

April 17th, 2023

EXHIBIT A



SCOPE OF SERVICES  
FOR  
FINANCIAL PROJECT ID 443926-1-32-01  
  
DISTRICT SIX  
MIAMI-DADE COUNTY

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## SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

### HIGHWAY AND BRIDGE/STRUCTURAL DESIGN

This Exhibit forms an integral part of the agreement between the State of Florida Department of Transportation (hereinafter referred to as the DEPARTMENT or FDOT) and XXXX hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: **443926-1-32-01**

Federal Aid Project No.: *N/A*

County Section No.: **87080000**

Description: ***SR 934/71st Street from Bay Drive East to Collins Avenue***

Bridge No(s).: **870709**

Railroad Crossing: *N/A*

Context Classification: ***C-5 (Urban Center)***

### **1 PURPOSE**

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the DEPARTMENT in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein.

Major work mix includes: ***0012, Resurfacing***  
Major work groups include: ***3.1 Minor Highway Design***  
Minor work groups include: ***7.1 Signing, Pavement Marking & Channelization***  
***7.2 Lighting***  
***7.3 Signalization***  
***8.2 Design, Right of Way, Construction Surveying***  
***15.0 Landscape Architect***

Known alternative construction contracting methods include: *N/A*

The general objective is for the CONSULTANT to prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations and other technical documents in accordance with FDOT policy, procedures and requirements. These Contract documents will be used by the contractor to build the project and test the project components. These Contract documents will be used by the DEPARTMENT or its Construction Engineering Inspection (CEI) representatives for inspection and final

### **1 PURPOSE**

acceptance of the project. The CONSULTANT shall follow a system engineering process to ensure that all required project components are included in the development of the Contract documents and the project can be built as designed and to specifications.

The Scope of Services establishes which items of work in the FDOT Design Manual and other pertinent manuals are specifically prescribed to accomplish the work included in this contract, and also indicate which items of work will be the responsibility of the CONSULTANT and/or the DEPARTMENT.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original concepts may be required. The CONSULTANT shall incorporate these refinements into the design and consider such refinements to be an anticipated and integral part of the work. This shall not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with the DEPARTMENT and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with DEPARTMENT procedures. CONSULTANTS are expected to know the laws and rules governing their professions and are expected to provide services in accordance with current regulations, codes and ordinances and recognized standards applicable to such professional services. The Consultant shall provide qualified technical and professional personnel to perform to Department standards and procedures, the duties and responsibilities assigned under the terms of this agreement. The Consultant shall minimize to the maximum extent possible the Department's need to apply its own resources to assignments authorized by the Department.

The DEPARTMENT will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of contract documents, including Construction documents. The Department's technical reviews are for high-level conformance and are not meant to be comprehensive reviews. The CONSULTANT shall be fully responsible for all work performed and work products developed under this Scope of Services. The DEPARTMENT may provide job-specific information and/or functions as outlined in this contract, if favorable.

**1 PURPOSE**

## 2 PROJECT DESCRIPTION

The CONSULTANT shall investigate the status of the project and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies and/or activities. If a Preliminary Engineering Report is available from a prior or current Project Development and Environmental (PD&E) study, the CONSULTANT shall use the approved concepts as a basis for the design unless otherwise directed by the DEPARTMENT.

*The project consists of Resurfacing, Restoration and Rehabilitation (RRR) improvements along SR 934/71st Street from Bay Drive East to Collins Avenue. Improvements to the project corridor include:*

### **Roadway**

- *Mill and resurface the existing pavement.*
- *Adjust the existing storm drain manholes, utility manhole tops, and valves within the limits of milling & resurfacing or sidewalk reconstruction, as necessary.*
- *Regrade roadway or curb and gutter locations where water ponding was observed.*
- *Repair/replace damaged drainage inlet tops.*
- *Address potential ponding issues identified along the project corridor.*

### **Pedestrian and Bicycle Facilities**

- *Upgrade deficient pedestrian curb ramps and related components such as detectable warning surfaces, pavement markings, pedestrian crossing signs and plaques.*
- *Reconstruct damaged or missing sidewalk segments (lifted, sunken or broken sidewalk) and address the cause of said damage (tree roots etc.).*

### **Signing and Pavement Markings**

- *Upgrade all broken and substandard ground-mounted signs to comply with the latest editions of the FDOT Standard Plans, the FDOT Traffic Engineering Manual (TEM), and the Manual on Uniform Traffic Control Devices (MUTCD).*
- *Replace and upgrade all pavement markings to meet the latest FDOT Standard Plans for Road Construction.*
- *Replace all missing and/or damaged signs within the project limits.*

### **Signalization**

- *Provide new countdown pedestrian signals and/or install ADA-compliant pedestrian pushbuttons and detector signs at all signalized intersections.*
- *Replace pull boxes (traffic signal and lighting) impacted by the reconstruction of sidewalk and/or pedestrian curb ramps.*
- *Provide flexible retroreflective backplates to all signals at signalized intersections.*

**2 PROJECT DESCRIPTION**

- *Replace existing signal pull boxes impacted by the reconstruction of sidewalks.*
- *Replace traffic loop detectors with video detection.*
- *Replace existing signal mast arms at Indian Creek as well as Harding Avenue.*
- *Consider upgrading the existing electrical service disconnect (ESD) mounted on a*
- *wooden pole at the signalized midblock crossing just south of SW 4th Street.*

## 2.1 Project General and Roadway (Activities 3, 4, and 5)

Public Involvement: *CAP Level 2 anticipated. The District Public Information Office (PIO) consultant is responsible for coordination of all public involvement activities during the design phase. The CONSULTANT may be expected to attend a Public Information Meeting.*

Other Agency Presentations/Meetings: *Miami-Dade DTPW, City of Miami Gardens.*

Joint Project Agreements: *N/A*

Specification Package Preparation: *Yes, specifications package required*

Value Engineering: *N/A*

Risk Assessment Workshop: *N/A*

Plan Type: *Plan only at 40 scale (14 Sheets)*

Typical Section: *2 Typical sections required with details*

Pavement Design: *2 Pavement Designs (Milling and Resurfacing, Widening)*

Pavement Type Selection Report(s): *N/A*

Cross Slope: *Verify with DTM*

Access Management Classification: *Access Class 7*

Transit Route Features: *Miami Dade Transit: bus routes and bus stops within project corridor*

Major Intersections/Interchanges: *N/A*

Roadway Alternative Analysis: *N/A*

Level of TCP Plans: *Level I with pedestrian details*

Temporary Lighting: *N/A*

Temporary Signals: *N/A*

Temporary Drainage: *N/A*

Design Variations/Exceptions: *Anticipated 5-7\* Design Variations:*

- *Design Variation for Lane Width*
- *Design Variation for Bicycle Facility*
- *Design Variation for Unobstructed Sidewalk Width*
- *Design Variation for Lateral Offset*
- *Design Variation for Clear Sight Triangle*
- *Design Variation for Deceleration Length/Storage Length*

## 2 PROJECT DESCRIPTION



Back of Sidewalk Profiles: *N/A*

Selective Clearing and Grubbing: *N/A*

## 2.2 Drainage (Activities 6a and 6b)

System Type: *The existing conditions throughout the project limits typically consist of a closed drainage system with exfiltration and curb inlets and ditch-bottom/curb inlets at side street intersections. The existing drainage pattern is recommended to remain. Deficient inlet covers are to be repaired.*

## 2.3 Utilities Coordination (Activity 7)

The CONSULTANT is responsible to certify that all necessary arrangements for utility work on this project have been made and will not conflict with the physical construction schedule. The CONSULTANT should coordinate with DEPARTMENT personnel to coordinate transmittals to Utility Companies and meet production schedules.

The CONSULTANT shall ensure FDOT standards, policies, procedures, practices, and design criteria are followed concerning utility coordination.

The CONSULTANT may employ more than one individual or utility engineering consultant to provide utility coordination and engineering design expertise. The CONSULTANT shall identify a dedicated person responsible for managing all utility coordination activities. This person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the CONSULTANT proposal. The Utility Coordination Manager shall be required to satisfactorily demonstrate to the FDOT District Utilities Administrator that they have the following knowledge, skills, and expertise:

A minimum of 4 years of experience performing utility coordination in accordance with FDOT, Federal Highway Administration (FHWA), and American Association of State Highway and Transportation Officials (AASHTO) standards, policies, and procedures.

A thorough knowledge of the FDOT plans production process and District utility coordination process.

A thorough knowledge of FDOT agreements, standards, policies, and procedures.

The Utility Coordination Manager shall be responsible for managing all utility coordination, including the following:

Assuring that Utility Coordination and accommodation is in accordance to the FDOT, FHWA, and AASHTO standards, policies, procedures, and design criteria.

Assisting the engineer of record in identifying all existing utilities and coordinating

any new installations. Assisting the Engineer of Record with resolving utility conflicts.

Scheduling and performing utility coordination meetings, keeping and distribution of minutes/action items of all utility meetings, and ensuring expedient follow-up on all unresolved issues.

Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated and documented.

