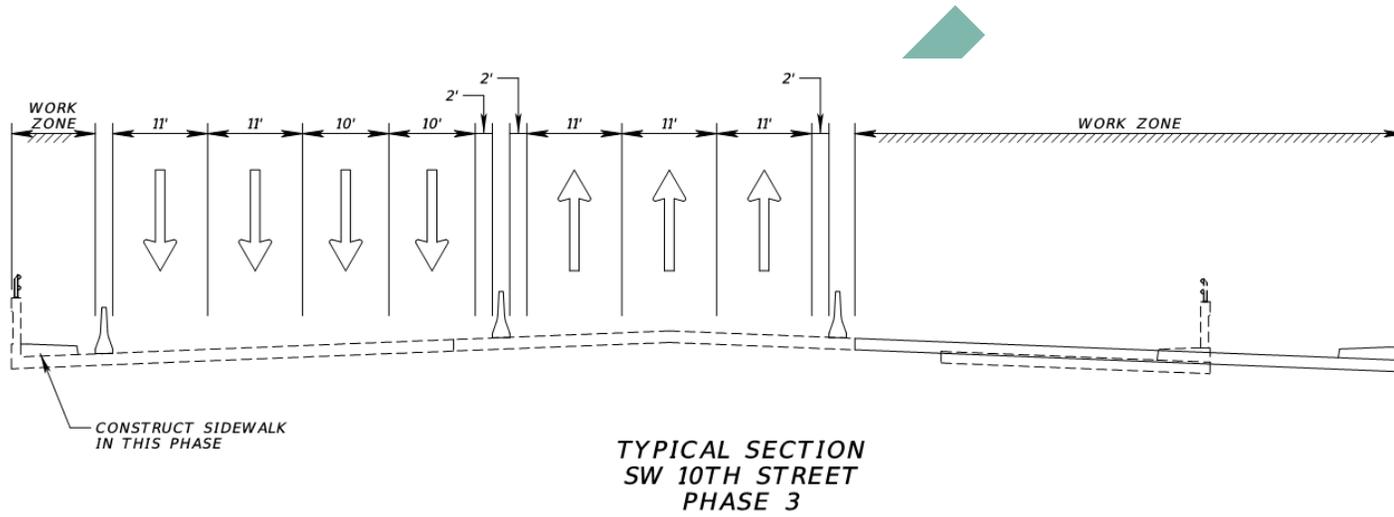


Figure 7-3 TCP Typical Section SW 10 St – PHASE 3

7.8.2 SW 10 Street (over I-95 Mainline)

Phase I – Shift traffic to the southside of existing bridge.

The intent of Phase 1 is to provide an offset for constructing the foundations and portion of the proposed SW 10 Street overpass bridge. See figure 7-4

- Remove existing traffic separator on the bridge of SW 10 Street.
- Shift lanes to the south and reduce lane width to 10-ft.
- Construct north section of proposed bridge.

Phase 2 – Shift WB traffic to the portion of the constructed bridge in Phase 1.

The intent of Phase 2 is to continue construction of the proposed SW 10 overpass. See figure 7-5.

- Shift WB traffic to portion of the proposed bridge constructed in Phase 1.
- Keep EB traffic in Phase 1 location.
- Construct center section of proposed bridge.

Phase 3 – Shift EB traffic to the portion of the constructed bridge in Phase 2.

The intent of Phase 3 is to finalize construction of the proposed SW 10 Street overpass. See figure 7-6.

- Shift EB traffic to portion of the proposed bridge constructed in Phase 2.
- Keep WB traffic in Phase 2 location.
- Construct south section of proposed bridge.

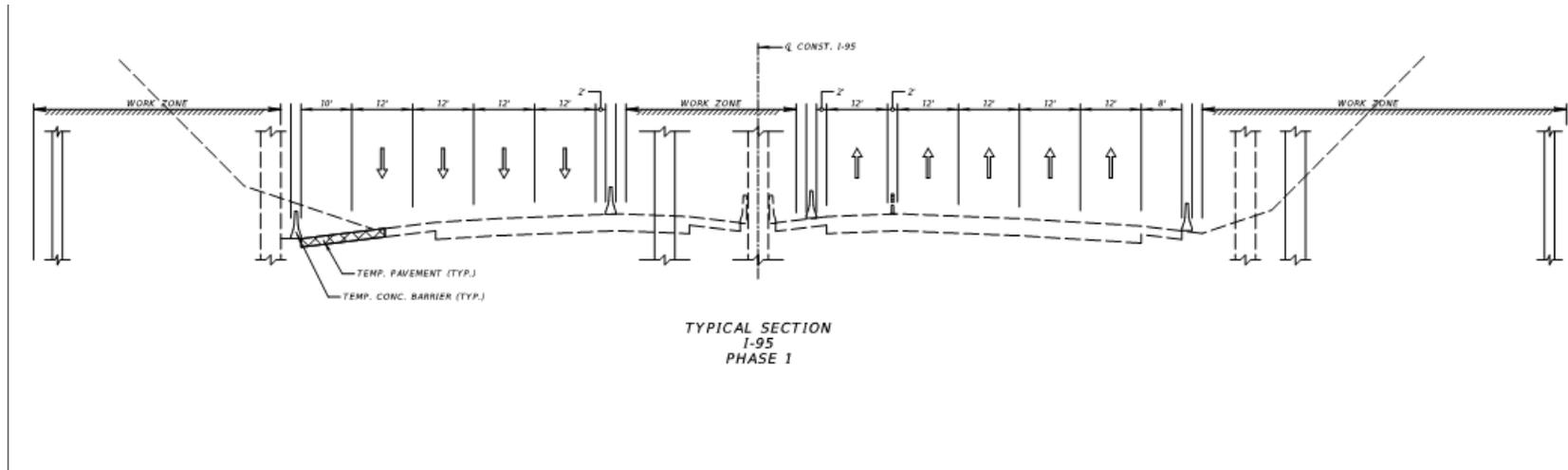


Figure 7-4 TCP Typical Section I-95 – PHASE 1

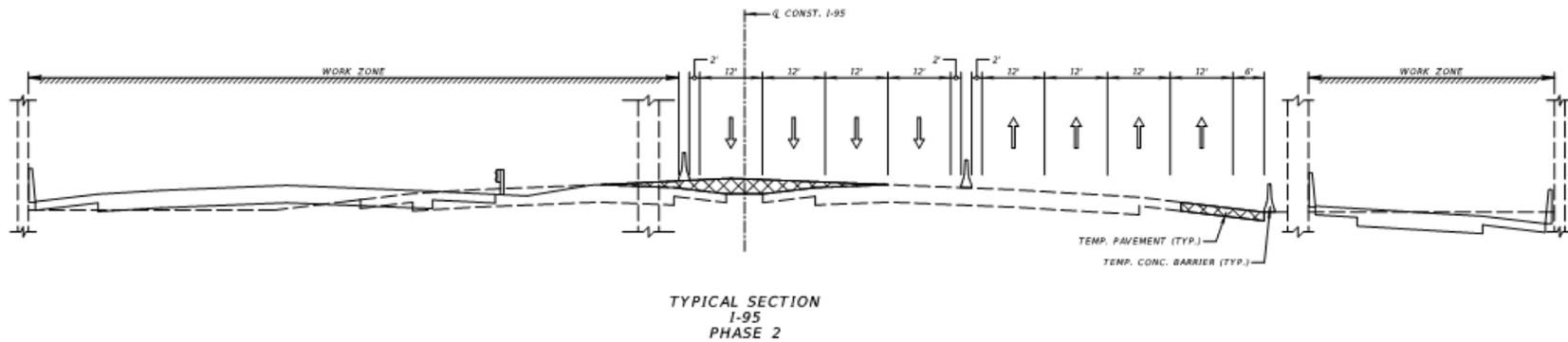


Figure 7-5 TCP Typical Section I-95 – PHASE 2

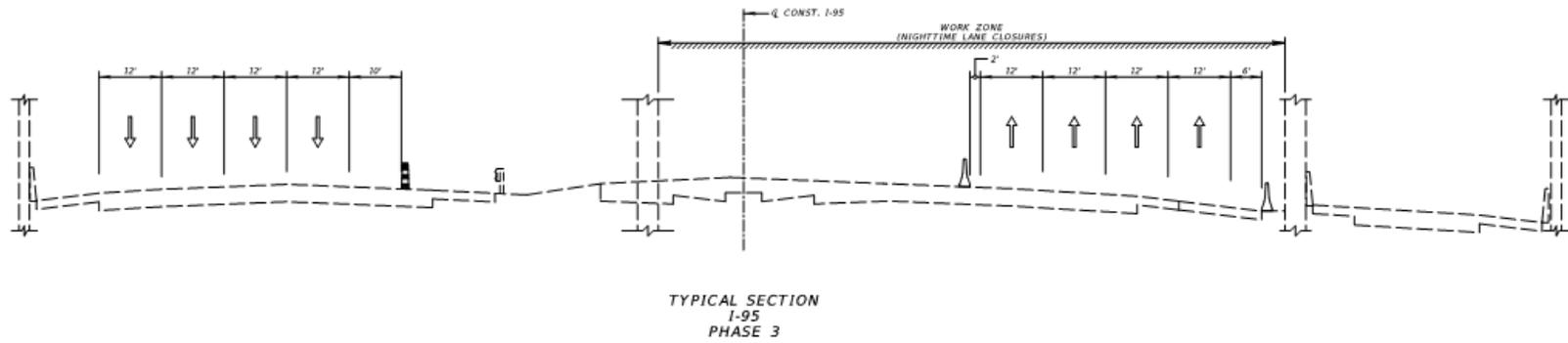


Figure 7-6 TCP Typical Section I-95 – PHASE 3

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7.9 Variations and Exceptions

7.9.1 I-95

The anticipated design variations for I-95 are as follows:

Horizontal Curve Length (Ramps)

Horizontal Curve Radius (Ramps)

Border Width

Stopping Sight Distance (Express lane Tubular Markers)

Outside shoulder width for I-95 bridge over Hillsboro Boulevard.

Outside shoulder width of SB connector to SW 10 Street

Inside Shoulder Width for direct connect ramps

7.9.2 SW 10 Street

The anticipated design variations for SW 10 Street are as follows:

Horizontal Curve Length

Horizontal Curve Radius

7.9.3 Hillsboro Boulevard

One design variation is anticipated for Hillsboro Boulevard for:

Vertical Clearance at I-95 bridge over Hillsboro Blvd.

7.10 Utilities

7.10.1 I-95

Five utility owners were identified to be impacted by the proposed improvements.

Table 7-7 shows the potential utility impacts.

Table 7-7 Utility Impacts along I-95	
Utility Owner	Impacts
AT&T Distribution	Underground Copper and Fiber Cable may be present on under proposed SB I-95 On Ramp at SW 10 Street
Broward County Water and Wastewater Services	Water main crosses I-95 around 2,200 ft south of bridge at SW 10 Street over I-95 (BL I-95 - Sta. 1337+00)
City of Deerfield Beach	Water and Sewer main crosses I-95 about 2,200 ft south of bridge over Hillsboro Boulevard (BL I-95 - Station 1388+60)
FDOT ITS	West side of I-95: Underground ITS fiber optics. <ul style="list-style-type: none"> • Crosses I-95 SB on-ramp from EB Hillsboro Boulevard. • Attached to the westside of the I-95 bridge over Hillsboro Boulevard. • Crosses I-95 SB on-ramp from WB Hillsboro Boulevard. • Crosses I-95 SB off-ramp to Hillsboro Boulevard.
FPL Distribution	<ul style="list-style-type: none"> • Buried Electric - Along eastside of I-95 off ramp to SW 10 Street • Overhead and Buried Electric - Along southside of SW 10 Street bridge over I-95. • Overhead and Buried Electric - Along northside of I-95 bridge over Hillsboro Boulevard. • Overhead Electric - Across I-95 about 400 ft south of Hillsboro Canal.

7.10.2 SW 10 Street

Five utility owners were identified to be impacted by the proposed improvements. **Table 7-8** shows the potential utility impacts.

Table 7-8 Utility Impacts along SW 10 Street	
Utility Owner	Impacts
AT&T Distribution	<ul style="list-style-type: none"> • Overhead Fiber Optic along northside of SW 10 Street along R/W between just west of Military Trail and Newport Center Drive. The same line appears to become buried and goes across SW 10 Street on the west side of Newport Center Drive. • Underground Duct along the northside of SW 10 Street (just along the edge of pavement) between Military Trail and just east of Natura Boulevard) • Buried Copper along southside of SW 10 Street along R/W (between Military Trail and SFRC Rail Road) • Various feeders
Florida Power and Light- Broward	<ul style="list-style-type: none"> • Transmission line along Military Trail and north side of SW 10 Street
Broward County Water and Wastewater Services	<ul style="list-style-type: none"> • Water main along the southside of S.W. 10 Street along R/W. Main crosses S.W. 10 Street just east of Military Trail. • Sewer main along Military trail (crosses S.W. 10 Street)

Table 7-8 Utility Impacts along SW 10 Street	
Utility Owner	Impacts
<p>City of Deerfield Beach</p>	<ul style="list-style-type: none"> • Water main along the northside of SW 10 Street along R/W between Military Trail and Natura Boulevard (includes, various laterals/feeders across SW 10 Street) • Water main along the southside of SW 10 Street along R/W west of Military Trail (includes, various laterals/feeders across S.W. 10 Street) • Water main along east and westside of Military Trail (northward from SW 10 Street) • Water main along East Newport Center Drive and West Newport Center Drive (including the intersection).
<p>FPL Distribution</p>	<ul style="list-style-type: none"> • Overhead Electric – Along the south side of SW 10 Street (along R/W) west of Military Trail (feeder goes North and South along west side of Military Trail). • Overhead Electric – Along the northside of SW 10 Street (along R/W) from west of Military Trail to East of Newport Center Drive). Feeders go South under S.W. 10 Street just east of bridge over SFRTA RR. • Overhead Electric – Along the southside of S.W. 10 Street (along R/W) east of Newport Center Drive to just west of Natura Boulevard). Feeders go across SW 10 Street just east of Newport Center Drive and just west of Natura Boulevard). • Various other feeders.

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7.10.3 Hillsboro Boulevard

Four utility owners were identified to be impacted by the proposed improvements. **Table 7-9** shows the potential utility impacts.

Table 7-9 Utility Impacts along Hillsboro Boulevard	
Utility Owner	Impacts
AT&T Distribution	<ul style="list-style-type: none"> On the Northside of Hillsboro Boulevard: Underground Duct crossing the SB On-Ramp from WB Hillsboro Boulevard and NB On-Ramp from WB Hillsboro Boulevard.
Crown Castle (Fibernet Direct)	<ul style="list-style-type: none"> Northside of Hillsboro Boulevard: Overhead fiber crossing Northside of the roadway.
FDOT ITS	<ul style="list-style-type: none"> Northside of Hillsboro Boulevard: Underground ITS crossing Northside of the roadway.
TECO Gas	<ul style="list-style-type: none"> On the Southside of Hillsboro Boulevard along R/W line.

7.11 Proposed Structures

There are six (6) existing bridges within the project limits that were evaluated in Section 2.6 above.

As part of this PD&E study, each of the existing bridges, which are impacted by proposed improvements, was further evaluated to determine if widening or replacement is required. Where feasible, the widening or retrofitting of existing bridges is recommended. All existing bridges except for I-95 NB and I-95 SB over Hillsboro Boulevard are determined to be replaced due to proposed roadway geometrics and alignments. The I-95 NB bridge over Hillsboro Boulevard needs to be widened and the I-95 SB overpass over Hillsboro Boulevard is to remain in place.

Within the limits of the PD&E study, sixteen (16) new bridges and one (1) bridge widening are proposed for the preferred alternative. The proposed bridges and bridge widening are summarized in Table 7-10 and their respective locations are depicted in Figures 7-7 and 7-8.

In addition, the required horizontal clearances for the proposed bridges are listed in Table 7-10 as well. The vertical clearances of the proposed bridges are specified in the following for each proposed bridge/bridge widening.

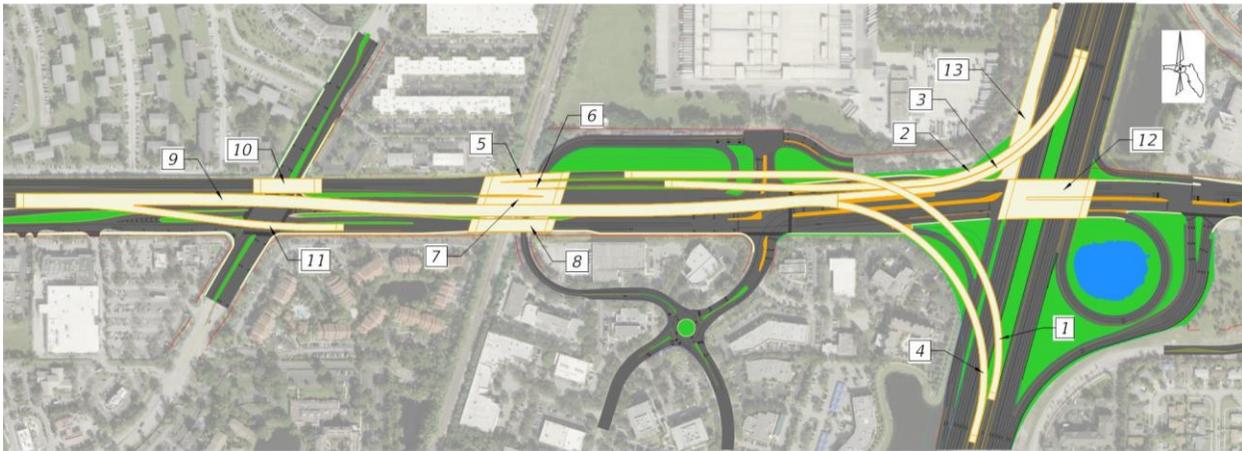


Figure 7-7 Proposed Bridge Locations (1 of 2)



Figure 7-8 Proposed Bridge Locations (2 of 2)

The proposed bridges are divided into the following categories:

- Flyovers of direct connect ramps between SW 10 Street and I-95 (4 new bridges)
- Elevated viaduct (1 new bridge)
- Interchanges/Grade separation (9 new bridges and 1 bridge widening)
- Braided ramp (2 new bridges)

7.11.1 Flyovers - Direct Connect Ramps Between SW 10 Street and I-95

7.11.1.1 Flyover - Direct Connect Ramp from I-95 NB to SW 10 Street WB (Bridge No. 1)

Bridge No.1 carries one (1) 15-foot connector lane from I-95 NB to SW 10 Street in the WB direction with an 8-foot inside shoulder and 4-foot outside shoulder. A 36" single slope traffic railing is at both sides of the bridge with an overall bridge width of 29'-8". Figure 7-9 below shows the bridge typical section.

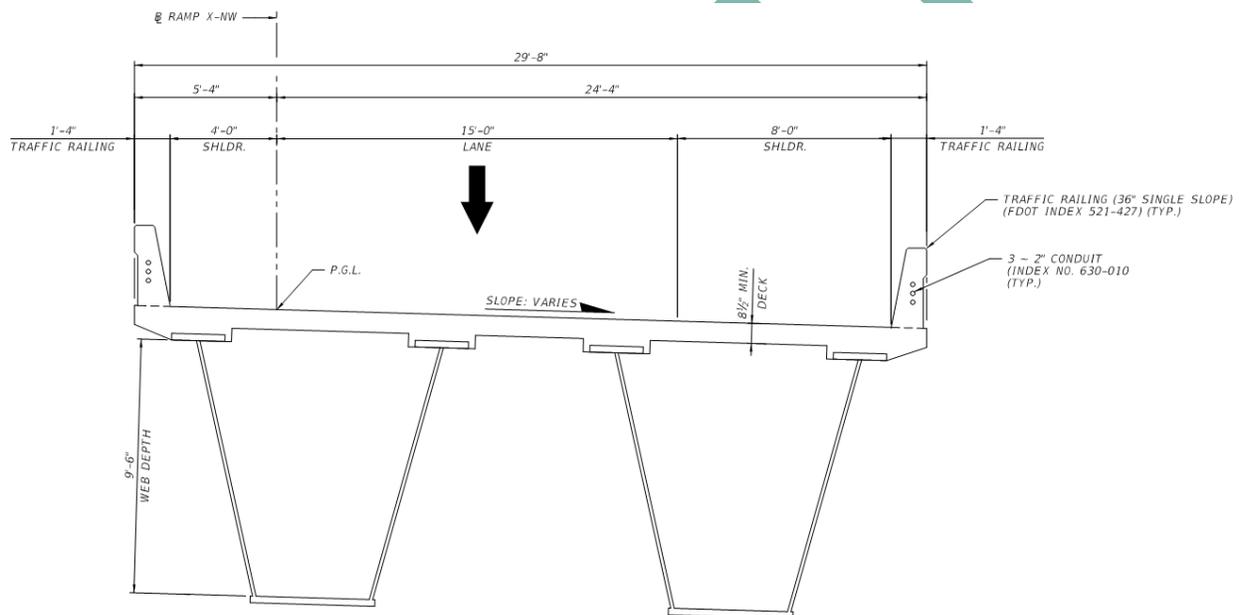


Figure 7-9 Bridge Typical Section (Bridge No. 1)

Bridge No.1 is a level 4 bridge that overpass I-95 SB, SW 10 Street, Bridge No. 2 and 3, and Newport Center Dr. The critical location of the bridge vertical clearance occurs where the bridge overpasses Bridge No.3 with a minimum vertical clearance of 16'-6". The bridge has multiple spans with a maximum span length of approximately 262' on a curved alignment.

The first option evaluated for superstructure is Florida-I beams. Given that proposed bridge spans exceed the practical span limit by Florida-I beams (approximately 200-foot maximum), they are determined to be an unviable option for the superstructure.

The second viable option evaluated is segmental concrete box girders. It provides the most efficient torsional resistance because of its box shape. Segmental concrete box girders can be less expensive than steel tub girders. However, they have some disadvantages compared with the latter. Segmental concrete box girders generally require more temporary works and heavier construction equipment which result in a longer construction period with more impact on the maintenance of traffic (MOT). Therefore, it is not recommended as the preferred option for the superstructure.

The third viable option evaluated for superstructure is steel plate girders. Steel plate girders do not provide sufficient resistance to torsional forces caused by the horizontal curvature of the ramp. Thus, additional cross members and stiffener bracings would be required to withstand torsional forces. This increases the costs and time of design, fabrication, and construction. Therefore, it is not recommended as the preferred option for the superstructure.

The last viable option evaluated for superstructure is steel tub girders. Steel tub girders are slightly more expensive than steel plate girders. However, steel tub girders offer several advantages over the latter. The shape of steel tub girders is more efficient in resisting torsional forces while providing a more aesthetically pleasing form with shortened construction time. Therefore, steel tub girders are the preferred alternative for all direct connect ramps and the elevated viaduct.

The proposed bridge is classified as a long bridge and the minimum 8 ½" thick CIP deck is required. The minimum height of the tub girder shall be 6-foot per FDOT Structure Design Guidelines (SDG), Structures Manual, Volume 1, Section 5.6.2. Maintenance access to the girder and interior lighting shall be provided per SDG, Section 5.6.2.

Hammerhead piers normal to the bridge alignment are proposed for the bridge substructure. They are located at either the outside of the roadway or within the median of the proposed roadway underneath.

Viable options of the foundation include driven prestressed concrete pile, steel H-pile, steel pipe piles, and drilled shafts. Prestressed concrete piles have some advantages over steel H piles and pipe piles due to its high availability, increased pile capacity, and overall low costs of the foundations. A review of existing bridges within the vicinity of the interchange reveals that they are supported on prestressed concrete piles. This is consistent with the findings documented in the Geotechnical Report. Therefore, prestressed concrete piles are proposed for the foundation of this bridge.

Drilled shafts are another feasible alternative for the deep foundation. The advantages of drilled shafts versus driven concrete piles are higher axial and horizontal capacities with less noise and vibration levels during construction. However, it should be noted that drilled shafts require more comprehensive quality control with greater risks for construction delays and heightened costs. Drilled shafts are generally not the preferred option if existing soil properties and site conditions can accommodate the use of prestressed concrete piles.

It is anticipated that no phased construction will be required for this bridge since most of the piers are located outside of existing roads (SW 10 Street and I-95). However, the proposed piers at SW 10 Street and I-95 are anticipated to be constructed within the work zone under appropriate maintenance of traffic (MOT) phases along SW 10 Street and I-95, which will be further developed in the design phase.

7.11.1.2 Flyover - Direct Connect Ramp From I-95 SB to SW 10 Street WB (Bridge No. 2)

Bridge No.2 carries one (1) 15-foot connector lane from I-95 SB to SW 10 Street in the WB direction with a 4-foot inside shoulder and 8-foot outside shoulder. A 36" single slope traffic railing is at both sides of the bridge with an overall bridge width of 29'-8". Figure 7-10 shows the bridge typical section. This bridge overpasses I-95 SB, I-95 SB off-ramp to SW 10 Street, SW 10 Street WB, Newport Center Dr., and runs underneath Bridge No.1. This is a level 3 bridge and will provide a minimum vertical clearance of 16'-6" over the roadway underneath.

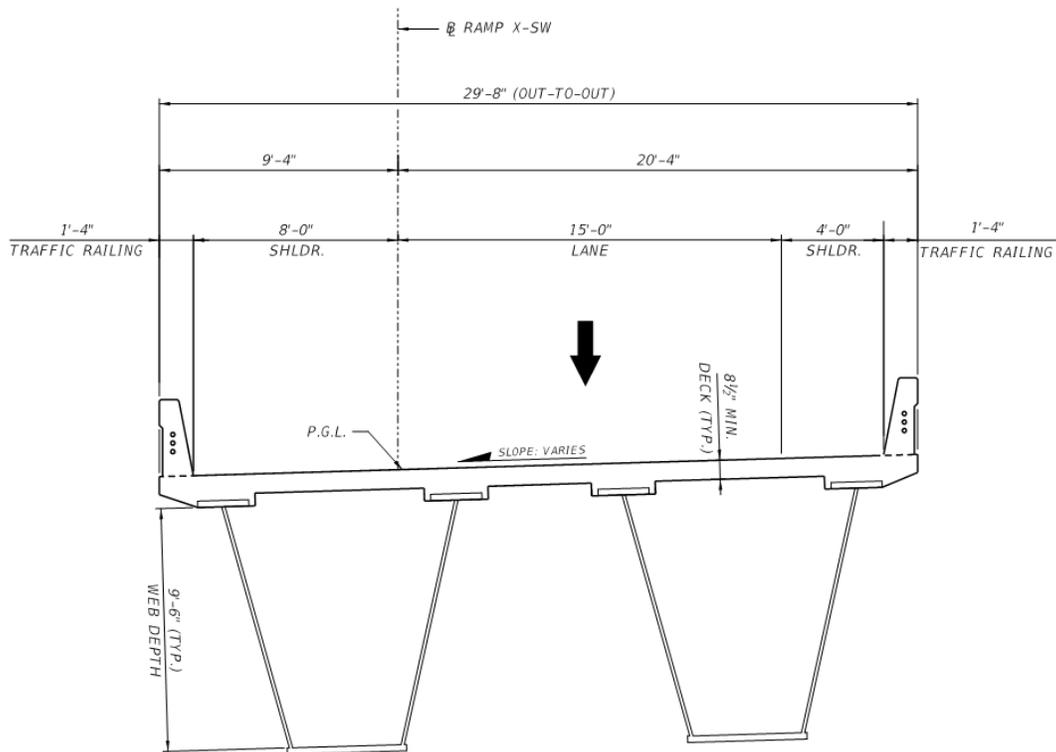


Figure 7-10 Bridge Typical Section (Bridge No. 2)

The bridge has 10 spans with a maximum span length of approximately 247-foot. Similar to Bridge No.1, the superstructure consists of continuous curved steel tub girders with a substructure consisting of pile end bents, hammerhead piers. This bridge is also anticipated to require straddle bents. The placement of straddle bents is dictated by the roadway geometric constraints of SW 10 Street and I-95 underneath the bridge. Under these constraints, hammerhead piers are unfeasible and cantilever piers would exceed conventional limits on bridge span and cantilever length. Therefore, straddle bents are proposed at Piers 4, 5, 6; integral straddle bents are proposed for Piers 7, 9, and 10 due to limited vertical clearance over the roadway underneath. Refer to the conceptual plan Sheet Nos. B2-1 and B2-2, in Appendix A, for additional information. The cross member of straddle bents is anticipated to be post-tensioned concrete or steel box. The steel box straddle bent is preferred since it would minimize impacts to traffic on roadways underneath due to expeditious construction. The type of straddle bent will be decided during the final design stage. Prestressed concrete piles are anticipated for the foundation.

It is anticipated that no phased construction will be required for this bridge. However, since most of the piers are located within the limits of existing roadways (SW 10 Street and I-95), the proposed piers at SW 10 Street and I-95 will be constructed within the work zone under appropriate MOT phases along SW 10 Street and I-95.

7.11.1.3 Flyover - Direct Connect Ramp from SW 10 Street EB to I-95 NB (Bridge No. 3)

Bridge No.3 carries one (1) 15-foot connector lane from SW 10 Street in the EB direction to I-95 NB with an 8-foot inside shoulder and 4-foot outside shoulder. A 36" single slope traffic railing is at both sides of the bridge with an overall bridge width of 29'-8". Figure 7-11 shows the bridge typical section.

