EXHIBIT A

SCOPE OF SERVICES

FOR

DESIGN GROUP 23-17

BRIDGE REPLACEMENT

Financial Project ID: 441188-1-32-01

Federal Project No. D323-016-B

Hanna Mill Pond Road over Hanna Pond (Bridge No. 504043)

GADSDEN COUNTY

and

Financial Project ID: 441176-1-32-01

Federal Project No. D323-014-B

Rice Machine Road over Rice Machine Branch (Bridge No. 524139)

HOLMES COUNTY

FDOT District 3

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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 [*Consultant Name or leave blank until CONSULTANT is selected*] (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: 441188-1-32-01

Project Description: HANNA MILL POND ROAD OVER HANNA POND

Federal Aid Project No.: D323-016-B

Roadway: 50522000 Begin milepost: 2.152 End milepost: 2.350

Bridge No(s).: ***504043 and misc. Box Culvert (unnumbered)***

Context Classification: ***N/A: Off-State Highway System***

Financial Project ID: 441176-1-32-01

Project Description: RICE MACHINE ROAD OVER RICE MACHINE BRANCH

Federal Aid Project No.: D323-014-B

Roadway: 52000034 Begin milepost: 1.846 End milepost: 2.003

Bridge No(s).: ***524139***

Context Classification: ***N/A: Off-State Highway System***

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:
  - ***0022 - BRIDGE REPLACEMENT***
- Major work groups include:
  - ***3.1 – Minor Highway Design***
  - ***4.1.2 – Minor Bridge Design***
- Minor work groups include:
  - ***4.1.1 – Miscellaneous Structures***
  - ***5.4 – Bridge Load Rating***
  - ***7.1 – Signing, Pavement Marking and Channelization***

- ***8.1 – Control Surveying***
- ***8.2 – Design, Right of Way & Construction Surveying***
- ***8.4 – Right of Way Mapping***
- ***9.1 – Soil Exploration***
- ***9.2 – Geotechnical Classification Laboratory Testing***
- ***9.4.1 – Standard Foundation Studies***

Alternative construction contracting methods have NOT been identified for this project at this time.

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 acceptance of the project. The CONSULTANT shall follow a systems 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.

2 PROJECT DESCRIPTION

The CONSULTANT shall investigate the status of these projects and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies and/or activities.

Financial Project ID: 441188-1-32-01

The principal intent of this project is to replace the existing structurally deficient bridge culvert (No. 504043) on Hanna Mill Pond Road over Hanna Mill Pond, as well as the single barrel arched pipe culvert located approximately 200' west, in Gadsden County, Florida, west of Quincy. The existing bridge is a series of three open bottom culverts covered by fill, additional earthwork may be needed to excavate the waterway. This excavation may also be needed at the single pipe arch. The roadway approaches, and roadway between the pipe culvert and bridge culvert, should be resurfaced/reconstructed as appropriate, but as a minimum to the extent of the new guardrail. At the project location, the existing paved roadway typical section consists of two 10' lanes with no paved shoulders. The existing bridge culvert typical section consists of two 10' lanes with no paved shoulders and guardrail. The existing capacity (2 lanes) shall remain the same for the new bridge.

Both the bridge culvert and the pipe culvert locations have a weir located to the north which will also be replaced. The weirs at both locations appear to be tied to the existing structures and/or wingwalls.

Anticipate closing Hanna Mill Pond Road at the project location to facilitate bridge, culvert, and weir construction. Alternate detour routes for Hanna Mill Pond Road include CR 268 (Hardaway Road) and CR 270A (Flat Creek Road). Written approval from Gadsden County for a road closure will be required and should be attained as soon as possible.

The new structure is anticipated to be constructed along the existing horizontal alignment, but the Final Bridge Development Report (BDR) and the Final Bridge Hydraulics Report (BHR) will determine the alignment.

The posted speed limit on Hanna Mill Pond Road is 35 mph within the project limits. An appropriate design speed will need to be determined during design.

Based on the field review, the existing maintained right-of-way appears to be approximately 50' total. The official county maintained right-of-way will need to be determined for this project. Right-of-way acquisition will be required in order to construct the new roadway, bridge, culvert typical sections, as well as the weirs.

The anticipated project limits, including the roadway approaches, are from CMP 2.152 to CMP 2.350 (Section 50522000). Project limits will be adjusted during design based on the

new bridge length and roadway approaches. The overall anticipated project length is approximately 0.198 miles.

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Financial Project ID: 441176-1-32-01

The principal intent of this project is to replace the existing structurally deficient bridge (No. 524139) on Rice Machine Road over Rice Machine Branch in Holmes County, Florida southeast of the town of Bethlehem. The existing dirt roadway approaches will be paved at a minimum, to the extent of the new guardrail. At the project location, the existing dirt roadway is approximate 16' wide. The existing single-lane wood bridge is 16' wide with a wood bridge deck. The proposed structure is expected to be constructed along the existing horizontal alignment, but the Final Bridge Development Report (BDR) and the Final Bridge Hydraulics Report (BHR) will determine the alignment.

Tenmile Creek is a designated critical habitat for freshwater mussels and the project location, Rice Machine Branch, is within 500' and flows to the critical habitat area.

At the time of the review, there were no posted speed limits on Rice Machine Road. An appropriate design speed will need to be determined during design.

Anticipate closing Rice Machine Road at the project location to facilitate bridge construction. Alternate detour routes for Rice Machine Road include Robbins Bridge Road, Bush Road, Malcom Taylor Road, Will Lee Road, and CR 160. Written approval from Holmes County for a road closure will be required and should be attained as soon as possible.

Based on the field review, the existing maintained right-of-way appears to be approximately 33' total. The official county maintained right-of-way will need to be determined for this project. Right-of-way acquisition will be required in order to construct the new roadway and bridge typical sections.

The anticipated project limits, including roadway approaches, are from CMP 1.846 to CMP 2.003. Project limits will be adjusted during design based on the new bridge length and roadway approaches. The overall anticipated project length is 0.157 miles.

FOR BOTH PROJECTS

It is the DEPARTMENT's desire to make every effort to avoid impacts to green planting space, trees, and other vegetation within and adjacent to these project's limits. The CONSULTANT shall design the limits of construction and any work activities (including staging, storage of equipment, etc.) to minimize or eliminate a threat to green planting space, existing trees, or their root systems. Any green space or tree impacts perceived to be unavoidable shall be closely reviewed with the DEPARTMENT's Design Project Manager who will in turn review with other DEPARTMENT staff as appropriate. When there is the potential to impact trees, the CONSULTANT shall be prepared to provide and present alternate design scenarios with corresponding cost estimates and implications (drainage, utilities, etc.) when requested.

<u>COORDINATION REQUIREMENTS:</u> ***These projects should be coordinated with all adjacent County, State or private projects. There have been NO adjacent projects identified at this time.***

Features installed on COUNTY R/W by non-COUNTY, private entities should be considered by the CONSULTANT as they relate to potential impacts. No specific features have been identified within these projects limits at this time; however, the construction plans must address the course of action for coordination should features be identified.

<u>SPECIFIC EXCLUSIONS:</u> ***These projects have been discussed with District Three Management and no project specific exclusions have been identified at this time.***

All necessary Geotechnical efforts will be provided by the CONSULTANT.

These projects will be let to construction as a Conventional Bid Item project.

The CONSULTANT shall incorporate the following into the design of this facility:

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

<u>Public Involvement</u>: These projects will have Targeted Community Awareness Plans (CAP) Level II, WITHOUT Public Information Meetings/Workshops. See Section 3.1 for specific requirements.

<u>Other Agency Presentations/Meetings</u>: A pre-Phase I (30%) coordination meeting, for FPID 441188-1-32-01, shall be held with representatives of the Capital Region Transportation Planning Agency (CRTPA). Coordinate this meeting with the FDOT Urban Liaison.

<u>Joint Project Agreements</u>: (N/A)

<u>Off-System Project Agreement and Right of Way (R/W) Resolution</u>: The CONSULTANT Project Manager shall ensure that an Off-System Project Agreement and Right of Way (R/W) Resolution is executed between the COUNTY and the DEPARTMENT. The Agreement and Resolution allows the DEPARTMENT to purchase R/W in the COUNTY's name and establishes the responsibility of future maintenance activities. The CONSULTANT shall coordinate with D3 Legal Office for the appropriate documents.

<u>Offsite Detour Plans and Roadway Closure Approval Form</u>: The CONSULTANT shall provide a detailed detour plan to be used during both bridge replacement projects. Example plans can be provided by the DEPARTMENT's Design Project Manager. The DEPARTMENT's Design Project Manager will ensure that a Roadway Closure Approval Form is prepared, submitted, and approved by the District Secretary for the project.

<u>Lane Closure(s) During Design Phase Approval</u>: If a lane closure is anticipated for any purpose during the design phase of a project (i.e., survey, geotechnical investigation, pavement coring, etc.) the CONSULTANT shall provide the DEPARTMENT's Design Project Manager with all the necessary project/task related

information in a memo form to pursue approval from the District Design Office. Needed information includes 1) the location of the lane closure, 2) the scope of work at the location, 3) the duration of closure, 4) when (date/time) that the work is requested to be performed, 5) Google Earth *.kmz file(s) of the location(s), and 6) Temporary Traffic Control Plans. The approval must be received before the specified work can commence.

Specification Package Preparation: To be negotiated and completed during the Plans Update phase.

Estimated Quantities Report Preparation: The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required. Quantities shall be included in an Estimated Quantities Report per FDM 902. The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - Each project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project(s) at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

Value Engineering: (N/A)

Risk Assessment Workshop: (N/A)

Plan Type: The CONSULTANT shall provide only the roadway and/or structures plans and miscellaneous details necessary to construct this project. The DEPARTMENT's intent is to minimize the design and survey effort where possible. The CONSULTANT shall develop and sign and seal the plans electronically in accordance with Sections 3.9 & 37.5.

Typical Section: The new bridges typical sections shall meet AASHTO requirements for lane and shoulder widths for the determined design speeds and traffic volumes. The roadway section for FPID 441188-1-32-01 will consist of two 11' lanes with 6' shoulders (5' paved) and FPID 441176-1-32-01 with two 10' lanes with 5' grassed shoulders.

***Right-of-Way**: Right-of-way (R/W) acquisition will be required for these projects. Existing R/W lines, including stations and offset distances at breaks, will be shown on all plan sheets.*

If a temporary onsite diversion is needed at either location a temporary construction easement will be required.

***Pavement Design**: The DEPARTMENT will provide the Pavement Design for these projects.*

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

***Cross Slope**: (N/A)*

***Access Management Classification**: (N/A)*

***Transit Route Features**: (N/A)*

***Major Intersections/Interchanges:** (N/A)*

***Roadway Alternative Analysis**: (N/A)*

***Level of TTCP Plans:** The CONSULTANT shall provide a TTCP Level II.*

Temporary Traffic Control Plans (TTCP) will be required for this project. The FDOT Standard Plans, 102 series, should be utilized for all work being performed on or adjacent to existing roadways. A reduction in the number of lanes will require that a lane closure analysis be performed by the CONSULTANT. See Section 4.10 for further guidance.

For projects with TTCP Levels of II or III, the CONSULTANT shall be prepared to provide materials for and participate in a Temporary Traffic Control Plans (TTCP) Workshop. The DEPARTMENT will submit these project's Temporary Traffic Control Plans for an external peer review at Phase II. Following this review, the DEPARTMENT's Design Project Manager will schedule the TTCP Workshop. The efforts associated with the TTCP review and TTCP Workshop are described in Section 4.10 and 4.22.

***Design Variations/Exceptions**: The CONSULTANT should review all existing features within these projects limits for a functional design that will meet FDOT design standards and make a determination whether a Design Variation or Exception is appropriate.*

Conditions may be identified during design that may warrant design variations or exceptions. The CONSULTANT is to submit the requests for Variations and Exceptions to the DEPARTMENT as early as possible for approval in order to minimize potential schedule delays. The CONSULTANT is to be aware that omitting certain work items may require approval at the District Director level (see FDM 114.1.1). The CONSULTANT will coordinate with the DEPARTMENT's Project Manager to obtain this approval.

***Back of Sidewalk Profiles*: (N/A)**

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

***3D Modeling*: The CONSULTANT shall provide a 3D design for both projects. See Sections 2.18 and 36.**

2.2 Drainage (Activities 6a and 6b)

***System Type*: Both Hanna Mill Pond Road and Rice Machine Road have open drainage systems throughout their project limits.**

The CONSULTANT shall develop hydraulic requirements for all new structures and any other treatment requirements for these projects.

2.3 Utilities Coordination (Activity 7)

The DEPARTMENT will be responsible for utility coordination associated with this project.

The Surveyor of Record (SOR) shall communicate with the Engineer of Record (EOR) early/prior to staffhour negotiations to determine the specific survey needs required for locating utilities based on the anticipated limits of construction and the proposed scope of work.

The CONSULTANT will identify which utilities exist within the corridor during the survey phase by calling Sunshine 811. A copy of the Sunshine 811 "design" ticket listing all utility owners within the project(s) limits shall be provided to the FDOT Area Utility Manager within 10 business days of the Notice to Proceed (NTP) in order to obtain the current/correct utility contacts.

The CONSULTANT will be responsible for identifying showing areas that may be affected by construction. The CONSULTANT will evaluate utilities for potential impacts and prepare a Utility Conflict Matrix as directed by Section 7.7 of this document. An example Utility Conflict Matrix can be provided by the DEPARTMENT's Design Project Manager if necessary. The CONSULTANT will contact the Area Utility Manager to obtain the most current Utility Conflict Matrix Boilerplate and direction. The matrix will be required with the Phase II submittal and will be updated and submitted with every phase thereafter.

The CONSULTANT is to review the UAO marked up plans and the Utility Work Schedules as they are received and assure that they are compatible with the proposed design features in the plans. The CONSULTANT shall review the specific details of the markups and schedules with the Area Utility Manager as required to finalize the status of each potential conflict. The CONSULTANT shall also verify that the schedules conform to the construction phasing and TTCP sequences.

2.4 Environmental Permits and Environmental Clearances (Activity 8)

The CONSULTANT shall coordinate with appropriate agencies for all necessary permits. Potential agencies requiring coordination include, but are not limited to: United States Coast Guard, Northwest Florida Water Management District, Florida Department of Environmental Protection, and US Army Corps of Engineers.

Tenmile Creek is designated a critical habitat for freshwater mussels and is within 500' of the project location. The Freshwater Mussel Phase I Programmatic Approach for Transportation Work Activities, prepared by the DEPARTMENT and the US Fish and Wildlife Service (FWS); notes required commitments. The DEPARTMENT will provide required commitments to be included in the project. (for FPID 441176-1-32-01.)

The CONSULTANT shall be responsible for the identification, coordination and applications for all permits necessary to construct this project. All application and processing fees, including fees for any public notice required by the permit, shall be paid for by the CONSULTANT.

The CONSULTANT shall complete the Bridge Project Questionnaire which serves as a tool to validate or disprove the navigability of the waterway and will determine whether a United States Coast Guard (USCG) permit will be required prior to construction. The blank questionnaire form can be provided by the DEPARTMENT's Design Project Manager. The completed questionnaire shall be provided by the CONSULTANT with the Phase I submittal. See Section 8.6. The DEPARTMENT's Design Project Manager will submit the complete Bridge Project Questionnaire to the DEPARTMENT's Environmental Management Office (EMO) who will in turn transmit the document to FHWA or to the USCG depending on project funding.

For projects within endangered species habitat, the CONSULTANT shall be cognizant of any potential impacts to the species and shall communicate and coordinate all efforts in this regard with the District's Environmental Management Office (EMO).

The DEPARTMENT will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes if required. The CONSULTANT shall coordinate with the District Permit Coordinator if wetland mitigation is anticipated.

2.5 Structures (Activities 9 - 18)

The principle intent of these projects is to replace the existing structurally deficient bridges on Hanna Mill Pond Road in Gadsden County and Rice Machine Road in Holmes County, Florida. The new bridge sections will meet AASHTO requirements for lane and shoulder widths for the determined design speed and traffic volume.

MISCELLANEOUS STRUCTURES:

Box Culverts: The short existing bridge length at the Rice Machine Road crossing and the arch culvert on Hanna Mill Pond Road indicate concrete box culverts may be

adequate replacement structures. The BDR and BHR will determine the final replacement structure.

<u>Retaining Walls</u>: It is anticipated that retaining walls may be required at the project locations.

2.6 Signing and Pavement Markings (Activities 19 & 20)

The CONSULTANT shall be responsible for the design, details, and quantities associated with signing and pavement markings for this project. The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the District Roadway Design Engineer to determine the most appropriate type of edge line for this application. The CONSULTANT shall evaluate the existing signage to determine the need for additional signs, correcting redundant or conflicting signage, and the replacement of damaged signs.

The CONSULTANT shall evaluate and design all signs to meet current Design Standards.

A No Passing Zone Study will not be required. The projects will be striped so that passing is NOT allowed.

2.7 Signalization (Activities 21 & 22) ***(N/A)***

2.8 Lighting (Activities 23 & 24) ***(N/A)***

2.9 Landscape (Activities 25 & 26) ***(N/A)***

2.10 Survey (Activity 27)

<u>Design Survey</u>: The Primary and Secondary Horizontal and Vertical control will be provided by the DEPARTMENT. Other design survey requirements will be conducted by the CONSULTANT in accordance with Section 27.0 of this document.

<u>Pre-Production Survey Meeting</u>: The CONSULTANT shall provide a basic graphic depiction and/or description of areas needed for topographical survey, DTM, cross sections, utilities, drainage structures, pavement markings, and wetland lines. Aerial imagery is recommended. The effort for the survey work defined will be reflected in the staff hours and included in the Basic Services of work.

The DEPARTMENT encourages the CONSULTANT and SURVEYOR to consider alternate surveying methods for this project such as photogrammetry/lidar and/or the use of existing aerial photography. Alternate survey methods being considered will be presented by the CONSULTANT at the Pre-Production Survey Meeting and will require approval from the District Surveyor prior to implementation.

<u>Production Survey Meeting</u>: Following the Phase I submittal, the CONSULTANT, SURVEYOR, the District Surveyor, and the DEPARTMENT's Design Project Manager shall meet if it is determined that additional survey is required in order to provide an adequate design and accurate quantities. The CONSULTANT shall provide

any necessary graphic depictions and/or descriptions of areas needing additional survey. Compensation for the additional survey work defined in this meeting will be made available through a Supplemental Amendment.

Subsurface Utility Exploration: The CONSULTANT shall provide any subsurface utility excavations (SUE) that are required for these projects.

Right of Way Survey: The CONSULTANT will be required to perform a R/W Survey for these projects due to the need for additional R/W (fee simple or easement) and to define existing maintained R/W.

Vegetation Survey: (N/A)

2.11 Photogrammetry (Activity 28)

Photogrammetric services via the use of mobile LiDAR, low altitude LiDAR or low altitude Photogrammetry will be required as determined and directed by the District Surveyor. Consultant requirements are found in Activity 28 and Activity 30 of this document.

2.12 Mapping (Activity 29)

As early as possible, the CONSULTANT shall provide map(s) or plan sheets accompanied by a *.kmz file reflecting the requirements for additional right-of-way. The right-of-way requirements submittal shall identify, via highlighting in varying colors (not yellow), the existing right-of-way, required right-of-way, temporary construction easements (TCEs), perpetual easements, intended license agreements (LAs), and limits of construction. In addition, this submittal will indicate in some way whether the submittal is draft or final. The initial, draft requirements submittal and subsequent draft requirements submittals can be submitted electronically to the DEPARTMENT's Design Project Manager. An updated *.kmz file is expected with each resubmittal. The requirements are not considered final until indicated by the DEPARTMENT. Once the requirements are approved, the CONSULTANT shall designate each sheet as "final" and transmit to the DEPARTMENT's Design Project Manager in *.pdf format (the file name shall include the FPID number). The effort for this task will be negotiated in Section 29.7.