Identifying and coordinating the completion of any FDOT or utility owner agreement that is required for reimbursement, or accommodation of the utility facilities associated with the project.

Review and certify to the District Utilities Administrator that all Utility Work Schedules are correct and in accordance with the Department's standards, policies, and procedures.

Prepare, review and process all utility related reimbursable paperwork inclusive of betterment and salvage determination.

The CONSULTANT's utility coordination work shall be performed and directed by the Utility Coordination Manager that was identified and approved by FDOT's Project Manager. Any proposed change of the approved Utility Coordination Manager shall be subject to review and approval by FDOT's Project Manager prior to any change being made in this contract.

***The project utility coordination is to be completed by the District Utilities Group and the Project Utility Coordinator consultant; utility coordination tasks include processing of any JPA, Utility Work Schedules (UWS), and Utility Clear Letters. 20 Utility Agencies/Owners (UAOs) are identified within the project limits. No significant utility impacts are anticipated for this RRR Project.***

***The CONSULTANT may be required to perform Subsurface Utility Exploration (SUE) tests to verify any utility conflicts within the project limits.***

## **2 PROJECT DESCRIPTION**

**2.4 Environmental Permits, Compliances, and Environmental Clearances  
(Activity 8)**

*It is the responsibility of the CONSULTANT to coordinate with the PLEMO office of the DEPARTMENT regarding environmental aspects of this project.*

*The DEPARTMENT will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes. The Designer is responsible to prepare the Permit Involvement Form (PIF).*

**2.5 Structures (Activities 9 – 18) N/A**

Bridge(s): *N/A*

Type of Bridge Structure Work:

- BDR
- Temporary Bridge
- Short Span Concrete
- Medium Span Concrete
- Structural Steel
- Segmental Concrete
- Movable Span

Retaining Walls: *N/A*

Noise Barrier Walls: *N/A*

Miscellaneous: *N/A*

**2.6 Signing and Pavement Markings (Activities 19 & 20)**

*Signing and Pavement Marking Plans are required (40 Scale).*

*Signing improvements include upgrading of all substandard ground-mounted signs to meet current FDOT and MUTCD requirements. All pavement markings within the limits of milling and resurfacing shall be replaced to meet current FDOT Standard Plans for Road Construction.*

**2.7 Signalization (Activities 21 & 22)**

Traffic Data Collection: *N/A*

Traffic Studies: *N/A*

Count Stations: *N/A*

Traffic Monitoring Sites: *N/A*

**2.8 Lighting (Activities 23 & 24)**

*The existing lighting system is to remain.*

**2.9 Landscape Architecture (Activities 25 & 26)**

Include coordination with existing and/or proposed underground utilities including but not limited to FDOT lighting, drainage and ITS. Landscape coordination with ITS shall include both underground conflicts and above-ground impacts to existing and/or proposed ITS coverage. The CONSULTANT shall closely coordinate with the Department's ITS units to ensure that all conflicts are identified, addressed and mitigated in the Contract Documents.

Planting Plans: *The existing landscaping is to remain*

Irrigation Plans: *N/A*

**2.10 Survey (Activity 27)**

*Survey services to be provided by the District. The Designer is responsible for including the Project Network Control sheets in the Roadway Plans component set.*

**2.11 Photogrammetry (Activity 28)**

*Aerial photography to be provided by the District.*

**2.12 Mapping (Activity 29)**

*Right of Way Mapping services to be provided by the District*

Control Survey Map: N/A

Right of Way Map: N/A

Legal Descriptions: N/A

Maintenance Map: N/A

Miscellaneous Items: N/A

**2.13 Terrestrial Mobile LiDAR (Activity 30)**                      N/A

**2.14 Architecture (Activity 31)**    N/A

**2.15 Noise Barriers (Activity 32)**    N/A

**2.16 Intelligent Transportation Systems (Activities 33 & 34)**                      N/A

**2.17 Geotechnical (Activity 35)**

*Geotechnical services to be provided by the District. The Designer is responsible for including the Project geotechnical information in the Roadway Plans component set.*

**2.18 3D Modeling (Activity 36)**    N/A

**2.19 Project Schedule**

Within ten (10) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for DEPARTMENT and CONSULTANT scheduled activities required to meet the current DEPARTMENT Production Date. The schedule shall be based upon the *PSM Project Schedule*.

The schedule shall be accompanied by an anticipated payout and fiscal

**2 PROJECT DESCRIPTION**

progress curve. For the purpose of scheduling, the CONSULTANT shall allow for a 3 week review time for each phase submittal and any other submittals as appropriate.

The schedule shall indicate all required submittals.

All fees and price proposals are to be based on the negotiated schedule of 20 months for final construction contract documents. However, the contract deadline is 23 months from the Notice to Proceed.

Periodically, throughout the life of the contract, the project schedule and payout and fiscal progress curves shall be reviewed and, with the approval of the DEPARTMENT, adjusted as necessary to incorporate changes in the Scope of Services and progress to date.

The approved schedule and schedule status report, along with progress and payout curves, shall be submitted with the monthly progress report.

The schedule shall be submitted in an FDOT system-compatible format.

## 2.20 Submittals

The CONSULTANT shall furnish construction contract documents as required by the DEPARTMENT to adequately control, coordinate, and approve the work concepts. The CONSULTANT shall distribute submittals as directed by the DEPARTMENT. The DEPARTMENT will determine the specific number of copies required prior to each submittal.

## 2.21 Provisions for Work

All work shall be prepared with English units in accordance with the latest editions of standards and requirements utilized by the DEPARTMENT which include, but are not limited to, publications such as:

- General
  - Title 29, Part 1910, Standard 1910.1001, Code of Federal Regulations (29 C.F.R. 1910.1001) – Asbestos Standard for Industry, U.S. Occupational Safety and Health Administration (OSHA)
  - 29 C.F.R. 1926.1101 – Asbestos Standard for Construction, OSHA
  - 40 C.F.R. 61, Subpart M - National Emission Standard for Hazardous Air Pollutants (NESHAP), Environmental Protection Agency (EPA)
  - 40 C.F.R. 763, Subpart E – Asbestos-Containing Materials in Schools, EPA
  - 40 C.F.R. 763, Subpart G – Asbestos Worker Protection, EPA
  - Americans with Disabilities Act (ADA) Standards for Accessible Design
  - AASHTO – A Policy on Design Standards Interstate System
  - AASHTO – Roadside Design Guide
  - AASHTO – Roadway Lighting Design Guide
  - AASHTO – A Policy for Geometric Design of Highways and Streets
  - AASHTO – Highway Safety Manual
  - Rule Chapter 5J-17, Florida Administrative Code (F.A.C.), Standards of

- Practice for Professional Surveyors and Mappers
- Chapter 469, Florida Statutes (F.S.) – Asbestos Abatement
  - Rule Chapter 62-257, F.A.C., Asbestos Program
  - Rule Chapter 62-302, F.A.C., Surface Water Quality Standards
  - Code of Federal Regulations (C.F.R.)
  - Florida Administrative Codes (F.A.C.)
  - Chapters 20, 120, 215, 455, Florida Statutes (F.S.) – Florida Department of Business & Professional Regulations Rules
  - Florida Department of Environmental Protection Rules
  - FDOT Basis of Estimates Manual
  - FDOT Computer Aided Design and Drafting (CADD) Manual
  - FDOT Standard Plans
  - FDOT Flexible Pavement Design Manual
  - FDOT - Florida Roundabout Guide
  - FDOT Handbook for Preparation of Specifications Package
  - FDOT Standard Plans Instructions
  - FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (“Florida Greenbook”)
  - FDOT Materials Manual
  - FDOT Pavement Type Selection Manual
  - FDOT Design Manual
  - FDOT Procedures and Policies
  - FDOT Procurement Procedure 001-375-030, Compensation for Consultant Travel Time on Professional Services Agreements
  - FDOT Project Development and Environmental Manual
  - FDOT Project Traffic Forecasting Handbook
  - FDOT Public Involvement Handbook
  - FDOT Rigid Pavement Design Manual
  - FDOT Standard Specifications for Road and Bridge Construction
  - FDOT Utility Accommodation Manual
  - Manual on Speed Zoning for Highways, Roads, and Streets in Florida
  - Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
  - FHWA – National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide
  - FHWA Roadway Construction Noise Model (RCNM) and Guideline Handbook
  - Florida Fish and Wildlife Conservation Commission - Standard Manatee Construction Conditions 2005
  - Florida Statutes (F.S.)
  - Florida’s Level of Service Standards and Guidelines Manual for Planning
  - Model Guide Specifications – Asbestos Abatement and Management in Buildings, National Institute for Building Sciences (NIBS)
  - Quality Assurance Guidelines
  - Safety Standards
  - Any special instructions from the DEPARTMENT