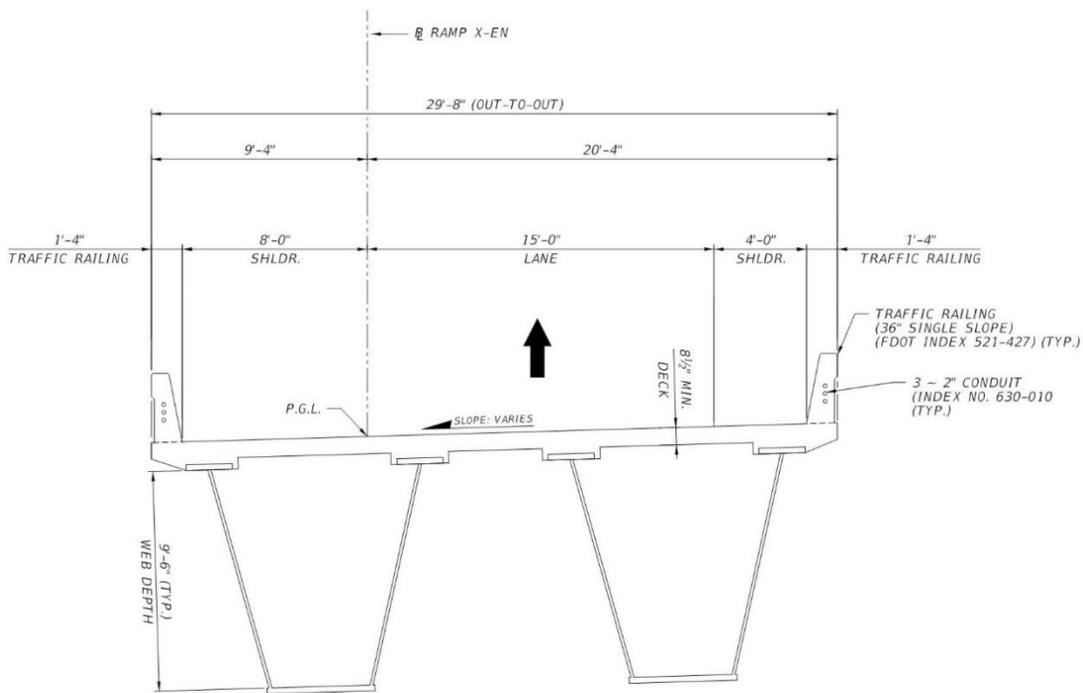


Figure 7-11 Bridge Typical Section (Bridge No. 3)

Bridge No.3 overpasses I-95 SB, I-95 SB off-ramp bridge to SW 10 Street (Bridge No. 13), SW 10 Street WB, and connects to the viaduct bridge (Bridge No. 9) on the east side of Newport Center Dr. This is a level 3 bridge and will provide a minimum vertical clearance of 16'-6" over the roadway underneath.

The bridge has multiple spans with a maximum span length of approximately 248-foot. Similar to Bridge No.1, the superstructure consists of continuous curved steel

tub girders with the substructure consisting of a hammerhead pier. Straddle bents, and integral straddle bents which also support Bridge No. 2 running parallel on its north/west side are anticipated. Refer to the conceptual plan Sheet No. B3-1 and B3-2 in Appendix A for additional details.

It is anticipated that no phased construction will be required for this bridge. However, most of the piers are within the limits of existing roads (SW 10 Street and I-95), and thus the construction of proposed piers will take place within the work zone under appropriate MOT phases along SW 10 Street and I-95.

7.11.1.4 Flyover - Direct Connect Ramp from SW 10 Street EB to I-95 SB (Bridge No. 4)

Bridge No. 4 carries one (1) 15-foot connector from SW 10 Street EB to I-95 SB with a 4-foot inside shoulder and 8-foot outside shoulder. The overall bridge width is 29'-8". This flyover has multiple spans with a maximum span length of approximately 287'. Figure 7-12 shows the bridge typical section.

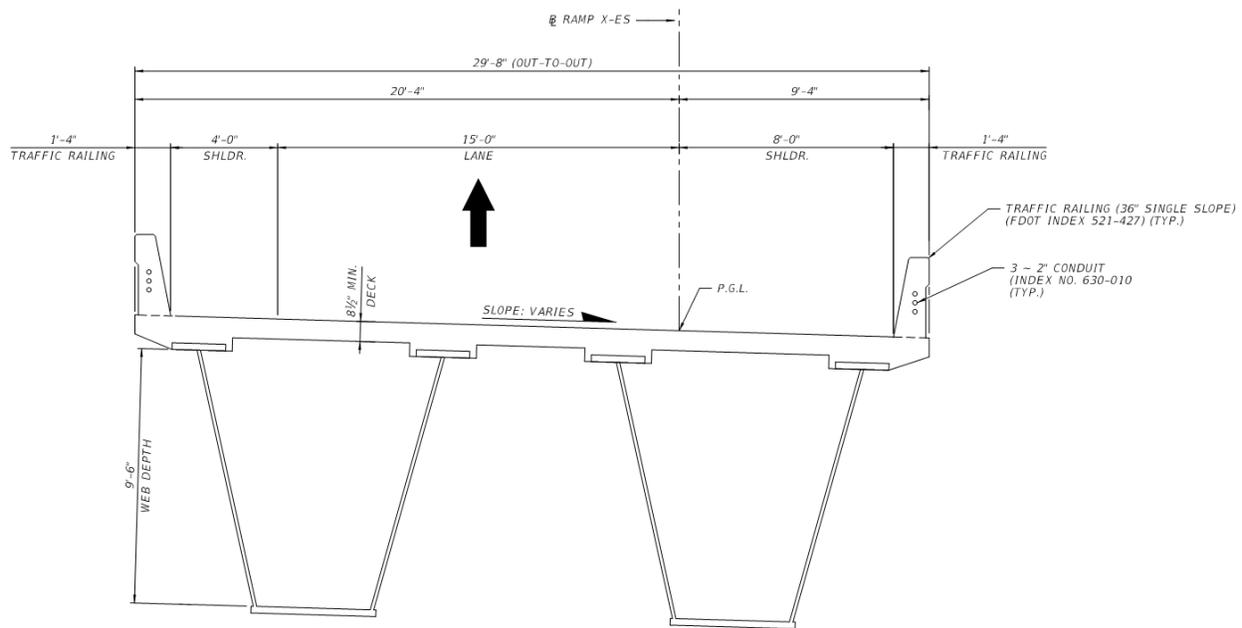


Figure 7-12 Bridge Typical Section (Bridge No. 4)

Bridge No.4 overpasses SW 10 Street WB & EB, SW 10 Street EB on ramp to I-95 SB, and I -95 SB. It connects to the viaduct bridge (Bridge No. 9) on the east side of Newport Center Dr. This is a level 3 bridge and will provide a minimum vertical clearance of 16'-6" over the roadway underneath.

Similar to Bridge No.1, the superstructure consists of curved steel tub girders and a minimum 8 ½" thick CIP deck. The substructure consists of hammerhead piers and a straddle bent at the beginning of the bridge that supports Bridge Nos. 2 and 3 as well. The type of straddle bent is to be finalized during the final design stage.

It is anticipated that no phased construction will be required for this bridge. However, most of the piers are within the limits of existing roadways (SW 10 Street and I-95), and thus the construction of proposed piers will take place within the work zone under appropriate MOT phases along SW 10 Street and I-95.

7.11.2 Elevated Viaduct

7.11.2.1 SW 10 Street EB Elevated Viaduct (Bridge No. 9)

The proposed viaduct bridge (Bridge No. 9), running from the west of Military Trail, will carry two (2) 12-foot connector lanes in the EB direction over SW 10 Street with 12-foot inside and outside shoulders to the direct connect ramps towards I-95 NB and I-95 SB (Bridge No. 3 and Bridge No. 4) respectively. A 36" single slope traffic railing is at each side of the bridge with an overall bridge width of 50'-8". Figure -13 below shows the bridge typical section. The viaduct has multiple bridge spans on a curved alignment. This bridge overpasses Military Trail, SW 10 Street local lanes in the WB and EB directions, SFRC railroad, and Newport Center Dr. It is the longest bridge within the limits the project, and the longest bridge span length is approximately 276-foot. Similar to Bridge No.1, steel tub girders are recommended for the superstructure. The bridge superstructure consists of three (3) curved steel tub girders and the minimum 8 ½" thick CIP deck.

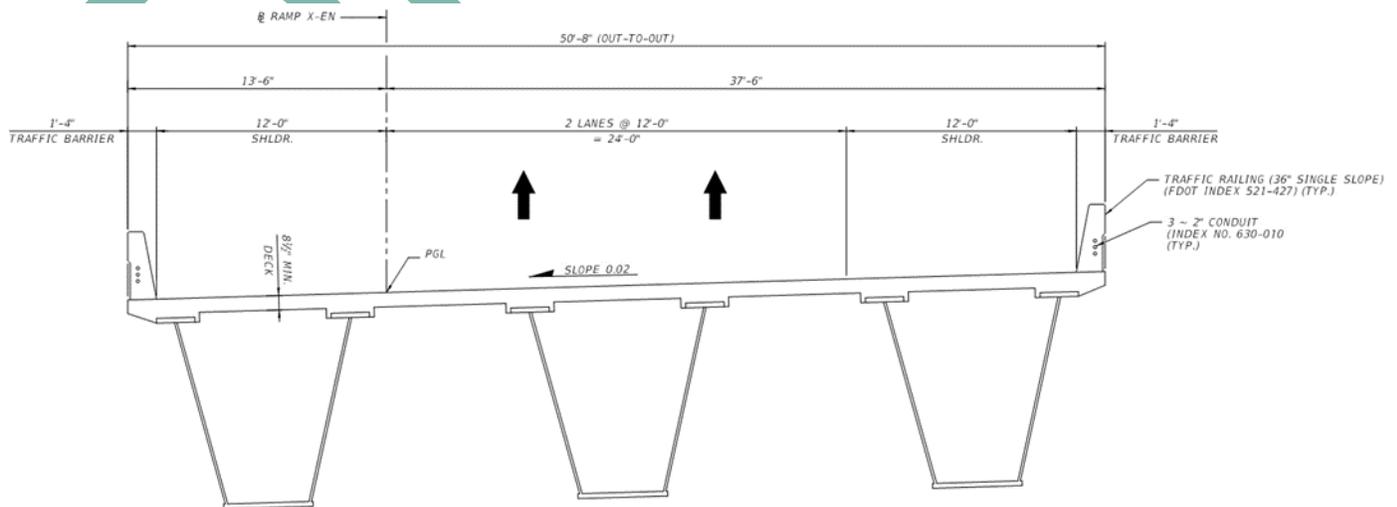


Figure 7-13 Bridge Typical Section (Bridge No. 9)

For the bridge substructure, hammerhead piers or multi-column piers are proposed within the SW 10 Street median where adequate space is available to accommodate the proposed piers. On the west end of the viaduct, in the close vicinity of Military Trail, several integral straddle bents would be required because of the limited available vertical clearance over SW 10 Street general-purpose lanes in the WB direction. On the east end of the viaduct, due to proposed roadway geometric constraints, two straddle bents would be required where it overpasses Newport Center Dr. An additional straddle bent would be required where the viaduct splits into two flyovers towards I-95 in the NB and SB directions (Bridge No. 3 and Bridge No.4 respectively).

It is anticipated that no phased construction will be required for this bridge. However, most of the piers are within the limit of the existing road (SW 10 Street), and thus the construction of the proposed piers will take place within the work zone under appropriate MOT phases along SW 10 Street.

7.11.3 Interchanges/Grade Separation

7.11.3.1 SW 10 Street Connector Lane WB Ramp Over SFRC Railroad & SW 12 Avenue. (Bridge No. 5)

Bridge No. 5 carries one (1) 15-foot connector lane in the WB direction (from Bridge 1) over SFRC railroad, with an 8-foot inside shoulder and 4-foot outside shoulder. A 36" single slope traffic railing is at both sides of the bridge with an overall bridge width of 29'-8". Figure 7-14 shows the bridge typical section.

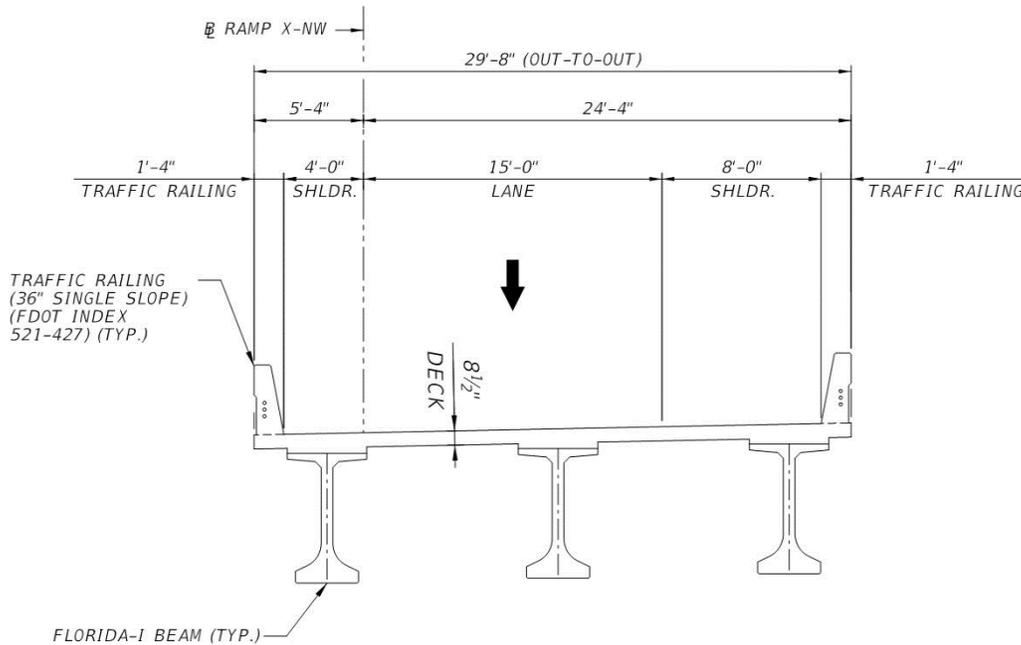


Figure 7-14 Bridge Typical Section (Bridge No. 5)

The bridge has three spans with a center span of approximately 167' over SFRC railroad. The superstructure consists of prestressed Florida-I Beams (FIBs) and an 8 1/2" thick CIP deck. The bridge substructure consists of end bents and two hammerhead piers supported on prestressed concrete piles. The first pier on the west side of SFRC is oriented parallel to the existing SFRC railroad to avoid encroaching into the existing SFRC right of way (ROW), in order to keep center span length within the span limits of FIBs. The second pier is proposed towards the east side of the proposed SW 12 Avenue and is oriented parallel to the proposed SW 12 Avenue to avoid encroaching into SW 10 Street, in order to keep center span length within the span limits of FIBs. The bridge will require minimum vertical clearance (MVC) of 23'-6" over SFRC railroad and an MVC of 16'-6" over SW 12 Avenue. Permanent Mechanically Stabilized Earth (MSE) walls are proposed at the end bents.

This bridge will not require phased construction since it is located outside of the existing SW 10 Street. However, construction activities including, but not limited to, staging, excavation, temporary sheet pile installation, structure demolition, girder placement, and deck pouring shall comply with the requirements of the railroad agency. In addition, a deck longitudinal construction joint is anticipated within the west and center spans between Bridge Nos. 5 and 6 due to the merger of the two bridges.

7.11.3.2 SW 10 Street Connector Lane WB Over SFRC Railroad & SW 12 Avenue. (Bridge No. 6)

Bridge No. 6 carries one (1) 15-foot connector lane (from Bridge 2) and one (1) 15-foot connector lane (from SW 12 Avenue) in the WB direction over SFRC railroad with a 6-foot inside shoulder and 8-foot outside shoulder. There is a gore area between the lanes as shown in the typical section in Figure 7-15.

The bridge superstructure consists of FIBs and 8 ½" thick CIP deck. The bridge substructure consists of end bents and two (2) multi-column piers supported on prestressed concrete piles. The first pier on the west side of SFRC is oriented parallel to existing SFRC railroad to avoid encroaching into existing SFRC right of way (ROW) while minimizing the center span length. The second pier is proposed towards the east side of proposed SW 12 Avenue, oriented parallel to the proposed SW 12th Avenue to avoid encroaching SW 10 Avenue, in order to keep center span length within the span limits of FIBs. The bridge will require minimum vertical clearance of 23'-6" over SFRC railroad and an MVC of 16'-6" over SW 12 Avenue.

Permanent MSE walls are proposed at the end bents.

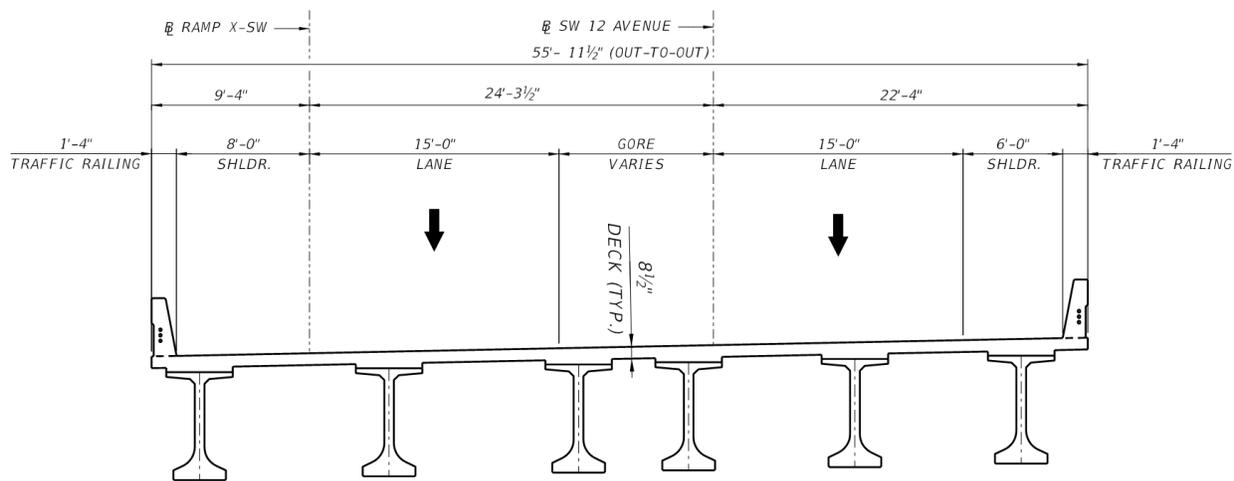


Figure 7-15 Bridge Typical Section (Bridge No. 6)

Bridge No. 6 is anticipated to require one phase of MOT on SW 10 Street to complete the bridge replacement over SFRC.

- Phase 1: Shift traffic on SW 10 Street in the EB direction to the newly constructed Bridge No. 8 (See Section 7.8.3.4 below), keep existing SW 10 Street EB bridge over SFRC carrying traffic in the WB direction, demolish existing WB bridge, and construct the proposed bridge.

In addition, deck longitudinal construction joint is anticipated within the east and center spans between Bridge No. 6 and Bridge No. 7 due to merger of the two bridges.

7.11.3.3 SW 10 Street General Purpose Lanes WB over SFRC Railroad and SW 12 Avenue (Bridge No. 7)

Bridge No. 7 carries three (3) 11-foot local lanes in the WB direction with a 4-foot inside shoulder and 7-foot outside shoulder. Overall bridge width is 46'-8" and a 36" single slope concrete traffic railing is at each side of the bridge. Figure 7-16 shows the proposed bridge typical section.

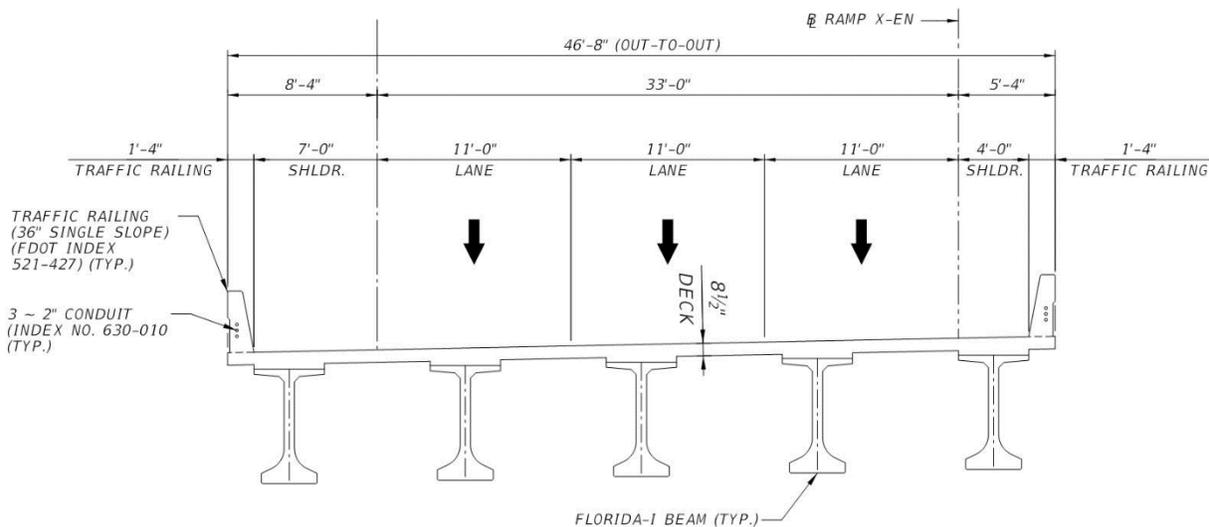


Figure 7-16 Bridge Typical Section (Bridge No. 7)

The bridge superstructure consists of FIBs and 8 ½" thick CIP deck. The bridge substructure consists of end bents and two (2) multi-column piers supported on prestressed concrete piles. The first pier on the west side of SFRC is oriented parallel to existing SFRC railroad to avoid encroaching into existing SFRC right of way (ROW) while minimizing the center span length. The second pier is proposed on the east side of the proposed SW 12 Avenue and is oriented parallel to the proposed SW 12 Avenue to avoid encroaching SW 10 Street while minimizing the center span length. It will require two phases of MOT on SW 10 Street to complete the bridge replacement over SFRC.

- Phase 1: Shift the traffic on SW 10 Street in the EB direction to the newly built Bridge No. 8 (See section 7.8.3.4 below). Keep the existing SW 10 Street EB bridge over SFRC carrying traffic in the WB direction. Demolish the

existing WB bridge and construct the northern portion of the proposed bridge.

- Phase 2: Shift SW 10 Street traffic in the WB direction to the newly built Bridge 6 and the northern portion of Bridge No.7. Demolish the existing EB bridge and construct the remaining southern portion of the proposed bridge.

The detailed MOT for the construction of the bridge replacement will be further developed during the final design phase.

7.11.3.4 SW 10 Street Local Lanes EB over SFRC Railroad and SW 12 Avenue (Bridge No. 8)

Bridge No.8 carries three (3) 11-foot local lanes and one (1) 7-foot bicycle lane in the EB direction. The overall bridge width is 54'-4" with a 4' inside shoulder and 2'-0" outside shoulder. The bridge has a 6'-0" sidewalk and a 36" single slope traffic railing on the north side and a 32" traffic railing (vertical shape) the south side. The proposed bridge typical section is shown in Figure 7-17.

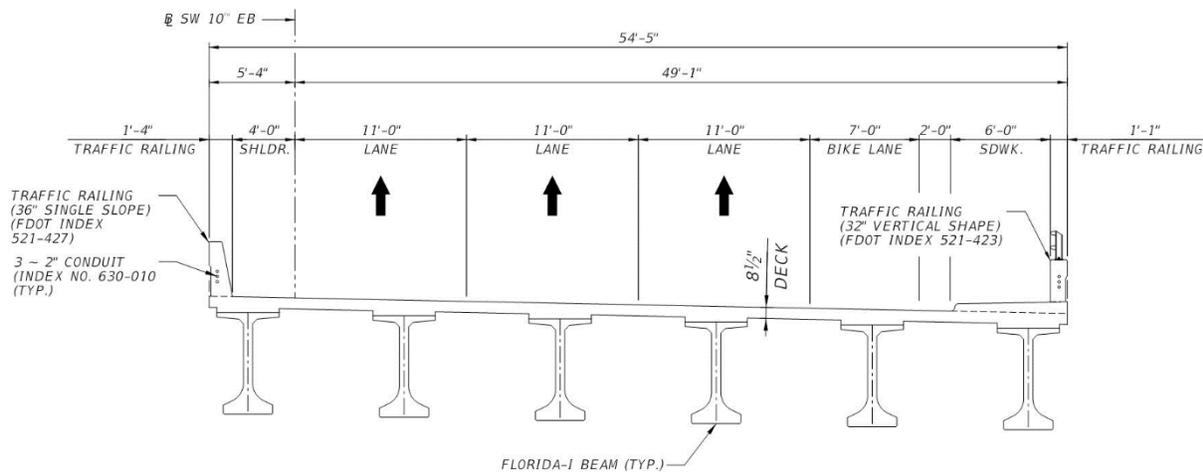


Figure 7-17 Bridge Typical Section (Bridge No. 8)

The bridge superstructure consists of FIBs and 8 1/2" thick CIP deck. The bridge substructure consists of end bents and two (2) multi-column piers supported on prestressed concrete piles. The first pier on the west side of SFRC is oriented parallel to existing SFRC railroad to avoid encroaching into existing SFRC right of way (ROW) while minimizing the center span length. The second pier is proposed on the east side of the proposed SW 12 Avenue and is oriented parallel to the proposed SW 12 Avenue to avoid encroaching SW 10 Street while minimizing the center span length

The proposed bridge will not require phased construction since it is located outside of the existing SW 10 Street. However, construction activities including, but not limited to staging, excavation, temporary sheet pile installation, structure demolition, girder placement, and deck pouring shall comply with the requirements of the railroad agency.

7.11.3.5 SW 10 Street WB Connector Lanes Over Military Trail (Bridge No.10)

Bridge No. 10 is proposed to carry three (3) 12-foot connector lanes on SW 10 Street in the WB direction over Military Trail. A 36" single slope traffic railing is on each side of the bridge with an overall bridge width of 62'-8" and 12-foot shoulders. The proposed bridge superstructure consists of single-span (span length of approximately 226-foot) steel tub girders or plate girders and a minimum 8 1/2" thick deck. The proposed bridge substructure consists of end bents supported on prestressed concrete piles. The bridge will provide a MVC of 16'-6" over Military Trail. Permanent MSE walls will be required at the end bents. The proposed bridge typical section is shown in Figure 7-18.

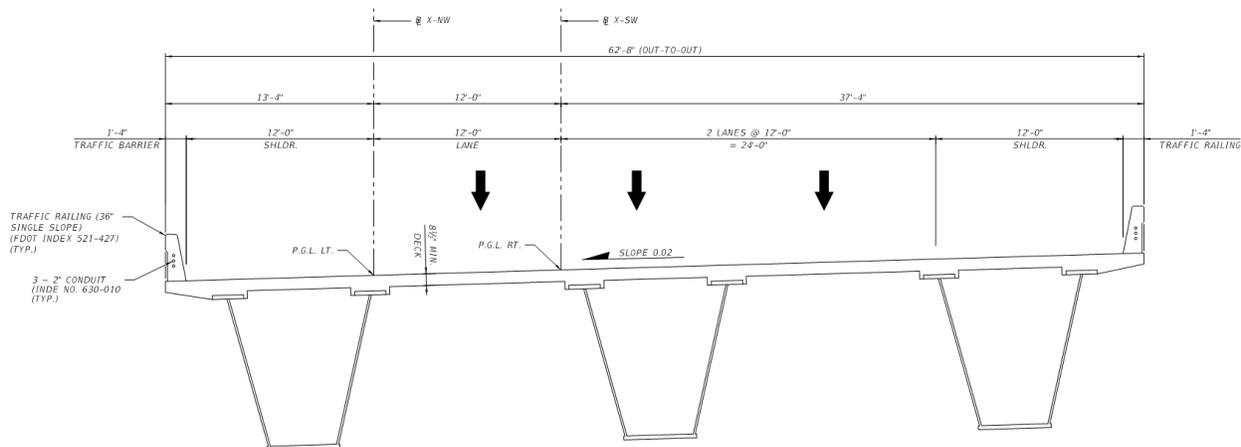


Figure 7-18 Bridge Typical Section (Bridge No. 10)

It is not anticipated that construction of the bridge requires phased MOT except for overnight closures of Military Trail during steel girder placement and deck pouring.

In addition, portions of the proposed end bents are within the limits of existing roads (SW 10 Street), and thus the construction of the proposed end bents will take place within the work zone created by appropriate MOT phases along SW 10 Street.

