EXHIBIT A

SCOPE OF SERVICES
FOR
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDIES
INTERCHANGE FEASIBILITY ANALYSIS I-75 AT DEL PRADO BLVD

FDOT District 1

Lee County

This Scope of Services is an attachment which is incorporated into the agreement between the State of Florida Department of Transportation (hereinafter referred to as the DEPARTMENT or FDOT) and [*Consultant Name*] (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: 458460-2-22-01
Federal Aid Project No.:
ETDM No.:
County Section No.: 43S 25E
Bridge No.: 120114
Railroad Crossing No.: NA
Project Type: Highway
Lead Agency: FL Department of Transportation
Federal Funding: Yes
Anticipated Class of Action: Environmental Assessment

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1.0 SCOPE OF SERVICES PURPOSE

The Scope of Services describes the responsibilities of the CONSULTANT and the Florida Department of Transportation (FDOT or DEPARTMENT) when conducting Project Development and Environment (PD&E) Studies necessary to comply with DEPARTMENT procedures and underlying laws and regulations and to obtain approval of the Environmental Document.

All activities encompassed by this Scope of Services include:

- Major work groups include:
    - 2.0 - PD&E Studies
- Minor work groups include:
    - 3.1 - Minor Highway Design
    - 3.2 - Major Highway Design
    - 3.3 - Controlled Access Highway Design
    - 4.1.2 - Minor Bridge Design
    - 4.2.2 - 4.2.2 Major Bridge Design - Steel
    - 6.1 - Traffic Engineering Studies

This contract has an option for design services necessary to accelerate project development. The DEPARTMENT will prepare the scope of services for design-related activities before completing the PD&E Study.

The project development process and all tasks identified in this Scope of Services must follow the guidance provided in the DEPARTMENT's current version of the **PD&E Manual**, **Procedure No. 650-000-001**, and **FDOT Design Manual (FDM)**. As discussed in **Part 1**, **Chapter 1**, of the **PD&E Manual**, the **PD&E Manual** satisfies state and federal processes and incorporates the requirements of the National Environmental Policy Act (NEPA); federal law, regulations, and Executive Orders included in the Federal Highway Administration (FHWA) Federal-Aid Policy Guide; and applicable state laws and regulations including Section 339.155 of the Florida Statutes and Rule Chapter 14 of the Florida Administrative Code. As such, project documents prepared by the CONSULTANT must comply with all applicable state and federal laws, regulations, and Executive Orders.

The Scope of Services defines the project tasks to be performed consistent with the **PD&E Manual** and other pertinent manuals as noted in Section 2. The Scope of Services also outlines work activities that will be the CONSULTANT's and/or the DEPARTMENT's responsibility.

The CONSULTANT must demonstrate good project management practices while working on this project, including effective communication with the DEPARTMENT and others as necessary, effective management of time and resources, and quality of documentation. Throughout the PD&E Study, the CONSULTANT shall set up and maintain a contract file in accordance with DEPARTMENT procedures. The CONSULTANT and any SUB-CONSULTANTS are expected to know the laws and rules governing their profession and provide professional services in accordance with current and applicable regulations, codes, ordinances, and standards.

The DEPARTMENT will provide contract administration and management, as well as technical reviews of all work associated with the development of this project and performed under this Scope of Services. The

DEPARTMENT's technical reviews will focus on high-level conformance and are not meant to substitute CONSULTANT quality reviews of deliverables. The CONSULTANT is fully responsible for all work performed and work products developed under this Scope of Services. The DEPARTMENT may provide task-specific information as outlined in this Scope of Services.