## **2 PROJECT DESCRIPTION**

- Roadway
  - FDOT – Florida Intersection Design Guide
  - FDOT - Project Traffic Forecasting Handbook
  - FDOT - Quality/Level of Service Handbook
  - Florida’s Level of Service Standards and Highway Capacity Analysis for the SHS
  - Transportation Research Board (TRB) - Highway Capacity Manual
- Permits
  - Chapter 373, F.S. – Water Resources
  - US Fish and Wildlife Service Endangered Species Programs
  - Florida Fish and Wildlife Conservation Commission Protected Wildlife Permits
  - Bridge Permit Application Guide, COMDTPUB P16591.3C
  - Building Permit
- Drainage
  - FDOT Bridge Hydraulics Handbook
  - FDOT Culvert Handbook
  - FDOT Drainage Manual
  - FDOT Erosion and Sediment Control Manual
  - FDOT Exfiltration Handbook
  - FDOT Hydrology Handbook
  - FDOT Open Channel Handbook
  - FDOT Optional Pipe Materials Handbook
  - FDOT Storm Drain Handbook
  - FDOT Stormwater Management Facility Handbook
  - FDOT Temporary Drainage Handbook
  - FDOT Drainage Connection Permit Handbook
  - FDOT Bridge Scour Manual
- Survey and Mapping
  - All applicable Florida Statutes and Administrative Codes
  - Applicable Rules, Guidelines Codes and authorities of other Municipal, County, State and Federal Agencies.
  - FDOT Aerial Surveying Standards for Transportation Projects Topic 550-020-002
  - FDOT Right of Way Mapping Handbook
  - FDOT Surveying Procedure Topic 550-030-101
  - Florida Department of Transportation Right of Way Procedures Manual
  - Florida Department of Transportation Surveying Handbook
  - Right of Way Mapping Procedure 550-030-015
- Traffic Engineering and Operations and ITS
  - AASHTO - An Information Guide for Highway Lighting
  - AASHTO - Guide for Development of Bicycle Facilities

## **2 PROJECT DESCRIPTION**



- FHWA Standard Highway Signs Manual
- FDOT Manual on Uniform Traffic Studies (MUTS)
- FDOT Median Handbook
- FDOT Traffic Engineering Manual
- National Electric Safety Code
- National Electrical Code
- Florida's Turnpike Enterprise
  - Florida's Turnpike Plans Preparation and Practices Handbook (TPPPH)
  - Florida's Turnpike Lane Closure Policy
  - Florida's Turnpike Drainage Manual Supplement
  - Rigid Pavement Design Guide for Toll Locations with Electronic Toll Collection
  - Flexible Pavement Design Guide for Toll Locations with Electronic Toll Collection
  - Florida's Turnpike General Tolling Requirements (GTR)
  - Additional Florida's Turnpike Enterprise standards, guides, and policies for design and construction can be found on the FTE Design Website:  
<http://design.floridasturnpike.com>
- Traffic Monitoring
  - American Institute of Steel Construction (AISC) Manual of Steel Construction, referred to as "AISC Specifications"
  - American National Standards Institute (ANSI) RP-8-00 Recommended Practice for Roadway Lighting
  - AASHTO AWS D1.1/ANSI Structural Welding Code – Steel
  - AASHTO D1.5/AWS D1.5 Bridge Welding Code
  - FHWA Traffic Detector Handbook
  - FDOT General Interest Roadway Data Procedure
  - FHWA Traffic Monitoring Guide
  - FDOT's Traffic/Polling Equipment Procedures
- Structures
  - AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications and Interims
  - AASHTO LRFD Movable Highway Bridge Design Specifications and Interims
  - AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and Interims.
  - AASHTO/-AWS-D1. 5M/D1.5: An American National Standard Bridge Welding Code
  - AASHTO Guide Specifications for Structural Design of Sound Barriers
  - AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges
  - FDOT Bridge Load Rating Manual
  - FDOT Structures Manual
  - FDOT Structures Design Bulletins (available on FDOT Structures web site)

## **2 PROJECT DESCRIPTION**

- Geotechnical
  - FHWA Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Specifications
  - Manual of Florida Sampling and Testing Methods
  - Soils and Foundation Handbook
- Landscape Architecture
  - Florida Department of Agriculture and Consumer Services Grades and Standards for Nursery Plants
- Architectural
  - Building Codes
  - Florida Building Code:
    - Building
    - Fuel Gas
    - Mechanical
    - Plumbing
    - Existing Building
  - Florida Accessibility Code for Building Construction
  - Rule Chapter 60D, F.A.C., Division of Building Construction
  - Chapter 553, F.S. – Building Construction Standards
  - ANSI A117.1 2003 Accessible and Usable Building and Facilities
  - Titles II and III, Americans With Disabilities Act (ADA), Public Law 101-336; and the ADA Accessibility Guidelines (ADAAG)
- Architectural – Fire Codes and Rules
  - National Fire Protection Association (NFPA) - Life Safety Code
  - NFPA 70 - National Electrical Code
  - NFPA 101 - Life Safety Code
  - NFPA 10 - Standard for Portable Fire Extinguishers
  - NFPA 11 - Standard for Low-Expansion Foam Systems
  - NFPA 11A - Standard for High- and Medium-Expansion Foam Systems
  - NFPA 12 - Standard for Carbon Dioxide Extinguishing Systems
  - NFPA 13 - Installation of Sprinkler Systems
  - NFPA 30 - Flammable and Combustible Liquids Code
  - NFPA 54 - National Gas Fuel Code
  - NFPA 58 - LP-Gas Code
  - Florida Fire Prevention Code as adopted by the State Fire Marshal – Consult with the Florida State Fire Marshal’s office for other frequently used codes.
- Architectural – Extinguishing Systems
  - NFPA 10 - Fire Extinguishers
  - NFPA 13 - Sprinkler
  - NFPA 14 - Standpipe and Hose System

## **2 PROJECT DESCRIPTION**

- NFPA 17 - Dry Chemical
- NFPA 20 - Centrifugal Fire Pump
- NFPA 24 - Private Fire Service Mains
- NFPA 200 - Standard on Clean Agent Fire Extinguishing Systems
- Architectural – Detection and Fire Alarm Systems
  - NFPA 70 - Electrical Code
  - NFPA 72 - Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems
  - NFPA 72E - Automatic Fire Detectors
  - NFPA 72G - Installation, Maintenance, and Use of Notification Appliances
  - NFPA 72H - Testing Procedures for Remote Station and Proprietary Systems
  - NFPA 74 - Household Fire Warning Equipment
  - NFPA 75 - Protection of Electronic Computer Equipment
- Architectural – Mechanical Systems
  - NFPA 90A - Air Conditioning and Ventilating Systems
  - NFPA 92A - Smoke Control Systems
  - NFPA 96 - Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment
  - NFPA 204M - Smoke and Heating Venting
- Architectural – Miscellaneous Systems
  - NFPA 45 - Laboratories Using Chemicals
  - NFPA 80 - Fire Doors and Windows
  - NFPA 88A - Parking Structures
  - NFPA 105- Smoke and Draft-control Door Assemblies
  - NFPA 110 - Emergency and Standby Power Systems
  - NFPA 220 - Types of Building Construction
  - NFPA 241 - Safeguard Construction, Alteration, and Operations
  - Rule Chapter 69A-47, F.A.C., Uniform Fire Safety For Elevators
  - Rule Chapter 69A-51, F.A.C., Boiler Safety
- Architectural – Energy Conservation
  - Rule Chapter 60D-4, F.A.C., Rules For Construction and Leasing of State Buildings To Insure Energy Conservation
  - Section 255.255, F.S., Life-Cycle Costs
- Architectural – Elevators
  - Rule Chapter 61C-5, F.A.C., Florida Elevator Safety Code
  - ASME A-17.1, Safety Code for Elevators and Escalators
  - Architectural – Floodplain Management Criteria
  - Section 255.25, F.S., Approval Required Prior to Construction or Lease of Buildings
  - Rules of the Federal Emergency Management Agency (FEMA)

## **2 PROJECT DESCRIPTION**

- Architectural – Other
  - Rule Chapter 64E-6, F.A.C., Standards for On Site Sewage Disposal Systems (Septic Tanks)
  - Rule Chapter 62-600, F.A.C., Domestic Wastewater Facilities
  - Rule Chapter 62-761, F.A.C., Underground Storage Tank Systems
  - American Concrete Institute
  - American Institute of Architects - Architect's Handbook of Professional Practice
  - American Society for Testing and Materials - ASTM Standards
  - Brick Institute of America
  - DMS - Standards for Design of State Facilities
  - Florida Concrete Products Association
  - FDOT – ADA/Accessibility Procedure
  - FDOT – Building Code Compliance Procedure
  - FDOT – Design Build Procurement and Administration
  - LEED (Leadership in Energy and Environmental Design) Green Building Rating System
  - National Concrete Masonry Association
  - National Electrical Code
  - Portland Cement Association - Concrete Masonry Handbook
  - United State Green Building Council (USGBC)

**2.22 Services to be Performed by the DEPARTMENT When appropriate and /or available, the DEPARTMENT will provide project data including:**

- Numbers for field books.
- Preliminary Horizontal Network Control.
- Access for the CONSULTANT to utilize the DEPARTMENT's Information Technology Resources.
- All Department agreements with Utility Agency Owner (UAO).
- All certifications necessary for project letting.
- Building Construction Permit Coordination (Turnpike)
- All information that may come to the DEPARTMENT pertaining to future improvements.
- All future information that may come to the DEPARTMENT during the term of the CONSULTANT's Agreement, which in the opinion of the DEPARTMENT is necessary for the prosecution of the work.
- Available traffic and planning data.
- All approved utility relocations.
- Project utility certification to the DEPARTMENT's Central Office.
- Any necessary title searches.
- Engineering standards review services.
- All available information in the possession of the DEPARTMENT pertaining to utility companies whose facilities may be affected by the proposed construction.
- All future information that may come to the DEPARTMENT pertaining to subdivision plans so that the CONSULTANT may take advantage of

additional areas that can be utilized as part of the existing right of way.