7.11.3.6 SW 10 Street EB Connector Lane Off-Ramp Over Military Trail (Bridge No.11)

Bridge No.11 is proposed for SW 10 Street off-ramp over Military Trail carrying one (1) 15-foot connector lane in the EB direction with 6-foot shoulders. A 36" single slope traffic railing is at each side of the bridge and the overall bridge width is 29'-8" including the 6-foot shoulders. The proposed bridge has multiple spans with a maximum span length of approximately 272'-6" over Military Trail on a curved alignment merging with the viaduct at its end. The proposed bridge superstructure consists of multi-span steel tub girders. The proposed bridge substructure consists of an end bent supported on prestressed concrete piles, a hammerhead pier at the east side of Military Trail, and straddle bents on the west side of Military Trail due to roadway geometrics and alignment. The bridge will provide a MVC of 16'-6" over Military Trail and SW 10 Street EB. Permanent MSE walls will be required at the end bents. The proposed bridge typical section is shown in Figure 7-19.

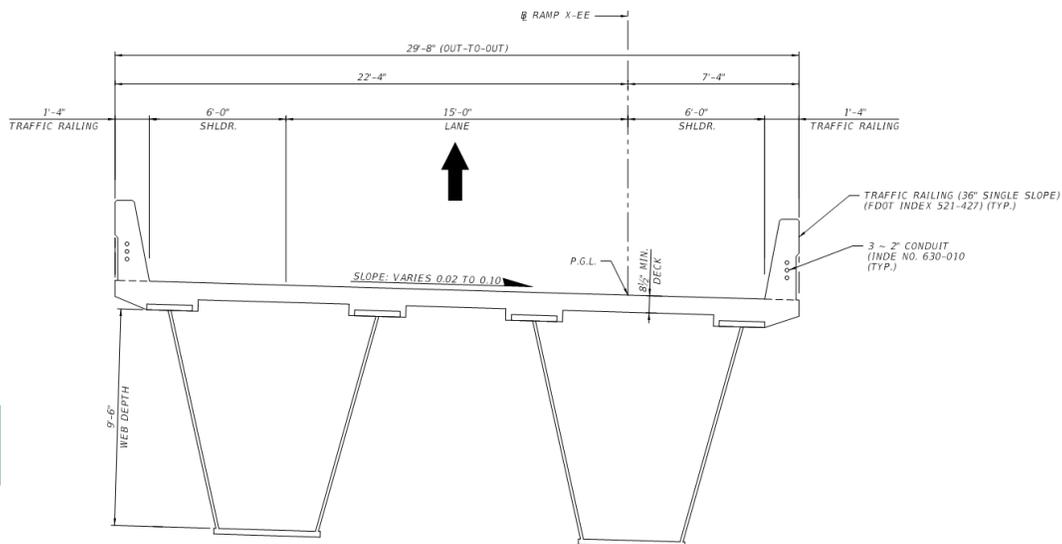


Figure 7-19 Bridge Typical Section (Bridge No. 11)

It is not anticipated that construction of the bridge requires phased MOT except for overnight closures of Military Trail during steel girder placement and deck pouring.

In addition, most of the proposed end bent, hammerhead pier, and straddle bent piers are within the limits of existing roadways (SW 10 Street), and thus construction of the proposed end bent, hammerhead pier, and straddle bent piers will take place within the work zone created by appropriate MOT phases along SW 10 Street.

7.11.3.7 SW 10 Street Over I-95 (Bridge No.12)

The existing SW 10 Street bridge over I-95 could not accommodate the proposed roadway geometrics of I-95 and SW 10 Street. WB towards the I-95 NB on-ramp, thus it will be replaced with a new 3-span concrete bridge with a maximum span length of approximately 127'-8" on a tangent alignment. Figures 7-20 and 7-21 depict the bridge typical section.

The proposed bridge superstructure consists of FIBs and an 8 1/2" thick CIP deck. The substructure consists of two (2) multi-column intermediate piers and end bents founded on prestressed concrete piles. The first pier will be located within the proposed median between I-95 NB and I-95 SB. The second pier is to be placed between the edges of shoulders on proposed SW 10 Street EB to I-95 NB on-ramp and I-95 NB. The column will be designed for vehicle collision load and protected by roadside concrete barrier per FDM Sections 215.4.5.4 and 215.4.5.1.

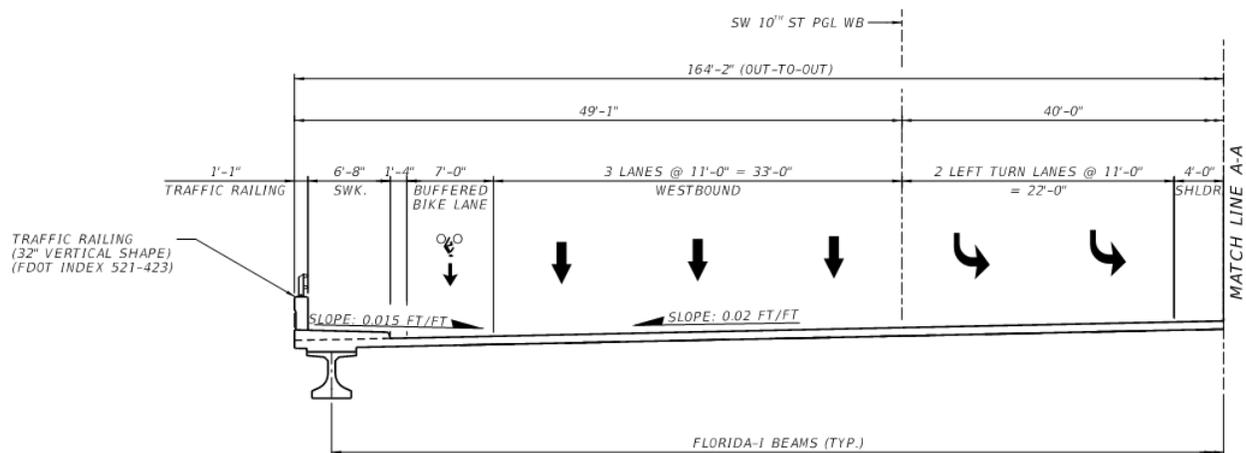


Figure 7-20 Bridge Typical Section (Bridge No. 12) 1 of 2

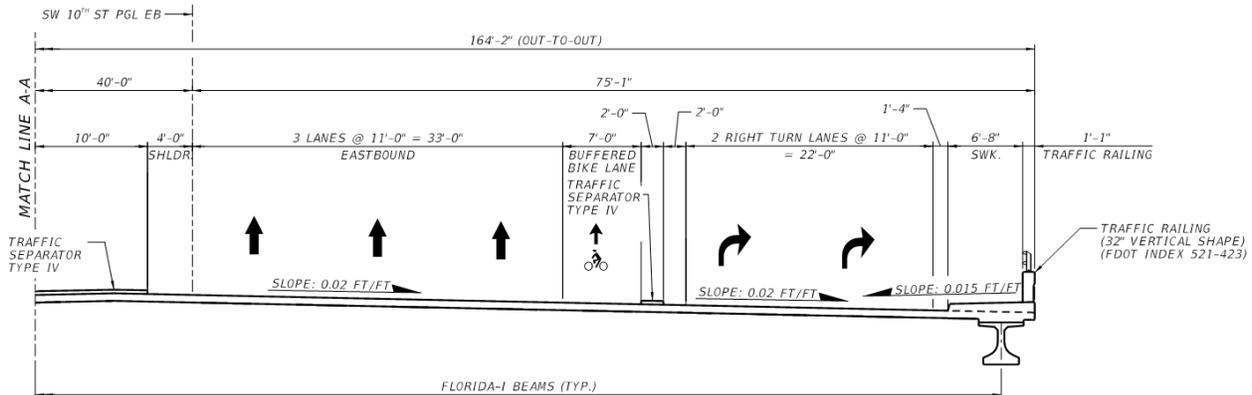


Figure 7-21 Bridge Typical Section (Bridge No. 12) 2 of 2

It is anticipated that phased MOT is required on SW 10 Street and I-95 to complete the bridge replacement over I-95.

MOT on I-95:

- Phase 1- Shift I-95 SB traffic to the west and install temporary concrete barriers along the edges of the shoulders and existing median barrier at I-95 NB. Construct the western pier within the work zone between the temporary concrete barriers.
- Phase 2- Shift I-95 SB to the east side of the newly built western pier. Install temporary concrete barrier along the shoulder of I-95 NB and construct the eastern pier and end bents.

MOT on SW 10 Street:

- Phase 1- Install two temporary concrete barriers in order to separate traffic between four (4) 10-foot lanes in the running WB direction and three (3) lanes (two (2) 10-foot & one (1) 11-foot) in the EB direction to create the designated work zone per traffic control concept plans. Demolish the northern portion of the existing bridge and construct the northern portion of the proposed bridge.
- Phase 2- Install temporary concrete barriers to shift 4 lanes of traffic in the WB direction to the newly built bridge. Demolish the center portion of the existing bridge and construct the center portion of the proposed bridge.
- Phase 3- Install temporary concrete barriers on the newly built bridge to provide work zones for constructing the northern sidewalk and the remaining

southern portion of the proposed bridge per traffic control concept plans. Shift four (4) lanes of traffic in the WB direction and three (3) lanes of traffic in the EB direction onto the newly built bridge. Demolish the remaining portion of the existing bridge and construct the remaining southern portion of the proposed bridge and sidewalk. See temporary traffic control concept plans for additional information.

7.11.3.8 I-95 SB Off-ramp to SW 10 Street (Bridge No.13)

The existing I-95 SB off-ramp to SW 10 Street is in the way of the proposed I-95 SB general purpose lanes and will need to be removed to accommodate the proposed I-95 SB geometrics. A new bridge (Bridge No. 13) is proposed for the off-ramp carrying two right turn lanes and two left turn lanes. Figure 7-22 and 7-23 show the bridge typical section.

The proposed bridge has multiple spans with the superstructure consisting of Florida-I Beams and an 8½" CIP deck. The substructure consists of pile bents. The Western portion of the proposed bridge will be over the existing C-1 Canal to the west of I-95 SB.

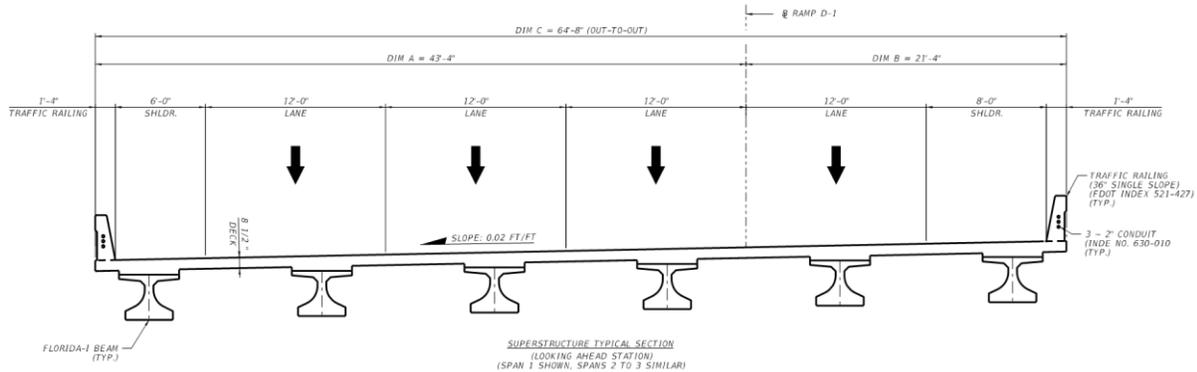


Figure 7-22 Bridge Typical Section (Bridge No. 13) 1 of 2

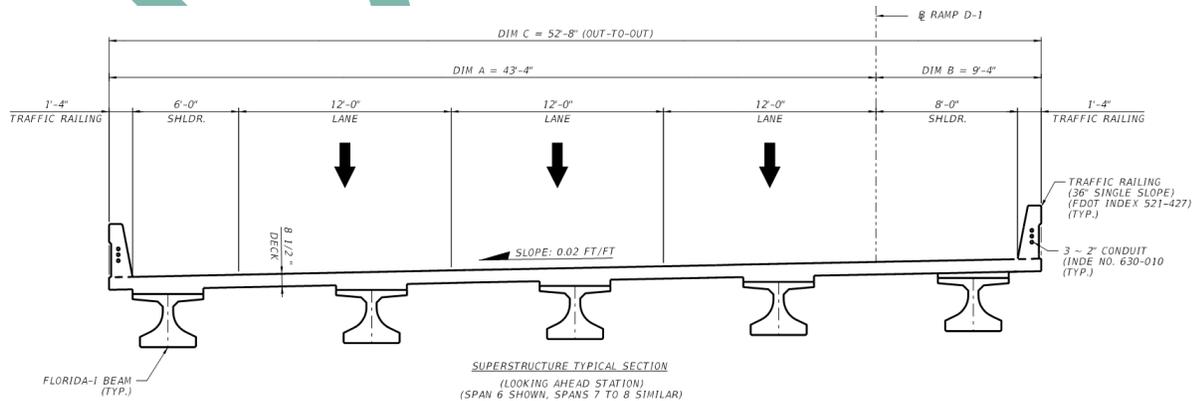


Figure 7-23 Bridge Typical Section (Bridge No. 13) 2 of 2

Construction of the bridge will need phased MOT that will be finalized in the design phase.

7.11.3.9 I-95 SB On-Ramp Over Hillsboro Blvd. (Bridge No.16)

The existing I-95 SB bridge over Hillsboro Boulevard exhibits a substandard minimum vertical clearance. Widening the bridge on the outside to accommodate proposed additional lanes would further decrease the MVC. Moreover, widening would require a phased construction with more impacts on traffic and MOT costs. Therefore, a new bridge (Bridge No. 16) is proposed on the west side of the existing I-95 SB bridge to achieve a MVC of 16'-6". Construction of the proposed bridge will not require phased construction. Figure 7-24 shows the bridge typical section.

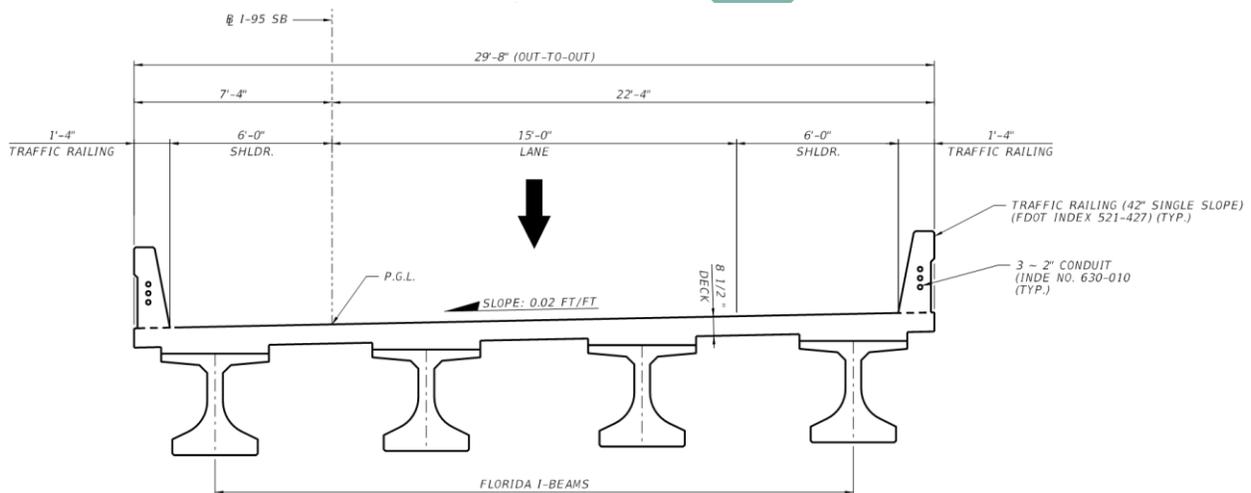


Figure 7-24 Bridge Typical Section (Bridge No. 16)

The proposed bridge has two spans with the superstructure consisting of FIBs and an 8 1/2" thick deck. The bridge substructure consists of a hammerhead pier and end bents founded on prestressed concrete piles. Permanent MSE walls will be required at the end bents. It is not anticipated that the construction of the bridge will require phased MOT except for overnight closures of Hillsboro Blvd. during girder placement and deck pouring.

7.11.3.10 I-95 NB Over Hillsboro Boulevard Widening (Bridge No.17)

The existing bridge of I-95 NB over Hillsboro Blvd. (Bridge No. 17) is to be widened outside to accommodate additional lanes. To qualify the bridge for widening, load rating had been performed per SDG, Section 7.1.1. The refined load rating results indicated that the existing Beam 4 at Span 1 and Span 4 has an inventory Rating Factor and Operating Rating Factor less than 1 and 1.67, respectively. In view of the benefit towards costs and lessening of impacts toward traffic, it is recommended to either strengthen the beam at Span 1 and Span 4 or replacing the beam along with partial reconstruction of the deck per SDG, Section 7.1.1. The final selection on beam strengthening or beam replacement will be decided in the design phase of the project.

The bridge superstructure consists of FIBs and 8" thick deck per SDG, Section 4.2.2.C. Since the depth of proposed FIBs is the same as the existing beam and the bridge is superelevated towards the outside, the existing bridge vertical clearance will be maintained.

The bridge substructure will be hammerhead piers founded on precast prestressed concrete piles with the cap and column shape being the same as existing ones. Existing end bents will be extended to accommodate the bridge widening. Figure 7-25 shows the bridge typical section.

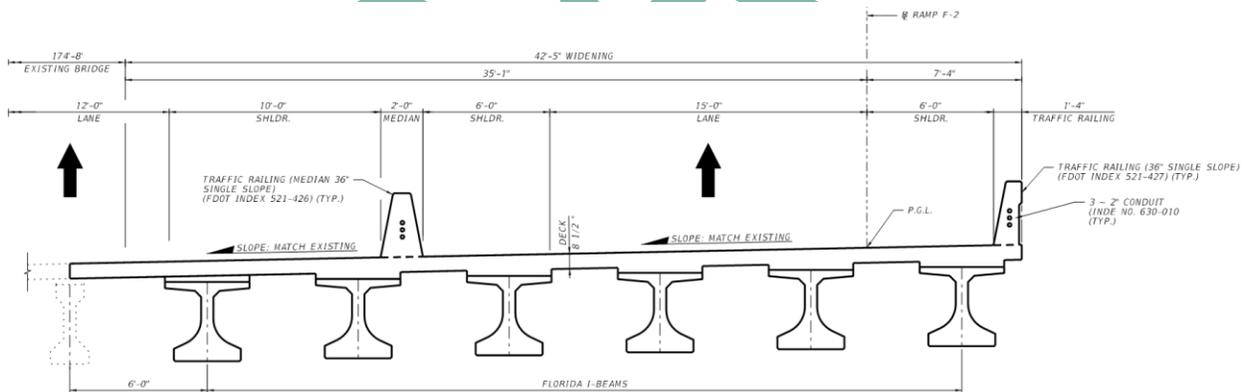


Figure 7-25 Bridge Typical Section (Bridge No. 17)

7.11.4 Braided Ramps

7.11.4.1 SW 10 Street to I-95 NB Braided On-ramp (Bridge No.14)

Bridge No.14 is proposed for SW 10 Street to I-95 NB braided on-ramp. The bridge carries two (2) 12-foot lanes with shoulders of 6-foot and 10-foot respectively. A 36" single slope concrete traffic railing is on each side with an overall bridge width of 42'-

8". The proposed bridge has four (4) spans with a maximum span length of approximately 270' on a slightly curved alignment.

Figure 7-26 shows the bridge typical section.

Similar to Bridge No.1, 4 options are evaluated for the superstructure. However, due to a slightly curved alignment, steel plates are less expensive than tub girders and recommend as the preferred option for the superstructure.

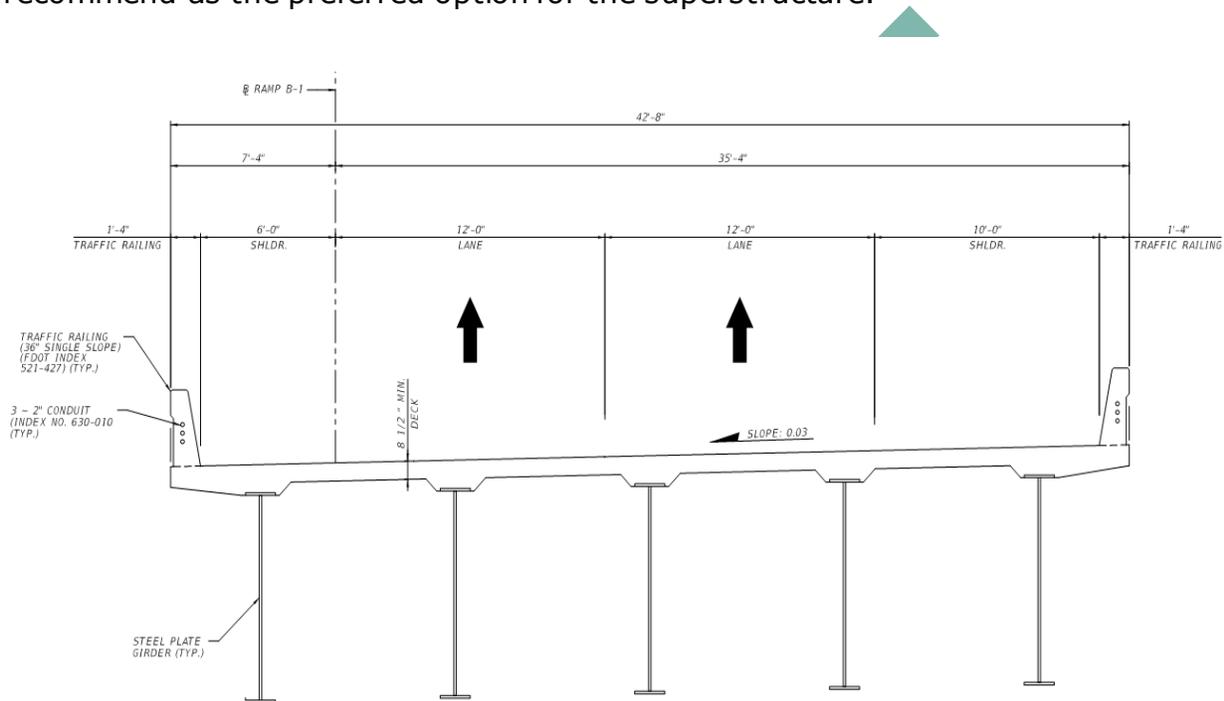


Figure 7-26 Bridge Typical Section (Bridge No. 14)

The bridge superstructure consists of multiple span steel plate girders and a minimum 8 1/2" thick CIP deck. The bridge substructure consists of end bents, a hammerhead pier, a cantilever pier, and an integral straddle pier dictated by the minimum vertical clearance of 16'-6" required over I-95 NB egress lane and the proposed I-95 NB roadway geometrics.

It is anticipated that prestressed concrete piles would be used for the foundation. Drilled shafts are also an option for the foundation under the cantilever pier.

It is not anticipated that construction of the bridge requires phased construction. However, construction will take place within the work zone created by appropriate MOT phases along I-95.

7.11.4.2 I-95 SB to SW 10 Street Braided Off-ramp (Bridge No.15)

Bridge No. 15 is proposed for I-95 SB to SW 10 Street Braided Off-ramp. The bridge carries one (1) 15-foot lane with 6-foot shoulders. A 36" single slope concrete traffic railing is on each side with an overall bridge width of 29'-8". The proposed bridge has four (4) spans with a maximum span length of approximately 256' on a slightly curved alignment.

Figure 7-27 shows the bridge typical section.

Similar to Bridge No.1, 4 options are evaluated for the superstructure. However, due to a slightly curved alignment, steel plates are less expensive than tub girders and recommend as the preferred option for the superstructure.

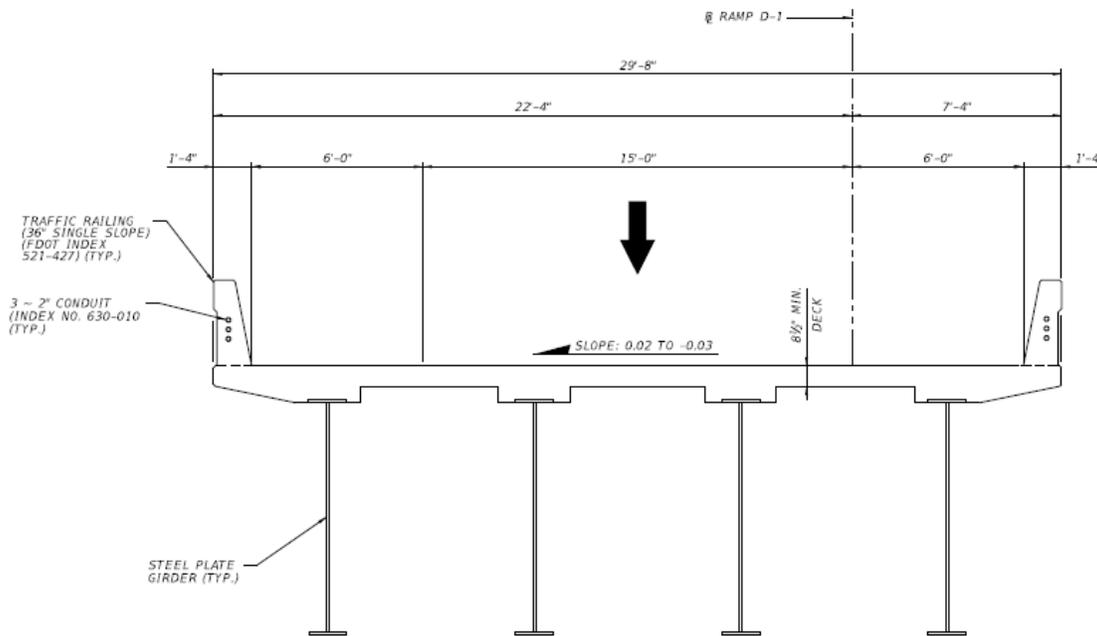


Figure 7-27 Bridge Typical Section (Bridge No. 15)

The superstructure of the bridge consists of steel plate girders with a substructure consisting of end bents, a hammerhead pier, and two (2) cantilever piers. The bridge will have a minimum vertical clearance of 16'-6" over I-95 SB ingress lane.

It is anticipated that prestressed concrete piles would be used for the foundation. Drilled shafts are also an option for the foundation under cantilever piers.

It is not anticipated that construction of the bridge requires phased construction. However, construction will take place within the work zone created by appropriate MOT phases along I-95.

7.11.5 Conceptual geotechnical data

The Geotechnical Services Report recommends classifying the evaluated bridges under the slightly aggressive environmental classification for substructures. Precast prestressed concrete piles and drilled shafts are recommended for bridge foundation in the report.

7.11.6 Aesthetic Level for Bridge and Bridge Approaches

The level of aesthetics for the proposed bridge and bridge approaches is anticipated to be Level Two per FDM 121.9.3.2.b.

7.11.7 Bridge Deck Drainage Considerations

Bridge deck drainage is anticipated to be required for direct connect ramps and elevated viaduct bridges. It will be further developed in the design phase.