Control Survey Map: N/A

Right of Way Map: The R/W Maps will be prepared by the CONSULTANT as determined and directed by the District Surveyor.

Legal Descriptions: To be prepared by the CONSULTANT.

Maintenance Map: Maintained right-of-way is to be determined and Maintenance Maps will be prepared by the CONSULTANT as determined and directed by the District Surveyor.

When maintained right-of-way is being established in the field a representative from D3 Survey or D3 Mapping will need to be present (along with a representative from the local municipality if off-system) to ensure maintained right-of-way is established properly.

<u>Miscellaneous Items</u>: A TIITF sketch will be required for the 441176-1-32-01 project. The CONSULTANT will be responsible for preparing the TIITF sketch.

2.13 Terrestrial Mobile LiDAR (Activity 30)

Services related to Terrestrial Mobile LiDar via the use of conventional mobile LiDAR, low altitude LiDAR or low altitude Photogrammetry will be required as determined and directed by the District Surveyor. Consultant requirements are found in Activity 28 and Activity 30 of this document.

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)

The Pavement Condition Survey (including coring, testing, and preparing the report) will be provided by the DEPARTMENT. The DEPARTMENT will be responsible for the Pavement Design.

The CONSULTANT shall be responsible for all necessary geotechnical activities associated with this project.

2.18 3D Modeling (Activity 36)

The CONSULTANT shall prepare a 3D model for each project. The model(s) shall be prepared using the latest FDOT software in accordance with the FDOT CADD Manual.

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 Critical Path Method (CPM) project schedule. The DEPARTMENT and CONSULTANT scheduled activities are required to meet the current DEPARTMENT Production Date. Each projects schedule shall include the following: project FPID and project description, FDOT PSM standard activity codes and description for all activities, original duration, activity start date, activity finish date, activity percent complete, activity predecessor(s) and successor(s). The schedule shall be based upon the durations and schedule negotiated during the project(s) staff hour negotiations process. For the purpose of scheduling, the CONSULTANT shall allow for a three (3) week review time for each phase review and other submittals as appropriate.

The schedule shall indicate, at a minimum, proposed dates for Phase I, II, III, and IV plans and all other appropriate milestones and required submittals.

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

Periodically, throughout the life of the contract, each projects schedule 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 monthly updated project schedule and schedule status report, shall be submitted with the monthly progress report to the DEPARTMENT's Design Project Manager. The CONSULTANT will also be required to make monthly schedule updates for tasks assigned to the CONSULTANT in FDOT Project Suite Enterprise Edition (PSEE). Schedule updates are due the last Friday of each month.

Initial and revised schedules shall be submitted electronically in *.pdf, Word, or Excel format.

Additional information, the PSEE link, and schedule update training can be found at http://www.fdot.gov/designsupport/Districts/D3/default.shtm .

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.

The DEPARTMENT's Electronic Review and Comment (ERC) system will be used for project reviews. Upon Notice to Proceed, the DEPARTMENT's Design Project Manager will coordinate with the CONSULTANT to provide the required access into the ERC system.

Phase Submittal Delivery: The delivery will include ONLY the submittal components (not the entire project directory and files). The delivery will be transmitted to the DEPARTMENT's Design Project Manager via ftp site, FTA, or other electronic file storage media and will include all construction plans components (roadway, signing & pavement marking, signalization, etc.) in *.pdf format, as well as the other submittal components described below for each submittal. The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager to determine whether hard copy sets of plans or CDs/DVDs are required at any or all phase submittals. The CONSULTANT shall provide a *.kmz file of the project(s) with each submittal. The *.kmz file needs to include the layers necessary to compare proposed construction features with the existing utilities as well as the limits of construction (LOC) and right-of-way (R/W).

PRIOR TO PHASE I SUBMITTAL:

Quality Assurance/ Quality Control (QA/QC) Plan: The CONSULTANT shall submit their QA/QC Plan that will be used during the design of this project to the DEPARTMENT's Design Project Manager for reference within 20 (twenty) calendar days of the written Notice to Proceed. As a minimum, the QA/QC Plan shall include the details of all plan review processes to be utilized and sufficient file documentation to show that the QA/QC plan has been followed. See Section 3.0 (Project Common Tasks).

Alignment Submittals: Centerline/Baseline of Survey alignment submittals shall be submitted to the District Survey Office for approval and copies shall be submitted to the DEPARTMENT's Design Project Manager, D3 R/W Mapping Office, and the Prime CONSULTANT.

The Prime CONSULTANT shall wait for approval from the District Survey Office before utilizing the alignment for design purposes.

Survey Submittals: The Survey Subconsultant shall transmit their submittals to the District 3 Survey Office as well as the Prime CONSULTANT. The Survey Subconsultant shall copy the DEPARTMENT's Design Project Manager on all submittal correspondence. These survey submittals are to be made prior to the phase I, II, III, and IV plans submittals.

UAO Identification / Sunshine 811 "Design" Ticket: A copy of the Sunshine 811 "design" ticket listing all utility owners within the project(s) limits shall be transmitted to the Design Project Manager and the Area Utility Manager at the onset of the design survey effort. The ticket shall be included with all phase submittals. See Section 7.2 for additional information regarding this requirement.

Roadway Alternative Analysis Report: The CONSULTANT shall be responsible for developing a Roadway Alternative Analysis Report to substantiate the final alignment chosen for the project. This report will only identify alignments that are slightly shifted from the original horizontal alignment. This information will be used to document to FDOT and the permitting agencies that the most cost effective and environmentally sensitive alignment was carried forward and shall be submitted and approved prior to the Phase I Roadway submittal.

Miscellaneous Design/ Production Document Submittals: The CONSULTANT shall submit to the DEPARTMENT for review, and receive concurrence for, the Initial Project Schedule, the Community Awareness Plan, the Typical Section Package, Pavement Design, Design Variations and/or Exceptions (if applicable), and other documents as required by the FDOT Design Manual (FDM) and the Scope of Services.

PHASE I:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- ***one (1) electronic copy of the Plans,***
- ***one (1) electronic copy of the QC Marked-up Plans,***
- ***one (1) electronic copy of the Preliminary Bridge Hydraulic Report (BHR),***
- ***one (1) electronic copy of the Preliminary Bridge Development Report (BDR),***
- ***one (1) signed electronic copy of the Bridge Project Questionnaire***

The submittal shall, at a minimum, include *.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), *.kmz file of the project, and Sunshine 811 "design" ticket.

Along with the Phase I plans submittal, the CONSULTANT shall submit the construction cost estimate using the DEPARTMENT's Long-Range Estimating System (L.R.E.). The District Preliminary Estimates Office will provide the CONSULTANT with a version of the L.R.E. in the system for their use.

The CONSULTANT shall resubmit electronic copies of the BHR and BDR as required to address the DEPARTMENT's PHASE I review comments and concerns. Approval of the BHR by the District Drainage Engineer and BDR by the District Structures Engineer DEPARTMENT will be required prior to making the PHASE II submittal.

Following the PHASE I review and prior to the PHASE II submittal, the District Survey Office requests that the prime CONSULTANTS provide the Survey Sub Consultants with the plans and allow time for a review to check the survey/ construction layout, alignments, control information (including R/W control if applicable), curve data, layout information, etc.

As early as possible, the CONSULTANT shall provide map(s) or plan sheets reflecting the requirements for additional right-of-way. This effort is described in Section 29.7.

PHASE II:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- ***one (1) electronic copy of the Plans,***
- ***one (1) electronic copy of the QC Marked-up Plans,***
- ***one (1) electronic copy of any Technical Special Provision (if applicable),***
- ***one (1) hard copy of the offsite detour approval letter for signature (if required),***
- ***one (1) signed and sealed electronic copy of the Approved Bridge Hydraulic Report (BHR),***
- ***one (1) digitally sealed electronic copy of the Approved Bridge Development Report (BDR)***

The submittal shall, at a minimum, include *.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), *.kmz file of the project, Sunshine 811 "design" ticket, Utility Conflict Matrix, and a scanned copy of the Constructability Phase Review Checklist (per the Construction Project Administration Manual (CPAM)).

Along with the Phase II plans submittal, the CONSULTANT shall submit the construction cost estimate using the DEPARTMENT's Long-Range Estimating System (L.R.E.). The District Preliminary Estimates Office will provide the CONSULTANT with a version of the L.R.E. in the system for their use.

The CONSULTANT shall submit plans to each of the affected local government(s) designated contact for a three-week review. See Section 3.1.2 of this document for details regarding Local Government Involvement.

The CONSULTANT shall submit the preliminary Maintenance Maps for 441179-1-32-01 to the DEPARTMENT's Design Project Manager.

As early as possible, the CONSULTANT shall provide the DEPARTMENT's Design Project Manager with the Preliminary R/W Requirements for review and approval. If the CONSULTANT is responsible for preparing the R/W Maps for the project(s), the preliminary maps are to also be submitted at this time for review.

These projects have a Temporary Traffic Control Plan Level II; therefore, the CONSULTANT shall be prepared to provide materials for and participate in a Temporary Traffic Control Plan (TTCP) Workshop. The DEPARTMENT will submit the project's Temporary Traffic Control Plans for an external peer review at Phase II. Following this review, the DEPARTMENT's Design Project Manager will schedule the TTCP Workshop. See Sections 4.10 and 4.22.

PHASE III:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- ***one (1) electronic copy of the Plans,***
- ***one (1) electronic copy of the QC Marked-up Plans,***
- ***one (1) electronic copy of any Technical Special Provision (if applicable),***
- ***one (1) electronic copy of the Estimated Quantities Report,***
- ***one (1) electronic copy of the CONSULTANT's Construction Cost Estimate,***
- ***one (1) electronic copy of the CONSULTANT's Contract Time Estimate,***
- ***one (1) electronic copy of each completed Structure Number Request Form necessary for any new structure type (along with the form, the CONSULTANT shall submit applicable plan and elevation sheets and a project location map),***
- ***one (1) digitally sealed electroic copy of the Bridge Load Ratings (with output data) in accordance with the FDOT Load Rating Manual,***
- ***one (1) electronic copy of the Geotechnical Report***

The submittal shall, at a minimum, include *.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), *.kmz file of the project, Sunshine 811 "design" ticket, Utility Conflict Matrix, and a scanned copy of the Constructability Phase Review Checklist (per the Construction Project Administration Manual (CPAM)).

The CONSULTANT shall submit plans to each of the affected local government(s) designated contact for a three-week review. See Section 3.1.2 of this document for details regarding Local Government Involvement.

Phase III submittal should only occur upon receiving approval for the proposed R/W requirements. See Section 29.7 for specifics regarding this deliverable.

PHASE IV:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- ***one (1) electronic copy of the Plans,***
- ***one (1) electronic copy of the QC Marked-up Plans,***
- ***one (1) electronic copy of the Estimated Quantities Report,***
- ***one (1) electronic copy of the CONSULTANT's Construction Cost Estimate,***
- ***one (1) electronic copy of the CONSULTANT's Contract Time Estimate,***
- ***one (1) electronic copy of the Geotechnical Report,***
- ***one (1) digitally sealed electronic copy of the Bridge Load Ratings (with output data) in accordance with the FDOT Load Rating Manual if any design changes have occurred that will affect the ratings since the previous submittal***

The submittal shall, at a minimum, include *.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), *.kmz file of the project, Sunshine 811 "design" ticket, Utility Conflict Matrix, BHR, BDR, and a scanned copy of the Constructability Phase Review Checklist (per the Construction Project Administration Manual (CPAM)).

SUBMITTAL FOR "THE SHELF":

The CONSULTANT must submit a District 3 Change Memo to the District Preliminary Estimates Office to have Project Preconstruction (PrP) unlocked if changes are made following the PHASE IV submittal that affect the pay-items or quantities in PrP. A copy of the District 3 Change Memo can be obtained from the DEPARTMENT's Design Project Manager or the District Preliminary Estimates Office.

Upon addressing the PHASE IV review comments, the CONSULTANT shall submit to the DEPARTMENT's Design Project Manager the following in an electronic format via ftp site, FTA, or other electronic file storage media:

- ***PHASE IV Plans,***
- ***PHASE IV QC Marked-up Plans,***
- ***Project-DOCUMENTATION.zip folder,***
- ***Estimated Quantities Report,***
- ***Engineer's Construction Cost Estimate,***
- ***CONSULTANT's Contract Time Estimate,***
- ****.kmz file of the project,***
- ***Sunshine 811 "design" ticket,***

- ***Utility Conflict Matrix,***
- ***Geotechnical Reports,***
- ***Roadway Alternative Analysis Report,***
- ***BHR,***
- ***BDR,***
- ***Constructability Phase Review Checklist***

The CONSULTANT shall transmit the applicable electronic project files to the DEPARTMENT's Area Utility Manager.

PHASE IV RE-SUBMITTAL:

If the project spends one (1) year or more "on the shelf" and/or substantial changes have been made during Plans Update to the plans, pay items, or quantities after the Phase IV review, the CONSULTANT shall prepare a second Phase IV submittal. This submittal will include the requirements listed for Phase IV. This submittal will be made well in advance of the Final Submittal to the DEPARTMENT's Plans Processing Group. This will allow time to address comments in advance of the Final Submittal.

The DEPARTMENT's Design Project Manager will determine whether the Phase IV re-submittal will include a distribution to the local governments. See Section 3.1.2 of this document for details regarding Local Government Involvement.

The CONSULTANT must submit a District 3 Change Memo to the District Preliminary Estimates Office to have PrP unlocked if changes are made during Plans Update that affect the pay-items or quantities in PrP. A copy of the District 3 Change Memo can be obtained from the DEPARTMENT's Design Project Manager or the District Preliminary Estimates Office.

The CONSULTANT must submit an electronic copy of the Plans Update Memo to describe in general terms the changes made to each sheet since the project was "shelved". A copy of the Plans Update Memo can be obtained from the DEPARTMENT's Design Project Manager.

Any design changes affecting utilities that occur after the PHASE IV or PHASE IV Resubmittal must be coordinated with the DEPARTMENT's Design Project Manager and submitted to the DEPARTMENT's Area Utility Manager so that Utility Work Schedules can be updated.

The effort for preparing a PHASE IV Re-Submittal will be negotiated as a part of the Plans Update Services. See Section 3.7 for more information regarding Plans Update.

FINAL PLANS SUBMITTAL TO PLANS PROCESSING:

This submittal will occur upon addressing PHASE IV (or PHASE IV RE-SUBMITTAL) comments or following the Plans Update phase and less than one (1) year spent "on the shelf".

If changes are made to the plans after the PHASE IV review that affect the pay-items or quantities in PrP, the CONSULTANT must submit a District 3 Change Memo to the District Preliminary Estimates Office to have PrP unlocked. A copy of the District 3 Change Memo can be obtained from the DEPARTMENT's Design Project Manager or the District Preliminary Estimates Office.

The CONSULTANT must submit an electronic copy of the Plans Update Memo to describe in general terms the changes made to each sheet since the project was "shelved". A copy of the Plans Update Memo can be obtained from the DEPARTMENT's Design Project Manager.

Final Project Submittal to Project Suite Enterprise Edition (PSEE): The CONSULTANT shall submit the following to the DEPARTMENT's Design Project Manager via ftp site, FTA, or other electronic file storage media to post to PSEE for the District's Plans Processing Group's review:

- ***electronic *.pdf copy of each component of the final plans. The plans must be electronically sealed using the Digital Delivery method for the second and subsequent submittals. Not the first.***
- ***electronic *.pdf copy of the Estimated Quantities Report. The Report must be electronically sealed using the Digital Delivery method for the second and subsequent submittals. Not the first.***
- ***a complete Specifications Package including any Technical Special Provisions and/or incentive/disincentive cost analyses and backup documentation (when necessary)***
- ***the Project-DOCUMENTATION.zip folder***
- ***the Project-CADD.zip folder with all project design files***
- ***the Compliance Certification Checklist Report. This report shall be signed by the Engineer of Record to certify that all electronic deliverables are complete, in the proper format, and all plans and specifications are signed and sealed with the same program.***

Any design changes since the previous submittal affecting utilities must be coordinated with the DEPARTMENT's Design Project Manager and submitted to the DEPARTMENT's Area Utility Manager so that Utility Work Schedules can be updated.

The CONSULTANT will expeditiously address the comments received in PSEE and be prepared to resubmit the final plans package once the review period in PSEE is complete. A minimum of two (2) complete reviews using PSEE will occur at this juncture, followed by subsequent Final Project submittals as necessary.

Final Project Submittal: The CONSULTANT shall submit the following to the DEPARTMENT's Design Project Manager via ftp site, FTA, or other electronic file storage media for the District's Plans Processing Group's review once the ERC reviews are complete:

- ***Final Plans electronically sealed using the Digital Delivery Method***

- ***Final Estimated Quantities Report electronically sealed using the Digital Delivery Method***
- ***a complete Specifications Package including any Technical Special Provisions and/or incentive/disincentive cost analyses and backup documentation (when necessary)***
- ***the Project-DOCUMENTATION.zip folder***
- ***the Project-CADD.zip folder with all project design files***
- ***the Compliance Certification Checklist Report. This report shall be signed by the Engineer of Record to certify that all electronic deliverables are complete, in the proper format, and all plans and specifications are signed and sealed with the same program.***
- ***all project data and its location noted in the project journal.***
- ***electronic copy of any modeling software utilized for drainage design***

Upon addressing all comments received during the Final Plans Processing review, the CONSULTANT shall transmit electronic project files to the DEPARTMENT's Area Utility Manager as described in the requirements above.

Once all electronic project files have been finalized, the DEPARTMENT's Design Project Manager shall upload the Project-DOCUMENTATION.zip folder to Electronic Document Management System (EDMS) or Project Suite Enterprise Edition (PSEE). See FDM 111.7 for guidance on the organization and delivery of Project Documentation.

Original survey field books will be submitted to the District Survey Office as well as all other applicable deliverables required by the District's Survey CONSULTANT Checklist.

2.21 Provisions for Work

The services performed by the CONSULTANT must comply with all applicable DEPARTMENT's manuals, procedure, policies, and guidelines. Specifically, the CONSULTANT must comply with DEPARTMENT's Project Development and Environmental (PD&E) Manual, FDOT Design Manual (FDM), Structures Manual, and Computer Aided Design and Drafting (CADD) Manual. The DEPARTMENT's manuals and guidelines incorporate, by requirement or reference, all applicable federal and state laws, regulations, and Executive Orders. The CONSULTANT will use the latest editions of the manuals, procedures, and guidelines to perform work for this project.

All work shall be prepared with English units (unless otherwise specified) in accordance with the latest editions of standards and requirements utilized by the DEPARTMENT.