- Systems traffic for Projected Design Year, with K, D, and T factors.
- Previously constructed Highway Beautification or Landscape Construction Plans
- Landscape Opportunity Plan(s)
- Existing right of way maps.
- Existing cross slope data for all RRR projects.
- Existing pavement evaluation report for all RRR projects.
- PD&E Documents
- Design Reports
- Letters of authorization designating the CONSULTANT as an agent of the DEPARTMENT in accordance with F.S. 337.274.
- Phase reviews of plans and engineering documents.
- Regarding Environmental Permitting Services:
  - Approved Permit Document when available.
  - Approval of all contacts with environmental agencies.
  - General philosophies and guidelines of the DEPARTMENT to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the Project Manager.
  - Appropriate signatures on application forms.

### 3 PROJECT COMMON AND PROJECT GENERAL TASKS

#### Project Common Tasks

Project Common Tasks, as listed below, are work efforts that are applicable to many project activities, 4 (Roadway Analysis) through 36 (3D Modeling). These tasks are to be included in the project scope in each applicable activity when the described work is to be performed by the CONSULTANT.

Cost Estimates: The CONSULTANT is responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. Prior to 60% plans or completion of quantities, the DEPARTMENT's Long Range Estimate (L.R.E.) system will be used to produce a conceptual estimate, according to District policy. Once the quantities have been developed (beginning at 60% plans and no later than 90% plans) the CONSULTANT shall be responsible for inputting the pay items and quantities into AASHTOWare Project Preconstruction through the use of the DEPARTMENT's Designer Interface for generating the summary of quantities and the FDOT's in-house estimates. A Summary of Pay Items sheet shall be prepared with all required Plans submittals as required.

Technical Special Provisions: The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the Standard Specifications for Road and Bridge Construction and the workbook of implemented modifications.

A Technical Special Provision shall not modify the Standard Specifications and implemented modifications in any way.

The Technical Special Provisions shall provide a description of work, materials, equipment and specific requirements, method of measurement and basis of payment. Proposed Technical Special Provisions will be submitted to the District Specifications Office for initial review at the time of the Phase III plans review submission to the DEPARTMENT's Project Manager. This timing will allow for adequate processing time prior to final submittal. The Technical Special Provisions will be reviewed for suitability in accordance with the Handbook for Preparation of Specification Packages. The District Specifications Office will forward the Technical Special Provisions to the District Legal Office for their review and comment. All comments will be returned to the CONSULTANT for correction and resolution. Final Technical Special Provisions shall be digitally signed and sealed in accordance with applicable Florida Statutes.

The CONSULTANT shall contact the appropriate District Specifications Office for details of the current format to be used before starting preparations of Technical Special Provisions.

Modified Special Provisions: The CONSULTANT shall provide Modified Special Provisions as required by the project. Modified Special Provisions are defined in the Specifications Handbook.

### 3 PROJECT COMMON AND PROJECT GENERAL TASKS

A Modified Special Provision shall not modify the first nine sections of the Standard Specifications and implemented modifications in any way. All modifications to other sections must be justified to the appropriate District and Central Specifications Offices to be included in the project's specifications package.

Field Reviews: The CONSULTANT shall make as many trips to the project site as required to obtain necessary data for all elements of the project.

Technical Meetings: The CONSULTANT shall attend all technical meetings necessary to execute the Scope of Services of this contract. This includes meetings with DEPARTMENT and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroads, airports, progress review meetings (phase review), and miscellaneous meetings. The CONSULTANT shall prepare, and submit to the DEPARTMENT's Project Manager for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) working days of attending the meeting.

Quality Assurance/Quality Control: It is the intention of the DEPARTMENT that design CONSULTANTS, including their subconsultant(s), are held responsible for their work, including plans review. The purpose of CONSULTANT plan reviews is to ensure that CONSULTANT plans follow the plan preparation procedures outlined in the FDOT Design Manual, that state and federal design criteria are followed with the DEPARTMENT concept, and that the CONSULTANT submittals are complete. All subconsultant document submittals shall be submitted by the subconsultant directly to the CONSULTANT for their independent Quality Assurance/Quality Control review and subsequent submittal to the DEPARTMENT.

It is the CONSULTANT'S responsibility to independently and continually QC their plans and other deliverables. The CONSULTANT should regularly communicate with the DEPARTMENT's Design Project Manager to discuss and resolve issues or solicit opinions from those within designated areas of expertise.

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT and their subconsultant(s) under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan shall be one specifically designed for this project. The CONSULTANT shall submit a Quality Control Plan for approval within twenty (20) business days of the written Notice to Proceed and it shall be signed by the CONSULTANT's Project Manager and the CONSULTANT QC Manager. The Quality Control Plan shall include the names of the CONSULTANT's staff that will perform the quality control reviews. The Quality Control reviewer shall be a Florida Licensed Professional Engineer fully prequalified under F.A.C.

### **3 PROJECT COMMON AND PROJECT GENERAL TASKS**

14-75 in the work type being reviewed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, landscape, surveys, etc.) and a written resolution of comments on a point-by-point basis will be required, if requested by the DEPARTMENT, with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor & Mapper that performed the Quality Control review will sign a statement certifying that the review was conducted and found to meet required specifications.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other products and services.

Independent Peer Review: When directed by the DEPARTMENT, a subconsultant may perform Independent Peer Reviews.

Independent Peer Review and a Constructability/Bidability Review for design Phase Plans document submittals are required on this project. These separate reviews shall be completed by someone who has not worked on the plan component that is being reviewed. These could include, but are not limited to a separate office under the Prime's umbrella, a subconsultant that is qualified in the work group being reviewed, or a CEI. It does not include persons who have knowledge of the day to day design efforts. The Constructability/Bidability Review shall be performed by a person with experience working on Department construction projects (CEI, Contractor, etc.).

The Independent Peer Review for design Phase Plans submittals shall ensure the plans meet the FDM, Standard Plans and CADD Manual. The Constructability/Bidability Review shall ensure the project can be constructed and paid for as designed. Constructability/Bidability Reviews should be conducted prior to the Phase III and Phase IV submittals, using the Phase Review Checklist (Guidance Document 1-1-A) from the Construction Project Administration Manual (CPAM) as a minimum guideline. The CONSULTANT shall submit this checklist, as well as the "marked-up" set of plans during this review, and review comments and comment responses from any previous Constructability/Bidability reviews. These items will be reviewed by District Design and District Construction.

Supervision: The CONSULTANT shall supervise all technical design activities.

Coordination: The CONSULTANT shall coordinate with all disciplines of the project to produce a final set of construction documents.

### **Project General Tasks**

Project General Tasks, described in Sections 3.1 through 3.7 below, represent work efforts that are applicable to the project as a whole and not to any one or more specific project activity. The work described in these tasks shall be performed by the CONSULTANT when included in the project scope.

## **3 PROJECT COMMON AND PROJECT GENERAL TASKS**



### **3.1 Public Involvement**

Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the project. Public Involvement will be handled by the DEPARTMENT. The CONSULTANT will provide supporting documentation for all public meetings as well as presentations to all interested persons, groups, and government organizations including information regarding the development of the project.

#### **3.1.1 Community Awareness Plan**

Community Awareness Plan (CAP) will be developed by the DEPARTMENT. The CONSULTANT will provide required supporting documentation for the development of the CAP. The objective of the plan is to notify local governments, affected property owners, tenants, and the public of the DEPARTMENT'S proposed construction and the anticipated impact of that construction. The CAP shall address timeframes for each review and shall include tentative dates for each public involvement requirement for the project. The CAP will also document all public involvement activities conducted throughout the project's duration. In addition to the benefits of advance notification, the process should allow the DEPARTMENT to resolve controversial issues during the design phase. This item shall be reviewed and updated periodically as directed by the DEPARTMENT throughout the life of the project.

#### **3.1.2 Notifications**

The DEPARTMENT will prepare notifications, flyers, and/or letters to elected officials and other public officials, private property owners, and tenants at intervals during plans production.

#### **3.1.3 Preparing Mailing Lists (N/A)**

#### **3.1.4 Median Modification Letters (N/A)**

The DEPARTMENT will prepare a median modification letter to be sent to property owners along the corridor. The CONSULTANT shall prepare a sketch of each proposed median modification for inclusion in the letter. The letters will be sent on DEPARTMENT letterhead by the DEPARTMENT.