2.0 PROJECT DESCRIPTION AND OBJECTIVES

Feasibility and PD&E study for the potential new interchange along I-75 between SR 78 in Lee County and Tuckers Grade in Charlotte County. Three initial locations will be assessed. These locations may be expanded or moved as the study progresses. The study will include analysis of 3 initial options: widening and extending Del Prado Boulevard from US 41 to I-75 with a new interchange; a new road in the vicinity of the Charlotte/Lee County line from US 41 to I-75 with a new interchange; expanding Oil Well Road from US 41 to I-75 to four lanes with a new interchange. Also to be analyzed will be a new road from the I-75 interchange to SR 31. Initial connections point options along SR 31 will be at Cook Brown Road/Greenway Boulevard or Saw Palmetto Parkway/Busbee Lane. These locations may also change during the study. The feasibility study will be covered under Phase I of this scope. The PD&E study will be covered under Phase II of this scope. Portions of the scope not labeled as Phase I or Phase II will apply to both phases of the project.

2.1 PROJECT OBJECTIVES

The study has the following project objectives:

Improve emergency evacuation for the area. Provide improved connectivity for the area. Reduce congestion and improve safety at adjacent interchanges.

The CONSULTANT will analyze and assess the project's impact on the social, economic, cultural, natural, and physical environment, and develop the location and design concept of the project in accordance with FDOT policy, procedures, and requirements.

The CONSULTANT shall review and become familiar with project documents and materials that have been prepared prior to the PD&E phase. The CONSULTANT will review the Efficient Transportation Decision Making Process (ETDM) Programming Screen Summary Report, including comments received from the Environmental Technical Advisory Team (ETAT), Lead Agency, and/or any responses from the District pertaining to this project. The CONSULTANT shall also review concepts and reports (e.g., typical sections, alignments, planning reports) developed from previous planning studies. The CONSULTANT shall use resource agencies' comments to assess the level of effort for work activities required to adequately address potential resources of concern to this project.

2.2 PROJECT REQUIREMENTS AND PROVISIONS FOR WORK

The CONSULTANT will conduct the appropriate level of engineering and environmental analyses for this project, as outlined in the **PD&E Manual**, the **FDM**, and directed by the project objectives. The level of analysis depends on complexity of the project, level of controversy, potential for significant impacts, and degree and quality of information/data available. The Lead Agency will determine the Class of Action (COA) upon completion of the environmental analyses.

The CONSULTANT, upon direction from DEPARTMENT, will assist with updating data, technical studies, or environmental documents to ensure compliance with NEPA, other federal laws, regulations, and Executive Orders.

The CONSULTANT will maximize the use of existing information available from Federal, State, regional, local agencies, private sources, and its own files. Examples include: the Programming Screen Summary Report, Concept Reports, previously completed planning products, listed species reports, Florida Department of Environmental Protection's (FDEP) OCULUS Electronic Document Management System, and other sources as appropriate.

The DEPARTMENT will allow the CONSULTANT to use the DEPARTMENT's computer facilities upon proper authorization as described in DEPARTMENT Form No. 325-060-08b.

2.2.1 Governing Regulations

Services performed by the CONSULTANT must comply with the **PD&E Manual** and all applicable DEPARTMENT Policies, Procedures, Manuals and Guidelines. Specifically, the CONSULTANT must comply with DEPARMENT's **PD&E Manual**, **FDM**, **Structures Manual**, and **Computer Aided Design and Drafting (CAAD) 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.

2.2.2 Liaison Office

The DEPARTMENT and the CONSULTANT will designate their respective Liaison Offices for this project.

2.2.3 Personnel

The DEPARTMENT will designate a Project Manager to represent the DEPARTMENT for this project. The DEPARTMENT Project Manager shall be responsible for coordination with the CONSULTANT pertaining to all contractual matters, including invoicing and reporting. The DEPARTMENT Project Manager shall also be responsible for approval of any additional staffing to be provided and shall give approval of all products and services. The CONSULTANT will assign a Project Manager who will communicate regularly with the DEPARTMENT Project Manager regarding development of this project. Final direction on all matters of this project remains with the DEPARTMENT Project Manager.

The CONSULTANT must maintain staffing levels and personnel qualifications necessary to complete the required activities for this Scope of Services. Personnel identified in the contract must perform the CONSULTANT's work to DEPARTMENT standards and procedures. Any changes in the identified personnel will be subject to review and approval by the DEPARTMENT. To the extent possible, the CONSULTANT must minimize the DEPARTMENT's need to apply its own resources to the activities of the Scope of Services, unless otherwise identified.