2.22 Services to be Performed by the DEPARTMENT

When appropriate or available, the DEPARTMENT will provide project data including:

- ***Access for the CONSULTANT to utilize the DEPARTMENT's Information Technology Resources***
- ***Any necessary title searches***

- ***Existing cross-slope data for all RRR projects***
- ***All certifications necessary for project letting***
- ***Building Construction Permit Coordination (Turnpike)***
- ***Design Reports***
- ***Letters of authorization designating the CONSULTANT as an agent of the DEPARTMENT in accordance with F.S. 337.274***
- ***Available traffic and planning data***
- ***All information that may come to the DEPARTMENT pertaining to future improvements***
- ***All approved utility relocations***
- ***Regarding Environmental Permitting Services:***
- ***Landscape Opportunity Plan(s)***
- ***Engineering standards review services***
- ***Previously constructed Highway Beautification or Landscape Construction Plans***
- ***Existing right of way maps***
- ***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***
- ***Project utility certification to the DEPARTMENT's Central Office***
- ***All available information in the possession of the DEPARTMENT pertaining to utility companies whose facilities may be affected by the proposed construction***
- ***Phase reviews of plans and engineering documents***
- ***Systems traffic for Projected Design Year, with K, D, and T factors***
- ***Numbers for field books***
- ***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***
- ***Preliminary Horizontal Network Control***
- ***All Department agreements with Utility Agency Owner (UAO)***
- ***PD&E Documents***
- ***Existing pavement evaluation report for all RRR projects***
    - ***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.***
    - ***Approved Permit Document when available***
    - ***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 Phase II plans or completion of quantities, the DEPARTMENT's Long-Range Estimate (LRE) system will be used to produce a conceptual estimate, according to District policy. Once the quantities have been developed (beginning at Phase II plans and no later than Phase III plans) the CONSULTANT shall be responsible for inputting the category information, pay items and quantities into AASHTOWare Project Preconstruction through the use of the DEPARTMENT's Designer Interface.

Phase I - Each project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract. The District Preliminary Estimates Office will also create a version in the L.R.E. System for the CONSULTANT's use at Phase I. The CONSULTANT can request access to the assigned L.R.E. through the DEPARTMENT's Design Project Manager. For the Phase I (30%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long Range Estimating (L.R.E.) system. This estimate will be reviewed by the District Preliminary Estimates Office within the L.R.E. System. The Phase I (30%) L.R.E. shall be complete and ready for review at the time of the plans submittal.

Phase II - A Project Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0". For the Phase II (60%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long Range Estimating (L.R.E.) system. This estimate will be reviewed by the District Preliminary Estimates Office within the L.R.E. System. The Phase II (60%) L.R.E. shall be complete and ready for review at the time of the plans submittal.

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor changes anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. The "Project Edit Report" lists all pay items loaded in the project (by category) and identifies obsolete pay items in PrP. The complete submittal package, including the CONSULTANT's construction cost estimate, will be provided to the District Preliminary Estimates Office at phases III (90%) and IV (100%). The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

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.

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. 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: N/A

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.

3.1 Public Involvement

These projects have been determined to be a "Targeted" Community Awareness Plan (CAP) Level 2 project WITHOUT a Public Meeting/Workshop. This type of project has general public acceptance, little impact on access and moderate degree of traffic disruption. Targeted projects typically include adjacent property owners which will be

affected by particular activities within the subject project's limits (not throughout). Examples are long, rural resurfacing projects with short urban sections, intersection improvement projects affecting only certain legs (not all), and sidewalk project that will reconstruct frontage on one side of the roadway (not both).

Prior to negotiations, the CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and Public Information Director to discuss the specific public involvement activities anticipated for this project.

3.1.1 Community Awareness Plan

Prepare a Community Awareness Plan (CAP) for review and approval by the DEPARTMENT within 30 calendar days after receiving Notice to Proceed. 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

In addition to public involvement data collection, the CONSULTANT shall assist the DEPARTMENT or prepare notifications, flyers, and/or letters to elected officials and other public officials, private property owners, and tenants at intervals during plans production as identified by the DEPARTMENT. All letters and notices shall be reviewed by the ***CONSULTANT*** to ensure that they are addressed to the correct and current public officials.

The CONSULTANT shall prepare an email notification and a distribution list for plans at Phase II, Phase III, and any subsequent Phase IV re-submittal to the office(s) designated by the local government(s) and applicable regional authorities for a three-week review. The email notifications and plans will be distributed by the DEPARTMENT. The need to re-submit Phase IV Plans will depend on the duration of time spent "on the shelf" and the amount of changes that have occurred since the last submittal to the Local Governments at Phase III. See Section 2.20 regarding Phase IV re-submittals. The Phase IV re-submittal to the Local Governments should take place well in advance of the Final Submittal to the District for Plans Processing to allow time to address comments received from the Local Governments.

Each comment or request provided by the local government shall be evaluated by the CONSULTANT and discussed with the DEPARTMENT's Design Project Manager. Responses will be prepared by the CONSULTANT for the District Consultant Project Management Engineer's signature. All comments or requests

shall be responded to in writing within thirty (30) calendar days of receipt of comments.

PRELIMINARY FIELD INVESTIGATION NOTIFICATIONS:

In advance of any survey or geotechnical investigation activities outside of the FDOT R/W, the CONSULTANT shall prepare a Preliminary Field Investigation Notification to include all properties where R/W impacts are likely to occur. This notification shall be mailed by the CONSULTANT no less than 10 calendar days prior to conducting the field survey or geotechnical investigation. Preliminary Field Investigation Notifications should provide:

- ***FPID Number***
- ***State Road Number and Local Road Name***
- ***Project Limits***
- ***A Project Map***
- ***Type of Work***
- ***Reference that field surveys and/or geotechnical investigations may be conducted by CONSULTANT representatives of the DEPARTMENT***
- ***DEPARTMENT contact persons***

These notifications to affected property owners/tenants shall be prepared by the CONSULTANT for the DEPARTMENT's Design Project Manager's signature. Letters for project's managed by GEC Project Managers shall be signed by the District Consultant Project Management Engineer.

TARGETED PROJECT NOTIFICATIONS:

Targeted Project Notifications shall be prepared by the CONSULTANT for all parties affected by particular activities within the subject project's limits (not throughout).

Targeted Email Notifications and Mass Mail-outs shall provide:

- ***FPID Number***
- ***State Road Number and Local Road Name***
- ***Project Limits***
- ***A Project Map***
- ***Type of Work***
- ***Construction Letting Timeframe (ie, Spring 20XX, Winter 20XX)***
- ***DEPARTMENT contact persons***

Targeted Email Notifications to Public Officials:

- ***Targeted Email Notifications shall be prepared as an email by the CONSULTANT for all pertinent public officials as described in Section 3.1.3. The email notification to the public officials shall be emailed by the DEPARTMENT following the Phase II distribution.***

- ***In addition to the email notification, a flier or tri-fold will be required as an attachment to relay all of the pertinent information described above.***
- ***The CONSULTANT shall submit the draft email notification along with the attachment(s) and distribution list at the designated time in the project schedule. The distribution list shall be an MS Excel file and shall include the name, title, and email address of each intended recipient.***

Mail-out to Targeted Property Owners:

- ***A notification letter and/or a project information flier/ tri-fold will be prepared and sent to all property owners, tenants, and business operators adjacent to the specified work activities and as defined in Section 3.1.3. This notification shall be mailed by the CONSULTANT following the Phase II distribution.***
- ***Property owners and tenants within the "targeted limits" can be contacted through mass mailings and/or hand delivered flyers. Letters shall be prepared for the District Consultant Project Management Engineer's signature and shall be on DEPARTMENT letterhead.***
- ***A notification letter will be prepared and sent to property owners, tenants, and business operators where existing, privately owned LA are expected to be impacted by construction activities. This notification shall be mailed by the CONSULTANT following the Phase II distribution.***

All notification/invitation letters intended for physical mail-out shall be on DEPARTMENT letterhead. The CONSULTANT shall pay postage for the mail-out to property owners and will be responsible for the physical mail-out effort (printing, envelope stuffing, stamping, etc.).

The CONSULTANT must review all notices, letters, and attachments for accuracy and spelling and ensure that notices are sent to the person currently holding the public official positions. The CONSULTANT must attempt to affirm the validity of all email addresses submitted for each notification.

Examples of any of this correspondence can be made available upon request to the DEPARTMENT's Design Project Manager.

3.1.3 Preparing Mailing Lists

At the beginning of the project, The CONSULTANT shall identify all impacted property owners and tenants (within a minimum of 300 feet of the project corridor) The CONSULTANT shall prepare a mailing list of all such entities and shall update the mailing list as needed during the life of the project.

PHASE SUBMITTAL NOTIFICATIONS:

The distribution list for the phase submittal notifications described in Section 3.1.2 will be submitted to the DEPARTMENT's Design Project Manager at Phase II, Phase III, and any subsequent Phase IV re-submittal. The distribution list shall be

an MS Excel file and shall include the name, title, and email address of each intended recipient.

<u>Mail-out to Public Officials</u>:

- ***Public Officials who are to receive notification of projects shall include, (but not be limited to):***

County

- ***County Manager***
- ***County Public Information Director***
- ***County Commissioners***
- ***County Public Works Director***
- ***County Engineer***

City

- ***City Commission***
- ***Mayor***
- ***City Manager***
- ***Engineer / Public Work Director***

Regional

- ***Regional Planning Council/ MPO/ TPO/ TPA***
- ***College Campus Facilities Department***

<u>PRELIMINARY FIELD INVESTIGATION NOTIFICATIONS</u>:

The preliminary field investigation notifications shall be mailed by the CONSULTANT in accordance with the guidance and timeframes provided in Section 3.1.2.

The CONSULTANT shall prepare a mailing list to include all properties where R/W impacts are likely to occur. The CONSULTANT shall utilize Direct Mail Services, Tax Collector Office and/or any other source to identify and obtain the addresses of property owners and business operators along the project. The CONSULTANT is expected to implement delivery receipts and/or certified mail options to ensure that property owners/tenants are notified.

<u>TARGETED PROJECT NOTIFICATIONS</u>:

Targeted Project Notifications shall be prepared by the CONSULTANT for all parties affected <u>by particular activities within the subject project's limits (not throughout)</u>.

The mailing list shall be prepared by the CONSULTANT to include all affected parties. The mailing list will be submitted along with the notifications to the DEPARTMENT's Design Project Manager for review and approval.

<u>Targeted Email Notifications to Public Officials</u>:

- ***Public Officials who are to receive notification of projects and shall include, (but not be limited to):***

Federal/State

- ***Legislative Delegation/Congress (Federal & State)***
- ***Water Management Districts***
- ***US Post Master***
- ***Florida Highway Patrol (Major & Commander)***
- ****especially if Troop Headquarters is located in municipality***
- ***Military Installations (if within project's proximity)***

County

- ***County Manager***
- ***County Public Information Director***
- ***County Commissioners***
- ***County Public Works Director***
- ***County Engineer***
- ***County Emergency Management Director***
- ***Sheriff's Department***
- ***Sheriff's Department Public Information / Public Affairs***
- ***County Airport Director***
- ***County Seaport Director***
- ***County Public Transit System***
- ***County Schools Superintendent***
- ***Transportation Director***
- ***Fire & Rescue Departments***

City

- ***City Commission***
- ***Mayor***
- ***City Manager***
- ***Engineer / Public Work Director***
- ***City Police Chief***

Regional

- ***Merchants Association***
- ***Chamber of Commerce***
- ***Convention & Visitors Bureau***
- ***Tourist Development Regional Planning Council/ MPO/ TPO/ TPA***
- ***Local Americans with Disabilities Act (ADA)/ Pedestrian Advocacy Groups***
- ***Local Hospitals***

- ***Seaport Authority***
- ***Airport Authority***
- ***Local Colleges/Universities (if within project's proximity)***

<u>Mail-out to Targeted Property Owners</u>:

- ***A notification will be written and sent to all property owners, tenants, and business operators whose property, home, or business lies in whole or in part within a minimum of 300 feet of the "targeted limits". In addition, the CONSULTANT must include any businesses or neighborhoods located down side roads that may be impacted by the project. The CONSULTANT shall utilize Direct Mail Services, Tax Collector Office and/or any other source to identify and obtain the address of property owners and business operators along the project.***
- ***A notification letter will be prepared and sent to property owners, tenants, and business operators where existing, privately owned landscaping/hardscaping/signs/brick pavers/mailboxes/etc. are expected to be impacted by construction activities. This notification shall be mailed by the CONSULTANT following the Phase II distribution.***

3.1.4 Median Modification Letters (N/A)

3.1.5 Driveway Modification Letters (N/A)

3.1.6 Newsletters (N/A)

3.1.7 Renderings and Fly-Throughs (N/A)

3.1.8 PowerPoint Presentations (N/A)

3.1.9 Public Meeting Preparations (N/A)

3.1.10 Public Meeting Attendance and Follow-up (N/A)

3.1.11 Other Agency Meetings (N/A)

3.1.12 Web Site (N/A)

3.2 Joint Project Agreements (N/A)

3.3 Specifications & Estimates

3.3.1 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.

All current special provisions and supplemental specifications can be found on the DEPARTMENT'S Internet web site at the State Program Management Office Web Page (http://www.dot.state.fl.us/programmanagement/specs.shtm) under the Standard Specifications for Road and Bridge Construction and Implemented Modifications. The DEPARTMENT will post permits/utility schedules obtained by the DEPARTMENT to their Specifications Web site for informational purposes. The actual work effort will entail utilization of the Specs on the Web electronic files, including updates of new files that may be issued from time to time as mandatory revisions, and assembling the package in accordance with the DEPARTMENT's Specification Package Preparation Training. The DEPARTMENT may also require inclusion of special provisions necessary to convey particular DEPARTMENT needs.

The Standard Specifications, for Road and Bridge Construction and, Special Provisions or Supplemental Specifications from the applicable workbook of implemented modifications may not be modified unless absolutely necessary to control project-specific requirements. Provide justification of the project specific need and coordinate with the District Specifications Office.

Developmental Specifications are developed around a new process, procedure, or material approved for limited use by the State Program Management Office. These specifications are signed and sealed by the professional engineer responsible for authorizing use and monitoring performance in the field. Developmental Specifications are requested from the District Specifications Office on a project-by-project basis.

Contact the District Specifications Office for formatting requirements and the availability of a Technical Special Provision for the anticipated work on the

project. The DEPARTMENT has a database of previously approved Technical Special Provisions that may be used as a basis of formulation of any proposed Technical Special Provisions. Each modification must be justified to the DEPARTMENT's Specifications Office to be included in the project's Specifications Package as Technical Special Provisions. Technical Special Provisions shall be submitted in conformity with FDOT Handbook for Preparation of Specifications Packages and FDOT Procedure No. 630-010-005-f. If any portion of the project is federally funded, all Technical Special Provisions must also conform to Chapter 23, Part 635 of the Code of Federal Regulations for this project.

Prepare a complete Specifications Package as described in Section 115.3 of the FDOT Design Manual. Submit the Specifications Package and the Workbook generated via Specs on the Web that was used to compile the Specifications Package within the electronic final plans package. Submittal requirements are further detailed in Chapter 131 of the FDOT Design Manual and Section 2.20 of this Scope of Services.

Any Plan Revision, Mandatory Specification Revision or any other change occurring after the "Transmit Package for Letting" Date that requires a Supplemental Specifications Package, will be the responsibility of the CONSULTANT.

For "goes-with" projects, the CONSULTANT for the lead project will be responsible for compiling the Specifications Package and any required Supplemental Specifications Packages. Technical Special Provisions will be the responsibility of the CONSULTANT for that project which requires the TSP.

It is the intent of the DEPARTMENT that the Specifications Package and any Supplements be prepared by & signed and sealed by the Engineer of Record preparing the project plans, except as noted above for projects being let together. In this case, the Engineer of Record for the lead project will be required to sign and seal the Specification Package and any required Supplements.

3.3.2 Estimated Quantities Report Preparation

Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items

identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

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.

3.7 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.

Staffhours negotiated for this task during the initial staffhour and fee submittal will include efforts necessary to kick-off Plans Update Services due to an accelerated schedule. It is recommended that the CONSULTANT coordinate with the DEPARTMENT's Contract Manager to differentiate the staffhours for the Plans Update effort in the Automated Fee Proposal (AFP) from the Basic Services effort. Staffhours for the remainder of the anticipated Plans Update Services will be negotiated following Basic Services and at the time that the plans come "off the shelf".

The CONSULTANT shall perform engineering analyses and/or make revisions to original plans and documents, as requested by the DEPARTMENT, to reflect additions, deletions and/or modifications prior to and subsequent to letting. The CONSULTANT shall be aware that minor modifications and/or updates to the original

plans are to be expected. These minor refinements shall not be a basis for any payment under the Plans Update supplemental 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 as necessary as a contract amendment.

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

Staffhours and fees for Post Design Services will be submitted and negotiated post-letting and in advance of the Pre-Construction Conference. All Phase 32 funds (Basic Services and Plans Update Services) shall be expended or released prior to initiating Post Design Services (Phase 62).

Identifying the effort needed for Post Design Services will vary significantly from project to project depending on size and complexity of the project. The approach described herein assists the DEPARTMENT in determining an initial estimate of the work effort needed for the Engineer of Record (EOR) to support the DEPARTMENT in the construction of a project.

Post Design Services include Construction Assistance and Review of Shop Drawings as noted below. In addition, these services are included for the CONSULTANT to attend and provide information at the Pre-Construction Conference. Subsequent construction field meetings are to be attended as required. The frequency of meetings shall be based on the complexity of the project and as directed by the DEPARTMENT's Design Project Manager.

The EOR will be required to respond to any request from the CONTRACTOR within 24 hours. This does not mean that the issue will be resolved; it simply means that the EOR has received the request, states an immediate course of action, and begins the communication process.

The activities associated with Post Design Services can be characterized as the following:

<u>Meetings</u>: The EOR is expected to attend all pre-construction meetings as well as those regularly scheduled meetings throughout the construction phase when deemed necessary by the DEPARTMENT's Construction Project Manager.

<u>Construction Assistance</u>: This includes responses to Requests for Information (RFI), interpretation of construction plans and documents, and engineering solutions to changed conditions encountered in the field. Site visits shall be made by the EOR consultant when agreed upon with the DEPARTMENT's Construction Project Manager. The CONSULTANT shall provide to the DEPARTMENT qualified representation during the construction phase to address issues concerning the intent and interpretation of the construction contract plans and documents prepared in the

work. From time to time during construction the CONSULTANT may be requested by the DEPARTMENT or its designated representative to review CONTRACTOR proposed field changes or to respond with a recommended solution to remedy particular field situations not covered by the plans and specifications

Plan Revisions: This includes effort required to provide revised plan sheets reflecting any changes made during the Right-of-Way Acquisition or Construction phases of a project. During Right-of-Way or Construction phases, the CONSULTANT may be requested by the DEPARTMENT to review proposed field changes or to respond with a recommended solution to remedy particular field situations not covered by the plans and specifications.

Shop Drawing Review: This includes review of shop drawings and erection plans for all components supplied by the CONTRACTOR and required by the bid documents. For all independently supported sign structures of which the CONTRACTOR is responsible, the CONSULTANT will review and check all the foundation, sign structure design, and shop drawings submitted by the CONTRACTOR. Shop drawing reviews shall be performed by the CONSULTANT in accordance with the Standard Specifications for Road and Bridge Construction.

Load Ratings: Projects involving bridges typically have the load rating done during the design phase work. If the as-built bridge complies with the bid documents, the EOR should be willing to certify the load rating performed during design is adequate for the as-built condition of the bridge. However, if the as-built bridge was built in a modified or altered condition from the bid documents, an updated load rating may be required. Therefore, during construction, the EOR may be asked to perform an updated load rating based on the as-built condition of the bridge. As an aid in the negotiations the Structures Design Office has established guidelines for the development of staff-hours for load rating various bridge types.