#### **3.1.5 Driveway Modification Letters**

The CONSULTANT shall prepare a driveway modification letter to be sent to property owners along the corridor. In addition, the CONSULTANT shall prepare a sketch of each proposed driveway modification for inclusion in the letter. The letters will be sent on DEPARTMENT letterhead.

#### **3.1.6 Newsletters (N/A)**

### **3.1.7 Renderings and Fly-Throughs (N/A)**

The CONSULTANT shall prepare renderings and fly-throughs for use in public meetings.

### **3.1.8 PowerPoint Presentations (N/A)**

The CONSULTANT shall prepare PowerPoint presentations for use in public meetings.

### **3.1.9 Public Meeting Preparations**

The CONSULTANT shall prepare the necessary materials for use in public meetings.

The CONSULTANT will investigate potential meeting sites to advise the DEPARTMENT on their suitability. The *DEPARTMENT* will pay all costs for meeting site rents and insurance. No DEPARTMENT meetings will be held on public school system properties.

### **3.1.10 Public Meeting Attendance and Follow-up**

The CONSULTANT shall attend public meeting(s), assist with meeting setup and take down. The CONSULTANT shall also prepare a summary of the public meeting that includes all copies of all materials shown or provided at the public meeting. The summary shall also include a listing of all written comments made during or after the meeting and responses to those written comments.

The CONSULTANT will attend the meetings with an appropriate number of personnel to assist the DEPARTMENT'S Project Manager.

It is estimated for this project there will be *1* Public meetings during the design.

### **3.1.11 Other Agency Meetings**

In addition to scheduled public meetings the CONSULTANT may be required to participate in meetings with local governing authorities and/or Metropolitan Planning Organization (MPO). The CONSULTANT's participation may include, but not be limited to, presentations during the meeting, note taking, and summarizing the meeting in a memo to the file. It is estimated for this project there will be *3* meetings with local governing authorities and/or MPOs during the design.

### **3.1.12 Web Site (N/A)**

The DEPARTMENT will create and/or maintain a web site for the project

## **3.2 Joint Project Agreements**

When the Joint Project Agreement (JPA) deliverable is not prepared by the CONSULTANT, services may include all coordination, meetings, etc., required to ensure compatibility, include JPA documents in the contract plans package and include the JPA documents in the digital delivery package.

### **3 PROJECT COMMON AND PROJECT GENERAL TASKS**

### **3.3 Specifications Package Preparation**

The CONSULTANT shall prepare and provide a specifications package in accordance with the DEPARTMENT'S Procedure Topic No. 630-010-005 Specifications Package Preparation and the Specifications Handbook. The CONSULTANT shall provide the DEPARTMENT names of at least two team members who have successfully completed the Specifications Package Preparation Training and will be responsible for preparing the Specifications Package for the project. The Specifications Package shall be prepared using the DEPARTMENT's Specs on the Web application. The CONSULTANT shall be able to document that the procedure defined in the Handbook for the Preparation of Specifications Packages is followed, which includes the quality assurance/quality control procedures. The specifications package shall address all items and areas of work and include any Mandatory Specifications, Modified Special Provisions, and Technical Special Provisions.

The specifications package must be submitted for review to the District Specifications Office at least 30 days prior to the contract package to Tallahassee or District due date, or sooner if required by the District Specifications Office. This submittal does not require signing and sealing and shall be coordinated through the District's Project Manager. The CONSULTANT shall coordinate with the DEPARTMENT on the submittal requirements, but at a minimum shall consist of (1) the complete specifications package, (2) a copy of the marked-up workbook used to prepare the package, and (3) a copy of the final project plans.

Final submittal of the specifications package must occur at least 10 working days prior to the contract package to Tallahassee due date. This submittal shall be digitally signed, dated, and sealed in accordance with applicable Florida Statutes.

### **3.4 Contract Maintenance and Project Documentation**

Contract maintenance includes project management effort for complete setup and maintenance of files, electronic folders and documents, developing technical monthly progress reports and schedule updates. Project documentation includes the compilation and delivery of final documents, reports or calculations that support the development of the contract plans; includes uploading files to Electronic Document Management System (EDMS) or Project Suite Enterprise Edition (PSEE).

### **3.5 Value Engineering (Multi-Discipline Team) Review (N/A)**

### **3.6 Prime Consultant Project Manager Meetings**

Includes only the Prime Consultant Project Manager's time for travel and attendance at Activity Technical Meetings and other meetings listed in the meeting summary for Task 3.6 on tab 3 Project General Task of the staff hour forms. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

## **3 PROJECT COMMON AND PROJECT GENERAL TASKS**

### **3.7 Plans Update**

The effort needed for Plans Update services will vary from project to project, depending on size and complexity of the project, as well as the duration of time spent "on the shelf."

Specific services will be negotiated as necessary as a contract amendment.

### **3.8 Post Design Services**

Post Design Services may include, but not limited to, meetings, construction assistance, plans revisions, shop drawing review, survey services, as-built drawings, and load ratings. Specific services will be negotiated at a later date as necessary as a contract amendment.

Post Design Services are not intended for instances of CONSULTANT errors and/or omissions.

### **3.9 Digital Delivery**

The CONSULTANT shall deliver final contract plans and documents in digital format. The final contract plans and documents shall be digitally signed and sealed files delivered to the DEPARTMENT on acceptable electronic media, as determined by the DEPARTMENT.

### **3.10 Risk Assessment Workshop (N/A)**

### **3.11 Railroad, Transit and/or Airport Coordination**

*Miami-Dade Transit - Coordinate with MDT to relocate bus stop and removal of trash can from old bus stop.*

#### **3.11.1 Aeronautical Evaluation (N/A)**

### **3.12 Landscape and Existing Vegetation Coordination**

Coordinate to ensure preservation and protection of existing vegetation. Relocation of existing vegetation may be necessary in some cases. Space for proposed landscape should be preserved and conflicts with drainage, utilities, ITS, and signage should be minimized. Coordination with the District Landscape Architect may be necessary as defined in 4.12. Additionally, coordination with the Florida Scenic Highways program should be included to ensure any requirements of the FSH program are met.

### **3.13 Other Project General Tasks – TBD**

## 4 ROADWAY ANALYSIS

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

### 4.1 Typical Section Package

The CONSULTANT shall provide an approved Typical Section Package prior to the first plans submittal.

### 4.2 Pavement Type Selection Report (N/A)

### 4.3 Pavement Design Package

The CONSULTANT shall provide an approved Pavement Design Package prior to the Phase II plans submittal date.

### 4.4 Cross-Slope Correction

The CONSULTANT shall utilize the survey DTM to determine roadway limits where cross slope is potentially out of tolerance and determine a resolution if feasible.

### 4.5 Horizontal/Vertical Master Design Files

The CONSULTANT shall design the geometrics using the Standard Plans that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design consistency and driver expectancy, aesthetics, existing vegetation to be preserved, pedestrian and bicycle concerns, ADA requirements, Safe Mobility For Life Program, access management, PD&E documents and scope of work. The CONSULTANT shall also develop utility conflict information to be provided to project Utility Coordinator in the format requested by the DEPARTMENT and shall review Utility Work Schedules.

Note: When the project includes a 3D Model deliverable, also include Activity 36 3D Modeling.

### 4.6 Access Management (N/A)

The CONSULTANT shall incorporate access management standards for each project in coordination with DEPARTMENT staff. The CONSULTANT shall review adopted access management standards and the existing access conditions (interchange spacing, signalized intersection spacing, median opening spacing, and connection spacing). Median openings that will be closed, relocated, or substantially altered shall be shown on plan sheets and submitted with supporting documentation for review with the first plans submittal.

## 4 ROADWAY ANALYSIS

The DEPARTMENT shall provide access management classification information and information derived from PD&E studies and public hearings to be used by the CONSULTANT

**4.7 Roundabout Evaluation (N/A)**

**4.8 Roundabout Final Design Analysis (N/A)**

**4.9 Cross Section Design Files (N/A)**

The CONSULTANT shall establish and develop cross section design files in accordance with the DEPARTMENT's CADD manual.

Note: If the Cross Sections are prepared using a 3D model, use Task 36.5 instead of Task 4.9 for the Cross-Section Design Files.

**4.10 Traffic Control Analysis**

The CONSULTANT shall design a safe and effective Traffic Control Plan to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations, roadway pavement, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, and traffic monitoring sites. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times. The design shall include construction phasing of roadways to accommodate the construction or relocation of utilities when the contract includes Joint Project Agreements (JPAs).

The CONSULTANT shall investigate the need for temporary traffic signals, temporary lighting, alternate detour roads, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the DEPARTMENT. Before proceeding with the Traffic Control Plan, the CONSULTANT shall meet with the appropriate DEPARTMENT personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final Traffic Control Plan efforts.

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify the DEPARTMENT's Project Manager as soon as possible. Proposed road closings must be reviewed and approved by the DEPARTMENT. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. CONSULTANT shall be responsible to obtain local authorities permission for use of detour routes not on state highways.