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Table 7-10 Proposed Bridge Improvements for Preferred Alternative

Br No.	Bridge Description	Direction	Level	Begin Sta.	End Sta.	Superstr. Type	Substr. Type	Bridge length (ft)	Bridge Width (ft)	Max. Span (ft)	Bridge Area (ft ²)	Required Horizontal Clearance (ft)	Controlling Element
1	Flyover - Direct Connect Ramp from I-95 NB to SW 10 Street WB	N-W	4th	4212+32.73	4233+97.30	Steel Tub	Hammerhead Pier	2,165.00	29.67	261.19	66,215	1.50	Pier 10
2	Flyover - Direct Connect Ramp From I-95 SB to SW 10 Street WB	S-W	3rd	2214+00.00	2233+38.10	Steel Tub	Hammerhead Pier/Straddle Bent	1,938.00	29.67	246.89	60,121	3.00	Pier 9
3	Flyover - Direct Connect Ramp From SW 10 Street EB to I-95 NB	E-N	3rd	3220+79.33	3233+59.71	Steel Tub	Hammerhead Pier/Straddle Bent	1,280.00	29.67	247.67	39,489	3.00	Pier 9
4	Flyover - Direct Connect Ramp From SW 10 Street EB to I-95 SB	E-S	3rd	5220+77.54	5233+52.19	Steel Tub	Hammerhead Pier/Straddle Bent	1,275.00	29.67	286.75	39,412	0.00	Pier 7
5	SW 10 Street Connector Lane WB Ramp Over SFRC Railroad & SW 12 Avenue	WB	2nd	4206+48.89	4209+41.11	FIB	Multi-column Pier	292.22	29.67	176.69	10,573	0.00	Pier 3
6	SW 10 Street Connector Lane WB Over SFRC Railroad & SW 12 Avenue	WB	2nd	2206+38.67	2209+27.65	FIB	Multi-column Pier	288.98	62.69	174.71	20,452	14.00	Pier 3
7	SW 10 Street Local Lanes WB over SFRC Railroad and SW 12 Avenue	WB	2nd	372+59.52	375+47.96	FIB	Multi-column Pier	288.44	46.67	164.23	16,147	14.00	Pier 3
8	SW 10 Street Local Lanes EB over SFRC Railroad and SW 12 Avenue	EB	2nd	272+51.20	275+40.18	FIB	Multi-column Pier	288.98	54.42	175.14	19,561	0.00	Pier 3
9	SW 10 Street EB Elevated Viaduct	EB	3rd	3186+57.18	3220+79.33	Steel Plate Girder/Tub	Hammerhead/Straddle Bent/Integral Pier	3,422.00	50.67	277.41	180,501	0.00	Pier 7
10	SW 10 Street WB Connector Lanes Over Military Trail	WB	2nd	4196+68.40	4199+00.00	Steel Plate Girder/Tub	Pile Bent	231.60	62.67	231.60	17,885	0.00	End Bent 1
11	SW 10 Street EB Connector Lane Off-Ramp Over Military Trail	WB	2nd	90+79.49	99+76.23	Steel Plate Girder/Tub	Hammerhead Pier/Straddle Bent/Integral Pier	896.74	29.67	272.50	29,024	0.00	Pier 3
12	SW 10 Street Over I-95	EB&WB	2nd	394+83.72	397+93.98	FIB	Multi-column Pier	310.26	164.17	128.71	60,833	0.00	Pier 3
13	I-95 SB Off-ramp To SW 10 Street	S-W & S-E	2nd	90+75.70	97+60.00	FIB	Pile Bent	684.30	47.17	80.21	41,947	1.50	Pier 4
14	SW 10 Street to I-95 NB Braided On-ramp	NB	2nd	85+26.27	96+03.76	Steel Plate Girder/Tub	Hammerhead Pier/C-Pier/Straddle Bent	1,077.49	42.67	269.38	45,512	1.50	Pier 3
15	I-95 SB to SW 10 Street Braided Off-ramp	SB	2nd	119+06.94	129+28.08	Steel Plate Girder/Tub	C-Pier/Hammerhead Pier	1,021.14	29.67	255.86	32,515	1.50	Pier 3
16	I-95 SB On-Ramp Over Hillsboro Blvd.	SB	2nd	176+87.63	179+15.64	FIB	Hammerhead Pier	228.01	29.67	115.64	8,695	1.50	Pier 2
17	I-95 NB Over Hillsboro Blvd. Widening	NB	2nd	141+62.69	143+93.28	FIB	Multi-column Pier	230.59	42.42	115.51	12,399	1.50	Pier 2

7.12 Intersection and Interchange Concepts

The following **Figure 7-28** depicts the proposed roadway and lane configurations for the I-95 corridor including interchanges with Hillsboro Boulevard and SW 10 Street. The SIMR prepared for this project includes the traffic analysis evaluation and is included here by reference.

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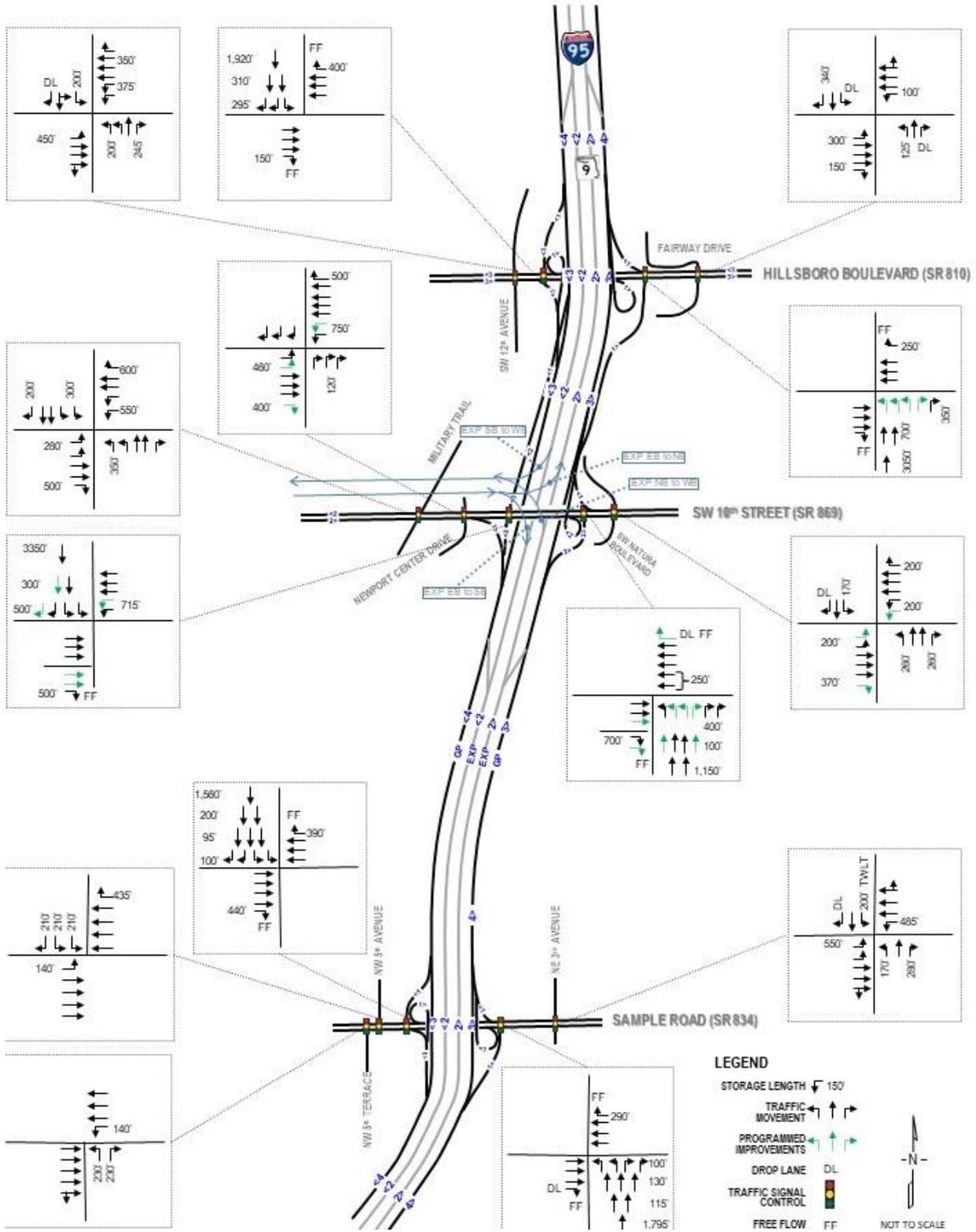


Figure 7-28 Roadway and Intersection Lane Configurations

7.13 Right-of-Way

No right-of-way acquisition is needed for proposed improvements along I-95. Minor right of way acquisition is needed on the north and south side along SW 10 Street. No relocations are required. Additional temporary construction easements will be required.

7.14 Lighting

Lighting should be upgraded to Light Emitting Diode (LED) light sources where required by the proposed roadway construction. The new lighting system options include a conventional lighting system or a mix of conventional and high-mast lighting to provide efficient lighting for ground and upper level structures.

7.15 Landscaping

A separate Landscaping project is currently funded and will follow construction of the PD&E proposed improvements.

7.16 Preliminary Cost Estimates

Preliminary project costs for construction, preliminary engineering (PE), right-of-way and construction engineering and inspection (CEI) costs were developed for the Preferred Alternative. Preliminary Cost Estimates for the preferred alternative are included in **Appendix B**.

Table 7-11 Preliminary Cost Estimates	
Cost Components	Total Costs
Base Construction Cost	\$222,964,484.78
Mobilization	\$17,837,158.78
Maintenance of Traffic	\$24,080,164.36
Construction Subtotal	\$264,881,807.92
Design/Build (9 percent)	\$23,839,362.71
Partnering (non-bid)	\$6,000
Contingency (non-bid)	\$150,000.00
TOTAL PROJECT COST	\$288,877,170.63

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8 Conceptual Design Plans

See Appendix A

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9 List of Technical Reports

Below is a list of technical reports prepared during this PD&E Study and on file at FDOT.

Technical Reports

- Natural Resources Evaluation
- Air Quality Technical Memorandum
- Social Cultural Effects Evaluation
- Cultural Resources Assessment Survey
- Noise Study Report
- Contamination Screening Evaluation Report
- Floodplain Hydraulics Report
- Systems Interchange Modification Report
- Public Involvement Plan
- Geotechnical Services Report

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APPENDIX A
(Roadway Concept Plans)

APPENDIX B
(Preliminary Cost Estimates)

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Date: 8/26/2019 3:22:59 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 436964-2-52-01

Letting Date: 07/2024

Description: SR-9/I-95 FROM SOUTH OF SW 10TH STREET TO NORTH OF HILLSBORO BLVD.

District: 04 County: 86 BROWARD

Market Area: 12 Units: English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y Project Length: 8.953 MI

Project Manager: BOSTIAN

Version 6 Project Grand Total

\$288,877,170.63

Description: Updated for unit cost adjustment versus other alternatives. 8-26-19

Sequence: 1 WDR - Widen/Resurface, Divided, Rural

Net Length: 0.413 MI
2,183 LF

Description: I-95 Resurfacing/Widening from Begin Project Limits to Start of Direct Connect Ramps

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.413
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	3.50	AC	\$38,512.13	\$134,792.45
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	2,687.84	CY	\$29.56	\$79,452.55
Earthwork Component Total					\$214,245.01

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6

Existing Roadway Pavement Width L/R	50.00 / 50.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	12.00 / 12.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	275
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	18,757.12 SY	\$6.41	\$120,233.14
285-709	OPTIONAL BASE,BASE GROUP 09	5,980.74 SY	\$27.13	\$162,257.48
327-70-13	MILLING EXIST ASPH PAVT,1 3/4" AVG DEPTH	24,252.80 SY	\$2.85	\$69,120.48
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,333.90 TN	\$158.68	\$211,663.25
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	800.34 TN	\$158.68	\$126,997.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	970.11 TN	\$155.87	\$151,211.05
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	232.83 TN	\$155.87	\$36,291.21

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: SB: 609 SY + 2022 SY = 2631 SY NB: 2975 SY	5,606.00 SY	\$6.41	\$35,934.46
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: SB: 609 SY + 2022 SY = 2631 SY NB: 2975 SY	5,606.00 SY	\$27.13	\$152,090.78
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: 5606 SY x 275 LB/SY / 2000 LB	770.83 TN	\$158.68	\$122,315.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22 Comment: 5606 SY x 80 LB/SY / 2000 LB	224.24 TN	\$155.87	\$34,952.29

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	279.00 EA	\$4.68	\$1,305.72
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.31 GM	\$864.36	\$2,861.03
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.31 GM	\$385.62	\$1,276.40

Roadway Component Total

\$1,228,510.54

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	14.67 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,980.74	SY	\$17.50	\$104,662.95
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	640.27	TN	\$158.68	\$101,598.04
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	232.83	TN	\$155.87	\$36,291.21
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	0.83	PM	\$967.33	\$802.88
570-1-1	PERFORMANCE TURF	1,295.10	SY	\$2.54	\$3,289.55

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,020.33	LF	\$1.84	\$9,237.41
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	41.34	LF	\$5.90	\$243.91
107-1	LITTER REMOVAL	3.01	AC	\$37.84	\$113.90
107-2	MOWING	3.01	AC	\$74.05	\$222.89

Shoulder Component Total

\$256,462.74

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00
New Total Median Shoulder Width L/R	12.00 / 12.00
New Paved Median Shoulder Width L/R	12.00 / 12.00
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 1/2No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,980.74	SY	\$17.50	\$104,662.95
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	640.27	TN	\$158.68	\$101,598.04
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	12.81	TN	\$155.87	\$1,996.69
521-1	MEDIAN CONC BARRIER WALL	2,183.00	LF	\$155.00	\$338,365.00
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.00	PM	\$967.33	\$967.33
Median Component Total					\$547,590.01

DRAINAGE COMPONENT

Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	7.44	CY	\$2,160.00	\$16,070.40
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	336.00	LF	\$100.00	\$33,600.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	\$144.65	\$5,786.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	17.00	EA	\$1,579.93	\$26,858.81
570-1-1	PERFORMANCE TURF	291.03	SY	\$2.54	\$739.22
Drainage Component Total					\$83,054.43

SIGNING COMPONENT

Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	10.00	AS	\$1,059.29	\$10,592.90
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	\$274.02	\$274.02
700-1-60	SINGLE POST SIGN, REMOVE	10.00	AS	\$20.96	\$209.60
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$4,250.00	\$4,250.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	\$514.21	\$514.21
X-Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT Comment: I-95 NB Off ramp to SW 10th Street (adv. warning)	1.00	EA	\$75,000.00	\$75,000.00
Signing Component Total					\$91,189.14

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value
Multiplier (Number of Poles)	22
Pay Items	

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,400.00	LF	\$8.00	\$35,200.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	\$618.33	\$13,603.26
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	13,200.00	LF	\$2.28	\$30,096.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	22.00	EA	\$6,500.00	\$143,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	22.00	EA	\$618.53	\$13,607.66
	Subcomponent Total				\$235,506.92
	Lighting Component Total				\$235,506.92
Sequence 1 Total					\$2,656,558.79

Sequence: 2 NDR - New Construction, Divided, Rural**Net Length:** 0.096 MI
506 LF**Description:** I-95 Mainline Reconstruction from Start of Direct Connect Ramps to Beginning of I-95 NB Off Ramp**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	135.00 / 135.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.199
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.14	AC	\$38,512.13	\$120,928.09
120-6	EMBANKMENT	27,231.55	CY	\$15.00	\$408,473.25
Earthwork Component Total					\$529,401.34

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	76.00 / 76.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	11,540.66	SY	\$6.41	\$73,975.63
285-709	OPTIONAL BASE,BASE GROUP 09	8,616.99	SY	\$27.13	\$233,778.94
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,409.56	TN	\$158.68	\$223,668.98
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	341.71	TN	\$155.87	\$53,262.34

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,651.00	SY	\$6.41	\$42,632.91
	Comment: Beginning of NB Off Ramp: 351 SY Direct Connects: 15+8+4' x 1050' / 9 SF/SY = 3150 SY x 2 (NB/SB) = 6300 SY				
285-704	OPTIONAL BASE,BASE GROUP 04	2,800.00	SY	\$17.50	\$49,000.00

	Comment: Direct Connects: 4+8' x 1050' / 9 SF/SY = 1400 SY x 2 (NB/SB) = 2800 SY			
285-709	OPTIONAL BASE,BASE GROUP 09	3,851.00 SY	\$27.13	\$104,477.63
	Comment: Beginning of NB Off Ramp: 351 SY Direct Connects: 15' x 1050' / 9 SF/SY = 1750 SY x 2 (NB/SB) = 3500 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	914.51 TN	\$158.68	\$145,114.45
	Comment: Beginning of NB Off Ramp: 351 SY Direct Connects: 15'+8'+4' x 1050' / 9 SF/SY = 3150 SY x 2 (NB/SB) = 6300 SY = 6651 SY x 275 LB/SY / 2000 LB			
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	266.04 TN	\$155.87	\$41,467.65
	Comment: Beginning of NB Off Ramp: 351 SY Direct Connects: 15'+8'+4' x 1050' / 9 SF/SY = 3150 SY x 2 (NB/SB) = 6300 SY = 6651 SY x 80 LB/SY / 2000 LB			

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	65.00 EA	\$4.68	\$304.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.77 GM	\$864.36	\$665.56
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.77 GM	\$385.62	\$296.93
Roadway Component Total				\$968,645.22

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	14.67 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,385.96 SY	\$17.50	\$24,254.30
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	148.38 TN	\$158.68	\$23,544.94
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2.97 TN	\$155.87	\$462.93

546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	0.19 PM	\$967.33	\$183.79
570-1-1	PERFORMANCE TURF	300.12 SY	\$2.54	\$762.30

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,315.14 LF	\$1.84	\$2,419.86
104-11	FLOATING TURBIDITY BARRIER	23.95 LF	\$11.66	\$279.26
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	23.95 LF	\$5.90	\$141.30
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$99.37	\$99.37
107-1	LITTER REMOVAL	2.32 AC	\$37.84	\$87.79
107-2	MOWING	2.32 AC	\$74.05	\$171.80
Shoulder Component Total				\$54,421.49

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\bar{y}_i \frac{1}{2}$ No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,385.96 SY	\$17.50	\$24,254.30
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	148.38 TN	\$158.68	\$23,544.94
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	53.95 TN	\$155.87	\$8,409.19
521-1	MEDIAN CONC BARRIER WALL	1,050.00 LF	\$155.00	\$162,750.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-1	MEDIAN CONC BARRIER WALL	1,050.00 LF	\$155.00	\$162,750.00
Comment: Account for second barrier wall				

Median Component Total**\$381,708.43****DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	1.72 CY	\$2,160.00	\$3,715.20
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00 EA	\$4,686.24	\$4,686.24

430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	80.00 LF	\$100.00	\$8,000.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	32.00 LF	\$105.86	\$3,387.52
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00 LF	\$144.65	\$4,628.80
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	4.00 EA	\$1,579.93	\$6,319.72
524-1-1	CONCRETE DITCH PAVT, NR, 3"	191.60 SY	\$67.10	\$12,856.36
570-1-1	PERFORMANCE TURF	67.44 SY	\$2.54	\$171.30
Drainage Component Total				\$43,765.14

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00 AS	\$1,059.29	\$3,177.87
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	1.00 AS	\$7,250.00	\$7,250.00
Signing Component Total				\$15,026.28

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value			
Multiplier (Number of Poles)	11			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,200.00 LF	\$8.00	\$17,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	11.00 EA	\$618.33	\$6,801.63
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,600.00 LF	\$2.28	\$15,048.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	11.00 EA	\$6,500.00	\$71,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	11.00 EA	\$618.53	\$6,803.83
Subcomponent Total				\$117,753.46
Lighting Component Total				\$117,753.46

Sequence 2 Total **\$2,110,721.36**

Sequence: 3 NDR - New Construction, Divided, Rural**Net Length:** 0.657 MI
3,469 LF**Description:** I-95 Northbound Mainline Reconstruction from Start of NB Off Ramp to SW 10th Street to just North of NB Braided Ramps**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 80.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.657
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	6.37	AC	\$38,512.13	\$245,322.27
120-6	EMBANKMENT	38,764.99	CY	\$15.00	\$581,474.85
Earthwork Component Total					\$826,797.12

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	5
Roadway Pavement Width L/R	0.00 / 64.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	34,947.84	SY	\$6.41	\$224,015.65
285-709	OPTIONAL BASE,BASE GROUP 09	24,922.55	SY	\$27.13	\$676,148.78
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,391.87	TN	\$158.68	\$538,221.93
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	986.73	TN	\$155.87	\$153,801.61

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	250.00	SY	\$6.41	\$1,602.50
	Comment: NB Off Ramp to Hillsboro Blvd: 250 SY				
285-704	OPTIONAL BASE,BASE GROUP 04	167.00	SY	\$17.50	\$2,922.50
	Comment: NB Direct Connect Shoulder: 80 + 87 = 167 SY				

285-709	OPTIONAL BASE,BASE GROUP 09 Comment: NB Off Ramp to Hillsboro Blvd: 250 SY	250.00 SY	\$27.13	\$6,782.50
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: NB Off Ramp to Hillsboro Blvd: 250 + 167 SY x 275 lb/sy	23.00 TN	\$158.68	\$3,649.64
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22 Comment: NB Off Ramp to Hillsboro Blvd: 250+ 167 SY x 80 lb/sy/2000 Lb/tn = 17 TN	17.00 TN	\$155.87	\$2,649.79

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	355.00 EA	\$4.68	\$1,661.40
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	5.26 GM	\$864.36	\$4,546.53
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.94 GM	\$385.62	\$1,519.34
Roadway Component Total				\$1,617,522.17

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	0.00 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips $\frac{1}{2}$ No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,752.48 SY	\$17.50	\$83,168.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	508.78 TN	\$158.68	\$80,733.21
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	10.18 TN	\$155.87	\$1,586.76
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.31 PM	\$967.33	\$1,267.20
570-1-1	PERFORMANCE TURF	1,029.12 SY	\$2.54	\$2,613.96

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,019.30 LF	\$1.84	\$16,595.51
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	164.25 LF	\$5.90	\$969.08
104-18	INLET PROTECTION SYSTEM	4.00 EA	\$99.37	\$397.48
107-1	LITTER REMOVAL	15.93 AC	\$37.84	\$602.79
107-2	MOWING	15.93 AC	\$74.05	\$1,179.62
Shoulder Component Total				\$189,114.01

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	14.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 12.00
Paved Median Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips \bar{i} ; $\frac{1}{2}$ No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,752.48 SY	\$17.50	\$83,168.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	635.98 TN	\$158.68	\$100,917.31
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	185.01 TN	\$155.87	\$28,837.51
521-1	MEDIAN CONC BARRIER WALL	3,469.00 LF	\$155.00	\$537,695.00
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.00 PM	\$967.33	\$967.33
Median Component Total				\$751,585.55

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	11.83 CY	\$2,160.00	\$25,552.80
425-1-551	INLETS, DT BOT, TYPE E, <10'	4.00 EA	\$4,686.24	\$18,744.96
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	528.00 LF	\$100.00	\$52,800.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	232.00 LF	\$105.86	\$24,559.52
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	200.00 LF	\$144.65	\$28,930.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	27.00 EA	\$1,579.93	\$42,658.11
524-1-1	CONCRETE DITCH PAVT, NR, 3"	1,314.00 SY	\$67.10	\$88,169.40
570-1-1	PERFORMANCE TURF	462.53 SY	\$2.54	\$1,174.83
Drainage Component Total				\$282,589.62

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	\$348.41	\$696.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	16.00	AS	\$1,059.29	\$16,948.64
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$4,250.00	\$8,500.00
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	4.00	AS	\$7,250.00	\$29,000.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT Comment: I-95 NB Off Ramp to Hillsboro Blvd (Adv. Warn)	1.00	EA	\$75,000.00	\$75,000.00

Signing Component Total

\$130,145.46

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

35

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,000.00	LF	\$8.00	\$56,000.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	35.00	EA	\$618.33	\$21,641.55
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	21,000.00	LF	\$2.28	\$47,880.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	35.00	EA	\$6,500.00	\$227,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	35.00	EA	\$618.53	\$21,648.55

Subcomponent Total

\$374,670.10

Lighting Component Total

\$374,670.10

Sequence 3 Total

\$4,172,424.03

Sequence: 4 NDR - New Construction, Divided, Rural**Net Length:** 0.489 MI
2,584 LF**Description:** I-95 Southbound Mainline Reconstruction from Start of NB Off Ramp to SW 10th Street to just North of NB Braided Ramps**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	100.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.679
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.85	AC	\$38,512.13	\$456,368.74
120-6	EMBANKMENT	42,479.69	CY	\$15.00	\$637,195.35
Earthwork Component Total					\$1,093,564.09

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	76.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	31,008.38	SY	\$6.41	\$198,763.72
285-709	OPTIONAL BASE,BASE GROUP 09	22,010.21	SY	\$27.13	\$597,137.00
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,000.35	TN	\$158.68	\$476,095.54
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	872.83	TN	\$155.87	\$136,048.01

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,173.00	SY	\$6.41	\$20,338.93
	Comment: SB On ramp from Hillsboro (partial): 245 SY SB Direct Connect Travel Lane: 1117 SY SB Direct Connect Shoulders: 700 + 1111 SY				
285-704	OPTIONAL BASE,BASE GROUP 04	1,811.00	SY	\$17.50	\$31,692.50

285-709	Comment: SB Direct Connect Shoulders: 700 + 1111 SY OPTIONAL BASE,BASE GROUP 09	1,362.00 SY	\$27.13	\$36,951.06
334-1-13	Comment: SB Direct Connect Travel Lane: 1117 SY SB On ramp from Hillsboro (partial): 245 SY SUPERPAVE ASPHALTIC CONC, TRAFFIC C	436.29 TN	\$158.68	\$69,230.50
337-7-25	Comment: SB On ramp from Hillsboro (partial): 245 SY SB Direct Connect Travel Lane: 1117 SY SB Direct Connect Shoulders: 700 + 1111 SY => 3173 SY x 275 LB/SY / 2000 LB ASPH CONC FC,INC BIT,FC-5,PG76-22	126.92 TN	\$155.87	\$19,783.02
	Comment: SB On ramp from Hillsboro (partial): 245 SY SB Direct Connect Travel Lane: 1117 SY SB Direct Connect Shoulders: 700 + 1111 SY => 3173 SY x 80 LB/SY / 2000 LB			

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	198.00	EA	\$4.68	\$926.64
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.92	GM	\$864.36	\$3,388.29
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.96	GM	\$385.62	\$755.82
Roadway Component Total					\$1,591,111.03

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,060.64	SY	\$17.50	\$53,561.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	315.83	TN	\$158.68	\$50,115.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	15.16	TN	\$155.87	\$2,362.99

570-1-1	PERFORMANCE TURF	1,533.19 SY	\$2.54	\$3,894.30
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Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,718.48 LF	\$1.84	\$12,362.00
104-11	FLOATING TURBIDITY BARRIER	122.35 LF	\$11.66	\$1,426.60
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	122.35 LF	\$5.90	\$721.86
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
104-18	INLET PROTECTION SYSTEM	3.00 EA	\$99.37	\$298.11
107-1	LITTER REMOVAL	11.86 AC	\$37.84	\$448.78
107-2	MOWING	11.86 AC	\$74.05	\$878.23
Shoulder Component Total				\$128,083.82

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	14.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 0.00
Paved Median Shoulder Width L/R	12.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips \bar{y}_i 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,540.12 SY	\$17.50	\$61,952.10
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	378.99 TN	\$158.68	\$60,138.13
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	7.58 TN	\$155.87	\$1,181.49
521-1	MEDIAN CONC BARRIER WALL	3,584.00 LF	\$155.00	\$555,520.00
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.00 PM	\$967.33	\$967.33
Median Component Total				\$679,759.05

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.81 CY	\$2,160.00	\$19,029.60
425-1-551	INLETS, DT BOT, TYPE E, <10'	3.00 EA	\$4,686.24	\$14,058.72
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	392.00 LF	\$100.00	\$39,200.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	176.00 LF	\$105.86	\$18,631.36
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	144.00 LF	\$144.65	\$20,829.60

430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	20.00 EA	\$1,579.93	\$31,598.60
524-1-1	CONCRETE DITCH PAVT, NR, 3"	978.80 SY	\$67.10	\$65,677.48
570-1-1	PERFORMANCE TURF	344.54 SY	\$2.54	\$875.13
Drainage Component Total				\$209,900.49

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00 AS	\$1,059.29	\$12,711.48
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	3.00 AS	\$7,250.00	\$21,750.00
Signing Component Total				\$39,059.89

Sequence 4 Total	\$3,741,478.37
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Sequence: 5 NDR - New Construction, Divided, Rural**Net Length:** 0.808 MI
4,264 LF**Description:** I-95 Mainline (NB & SB) Reconstruction from just North of NB Braided Ramp to End of Bridge
over Hillsboro Blvd (includes NB Bridge Widening over Hillsboro Blvd)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	110.00 / 110.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.091
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	21.55	AC	\$38,512.13	\$829,936.40
120-6	EMBANKMENT	140,350.89	CY	\$15.00	\$2,105,263.35
Earthwork Component Total					\$2,935,199.75

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	64.00 / 64.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	85,917.44	SY	\$6.41	\$550,730.79
285-709	OPTIONAL BASE,BASE GROUP 09	61,270.78	SY	\$27.13	\$1,662,276.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	8,338.74	TN	\$158.68	\$1,323,191.26
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,425.82	TN	\$155.87	\$378,112.56

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	5,217.00	SY	\$6.41	\$33,440.97
	Comment: NB Direct Connect Lane (portion): 1035 SY NB On Ramp (SW 10th Street) Travel Lane & Shoulders (portion): 1333 SY + 1683 SY SB Aux Lane before SB Off ramp to Hillsboro: 1166 SY				
285-704	OPTIONAL BASE,BASE GROUP 04	1,683.00	SY	\$17.50	\$29,452.50

	Comment: NB On Ramp (SW 10th Street) Shoulders (portion): 1683 SY			
285-709	OPTIONAL BASE,BASE GROUP 09	3,534.00 SY	\$27.13	\$95,877.42
	Comment: NB On Ramp (SW 10th Street) Travel Lane (portion): 1333 SY SB Aux Lane before SB Off ramp to Hillsboro: 1166 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	717.34 TN	\$158.68	\$113,827.51
	Comment: Stabilization areas x 275 LB/SY / 2000 LB			
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	208.68 TN	\$155.87	\$32,526.95
	Comment: Stabilization areas x 80 LB/SY / 2000 LB			

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	545.00 EA	\$4.68	\$2,550.60
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.46 GM	\$864.36	\$5,583.77
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.46 GM	\$385.62	\$2,491.11
Roadway Component Total				\$4,230,061.70

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	14.67 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	11,683.71 SY	\$17.50	\$204,464.92
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,563.51 TN	\$158.68	\$248,097.77
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	454.84 TN	\$155.87	\$70,895.91
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.62 PM	\$967.33	\$1,567.07
570-1-1	PERFORMANCE TURF	2,530.05 SY	\$2.54	\$6,426.33