Post design services may also include:

- ***Reestablishment of the original survey control just prior to construction (Refer to Section 5-7.1 of the Standard Specifications for Road and Bridge Construction).***
- ***Flagging R/W for acquisition***
- ***Monumentation of the R/W after construction is complete for projects with right-of-way acquisition***
- ***Comprehensive utility coordination and conflict resolution during construction.***

Note: All services will be agreed upon by the DEPARTMENT's Construction Project Manager and approved by the DEPARTMENT's Design Project Manager.

The CONSULTANT shall submit a "Post Design Services Status Report" in *.xlsx format with every invoice during this phase. A blank example of this report can be provided by the DEPARTMENT's Design Project Manager.

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 (N/A)

3.12 Landscape and Existing Vegetation Coordination (N/A)

3.13 Other Project General Tasks (N/A)

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 prepare a Typical Section Package.

The CONSULTANT shall provide an approved signed and sealed Typical Section Package to be submitted to the DEPARTMENT for review and concurrence prior to the Phase I plans submittal date. This package shall include the following:

Transmittal Letter, Location Map(s), Typical Section(s) (including bridge sections, and Project Control Sheet(s).

4.2 Pavement Type Selection Report (N/A)

4.3 Pavement Design Package

The Pavement Condition Survey (including coring, testing, and preparing the report) will be provided by the DEPARTMENT.

The DEPARTMENT will be responsible for the Pavement Design.

4.4 Cross-Slope Correction (N/A)

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.

4.6 Access Management (N/A)

4.7 Roundabout Final Design Analysis (N/A)

4.8 Cross Section Design Files (N/A)

4.9 Temporary Traffic Control Plan (TTCP) Analysis

The CONSULTANT shall design a safe and effective TTCP 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, transit stops, 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 highway lighting, detours, diversions, lane shifts, and the use of materials such as sheet piling in the analysis.

The Temporary Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the DEPARTMENT. Before proceeding with the TTCP, 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 TTCP efforts.

For projects with TTCP Levels of II or III, the CONSULTANT shall be prepared to provide materials for and participate in a Temporary Traffic Control Plans (TTCP) Workshop. The DEPARTMENT will submit the project's Temporary Traffic Control Plans for an external peer review at Phase II. Following this review, the DEPARTMENT's Design Project Manager will schedule the TTCP Workshop.

Materials to be provided by the CONSULTANT to facilitate the TTCP Workshop shall include, but not be limited to the following (in no particular order):

- ***Plan view aerial roll plot of each traffic control phase involving a lane shift with side streets and businesses labeled***
- ***Traffic control typical sections***
- ***The most recent set of construction plans***

The effort associated with attending this workshop shall be included in Section 4.22.

The CONSULTANT shall conduct a Lane Closure Analysis to determine work conditions when no lane closures will be allowed.

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. The CONSULTANT shall be responsible for obtaining local authorities' permission for use of detour routes not on state highways.

4.10 Master TTCP Design Files

The CONSULTANT shall develop master TTCP files showing each phase of the TTCP. This includes all work necessary for designing lane configurations, diversions, lane shifts, signing and pavement markings, temporary traffic control devices, and temporary pedestrian ways.

4.11 Selective Clearing and Grubbing (N/A)

4.12 Tree Disposition Plans (N/A)

4.13 Design Variations and Exceptions

The CONSULTANT shall prepare the documentation necessary to gain DEPARTMENT approval of all appropriate Design Variation Memorandums, Formal Design Variations and/or Design Exceptions.

A Project Design Variation Memorandum (FDM Form 122-B) shall be prepared to document all non-controlling design elements for a project that do not meet Department criteria. Those elements requiring a more detailed analysis, as per FDM Section 122.2, shall be submitted as Formal Design Variations or Design Exceptions.

4.14 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.

4.15 Roadway Quantities for EQ Report

The CONSULTANT shall develop accurate pay items, quantities and the supporting documentation, including construction days when required. Quantities shall be included in an estimated Quantities Report per Section 3.3.2.

4.16 TTCP Quantities for EQ Report

The CONSULTANT shall determine temporary traffic control pay items and quantities and the supporting documentation.

4.17 Cost Estimate

The CONSULTANT shall be 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.

Phase I - For the Phase I (30%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long Range Estimating (L.R.E.) system.

Phase II - For the Phase II (60%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long Range Estimating (L.R.E.) System.

Phases III & IV - The complete submittal package, including the CONSULTANT's construction cost estimate, will be provided to the District Preliminary Estimates Office at phases III (90%) and IV (100%). The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

4.18 Technical Special Provisions and Modified Special Provisions

4.19 Other Roadway Analyses

Roadway Alternative Analysis Report: The CONSULTANT shall be responsible for developing a Roadway Alternative Analysis Report for FPID 439383-1-32-01 to substantiate the final alignment chosen for the project. This report will only identify alignments that are slightly shifted from the original horizontal alignment. This information will be used to document to FDOT and the permitting agencies that the most cost effective and environmentally sensitive alignment was carried forward.

This report is in addition to the Bridge Development Report which only outlines the bridge design choices (superstructure alternatives, substructure alternatives, foundations, etc.). The Roadway Alternative Analysis Report shall be submitted and approved prior to the Phase I Roadway submittal.

Sovereign Submerged Lands: The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the DEPARTMENT's Right of Way Mapping Office to determine if Sovereign Submerged Lands need to be acquired. Any applicable information will be shown on the plans as appropriate

TIITF Easements: During the Right of Way Phase, the CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the DEPARTMENT's Right of Way Mapping office to determine if any TIITF easements need to be modified.

4.20 Field Reviews

4.21 Monitor Existing Structures (N/A)

4.22 Technical Meetings

This task includes effort for (but is not limited to) the following meetings:

Production Survey Meeting: This task includes the effort for the CONSULTANT to attend the Production Survey Meeting as described in Section 2.10.

Phase I (30%) Estimate Review Workshop: This workshop will be held with DEPARTMENT personnel to discuss the Phase I construction estimate and plans. The CONSULTANT should be prepared to discuss items of work that could significantly impact the construction estimate and answer questions related to the Phase I construction estimate. The CONSULTANT will coordinate the scheduling, format, and materials necessary with the DEPARTMENT's District Estimates Manager.

TTCP Workshop: In addition, the CONSULTANT shall attend an TTCP Workshop to present the Temporary Traffic Control Plans to the DEPARTMENT. This workshop will be scheduled by the DEPARTMENT's Design Project Manager to occur at some point following the Phase II plans review. The effort to prepare necessary workshop materials shall be included in Section 4.10.

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, TTCP, 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 Typical Section Sheets

5.2.1 Typical Sections

5.2.2 Typical Section Details

5.3 General Notes/Pay Item Notes

5.4 Project Layout

5.5 Plan/Profile Sheet

5.6 Profile Sheet (N/A)

5.7 Plan Sheet (N/A)

5.8 Special Profile (N/A)

5.9 Back-of-Sidewalk Profile Sheet (N/A)

5.10 Interchange Layout Sheet (N/A)

5.11 Ramp Terminal Details (Plan View) (N/A)

5.12 Intersection Layout Details (N/A)

5.13 Special Details

5.14 Cross-Section Pattern Sheets

5.15 Roadway Soil Survey Sheets

5.16 Cross Sections

5.17 Temporary Traffic Control Plan Sheets

5.18 Temporary Traffic Control Cross Section Sheets

5.19 Temporary Traffic Control Detail Sheets

5.20 Utility Adjustment Sheets

5.21 Selective Clearing and Grubbing Sheets (N/A)

5.22 Tree Disposition Plan Sheets (N/A)

5.23 Project Control Sheets

The Engineer of Record will create the Project Control sheet from data extracted from the project survey and sign and seal the Project Control sheet.

5.24 Environmental Detail Sheets

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. Then 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.

5.25 Utility Verification Sheets (SUE Data)

5.26 Quality Assurance/Quality Control

5.27 Supervision

6a DRAINAGE ANALYSIS

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

The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall comply with the requirements of the appropriate regulatory agencies and the DEPARTMENT's Drainage Manual. ***Electronic copies of any modeling software utilized for design shall be submitted to the DEPARTMENT during Final Plans Processing.***

The CONSULTANT shall contact and document discussions with the DEPARTMENT's local Maintenance Office (or the local maintaining agency for off-system projects) regarding historical drainage problems in the project area.

The CONSULTANT shall develop a drainage map based upon available information and field reviews. The available information should consist of old Florida Department of Transportation Plans, USGS Quadrangles, USGS Studies, NWFWMD Studies, FEMA Studies, Local Government Agency Studies or Contours, etc. The drainage map should be included in the Hydraulic Design Study. The Hydrology should be by regional or local regression equations, or by the rational method. An assumed velocity should not be used. The CONSULTANT shall document the Drainage Design in the Drainage Design Study (23CFR650A). The Design Study should show that the design requirements of the DEPARTMENT and FHWA have been met.

Flood data requirements will be determined in accordance with DEPARTMENT procedures. Flood data will be required in plans under the following conditions 1) necessary for all structures that are being modified, 2) necessary for all structures that have a history of flooding or other hydraulic problems even if the structure is not to be modified, 3) necessary for structures that may not be modified but share a drainage basin with another structure being modified and are being impacted by such modification.

Prior to Phase II (60%) plans submittal, the CONSULTANT shall meet with the District Drainage Engineer. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final Drainage Design efforts.

The CONSULTANT shall provide the DEPARTMENT's District Drainage Engineer a signed and sealed Drainage Design Study. The study shall include a narrative description of existing and proposed drainage structures, conditions, and facilities, and a listing of environmental regulatory permits required. All hydrologic and hydraulic drainage computations for the design presented in the plans shall be included along with supporting design information such as drainage maps, geotechnical data (such as soil borings and permeability tests), and correspondence that directly affected design decisions.

The CONSULTANT must coordinate fully with the appropriate permitting agencies and the DEPARTMENT's staff. All activities and submittals should be coordinated through the DEPARTMENT's Project Manager. The work will include the engineering analyses for

any or all of the following:

6a.1 Drainage Map Hydrology

Create a (pre- and/or post-condition) working drainage basin map to be used in defining the system hydrology. This map shall incorporate drainage basin boundaries, existing survey and/or LiDAR and field observations, as necessary, to define the system. Basin delineations shall also include any existing collection systems in a logical manner to aid in the development of the hydraulic model. Include coordination hours needed to convey drainage hydrologic features onto produced drainage maps.

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

Design roadway conveyance and outfall ditches. This task includes capacity calculations, longitudinal grade adjustments, flow changes, additional adjustments for ditch convergences, selection of suitable channel lining, design of side drain pipes, and documentation. (Design of linear stormwater management facilities in separate task.)

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.12 Drainage Wells (N/A)

6a.13 Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except for stand-alone reports, such as the Pond Siting Analysis Report and Bridge Hydraulics Report.

6a.14 Bridge Hydraulic Report

Calculate hydrology, hydraulics, deck drainage, scour, and appropriate counter measures. Prepare report and the information for the Bridge Hydraulics Recommendation Sheet.

6a.15 Temporary Drainage Analysis

Evaluate and address drainage to adequately drain the road and maintain existing offsite drainage during all construction phases. Provide documentation.

6a.16 Drainage Quantities for EQ Report

The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required. Quantities shall be included in an Estimated Quantities Report per Section 3.3.2.

6a.17 Cost Estimate

Prepare cost estimates for the drainage components, except bridges and earthwork for stormwater management and flood compensation sites.

6a.18 Technical Special Provisions / Modified Special Provisions (N/A)

6a.19 Hydroplaning Analysis (N/A)

6a.20 Existing Permit Analysis (N/A)

6a.21 Other Drainage Analysis (N/A)

6a.22 Noise Barrier Evaluation (N/A)

6a.23 Erosion Control Plan

Includes analysis and design of the Erosion Control Plan. Includes creating the design file.

6a.24 Field Reviews

6a.25 Technical Meetings

Meetings with Department staff, regulatory agencies, local governments such as meetings with District Drainage Engineer, the Water Management District, FDEP, etc.

6a.26 Environmental Look-Around Meetings (N/A)

6a.27 Quality Assurance/Quality Control

6a.28 Independent Peer Review (N/A)

6a.29 Supervision

6a.30 Coordination

6b DRAINAGE PLANS

The CONSULTANT shall prepare Drainage 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.

6b.1 Drainage Map (Including Interchanges)

6b.2 Bridge Hydraulics Recommendation Sheets

6b.3 Drainage Structures (N/A)

6b.4 Lateral Ditch Plan/Profile & Cross Sections (N/A)

6b.5 Retention/Detention/Floodplain Compensation Pond Details & Cross Sections (N/A)

6b.6 Erosion Control Plan

6b.7 SWPPP

6b.8 Quality Assurance/Quality Control

6b.9 Supervision

7 UTILITIES

All Utility Coordination activities will be performed by the DEPARTMENT. The CONSULTANT will coordinate with FDOT Area Utility Manager regarding information needed.

7.1 Utility Kickoff Meeting

Before any contact with the UAO(s), the CONSULTANT shall meet or teleconference with the DEPARTMENT's Area Utility Manager 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)

The CONSULTANT will identify all utilities in the corridor during the survey phase by calling Sunshine 811. As-built documentation shall be requested from each UAO for verification of complete designation, and a review will be made to ensure that field designated data is included on the Phase I plans. Proper identification of design coordination contact information shall be made during this activity. A copy of the Sunshine 811 "design" ticket listing all utility owners within the project limits shall be provided within 10 business days of the Notice to Proceed (NTP) as part of all subsequent phase submittals.

The DEPARTMENT will assist in identifying all utilities in the corridor.

7.3 Make Utility Contacts

The DEPARTMENT's Area Utility Manager will make contact and distribute plans to the applicable UAO's. A memo requesting that the UAO's verify/mark all existing facilities will be sent along with the plans.

7.4 Design Alternative Processing

For above-ground utility installations that are to remain within the horizontal clearance area WITHOUT viable options for relocation within the R/W, the CONSULTANT shall refer to Section 3.14.5 of the UAM regarding practical considerations and Section 6 of the UAM for Design Alternative processing. For above-ground utility installations that are to remain within the horizontal clearance area WITH available R/W and options for relocation, the UAO will be responsible for submitting a Design Alternative approval request as described in Section 6 of the UAM. The DEPARTMENT will coordinate all necessary Design Alternatives.

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. ***This is also an opportunity for the UAO(s) to present proposed facility relocations with the CONSULTANT and other UAOs. 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, standard or selective clearing and grubbing work, and assist in the development of the UAO(s) marked/RGB 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. ***Field reviews shall be coordinated with the DEPARTMENT's Area Utility Manager.***

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

The CONSULTANT shall review UAO marked plans and data individually as they are received for content, accuracy, utility type, material, and size. Provide to the EOR (designer) for inclusion in the plans. Forward all requests for UAO reimbursement and supporting documentation to the DUO.

The CONSULTANT will be responsible for reviewing and implementing identified utility locations into the plans as well as producing a Potential Utility Conflict Matrix. The Matrix will include location (station, offset, depth) of existing facilities in relation to proposed construction features, and will be submitted with the Phase II submittal. Subsequent phase submittals will require that the Utility Conflict Matrix be updated and submitted reflecting any design changes or new information. Marked plans provided from UAOs may need to be acquired through the Department's Project Suite Enterprise Edition (PSEE) system.

7.8 Subordination of Easements Coordination

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 obtain information as required from the UAO(s) for the programming of the necessary work program funds to compensate the UAO for reimbursable expenses.***

7.9 Utility Design Meeting

The DEPARTMENT's Area Utility Manager shall coordinate with the DEPARTMENT's Design Project Manager and schedule (time and place), notify participants, and conduct a Utility Design Meeting with all affected UAO(s). This meeting may be held in conjunction with the Post 60% Workshop described in Section 4.22. 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/vegetation and proposed landscape, drainage, traffic signalization, temporary traffic control plan (TTCP) (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 TTCP 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 4.8 (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.

Any design changes affecting utilities that occur after the Phase IV Resubmittal must be submitted to the DEPARTMENT's Area Utility Manager so that Utility Work Schedules can be updated.

7.11 Utility Coordination/Follow-up

Utility Coordination and Follow-up activities will be performed by the DEPARTMENT and the CONSULTANT if requested by the DEPARTMENT.

This includes follow-up, interpreting plans, and assisting with coordination of the completion of the UAO(s) work schedule 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. This task can be applied to all phases of the project.

7.12 Utility Constructability Review

Utility Constructability Review activities will be performed by the CONSULTANT. The CONSULTANT shall review utility schedules against construction contract time, and phasing for compatibility. Coordinate with and obtain concurrence from the construction office. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.9 (Cross Section Design Files) for utility conflict identification and adjustments.

7.13 Additional Utility Services

The CONSULTANT will provide any subsurface utility excavations (SUE) that are required for the projects. This effort will be negotiated in Section 27.10.

The CONSULTANT may be required to 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 amendment when the need is identified.

7.14 Processing Utility Work by Highway Contractor (UWHC)

Processing of any Utility Work by the Highway Contractor will be performed by the DEPARTMENT.

As directed by the DEPARTMENT, the CONSULTANT shall assist with the determination of the DEPARTMENT's cost participation, attend additional coordination meetings, prepare and process UWHC agreements, review tabulation of quantities prepared by the UAO(s), perform UWHC constructability and bidability reviews, review pay items and cost estimates, and review and incorporate Technical Special Provisions (TSPs) or Modified Special Provisions (MSP) prepared by the UAO. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental amendment 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)

The CONSULTANT will be responsible for providing the necessary electronic files to the DEPARTMENT's Design Project Manager for submittal to the Area Utility Manager at each Phase Submittal.

7.16 Certification/Close-Out

Utility Certification will be performed after all Utility Work Schedules have been executed and the coordination of construction related issues has been completed by the DEPARTMENT.

Utility Coordination Close-Out will include archiving all project documents and files in an orderly fashion consistent with the DEPARTMENT's EDMS archiving process.

7.17 Other Utilities

8 ENVIRONMENTAL PERMITS 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 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 coordinate with the DEPARTMENT's Design Project Manager and the DEPARTMENT's Right of Way Mapping Office to determine if any Sovereign Submerged Lands easements need to be modified or acquired. Any applicable information will be shown on the plans as appropriate.

Reference Section 29.23 for additional information regarding TIITF easements.

8.2 Field Work

8.2.1 Pond Site Alternatives: (N/A)

8.2.2 Establish Wetland Jurisdictional Lines and Assessments:

The CONSULTANT shall be responsible for, but not limited to, the following activities:

- Determine landward extent of wetlands and other surface waters as detailed in Rule Chapter 62-340, F.A.C., as ratified in Section 373.4211, F.S..; United States Army Corps of Engineers (USACE) Wetland Delineation Manual (Technical

Report Y-87-1); Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (ERD/EL TR-10-20).

- Collect all data and information necessary to determine the jurisdictional boundaries of wetlands and other surface waters as defined by the rules or regulations of each permitting agency processing a DEPARTMENT permit application for the project.
- Set seasonal high-water levels in adjacent wetlands with biological indicators
- Obtain a jurisdictional determination as defined by the rules or regulations of each permitting agency processing a DEPARTMENT permit application for the project.
- Prepare aerial maps showing the jurisdictional boundaries of wetlands and other surface waters. Aerial maps shall be reproducible, of a scale of 1"=400'or more detailed and be recent photography. The maps shall show the jurisdictional boundaries of each agency. Photocopies of aerials are not acceptable. When necessary, a wetland specific survey will be prepared by a registered surveyor and mapper. All surveyed jurisdictional boundaries are to be tied to the project's baseline of survey.
- Prepare a written assessment of the current condition and functional value of the wetlands and other surface waters. Prepare data in tabular form which includes the ID number for each wetland (and other surface water, if necessary) impacted, size of wetland to be impacted, type of impact, and identify any wetland (by ID number and size) within the project limits that will not be impacted by the project.
- Prepare appropriate agency forms to obtain required permits. Forms may include but are not limited to the USACE "Wetland Determination Data Form - Atlantic and Gulf Coastal Plain Region"; the USACE "Request for Corps Jurisdictional Determination"; Uniform Mitigation Assessment Method forms and/or project specific data forms.