**4 ROADWAY ANALYSIS**

**4.11 Master TCP Design Files (N/A)**

**4.12 Selective Clearing and Grubbing (N/A)**

**4.13 Tree Disposition Plans (N/A)**

Consultant will prepare a Tree Disposition Plan outlining the requirements for the removal, relocation, and remaining trees located within the project boundaries. Will utilize the information collected from the Vegetation Survey and information collected under task 4.12 for Selective Clearing and Grubbing.

**4.14 Design Variations and Exceptions**

If available, the DEPARTMENT shall furnish the Variation/Exception Report. The CONSULTANT shall prepare the documentation necessary to gain DEPARTMENT approval of all appropriate Design Variations and/or Design Exceptions before the first submittal.

**4.15 Design Report**

The CONSULTANT shall prepare all applicable report(s) as listed in the Project Description section of this scope. Reports are to be delivered as a signed and sealed pdf file.

**4.16 Quantities**

The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required.

**4.17 Cost Estimate**

**4.18 Technical Special Provisions and Modified Special Provisions (N/A)**

**4.19 Other Roadway Analyses (N/A)**

**4.20 Field Reviews**

**4.21 Monitor Existing Structures**

The CONSULTANT shall perform field observations to visually identify existing structures within the project limits which may require settlement, vibration or groundwater monitoring by the contractor during construction in accordance with FDM Chapter 307. The CONSULTANT shall identify the necessary pay items to be included in the bid documents to monitor existing structures.

Optional Services (may be negotiated at a later date if needed): The CONSULTANT shall coordinate with and assist the geotechnical engineer and/or structural engineer to develop mitigation strategies (when applicable).

**4.22 Technical Meetings**

**4 ROADWAY ANALYSIS**

**4.23 Quality Assurance/Quality Control**

**4.24 Independent Peer Review (N/A)**

**4.25 Supervision**

**4.26 Coordination**



## **5 ROADWAY PLANS**

The CONSULTANT shall prepare Roadway, Traffic Control, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

- 5.1 Key Sheet**
- 5.2 Summary of Pay Items Including Quantity Input**
- 5.3 Typical Section Sheets**
  - 5.3.1 Typical Sections
  - 5.3.2 Typical Section Details
- 5.4 General Notes/Pay Item Notes**
- 5.5 Summary of Quantities Sheets**
- 5.6 Project Layout (N/A)**
- 5.7 Plan/Profile Sheet (N/A)**
- 5.8 Profile Sheet (N/A)**
- 5.9 Plan Sheet**
- 5.10 Special Profile (N/A)**
- 5.11 Back-of-Sidewalk Profile Sheet (N/A)**
- 5.12 Interchange Layout Sheet (N/A)**
- 5.13 Ramp Terminal Details (Plan View) (N/A)**
- 5.14 Intersection Layout Details (N/A)**
- 5.15 Special Details**
- 5.16 Cross-Section Pattern Sheet(s) (N/A)**
- 5.17 Roadway Soil Survey Sheet(s) (N/A)**
- 5.18 Cross Sections (N/A)**
- 5.19 Temporary Traffic Control Plan Sheets**
- 5.20 Temporary Traffic Control Cross Section Sheets (N/A)**

## **5 ROADWAY PLANS**

**5.21 Temporary Traffic Control Detail Sheets**

**5.22 Utility Adjustment Sheets (N/A)**

**5.23 Selective Clearing and Grubbing Sheet(s) (N/A)**

5.23.1 Selective Clearing and Grubbing

5.23.2 Selective Clearing and Grubbing Details

**5.24 Tree Disposition Plan Sheet(s) (N/A)**

5.24.1 Tree Disposition Plan Sheet(s)

5.24.2 Tree Disposition Plan Tables and Schedules

**5.25 Project Network Control Sheet(s)**

**5.26 Environmental Detail Sheets (N/A)**

Preparation of detail sheets for potential environmental issues such as, underground fuel tanks and monitoring wells, septic tanks within the proposed right of way. All piping and pumps in association with the above referenced issues shall also be located and identified by the survey. The CONSULTANT shall relay to the DEPARTMENT any findings of contaminated soil, monitoring wells, or any features (particularly springs or sinks) relating to contamination or hazardous material.

Coordination with Permits/Environmental staff and preparing Dredge & Fill Detail sheets where applicable.

**5.27 Utility Verification Sheet(s) (SUE Data)**

**5.28 Quality Assurance/Quality Control**

**5.29 Supervision**

**6a DRAINAGE ANALYSIS (N/A)**

**6a.1 Drainage Map Hydrology (N/A)**

**6a.2 Base Clearance Calculations (N/A)**

**6a.3 Pond Siting Analysis and Report (N/A)**

**6a.4 Design of Cross Drains (N/A)**

**6a.5 Design of Ditches (N/A)**

**6a.6 Design of Stormwater Management Facility (Offsite or Infield Pond) (N/A)**

**6a.7 Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds) (N/A)**

**6a.8 Design of Floodplain Compensation (N/A)**

**6a.9 Design of Storm Drains (N/A)**

**6a.10 Optional Culvert Material (N/A)**

**6a.11 French Drain Systems (N/A)**

**6a.11a Existing French Drain Systems (N/A)**

**6a.12 Drainage Wells (N/A)**

**6a.13 Drainage Design Documentation Report (N/A)**

**6a.14 Bridge Hydraulic Report (N/A)**

**6a.15 Temporary Drainage Analysis (N/A)**

**6a.16 Cost Estimate (N/A)**

**6a.17 Technical Special Provisions / Modified Special Provisions (N/A)**

**6a.18 Hydroplaning Analysis (N/A)**

**6a.19 Existing Permit Analysis (N/A)**

**6a.20 Other Drainage Analysis (N/A)**

**6a.21 Field Reviews (N/A)**

**6a.22 Technical Meetings (N/A)**

**6 DRAINAGE ANALYSIS**

**6a.23 Environmental Look-Around Meetings (N/A)**

**6a.24 Quality Assurance/Quality Control (N/A)**

**6a.25 Independent Peer Review (N/A)**

**6a.26 Supervision (N/A)**

**6a.27 Coordination (N/A)**

**6b DRAINAGE PLANS (N/A)**

**6b.1 Drainage Map (Including Interchanges) (N/A)**

**6b.2 Bridge Hydraulics Recommendation Sheets (N/A)**

**6b.3 Summary of Drainage Structures (N/A)**

**6b.4 Optional Pipe/Culvert Material (N/A)**

**6b.5 Drainage Structure Sheet(s) (Per Structure) (N/A)**

**6b.6 Miscellaneous Drainage Detail Sheets (N/A)**

**6b.7 Lateral Ditch Plan/Profile (N/A)**

**6b.8 Lateral Ditch Cross Sections (N/A)**

**6b.9 Retention/Detention Pond Detail Sheet(s) (N/A)**

**6b.10 Retention Pond Cross Sections (N/A)**

**6b.11 Erosion Control Plan Sheet(s) (N/A)**

**6b.12 SWPPP Sheet(s) (N/A)**

**6b.13 Quality Assurance/Quality Control (N/A)**

**6b.14 Supervision (N/A)**

## 7 UTILITIES

The CONSULTANT shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring all conflicts that exist between utility facilities and the DEPARTMENT's construction project are addressed. The CONSULTANT shall certify all utility negotiations have been completed and that arrangements have been made for utility work to be undertaken.

### 7.1 Utility Kickoff Meeting

Before any contact with the UAO(s), the CONSULTANT shall meet with the District Utility Office (DUO) to receive guidance, as may be required, to assure that all necessary coordination will be accomplished in accordance with DEPARTMENT procedures. CONSULTANT shall bring a copy of the design project work schedule reflecting utility activities.

### 7.2 Identify Existing Utility Agency Owner(s) (N/A)

### 7.3 Make Utility Contacts (N/A)

### 7.4 Exception Processing (N/A)

### 7.5 Preliminary Utility Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a preliminary utility meeting with all UAO(s) having facilities located within the project limits for the purpose of presenting the project, review the current design schedule, evaluate the utility information collected, provide follow-up information on compensable property rights from the FDOT Legal Office, discuss the utility work by highway contractor option with each utility, and discuss any future design issues that may impact utilities. This is also an opportunity for the UAO(s) to present proposed facilities. The CONSULTANT shall keep accurate minutes and distribute a copy to all attendees.

### 7.6 Individual/Field Meetings

The CONSULTANT shall meet with each UAO as necessary, separately or together, throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, optional clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The CONSULTANT is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting.

### 7.7 Collect and Review Plans and Data from UAO(s)

The CONSULTANT shall review utility marked plans and data individually as they are received for content. Ensure information from the UAO (utility type, material

## 7 UTILITIES

and size) is sent to the designer for inclusion in the plans. Forward all requests for utility reimbursement and supporting documentation to the DUO.