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	11,086.73	LF	\$1.84	\$20,399.58
104-11	FLOATING TURBIDITY BARRIER	201.90	LF	\$11.66	\$2,354.15
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	201.90	LF	\$5.90	\$1,191.21
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,013.84	\$2,013.84
104-18	INLET PROTECTION SYSTEM	5.00	EA	\$99.37	\$496.85
107-1	LITTER REMOVAL	19.58	AC	\$37.84	\$740.91
107-2	MOWING	19.58	AC	\$74.05	\$1,449.90

Shoulder Component Total

\$560,098.45

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips $\frac{1}{2}$ No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	11,683.71	SY	\$17.50	\$204,464.92
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,250.81	TN	\$158.68	\$198,478.53
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	25.02	TN	\$155.87	\$3,899.87
521-1	MEDIAN CONC BARRIER WALL	5,764.00	LF	\$155.00	\$893,420.00
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	2.00	PM	\$967.33	\$1,934.66

Median Component Total

\$1,302,197.99

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	14.54	CY	\$2,160.00	\$31,406.40
425-1-551	INLETS, DT BOT, TYPE E, <10'	5.00	EA	\$4,686.24	\$23,431.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	648.00	LF	\$100.00	\$64,800.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	280.00	LF	\$105.86	\$29,640.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	240.00	LF	\$144.65	\$34,716.00
430-984-129		33.00	EA	\$1,579.93	\$52,137.69

	MITERED END SECT, OPTIONAL RD, 24" SD			
524-1-1	CONCRETE DITCH PAVT, NR, 3"	1,615.20 SY	\$67.10	\$108,379.92
570-1-1	PERFORMANCE TURF	568.55 SY	\$2.54	\$1,444.12
Drainage Component Total				\$345,956.13

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	\$348.41	\$696.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00 AS	\$1,059.29	\$21,185.80
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,250.00	\$8,500.00
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00 AS	\$7,250.00	\$36,250.00
Signing Component Total				\$66,632.62

LIGHTING COMPONENT

Rural Lighting Subcomponent				
Description				Value
Multiplier (Number of Poles)				58
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	11,600.00 LF	\$8.00	\$92,800.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	58.00 EA	\$618.33	\$35,863.14
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	34,800.00 LF	\$2.28	\$79,344.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	58.00 EA	\$6,500.00	\$377,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	58.00 EA	\$618.53	\$35,874.74
Subcomponent Total				\$620,881.88
Lighting Component Total				\$620,881.88

BRIDGES COMPONENT

Bridge NBHILS	
Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	228.00
Width (LF)	45.00
Type	Low Level
Cost Factor	1.30
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$156.00

Final Cost per SF	\$161.15
Basic Bridge Cost	\$1,600,560.00
Description	I-95 NB BRIDGE WIDENING OVER HILLSBORO BLVD (INCLUDES WIDENING FOR RAMP)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	100.00	CY	\$351.19	\$35,119.00
415-1-9	REINF STEEL- APPROACH SLABS	17,500.00	LB	\$1.01	\$17,675.00
Bridge NBHILS Total					\$1,653,354.00
Bridges Component Total					\$1,653,354.00
<hr/>					
Sequence 5 Total					\$11,714,382.52
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Sequence: 6 NUR - New Construction, Undivided, Rural**Net Length:** 0.142 MI
750 LF**Description:** I-95 Northbound Off Ramp Reconstruction to SW 10th Street**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	40.00 / 40.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.322
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.38	AC	\$38,512.13	\$53,146.74
120-6	EMBANKMENT	18,478.85	CY	\$15.00	\$277,182.75
Earthwork Component Total					\$330,329.49

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,443.58	SY	\$6.41	\$28,483.35
285-709	OPTIONAL BASE,BASE GROUP 09	2,054.34	SY	\$27.13	\$55,734.24
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	329.89	TN	\$158.68	\$52,346.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	79.97	TN	\$155.87	\$12,464.92

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,423.00	SY	\$6.41	\$21,941.43
	Comment: Left Turn Lanes: 2726 SY Right Turn Lane: 697 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	3,423.00	SY	\$27.13	\$92,865.99
	Comment: Left Turn Lanes: 2726 SY Right Turn Lane: 697 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	470.66	TN	\$158.68	\$74,684.33

	Comment: Left Turn Lanes: 2726 SY Right Turn Lane: 697 SY 3423 SY x 275 LB/SY / 2000 LB			
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	136.92 TN	\$155.87	\$21,341.72
	Comment: Left Turn Lanes: 2726 SY Right Turn Lane: 697 SY 3423 SY x 80 LB/SY / 2000 LB			

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	19.00 EA	\$4.68	\$88.92
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.57 GM	\$864.36	\$492.69
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.28 GM	\$396.46	\$111.01
Roadway Component Total				\$360,555.55

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	14.67 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips \bar{r}_i 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	2,054.34 SY	\$17.50	\$35,950.95
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	274.91 TN	\$158.68	\$43,622.72
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	79.97 TN	\$155.87	\$12,464.92
570-1-1	PERFORMANCE TURF	444.86 SY	\$2.54	\$1,129.94

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,949.38 LF	\$1.84	\$3,586.86
104-11	FLOATING TURBIDITY BARRIER	35.50 LF	\$11.66	\$413.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	35.50 LF	\$5.90	\$209.45

104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	1.72 AC	\$37.84	\$65.08
107-2	MOWING	1.72 AC	\$74.05	\$127.37
Shoulder Component Total				\$99,585.06

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.56 CY	\$2,160.00	\$5,529.60
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	120.00 LF	\$100.00	\$12,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	24.00 LF	\$144.65	\$3,471.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	6.00 EA	\$1,579.93	\$9,479.58
570-1-1	PERFORMANCE TURF	99.97 SY	\$2.54	\$253.92
Drainage Component Total				\$30,734.70

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00 AS	\$1,059.29	\$3,177.87
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$7,776.28

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value			
Multiplier (Number of Poles)	18			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,600.00 LF	\$8.00	\$28,800.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	18.00 EA	\$618.33	\$11,129.94
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,800.00 LF	\$2.28	\$24,624.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	18.00 EA	\$6,500.00	\$117,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	18.00 EA	\$618.53	\$11,133.54
Subcomponent Total				\$192,687.48
Lighting Component Total				\$192,687.48

Sequence 6 Total

\$1,021,668.56

Sequence: 7 NUR - New Construction, Undivided, Rural**Net Length:** 0.298 MI
1,575 LF**Description:** I-95 Northbound on ramp (Loop)reconstruction from EB SW 10th Street to Merge with SW 10th Street WB On Ramp**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.298
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.53	AC	\$38,512.13	\$97,435.69
120-6	EMBANKMENT	8,871.29	CY	\$15.00	\$133,069.35
Earthwork Component Total					\$230,505.04

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	0.00 / 12.00
Structural Spread Rate	165
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,234.61	SY	\$6.41	\$46,373.85
285-709	OPTIONAL BASE,BASE GROUP 09	2,157.78	SY	\$27.13	\$58,540.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	173.25	TN	\$158.68	\$27,491.31
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	115.50	TN	\$160.00	\$18,480.00

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	40.00 EA	\$4.68	\$187.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.19 GM	\$864.36	\$1,028.59
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.60 GM	\$396.46	\$237.88

Peripherals Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-1	MEDIAN CONC BARRIER WALL	226.00 LF	\$155.00	\$35,030.00
Roadway Component Total				\$187,369.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	14.67 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 6.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips i ₂ 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,107.77 SY	\$17.50	\$19,385.97
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	86.63 TN	\$158.68	\$13,746.45
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	42.00 TN	\$160.00	\$6,720.00
570-1-1	PERFORMANCE TURF	934.51 SY	\$2.54	\$2,373.66

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,095.06 LF	\$1.84	\$7,534.91
104-12		74.58 LF	\$5.90	\$440.02

	STAKED TURBIDITY BARRIER- NYL REINF PVC			
107-1	LITTER REMOVAL	3.62 AC	\$37.84	\$136.98
107-2	MOWING	3.62 AC	\$74.05	\$268.06
Shoulder Component Total				\$50,606.06

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	5.37 CY	\$2,160.00	\$11,599.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	240.00 LF	\$100.00	\$24,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	56.00 LF	\$144.65	\$8,100.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	12.00 EA	\$1,579.93	\$18,959.16
570-1-1	PERFORMANCE TURF	210.00 SY	\$2.54	\$533.40
Drainage Component Total				\$63,192.16

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	6.00 AS	\$1,059.29	\$6,355.74
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$10,954.15

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

17

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,400.00 LF	\$8.00	\$27,200.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	17.00 EA	\$618.33	\$10,511.61
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,200.00 LF	\$2.28	\$23,256.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	17.00 EA	\$6,500.00	\$110,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	17.00 EA	\$618.53	\$10,515.01
Subcomponent Total				\$181,982.62
Lighting Component Total				\$181,982.62

Sequence 7 Total

\$724,609.43

Sequence: 8 NUR - New Construction, Undivided, Rural**Net Length:** 0.216 MI
1,140 LF**Description:** I-95 Northbound On Ramp Reconstruction from WB SW 10th Street to beginning of Braided Ramps (includes Merge with EB to NB on Ramp)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	30.00 / 30.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.216
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.57	AC	\$38,512.13	\$60,464.04
120-6	EMBANKMENT	5,728.17	CY	\$15.00	\$85,922.55
Earthwork Component Total					\$146,386.59

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,378.06	SY	\$6.41	\$21,653.36
285-709	OPTIONAL BASE,BASE GROUP 09	1,561.73	SY	\$27.13	\$42,369.73
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	167.19	TN	\$158.68	\$26,529.71
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	60.80	TN	\$155.87	\$9,476.90

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Merge Travel Lanes: 775 SY	775.00	SY	\$6.41	\$4,967.75
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Merge Travel Lanes: 775 SY	775.00	SY	\$27.13	\$21,025.75

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	106.56 TN	\$158.68	\$16,908.94
	Comment: Merge Travel Lanes: 775 SY * 275 LB/SY / 2000 LB			
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	31.00 TN	\$155.87	\$4,831.97
	Comment: Merge Travel Lanes: 775 SY * 80 LB/SY / 2000 LB			

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.86 GM	\$864.36	\$743.35

Peripherals Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-1	MEDIAN CONC BARRIER WALL	361.00 LF	\$155.00	\$55,955.00

Roadway Component Total

\$204,462.46

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 8.67
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
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285-704	OPTIONAL BASE,BASE GROUP 04	1,603.53 SY	\$17.50	\$28,061.78
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	208.99 TN	\$158.68	\$33,162.53
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	6.69 TN	\$155.87	\$1,042.77
570-1-1	PERFORMANCE TURF	338.19 SY	\$2.54	\$859.00

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,963.88 LF	\$1.84	\$5,453.54
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	53.98 LF	\$5.90	\$318.48
107-1	LITTER REMOVAL	2.62 AC	\$37.84	\$99.14
107-2	MOWING	2.62 AC	\$74.05	\$194.01
Shoulder Component Total				\$69,191.25

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.89 CY	\$2,160.00	\$8,402.40
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	176.00 LF	\$100.00	\$17,600.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00 LF	\$144.65	\$5,786.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	9.00 EA	\$1,579.93	\$14,219.37
570-1-1	PERFORMANCE TURF	151.99 SY	\$2.54	\$386.05
Drainage Component Total				\$46,393.82

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00 AS	\$1,059.29	\$5,296.45
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$9,894.86

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	12

Pay Items

Pay item	Description	Quantity Unit	Extended Amount
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			Unit Price	
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,400.00 LF	\$8.00	\$19,200.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$618.33	\$7,419.96
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	7,200.00 LF	\$2.28	\$16,416.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	12.00 EA	\$6,500.00	\$78,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	12.00 EA	\$618.53	\$7,422.36
	Subcomponent Total			\$128,458.32
	Lighting Component Total			\$128,458.32
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	Sequence 8 Total			\$604,787.30
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Sequence: 9NUR - New Construction, Undivided, Rural**Net Length:** 0.707 MI
3,732 LF**Description:** I-95 Northbound Off Ramp Reconstruction to Hillsboro Blvd (includes Hillsboro Blvd Median Modification)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	30.00 / 30.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.779
Top of Structural Course For Begin Section	104.00
Top of Structural Course For End Section	104.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.14	AC	\$38,512.13	\$197,952.35
120-6	EMBANKMENT	14,111.05	CY	\$15.00	\$211,665.75
Earthwork Component Total					\$409,618.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	11,195.71	SY	\$6.41	\$71,764.50
285-709	OPTIONAL BASE,BASE GROUP 09	6,356.68	SY	\$27.13	\$172,456.73
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	855.23	TN	\$158.68	\$135,707.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	248.79	TN	\$155.87	\$38,778.90

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Additional travel lanes: 1874 SY + 1528 SY Hillsboro Median Mod: 282 SY	3,684.00	SY	\$6.41	\$23,614.44
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Additional travel lanes: 1874 SY + 1528 SY Hillsboro Median Mod: 282 SY	3,684.00	SY	\$27.13	\$99,946.92
334-1-13		506.55	TN	\$158.68	\$80,379.35

SUPERPAVE ASPHALTIC CONC,
TRAFFIC C

Comment: Additional travel lanes: 1874 SY + 1528 SY
Hillsboro Median Mod: 282 SY 3684 SY * 275 LB/SY /
2000 LB

337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	147.36 TN	\$155.87	\$22,969.00
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Comment: Additional travel lanes: 1874 SY + 1528 SY
Hillsboro Median Mod: 282 SY 3684 SY * 80 LB/SY / 2000
LB

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.83	GM	\$864.36	\$2,446.14

Peripherals Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1	MEDIAN CONC BARRIER WALL	2,661.00	LF	\$155.00	\$412,455.00
544-75-1	CRASH CUSHION	1.00	EA	\$18,119.10	\$18,119.10

Roadway Component Total \$1,078,637.98

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	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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285-704	OPTIONAL BASE,BASE GROUP 04	5,249.54 SY	\$17.50	\$91,866.95
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	684.18 TN	\$158.68	\$108,565.68
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	21.89 TN	\$155.87	\$3,411.99

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Additional Shoulder Width: 6' x 1219' = 7314 SF / 9 SY/SF = 812.66 SY x 2 (Left/Right)	1,625.32 SY	\$6.41	\$10,418.30
285-704	OPTIONAL BASE,BASE GROUP 04 Comment: Additional Shoulder Width: 6' x 1219' = 7314 SF / 9 SY/SF = 812.66 SY x 2 (Left/Right)	1,625.32 SY	\$17.50	\$28,443.10
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: Additional Shoulder Width: 6' x 1219' = 7314 SF / 9 SY/SF = 812.66 SY x 2 (Left/Right) = 1625.32 SY * 275 LB/SY / 2000 LB	223.48 TN	\$158.68	\$35,461.81
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22 Comment: Additional Shoulder Width: 6' x 1219' = 7314 SF / 9 SY/SF = 812.66 SY x 2 (Left/Right) = 1625.32 SY * 80 LB/SY / 2000 LB	65.01 TN	\$160.00	\$10,401.60

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,702.95 LF	\$1.84	\$17,853.43
104-11	FLOATING TURBIDITY BARRIER	176.70 LF	\$11.66	\$2,060.32
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	176.70 LF	\$5.90	\$1,042.53
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	8.57 AC	\$37.84	\$324.29
107-2	MOWING	8.57 AC	\$74.05	\$634.61
Shoulder Component Total				\$312,498.45

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	12.72 CY	\$2,160.00	\$27,475.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	568.00 LF	\$100.00	\$56,800.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	120.00 LF	\$144.65	\$17,358.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	29.00 EA	\$1,579.93	\$45,817.97
570-1-1	PERFORMANCE TURF	497.59 SY	\$2.54	\$1,263.88
Drainage Component Total				\$148,715.05

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	\$348.41	\$696.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	15.00 AS	\$1,059.29	\$15,889.35
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,250.00	\$8,500.00
Signing Component Total				\$25,086.17

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value			
Multiplier (Number of Poles)	42			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	8,400.00 LF	\$8.00	\$67,200.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	42.00 EA	\$618.33	\$25,969.86
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	25,200.00 LF	\$2.28	\$57,456.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	42.00 EA	\$6,500.00	\$273,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	42.00 EA	\$618.53	\$25,978.26
Subcomponent Total				\$449,604.12
Lighting Component Total				\$449,604.12
Sequence 9 Total				\$2,424,159.87

Sequence: 10 NUR - New Construction, Undivided, Rural**Net Length:** 0.152 MI
800 LF**Description:** I-95 Northbound On Ramp Reconstruction from SW 10th Street (just after the EB/WB merge, includes Braided Ramp Bridge)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	30.00 / 30.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.017
Top of Structural Course For Begin Section	38.80
Top of Structural Course For End Section	44.50
Horizontal Elevation For Begin Section	16.00
Horizontal Elevation For End Section	16.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %
Alignment Number	2
Distance	0.179
Top of Structural Course For Begin Section	44.50
Top of Structural Course For End Section	16.00
Horizontal Elevation For Begin Section	16.00
Horizontal Elevation For End Section	16.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
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	1.11	AC	\$38,512.13	\$42,748.46
120-1	REGULAR EXCAVATION	11,787.75	CY	\$10.00	\$117,877.50
120-6	EMBANKMENT	1,712.22	CY	\$15.00	\$25,683.30
Earthwork Component Total					\$186,309.26

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,399.76	SY	\$6.41	\$15,382.46
285-709	OPTIONAL BASE,BASE GROUP 09	1,362.53	SY	\$27.13	\$36,965.44
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	183.31	TN	\$158.68	\$29,087.63
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	53.33	TN	\$155.87	\$8,312.55

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.61	GM	\$864.36	\$527.26

Peripherals Subcomponent

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

Roadway Component Total

\$90,275.34

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	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,125.22	SY	\$17.50	\$19,691.35
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	146.65	TN	\$158.68	\$23,270.42
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	4.69	TN	\$155.87	\$731.03

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,079.79	LF	\$1.84	\$3,826.81
104-11	FLOATING TURBIDITY BARRIER	37.88	LF	\$11.66	\$441.68
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	37.88	LF	\$5.90	\$223.49
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,013.84	\$2,013.84

107-1	LITTER REMOVAL	1.84 AC	\$37.84	\$69.63
107-2	MOWING	1.84 AC	\$74.05	\$136.25
Shoulder Component Total				\$50,404.50

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.73 CY	\$2,160.00	\$5,896.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	128.00 LF	\$100.00	\$12,800.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00 LF	\$144.65	\$4,628.80
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	7.00 EA	\$1,579.93	\$11,059.51
570-1-1	PERFORMANCE TURF	106.66 SY	\$2.54	\$270.92
Drainage Component Total				\$34,656.03

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00 AS	\$1,059.29	\$4,237.16
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$8,835.57

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value			
Multiplier (Number of Poles)	11			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,200.00 LF	\$8.00	\$17,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	11.00 EA	\$618.33	\$6,801.63
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,600.00 LF	\$2.28	\$15,048.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	11.00 EA	\$6,500.00	\$71,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	11.00 EA	\$618.53	\$6,803.83
Subcomponent Total				\$117,753.46
Lighting Component Total				\$117,753.46

BRIDGES COMPONENT**Bridge NBRAID**

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	500.00
Width (LF)	38.00
Type	Low Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$150.00
Final Cost per SF	\$152.35
Basic Bridge Cost	\$2,850,000.00
Description	I-95 NORTHBOUND BRAIDED RAMP BRIDGE

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	84.44	CY	\$351.19	\$29,654.48
415-1-9	REINF STEEL- APPROACH SLABS	14,777.00	LB	\$1.01	\$14,924.77
Bridge NBRAID Total					\$2,894,579.25
Bridges Component Total					\$2,894,579.25

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	2,077.00	LF	\$260.00	\$540,020.00
Comment: One for each wall length 2 x 91.5 LF + 2 x 1197 LF = 2577 LF					

Retaining Wall 1

Description	Value
Length	91.50
Begin height	14.00
End Height	38.80
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,415.60	SF	\$28.00	\$67,636.80

Retaining Wall 2

Description	Value
Length	91.50
Begin height	14.00
End Height	38.80
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,415.60 SF	\$28.00	\$67,636.80
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Retaining Wall 3

Description	Value
Length	1,197.00
Begin height	40.00
End Height	14.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	32,319.00	SF	\$28.00	\$904,932.00

Retaining Wall 4

Description	Value
Length	1,197.00
Begin height	40.00
End Height	14.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	32,319.00	SF	\$28.00	\$904,932.00

Retaining Walls Component Total	\$2,485,157.60
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Sequence 10 Total	\$5,867,971.01
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Sequence: 11 NUR - New Construction, Undivided, Rural**Net Length:** 0.352 MI
1,858 LF**Description:** I-95 Northbound On Ramp Reconstruction from EB Hillsboro Blvd (note: Ramp Bridge widening, included in Sequence 5)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.060
Top of Structural Course For Begin Section	16.00
Top of Structural Course For End Section	27.00
Horizontal Elevation For Begin Section	16.00
Horizontal Elevation For End Section	14.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %
Alignment Number	2
Distance	0.060
Top of Structural Course For Begin Section	27.00
Top of Structural Course For End Section	38.50
Horizontal Elevation For Begin Section	14.00
Horizontal Elevation For End Section	38.50
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.28	AC	\$38,512.13	\$49,295.53
120-1	REGULAR EXCAVATION	5,414.64	CY	\$10.00	\$54,146.40
120-6	EMBANKMENT	5,414.64	CY	\$15.00	\$81,219.60

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.47	AC	\$38,512.13	\$18,100.70
	Comment: Additional Clear and Grubbing - Removal of Existing Lane: 2266 SY / 4840 SY/AC = .4681 AC				

Earthwork Component Total

\$202,762.23

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,778.96	SY	\$6.41	\$49,863.13
285-709	OPTIONAL BASE,BASE GROUP 09	3,164.85	SY	\$27.13	\$85,862.38
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	425.80	TN	\$158.68	\$67,565.94
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	123.87	TN	\$155.87	\$19,307.62

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	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.41	GM	\$864.36	\$1,218.75
Roadway Component Total					\$223,817.82

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	11.34 / 11.34
Total Outside Shoulder Perf. Turf Width L/R	5.34 / 5.34
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	2,613.63	SY	\$17.50	\$45,738.52
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	340.64	TN	\$158.68	\$54,052.76
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	10.90	TN	\$155.87	\$1,698.98
570-1-1	PERFORMANCE TURF	2,204.86	SY	\$2.54	\$5,600.34

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,830.88	LF	\$1.84	\$8,888.82
104-12		87.98	LF	\$5.90	\$519.08

	STAKED TURBIDITY BARRIER- NYL REINF PVC			
107-1	LITTER REMOVAL	4.27 AC	\$37.84	\$161.58
107-2	MOWING	4.27 AC	\$74.05	\$316.19
Shoulder Component Total				\$116,976.28

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	6.33 CY	\$2,160.00	\$13,672.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	288.00 LF	\$100.00	\$28,800.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	64.00 LF	\$144.65	\$9,257.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	15.00 EA	\$1,579.93	\$23,698.95
570-1-1	PERFORMANCE TURF	247.74 SY	\$2.54	\$629.26
Drainage Component Total				\$76,058.61

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	8.00 AS	\$1,059.29	\$8,474.32
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT Comment: NB I-95 On Ramp from EB Hillsboro Blvd	1.00 EA	\$75,000.00	\$75,000.00
Signing Component Total				\$88,072.73

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

19

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,800.00 LF	\$8.00	\$30,400.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00 EA	\$618.33	\$11,748.27
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	11,400.00 LF	\$2.28	\$25,992.00

715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	19.00 EA	\$6,500.00	\$123,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	19.00 EA	\$618.53	\$11,752.07
	Subcomponent Total			\$203,392.34
	Lighting Component Total			\$203,392.34
<hr/>				
	Sequence 11 Total			\$911,080.01
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Sequence: 12 NUR - New Construction, Undivided, Rural**Net Length:** 0.179 MI
944 LF**Description:** I-95 Northbound On Ramp Reconstruction from WB Hillsboro Blvd (includes removal of existing NB to WB off ramp)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.129
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.65	AC	\$38,512.13	\$25,032.88
120-6	EMBANKMENT	3,631.38	CY	\$15.00	\$54,470.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.67	AC	\$38,512.13	\$25,803.13
	Comment: Removal of existing off ramp: 3212 SY 3212 SY / 4808 SY/AC				

Earthwork Component Total \$105,306.71**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,392.34	SY	\$6.41	\$21,744.90
285-709	OPTIONAL BASE,BASE GROUP 09	1,608.06	SY	\$27.13	\$43,626.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	216.35	TN	\$158.68	\$34,330.42
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	62.94	TN	\$155.87	\$9,810.46

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Additional Lane: 871 SY	871.00	SY	\$6.41	\$5,583.11
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Additional Lane: 871 SY	871.00	SY	\$27.13	\$23,630.23
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: Additional Lane: 871 SY * 275 LB/SY / 2000 LB	119.76	TN	\$158.68	\$19,003.52
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22 Comment: Additional Lane: 871 SY * 80 LB/SY / 2000 LB	34.84	TN	\$155.87	\$5,430.51

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.72	GM	\$864.36	\$622.34

Roadway Component Total

\$163,782.16

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.67 / 8.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,327.98	SY	\$17.50	\$23,239.65
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	173.08	TN	\$158.68	\$27,464.33
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	50.35	TN	\$155.87	\$7,848.05
570-1-1	PERFORMANCE TURF	560.14	SY	\$2.54	\$1,422.76

X-Items

Pay item	Description	Quantity	Unit	Unit Price
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522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	744.00 SY	\$41.68	Extended Amount \$31,009.92
	Comment: 6' x 1069' = 6414 SF + 6' x 47' = 282 SF / 9 SF/SY			

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,454.57 LF	\$1.84	\$4,516.41
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	44.70 LF	\$5.90	\$263.73
107-1	LITTER REMOVAL	2.17 AC	\$37.84	\$82.11
107-2	MOWING	2.17 AC	\$74.05	\$160.69
Shoulder Component Total				\$96,007.65

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.22 CY	\$2,160.00	\$6,955.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	144.00 LF	\$100.00	\$14,400.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00 LF	\$144.65	\$4,628.80
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	8.00 EA	\$1,579.93	\$12,639.44
570-1-1	PERFORMANCE TURF	125.88 SY	\$2.54	\$319.74
Drainage Component Total				\$38,943.18

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00 AS	\$1,059.29	\$4,237.16
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	1.00 EA	\$75,000.00	\$75,000.00
	Comment: I-95 NB On Ramp from WB Hillsboro Blvd			
Signing Component Total				\$83,835.57

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description				Value	
Multiplier (Number of Poles)				10	
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,000.00	LF	\$8.00	\$16,000.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	\$618.33	\$6,183.30
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	\$2.28	\$13,680.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	10.00	EA	\$6,500.00	\$65,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	\$618.53	\$6,185.30
Subcomponent Total					\$107,048.60
Lighting Component Total					\$107,048.60
Sequence 12 Total					\$594,923.87

Sequence: 13 NUR - New Construction, Undivided, Rural**Net Length:** 0.594 MI
3,136 LF**Description:** I-95 Northbound On Ramp Reconstruction from EB/WB Hillsboro Blvd (include removal of existing WB to NB on ramp)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
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
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.16	AC	\$38,512.13	\$83,186.20

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.99	AC	\$38,512.13	\$38,127.01
	Comment: Removal of existing on ramp: 4745 SY / 4808 SY/AC				

Earthwork Component Total \$121,313.21**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,337.66	SY	\$6.41	\$66,264.40
285-709	OPTIONAL BASE,BASE GROUP 09	5,341.30	SY	\$27.13	\$144,909.47
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	718.62	TN	\$158.68	\$114,030.62
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	209.05	TN	\$155.87	\$32,584.62

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	466.00	SY	\$6.41	\$2,987.06
	Comment: Additional Lane (On Ramp): 466 SY				

285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Additional Lane (On Ramp): 466 SY	466.00 SY	\$27.13	\$12,642.58
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: Additional Lane (On Ramp): 466 SY x 275 LB/SY / 2000 LB	64.08 TN	\$158.68	\$10,168.21
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22 Comment: Additional Lane (On Ramp): 466 SY x 80 LB/SY / 2000 LB	18.64 TN	\$155.87	\$2,905.42

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	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.38	GM	\$864.36	\$2,057.18

Roadway Component Total

\$388,549.56

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	6.00 / 8.67
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,411.01	SY	\$17.50	\$77,192.68
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	574.90	TN	\$158.68	\$91,225.13
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	18.40	TN	\$155.87	\$2,868.01
570-1-1	PERFORMANCE TURF	930.28	SY	\$2.54	\$2,362.91

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Additional Shoulder width: 6' x 2000' = 12000 / 9 = 1333.33 SY	1,333.33	SY	\$6.41	\$8,546.65
285-704	OPTIONAL BASE,BASE GROUP 04	1,333.33	SY	\$17.50	\$23,333.28

	Comment: Additional Shoulder width: 6' x 2000' = 12000 / 9 = 1333.33 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	183.33 TN	\$158.68	\$29,090.80
	Comment: Additional Shoulder width: 6' x 2000' = 12000 / 9 = 1333.33 SY x 275 LB/SY x 2000 LB			
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	53.33 TN	\$155.87	\$8,312.55
	Comment: Additional Shoulder width: 6' x 2000' = 12000 / 9 = 1333.33 SY x 80 LB/SY x 2000 LB			