8.2.3 Species Surveys: (To be completed by the DEPARTMENT)

Mussel Survey: (N/A)

Tenmile Creek is designated a critical habitat for freshwater mussels and within 500' of the project location. The Freshwater Mussel Phase I Programmatic Approach for Transportation Work Activities, prepared by the DEPARTMENT and the US Fish and Wildlife Service (FWS), notes required commitments. The DEPARTMENT will provide required commitments to be included in the project. (For FPID 441176-1-32-01)

Biological Assessment: TO BE COMPLETED BY THE DEPARTMENT IF REQUIRED. (For FPID 441176-1-32-01)

Section 7 Formal Consultation with FWS: TO BE COMPLETED BY THE DEPARTMENT IF REQUIRED. (For FPID 441176-1-32-01)

8.3 Agency Verification of Wetland Data

The CONSULTANT shall be responsible for verification of wetland and other surface water data identified in Section 8.2 and coordinating regulatory agency field reviews, including finalization of assessments and jurisdictional determinations with applicable agencies.

The jurisdictional lines will be verified during the permit submittal and review by the State or Federal agency. A formal jurisdictional determination will not be obtained prior to permit submittal except for new roadway alignments, or if a questionable determination is anticipated.

8.4 Complete and Submit All Required Permit Applications

The CONSULTANT shall collect the data and information necessary to prepare the permit applications and obtain the environmental permits required to construct the project as identified in the Project Description and as described in 8.4.1, 8.4.2, and 8.15 (Other Environmental Permits). The CONSULTANT shall prepare each permit application in accordance with the rules and/or regulations of the regulatory agency responsible for issuing a specific permit and/or authorization to perform work. The permit application packages must be approved by the DEPARTMENT prior to submittal to regulatory agencies.

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

A Pre-Application meeting with the permitting agencies can be anticipated for projects that require an Individual ERP from the State of Florida or an Individual Permit from the Army Corps of Engineers. As a project develops, other project specific conditions may be identified that will warrant a Pre-Application meeting to clarify the permitting requirements. The DEPARTMENT's Design Project Manager, District Drainage Engineer, and District Permit Coordinator will be invited to the Pre-Application meeting (when required) and will be forwarded all correspondence and meeting minutes.

The CONSULTANT will file any public notices required by the permits, in a publication selected by the DEPARTMENT, and will be responsible for payment of all fees associated with the filing the public notice.

The CONSULTANT shall be responsible for responding to Requests for Additional Information by the reviewing agency.

8.4.1 Complete and Submit all Required Wetland Permit Applications:

The CONSULTANT shall prepare, complete, and submit required wetland permit (i.e. ERP, Section 404) application packages to the appropriate regulatory agencies. This includes, but is not limited to, applications submitted to WMDs and/or DEP, and USACE. The application package may include but is not limited to attachments (e.g.

project location map, aerials, affidavit of ownership, pictures, additional technical analysis, etc.), a cover letter with project description as well as completion of applicable agency forms. The CONSULTANT shall prepare and respond to agency Requests for Additional Information (RAIs), including necessary revisions to the application package. All responses and completed application packages must be approved by the District Permit Coordinator prior to submittal to the regulatory agencies. Geotechnical permitting should also be prepared, submitted, and obtained.

8.4.2 Complete and Submit all Required Species Permit Applications: (To be completed by the DEPARTMENT)

8.5 Coordinate and Review Dredge and Fill Sketches

The CONSULTANT shall review Dredge and Fill Detail sheets to ensure information on the sketch(es) meet the requirements of the regulatory agencies and are appropriate for environmental permit application submittal and acquisition. The CONSULTANT will also provide environmental data/information as needed to support the preparation of the Dredge and Fill sketches. ***(CADD hours are to be included under Task 5.24.)***

8.6 Complete and Submit Documentation for Coordination and/or USCG Bridge Permit Application

The CONSULTANT shall complete the Bridge Project Questionnaire which serves as a tool to validate or disprove the navigability of the waterway and will determine whether a United States Coast Guard (USCG) permit will be required prior to construction. The blank questionnaire form can be provided by the DEPARTMENT's Design Project Manager. The completed questionnaire shall be provided by the CONSULTANT with the Phase I submittal. The DEPARTMENT's Design Project Manager will submit the complete Bridge Project Questionnaire to D3 EMO for submittal to FHWA or to the USCG depending on project funding.

If it is determined that a USCG permit is required, the CONSULTANT shall prepare the USCG permit sketches in accordance with the most recent USCG Bridge Permit Application Guide. The CONSULTANT shall respond to agency RAIs, including necessary revisions to the application package. All responses and completed applications must be approved by the District Permit Coordinator prior to submittal to the regulatory agency.

8.6.1 Prepare and submit required documents for USCG Coordination

The CONSULTANT shall complete appropriate documentation required for the USCG to determine the navigability of the waterway and whether a USCG permit will be required.

8.6.2 Complete and submit USCG Bridge Permit Application

The CONSULTANT shall prepare and submit required USCG bridge permit application, ***if required based on the Department's USCG BPQ coordination***. The CONSULTANT shall be responsible for acquiring the USCG approval.

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)

8.9 Prepare USACE Section 408 Application to Alter a Civil Works Project (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 commenting 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. The CONSULTANT will provide mitigation information needed to update the FDOT Environmental Impact Inventory.

8.12 Regulatory Agency Support (N/A)

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

The CONSULTANT shall provide engineering and environmental support for the DEPARTMENT to obtain environmental clearances resulting from any changes to the project after the initial environmental phase has been completed.

8.14 Preparation of Environmental Clearances and Re-evaluations (use when CONSULTANT prepares all documents associated with a re-evaluation) (To be completed by the DEPARTMENT)

8.15 Other Environmental Permits (N/A)

8.16 Contamination Impact Analysis (N/A)

8.17 Asbestos Survey (To be provided by the DEPARTMENT)

The Department will provide asbestos and metal-based coatings survey services.

If asbestos or metal-based coatings above threshold levels are found on the bridge(s), the CONSULTANT shall coordinate with the District Contamination Impact Coordinator to obtain plan notes, general notes, specifications, pay item notes, and Operation and Maintenance (O&M) plan for any asbestos to remain in place.

8.18 Technical Meetings

8.19 Quality Assurance/Quality Control

8.20 Supervision

8.21 Coordination

9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS

The CONSULTANT shall analyze, design, and develop contract documents for all structures in accordance with applicable provisions as defined in Section 2.19, Provisions for Work. Individual tasks identified in Sections 9 through 18 are defined in the Staff Hour Estimation Handbook and within the provision defined in Section 2. 20, Provisions for Work. Contract documents shall display economical solutions for the given conditions.

The CONSULTANT shall provide Design Documentation to the DEPARTMENT with each submittal consisting of structural design calculations and other supporting documentation developed during the development of the plans. The design calculations submitted shall adequately address the complete design of all structural elements. These calculations shall be neatly and logically presented on digital media or, at the DEPARTMENT's request, on 8 ½"x11" paper and all sheets shall be numbered. The final design calculations shall be signed and sealed by a Florida-licensed professional engineer. A cover sheet indexing the contents of the calculations shall be included and the engineer shall sign and seal that sheet. All computer programs and parameters used in the design calculations shall include sufficient backup information to facilitate the review task.

9.1 Key Sheet and Index of Drawings

9.2 Project Layout (N/A)

9.3 General Notes and Bid Item Notes

9.4 Miscellaneous Common Details

9.5 Incorporate Report of Core Borings

9.6 Standard Plans- Bridges

9.7 Existing Bridge Plans

9.8 Structures Quantities for EQ Report

Quantities shall be included in an Estimated Quantities Report per Section 3.3.2.

9.9 Cost Estimate

9.10 Technical Special Provisions and Modified Special Provisions

9.11 Field Reviews

9.12 Technical Meetings

9.13 Quality Assurance/Quality Control

9.14 Independent Peer Review (N/A)

9.15 Supervision

9.16 Coordination

10 STRUCTURES - BRIDGE DEVELOPMENT REPORT

The Consultant shall prepare a Bridge Development Report (BDR). The BDR shall be submitted as part of the Phase I Roadway Submittal, General Requirements.

General Requirements

10.1 Bridge Geometry

10.2 Ship Impact Data Collection (N/A)

10.3 Ship Impact Criteria (N/A)

Superstructure Alternatives

10.4 Short-Span Concrete

10.5 Medium-Span Concrete (N/A)

10.6 Long Span Concrete (N/A)

10.7 Structural Steel (N/A)

Foundation and Substructure Alternatives

10.8 Pier/Bent

10.9 Shallow Foundations / GRS Abutments (N/A)

10.10 Deep Foundations

Movable Span and tasks 10.11 – 10.23 are not applicable to these projects.

Other BDR Issues

10.24 Aesthetics

10.25 TTCP/Staged Construction Requirements

10.26 Constructability Requirements

10.27 Load Rating for Damaged/Widened Structures (N/A)

10.28 Quantity and Cost Estimates

10.29 Quantity and Cost Estimates - Movable Span (N/A)

10.30 Wall Type Justification

Report Preparation

10.31 Exhibits

10.32 Exhibits - Movable Span (N/A)

10.33 Report Preparation

10.34 Report Preparation - Movable Span (N/A)

10.35 BDR Submittal Package

11 STRUCTURES - TEMPORARY BRIDGE

The CONSULTANT shall prepare plans for Temporary Bridge(s) at the location(s) specified in Section 2.5. The CONSULTANT shall contact FDOT Maintenance Central Office to determine the type and availability of temporary bridge components before deciding on the temporary bridge type to be used.

General Layout Design and Plans

11.1 Overall Bridge Final Geometry

11.2 General Plan and Elevation

11.3 Miscellaneous Details

End Bent Design and Plans

11.4 End Bent Structural Design

11.5 End Bent Details

Intermediate Bent Design and Plans

11.6 Intermediate Bent Structural Design

11.7 Intermediate Bent Details

Miscellaneous Substructure Design and Plans

11.8 Foundation Layout

12 STRUCTURES - SHORT SPAN CONCRETE BRIDGE

The CONSULTANT shall prepare plans for Short Span Concrete Bridge(s) at the location(s) specified in Section 2.5.

General Layout Design and Plans

12.1 Overall Bridge Final Geometry

12.2 Expansion/Contraction Analysis

12.3 General Plan and Elevation

12.4 Construction Staging

12.5 Approach Slab Plan and Details

12.6 Miscellaneous Details

End Bent Design and Plans

12.7 End Bent Geometry

12.8 End Bent Structural Design

12.9 End Bent Plan and Elevation

12.10 End Bent Details

Intermediate Bent Design and Plans

12.11 Bent Geometry

12.12 Bent Stability Analysis

12.13 Bent Structural Design

12.14 Bent Plan and Elevation

12.15 Bent Details

Miscellaneous Substructure Design and Plans

12.16 Foundation Layout

Superstructure Design and Plans

12.17 Finish Grade Elevation Calculation

12.18 Finish Grade Elevations

Cast-In-Place Slab Bridges

12.19 Bridge Deck Design

12.20 Superstructure Plan

12.21 Superstructure Sections and Details

Prestressed Slab Unit Bridges

12.22 Prestressed Slab Unit Design

12.23 Prestressed Slab Unit Layout

12.24 Prestressed Slab Unit Details and Schedule

12.25 Deck Topping Reinforcing Layout

12.26 Superstructure Sections and Details

Reinforcing Bar Lists

12.27 Preparation of Reinforcing Bar List

Load Rating

12.28 Load Rating

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

The CONSULTANT shall prepare plans for Retaining Wall(s) as specified in Section 2.5.

General Requirements

17.1 Key Sheet

17.2 Horizontal Wall Geometry

Permanent Proprietary Walls and tasks 17.3 to 17.6 are not applicable to these projects

Temporary Proprietary Walls and tasks 17.7 to 17.10 are not applicable to these projects

Cast-In-Place Retaining Walls

17.11 Design

17.12 Vertical Wall Geometry

17.13 General Notes

17.14 Wall Plan and Elevations (Control Drawings)

17.15 Sections and Details

17.16 Reinforcing Bar List

Other Retaining Walls and Bulkheads

17.17 Design

17.18 Vertical Wall Geometry

17.19 General Notes, Tables and Miscellaneous Details

17.20 Wall Plan and Elevations

17.21 Details

18 STRUCTURES – MISCELLANEOUS

The CONSULTANT shall prepare plans for Miscellaneous Structure(s) as specified in Section 2.5.

Concrete Box Culverts

18.1 Concrete Box Culverts

18.2 Concrete Box Culverts Extensions

18.3 Concrete Box Culvert Data Table Plan Sheets

18.4 Concrete Box Culvert Special Details Plan Sheets

Strain Poles and tasks 18.5 - 18.8 are not applicable to these projects.

Mast Arms and tasks 18.9 – 18.11 are not applicable to these projects.

Overhead/Cantilever Sign Structure and tasks 18.12 – 18.18 are not applicable to these projects.

High Mast Lighting and tasks 18.19 – 18.20 are not applicable to these projects.

Noise Barrier Walls (Ground Mount) and tasks 18.21 – 18.27 are not applicable to these projects.

Special Structures and tasks 18.28 – 18. 35 are not applicable to these projects.

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 Signing and Pavement Marking 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)

19.5 Sign Panel Design Analysis (N/A)

19.6 Sign Lighting/Electrical Calculations (N/A)

19.7 S&PM Quantities for EQ Report

The CONSULTANT shall determine pay items and quantities and the supporting documentation.

Quantities shall be included in an Estimated Quantities Report per Section 3.3.2.

19.8 Cost Estimate

19.9 Technical Special Provisions and Modified Special Provisions

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. ***The plans shall include only those sheets, of the following list of sheets, necessary to convey the intent and scope of the project for construction.***

20.1 Key Sheet

20.2 General Notes/Pay Item Notes

20.3 Project Layout

20.4 Plan Sheet

20.5 Typical Details

20.6 Guide Sign Work Sheets (N/A)

20.7 Traffic Monitoring Site (N/A)

20.8 Cross Sections (N/A)

20.9 Special Service Point Details (N/A)

20.10 Special Details

20.11 Interim Standards

20.12 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.

20.13 Supervision

21 SIGNALIZATION ANALYSIS (N/A)

22 SIGNALIZATION PLANS (N/A)

23 LIGHTING ANALYSIS (N/A)

24 LIGHTING PLANS (N/A)

25 LANDSCAPE ANALYSIS (N/A)

26 LANDSCAPE PLANS (N/A)

27 SURVEY

The CONSULTANT shall perform survey tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

The CONSULTANT shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded in approved media and submitted to the DEPARTMENT. Field books submitted to the DEPARTMENT must be of an approved type. The field books shall be certified by the surveyor in responsible charge of work being performed before the final product is submitted.

The survey notes shall include documentation of decisions reached from meetings, telephone conversations or site visits. All like work (such as bench lines, reference points, etc.) shall be recorded contiguously. The DEPARTMENT may not accept field survey radial locations of section corners, platted subdivision lot and block corners, alignment control points, alignment control reference points and certified section corner references. The DEPARTMENT may instead require that these points be surveyed by true line, traverse or parallel offset.

27.1 Horizontal Project Control (HPC)

Includes effort necessary to recover control established by others.

27.2 Vertical Project Control (VPC)

Includes effort necessary to recover control established by others.

27.3 Alignment and/or Existing Right of Way (R/W) Lines

Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying mainline, ramp, offset, or secondary alignments. Depict alignment and/or existing R/W lines (in required format) per DEPARTMENT R/W Maps, platted or dedicated rights of way. ***Refer to the FDOT Survey Handbook for requirements.***

27.4 Aerial Targets

Place, locate, and maintain required aerial targets and/or photo identifiable points. Includes analysis and processing of all field collected data, existing maps, and/or reports. Placement of the targets will be at the discretion of the aerial firm.

Refer to the FDOT Survey Handbook for requirements.

27.5 Reference Points

Reference Horizontal Project Control (HPC) points, project alignment, vertical control points, section, ¼ section, center of section corners and General Land Office (G.L.O.) corners as required.

Refer to the FDOT Survey Handbook for requirements.

27.6 Topography/Digital Terrain Model (DTM) (3D)

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of creating a DTM with sufficient density. Shoot all break lines, high and low points. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.7 Planimetric (2D)

Locate all above ground features and improvements. Deliver in appropriate electronic format. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.8 Roadway Cross Sections/Profiles

Perform cross sections or profiles. May include analysis and processing of all field-collected data for comparison with DTM.

Refer to the FDOT Survey Handbook for requirements.

27.9 Side Street Surveys (N/A)

27.10 Underground Utilities

Designation includes 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

Refer to the FDOT Survey Handbook for requirements.

27.11 Outfall Survey (N/A)

27.12 Drainage Survey

Locate underground data (XYZ, pipe size, type, condition and flow line) that relates to above ground data. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.13 Bridge Survey (Minor/Major)

Locate required above ground features and improvements for the limits of the bridge. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.14 Channel Survey

Locate all topographic features and improvements for the limits of the project by collecting the required data. Includes field edits, analysis and processing of all field collected data, maps, and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.15 Pond Site Survey (N/A)

27.16 Mitigation Survey (N/A)

27.17 Jurisdiction Line Survey

Perform field location (2-dimensional) of jurisdiction limits as defined by respective authorities, also includes field edits, analysis and processing of all field collected data, preparation of reports.

Refer to the FDOT Survey Handbook for requirements.

27.18 Geotechnical Support

Perform 3-dimensional (X,Y,Z) field location, or stakeout, of boring sites established by geotechnical engineer. Includes field edits, analysis and processing of all field collected data and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.19 Sectional/Grant Survey

Perform field location/placement of section corners, 1/4 section corners, and fractional corners where pertinent. Includes analysis and processing of all field-collected data and/or reports.

Refer to the FDOT Survey Handbook for requirements.

27.20 Subdivision Location (N/A)

27.21 Maintained R/W

Perform field location (2-dimensional) of maintained R/W limits as defined by respective authorities, if needed. Also includes field edits, analysis and processing of all field collected data, preparation of reports.

Refer to the FDOT Survey Handbook for requirements.

27.22 Boundary Survey

Perform boundary survey as defined by DEPARTMENT standards. Includes analysis and processing of all field-collected data, preparation of reports.

Refer to the FDOT Survey Handbook for requirements.

27.23 Water Boundary Survey

Perform Mean High Water, Ordinary High Water and Safe Upland Line surveys as required by DEPARTMENT standards.

Refer to the FDOT Survey Handbook for requirements.

27.24 Right of Way Staking, Parcel / Right of Way Line

Perform field staking and calculations of existing/proposed R/W lines for on-site review purposes.

Refer to the FDOT Survey Handbook for requirements.

27.25 Right of Way Monumentation

Set R/W monumentation as depicted on final R/W maps for corridor and water retention areas.

Refer to the FDOT Survey Handbook for requirements.

27.26 Line Cutting

Perform all efforts required to clear vegetation from the line of sight.

Refer to the FDOT Survey Handbook for requirements.