#### **7.8 Subordination of Easements Coordination (N/A)**

The CONSULTANT, if requested by the DEPARTMENT, shall transmit to and secure from the UAO the executed subordination agreements prepared by the appropriate DEPARTMENT office. The CONSULTANT shall coordinate with the DUO the programming of the necessary work program funds to compensate the UAO.

#### **7.9 Utility Design Meeting**

The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss impacts to existing trees/landscaping and proposed landscaping, drainage, traffic signalization, maintenance of traffic (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable property rights from FDOT Legal Office, discuss with each UAO the utility work by highway contractor option, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and maintenance of traffic with each UAO. The intent of this meeting shall be to assist the UAOs in identifying and resolving conflicts between utilities and proposed construction before completion of the plans, including utility adjustment details. Also to work with the UAOs to recommend potential resolution between known utility conflicts with proposed construction plans as may be deemed practical by the UAO. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees within 3 days. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.9 (Cross Section Design Files) for utility conflict location identification and adjustments.

#### **7.10 Review Utility Markups & Work Schedules and Processing of Schedules & Agreements**

The CONSULTANT shall review utility marked up plans and work schedules as they are received for content and coordinate review with the designer. Send color markups and schedules to the appropriate DEPARTMENT office(s) such as survey, geotechnical, drainage, structures, lighting, roadway, signals, utilities, landscape architecture, municipalities, maintaining agency, and District Traffic Operations for review and comment if required by the District. Coordinate with the District for execution. Distribute Executed Final Documents. Prepare Work Order for UAO(s). The CONSULTANT shall coordinate with the DUO the programming of necessary Work Program funds.

#### **7.11 Utility Coordination/Follow-up**

The CONSULTANT shall provide utility coordination and follow up. This includes

### **7 UTILITIES**

follow-up, interpreting plans, and assisting the UAOs with completion of their work schedules and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure the resolution of all known conflicts. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees. This task can be applied to all phases of the project.

#### **7.12 Utility Constructability Review**

The CONSULTANT shall review utility schedules against construction contract time, and phasing for compatibility. Coordinate with and obtain written concurrence from the construction office. See Task 4.9 (Cross Section Design Files) for utility conflict identification and adjustments.

#### **7.13 Additional Utility Services**

The CONSULTANT shall provide additional utility services. Additional services will be determined when the services are required and requested. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental agreement when the need is identified.

#### **7.14 Processing Utility Work by Highway Contractor (UWHC) (N/A)**

This includes coordination of utility design effort between the DEPARTMENT and the UAO(s). The CONSULTANT shall conduct additional coordination meetings, prepare and process the agreements, review tabulation of quantities, perform UWHC constructability and bidability review, review pay items, cost estimates and Technical Special Provisions (TSP) prepared by the UAO. This does not include utility the utility design effort. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental agreement when the need is identified. Effort for the EOR is not included in this task, see Roadway Analysis Task Group 4.

#### **7.15 Contract Plans to UAO(s)**

If requested by the District, the CONSULTANT shall transmit the contract plans as processed for letting to the UAO(s). Transmittals to UAO(s) may be by certified mail, return receipt requested.

#### **7.16 Certification/Close-Out (N/A)**

This includes hours for transmitting utility files to the DUO and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate DEPARTMENT representative the following:

All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, technical special provisions written, etc.) have been completed with



arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.

OR

An on-site inspection was made and no utility work will be involved.

OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

**7.17 Other Utilities (N/A)**

The CONSULTANT shall provide other utility services. This includes all efforts for a utility task not covered by an existing defined task. Required work will be defined in the scope and negotiated on a case-by-case basis.

## **8 ENVIRONMENTAL PERMITS, Compliance, and ENVIRONMENTAL Clearances**

The CONSULTANT shall notify the DEPARTMENT Project Manager, Environmental Permit Coordinator, and other appropriate DEPARTMENT personnel in advance of all scheduled meetings with the regulatory agencies to allow a DEPARTMENT representative to attend. The CONSULTANT shall copy in the Project Manager and the Environmental Permit Coordinator on all permit related correspondence and meetings. The Consultant shall use current regulatory guidelines and policies for all permits required as identified in Section 2.4.

### **8.1 Preliminary Project Research**

The CONSULTANT shall perform preliminary project research and shall be responsible for regulatory agency coordination to assure that design efforts are properly directed toward permit requirements. The research shall include but should not be limited to a review of the project's PD&E documents including the Environmental Document, Natural Resources Evaluation, and Cultural Resources Assessment Survey.

The CONSULTANT shall research any existing easements or other restrictions that may exist both within or adjacent to the proposed project boundary. Project research may include but should not be limited to review of available: federal, state, and local permit files and databases; and local government information including county and property appraiser data. The CONSULTANT shall determine if any Sovereign Submerged Lands easements need to be modified or acquired. Any applicable information will be shown on the plans as appropriate.

### **8.2 Field Work (N/A)**

### **8.3 Agency Verification of Wetland Data (N/A)**

### **8.4 Complete and Submit All Required Permit Applications**

The CONSULTANT shall prepare permit application packages as identified in the Project Description section. The permit application package must be approved by the DEPARTMENT prior to submittal to the regulatory agency.

The CONSULTANT shall collect all of the data and information necessary to obtain the environmental permits required to construct the project. The CONSULTANT shall prepare each permit application for DEPARTMENT approval in accordance with the rules and/or regulations of the environmental agency responsible for issuing a specific permit and/or authorization to perform work.

The CONSULTANT will submit all permit applications, as directed by the DEPARTMENT, and be responsible for payment of all permit fees.

### **8.5 Coordinate and Review Dredge and Fill Sketches (N/A)**

## **8 ENVIRONMENTAL PERMITS, COMPLIANCE AND ENVIRONMENTAL CLEARANCES**

- 8.6 Prepare USCG Permit Application (N/A)**
- 8.7 Prepare Water Management District or Local Water Control District Right of Way Occupancy Permit Application (N/A)**
- 8.8 Prepare Coastal Construction Control Line (CCCL) Permit Application (N/A)**

If a CCCL Permit is required, the CONSULTANT shall be responsible for the 8 ENVIRONMENTAL PERMITS, COMPLIANCE AND CLEARANCES

preparation of the legal advertisement required to acquire the final “Notice to Proceed” authorization for the Florida Department of Environmental Protection (FDEP). Legal advertisements shall be published one time in a newspaper that meets the notification requirements of the FDEP.

- 8.9 Prepare Tree Permit Information (N/A)**
- 8.10 Compensatory Mitigation Plan (N/A)**

**8.11 Mitigation Coordination and Meetings**

The CONSULTANT shall coordinate with DEPARTMENT personnel prior to approaching any environmental permitting or reviewing agencies. Once a mitigation plan has been reviewed and approved by the DEPARTMENT, the CONSULTANT will be responsible for coordinating the proposed mitigation plan with the environmental agencies.

**8.12 Other Environmental Permits (N/A)**

**8.13 Technical Support to the DEPARTMENT for Environmental Clearances and Re-evaluations (use when CONSULTANT provides technical support only) (N/A)**

**8.14 Preparation of Environmental Clearances and Re-evaluations (use when CONSULTANT prepares all documents associated with a re-evaluation) (N/A)**

**8.15 Contamination Impact Analysis (N/A)**

**8.16 Asbestos Survey (N/A)**

**8.17 Technical Meetings (N/A)**

**8.18 Quality Assurance/Quality Control**

**8.19 Supervision**

**8.20 Coordination**

**9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND  
DRAWINGS (N/A)**

**10 STRUCTURES - BRIDGE DEVELOPMENT REPORT (N/A)**

**11 STRUCTURES - TEMPORARY BRIDGE (N/A)**

**12 STRUCTURES - SHORT SPAN CONCRETE BRIDGE (N/A)**

**13 STRUCTURES - MEDIUM SPAN CONCRETE BRIDGE (N/A)**

**14 STRUCTURES - STRUCTURAL STEEL BRIDGE (N/A)**

**15 STRUCTURES - SEGMENTAL CONCRETE BRIDGE (N/A)**

**16 STRUCTURES - MOVABLE SPAN (N/A)**

**17 STRUCTURES - RETAINING WALLS (N/A)**

**18 STRUCTURES – MISCELLANEOUS (N/A)**

## **19 SIGNING AND PAVEMENT MARKING ANALYSIS**

The CONSULTANT shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

### **19.1 Traffic Data Analysis (N/A)**

### **19.2 No Passing Zone Study (N/A)**

### **19.3 Reference and Master Design File**

The CONSULTANT shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

### **19.4 Multi-Post Sign Support Calculations (N/A)**

The CONSULTANT shall determine the appropriate column size from the DEPARTMENT's Multi-Post Sign Program(s).

### **19.5 Sign Panel Design Analysis (N/A)**

Establish sign layout, letter size and series for non-standard signs.

### **19.6 Sign Lighting/Electrical Calculations (N/A)**

### **19.7 Quantities**

### **19.8 Cost Estimate**

### **19.9 Technical Special Provisions and Modified Special Provisions (N/A)**

### **19.10 Other Signing and Pavement Marking Analysis (N/A)**

### **19.11 Field Reviews**

### **19.12 Technical Meetings**

### **19.13 Quality Assurance/Quality Control**

### **19.14 Independent Peer Review (N/A)**

### **19.15 Supervision**

### **19.16 Coordination**

## **20 SIGNING AND PAVEMENT MARKING PLANS**

The CONSULTANT shall prepare a set of Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums that includes the following.