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,153.06 LF	\$1.84	\$15,001.63
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	148.48 LF	\$5.90	\$876.03
107-1	LITTER REMOVAL	7.20 AC	\$37.84	\$272.45
107-2	MOWING	7.20 AC	\$74.05	\$533.16
Shoulder Component Total				\$259,615.28

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	10.69 CY	\$2,160.00	\$23,090.40
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	480.00 LF	\$100.00	\$48,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	104.00 LF	\$144.65	\$15,043.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	24.00 EA	\$1,579.93	\$37,918.32
570-1-1	PERFORMANCE TURF	418.11 SY	\$2.54	\$1,062.00
Drainage Component Total				\$125,114.32

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	\$348.41	\$696.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00 AS	\$1,059.29	\$12,711.48
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,250.00	\$8,500.00
Signing Component Total				\$21,908.30

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value
Multiplier (Number of Poles)	32
Pay Items	

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,400.00	LF	\$8.00	\$51,200.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	32.00	EA	\$618.33	\$19,786.56
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	19,200.00	LF	\$2.28	\$43,776.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	32.00	EA	\$6,500.00	\$208,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	32.00	EA	\$618.53	\$19,792.96
	Subcomponent Total				\$342,555.52
	Lighting Component Total				\$342,555.52
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Sequence 13 Total					\$1,259,056.19
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Sequence: 14 NUR - New Construction, Undivided, Rural**Net Length:** 0.207 MI
1,092 LF**Description:** I-95 Southbound Off Ramp Reconstruction to EB/WB Hillsboro Blvd**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.207
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.75	AC	\$38,512.13	\$28,884.10
120-6	EMBANKMENT	5,827.10	CY	\$15.00	\$87,406.50
Earthwork Component Total					\$116,290.60

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,923.58	SY	\$6.41	\$25,150.15
285-709	OPTIONAL BASE,BASE GROUP 09	1,859.88	SY	\$27.13	\$50,458.54
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.23	TN	\$158.68	\$39,706.50
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	72.79	TN	\$155.87	\$11,345.78

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.83	GM	\$864.36	\$717.42
Roadway Component Total					\$127,378.39

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.67 / 8.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,535.94	SY	\$17.50	\$26,878.95
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	200.18	TN	\$158.68	\$31,764.56
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	58.23	TN	\$155.87	\$9,076.31
570-1-1	PERFORMANCE TURF	647.86	SY	\$2.54	\$1,645.56

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,838.95	LF	\$1.84	\$5,223.67
104-11	FLOATING TURBIDITY BARRIER	51.70	LF	\$11.66	\$602.82
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	51.70	LF	\$5.90	\$305.03
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	2.51	AC	\$37.84	\$94.98
107-2	MOWING	2.51	AC	\$74.05	\$185.87
Shoulder Component Total					\$77,791.59

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.72	CY	\$2,160.00	\$8,035.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	168.00	LF	\$100.00	\$16,800.00
430-175-136		40.00	LF	\$144.65	\$5,786.00

	PIPE CULV, OPT MATL, ROUND, 36"S/CD			
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	9.00 EA	\$1,579.93	\$14,219.37
570-1-1	PERFORMANCE TURF	145.59 SY	\$2.54	\$369.80
Drainage Component Total				\$45,210.37

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00 AS	\$1,059.29	\$5,296.45
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$9,894.86

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value			
Multiplier (Number of Poles)	11			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,200.00 LF	\$8.00	\$17,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	11.00 EA	\$618.33	\$6,801.63
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,600.00 LF	\$2.28	\$15,048.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	11.00 EA	\$6,500.00	\$71,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	11.00 EA	\$618.53	\$6,803.83
Subcomponent Total				\$117,753.46
Lighting Component Total				\$117,753.46
Sequence 14 Total				\$494,319.27

Sequence: 15 NUR - New Construction, Undivided, Rural**Net Length:** 0.384 MI
2,029 LF**Description:** I-95 Southbound On Ramp Reconstruction from WB Hillsboro Blvd (includes new bridge over Hillsboro Blvd)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.044
Top of Structural Course For Begin Section	25.69
Top of Structural Course For End Section	30.60
Horizontal Elevation For Begin Section	16.00
Horizontal Elevation For End Section	16.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %
Alignment Number	2
Distance	0.440
Top of Structural Course For Begin Section	30.60
Top of Structural Course For End Section	35.55
Horizontal Elevation For Begin Section	16.00
Horizontal Elevation For End Section	16.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.26	AC	\$38,512.13	\$125,549.54
120-6	EMBANKMENT	107,962.94	CY	\$15.00	\$1,619,444.10

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.49	AC	\$38,512.13	\$18,870.94
	Comment: Removal of existing on ramp: 635 SY + 1739 SY = 2374 SY / 4808 SY/AC				

Earthwork Component Total \$1,763,864.58**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,291.25	SY	\$6.41	\$46,736.91

285-709	OPTIONAL BASE,BASE GROUP 09	3,456.24 SY	\$27.13	\$93,767.79
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	465.00 TN	\$158.68	\$73,786.20
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	135.27 TN	\$155.87	\$21,084.53

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	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.54	GM	\$864.36	\$1,331.11

Peripherals Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1	MEDIAN CONC BARRIER WALL	161.00	LF	\$155.00	\$24,955.00

Roadway Component Total

\$261,661.54

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.67 / 8.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	2,854.27	SY	\$17.50	\$49,949.72
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	372.00	TN	\$158.68	\$59,028.96
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	108.22	TN	\$155.87	\$16,868.25

570-1-1	PERFORMANCE TURF	1,203.94 SY	\$2.54	\$3,058.01
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Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,275.67 LF	\$1.84	\$9,707.23
104-11	FLOATING TURBIDITY BARRIER	96.07 LF	\$11.66	\$1,120.18
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	96.07 LF	\$5.90	\$566.81
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	4.66 AC	\$37.84	\$176.33
107-2	MOWING	4.66 AC	\$74.05	\$345.07

Shoulder Component Total

\$142,834.41

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	6.92 CY	\$2,160.00	\$14,947.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	312.00 LF	\$100.00	\$31,200.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	64.00 LF	\$144.65	\$9,257.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	16.00 EA	\$1,579.93	\$25,278.88
570-1-1	PERFORMANCE TURF	270.55 SY	\$2.54	\$687.20

Drainage Component Total

\$81,370.88

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	8.00 AS	\$1,059.29	\$8,474.32
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	1.00 EA	\$75,000.00	\$75,000.00
	Comment: SB I-95 On Ramp from WB Hillsboro Blvd			

Signing Component Total

\$88,072.73

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value
Multiplier (Number of Poles)	21

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,200.00	LF	\$8.00	\$33,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	21.00	EA	\$618.33	\$12,984.93
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	12,600.00	LF	\$2.28	\$28,728.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	21.00	EA	\$6,500.00	\$136,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	21.00	EA	\$618.53	\$12,989.13
Subcomponent Total					\$224,802.06
Lighting Component Total					\$224,802.06

BRIDGES COMPONENT**Bridge SBHILS**

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	185.00
Width (LF)	30.00
Type	Low Level
Cost Factor	1.05
Structure No.	860124
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$126.00
Final Cost per SF	\$132.34
Basic Bridge Cost	\$699,300.00
Description	I-95 SB ON RAMP BRIDGE OVER HILLSBORO BLVD

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	\$351.19	\$23,413.84
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25	LB	\$1.01	\$11,783.92
Bridge SBHILS Total					\$734,497.76
Bridges Component Total					\$734,497.76

RETAINING WALLS COMPONENT**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	1,182.00	LF	\$260.00	\$307,320.00
Comment: One for each wall 2x 228 FT + 2x 363FT = 1182 FT					

Retaining Wall 1

Description	Value
Length	363.00

Begin height 44.50
 End Height 44.50
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	16,153.50	SF	\$28.00	\$452,298.00

Retaining Wall 2

Description Value
 Length 363.00
 Begin height 44.50
 End Height 44.50
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	16,153.50	SF	\$28.00	\$452,298.00

Retaining Wall 3

Description Value
 Length 228.00
 Begin height 44.50
 End Height 39.00
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	9,519.00	SF	\$28.00	\$266,532.00

Retaining Wall 4

Description Value
 Length 228.00
 Begin height 44.50
 End Height 38.00
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	9,405.00	SF	\$28.00	\$263,340.00

Retaining Walls Component Total \$1,741,788.00

Sequence 15 Total \$5,038,891.96

Sequence: 16 NUR - New Construction, Undivided, Rural**Net Length:** 0.535 MI
2,825 LF**Description:** I-95 Southbound On Ramp Reconstruction from EB Hillsboro Blvd**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.535
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.95	AC	\$38,512.13	\$75,098.65
120-6	EMBANKMENT	32,631.67	CY	\$15.00	\$489,475.05
Earthwork Component Total					\$564,573.70

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	15.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	18,624.85	SY	\$6.41	\$119,385.29
285-709	OPTIONAL BASE,BASE GROUP 09	9,623.15	SY	\$27.13	\$261,076.06
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,294.70	TN	\$158.68	\$205,443.00
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	376.64	TN	\$155.87	\$58,706.88

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	72.00 EA	\$4.68	\$336.96
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.14 GM	\$864.36	\$1,849.73
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	1.07 GM	\$396.46	\$424.21
Roadway Component Total				\$647,222.13

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	14.67 / 14.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\bar{y}_i \frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	7,739.95 SY	\$17.50	\$135,449.12
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,035.76 TN	\$158.68	\$164,354.40
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	301.31 TN	\$155.87	\$46,965.19
570-1-1	PERFORMANCE TURF	1,676.05 SY	\$2.54	\$4,257.17

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	7,344.48 LF	\$1.84	\$13,513.84
104-11	FLOATING TURBIDITY BARRIER	133.75 LF	\$11.66	\$1,559.52
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	133.75 LF	\$5.90	\$789.12
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	6.48 AC	\$37.84	\$245.20
107-2	MOWING	6.48 AC	\$74.05	\$479.84
Shoulder Component Total				\$369,627.27

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.63 CY	\$2,160.00	\$20,800.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	432.00 LF	\$100.00	\$43,200.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	96.00 LF	\$144.65	\$13,886.40
430-984-129		22.00 EA	\$1,579.93	\$34,758.46

	MITERED END SECT, OPTIONAL RD, 24" SD			
570-1-1	PERFORMANCE TURF	376.64 SY	\$2.54	\$956.67
Drainage Component Total				\$113,602.33

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	\$348.41	\$696.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	11.00 AS	\$1,059.29	\$11,652.19
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,250.00	\$8,500.00
Signing Component Total				\$20,849.01

LIGHTING COMPONENT

Rural Lighting Subcomponent				
Description				Value
Multiplier (Number of Poles)				29
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,800.00 LF	\$8.00	\$46,400.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	29.00 EA	\$618.33	\$17,931.57
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	17,400.00 LF	\$2.28	\$39,672.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	29.00 EA	\$6,500.00	\$188,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	29.00 EA	\$618.53	\$17,937.37
Subcomponent Total				\$310,440.94
Lighting Component Total				\$310,440.94
Sequence 16 Total				\$2,026,315.38

Sequence: 17 NUR - New Construction, Undivided, Rural**Net Length:** 0.596 MI
3,146 LF**Description:** I-95 Southbound Off Ramp Reconstruction from Hillsboro Blvd (includes braided ramp bridge & Box culvert for canal)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.100
Top of Structural Course For Begin Section	44.50
Top of Structural Course For End Section	44.50
Horizontal Elevation For Begin Section	44.50
Horizontal Elevation For End Section	16.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %
Alignment Number	2
Distance	0.100
Top of Structural Course For Begin Section	44.50
Top of Structural Course For End Section	16.00
Horizontal Elevation For Begin Section	10.00
Horizontal Elevation For End Section	10.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %
Alignment Number	3
Distance	0.100
Top of Structural Course For Begin Section	16.00
Top of Structural Course For End Section	44.50
Horizontal Elevation For Begin Section	10.00
Horizontal Elevation For End Section	10.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.06	AC	\$38,512.13	\$194,871.38
120-6	EMBANKMENT	22,245.81	CY	\$15.00	\$333,687.15
Earthwork Component Total					\$528,558.53

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	9,437.47 SY	\$6.41	\$60,494.18
285-709	OPTIONAL BASE,BASE GROUP 09	5,358.39 SY	\$27.13	\$145,373.12
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	720.92 TN	\$158.68	\$114,395.59
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	209.72 TN	\$155.87	\$32,689.06

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.38 GM	\$864.36	\$2,057.18

Roadway Component Total

\$355,009.13

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	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,425.13 SY	\$17.50	\$77,439.77
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	576.73 TN	\$158.68	\$91,515.52
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	167.78 TN	\$155.87	\$26,151.87

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,179.14 LF	\$1.84	\$15,049.62
104-11	FLOATING TURBIDITY BARRIER	148.95 LF	\$11.66	\$1,736.76
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	148.95 LF	\$5.90	\$878.80
104-15		1.00 EA	\$2,013.84	\$2,013.84

	SOIL TRACKING PREVENTION DEVICE			
107-1	LITTER REMOVAL	7.22 AC	\$37.84	\$273.20
107-2	MOWING	7.22 AC	\$74.05	\$534.64
Shoulder Component Total				\$215,594.04

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	10.72 CY	\$2,160.00	\$23,155.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	480.00 LF	\$100.00	\$48,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	104.00 LF	\$144.65	\$15,043.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	24.00 EA	\$1,579.93	\$37,918.32
570-1-1	PERFORMANCE TURF	419.44 SY	\$2.54	\$1,065.38
Drainage Component Total				\$125,182.50

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	\$348.41	\$696.82
700-1-12	SINGLE POST SIGN, F&I GM, 12- 20 SF	12.00 AS	\$1,059.29	\$12,711.48
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,250.00	\$8,500.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41- 50 FT	1.00 EA	\$75,000.00	\$75,000.00
Comment: I-95 SB Off Ramp to SW 10th Street				
Signing Component Total				\$96,908.30

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

32

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,400.00 LF	\$8.00	\$51,200.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	32.00 EA	\$618.33	\$19,786.56
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	19,200.00 LF	\$2.28	\$43,776.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	32.00 EA	\$6,500.00	\$208,000.00
715-500-1		32.00 EA	\$618.53	\$19,792.96

POLE CABLE DIST SYS,
CONVENTIONAL**Subcomponent Total** \$342,555.52**Lighting Component Total** \$342,555.52**BRIDGES COMPONENT****Bridge SBRAID**

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	643.92
Width (LF)	42.67
Type	Low Level
Cost Factor	1.10
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$132.00
Final Cost per SF	\$133.82
Basic Bridge Cost	\$3,626,840.76
Description	I-95 SOUTHBOUND BRAIDED RAMP BRIDGE

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	94.82	CY	\$351.19	\$33,299.84
415-1-9	REINF STEEL- APPROACH SLABS	16,593.50	LB	\$1.01	\$16,759.44
Bridge SBRAID Total					\$3,676,900.04

Bridge BOX_C1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	750.00
Width (LF)	30.00
Type	Low Level
Cost Factor	0.50
Structure No.	
Removal of Existing Structures area	32,000.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$60.00
Final Cost per SF	\$61.56
Basic Bridge Cost	\$1,350,000.00
Description	BOX CULVERT TRIPLE 10X8.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	32,000.00	SF	\$28.66	\$917,120.00
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	\$351.19	\$23,413.84
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25	LB	\$1.01	\$11,783.92

Bridge BOX_C1 Total \$2,302,317.76

Bridges Component Total \$5,979,217.80

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	5,828.00	LF	\$260.00	\$1,515,280.00
	Comment: 559 LF + 95 LF (before braided rmp LT/RT) + 2x 570 LF(ramp down from braided rmp) + 2x 1447 LF (wall between SW 10th St off ramp bridge and braid rmp) 2x 570 LF(ramp up to SW 10th St rmp bridge)				

Retaining Wall 1

Description	Value
Length	559.00
Begin height	2.00
End Height	28.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	8,524.75	SF	\$28.00	\$238,693.00

Retaining Wall 2

Description	Value
Length	95.00
Begin height	28.50
End Height	28.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,707.50	SF	\$28.00	\$75,810.00

Retaining Wall 3

Description	Value
Length	570.00
Begin height	28.50
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	9,547.50	SF	\$28.00	\$267,330.00

Retaining Wall 4

Description	Value
-------------	-------

Length 570.00
 Begin height 28.50
 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	9,547.50	SF	\$28.00	\$267,330.00

Retaining Wall 5

Description Value
 Length 1,447.00
 Begin height 5.00
 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	7,235.00	SF	\$28.00	\$202,580.00

Retaining Wall 6

Description Value
 Length 1,447.00
 Begin height 5.00
 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	7,235.00	SF	\$28.00	\$202,580.00

Retaining Wall 7

Description Value
 Length 570.00
 Begin height 5.00
 End Height 28.50
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	9,547.50	SF	\$28.00	\$267,330.00

Retaining Wall 8

Description Value
 Length 570.00
 Begin height 5.00
 End Height 28.50
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	9,547.50	SF	\$28.00	\$267,330.00
Retaining Walls Component Total					\$3,304,263.00
<hr/>					
Sequence 17 Total					\$10,947,288.82
<hr/>					

Sequence: 18 NUR - New Construction, Undivided, Rural**Net Length:** 0.124 MI
652 LF**Description:** I-95 Southbound On Ramp Reconstruction from EB/WB SW 10th Street**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.100
Top of Structural Course For Begin Section	35.00
Top of Structural Course For End Section	25.00
Horizontal Elevation For Begin Section	10.00
Horizontal Elevation For End Section	10.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
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	1.05	AC	\$38,512.13	\$40,437.74
120-6	EMBANKMENT	10,995.89	CY	\$15.00	\$164,938.35

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.47	AC	\$38,512.13	\$18,100.70
	Comment: Additional C&G: Lane & Shoulders (EB to SB): 1025 SY + (12' x 512') / 9 = 1707.67 SY Merge to SB I-95: 278 SY + 300 SY = 578 SY 2285.67 SY / 4808 SY/AC = 0.47 AC				

Earthwork Component Total \$223,476.79**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,608.32	SY	\$6.41	\$16,719.33
285-709	OPTIONAL BASE,BASE GROUP 09	1,762.79	SY	\$27.13	\$47,824.49
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	239.10	TN	\$158.68	\$37,940.39
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	69.56	TN	\$155.87	\$10,842.32

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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160-4	TYPE B STABILIZATION	2,300.00 SY	\$6.41	\$14,743.00
	Comment: On Ramp Lane: 1025 SY On Ramp Shoulders: 2x6'x 512 = 6144SF/9 = 682.66 SY On Ramp Additional Shldr: 166 SY Merge Area (Lane): 278 SY Merge Area (Shoulders): 148 SY			
285-704	OPTIONAL BASE,BASE GROUP 04	997.00 SY	\$17.50	\$17,447.50
	Comment: Additional Shoulders: 682.66 + 166 + 148			
285-709	OPTIONAL BASE,BASE GROUP 09	1,303.00 SY	\$27.13	\$35,350.39
	Comment: Additional Lanes: 1025 + 278			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	316.25 TN	\$158.68	\$50,182.55
	Comment: All Additional Pavement (2.5" Thickness) : 2300 SY * 275 LB/SY / 2000			
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	92.00 TN	\$155.87	\$14,340.04
	Comment: All Additional Pavement (.75" Thickness) : 2300 SY * 80 LB/SY / 2000			

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.49	GM	\$864.36	\$423.54

Roadway Component Total

\$245,813.55

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	6.00 / 6.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips i _c ½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	917.26	SY	\$17.50	\$16,052.05
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	119.55	TN	\$158.68	\$18,970.19
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	34.78	TN	\$155.87	\$5,421.16

Shoulder Component Total

\$40,443.40

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.22 CY	\$2,160.00	\$4,795.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	104.00 LF	\$100.00	\$10,400.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	24.00 LF	\$144.65	\$3,471.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	5.00 EA	\$1,579.93	\$7,899.65
570-1-1	PERFORMANCE TURF	86.94 SY	\$2.54	\$220.83

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-175-196	PIPE CULV, OPT MATL, ROUND, 96"S/CD	600.00 LF	\$524.11	\$314,466.00
	Comment: 3x 200 FT -- Pipe Culvert Extension			

Drainage Component Total

\$341,253.28

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00 AS	\$1,059.29	\$3,177.87
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00

Signing Component Total

\$7,776.28

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

6

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,200.00 LF	\$8.00	\$9,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00 EA	\$618.33	\$3,709.98
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00 LF	\$2.28	\$8,208.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	6.00 EA	\$6,500.00	\$39,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00 EA	\$618.53	\$3,711.18
	Subcomponent Total			\$64,229.16

Lighting Component Total

\$64,229.16

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP Comment: 2x 421' (one for each side)	842.00	LF	\$260.00	\$218,920.00

Retaining Wall 1

Description	Value
Length	421.00
Begin height	35.00
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	12,630.00	SF	\$28.00	\$353,640.00

Retaining Wall 2

Description	Value
Length	421.00
Begin height	35.00
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	12,630.00	SF	\$28.00	\$353,640.00

Retaining Walls Component Total \$926,200.00

Sequence 18 Total \$1,849,192.46

Sequence: 19NDR - New Construction, Divided, Rural**Net Length:** 0.143 MI
753 LF**Description:** I-95 Direct Connect (SB to WB) and (EB to NB) Includes Flyover Bridge**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.143
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.21	AC	\$38,512.13	\$46,599.68
120-6	EMBANKMENT	9,294.54	CY	\$15.00	\$139,418.10
Earthwork Component Total					\$186,017.78

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	15.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,517.57	SY	\$6.41	\$28,957.62
285-709	OPTIONAL BASE,BASE GROUP 09	2,620.19	SY	\$27.13	\$71,085.75
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	345.09	TN	\$158.68	\$54,758.88
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	100.39	TN	\$155.87	\$15,647.79

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	19.00 EA	\$4.68	\$88.92
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.14 GM	\$864.36	\$985.37
Roadway Component Total				\$171,524.33

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 4.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	8.00 / 4.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips \bar{i} $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,059.12 SY	\$17.50	\$18,534.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	138.04 TN	\$158.68	\$21,904.19
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	40.16 TN	\$155.87	\$6,259.74
Shoulder Component Total				\$46,698.53

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	14.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	4.00 / 8.00
Paved Median Shoulder Width L/R	4.00 / 8.00
Structural Spread Rate	220
Friction Course Spread Rate	110
Total Width (T) / 8" Overlap (O)	T
Rumble Strips \bar{i} $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,059.12 SY	\$17.50	\$18,534.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	110.43 TN	\$158.68	\$17,523.03
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	55.21 TN	\$160.00	\$8,833.60
521-1	MEDIAN CONC BARRIER WALL	753.00 LF	\$155.00	\$116,715.00
Median Component Total				\$161,606.23

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.57 CY	\$2,160.00	\$5,551.20
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00 EA	\$4,686.24	\$4,686.24
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	120.00 LF	\$100.00	\$12,000.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	56.00 LF	\$105.86	\$5,928.16
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00 LF	\$144.65	\$6,943.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	6.00 EA	\$1,579.93	\$9,479.58
524-1-1	CONCRETE DITCH PAVT, NR, 3"	285.20 SY	\$67.10	\$19,136.92
570-1-1	PERFORMANCE TURF	100.39 SY	\$2.54	\$254.99
Drainage Component Total				\$63,980.29

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12- 20 SF	4.00 AS	\$1,059.29	\$4,237.16
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	1.00 AS	\$7,250.00	\$7,250.00
Signing Component Total				\$16,085.57

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

8

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,600.00 LF	\$8.00	\$12,800.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00 EA	\$618.33	\$4,946.64
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	4,800.00 LF	\$2.28	\$10,944.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	8.00 EA	\$6,500.00	\$52,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	8.00 EA	\$618.53	\$4,948.24
Subcomponent Total				\$85,638.88
Lighting Component Total				\$85,638.88

BRIDGES COMPONENT

Bridge NS_DC

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,285.00
Width (LF)	58.00
Type	Low Level
Cost Factor	1.30
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$156.00
Final Cost per SF	\$156.91
Basic Bridge Cost	\$11,626,680.00

Description I_95 DIRECT CONNECT RAMPS (EB TO NB) AND (SB TO WB)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	128.89	CY	\$351.19	\$45,264.88
415-1-9	REINF STEEL- APPROACH SLABS	22,555.75	LB	\$1.01	\$22,781.31
Bridge NS_DC Total					\$11,694,726.19
Bridges Component Total					\$11,694,726.19

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	752.00
Begin height	5.00
End Height	53.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	21,996.00	SF	\$28.00	\$615,888.00

Retaining Wall 2

Description	Value
Length	752.00
Begin height	5.00
End Height	53.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	21,996.00	SF	\$28.00	\$615,888.00

Retaining Walls Component Total **\$1,231,776.00**

Sequence 19 Total

\$13,658,053.80

Sequence: 20 NUR - New Construction, Undivided, Rural**Net Length:** 0.099 MI
520 LF**Description:** I-95 Direct Connect (NB to WB) (4th Level) (includes fly over bridge)**Special** 520 LF roadway + 900 LF single lane bridge**Conditions:****EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.098
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.83	AC	\$38,512.13	\$31,965.07
120-6	EMBANKMENT	2,532.77	CY	\$15.00	\$37,991.55
Earthwork Component Total					\$69,956.62

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,560.24	SY	\$6.41	\$10,001.14
285-709	OPTIONAL BASE,BASE GROUP 09	885.87	SY	\$27.13	\$24,033.65
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	119.18	TN	\$158.68	\$18,911.48
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	34.67	TN	\$155.87	\$5,404.01

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.39 GM	\$864.36	\$337.10

Roadway Component Total

\$58,687.38

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 4.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	8.00 / 4.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	731.58 SY	\$17.50	\$12,802.65
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	95.35 TN	\$158.68	\$15,130.14
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	27.74 TN	\$155.87	\$4,323.83

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,352.21 LF	\$1.84	\$2,488.07
104-11	FLOATING TURBIDITY BARRIER	24.62 LF	\$11.66	\$287.07
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	24.62 LF	\$5.90	\$145.26
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	1.19 AC	\$37.84	\$45.03
107-2	MOWING	1.19 AC	\$74.05	\$88.12

Shoulder Component Total

\$37,324.01

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	1.77 CY	\$2,160.00	\$3,823.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	80.00 LF	\$100.00	\$8,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00 LF	\$144.65	\$2,314.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	4.00 EA	\$1,579.93	\$6,319.72
570-1-1	PERFORMANCE TURF	69.34 SY	\$2.54	\$176.12

Drainage Component Total

\$20,633.44

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,059.29	\$2,118.58
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$4,250.00	\$4,250.00

Signing Component Total

\$6,716.99

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value				
Multiplier (Number of Poles)	6				
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,200.00	LF	\$8.00	\$9,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	\$618.33	\$3,709.98
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	\$2.28	\$8,208.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	6.00	EA	\$6,500.00	\$39,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	\$618.53	\$3,711.18
Subcomponent Total					\$64,229.16
Lighting Component Total					\$64,229.16

BRIDGES COMPONENT

Bridge NB_DC

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	900.00
Width (LF)	30.00
Type	Low Level
Cost Factor	1.67
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$200.40
Final Cost per SF	\$201.70
Basic Bridge Cost	\$5,410,800.00
Description	I-95 DIRECT CONNECT RAMP (NB TO WB) (4TH LEVEL)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10		66.67	CY	\$351.19	\$23,413.84

	CONC CLASS II, APPROACH SLABS			
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	\$1.01	\$11,783.92
Bridge NB_DC Total				\$5,445,997.76
Bridges Component Total				\$5,445,997.76

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	1,040.00 LF	\$260.00	\$270,400.00
	Comment: 2x 520' (one for each side)			

Retaining Wall 1

Description	Value
Length	520.00
Begin height	25.00
End Height	51.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	19,760.00 SF	\$28.00	\$553,280.00

Retaining Wall 2

Description	Value
Length	520.00
Begin height	25.00
End Height	51.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	19,760.00 SF	\$28.00	\$553,280.00

Retaining Walls Component Total \$1,376,960.00

Sequence 20 Total \$7,080,505.36

Sequence: 21 NUR - New Construction, Undivided, Rural**Net Length:** 0.079 MI
418 LF**Description:** I-95 Direct Connect (EB to SB) (includes fly over bridge)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.079
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.67	AC	\$38,512.13	\$25,803.13
120-6	EMBANKMENT	2,178.76	CY	\$15.00	\$32,681.40
Earthwork Component Total					\$58,484.53

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,254.53	SY	\$6.41	\$8,041.54
285-709	OPTIONAL BASE,BASE GROUP 09	712.29	SY	\$27.13	\$19,324.43
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	95.83	TN	\$158.68	\$15,206.30
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	27.88	TN	\$155.87	\$4,345.66

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.32 GM	\$864.36	\$276.60
Roadway Component Total				\$47,194.53

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	4.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	4.00 / 8.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	588.23 SY	\$17.50	\$10,294.02
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	76.67 TN	\$158.68	\$12,166.00
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	22.30 TN	\$155.87	\$3,475.90