27.27 Work Zone Safety

Provide work zone as required by DEPARTMENT standards.

Refer to the FDOT Survey Handbook for requirements.

27.28 Vegetation Survey (N/A)

27.29 Tree Survey (N/A)

27.30 Miscellaneous Surveys

Refer to tasks of this document, as applicable, to perform surveys not described herein. The percent for Supplemental will be determined at negotiations. This item can only be used if authorized in writing by the District Surveyor (DS), District Location Surveyor (DLS) or their representative.

Refer to the FDOT Survey Handbook for requirements.

27.31 Supplemental Surveys

Supplemental survey days and hours are to be approved in advance by DS or DLS. Refer to tasks of this document, as applicable, to perform surveys not described herein.

27.32 Document Research

Perform research of documentation to support field and office efforts involving surveying and mapping.

27.33 Field Review

Perform verification of the field conditions as related to the collected survey data.

Refer to the FDOT Survey Handbook for requirements.

27.34 Technical Meetings

27.35 Quality Assurance/Quality Control (QA/QC)

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

Refer to the FDOT Survey Handbook for requirements.

27.36 Supervision

27.37 Coordination

28 PHOTOGRAMMETRY

The CONSULTANT shall perform photogrammetric tasks in accordance with all applicable statues, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

In addition to the maps and photographic products, the CONSULTANT shall submit all computations to document the mapping. This will include documentation of all decisions reached from meetings, telephone conversations, and site visits.

28.1 Flight Preparation

28.2 Control Point Coordination

28.3 Mobilization

28.4 Flight Operations

28.5 Photo Products

28.6 LiDAR

28.7 Aerial Triangulation

28.8 Surfaces

28.9 Ortho Generation

28.10 Rectified Digital Imagery (Georeferenced)

28.11 Mosaicking

28.12 Sheet Clipping

28.13 Topographics (3D)

28.14 Planimetrics (2D)

28.15 Drainage Basin

28.16 CADD Edit

28.17 Data Merging

28.18 Miscellaneous

28.19 Field Review

28.20 Technical Meetings

28.21 Quality Assurance/Quality Control

28.22 Supervision

28.23 Coordination

29 MAPPING

The CONSULTANT will be responsible for the preparation of control survey maps, right of way maps, maintenance maps, sketches, other miscellaneous survey maps, and legal descriptions as required for this project in accordance with all applicable DEPARTMENT Manuals, Procedures, Handbooks, District specific requirements, and Florida Statutes. All maps, surveys and legal descriptions will be prepared under the direction of a Florida Professional Surveyor and Mapper (PSM) to DEPARTMENT size and format requirements utilizing DEPARTMENT approved software, and will be designed to provide a high degree of uniformity and maximum readability. The CONSULTANT will submit maps, legal descriptions, quality assurance check prints, checklists, electronic media files and any other documents as required for this project to the DEPARTMENT for review at stages of completion as negotiated.

Master CADD File

29.1 Alignment

29.2 Section and 1/4 Section Lines

29.3 Subdivisions / Property Lines (N/A)

29.4 Existing Right of Way

29.5 Topography

29.6 Parent Tract Properties and Existing Easements

29.7 Proposed Right of Way Requirements

The ENGINEER OF RECORD (EOR) will provide the proposed requirements. The PSM is responsible for calculating the final geometry. Notification of Final Right of Way Requirements along with the purpose and duration of all easements will be specified in writing.

As early as possible, the CONSULTANT shall provide map(s) or plan sheets accompanied by a *.kmz file reflecting the requirements for additional right-of-way. The right-of-way requirements submittal shall identify, via highlighting in varying colors (not yellow), the existing right-of-way, required right-of-way, temporary construction easements (TCEs), perpetual easements, intended license agreements (LAs), and limits of construction. In addition, this submittal will indicate in some way whether the submittal is draft or final. The requirements submittals are to be submitted electronically to the DEPARTMENT's Design Project Manager. An updated *.kmz file is expected with each resubmittal. The requirements are not considered final until indicated by the DEPARTMENT. Once the requirements are approved, the

CONSULTANT shall designate each sheet as "final" and transmit to the DEPARTMENT's Design Project Manager in *.pdf format (the file name shall include the FPID number).

29.8 Limits of Construction

The limits of construction DGN file as provided by the EOR will be imported or referenced to the master CADD file. Additional labeling will be added as required. The PSM is required to advise the EOR of any noted discrepancies between the limits of construction line and the existing/proposed right of way lines, and for making adjustments as needed when a resolution is determined.

29.9 Jurisdictional/Agency Lines

These lines may include, but are not limited to, jurisdictional, wetland, water boundaries, and city/county limit lines.

Sheet Files

29.10 Control Survey Cover Sheet (N/A)

29.11 Control Survey Key Sheet (N/A)

29.12 Control Survey Detail Sheet (N/A)

29.13 Right of Way Map Cover Sheet (N/A)

29.14 Right of Way Map Key Sheet

29.15 Right of Way Map Detail Sheet

29.16 Maintenance Map Cover Sheet

29.17 Maintenance Map Key Sheet

29.18 Maintenance Map Detail Sheet

29.19 Reference Point Sheet

This sheet(s) will be included with the Control Survey Map, Right of Way Map and Maintenance Map.

29.20 Project Control Sheet

This sheet depicts the baseline, the benchmarks, the primary and secondary control points and their reference points including the type of material used for each point, their XYZ coordinates, scale factors and convergence angles. This sheet(s) may be included with the Control Survey Map, Right of Way Map and Maintenance Map.

29.21 Table of Ownerships Sheet

Miscellaneous Surveys and Sketches

29.22 Parcel Sketches

29.23 TIITF Sketches

The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the DEPARTMENT's Right of Way Mapping Office to determine if Sovereign Submerged Lands easements need to be acquired. Any applicable information will be shown on the plans as appropriate

During the Right of Way Phase, the CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the DEPARTMENT's Right of Way Mapping office to determine if any TIITF easements need to be modified. A TIITF sketch will be required for FPID 441176-1-32-01.

29.24 Other Specific Purpose Survey(s) (N/A)

29.25 Boundary Survey(s) Map

29.26 Right of Way Monumentation Map

29.27 Title Search Map

29.28 Title Search Report

29.29 Legal Descriptions

29.30 Final Map/Plans Comparison

The PSM will perform a comparison of the final right of way maps with the available construction plans to review the correctness of the type of parcel to be acquired and the stations/offsets to the required right of way. The PSM will coordinate with the EOR to resolve any conflicts or discrepancies and provide documentation of the review.

29.31 Field Reviews

29.32 Technical Meetings

29.33 Quality Assurance/Quality Control

29.34 Supervision

29.35 Coordination

29.36 Supplemental Mapping

This task is to cover efforts resulting from major design and/or development changes after 60% map development that affect the right of way requirements/parent tract property lines and may include any number of tasks. Request and approval to utilize the Supplemental Mapping hours will be in writing and approved by the District Right of Way Surveyor prior to any work being done under this task.

30 TERRESTRIAL MOBILE LiDAR

The CONSULTANT shall perform Terrestrial Mobile LiDAR tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

In addition to the maps and LiDAR products, the CONSULTANT shall submit all computations and reports to support the mapping. This will include documentation of all decisions reached from meetings, telephone conversations, and site visits.

30.1 Terrestrial Mobile LiDAR Mission Planning

30.2 Project Control Point Coordination

30.3 Terrestrial Mobile LiDAR Mobilization

30.4 Terrestrial Mobile LiDAR Mission

30.5 Terrestrial Mobile LiDAR Processing

30.6 Terrestrial Mobile Photography Processing

30.7 Transformation / Adjustment

30.8 Classification / Editing

30.9 Specific Surface Reporting

30.10 Topographic (3D) Mapping

30.11 Topographic (2D) Planimetric Mapping

30.12 CADD Edits

30.13 Data Merging

30.14 Miscellaneous

30.15 Field Reviews

30.16 Technical Meetings

30.17 Quality Assurance/ Quality Control

30.18 Supervision

30.19 Coordination

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

The CONSULTANT shall, for each project, be responsible for a complete geotechnical investigation. All work performed by the CONSULTANT shall be in accordance with DEPARTMENT standards, or as otherwise directed by the District Geotechnical Engineer. The District Geotechnical Engineer will make interpretations and changes regarding geotechnical standards, policies and procedures and provide guidance to the CONSULTANT.

Before beginning each phase of investigation and after the Notice to Proceed is given, the CONSULTANT shall submit an investigation plan for approval and meet with the DEPARTMENT's Geotechnical Engineer or representative to review the project scope and DEPARTMENT requirements. The investigation plan shall include, but not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the project site. Upon approval of the investigation plan by the DEPARTMENT, the CONSULTANT shall submit an updated schedule prior to initiating the investigation plan. Additional meetings may be required to plan any additional field efforts, review plans, resolve plans/report comments, resolve responses to comments, and/or any other meetings necessary to facilitate the project.

The CONSULTANT shall notify the DEPARTMENT in adequate time to schedule a representative to attend all related meetings and field activities.

The CONSULTANT shall be responsible for coordination of all geotechnical related fieldwork activities. The CONSULTANT shall retain all samples until acceptance of final plans. Rock cores shall be retained as directed in writing by the District Geotechnical Engineer.

The CONSULTANT shall perform specialized field-testing as required by project needs.

All testing and classification will be performed in accordance with applicable DEPARTMENT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

All Standard Penetration Testing will be performed using an automatic hammer.

35.1 Document Collection and Review

The CONSULTANT will review printed literature including topographic maps, county agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, CONSULTANT shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

Roadway

The CONSULTANT shall be responsible for coordination of all geotechnical related field work activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by the District Geotechnical Engineer.

Obtain pavement cores as directed in writing by the District Geotechnical Engineer.

If required by the District Geotechnical Engineer, a preliminary roadway exploration shall be performed before the Phase I plans submittal and shall include a preliminary economic analysis, a plan for geotechnical investigation, and all field reconnaissance results. The preliminary roadway exploration will be performed and results provided to the Engineer of Record to assist in setting roadway grades and locating potential problem areas. The preliminary roadway exploration shall note, but not be limited to, the following as applicable unless directed otherwise in writing by the District Geotechnical Engineer.

- ***Location survey stakes***
- ***Benchmarks***
- ***Geological formation***
- ***Surface soils (i.e., potential muck pockets)***
- ***Surface water table***
- ***General site conditions***
- ***Debris and/or sanitary dump locations***
- ***Rock type***
- ***Conditions for detours***
- ***Foundation type, condition and location***
- ***Nearby structure type, condition and location***
- ***Evidence of scour***
- ***Site conditions relevant to boring plan including utilities, site access, private property access, equipment necessary, etc.***
- ***Flow through soils, dunes, exposure, flood elevations on FIRM maps***
- ***Possible obstructions to construction***

The CONSULTANT shall perform specialized field-testing as required by project needs and as directed in writing by the District Geotechnical Engineer.

All laboratory testing and classification will be performed in accordance with applicable DEPARTMENT standards, ASTM Standards or AASHTO Standards, and the Florida Department of Transportation Soils and Foundations Handbook unless otherwise specified in the Contract Documents.

35.2 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with DEPARTMENT Geotechnical Project Manager for boring plan approval. If the drilling program expects to encounter artesian

conditions, the CONSULTANT shall submit a methodology(s) for plugging the borehole to the DEPARTMENT for approval prior to commencing with the boring program.

35.3 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

35.4 Muck Probing

Probe standing water and surficial muck in a detailed pattern sufficient for determining removal limits to be shown in the Plans.

35.5 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop Temporary Traffic Control Plan (TTCP). All work zone traffic control will be performed in accordance with the DEPARTMENT's Standard Plans Index 102 series.

35.6 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

35.7 Property Clearances

The CONSULTANT shall notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants may be required and shall be coordinated through the DEPARTMENT's Design Project Manager.

35.8 Groundwater Monitoring

Monitor groundwater, using piezometers.

35.9 LBR / Resilient Modulus Sampling (N/A)

35.10 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

35.11 Soil and Rock Classification - Roadway

Refine soil profiles recorded in the field, based on results of laboratory testing.

35.12 Design LBR (N/A)

35.13 Laboratory Data

The laboratory testing for roadway shall consist of, but not be limited to, the following tests by designated procedures or directives available from the Geotechnical Project Manager:

- ***Sieve analysis conducted according to AASHTO T88 and additional applicable methods: AASHTO M-92, AASHTO M 145, AASHTO M 146, AASHTO M 147, FM 1-T87***
- ***Atterberg limits conducted according to AASHTO T89 and AASHTO T90 and additional applicable methods: FM 1-T 87, AASHTO M 146***
- ***LBR tests conducted according to FM 5-515 and additional applicable methods: Modification of AASHTO T-180 Method D, AASHTO M-92***
- ***Corrosion testing for alternate culvert materials including pH (FM 5-550), resistivity (FM 5-551), chloride content (FM 5-552) and sulfate content (FM 5-553), and/or according to FDOT directives***
- ***Consolidation tests according to AASHTO T216 with an unload/reload cycle near the preconsolidation pressure***
- ***Triaxial compression tests according to AASHTO T297***
- ***Moisture content according to AASHTO T265***
- ***Conduct hydrometer analysis according to AASHTO T88***
- ***Organic content according to FM 1-T 267 and additional applicable methods: AASHTO T194, AASHTO M-231, AASHTO T87***
- ***Specific Gravity according to AASHTO T100 and additional applicable methods: AASHTO T88, ASTM D-854, AASHTO 132***
- ***Torvane sensitivity and/or pocket pentrometer tests as directed by the Project Manager/Engineer***
- ***Quantitative determination of asphalt content from asphalt paving mixtures by the ignition method according to FM 5-563.***
- ***Mechanical analysis of extracted aggregate according to FM 1-T 30 and additional applicable methods: AASHTO M-231, AASHTO T27***
- ***(FM - Florida Methods available from the Tallahassee Maps and Publications Department.)***
- ***Tabulate laboratory test results for inclusion in the geotechnical report, the report of tests sheet (Roadway Soil Survey Sheet), and for any necessary calculations and analyses.***

35.14 Seasonal High-Water Table

Review the encountered ground water levels and estimate seasonal high ground water levels. Estimate seasonal low ground water levels, if requested.

35.15 Parameters for Water Retention Areas (N/A)

35.16 Delineate Limits of Unsuitable Material

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

35.17 Electronic Files for Cross-Sections

Create electronic files of boring data for cross-sections.

35.18 Embankment Settlement and Stability

Estimate the total magnitude and time rate of embankment settlements. Calculate the factor of safety against slope stability failure.

35.19 Monitor Existing Structures (N/A)

35.20 Stormwater Volume Recovery and/or Background Seepage Analysis (N/A)

35.21 Geotechnical Recommendations

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (e.g., removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

35.22 Pavement Condition Survey and Pavement Evaluation Report (N/A)

Pavement Evaluation (including coring, testing, and preparing the report) will be performed by the DEPARTMENT.

35.23 Preliminary Roadway Report

If a preliminary roadway investigation is performed, submit a preliminary roadway report before the Phase I plans submittal. The purpose of the preliminary roadway report will be to assist in setting road grades and locating potential problems.

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e., soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The CONSULTANT will respond in writing to any changes and/or comments from the DEPARTMENT and submit any responses and revised reports.

35.24 Final Report

The Final Roadway Report shall include the following:

- ***Copies of U.S.G.S. and S.C.S. maps with project limits shown.***
- ***A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials, including water tables plotted to elevation) and construction recommendations relative to Standard***

Plans Index 120-001 and 120-002. The results of all tasks discussed in all previous sections regarding data interpretation and analysis.

- ***An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, seasonal high and/or low water tables, and other pertinent calculations.***
- ***Electronic input files for plotting the boring data on the plan and cross section sheets.***

Final reports will incorporate comments from the DEPARTMENT and contain any additional field or laboratory test results, design parameters and special provisions for the contract plans. These reports will be submitted to the District Geotechnical Engineer for review prior to project completion. After review by the District Geotechnical Engineer, the reports will be submitted to the District Geotechnical Engineer in final form and will include the following:

- ***All original plan sheets (11 x 17)***
- ***One set of all plan and specification documents, in electronic format, according to Department requirements***
- ***Two sets of record prints***
- ***Six sets of any special provisions***
- ***All reference and support documentation used in preparation of contract plans package***
- ***one (1) electronic copy of the Plans,***
- ***one (1) electronic copy of the Specifications,***
- ***one (1) electronic copy of the Special Provisions***
- ***one (1) electronic copy of all reference and support documentation***

The CONSULTANT shall submit the following deliverables in addition to the Final Report:

- ***one (1) electronic copy of the completed Soil Boring GIS Data Sheets for publishing on FDOT's GIS Soil Boring Database according to District requirements***
- ***one (1) electronic copy of the Report of Core Boring Sheets***

- ***Additional final reports (up to four), aside from stated above, may be needed and requested for the DEPARTMENT's Project Manager and other disciplines.***

The final reports, special provisions, as well as record prints, will be electronically signed and sealed by a Professional Engineer licensed in the State of Florida.

Draft the detailed boring/sounding standard sheet, including environmental classification, results of laboratory testing, and specialized construction requirements, for inclusion in final plans.

35.25 Auger Boring Drafting

Draft auger borings as directed by the DEPARTMENT.

35.26 SPT Boring Drafting

Draft SPT borings as directed by the DEPARTMENT.

Structures

The CONSULTANT shall be responsible for coordination of all geotechnical related fieldwork activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by the District Geotechnical Engineer.

The CONSULTANT shall perform specialized field-testing as required by needs of project and as directed in writing by the District Geotechnical Engineer.

All laboratory testing and classification will be performed in accordance with applicable DEPARTMENT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

The staff hour tasks for high embankment fills and structural foundations for bridges, box culverts, walls, high-mast lighting, overhead signs, mast arm signals, strain poles, buildings, and other structures include the following:

35.27 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with DEPARTMENT Geotechnical Project Manager for boring plan approval. If the drilling program expects to encounter artesian conditions, the CONSULTANT shall submit a methodology(s) for plugging the borehole to the DEPARTMENT for approval prior to commencing with the boring program.

35.28 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

35.29 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop TTCP plan. All work zone traffic control will be performed in accordance with the DEPARTMENT's Standard Plans Index 102 series.

35.30 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

35.31 Property Clearances

The CONSULTANT shall notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants may be required

and shall be coordinated through the DEPARTMENT's Design Project Manager.

35.32 Collection of Corrosion Samples

Collect corrosion samples for determination of environmental classifications.

35.33 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

35.34 Soil and Rock Classification - Structures

Soil profiles recorded in the field should be refined based on the results of laboratory testing.

35.35 Tabulation of Laboratory Data

The laboratory testing for roadway shall consist of, but not be limited to, the following tests by designated procedures or directives available from the Geotechnical Project Manager:

- ***Sieve analysis conducted according to AASHTO T88 and additional applicable methods: AASHTO M-92, AASHTO M 145, AASHTO M 146, AASHTO M 147, FM 1-T87***
- ***Atterberg limits conducted according to AASHTO T89 and AASHTO T90 and additional applicable methods: FM 1-T 87, AASHTO M 146***
- ***Corrosion testing for environmental classification for substructure and superstructure including pH (FM 5-550), resistivity (FM 5-551), chloride content (FM 5-552) and sulfate content (FM 5-553), and/or according to FDOT directives***
- ***Consolidation tests according to AASHTO T216 with an unload/reload cycle near the preconsolidation pressure***
- ***Triaxial compression tests according to AASHTO T297***
- ***Moisture content according to AASHTO T265***
- ***Conduct hydrometer analysis according to AASHTO T88***
- ***Organic content according to FM 1-T 267 and additional applicable methods: AASHTO T194, AASHTO M-231, AASHTO T87***
- ***Specific Gravity according to AASHTO T100 and additional applicable methods: AASHTO T88, ASTM D-854, AASHTO 132***
- ***Torvane sensitivity and/or pocket pentrometer tests as directed by the Project Manager/Engineer***
- ***Seive analysis (3) for D50 of streambed material according to AASHTO T88***
- ***Splitting tensile strength of intact rock core specimens according to ASTM D 3967-86, in accordance with ASTM E 122***
- ***Unconfined compressive strength of intact rock core specimens according to ASTM D 2938-79, in accordance with ASTM E 122***

(FM - Florida Methods available from the Tallahassee Maps and Publications Department.)