The CONSULTANT shall assign only competent technical and professional personnel qualified by the necessary experience and education to perform assigned work. The CONSULTANT is responsible for ensuring that staff assigned to work under this Agreement has the training established

by the DEPARTMENT as a prerequisite for CONSULTANT staff to perform work. If the required training is such that the trainee can apply it to work on other contracts, (regardless of whether or not the trainee would work on other agreements), the cost of the trainee's time and expenses associated with the training is not directly billable to the DEPARTMENT on this contract and shall only be recoverable through overhead for the CONSULTANT firm.

The CONSULTANT must request approval from the DEPARTMENT's Project Manager and Procurement for any modifications or additions to the list of available staff prior to the initiation of any work by that individual. If applicable, new job classifications may be added to the contract via a contract amendment. The CONSULTANT shall submit a copy of the resume and payroll register before new staff can be added, whether being added to an existing classification or a new classification.

The CONSULTANT must have a Licensed Professional Engineer in the State of Florida to sign and seal all engineering reports, documents, technical special provisions, and plans, as required by DEPARTMENT standards.

The CONSULTANT and its employees, agents, representatives, or SUB-CONSULTANTS are not employees of the DEPARTMENT and are not entitled to the benefits of State of Florida (State) employees. Except to the extent expressly authorized herein, the CONSULTANT and its employees, agents, representatives, or SUB-CONSULTANTS are not agents of the DEPARTMENT or the State for any purpose or authority, such as to bind or represent the interests thereof, and shall not represent that it is an agent, or that it is acting on the behalf of the DEPARTMENT or the State. The DEPARTMENT shall not be bound by any unauthorized acts or conduct of CONSULTANT.

2.2.4 Sub-Consultants

The DEPARTMENT Project Manager, Procurement Office, and the CONSULTANT Project Manager must approve, in writing in advance, any services assigned to any SUB-CONSULTANTS in accordance with this Scope of Services. All SUB-CONSULTANTS must be technically qualified by the DEPARTMENT to perform all work assigned to them. Use of additional SUB-CONSULTANTS with specialized areas of expertise may be required to complete specific assignments. Any SUB-CONSULTANTS, including their work assignments and rates of compensation, shall be agreed to by the DEPARTMENT Project Manager, Procurement Office, and the CONSULTANT Project Manager, and documented in the contract file, prior to any work being performed.

2.2.5 Lead Agency, Cooperating Agencies, and Participating Agencies

The CONSULTANT Project Manager will support the DEPARTMENT Project Manager's coordination efforts with Lead Agency(ies), Cooperating Agency(ies), and Participating Agency(ies).

The Lead Agency for this project is FL Department of Transportation.

2.2.6 Meetings and Presentations

Led by the DEPARTMENT Project Manager, the CONSULTANT will attend the Notice to Proceed Meeting, where DEPARTMENT representatives will outline relevant contract and project information provided by the DEPARTMENT Project Manager.

The CONSULTANT shall attend phase review, progress review, and other miscellaneous review meetings necessary to undertake the activities of this Scope of Services. This includes meetings with DEPARTMENT staff, as well as other consultants, technical meetings, or other miscellaneous meetings. This does not include meetings identified by subject area in Sections 3, 4, and 5 of this Scope of Services. It is anticipated that 24 progress, Project Manager, and miscellaneous review meetings will be needed during Phase I and 24 more during Phase II.

The CONSULTANT will attend meetings or make presentations at the request of the DEPARTMENT with at least five (5) business days' notice. The CONSULTANT will prepare meeting notes for all meetings identified in this Exhibit and submit within three (3) business days to the DEPARTMENT Project Manager for review.

2.2.7 Communication

The DEPARTMENT Project Manager will be the representative of the DEPARTMENT for the project. The CONSULTANT must regularly communicate with the DEPARTMENT Project Manager to discuss and resolve issues or solicit opinions regarding this project. The CONSULTANT must include the DEPARTMENT when seeking and receiving advice from various State, regional, local agencies, and citizen groups. The final direction on all matters for this project remains with the DEPARTMENT Project Manager.