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,087.26 LF	\$1.84	\$2,000.56
104-11	FLOATING TURBIDITY BARRIER	19.80 LF	\$11.66	\$230.87
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	19.80 LF	\$5.90	\$116.82
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
107-1	LITTER REMOVAL	0.96 AC	\$37.84	\$36.33
107-2	MOWING	0.96 AC	\$74.05	\$71.09
Shoulder Component Total				\$30,405.44

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	1.43 CY	\$2,160.00	\$3,088.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	64.00 LF	\$100.00	\$6,400.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00 LF	\$144.65	\$2,314.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	4.00 EA	\$1,579.93	\$6,319.72
570-1-1	PERFORMANCE TURF	55.76 SY	\$2.54	\$141.63
Drainage Component Total				\$18,264.55

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,059.29	\$2,118.58
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$4,250.00	\$4,250.00
Signing Component Total					\$6,716.99

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description				Value	
Multiplier (Number of Poles)				5	
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,000.00	LF	\$8.00	\$8,000.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	5.00	EA	\$618.33	\$3,091.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,000.00	LF	\$2.28	\$6,840.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	5.00	EA	\$6,500.00	\$32,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	5.00	EA	\$618.53	\$3,092.65
Subcomponent Total					\$53,524.30
Lighting Component Total					\$53,524.30

BRIDGES COMPONENT

Bridge SB_DC

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	800.00
Width (LF)	30.00
Type	Low Level
Cost Factor	1.30
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$156.00
Final Cost per SF	\$157.47
Basic Bridge Cost	\$3,744,000.00
Description	I-95 DIRECT CONNECT (EB TO SB)

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	\$351.19	\$23,413.84

415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	\$1.01	\$11,783.92
Bridge SB_DC Total				\$3,779,197.76
Bridges Component Total				\$3,779,197.76

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	1,334.00	LF	\$260.00	\$346,840.00
Comment: 2x 667 (one for each side)					

Retaining Wall 1

Description	Value
Length	667.00
Begin height	5.00
End Height	26.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	10,338.50	SF	\$28.00	\$289,478.00

Retaining Wall 2

Description	Value
Length	667.00
Begin height	5.00
End Height	26.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	10,338.50	SF	\$28.00	\$289,478.00

Retaining Walls Component Total \$925,796.00

Sequence 21 Total \$4,919,584.10

Sequence: 22 NDR - New Construction, Divided, Rural**Net Length:** 0.328 MI
1,730 LF**Description:** SW 10th Street - General Purpose - Reconstruction from Begin Project Limits to West of Military Trail**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 125.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.328
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	9.94	AC	\$38,512.13	\$382,810.57
120-6	EMBANKMENT	20,761.55	CY	\$15.00	\$311,423.25
Earthwork Component Total					\$694,233.82

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	28.00 / 28.00
Structural Spread Rate	220
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,766.04	SY	\$6.41	\$69,010.32
285-709	OPTIONAL BASE,BASE GROUP 09	11,019.81	SY	\$27.13	\$298,967.45
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,184.26	TN	\$158.68	\$187,918.38
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	592.13	TN	\$160.00	\$94,740.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,212.00	SY	\$6.41	\$20,588.92
	Comment: Additional Pavement - EB Right Turn Lane into Walmart 1196 SY + EB Right Turn Lanes to SB Military Trail - 576 SY - EB Left Turn Lanes to NB Military Trail - 1440 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	3,212.00	SY	\$27.13	\$87,141.56

	Comment: Additional Pavement - EB Right Turn Lane into Walmart 1196 SY + EB Right Turn Lanes to SB Military Trail - 576 SY - EB Left Turn Lanes to NB Military Trail - 1440 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	353.32 TN	\$158.68	\$56,064.82
	Comment: Same Areas at OBG9 (3212 SY) -- 2" Thick - 3212 SY x 220 LB/SY / 2000 LB			
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	176.66 TN	\$160.00	\$28,265.60
	Comment: Same Areas at OBG9 (3212 SY) -- 2" Thick - 3212 SY x 110 LB/SY / 2000 LB			

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	133.00 EA	\$4.68	\$622.44
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.62 GM	\$864.36	\$2,264.62
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.31 GM	\$385.62	\$505.16

Peripherals Subcomponent

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

Roadway Component Total \$846,090.07

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 1/2No. of Sides	0

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
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520-1-10	CONCRETE CURB & GUTTER, TYPE F Comment: 1730 x 4 (both directions of travel, both sides of road) + 364 x 2 (displaced left turn lanes)	7,648.00 LF	\$23.00	\$175,904.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" Comment: Multiple areas (see PDF) 22 + 283 + 118 + 13 + 155 + 395 (All right side) + 1627 (Left side) =	2,613.00 SY	\$41.68	\$108,909.84
570-1-1	PERFORMANCE TURF Comment: Various Areas (See PDF): 317 + 80 (right) + 4310 + 1305 (median)	6,012.00 SY	\$2.54	\$15,270.48

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,498.67 LF	\$1.84	\$8,277.55
104-11	FLOATING TURBIDITY BARRIER	81.92 LF	\$11.66	\$955.19
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	81.92 LF	\$5.90	\$483.33
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
104-18	INLET PROTECTION SYSTEM	2.00 EA	\$99.37	\$198.74
107-1	LITTER REMOVAL	7.94 AC	\$37.84	\$300.45
107-2	MOWING	7.94 AC	\$74.05	\$587.96
Shoulder Component Total				\$312,901.38

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	5.90 CY	\$2,160.00	\$12,744.00
425-1-551	INLETS, DT BOT, TYPE E, <10'	2.00 EA	\$4,686.24	\$9,372.48
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	264.00 LF	\$100.00	\$26,400.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	112.00 LF	\$105.86	\$11,856.32
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	96.00 LF	\$144.65	\$13,886.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	14.00 EA	\$1,579.93	\$22,119.02
524-1-1	CONCRETE DITCH PAVT, NR, 3"	655.40 SY	\$67.10	\$43,977.34
570-1-1	PERFORMANCE TURF	230.70 SY	\$2.54	\$585.98
Drainage Component Total				\$140,941.54

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	8.00 AS	\$1,059.29	\$8,474.32
700-2-14		1.00 AS	\$4,250.00	\$4,250.00

	MULTI- POST SIGN, F&I GM, 31-50 SF			
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00 AS	\$7,250.00	\$14,500.00
Signing Component Total				\$27,572.73

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description				Value
Multiplier (Number of Poles)				36
Pay Items				
Pay item	Description	Quantity	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,200.00	LF \$8.00	\$57,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	36.00	EA \$618.33	\$22,259.88
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	21,600.00	LF \$2.28	\$49,248.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	36.00	EA \$6,500.00	\$234,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	36.00	EA \$618.53	\$22,267.08
	Subcomponent Total			\$385,374.96
	Lighting Component Total			\$385,374.96

Sequence 22 Total				\$2,407,114.50
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Sequence: 23 NUR - New Construction, Undivided, Rural**Net Length:** 0.000 MI
1 LF**Description:** SW 10th Street - General Purpose - Reconstruction Military Trail Intersection (including North and South Legs)**Special Conditions:** This entire sequence is composed of X-Items.**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
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
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING Comment: 140 ft (Military Trail width RW to RW) x 1400 ft (length along Military Trail) = 196000 SF / 9 SF/SY = 21777.78 SY / 4808 SY/AC = 4.53 AC/2 = 2.21 AC	2.21	AC	\$38,512.13	\$85,111.81
Earthwork Component Total					\$85,111.81

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	0
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Southern Leg: 586 SY + 944 SY + 494 SY Intersection: 2896 SY Northern Leg: 858 SY + 1519 SY + 132 SY + 250 SY Area 7679 sy x 1/2	3,840.00	SY	\$6.41	\$24,614.40
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Same as Type B Stabilization	3,840.00	SY	\$27.13	\$104,179.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: Same as Type B Stabilization (2" Thick) 3840 SY x 220 LB/SY / 2000 LB	422.40	TN	\$158.68	\$67,026.43
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	211.20	TN	\$160.00	\$33,792.00

Comment: Same as Type B Stabilization (1" Thick) 3840
SY x 110 LB/SY / 2000 LB

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

Peripherals Subcomponent

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

Roadway Component Total

\$229,612.03

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	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F Comment: South Leg: 626' x 4 = 2504 LF North Leg: 727' x 4 = 2908 LF	5,412.00	LF	\$23.00	\$124,476.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" Comment: South Leg: 210 SY (LT) + 218 SY (RT) North Leg: 412 SY (LT) + 173 SY (RT) Ped Islands: 46 SY (South) + 54 SY (North)	1,113.00	SY	\$41.68	\$46,389.84
570-1-1	PERFORMANCE TURF Comment: South Leg: 851 SY North Leg: 1133 SY + 165 SY + 540 SY	2,689.00	SY	\$2.54	\$6,830.06

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2.75	LF	\$1.84	\$5.06
104-11	FLOATING TURBIDITY BARRIER	0.05	LF	\$11.66	\$0.58

104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	0.05 LF	\$5.90	\$0.30
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
Shoulder Component Total				\$179,715.68

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	8.00 LF	\$100.00	\$800.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	8.00 LF	\$144.65	\$1,157.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00 EA	\$1,579.93	\$1,579.93
570-1-1	PERFORMANCE TURF	0.14 SY	\$2.54	\$0.36
Drainage Component Total				\$3,537.49

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,059.29	\$1,059.29
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$5,657.70

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Military Trail Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,000.00 LF	\$20.00	\$20,000.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,033.14	\$5,033.14
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	37.00 EA	\$618.33	\$22,878.21
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,795.00	\$1,795.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	200.00 LF	\$4.62	\$924.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	24.00 AS	\$971.18	\$23,308.32
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$704.72	\$5,637.76

665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	8.00 EA	\$1,710.44	\$13,683.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$29,375.31	\$29,375.31
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00 EA	\$2,616.52	\$10,466.08
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF	4.00 EA	\$2,968.95	\$11,875.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" Comment: FPL Service Point (end to end)	2.00	EA	\$1,255.96	\$2,511.92
649-21-27	STEEL MAST ARM ASSEMBLY, F&I, 78-78 Comment: One for each corner	4.00	EA	\$72,000.00	\$288,000.00
Signalizations Component Total					\$435,489.06

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description		Value			
Multiplier (Number of Poles)		6			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,200.00	LF	\$8.00	\$9,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	\$618.33	\$3,709.98
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,600.00	LF	\$2.28	\$8,208.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	6.00	EA	\$6,500.00	\$39,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	\$618.53	\$3,711.18
Subcomponent Total					\$64,229.16
Lighting Component Total					\$64,229.16

Sequence 23 Total \$1,003,352.93

Sequence: 24 NDU - New Construction, Divided, Urban**Net Length:** 0.152 MI
800 LF**Description:** SW 10th Street - General Purpose - Reconstruction East of Military Trail to West of R/R Bridge**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 125.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.152
Top of Structural Course For Begin Section	14.00
Top of Structural Course For End Section	57.50
Horizontal Elevation For Begin Section	14.00
Horizontal Elevation For End Section	14.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	2.00 % / 2.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	4.61	AC	\$38,512.13	\$177,540.92
120-6	EMBANKMENT	61,161.61	CY	\$15.00	\$917,424.15
Earthwork Component Total					\$1,094,965.07

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	28.00 / 28.00
Structural Spread Rate	220
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	5,894.52	SY	\$6.41	\$37,783.87
285-709	OPTIONAL BASE,BASE GROUP 09	4,977.28	SY	\$27.13	\$135,033.61
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	547.50	TN	\$158.68	\$86,877.30
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	273.75	TN	\$160.00	\$43,800.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Under Eastbound Egress: 500SY Off Ramp from Eastbound Egress: 492 SY Westbound Left Turn Lanes: 1200 SY Westbound Right Turn Lane: 933 SY	3,125.00	SY	\$6.41	\$20,031.25
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Same as Type B Stabilization: 3125 SY	3,125.00	SY	\$27.13	\$84,781.25
334-1-13		343.75	TN	\$158.68	\$54,546.25

SUPERPAVE ASPHALTIC CONC,
TRAFFIC C

Comment: Same as Type B Stabilization: 3125 SY (2"
Thick) 3125 SY * 220 LB/SY / 2000 LB

337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	171.88 TN	\$160.00	\$27,500.80
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Comment: Same as Type B Stabilization: 3125 SY (1"
Thick) 3125 SY * 110 LB/SY / 2000 LB

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	61.00	EA	\$4.68	\$285.48
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.21	GM	\$864.36	\$1,045.88
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.61	GM	\$385.62	\$235.23
Roadway Component Total					\$491,920.92

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	799.92	LF	\$23.00	\$18,398.16
520-1-10	CONCRETE CURB & GUTTER, TYPE F	799.92	LF	\$23.00	\$18,398.16
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,066.56	SY	\$41.68	\$44,454.22

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	674.00	LF	\$23.00	\$15,502.00
	Comment: Left Turn Lane: 337' x 2 = 674 LF				
570-1-1	PERFORMANCE TURF	3,767.00	SY	\$2.54	\$9,568.18
	Comment: North side (under Managed Lanes): 3767 SY				

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,599.84	LF	\$1.84	\$2,943.71
104-11	FLOATING TURBIDITY BARRIER	37.88	LF	\$11.66	\$441.68
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	37.88	LF	\$5.90	\$223.49
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,013.84	\$2,013.84
104-18	INLET PROTECTION SYSTEM	8.00	EA	\$99.37	\$794.96
107-1	LITTER REMOVAL	3.86	AC	\$37.84	\$146.06
107-2	MOWING	3.86	AC	\$74.05	\$285.83
Shoulder Component Total					\$113,170.29

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	1,599.84	LF	\$24.86	\$39,772.02
570-1-1	PERFORMANCE TURF	474.62	SY	\$2.54	\$1,205.53
Median Component Total					\$40,977.55

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.73	CY	\$2,160.00	\$5,896.80
425-1-351	INLETS, CURB, TYPE P-5, <10'	6.00	EA	\$5,377.56	\$32,265.36
425-1-451	INLETS, CURB, TYPE J-5, <10'	2.00	EA	\$8,552.96	\$17,105.92
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00	EA	\$2,905.39	\$2,905.39
425-2-41	MANHOLES, P-7, <10'	1.00	EA	\$4,437.53	\$4,437.53
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	400.00	LF	\$105.86	\$42,344.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	\$144.65	\$5,786.00
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	760.00	LF	\$347.62	\$264,191.20
570-1-1	PERFORMANCE TURF	46.06	SY	\$2.54	\$116.99
Drainage Component Total					\$375,049.19

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	\$348.41	\$1,393.64
700-1-12		1.00	AS	\$1,059.29	\$1,059.29

	SINGLE POST SIGN, F&I GM, 12-20 SF			
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$7,250.00	\$7,250.00
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	\$10,000.00	\$10,000.00
Signing Component Total				\$19,702.93

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description		Value		
Spacing		MIN		
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	799.92 LF	\$8.00	\$6,399.36
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	158.77 LF	\$20.00	\$3,175.40
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00 EA	\$618.33	\$3,709.98
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	2,921.53 LF	\$2.28	\$6,661.09
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	6.00 EA	\$5,500.00	\$33,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00 EA	\$618.53	\$3,711.18
Subcomponent Total				\$56,657.01
Lighting Component Total				\$56,657.01

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	840.00
Begin height	5.00
End Height	43.50
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	20,370.00 SF	\$28.00	\$570,360.00

Retaining Wall 2

Description	Value
Length	840.00
Begin height	5.00
End Height	43.50
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
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548-12	RET WALL SYSTEM, PERM, EX BARRIER	20,370.00 SF	\$28.00	\$570,360.00
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Retaining Wall 3

Description	Value
Length	840.00
Begin height	5.00
End Height	43.50
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	20,370.00 SF	\$28.00	\$570,360.00

Retaining Wall 4

Description	Value
Length	840.00
Begin height	5.00
End Height	43.50
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	20,370.00 SF	\$28.00	\$570,360.00

Retaining Walls Component Total	\$2,281,440.00
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Sequence 24 Total	\$4,473,882.96
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Sequence: 25 NDU - New Construction, Divided, Urban**Net Length:** 0.165 MI
871 LF**Description:** SW 10th Street - General Purpose - West of R/R Bridge to West of Newport Center Drive
Intersection (includes R/R Bridge)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 125.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.165
Top of Structural Course For Begin Section	57.50
Top of Structural Course For End Section	14.00
Horizontal Elevation For Begin Section	14.00
Horizontal Elevation For End Section	14.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	2.00 % / 2.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.00	AC	\$38,512.13	\$192,560.65
120-1	REGULAR EXCAVATION	62,041.54	CY	\$10.00	\$620,415.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	15,064.50	CY	\$15.00	\$225,967.50
	Comment: $1/2 \times b \times h \times w \Rightarrow .5 \times 870 \times 43.5 \times (11+24) = 331,143.75 \text{ CF} / 27 \text{ CF/CY} = 12264.58 \text{ CY}$ On Ramp to Managed Lanes: $.5 \times b \times h \times w = .5 \times 280' \times 20' \times 27' = 75600 \text{ CF} / 27 \text{ CY/CF} = 2800 \text{ CY}$				

Earthwork Component Total \$1,038,943.55**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	220
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	8,742.98	SY	\$6.41	\$56,042.50
285-709	OPTIONAL BASE,BASE GROUP 09	7,744.00	SY	\$27.13	\$210,094.72
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	851.84	TN	\$158.68	\$135,169.97
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	425.92	TN	\$160.00	\$68,147.20

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: EB Right Turn Lane: 1098 SY EB Left Turn Lanes: 1778 SY WB On-Ramp to Managed Lanes (Lane): 355 SY WB On-Ramp to Managed Lanes (Shldr): 150SY x 2	3,531.00 SY	\$6.41	\$22,633.71
285-704	OPTIONAL BASE,BASE GROUP 04 Comment: Shoulder Stabilization = 300 SY	300.00 SY	\$17.50	\$5,250.00
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Total Stabilization - Shoulder Stabilization = 3531 - 300 = 3231 SY	3,231.00 SY	\$27.13	\$87,657.03
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: Total Stabilization: 3531 SY * 220 LB/SY / 2000 SY	388.41 TN	\$158.68	\$61,632.90
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22 Comment: Total Stabilization: 3531 SY * 110 LB/SY / 2000 SY	194.21 TN	\$160.00	\$31,073.60

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	111.00 EA	\$4.68	\$519.48
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.32 GM	\$864.36	\$1,140.96
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.32 GM	\$385.62	\$509.02
Roadway Component Total				\$679,871.09

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	871.20 LF	\$23.00	\$20,037.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	580.80 SY	\$41.68	\$24,207.74

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F Comment: WB Outside: 270 + 319 = 589 LF EB Left Turn Lane: 394' x 2 = 788 LF	589.00 LF	\$23.00	\$13,547.00
570-1-1	PERFORMANCE TURF Comment: Median: 1534 SY + 4322 SY Westbound: 282 SY + 1033 SY	7,171.00 SY	\$2.54	\$18,214.34

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,742.40 LF	\$1.84	\$3,206.02
104-11	FLOATING TURBIDITY BARRIER	41.25 LF	\$11.66	\$480.98
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	41.25 LF	\$5.90	\$243.38
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,013.84	\$2,013.84
104-18	INLET PROTECTION SYSTEM	9.00 EA	\$99.37	\$894.33
107-1	LITTER REMOVAL	4.20 AC	\$37.84	\$158.93
107-2	MOWING	4.20 AC	\$74.05	\$311.01
Shoulder Component Total				\$83,315.17

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,742.40 LF	\$23.00	\$40,075.20
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	624.00 LF	\$60.37	\$37,670.88
Median Component Total				\$77,746.08

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.97 CY	\$2,160.00	\$6,415.20
425-1-351	INLETS, CURB, TYPE P-5, <10'	6.00 EA	\$5,377.56	\$32,265.36
425-1-451	INLETS, CURB, TYPE J-5, <10'	2.00 EA	\$8,552.96	\$17,105.92
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00 EA	\$2,905.39	\$2,905.39
425-2-41	MANHOLES, P-7, <10'	1.00 EA	\$4,437.53	\$4,437.53
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	440.00 LF	\$105.86	\$46,578.40
430-175-136		40.00 LF	\$144.65	\$5,786.00

	PIPE CULV, OPT MATL, ROUND, 36"S/CD			
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	832.00 LF	\$347.62	\$289,219.84
570-1-1	PERFORMANCE TURF	50.16 SY	\$2.54	\$127.41
Drainage Component Total				\$404,841.05

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	\$348.41	\$1,393.64
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,059.29	\$1,059.29
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$7,250.00	\$7,250.00
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	\$10,000.00	\$10,000.00
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	2.00 EA	\$75,000.00	\$150,000.00
Signing Component Total				\$169,702.93

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description			Value	
Spacing			MIN	
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	871.20 LF	\$8.00	\$6,969.60
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	172.92 LF	\$20.00	\$3,458.40
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00 EA	\$618.33	\$3,709.98
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,181.86 LF	\$2.28	\$7,254.64
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	6.00 EA	\$5,500.00	\$33,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00 EA	\$618.53	\$3,711.18
Subcomponent Total				\$58,103.80
Lighting Component Total				\$58,103.80

BRIDGES COMPONENT

Bridge EB_RR

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	225.00
Width (LF)	60.00
Type	Low Level

Cost Factor	1.20
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$144.00
Final Cost per SF	\$149.21
Basic Bridge Cost	\$1,944,000.00

Description SW 10TH STREET - EAST BOUND BRIDGE OVER R/R TRACKS

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	133.33 CY	\$351.19	\$46,824.16
415-1-9	REINF STEEL- APPROACH SLABS	23,332.75 LB	\$1.01	\$23,566.08
Bridge EB_RR Total				\$2,014,390.24

Bridge WB_RR

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	225.00
Width (LF)	57.00
Type	Low Level
Cost Factor	1.20
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$144.00
Final Cost per SF	\$149.21
Basic Bridge Cost	\$1,846,800.00

Description SW 10TH STREET - WEST BOUND BRIDGE OVER R/R TRACKS

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	126.67 CY	\$351.19	\$44,485.24
415-1-9	REINF STEEL- APPROACH SLABS	22,167.25 LB	\$1.01	\$22,388.92
Bridge WB_RR Total				\$1,913,674.16

Bridges Component Total \$3,928,064.40

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	3,199.00 LF	\$260.00	\$831,740.00
Comment: One for each Wall: 3199 LF				

Retaining Wall 1

Description	Value
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Length 870.00
 Begin height 43.50
 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	21,097.50	SF	\$28.00	\$590,730.00

Retaining Wall 2

Description **Value**
 Length 870.00
 Begin height 43.50
 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	21,097.50	SF	\$28.00	\$590,730.00

Retaining Wall 3

Description **Value**
 Length 870.00
 Begin height 43.50
 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	21,097.50	SF	\$28.00	\$590,730.00

Retaining Wall 4

Description **Value**
 Length 270.00
 Begin height 43.50
 End Height 30.00
 Multiplier 1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	9,922.50	SF	\$28.00	\$277,830.00

Retaining Wall 5

Description **Value**
 Length 319.00
 Begin height 21.00
 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	4,147.00	SF	\$28.00	\$116,116.00
Retaining Walls Component Total					\$2,997,876.00
<hr/>					
Sequence 25 Total					\$9,438,464.07
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Sequence: 26 NUR - New Construction, Undivided, Rural**Net Length:** 0.000 MI
1 LF**Description:** SW 10th Street - General Purpose - Reconstruction of Newport Center Drive Intersection**Special** This entire sequence is composed of X-Items.**Conditions:****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
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
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING Comment: 600' x 100' = 60000 SF / 9 SY/SF / 4808 SY/AC	1.39	AC	\$38,512.13	\$53,531.86
Earthwork Component Total					\$53,531.86

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	0
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: Entire Intersection (see PDF): 5241 SY	5,241.00	SY	\$6.41	\$33,594.81
285-709	OPTIONAL BASE,BASE GROUP 09 Comment: Entire Intersection (see PDF): 5241 SY	5,241.00	SY	\$27.13	\$142,188.33
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: Entire Intersection (see PDF): 5241 SY x 220 LB/SY / 2000 LB	576.51	TN	\$158.68	\$91,480.61
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22 Comment: Entire Intersection (see PDF): 5241 SY x 110 LB/SY / 2000 LB	288.26	TN	\$160.00	\$46,121.60

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	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total

\$313,385.35

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	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F Comment: South Leg: 383 LF North Leg: 219 LF NW Corner: 157 LF NE Corner: 70 LF SE Corner: 56 LF SW Corner: 82 LF	967.00	LF	\$23.00	\$22,241.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" Comment: 157+70+56+82 x 6' = 2190 SF / 9 SY/SF	243.33	SY	\$41.68	\$10,141.99
570-1-1	PERFORMANCE TURF Comment: South Leg: 271 SY North Leg: 240 SY	511.00	SY	\$2.54	\$1,297.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2.75	LF	\$1.84	\$5.06
104-11	FLOATING TURBIDITY BARRIER	0.05	LF	\$11.66	\$0.58
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	0.05	LF	\$5.90	\$0.30
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,013.84	\$2,013.84
Shoulder Component Total					\$35,700.71

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124		8.00	LF	\$100.00	\$800.00

	PIPE CULV, OPT MATL, ROUND,24"SD			
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	8.00 LF	\$144.65	\$1,157.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00 EA	\$1,579.93	\$1,579.93
570-1-1	PERFORMANCE TURF	0.14 SY	\$2.54	\$0.36
Drainage Component Total				\$3,537.49

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,059.29	\$1,059.29
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00
Signing Component Total				\$5,657.70

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Newport Center Drive Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,000.00 LF	\$20.00	\$20,000.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,033.14	\$5,033.14
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	37.00 EA	\$618.33	\$22,878.21
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,795.00	\$1,795.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	200.00 LF	\$4.62	\$924.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	24.00 AS	\$971.18	\$23,308.32
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$704.72	\$5,637.76
665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	8.00 EA	\$1,710.44	\$13,683.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$29,375.31	\$29,375.31
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00 EA	\$2,616.52	\$10,466.08
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF	4.00 EA	\$2,968.95	\$11,875.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" Comment: FPL Service Point (end to end)	2.00	EA	\$1,255.96	\$2,511.92
649-21-27	STEEL MAST ARM ASSEMBLY, F&I, 78-78 Comment: One for each corner	4.00	EA	\$72,000.00	\$288,000.00
Signalizations Component Total					\$435,489.06

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value				
Multiplier (Number of Poles)	4				
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	\$8.00	\$6,400.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	4.00	EA	\$618.33	\$2,473.32
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	2,400.00	LF	\$2.28	\$5,472.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	4.00	EA	\$6,500.00	\$26,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	4.00	EA	\$618.53	\$2,474.12
Subcomponent Total					\$42,819.44
Lighting Component Total					\$42,819.44
Sequence 26 Total					\$890,121.61

Sequence: 27 NUR - New Construction, Undivided, Rural**Net Length:** 0.000 MI
1 LF**Description:** SW 10th Street - General Purpose - Roundabout (South of Newport Center Drive)**Special** This sequence is composed entirely of X-Items.**Conditions:****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
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
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.13	AC	\$38,512.13	\$82,030.84
	Comment: NW Leg: 1007 SY + 1135 SY NE Leg: 609 SY + 631 SY SE Leg: 1176 SY + 1007 SY SW Leg: 1549 SY + 1289 SY Center: 1374 SY + 299 SY + 153 SY => 10229 SY / 4808 AC/SY = 2.127 AC				
	Earthwork Component Total				\$82,030.84

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	0
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,076.00	SY	\$6.41	\$64,587.16
	Comment: NW Leg: 1135 + 1007 = 2142 NE Leg: 609 + 631 = 1240 SE Leg: 1176 + 1007 = 2183 SW Leg: 1549 + 1289 = 2838 Middle: 1374 + 299 = 1673 ==> 10076 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	10,076.00	SY	\$27.13	\$273,361.88
	Comment: Same as Type B Stabilization: 10076 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,083.17	TN	\$158.68	\$171,877.42
	Comment: (2" Thick) Type B Stabilization Area - Truck Apron = 10076 - 229 = 9847 SY * 220 LB/SY / 2000 LB				
337-7-82	ASPH CONC FC, TRAFFIC C, FC-9.5, PG 76-22	541.59	TN	\$160.00	\$86,654.40

	Comment: (1" Thick) Type B Stabilization Area - Truck Apron = 10076 - 229 = 9847 SY * 110 LB/SY / 2000 LB			
350-3-13	PLAIN CEMENT CONC PAVT, 12"	229.00 SY	\$161.11	\$36,894.19
	Comment: Truck Apron: 229 SY			

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 \$633,375.05

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	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F Comment: 4 splitter islands: NW: 381' NE: 484' SE: 237' SW: 216'	1,318.00	LF	\$23.00	\$30,314.00
520-2-4	CONCRETE CURB, TYPE D Comment: 139' around central island	139.00	LF	\$20.58	\$2,860.62
520-2-8	CONCRETE CURB, TYPE RA Comment: 238' between circulatory roadway and truck apron	238.00	LF	\$27.50	\$6,545.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2.75	LF	\$1.84	\$5.06
104-11	FLOATING TURBIDITY BARRIER	0.05	LF	\$11.66	\$0.58
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	0.05	LF	\$5.90	\$0.30
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,013.84	\$2,013.84