Laboratory test results should be tabulated for inclusion in the geotechnical report and for the necessary calculations and analyses.

35.36 Estimate Design Groundwater Level for Structures

Review encountered groundwater levels, estimate seasonal high groundwater levels, and evaluate groundwater levels for structure design.

35.37 Selection of Foundation Alternatives (BDR)

Evaluation and selection of foundation alternative, including the following:

- Spread footings
- Prestressed concrete piling - various sizes
- Steel H- piles
- Steel pipe piles
- Drilled shafts
- Foundation analyses shall be performed using approved DEPARTMENT methods. Assist in selection of the most economical, feasible foundation alternative.

35.38 Detailed Analysis of Selected Foundation Alternate(s)

Detailed analysis and basis for the selected foundation alternative. Foundation analyses shall be performed using approved DEPARTMENT methods and shall include:

- Spread footings (including soil bearing capacity, minimum footing width, and minimum embedment depth).
- For pile and drilled shaft foundations, provide graphs of ultimate axial soil resistance versus tip elevations. Calculate scour resistance and/or downdrag (negative skin friction), if applicable.
- The CONSULTANT shall assist the Engineer of Record in preparing the Pile Data Table (including test pile lengths, scour resistance, downdrag, minimum tip elevation, etc.)
- Provide the design soil profile(s), which include the soil model/type of each layer and all soil-engineering properties required for the Engineer of Record to run the FBPier computer program. Review lateral analysis of selected foundation for geotechnical compatibility.
- Estimated maximum driving resistance anticipated for pile foundations.
- Provide settlement analysis.

35.39 Bridge Construction and Testing Recommendations

Provide construction and testing recommendations including potential constructability problems.

35.40 Lateral Load Analysis (Optional) (N/A)

35.41 Walls

Provide the design soil profile(s), which include the soil model/type of each layer and all soil engineering properties required by the Engineer of Record for conventional wall

analyses and recommendations. Review wall design for geotechnical compatibility and constructability.

Evaluate the external stability of conventional retaining walls and retained earth wall systems. For retained earth wall systems, calculate and provide minimum soil reinforcement lengths versus wall heights, and soil parameters assumed in analysis. Estimate differential and total (long term and short term) settlements.

Provide wall construction recommendations.

35.42 Sheet Pile Wall Analysis (Optional) (N/A)

35.43 Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations (N/A)

35.44 Box Culvert Analysis

- Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.
- Provide lateral earth pressure coefficients.
- Provide box culvert construction and design recommendation.
- Estimate differential and total (long term and short term) settlements.
- Evaluate wingwall stability.

35.45 Preliminary Report - BDR

The preliminary structures report shall contain the following discussions as appropriate for the assigned project:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis).
- Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.
- Any special provisions required for construction that are not addressed in the DEPARTMENT's Standard specification.
- An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.

35.46 Final Report - Bridge and Associated Walls

The final structures report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.

- Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.
- Any special provisions required for construction that are not addressed in the DEPARTMENT's Standard specification.
- An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.

35.47 Final Reports - Signs, Signals, Box Culvert, Walls, and High Mast Lights (N/A)

35.48 SPT Boring Drafting

Prepare a complete set of drawings to include all SPT borings, auger borings and other pertinent soils information in the plans. Include these drawings in the Final Geotechnical Report. Draft borings, location map, S.C.S. map and U.S.D.A. map as directed by the DEPARTMENT. Soil symbols must be consistent with those presented in the latest Florida Department of Transportation Soils and Foundations Handbook.

35.49 Other Geotechnical

Other geotechnical effort specifically required for the project as determined by the Department and included in the geotechnical upset limit.

35.50 Technical Special Provisions and Modified Special Provisions

35.51 Field Reviews

Identify and note surface soil and rock conditions, surface water conditions and locations, and preliminary utility conflicts. Observe and note nearby structures and foundation types.

35.52 Technical Meetings

35.53 Quality Assurance/Quality Control

35.54 Supervision

35.55 Coordination

36 3D MODELING

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

The CONSULTANT shall deliver all master design files, 3D surface design models, and all supporting digital files for the development of plans as required in the FDOT CADD Manual.

The CONSULTANT shall prepare a 3D model using the latest FDOT software in accordance with the FDOT CADD Manual. Includes all efforts required for developing files for 3D deliverables supporting automated machine guidance for design models. This includes importing survey data and creation of existing 3D surface features and models, and developing proposed corridor models with necessary detail of features to depict the proposed project in 3D to comply with the FDOT CADD Manual.

The CONSULTANT shall add detail to the corridor and design model for 3D design. Includes many elements that contribute to this including but not limited to slope transitions, typical section transitions, changes in pavement depth, berms, swales/ditches, and other feature transitions. Extra corridor structure leads to extra assemblies, extra targeting, etc.

The CONSULTANT shall create an accurate roadway design model which includes modeling the intersections.

The CONSULTANT shall submit .dgn files associated with the 3D Model and their respective components.

36.1 Phase I 3D Design Model

The CONSULTANT shall prepare, submit and present for review by the DEPARTMENT, Phase I 3D interactive model, comprised of, but not limited to: Existing features (pavement, shoulders, sidewalk, curb/gutter, utilities-if required per scope, drainage - if required per scope) and proposed corridor(s).

36.2 Phase II 3D Design Model

The CONSULTANT shall prepare, submit and present for review by the DEPARTMENT, Phase II 3D model, comprised of, but not limited to: Modification of the Phase I model to update the model to comply with changes based on the Phase I review comments and to include the addition of ponds, floodplain compensation sites, retaining walls, barrier walls, guardrail terminals, cross overs, gore areas, side street connections, roundabouts, and driveways.

36.3 Phase III 3D Design Model

The CONSULTANT shall prepare, submit and present for review by the DEPARTMENT, Phase III 3D model and 3D deliverables files for review, comprised of, but not limited to: Modification of the Phase II model to update the model to comply with changes based on the Phase II review comments and to further refine areas of transition between templates, detailed grading areas, bridge approaches and end bents, median noses, shoulder transition areas, retaining walls, barrier walls and guardrail.

36.4 Final 3D Model Design

The CONSULTANT shall prepare for review by DEPARTMENT, the Phase IV 3D model and deliverables, comprised of, but not limited to: Modification of the Phase III

model to update the model to comply with changes based on the phase III review comments and to accurately generate, export and otherwise prepare the final 3D deliverable files as described in the FDOT CADD Manual.

36.5 Cross Section Design Files

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD manual and FDOT Design Manual. Includes all work required to establish and utilize intelligent/automated methods for creating cross sections including determining the locations for which all cross sections will be shown, existing and proposed features, cross section refinement, placement of utilities and drainage, soil boxes, R/W lines, earthwork calculations, and other required labeling.

36.6 Template and Assembly Development (Optional)

The CONSULTANT shall prepare for approval by DEPARTMENT, project specific templates/assemblies needed to develop the features required to deliver the 3D model.

36.7 Quality Assurance/Quality Control

36.8 Supervision

36.9 Coordination

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 FDOT 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 this time, there have been NO "optional" or "supplemental" services identified to be negotiated.

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 through the DEPARTMENT's Consultant Invoice Transmittal System (CITS) or in a format

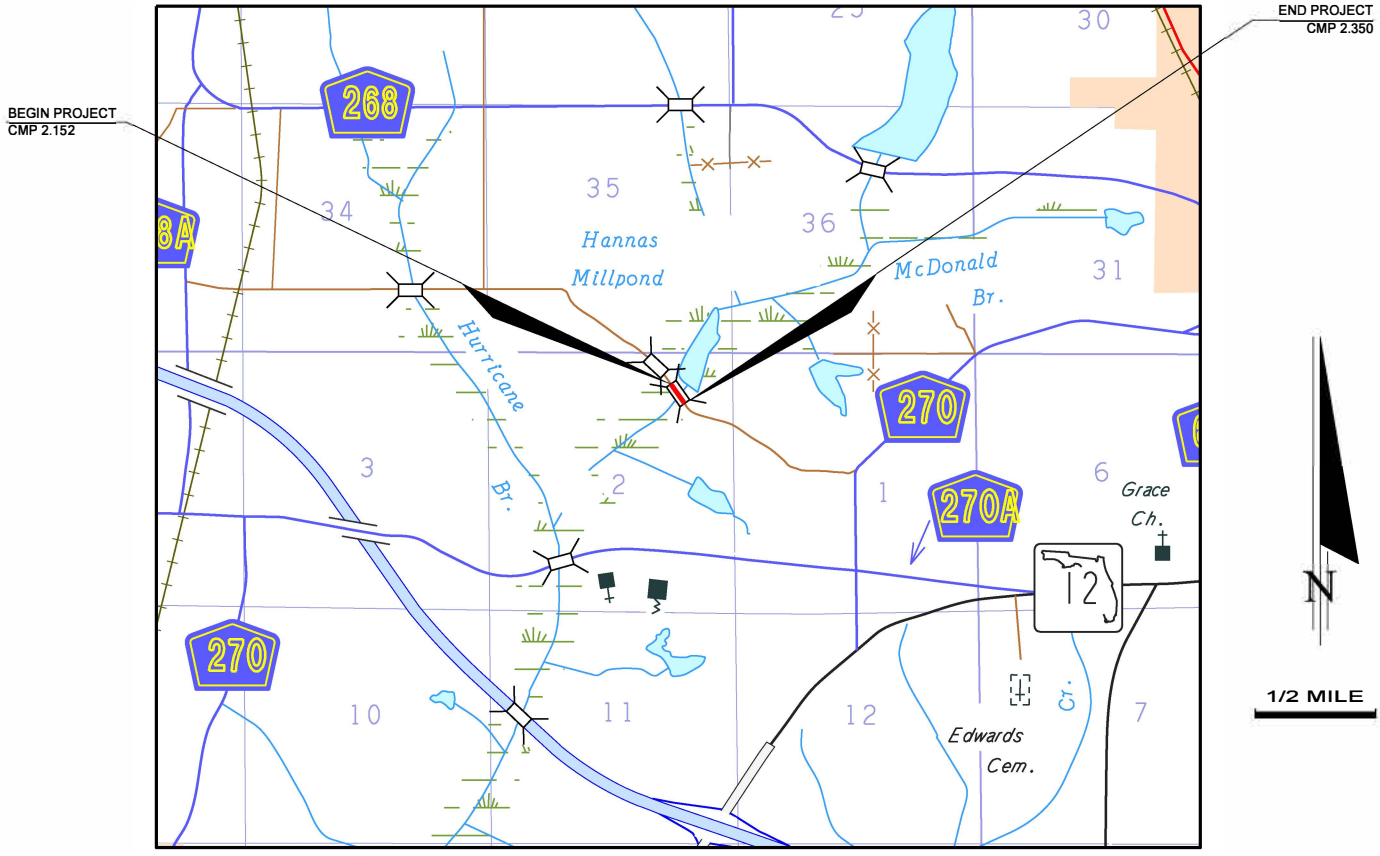
prescribed by the DEPARTMENT. The DEPARTMENT Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by the DEPARTMENT.

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.

Gadsden County
Bridge Replacement Project

Hanna Mill Pond Road
over Hanna Pond Bridge No. 504043

FPID: 441188-1
Section No.: 50522000



PROJECT LOCATION MAP

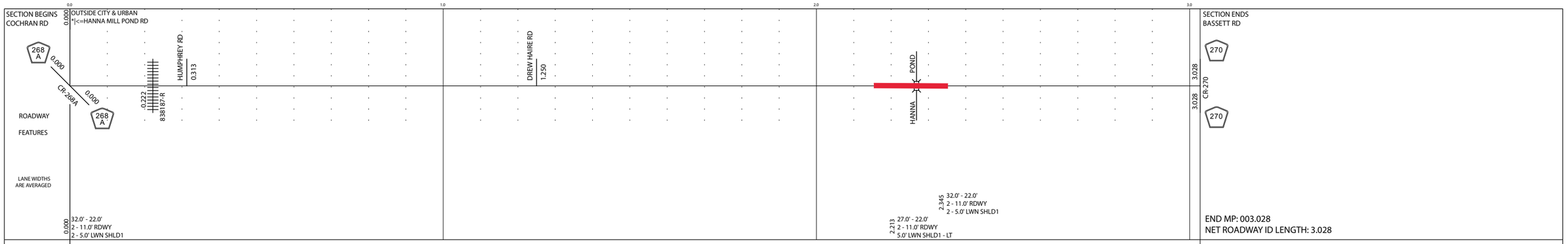
	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	11/23/2021	01/25/2022				
BY	SSMC	SSMC				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

*** OFF SYSTEM ***

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
09			GADSDEN	03	50522000	1 OF 1



ROADWAY COMPOSITION	0.000 28/FC-6	
HORIZONTAL ALIGNMENT		
STRUCTURE DESCRIPTION	Hanna Mill Pond Road over Hannas Mill Pond Bridge No. 504043 MP: 2.152-2.350 2.262 #4043 2.274 63.4' CB	
DISTRICT USE		
SIS		
FUN CLASS	0.000 RURAL LOCAL	

Version: 1.4.2.27 01/25/2022

Date: 1/9/2023 9:27:31 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441188-1-52-01 **Letting Date:** 09/2026

Description: HANNA MILL POND ROAD OVER HANNA POND BRIDGE NO. 504043

District: 03 **County:** 50 GADSDEN **Market Area:** 03 **Units:** English
Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.165 MI

Project Manager: MARTY WILSON

Version 9-P Project Grand Total **$10,456,617.94**

Description: HANNA MILL POND ROAD OVER HANNA POND BRIDGE NO. 504043 - Scope Review - 12/20/2022 - RK

Sequence: 1 NUR - New Construction, Undivided, Rural **Net Length:** 0.152 MI 800 LF

Description: Mainline new bridge with roadway approaches.

Special Conditions: 400' roadway approach each end plus incidentals. Existing road is paved.

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	0.152
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
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	1.29	AC	$50,000.00	$64,500.00
120-6	EMBANKMENT	3,427.82	CY	$22.00	$75,412.04

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	500.00	CY	$50.00	$25,000.00
120-4	SUBSOIL EXCAVATION	400.00	CY	$65.00	$26,000.00

Earthwork Component Total $190,912.04

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00

Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,910.72	SY	$25.00	$97,768.00
285-709	OPTIONAL BASE,BASE GROUP 09	2,191.78	SY	$38.68	$84,778.05
334-1-52	SUPERPAVE ASPH CONC, TRAF B, PG76-22	293.30	TN	$275.00	$80,657.50
337-7-81	ASPH CONC FC,TRAFFIC B,FC-12.5,PG 76-22	175.98	TN	$300.00	$52,794.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
536-8-112	GUARDRA CONN TO RIGID BA, F&I, N APPR 3	4.00	EA	$3,523.68	$14,094.72
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	1.00	LS	$7,500.00	$7,500.00
	Comment: Less than 1% of total construction cost.				
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.03	GM	$100,000.00	$3,000.00
	Comment: 2 stripes.				
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.03	GM	$100,000.00	$3,000.00
	Comment: 2 stripes.				

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	20.00	EA	$9.35	$187.00
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.61	NM	$1,500.00	$915.00
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.61	GM	$7,500.00	$4,575.00
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	0.61	GM	$7,500.00	$4,575.00

Peripherals Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

339-1	MISCELLANEOUS ASPHALT PAVEMENT	41.33 TN	$400.00	$16,532.00
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,200.00 LF	$35.00	$42,000.00
536-85-24	GUARDRAIL END TREATMENT-PARA APP TERM	4.00 EA	$3,128.81	$12,515.24
	Roadway Component Total			$424,891.51

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	165
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-709	OPTIONAL BASE,BASE GROUP 09	947.46	SY	$38.68	$36,647.75
334-1-52	SUPERPAVE ASPH CONC, TRAF B, PG76-22	73.33	TN	$275.00	$20,165.75
337-7-81	ASPH CONC FC,TRAFFIC B,FC-12.5,PG 76-22	73.33	TN	$300.00	$21,999.00
570-1-3	PERFORMANCE TURF, SOD AND SOIL	474.62	SY	$8.00	$3,796.96

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,100.00	LF	$5.50	$11,550.00
104-11	FLOATING TURBIDITY BARRIER	40.00	LF	$35.00	$1,400.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	40.00	LF	$30.00	$1,200.00
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$4,000.00	$4,000.00
	Shoulder Component Total				$100,759.46

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.00	CY	$5,000.00	$15,000.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	128.00	LF	$250.00	$32,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00	LF	$300.00	$9,600.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	7.00	EA	$2,500.00	$17,500.00
570-1-2	PERFORMANCE TURF, SOD	107.00	SY	$10.00	$1,070.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	1,512.00	SF	$75.00	$113,400.00
	Comment: Removal of existing 63' X 24' box culvert.				
	Drainage Component Total				$188,570.00

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	$352.73	$352.73
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	$1,180.80	$4,723.20
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$5,345.49	$5,345.49
	Signing Component Total				$10,421.42

BRIDGES COMPONENT

Bridge 1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Type	Misc/Rehab
Structure No.	504043
Description	EXISTING BRIDGE 66' X 36' PROPOSED BRIDGE 102' X 42.66' COST PER SF:

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	2,376.00	SF	$75.00	$178,200.00

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	3,316.00	SF	$75.00	$248,700.00
400-2-10	CONC CLASS II, APPROACH SLABS	121.66	CY	$1,100.00	$133,826.00
400-4-5	CONC CLASS IV, SUBSTRUCTURE	60.96	CY	$2,900.00	$176,784.00
400-4-8	CONC CLASS IV, BULKHEAD	142.22	CY	$2,500.00	$355,550.00
400-4-47	CONC CLASS IV, CIP TOP W/SR ADMIX	87.30	CY	$2,800.00	$244,440.00
400-7-1	BRIDGE DECK GROOVING	453.33	SY	$35.00	$15,866.55
400-9-1	BRIDGE DECK PLANING	453.33	SY	$35.00	$15,866.55
400-148	PLAIN NEOPRENE BEARING PADS	6.81	CF	$3,000.00	$20,430.00
415-1-4	REINF STEEL-SUPERSTRUCTURE	17,895.48	LB	$2.50	$44,738.70
415-1-5	REINF STEEL- SUBSTRUCTURE	8,839.44	LB	$2.75	$24,308.46
415-1-8	REINF STEEL- BULKHEAD	21,333.33	LB	$2.50	$53,333.32
415-1-9	REINF STEEL- APPROACH SLABS	24,332.00	LB	$2.50	$60,830.00