All written correspondence between the CONSULTANT and any party pertaining specifically to this project must be reviewed and approved by the DEPARTMENT. The CONSULTANT must respond to information requests relevant to the PD&E Study from third parties at the direction, and with the approval, of the DEPARTMENT. The CONSULTANT will assist the DEPARTMENT in preparing letters from DEPARTMENT personnel to other agencies, public officials, and others as needed or requested.

2.2.8 Quality Control

The DEPARTMENT requires that all project documents, technical studies, calculations, maps, reports, conceptual plans, design, and Environmental Document are correct, complete, appropriate for the intended purposes, and conform to requirements of this Scope of Services. The CONSULTANT is responsible for the quality of all (including the SUB-CONSULTANTS) deliverables. The CONSULTANT will independently and continually review deliverables for accuracy and completeness. The CONSULTANT must develop and follow an internal Quality Control (QC) process. The QC process intends to ensure that quality is achieved through checking, reviewing, and verifying work activities and deliverables by qualified individuals who were not directly responsible for performing the initial work.

Within fifteen (15) business days from the Notice to Proceed, the CONSULTANT must submit its QC Plan to the DEPARTMENT Project Manager for approval. The QC Plan will identify the deliverables, the personnel performing the reviews, and the method of documentation. The CONSULTANT Project Manager and the CONSULTANT QC Manager will sign the QC Plan.

The CONSULTANT must include documentation of reviews and written resolution of comments with each submittal or deliverable to show adherence of the QC process. At a minimum, provide a quality review checklist which includes letters, exhibits, technical studies, reports, design calculations, Environmental Document, or any documents used or referenced in the QC Plan. The CONSULTANT must maintain documentation which shows adherence of the QC Plan process was followed. The DEPARTMENT Project Manager may request document reviews and written resolution of comments from the CONSULTANT at any time during the PD&E Study.

2.2.9 Schedule

Within ten (10) business days after the Notice to Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall submit a detailed project activity or event schedule to the DEPARTMENT. The schedule must indicate all required submittals, critical path activities, and key project milestones or activity codes. The project schedule shall contain, at a minimum, the following information for each schedule activity: FDOT activity ID with correct Project Schedule Management (PSM) codes, activity description, original duration, remaining duration, start date, finish date, activity percent complete and total float. Only allow two (2) open-ended activities (the first and the last). The project schedule must include a column displaying each activity's Predecessor and Successor. The schedule must be based on the DEPARTMENT's expected production date and must be approved by the DEPARTMENT. The PSM Codes and Schedule Templates are found on the OEM website (https://www.fdot.gov/environment/oem-divisions/eng/engineering-resources). The schedule must be based upon consideration of the project's environmental issues (social, cultural, natural and physical resources) and regulatory requirements, and in coordination with the DEPARTMENT's District Environmental Management Office.

An anticipated payout and fiscal progress curve must accompany the schedule. For the purpose of scheduling, the CONSULTANT shall allow for a review period of at least 4 weeks for each draft technical report or memorandum submitted for District review.

In developing the schedule for this project, the CONSULTANT, in coordination with the DEPARTMENT, must include adequate time to meet regulatory, Lead Agency, and Cooperating Agency reviews, as well as formal consultation timeframes.

Periodically throughout the life of the contract, the CONSULTANT must review the project schedule, payout, and fiscal progress curves to monitor the progress of the project. The CONSULTANT shall submit monthly progress reports with the approved schedule and schedule status report, which includes critical-path review and progress and payout curves, to the DEPARTMENT Project Manager. The DEPARTMENT Project Manager must approve any adjustments or changes to the approved schedule.

2.2.10 Submittals

The CONSULTANT will compile and transmit draft documents identified in this Scope of Services to the DEPARTMENT for review.