### **20.1 Key Sheet**

### **20.2 Summary of Pay Items Including Quantity Input (N/A)**

### **20.3 Tabulation of Quantities**

### **20.4 General Notes/Pay Item Notes**

### **20.5 Project Layout (N/A)**

### **20.6 Plan Sheet**

### **20.7 Typical Details (N/A)**

### **20.8 Guide Sign Work Sheet(s) (N/A)**

### **20.9 Traffic Monitoring Site (N/A)**

### **20.10 Cross Sections (N/A)**

### **20.11 Special Service Point Details (N/A)**

### **20.12 Special Details (N/A)**

### **20.13 Interim Standards (N/A)**

### **20.14 Quality Assurance/Quality Control**

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

### **20.15 Supervision**

## 21 SIGNALIZATION ANALYSIS

The CONSULTANT shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

### 21.1 Traffic Data Collection (N/A)

### 21.2 Traffic Data Analysis (N/A)

### 21.3 Signal Warrant Study (N/A)

### 21.4 Systems Timings (N/A)

### 21.5 Reference and Master Signalization Design File

The CONSULTANT shall prepare the Signalization Design file to include all necessary design elements and all associated reference files.

### 21.6 Reference and Master Interconnect Communication Design File (N/A)

### 21.7 Overhead Street Name Sign Design

### 21.8 Pole Elevation Analysis (N/A)

### 21.9 Traffic Signal Operation Report (N/A)

### 21.10 Quantities

### 21.11 Cost Estimate

### 21.12 Technical Special Provisions and Modified Special Provisions (N/A)

### 21.13 Other Signalization Analysis (N/A)

### 21.14 Field Reviews

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include, but is not limited to, the following:

- Existing Signal and Pedestrian Phasing
- Controller Make, Model, Capabilities and Condition/Age
- Condition of Signal Structure(s)
- Type of Detection as Compared with Current District Standards
- Interconnect Media
- Controller Timing Data

**21.15 Technical Meetings**

**21.16 Quality Assurance/Quality Control**

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

**21.17 Independent Peer Review (N/A)**

**21.18 Supervision**

**21.19 Coordination**



## **22 SIGNALIZATION PLANS**

The CONSULTANT shall prepare a set of Signalization Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums, which includes the following:

### **22.1 Key Sheet**

### **22.2 Summary of Pay Items Including Designer Interface Quantity Input (N/A)**

### **22.3 Tabulation of Quantities**

### **22.4 General Notes/Pay Item Notes**

### **22.5 Plan Sheet**

### **22.6 Interconnect Plans (N/A)**

### **22.7 Traffic Monitoring Site**

### **22.8 Guide Sign Worksheet**

### **22.9 Special Details (N/A)**

### **22.10 Special Service Point Details (N/A)**

### **22.11 Mast Arm/Monotube Tabulation Sheet (N/A)**

### **22.12 Strain Pole Schedule (N/A)**

### **22.13 TCP Signal (Temporary) (N/A)**

### **22.14 Temporary Detection Sheet (N/A)**

### **22.15 Utility Conflict Sheet (N/A)**

### **22.16 Interim Standards (N/A)**

### **22.17 Quality Assurance/Quality Control**

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be

## **22 SIGNALIZATION PLANS**

documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

**22.18 Supervision**

**23 LIGHTING ANALYSIS (N/A)**

**24 LIGHTING PLANS (N/A)**

**25 LANDSCAPE ARCHITECTURE ANALYSIS**

The CONSULTANT shall analyze and document Landscape Architecture Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

**25.1 Data Collection (N/A)**

**25.2 Site Inventory and Analysis for Proposed Landscape**

Includes identification of opportunities and constraints for the proposed landscape project based on existing site conditions. Identify available planting areas for nursery landscape material. Summary of analysis, if required, is included in conceptual design.

**25.3 Planting Design (N/A)**

**25.4 Irrigation Design (N/A)**

**25.5 Hardscape Design (N/A)**

**25.6 Plan Summary Boxes (N/A)**

**25.7 Cost Estimates**

**25.8 Technical Special Provisions and Modified Special Provisions (N/A)**

**25.9 Other Landscape Architecture (N/A)**

**25.10 Outdoor Advertising (N/A)**

**25.11 Field Reviews**

**25.12 Technical Meetings / Public Meetings**

**25.13 Quality Assurance/Quality Control**

**25.14 Independent Peer Review (N/A)**

**25.15 Supervision**

**25.16 Project Coordination**

**25.17 Interdisciplinary Coordination (N/A)**

**25 LANDSCAPE ARCHITECTURE ANALYSIS**

## **26 LANDSCAPE ARCHITECTURE PLANS**

The CONSULTANT shall prepare a set of Landscape Plans which includes the following.

**26.1 Key Sheet**

**26.2 Tabulation of Quantities**

**26.3 General Notes**

**26.4 Tree and Vegetation Inventory, Protection and Relocation Plans**

**26.5 Planting Plans for Linear Roadway Projects (N/A)**

**26.6 Planting Plans (Interchanges and Toll Plazas) (N/A)**

**26.7 Planting Details and Notes (N/A)**

**26.8 Irrigation Plans for Linear Roadway Project (N/A)**

**26.9 Irrigation Plans for Interchange and Toll Plazas (N/A)**

**26.10 Irrigation Details and Notes (N/A)**

**26.11 Hardscape Plans (N/A)**

**26.12 Hardscape Details and Notes (N/A)**

**26.13 Landscape Maintenance Plan (N/A)**

**26.14 Cost Estimate (N/A)**

**26.15 Quality Assurance/Quality Control**

**26.16 Supervision**

**27 SURVEY (N/A)**

**28 PHOTOGRAMMETRY (N/A)**

**29 MAPPING (N/A)**

**30 TERRESTRIAL MOBILE LiDAR (N/A)**

**31 ARCHITECTURE DEVELOPMENT (N/A)**

**32 NOISE BARRIERS IMPACT DESIGN ASSESSMENT IN THE DESIGN PHASE  
(N/A)**

**33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS (N/A)**

**34 INTELLIGENT TRANSPORTATION SYSTEMS PLANS (N/A)**

**35 GEOTECHNICAL (N/A)**

**36 3D MODELING (N/A)**

## **37 PROJECT REQUIREMENTS**

### **37.1 Liaison Office**

The DEPARTMENT and the CONSULTANT will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the Project. While it is expected the CONSULTANT shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters of this project remain with the DEPARTMENT Project Manager.

### **37.2 Key Personnel**

The CONSULTANT's work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Any changes in the indicated personnel shall be subject to review and approval by DEPARTMENT.

### **37.3 Progress Reporting**

The CONSULTANT shall meet with the DEPARTMENT as required and shall provide a written monthly progress report with approved schedule, schedule status, and payout curve or by using the earned value method that describe the work performed on each task. The report will include assessing project risk through monthly documentation of identifying and updating the risk category and approach for monitoring those tasks. Invoices shall be submitted after the DEPARTMENT approves the monthly progress report and the payout curve or with earned value analysis. The Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

### **37.4 Correspondence**

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this contract shall be provided to the DEPARTMENT for their records within one (1) week of the receipt or mailing of said correspondence.

### **37.5 Professional Endorsement**

The CONSULTANT shall have a Licensed Professional Engineer in the State of Florida sign and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by DEPARTMENT standards.

### **37.6 Computer Automation**

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. The DEPARTMENT makes available software to help assure quality and conformance with policy and procedures regarding CADD. It is the responsibility of the CONSULTANT to meet the requirements in the DEPARTMENT's CADD Manual. The CONSULTANT shall submit final documents and files as described therein.

### **37.7 Coordination with Other Consultants**

The CONSULTANT is to coordinate his work with any and all adjacent and integral consultants so as to effect complete and homogenous plans and specifications for the project(s) described herein.

### **37.8 Optional Services**

At the DEPARTMENT's option, the CONSULTANT may be requested to provide optional services. The fee for these services shall be negotiated in accordance with the terms detailed in Exhibit B, Method of Compensation, for a fair, competitive and reasonable cost, considering the scope and complexity of the project(s). Additional services may be authorized by Letter of Authorization or supplemental amendment in accordance with paragraph 2.00 of the Standard Consultant Agreement. The additional services may include Construction Assistance, Review of Shop Drawings, Final Bridge Load Rating, update (Category II) bridge plans electronically (CADD) for the Final "As-Built" conditions, based on documents provided by the DEPARTMENT (CADD Services Only) or other Services as required.

### **38 INVOICING LIMITS**

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to the DEPARTMENT, in a format prescribed by the DEPARTMENT. The DEPARTMENT Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by the DEPARTMENT.

The CONSULTANT shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have actually occurred and the results are acceptable to the DEPARTMENT.