450-8-24	PREST BEAM: FL SLAB BEAM,15" C,58-60" W	918.00 LF	$700.00	$642,600.00
455-14-4	CONC SHEET PILING, 12"X30"	1,152.00 LF	$85.00	$97,920.00
455-34-3	PRESTRESSED CONCRETE PILING, 18" SQ	2,880.00 LF	$275.00	$792,000.00
455-34-5	PRESTRESSED CONCRETE PILING, 24" SQ	1,800.00 LF	$300.00	$540,000.00
455-133-2	SHEET PILING STEEL, TEMPORARY-CRITICAL	5,808.00 SF	$65.00	$377,520.00
455-143-5	TEST PILES-PREST CONCRETE,24" SQ	345.00 LF	$475.00	$163,875.00
458-1-11	BRIDGE DECK EXPANSION JNT,NEW,POURED	127.98 LF	$100.00	$12,798.00
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	324.00 LF	$250.00	$81,000.00
530-1-100	RIPRAP, SAND-CEMENT BAGS	36.33 CY	$1,000.00	$36,330.00
530-3-3	RIPRAP- RUBBLE, BANK AND SHORE	1,562.06 TN	$150.00	$234,309.00
530-74	BEDDING STONE	581.57 TN	$150.00	$87,235.50
630-2-16	CONDUIT, F& I, EMBEDDED-BARR./RAILINGS	972.00 LF	$20.00	$19,440.00
635-3-13	JUNCTION BOX, FURNISH & INSTALL, EMBED	4.00 EA	$850.00	$3,400.00
	Bridge 1 Total			$4,661,301.09

Bridge 2

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Type	Misc/Rehab
Structure No.	
Description	REPLACE 20' ELIPTICAL BOX CULVERT WEST OF BRIDGE 19' X 19' CAST IN PLACE BOX CULVERT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	520.00	SF	$75.00	$39,000.00

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
635-3-13	JUNCTION BOX, FURNISH & INSTALL, EMBED	4.00	EA	$850.00	$3,400.00

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONCRETE CLASS IV, CULVERTS	227.70	CY	$2,500.00	$569,250.00
415-1-1	REINFORCING STEEL- ROADWAY	56,925.93	LB	$2.00	$113,851.86
521-5-13	CONCRETE TRAFFIC RAILING - BRIDGE, 36" SINGLE SLOPE	40.00	LF	$350.00	$14,000.00
630-2-16	CONDUIT, FURNISH & INSTALL, EMBEDDED (ASSUME TYPE "A")	120.00	LF	$50.00	$6,000.00
	Bridge 2 Total				$745,501.86
	Bridges Component Total				$5,406,802.95

Sequence 1 Total	$6,322,357.38

Sequence: 2 NUR - New Construction, Undivided, Rural **Net Length:** 0.152 MI 800 LF

Description: 400' approaches at each end of the diversion.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 25.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.152
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	0.46	AC	$50,000.00	$23,000.00
120-6	EMBANKMENT	8,437.58	CY	$22.00	$185,626.76

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	400.00	CY	$50.00	$20,000.00
	Earthwork Component Total				$228,626.76

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,910.72	SY	$25.00	$97,768.00
285-709	OPTIONAL BASE,BASE GROUP 09	2,191.78	SY	$38.68	$84,778.05
334-1-52	SUPERPAVE ASPH CONC, TRAF B, PG76-22	293.30	TN	$275.00	$80,657.50

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-2-XX	SPECIAL DETOUR	1.00	LS	$450,000.00	$450,000.00
	Comment: Acrow Bridges: 100' X 28.5' & 60' X 28.5' - $60/SF Includes 20% Guardrail, and 40% Removal/Restoration				

Pavement Marking Subcomponent

Description	Value

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	20.00	EA	$9.35	$187.00
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.21	NM	$1,500.00	$1,815.00

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 $715,205.55

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	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	0
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-3	PERFORMANCE TURF, SOD AND SOIL	474.62	SY	$8.00	$3,796.96

Shoulder Component Total $3,796.96

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.00	CY	$5,000.00	$15,000.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	128.00	LF	$250.00	$32,000.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00	LF	$300.00	$9,600.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	7.00	EA	$2,500.00	$17,500.00
570-1-2	PERFORMANCE TURF, SOD	107.00	SY	$10.00	$1,070.00

Drainage Component Total	$75,170.00
Sequence 2 Total	$1,022,799.27

Date: 1/9/2023 9:27:42 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441188-1-52-01 **Letting Date:** 09/2026

Description: HANNA MILL POND ROAD OVER HANNA POND BRIDGE NO. 504043

District: 03 **County:** 50 GADSDEN **Market Area:** 03 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.165 MI

Project Manager: MARTY WILSON

Version 9-P Project Grand Total **$10,456,617.94**

Description: HANNA MILL POND ROAD OVER HANNA POND BRIDGE NO. 504043 - Scope Review - 12/20/2022 - RK

Project Sequences Subtotal			**$7,345,156.65**
102-1	Maintenance of Traffic	10.00 %	$734,515.66
101-1	Mobilization	12.00 %	$969,560.68
Project Sequences Total			**$9,049,232.99**
Project Unknowns		15.00 %	$1,357,384.95
Design/Build		0.00 %	$0.00

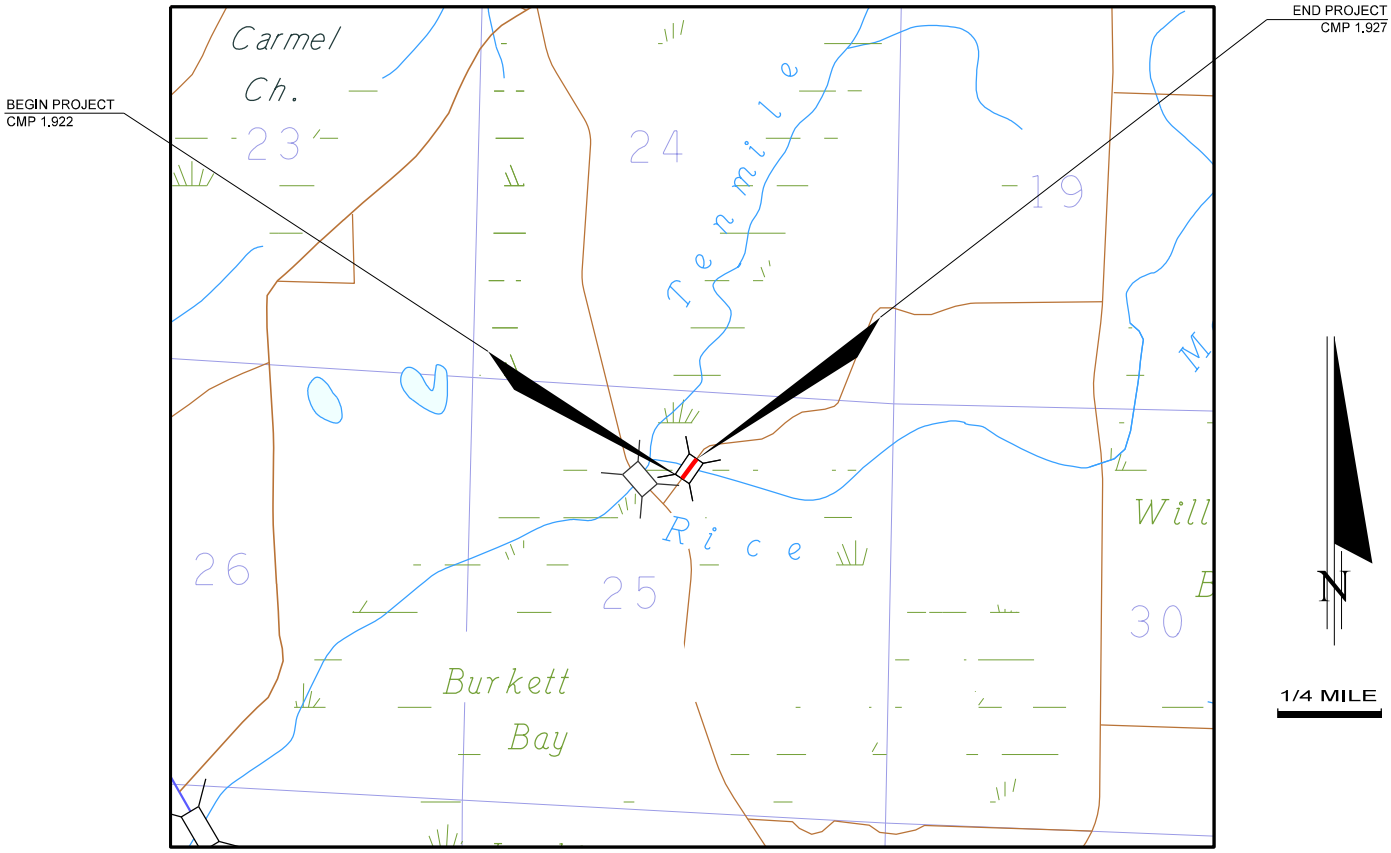
Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$50,000.00	$50,000.00
Project Non-Bid Subtotal					**$50,000.00**
Version 9-P Project Grand Total					**$10,456,617.94**

Holmes County
Bridge Replacement Project

Rice Machine Road
Over Rice Machine Road Bridge No. 524139

FPID: 441176-1
Section No.: 52000034



PROJECT LOCATION MAP

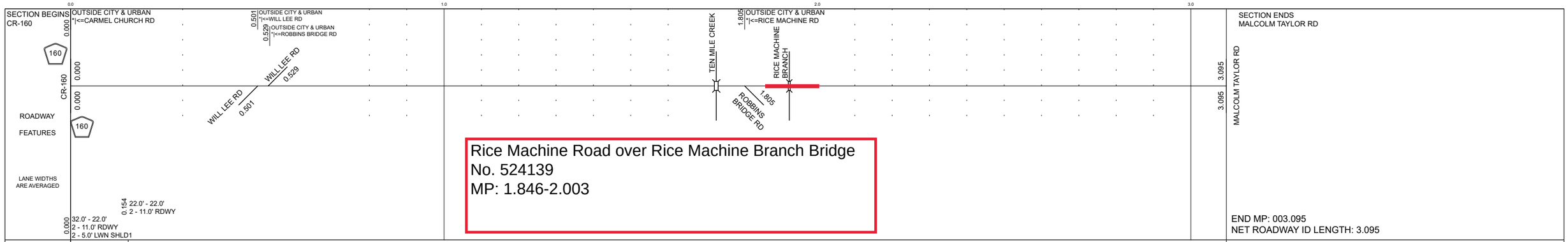
	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	12/22/2021	01/10/2022				
BY	METRIC	METRIC				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

*** OFF SYSTEM ***

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
09			HOLMES	03	52000034	1 OF 1



Date: 11/30/2022 3:19:12 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441176-1-52-01 **Letting Date:** 11/2026

Description: RICE MACHINE ROAD OVER RICE MACHINE BRANCH BRIDGE NO. 524139

District: 03 **County:** 52 HOLMES **Market Area:** 02 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.160 MI

Project Manager: AMY O'LAUGHLIN

Version 7-P Project Grand Total **$3,953,285.33**

Description: RICE MACHINE ROAD OVER RICE MACHINE BRANCH BRIDGE NO. 524139 - Updated 5/13/22 AIO

Sequence: 1 NUR - New Construction, Undivided, Rural **Net Length:** 0.156 MI 825 LF

Description: Mainline new bridge with roadway approaches.524139; Existing Bridge - 16x24.5; Proposed Bridge - 27x52

Special Conditions: 400' roadway approach each end of bridge plus incidentals.

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	0.076
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	4 to 1 / 4 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	0.95	AC	$55,000.00	$52,250.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	31.00	CY	$100.00	$3,100.00
120-4	SUBSOIL EXCAVATION	100.00	CY	$75.00	$7,500.00
120-6	EMBANKMENT	1,111.00	CY	$25.00	$27,775.00
	Earthwork Component Total				$90,625.00

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2

Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,956.00	SY	$20.00	$39,120.00
285-709	OPTIONAL BASE,BASE GROUP 09	1,511.00	SY	$44.33	$66,982.63
327-70-6	MILLING EXIST ASPH PAVT,1 1/2" AVG DEPTH	889.00	SY	$25.00	$22,225.00
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	147.00	TN	$275.00	$40,425.00
337-7-81	ASPH CONC FC,TRAFFIC B,FC-12.5,PG 76-22	161.00	TN	$300.00	$48,300.00
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	1.00	LS	$2,498.54	$2,498.54
	Comment: Less than 1% of total construction cost				
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.30	GM	$50,000.00	$15,000.00
	Comment: 2 stripes				
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.30	GM	$50,000.00	$15,000.00
	Comment: 2 stripes				

Pavement Marking Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	21.00	EA	$8.00	$168.00
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.63	NM	$2,000.00	$1,260.00
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.16	GM	$5,000.00	$800.00
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.63	GM	$8,000.00	$5,040.00

Peripherals Subcomponent

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

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	21.33	TN	$450.00	$9,598.50
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	600.00	LF	$35.00	$21,000.00

536-85-24	GUARDRAIL END TREATMENT-PARA APP TERM	4.00 EA	$3,071.54	$12,286.16
	Roadway Component Total			$299,703.83

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	220
Friction Course Spread Rate	0
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	37.00	TN	$275.00	$10,175.00
	Comment: 200' of reconstruction for each approach. 5' paved shoulders				
337-7-81	ASPH CONC FC,TRAFFIC B,FC-12.5,PG 76-22	37.00	TN	$300.00	$11,100.00
	Comment: 200' of reconstruction for each approach. 5' paved shoulders				
570-1-3	PERFORMANCE TURF, SOD AND SOIL	1,778.00	SY	$6.50	$11,557.00

Erosion Control Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,000.00	LF	$5.50	$11,000.00
104-11	FLOATING TURBIDITY BARRIER	40.00	LF	$25.00	$1,000.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	248.00	LF	$20.54	$5,093.92
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$4,000.00	$4,000.00
107-1	LITTER REMOVAL	1.89	AC	$200.00	$378.00
107-2	MOWING	1.89	AC	$225.00	$425.25
	Shoulder Component Total				$54,729.17

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	$585.29	$585.29
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	$1,092.82	$4,371.28
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,162.50	$4,162.50
	Signing Component Total				$9,119.07

BRIDGES COMPONENT

Bridge 524139

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Type	Misc/Rehab
Structure No.	524139
Description	

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	392.00	SF	$100.00	$39,200.00
400-2-10	CONC CLASS II, APPROACH SLABS	51.35	CY	$1,450.00	$74,457.50
400-4-5	CONC CLASS IV, SUBSTRUCTURE	24.77	CY	$3,800.00	$94,126.00
400-4-47	CONC CLASS IV, CIP TOP W/SR ADMIX	27.81	CY	$2,500.00	$69,525.00
400-7-1	BRIDGE DECK GROOVING	138.67	SY	$65.00	$9,013.55
400-148	PLAIN NEOPRENE BEARING PADS	2.16	CF	$5,000.00	$10,800.00
415-1-4	REINF STEEL- SUPERSTRUCTURE	5,701.45	LB	$2.50	$14,253.62
415-1-5	REINF STEEL- SUBSTRUCTURE	3,591.28	LB	$2.50	$8,978.20
415-1-9	REINF STEEL- APPROACH SLABS	10,269.04	LB	$2.35	$24,132.24
450-8-14	PREST BEAM: FL SLAB BEAM,12" C,58-60" W	180.00	LF	$875.00	$157,500.00
455-34-25	PREST CONC PILING, 24" W/FRP SS STRAND R	600.00	LF	$550.00	$330,000.00
455-143-25	TEST PILE- PRES CONC, 24" SQ W/FRP OR SS	180.00	LF	$1,000.00	$180,000.00
458-1-11	BRIDGE DECK EXPANSION JNT,NEW,POURED	53.32	LF	$125.00	$6,665.00
515-4-2	BULLET RAIL, DOUBLE RAIL	92.00	LF	$200.00	$18,400.00
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	184.00	LF	$300.00	$55,200.00
521-6-11	CONC PARAPET, PED/BIKE, 27"	92.00	LF	$200.00	$18,400.00
530-1-100	RIPRAP, SAND-CEMENT BAGS	28.33	CY	$1,000.00	$28,330.00
530-3-3	RIPRAP- RUBBLE, BANK AND SHORE	1,020.16	TN	$150.00	$153,024.00
530-74	BEDDING STONE	379.82	TN	$165.00	$62,670.30
	Bridge 524139 Total				$1,354,675.42
	Bridges Component Total				$1,354,675.42

Sequence 1 Total $1,808,852.49

Sequence: 2 NUR - New Construction, Undivided, Rural **Net Length:** 0.165 MI 870 LF

Description: Temporary impacts for install and removal of onsite diversion.

Special Conditions: 400' approaches at each end of the diversion.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	55.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.076
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	1.10	AC	$55,000.00	$60,500.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-4	SUBSOIL EXCAVATION	100.00	CY	$75.00	$7,500.00
120-6	EMBANKMENT	7,467.00	CY	$25.00	$186,675.00
	Earthwork Component Total				$254,675.00

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	0
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-71-15	TEMPORARY BARRIER, F&I, ANCHORED	1,600.00	LF	$50.00	$80,000.00
102-89-1	TEMPORARY CRASH CUSHION, RED OPT	4.00	LO	$1,500.00	$6,000.00
160-4	TYPE B STABILIZATION	3,200.00	SY	$20.00	$64,000.00
285-709	OPTIONAL BASE,BASE GROUP 09	2,133.00	SY	$44.33	$94,555.89
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	235.00	TN	$275.00	$64,625.00
339-1	MISCELLANEOUS ASPHALT PAVEMENT	44.00	TN	$450.00	$19,800.00
	Comment: For diversion barrier wall on both sides of diversion for length of diversion				
455-133-2	SHEET PILING STEEL, TEMPORARY-CRITICAL	855.00	SF	$75.00	$64,125.00
530-3-3	RIPRAP- RUBBLE, BANK AND SHORE	65.00	TN	$150.00	$9,750.00

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended

				Amount
102-2-2	SPECIAL DETOUR	1.00 LS	$225,000.00	$225,000.00
	Comment: Acrow Bridge; 70 ft * 28 ft * $60/sft + 60%			

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.66	NM	$2,000.00	$1,320.00

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 $629,175.89

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	220
Friction Course Spread Rate	0
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-3	PERFORMANCE TURF, SOD AND SOIL	2,489.00	SY	$6.50	$16,178.50

Shoulder Component Total $16,178.50

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	80.00	LF	$275.00	$22,000.00

430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	6.00	EA	$2,500.00	$15,000.00
	Drainage Component Total				$37,000.00

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	$585.29	$585.29
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	4.00	AS	$1,092.82	$4,371.28
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,162.50	$4,162.50
	Signing Component Total				$9,119.07

Sequence 2 Total $946,148.46

Date: 11/30/2022 3:19:12 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441176-1-52-01 **Letting Date:** 11/2026

Description: RICE MACHINE ROAD OVER RICE MACHINE BRANCH BRIDGE NO. 524139

District: 03 **County:** 52 HOLMES **Market Area:** 02 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.160 MI

Project Manager: AMY O'LAUGHLIN

Version 7-P Project Grand Total **$3,953,285.33**

Description: RICE MACHINE ROAD OVER RICE MACHINE BRANCH BRIDGE NO. 524139 - Updated 5/13/22 AIO

Project Sequences Subtotal				**$2,755,000.95**
102-1	Maintenance of Traffic	10.00	%	$275,500.09
101-1	Mobilization	12.00	%	$363,660.12
Project Sequences Total				**$3,394,161.16**
Project Unknowns		15.00	%	$509,124.17
Design/Build		0.00	%	$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$50,000.00	$50,000.00
Project Non-Bid Subtotal					**$50,000.00**

Version 7-P Project Grand Total **$3,953,285.33**