The DEPARTMENT will review draft submittals and provide the CONSULTANT with review comments. The CONSULTANT will address comments, prepare a matrix of comments and responses as applicable, and submit revised documents. The CONSULTANT will assist the

DEPARTMENT in resolving the comments received from the Lead Agency, Cooperating Agencies, resource agencies and the public, including preparation of individual responses.

PD&E Provisions for Work:
- Quality Control Plan (QC Plan)
- Project Schedule

Public Involvement:
- Public Involvement Plan (PIP)
- Public Hearing Transcript
- Comments and Coordination Report

PD&E Engineering:
- Traffic Analysis Methodology Technical Memorandum
- Project Traffic Analysis Report (PTAR)
- Safety Analysis Memorandum
- Preliminary Engineering Report (PER)
- Location Hydraulics Report (LHR)
- Pond Siting Report (PSR)
- Conceptual Design Plan Set
- Typical Section Package
- Bridge Hydraulic Report
- Utilities Assessment Package
- Methodology Letter of Understanding (MLOU)
- Interchange Justification Report (IJR)

Environment:
- Environmental Class of Action Recommendation Form
- Draft Environmental Assessment (EA)
- Community Impact Analysis (CIA)
- Noise Study Report (NSR)
- Level I Contamination Assessment Report (Contamination Screening Evaluation Report)
- Conceptual Stage Relocation Plan
- Water Quality Impact Evaluation (WQIE)
- Natural Resource Evaluation (NRE) (Wetlands, Species, and EFH)
- Research Design and Survey Methodology
- Cultural Resource Assessment Survey (CRAS)
- Section 4(f) Determination of Applicability
- Section 106 Evaluation Report

The CONSULTANT will submit to the DEPARTMENT final reports and other deliverables identified in this section, in the requested format.

Upon completion of the project, the CONSULTANT will transfer to the DEPARTMENT all project electronic files, data, maps, sketches, worksheets, and other materials used or generated during the PD&E Study in an organized manner, in an agreed upon portable storage drive.

Additionally, the CONSULTANT will upload all final submittals and appropriate supporting project files to the StateWide Environmental Project Tracker (SWEPT), upon completion of technical studies and Environmental Document and as directed by the DEPARTMENT.

2.2.11 Computer Automation

The CONSULTANT shall develop concept plans and alternatives' designs utilizing CADD systems. The DEPARTMENT makes software available to ensure quality and conformance with the DEPARTMENT'S policies and procedures regarding CADD. It is the responsibility of the CONSULTANT to meet the CADD production requirements in the **FDOT CADD Manual**. The CONSULTANT must submit final documents and files as described in the **CADD Manual**. Additional related information is found in the **FDM**. Concept plans and alternative designs shall also be displayed using Google Earth-ready KMZ files. The concept plans must have both existing and proposed engineering and environmental features.

Upon DEPARTMENT approval, the CONSULTANT may also use computer tools and software to conduct some of the engineering and environmental analyses. Prior to using these tools, the CONSULTANT must agree to provide original electronic files in a format and standard consistent with the DEPARTMENT's policies and procedures.

Prior to submitting electronic files to the DEPARTMENT, all electronic files must be scanned for viruses. Failure to scan electronic files for viruses may result in a lower CONSULTANT work performance evaluation.

2.2.12 Conflict of Interest

The CONSULTANT or any affiliate is not eligible to pursue advertised work in the CONSULTANT's area of oversight for any project for which the CONSULTANT developed the Scope of Services. SUB-CONSULTANTS are also ineligible to pursue projects where they participated in the development of the Scope of Services or have an oversight responsibility. The term "affiliate" is defined in **FDOT Procedure No. 375-030-006, Conflict of Interest Procedure for Department Contracts**.

The CONSULTANT and its SUB-CONSULTANTS will not enter into another contract during the term of the contract for this project which would create or involve a conflict of interest with the services herein. The CONSULTANT and its SUB-CONSULTANTS must comply with **FDOT Procedure No. 375-030-006, Conflict of Interest Procedure for Department Contracts**.