Shoulder Component Total \$41,739.40

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,059.29	\$1,059.29
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$4,250.00	\$4,250.00
Signing Component Total					\$5,657.70
<hr/>					
Sequence 27 Total					\$762,802.99
<hr/>					

Sequence: 28 NUR - New Construction, Undivided, Rural**Net Length:** 0.304 MI
1,607 LF**Description:** SW 10th Street - General Purpose - SW 12th Avenue Loop (including WB Slip Ramp)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	25.00 / 25.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.180
Top of Structural Course For Begin Section	14.00
Top of Structural Course For End Section	46.00
Horizontal Elevation For Begin Section	14.00
Horizontal Elevation For End Section	14.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.84	AC	\$38,512.13	\$70,862.32
120-6	EMBANKMENT	11,271.74	CY	\$15.00	\$169,076.10
Earthwork Component Total					\$239,938.42

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	11.00 / 0.00
Structural Spread Rate	165
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,346.67	SY	\$6.41	\$27,862.15
285-709	OPTIONAL BASE,BASE GROUP 09	2,023.33	SY	\$27.13	\$54,892.94
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	162.06	TN	\$158.68	\$25,715.68
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	108.04	TN	\$160.00	\$17,286.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: (W of Publix) EB Rt Turn Ln: 1186 SY EB Lt Turn Ln: 385 SY WB Aux Ln: 371 SY infront: 1421 SY (E of Publix) WB Lns: 972 SY EB Lns: 822 SY (Slip Ramp) Ln: 2877 SY Shldr: 1140 SY +1440 SY	10,614.00	SY	\$6.41	\$68,035.74
285-704	OPTIONAL BASE,BASE GROUP 04 Comment: Same as Shoulder Stabilization: 2580 SY	2,580.00	SY	\$17.50	\$45,150.00
285-709	OPTIONAL BASE,BASE GROUP 09	8,034.00	SY	\$27.13	\$217,962.42

	Comment: Same as Type B Stabilization - Shldr: 10614 - 2580 SY			
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	1,167.54 TN	\$140.00	\$163,455.60
	Comment: (2" Thick) Same as Type B Stabilization: 10614 SY x 220 LB/SY / 2000 LB			
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	583.77 TN	\$160.00	\$93,403.20
	Comment: (1" Thick) Same as Type B Stabilization: 10614 SY x 110 LB/SY / 2000 LB			

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	41.00 EA	\$4.68	\$191.88
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.22 GM	\$864.36	\$1,054.52
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.61 GM	\$396.46	\$241.84
Roadway Component Total				\$715,252.37

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.67 / 6.67
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	220
Friction Course Spread Rate	110
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,546.51 SY	\$17.50	\$27,063.92
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	157.15 TN	\$158.68	\$24,936.56
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	12.97 TN	\$160.00	\$2,075.20
570-1-1	PERFORMANCE TURF	953.62 SY	\$2.54	\$2,422.19

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	417.33 SY	\$6.41	\$2,675.09

	Comment: (east of Publix): WB: 313' x 6' / 9 SY/SF => 208.67 SY EB: 313' x 6' / 9 SY/SF => 208.67 SY			
285-704	OPTIONAL BASE,BASE GROUP 04	417.33 SY	\$17.50	\$7,303.28
	Comment: (east of Publix): WB: 313' x 6' / 9 SY/SF => 208.67 SY EB: 313' x 6' / 9 SY/SF => 208.67 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	45.91 TN	\$158.68	\$7,285.00
	Comment: (east of Publix - 2" Thick): WB: 313' x 6' / 9 SY/SF => 208.67 SY EB: 313' x 6' / 9 SY/SF => 208.67 SY => 417.33 SY x 220 LB/SY / 2000 LB =			
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	2.56 TN	\$160.00	\$409.60
	Comment: (east of Publix: 8" overlap - 1" Thick) WB: 313' x .67' / 9 SY/SF => 23.30 SY EB: 313' x .67' / 9 SY/SF => 23.30 SY => 46.6 SY x 110 LB/SY / 2000 LB			

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,178.80 LF	\$1.84	\$7,688.99
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	76.10 LF	\$5.90	\$448.99
Shoulder Component Total				\$82,308.83

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	5.48 CY	\$2,160.00	\$11,836.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	248.00 LF	\$100.00	\$24,800.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	56.00 LF	\$144.65	\$8,100.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	13.00 EA	\$1,579.93	\$20,539.09
570-1-1	PERFORMANCE TURF	214.30 SY	\$2.54	\$544.32
Drainage Component Total				\$65,820.61

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	7.00 AS	\$1,059.29	\$7,415.03
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,250.00	\$4,250.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	1.00 EA	\$75,000.00	\$75,000.00
	Comment: 2x for WB Slip Ramp			

Signing Component Total

\$87,013.44

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description****Value**

Multiplier (Number of Poles)

39

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,800.00	LF	\$8.00	\$62,400.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	39.00	EA	\$618.33	\$24,114.87
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	23,400.00	LF	\$2.28	\$53,352.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	39.00	EA	\$6,500.00	\$253,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	39.00	EA	\$618.53	\$24,122.67
Subcomponent Total					\$417,489.54
Lighting Component Total					\$417,489.54

RETAINING WALLS COMPONENT**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	3,016.00	LF	\$260.00	\$784,160.00
Comment: On top of the two walls: 1656 LF + 1360 LF					

Retaining Wall 1**Description****Value**

Length	967.00
Begin height	10.00
End Height	43.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	25,867.25	SF	\$28.00	\$724,283.00
Retaining Walls Component Total					\$1,508,443.00

Sequence 28 Total

\$3,116,266.21

Sequence: 29 NDU - New Construction, Divided, Urban**Net Length:** 0.174 MI
920 LF**Description:** SW 10th Street - General Purpose - From Newport Center Intersection to west of Bridge over I-95**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 125.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.174
Top of Structural Course For Begin Section	14.00
Top of Structural Course For End Section	35.00
Horizontal Elevation For Begin Section	14.00
Horizontal Elevation For End Section	14.00
Front Slope L/R	6 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.27	AC	\$38,512.13	\$202,958.93
120-6	EMBANKMENT	58,497.79	CY	\$15.00	\$877,466.85
Earthwork Component Total					\$1,080,425.78

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	220
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	9,230.46	SY	\$6.41	\$59,167.25
285-709	OPTIONAL BASE,BASE GROUP 09	8,175.79	SY	\$27.13	\$221,809.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	899.34	TN	\$158.68	\$142,707.27
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	449.67	TN	\$160.00	\$71,947.20

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,577.00	SY	\$6.41	\$42,158.57
Comment: EB Turbo Lanes: 2547 SY WB Right Turn: 920 SY WB Left Turn: 1936 SY Intersection SB Off Ramp/SB On Ramp: 1174 SY					
285-709	OPTIONAL BASE,BASE GROUP 09	6,577.00	SY	\$27.13	\$178,434.01

	Comment: EB Turbo Lanes: 2547 SY WB Right Turn: 920 SY WB Left Turn: 1936 SY Intersection SB Off Ramp/SB On Ramp: 1174 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	723.47 TN	\$158.68	\$114,800.22
	Comment: (2" Thick) - Same as Type B Stabilization: 6577 SY x 220 LB/SY / 2000 LB			
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	361.74 TN	\$160.00	\$57,878.40
	Comment: (1" Thick) - Same as Type B Stabilization: 6577 SY x 110 LB/SY / 2000 LB			

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	118.00 EA	\$4.68	\$552.24
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.39 GM	\$864.36	\$1,201.46
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.39 GM	\$385.62	\$536.01
Roadway Component Total				\$891,191.81

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 13.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 5.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	919.78 LF	\$23.00	\$21,154.94
520-1-10	CONCRETE CURB & GUTTER, TYPE F	919.78 LF	\$23.00	\$21,154.94
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,226.37 SY	\$41.68	\$51,115.10
570-1-1	PERFORMANCE TURF	510.99 SY	\$2.54	\$1,297.91

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	6,128.00 SY	\$2.54	\$15,565.12
	Comment: Northern Side: 4206 SY Median: 1692 SY + 230 SY			

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,839.55 LF	\$1.84	\$3,384.77
104-18	INLET PROTECTION SYSTEM	9.00 EA	\$99.37	\$894.33

Shoulder Component Total

\$114,567.11

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,839.55 LF	\$23.00	\$42,309.65
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	826.00 LF	\$43.11	\$35,608.86

Median Component Total

\$77,918.51

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.14 CY	\$2,160.00	\$6,782.40
425-1-351	INLETS, CURB, TYPE P-5, <10'	7.00 EA	\$5,377.56	\$37,642.92
425-1-451	INLETS, CURB, TYPE J-5, <10'	2.00 EA	\$8,552.96	\$17,105.92
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00 EA	\$2,905.39	\$2,905.39
425-2-41	MANHOLES, P-7, <10'	1.00 EA	\$4,437.53	\$4,437.53
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	464.00 LF	\$105.86	\$49,119.04
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00 LF	\$144.65	\$6,943.20

Drainage Component Total

\$124,936.40

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00 AS	\$348.41	\$1,742.05
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,059.29	\$1,059.29
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	1.00 AS	\$7,250.00	\$7,250.00
700-2-16	MULTI- POST SIGN, F&I GM, 101- 200 SF	1.00 AS	\$10,000.00	\$10,000.00
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	3.00 EA	\$75,000.00	\$225,000.00

Signing Component Total

\$245,051.34

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street @ SB I-95 On/Off Ramp

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,000.00	LF	\$20.00	\$20,000.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$5,033.14	\$5,033.14
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	37.00	EA	\$618.33	\$22,878.21
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$1,795.00	\$1,795.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	200.00	LF	\$4.62	\$924.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	24.00	AS	\$971.18	\$23,308.32
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$704.72	\$5,637.76
665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	8.00	EA	\$1,710.44	\$13,683.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$29,375.31	\$29,375.31
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00	EA	\$2,616.52	\$10,466.08
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF	4.00	EA	\$2,968.95	\$11,875.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" Comment: FPL Service Point (end to end)	2.00	EA	\$1,255.96	\$2,511.92
649-21-27	STEEL MAST ARM ASSEMBLY, F&I, 78-78 Comment: one for each corner	4.00	EA	\$72,000.00	\$288,000.00

Signalizations Component Total

\$435,489.06

LIGHTING COMPONENT**Conventional Lighting Subcomponent**

Description	Value				
Spacing	MIN				
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	919.78	LF	\$8.00	\$7,358.24
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	182.56	LF	\$20.00	\$3,651.20
635-2-11		7.00	EA	\$618.33	\$4,328.31

	PULL & SPLICE BOX, F&I, 13" x 24"			
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,359.27 LF	\$2.28	\$7,659.14
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	7.00 EA	\$5,500.00	\$38,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	7.00 EA	\$618.53	\$4,329.71
	Subcomponent Total			\$65,826.60
	Lighting Component Total			\$65,826.60

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	220.00	LF	\$260.00	\$57,200.00
	Comment: On top of wall				

Retaining Wall 1

Description	Value
Length	220.00
Begin height	11.00
End Height	21.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,520.00	SF	\$28.00	\$98,560.00
	Retaining Walls Component Total				\$155,760.00

Sequence 29 Total					\$3,191,166.61
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Sequence: 30 NDU - New Construction, Divided, Urban**Net Length:** 0.187 MI
985 LF**Description:** SW 10th Street - General Purpose - just west of Bridge over I-95 to Natura Blvd Intersection
(includes Bridge over I-95)**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	125.00 / 125.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.187
Top of Structural Course For Begin Section	35.00
Top of Structural Course For End Section	14.00
Horizontal Elevation For Begin Section	14.00
Horizontal Elevation For End Section	14.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.67 AC	\$38,512.13	\$218,363.78
120-1	REGULAR EXCAVATION	47,668.64 CY	\$10.00	\$476,686.40
Earthwork Component Total				\$695,050.18

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	220
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	9,887.51 SY	\$6.41	\$63,378.94
285-709	OPTIONAL BASE,BASE GROUP 09	8,757.76 SY	\$27.13	\$237,598.03
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	963.35 TN	\$158.68	\$152,864.38
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	481.68 TN	\$160.00	\$77,068.80

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION Comment: EB I-95 NB On Ramp: 629 SY EB Right @ Natura: 443 SY EB Left @ Natura: 692 SY WB I-95 NB On-Ramp: 1088 SY WB Left Turn @ SB On-Ramp: 1549 SY	4,401.00 SY	\$6.41	\$28,210.41
285-709	OPTIONAL BASE,BASE GROUP 09	4,401.00 SY	\$27.13	\$119,399.13

	Comment: Same as Type B Stabilization: 4401 SY			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	484.11 TN	\$158.68	\$76,818.57
	Comment: (2" Thick) Same as Type B Stabilization: 4401 SY x 220 LB/SY / 2000 LB			
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	242.06 TN	\$160.00	\$38,729.60
	Comment: (1" Thick) Same as Type B Stabilization: 4401 SY x 110 LB/SY / 2000 LB			

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
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	126.00 EA	\$4.68	\$589.68
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.49 GM	\$864.36	\$1,287.90
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.49 GM	\$385.62	\$574.57
Roadway Component Total				\$796,520.01

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.92 / 10.92
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	985.25 LF	\$23.00	\$22,660.75
520-1-10	CONCRETE CURB & GUTTER, TYPE F	985.25 LF	\$23.00	\$22,660.75
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,313.66 SY	\$41.68	\$54,753.35
570-1-1	PERFORMANCE TURF	584.58 SY	\$2.54	\$1,484.83

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,970.50 LF	\$1.84	\$3,625.72
104-18	INLET PROTECTION SYSTEM	10.00 EA	\$99.37	\$993.70

Shoulder Component Total**\$106,179.10**

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	1,970.50 LF	\$24.86	\$48,986.63
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	670.00 LF	\$60.37	\$40,447.90

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	284.00 SY	\$2.54	\$721.36
	Comment: Median Location: WB Left Turn to SB I-95 On-Ramp			

Median Component Total \$90,155.89

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.36 CY	\$2,160.00	\$7,257.60
425-1-351	INLETS, CURB, TYPE P-5, <10'	7.00 EA	\$5,377.56	\$37,642.92
425-1-451	INLETS, CURB, TYPE J-5, <10'	2.00 EA	\$8,552.96	\$17,105.92
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00 EA	\$2,905.39	\$2,905.39
425-2-41	MANHOLES, P-7, <10'	1.00 EA	\$4,437.53	\$4,437.53
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	496.00 LF	\$105.86	\$52,506.56
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00 LF	\$144.65	\$6,943.20
570-1-1	PERFORMANCE TURF	56.73 SY	\$2.54	\$144.09

Drainage Component Total \$128,943.21

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	\$348.41	\$1,742.05
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,059.29	\$1,059.29
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$7,250.00	\$7,250.00
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	\$10,000.00	\$10,000.00
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	3.00 EA	\$75,000.00	\$225,000.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-127	OH STATIC SIGN STR, F&I, S 151-200 FT Comment: Overhead truss spanning bridge structure on SW 10th Street over I-95	1.00	EA	\$235,000.00	\$235,000.00
Signing Component Total					\$480,051.34

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street @ I-95 NB Off Ramp Intersection

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,000.00	LF	\$20.00	\$20,000.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$5,033.14	\$5,033.14
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	37.00	EA	\$618.33	\$22,878.21
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$1,795.00	\$1,795.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	200.00	LF	\$4.62	\$924.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	24.00	AS	\$971.18	\$23,308.32
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$704.72	\$5,637.76
665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	8.00	EA	\$1,710.44	\$13,683.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$29,375.31	\$29,375.31
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00	EA	\$2,616.52	\$10,466.08
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF	4.00	EA	\$2,968.95	\$11,875.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" Comment: FPL Service Point (end to end)	2.00	EA	\$1,255.96	\$2,511.92
649-21-27	STEEL MAST ARM ASSEMBLY, F&I, 78-78 Comment: one for each corner	4.00	EA	\$72,000.00	\$288,000.00
Signalizations Component Total					\$435,489.06

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
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Spacing		MIN		
Pay Items				
Pay item	Description	Quantity	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	985.25	LF \$8.00	\$7,882.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	195.56	LF \$20.00	\$3,911.20
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	7.00	EA \$618.33	\$4,328.31
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,598.39	LF \$2.28	\$8,204.33
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	7.00	EA \$5,500.00	\$38,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	7.00	EA \$618.53	\$4,329.71
Subcomponent Total				\$67,155.55
Lighting Component Total				\$67,155.55

BRIDGES COMPONENT

Bridge OVER95

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	300.00
Width (LF)	158.00
Type	Low Level
Cost Factor	1.40
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$168.00
Final Cost per SF	\$171.91
Basic Bridge Cost	\$7,963,200.00
Description	SW 10TH STREET BRIDGE OVER I-95

Bridge Pay Items

Pay item	Description	Quantity	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	351.11	CY \$351.19	\$123,306.32
415-1-9	REINF STEEL- APPROACH SLABS	61,444.25	LB \$1.01	\$62,058.69
Bridge OVER95 Total				\$8,148,565.01
Bridges Component Total				\$8,148,565.01

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR, JCT SLAB, 32" V SHP	453.00	LF \$260.00	\$117,780.00
Comment: on top of the walls				

Retaining Wall 1

Description	Value
Length	198.00
Begin height	21.00
End Height	16.50
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,712.50 SF	\$28.00	\$103,950.00

Retaining Wall 2

Description	Value
Length	255.00
Begin height	21.00
End Height	15.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	4,590.00 SF	\$28.00	\$128,520.00

Retaining Walls Component Total	\$350,250.00
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Sequence 30 Total	\$11,298,359.35
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Sequence: 31 NUR - New Construction, Undivided, Rural

Net Length: 0.000 MI
1 LF

Description: SW 10th Street - General Purpose - from Natura Blvd Intersection to End of Project Limits
(includes southern leg of Natura Intersection)

Special Conditions: This entire sequence is composed of X-Items

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

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.46	AC	\$38,512.13	\$94,739.84
	Comment: All lanes: See PDF 11814 SY / 4808 SY/AC = 2.46				
Earthwork Component Total					\$94,739.84

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	0
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	11,814.00	SY	\$6.41	\$75,727.74
	Comment: All Lanes: 11814 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	11,814.00	SY	\$27.13	\$320,513.82
	Comment: All Lanes: 11814 SY				
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	1,299.54	TN	\$140.00	\$181,935.60
	Comment: (2" Thick) - 11814 SY x 220 LB/SY / 2000 LB				
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	649.77	TN	\$160.00	\$103,963.20
	Comment: (1" Thick) - 11814 SY x 110 LB/SY / 2000 LB				

Pavement Marking Subcomponent

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

Roadway Component Total

\$682,140.36

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	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips \bar{i} $\frac{1}{2}$ No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F Comment: NW: 58 LF NE: 678 LF SW: 67 LF SE: 51 LF Median (east of Natura): 585 LF + 581 LF = 1166	1,900.00	LF	\$23.00	\$43,700.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" Comment: [Total Type F C&G (2020) - Median (1166)] x 6' / 9 SF/SY	569.33	SY	\$41.68	\$23,729.67

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2.75	LF	\$1.84	\$5.06
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	0.05	LF	\$5.90	\$0.30

Shoulder Component Total

\$67,435.03

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	8.00	LF	\$100.00	\$800.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	8.00	LF	\$144.65	\$1,157.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,579.93	\$1,579.93
570-1-1	PERFORMANCE TURF	0.14	SY	\$2.54	\$0.36

Drainage Component Total

\$3,537.49

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	\$348.41	\$348.41
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,059.29	\$1,059.29
Signing Component Total				\$1,407.70

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street @ Natura Blvd Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,000.00 LF	\$20.00	\$20,000.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,033.14	\$5,033.14
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	37.00 EA	\$618.33	\$22,878.21
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,795.00	\$1,795.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	200.00 LF	\$4.62	\$924.00
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	24.00 AS	\$971.18	\$23,308.32
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$704.72	\$5,637.76
665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	8.00 EA	\$1,710.44	\$13,683.52
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$29,375.31	\$29,375.31
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	4.00 EA	\$2,616.52	\$10,466.08
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF	4.00 EA	\$2,968.95	\$11,875.80

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	2.00 EA	\$1,255.96	\$2,511.92
	Comment: FPL Service Point (end to end)			
649-21-27	STEEL MAST ARM ASSEMBLY, F&I, 78-78	4.00 EA	\$72,000.00	\$288,000.00
	Comment: One for each corner			
Signalizations Component Total				\$435,489.06

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description				Value
Multiplier (Number of Poles)				36
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,200.00 LF	\$8.00	\$57,600.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	20.00 EA	\$618.33	\$12,366.60
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	21,600.00 LF	\$2.28	\$49,248.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	20.00 EA	\$6,500.00	\$130,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	20.00 EA	\$618.53	\$12,370.60
Subcomponent Total				\$261,585.20
Lighting Component Total				\$261,585.20
Sequence 31 Total				\$1,546,334.68

Sequence: 32 NUR - New Construction, Undivided, Rural

Net Length: 0.000 MI
1 LF

Description: SW 10th Street - Managed Lanes
Special Consists of only Bridge Components
Conditions:

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description				Value	
Multiplier (Number of Poles)				51	
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	30,600.00	LF	\$2.28	\$69,768.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	51.00	EA	\$6,500.00	\$331,500.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	51.00	EA	\$618.53	\$31,545.03
Subcomponent Total					\$432,813.03
Lighting Component Total					\$432,813.03

BRIDGES COMPONENT

Bridge LEVEL4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	496.00
Width (LF)	37.00
Type	Low Level
Cost Factor	1.50
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$180.00
Final Cost per SF	\$182.37
Basic Bridge Cost	\$3,303,360.00

Description LEVEL 4 - I-95 DIRECT CONNECT NB TO EB

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	82.22	CY	\$351.19	\$28,874.84
415-1-9	REINF STEEL- APPROACH SLABS	14,388.50	LB	\$1.01	\$14,532.38
Bridge LEVEL4 Total					\$3,346,767.23

Bridge LEVEL3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	496.00
Width (LF)	84.00

Type	Low Level
Cost Factor	1.40
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$168.00
Final Cost per SF	\$170.37
Basic Bridge Cost	\$6,999,552.00

Description LEVEL 3 - I-95 DIRECT CONNECT (CONNECTOR FOR BOTH SB DC AND WB->NB)

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	186.67 CY	\$351.19	\$65,556.64
415-1-9	REINF STEEL- APPROACH SLABS	32,667.25 LB	\$1.01	\$32,993.92
Bridge LEVEL3 Total				\$7,098,102.56

Bridge MLMAIN

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	3,100.00
Width (LF)	94.00
Type	Low Level
Cost Factor	1.40
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$168.00
Final Cost per SF	\$168.38
Basic Bridge Cost	\$48,955,200.00

Description SW 10TH STREET - MANAGED LANES (SEE PDF)

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	208.89 CY	\$351.19	\$73,360.08
415-1-9	REINF STEEL- APPROACH SLABS	36,555.75 LB	\$1.01	\$36,921.31
Bridge MLMAIN Total				\$49,065,481.39

Bridge EBRAMP

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,541.00
Width (LF)	28.25
Type	Low Level
Cost Factor	1.50
Structure No.	
Removal of Existing Structures area	0.00

Default Cost per SF	\$120.00
Factored Cost per SF	\$180.00
Final Cost per SF	\$180.76
Basic Bridge Cost	\$7,835,985.00
Description	SW 10TH STREET - MANAGED LANES - EASTBOUND EGRESS RAMP

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	62.78 CY	\$351.19	\$22,047.71
415-1-9	REINF STEEL- APPROACH SLABS	10,986.50 LB	\$1.01	\$11,096.36
	Bridge EBRAMP Total			\$7,869,129.08
	Bridges Component Total			\$67,379,480.26
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	Sequence 32 Total			\$67,812,293.29
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Sequence: 33 MIS - Miscellaneous Construction**Net Length:** 0.000 MI
1 LF**Description:** ITS Related Components**Special** ITS - I-95 from begin project (North of 48th Street) to South of Hillsboro Blvd. Also includes ITS**Conditions:** along SW 10th Street from West of Military Trail to East of I-95.**INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT****Description of Work****X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	10,624.00 LF	\$8.00	\$84,992.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	3,541.00 LF	\$20.00	\$70,820.00
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	6,439.00 LF	\$3.42	\$22,021.38
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	12,878.00 LF	\$3.83	\$49,322.74
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	484.00 EA	\$49.37	\$23,895.08
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	30.00 EA	\$931.81	\$27,954.30
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	30.00 EA	\$67.90	\$2,037.00
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	30.00 EA	\$72.93	\$2,187.90
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	30.00 EA	\$1,770.27	\$53,108.10
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	9,059.00 LF	\$4.41	\$39,950.19
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	30.00 EA	\$618.33	\$18,549.90
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	30.00 EA	\$1,255.96	\$37,678.80
635-3-40	JUNCTION BOX, RELOCATE	6.00 EA	\$422.50	\$2,535.00
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00 AS	\$2,461.09	\$2,461.09
639-2-1	ELECTRICAL SERVICE WIRE, F&I	42,497.00 LF	\$4.62	\$196,336.14
641-3-169	CONCRETE CCTV POLE, FUR & INS W/LOW	6.00 EA	\$31,920.78	\$191,524.68
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	10.00 EA	\$1,620.12	\$16,201.20
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	10.00 EA	\$12,646.66	\$126,466.60
676-2-122	ITS CABINET- F&I, POLE, 336S	15.00 EA	\$6,300.36	\$94,505.40
676-2-143	ITS CABINET- F&I, BASE, 334	15.00 EA	\$11,629.90	\$174,448.50
676-2-400	ITS CABINET- RELOCATE	3.00 EA	\$2,615.86	\$7,847.58
682-1-113	ITS CCTV CAMERA, F&I, DOME ENCL-PRESS	6.00 EA	\$8,571.99	\$51,431.94
682-1-400	ITS CCTV CAMERA, RELOCATE	1.00 EA	\$2,591.08	\$2,591.08
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	30.00 EA	\$3,710.97	\$111,329.10
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL	1.00 EA	\$720.00	\$720.00
684-2-1	DEVICE SERVER, F&I	10.00 EA	\$1,468.18	\$14,681.80
684-3-11	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER	6.00 EA	\$3,653.42	\$21,920.52

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-5-1	EMERGENCY GENERATOR- PERMANENT, UP TO 25 KW	1.00	EA	\$39,679.10	\$39,679.10
641-2-13	PREST CONCRETE POLE, TYPE P-III	10.00	EA	\$8,000.00	\$80,000.00
78X-XX-XXX	TOLL GANTRY SYSTEM, 2 LANE	2.00	EA	\$800,000.00	\$1,600,000.00
Intelligent Traffic System (ITS) Component Total					\$3,167,197.12
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Sequence 33 Total					\$3,167,197.12
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Sequence: 34 MIS - Miscellaneous Construction**Net Length:** 0.000 MI
0 LF**Description:** Noise Wall * Along I-95 East side between SW 10th Street and Hillsboro Blvd * Barrier Mounted on Managed Lanes

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-23	SHLDR CONC BAR WALL,F SHAPE,14' SND WALL Comment: Along I-95 (east side) between SW 10th Street and Hillsboro Blvd and SB along west side of I-95 near 48th Street overpass	1,400.00 LF	\$480.54	\$672,756.00
Roadway Component Total				\$672,756.00
Sequence 34 Total				\$672,756.00

Sequence: 35 MIS - Miscellaneous Construction**Net Length:** 0.000 MI
0 LF**Description:** Project Risk & Disputes Review Board**ROADWAY COMPONENT****X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
999-20-1	DISPUTES REVIEW BD, MEETING- DO NOT BID Comment: 48 Meetings (based on estimate of 48 months)	48.00 DA	\$3,300.00	\$158,400.00
999-20-2	DISPUTES REVIEW BD, HEARING- DO NOT BID Comment: 2 Hearings	2.00 EA	\$4,000.00	\$8,000.00

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
RISK	PROJECT RISK Comment: \$314.9 M - \$285.7 M = \$29.20 M 70% of Construction Cost	1.00 LS	\$29,200,000.00	\$29,200,000.00

Roadway Component Total	\$29,366,400.00
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Sequence 35 Total	\$29,366,400.00
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Date: 8/26/2019 3:23:08 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 436964-2-52-01

Letting Date: 07/2024

Description: SR-9/I-95 FROM SOUTH OF SW 10TH STREET TO NORTH OF HILLSBORO BLVD.

District: 04 County: 86 BROWARD

Market Area: 12 Units: English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y Project Length: 8.953 MI

Project Manager: BOSTIAN

Version 6 Project Grand Total**\$288,877,170.63**

Description: Updated for unit cost adjustment versus other alternatives. 8-26-19

Project Sequences Subtotal **\$222,964,484.78**

102-1	Maintenance of Traffic	8.00 %	\$17,837,158.78
101-1	Mobilization	10.00 %	\$24,080,164.36

Project Sequences Total **\$264,881,807.92**

Project Unknowns	0.00 %	\$0.00
Design/Build	9.00 %	\$23,839,362.71

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	\$3,000.00	\$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00
Project Non-Bid Subtotal					\$156,000.00

Version 6 Project Grand Total**\$288,877,170.63**