2.3 COORDINATION WITH OTHER CONSULTANTS AND ENTITIES

The CONSULTANT will coordinate work activities with any ongoing and/or planned DEPARTMENT projects that may affect this project. The DEPARTMENT and CONSULTANT shall coordinate with local governmental entities to ensure project concepts are compatible with local improvements and right-of-way activities. The CONSULTANT will inform the DEPARTMENT Project Manager of all

coordination activities with other agencies or entities prior to holding such activities. The DEPARTMENT Project Manager shall be included in all such coordination activities.

The CONSULTANT shall coordinate with the following pertinent projects and studies:

- 444937-1 SR 78 from I-75 to SR 78
- 442027-2 SR 31 from SR 78 to Lake Babcock Drive

2.4 CONTRACT MANAGEMENT

The CONSULTANT is responsible for maintaining project files, including copies of submittals and underlying data, calculations, information and supporting project documentation. The CONSULTANT is responsible for preparing monthly progress reports and schedule updates. Progress reports will be delivered to the DEPARTMENT in a format prescribed by the DEPARTMENT Project Manager with the corresponding invoice.

The CONSULTANT will regularly communicate the status of the project with the DEPARTMENT while managing SUB-CONSULTANT efforts and executing SUB-CONSULTANT agreements.

2.5 ADDITIONAL SERVICES

The CONSULTANT will be requested to provide the following additional services for this project.

2.5.1 Alternative Corridor Evaluation

Not applicable for this project.

2.5.2 Advance Notification

Not applicable for this project.

2.5.3 Scoping

Not applicable for this project.

2.5.4 Notice of Intent

Not applicable for this project.

2.6 SERVICES TO BE PERFORMED BY THE DEPARTMENT

The DEPARTMENT will provide the following services and materials:

- Lead and participate in coordination efforts with the Public Transit Office, Office of Environmental Management, FTA, environmental resource and regulatory agencies, the public, and other stakeholders, as appropriate.
- Provide project data currently on file and available from study partners, such as:
    - Travel market analysis or ridership forecasting;
    - Planned new development or redevelopment including Developments of Regional Impact (DRIs) data, Community Reinvestment Act (CRA) plans, streetscape, landscape, road diet, or context sensitive design efforts;

- ACER, planning studies, environmental evaluations;
- ETDM Programming Summary Report;
- Recently completed roadway studies for the study area including PD&E studies, access management, intersection plans, design files, and capacity improvements;
- Multimodal or small area studies including freight, interchange, intersection, transit, pedestrian, bicycle, land use and signal priority;
- Transportation Management Plan;
- Traffic analyses for the study area/corridors;
- Previously conducted transit vision plans, transit feasibility studies, comprehensive operations analyses, transit development plans, etc.;
- All information in the possession of the DEPARTMENT pertaining to prior and on-going studies that may affect the project such as existing construction and as-built plans, bridge inspection reports and load ratings, prior environmental studies, existing permit information, existing drainage and geotechnical reports and any agreements with third parties related to the project corridor;
- All available information in the possession of the DEPARTMENT pertaining to utility companies whose facilities may be affected by the proposed construction;
- All future information that is in possession or may become available to the DEPARTMENT pertaining to subdivision plans, so that the CONSULTANT may take advantage of additional areas used as part of the existing right of way;
- Advance Notification and all environmental and engineering documents including the Permit Coordination Packages;
- Coordination with the State Historic Preservation Officer (SHPO);
- Existing FDOT right of way maps and information on existing surplus right of way under ownership by the DEPARTMENT or participating local agency (counties and cities partnering with FDOT for the PD&E Study);
- Existing Horizontal Network Control;
- FDOT crash data;
- Available traffic and planning data;
- Proposed right of way cost data;
- Construction cost database, as applicable;
- Project Electronic File Root Directory Structure for delivery of project design files to the DEPARTMENT;
- All applicable DEPARTMENT agreements with Utility Agency Owners;
- Letters of authorization designating the CONSULTANT as an agent of the DEPARTMENT to enter lands, waters, and premises of another in the performance of duties in accordance with Section 337.274, F.S.;
- Reviews of technical reports and Environmental Documents;

2.7 OPTIONAL SERVICES

The DEPARTMENT has the option to request the CONSULTANT to provide professional services not explicitly outlined in this Exhibit. These services may include, but are not limited to: re-evaluation of previous PD&E Studies, environmental analysis not specifically listed in this Scope of Services, final design services, expert witness services for right of way acquisition, additional design analysis, and

design plan preparation for utilities review. Additionally, by request, the CONSULTANT may provide services for Request for Proposal (RFP) development for Design-Build Procurement and/or support the DEPARTMENT in the acquisition of a Design-Build contract. The fee for such 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. For optional services, a supplemental agreement shall be executed in accordance with Section 2 of the Standard Professional Services Agreement Terms.

- Roadway Analysis and Roadway Plans
- Drainage Analysis
- Utilities
- Environmental Permitting, Compliance and Clearance
- Structures
- Signing and Pavement Marking Analysis and Plans
- Signalization Analysis and Plans
- Lighting Analysis and Plans
- Landscape Architecture Analysis and Plans
- Survey
- Photogrammetry
- Mapping
- Terrestrial Mobile LiDAR
- Architecture Development
- Noise Barrier Assessment
- Intelligent Transportation Systems (ITS) Analysis and Plans
- Geotechnical
- 3D Modeling

This PD&E Study has an option for design services. The CONSULTANT shall not proceed with any design activities without written authorization from the DEPARTMENT.

3.0 PUBLIC INVOLVEMENT

The intent of public involvement is to engage the public, including property owners, tenants, business owners and operators, public officials and agencies, facility users, interested parties, and special interest groups, during the development of transportation projects. FDOT requires a hybrid format for meetings to provide multiple opportunities for the public to receive information and provide input. A hybrid meeting uses both an in-person and virtual component. Small group and one-on-one meetings can be held in-person or virtually, as seen fit by the appropriate parties. The CONSULTANT will coordinate and perform the appropriate level of public involvement for this project as outlined in **Part 1**, **Chapter 11**, and **Part 2**, **Chapter 4** of the **PD&E Manual**, the **FDOT Public Involvement Handbook**, and **FDOT**'s Public Involvement Website.

The CONSULTANT will provide the DEPARTMENT drafts of all public involvement materials (e.g., newsletters, property owner letters, advertisements, handouts, exhibits) associated with the following tasks for review and approval at least 20 business days prior to printing and/or distribution. The CONSULTANT will document the entire public involvement and agency coordination process in a Comments and

Coordination Report or Public Involvement Activities Report and summarize the effort in the Environmental Document. Supporting documentation will be maintained in the Project file in SWEPT.

3.1 PUBLIC INVOLVEMENT PLAN ELEMENTS

3.1.1 Public Involvement Plan

The purpose of a PIP is to identify potentially affected people in a community, define outreach methods, and schedule activities to obtain their input. The CONSULTANT is responsible for creating the PIP using existing work developed by the DEPARTMENT, as a starting reference, and the level of effort for the Class of Action, if available. The PIP must include a public involvement schedule, identify potentially affected stakeholders and communities in the vicinity of the project, and establish appropriate outreach methods. This includes consideration of the demographics of the study area and any reasonable accommodations required, including, but not limited to disabled, transit-dependent, limited English proficient (LEP), elderly, low income, or minority populations. The CONSULTANT will review and attach the Sociocultural Data Report (SDR) to the PIP. The DEPARTMENT will provide a PIP template. At a minimum, the PIP must include the following:

- Project background
- Project goals (for the public involvement process)
- Identification of elected officials and agencies (including city, county, state, and federal representatives, whose jurisdictional/political boundary intersects the project area and Native American Tribes).
- Identification of affected communities, property owners/tenants, business owners, community leaders, stakeholders, and other interested parties (see **Part 1**, **Chapter 11** of the **PD&E Manual** for examples of other interested parties).
- A contact/mailing list (including names, addresses, telephone numbers, and email information for local elected/appointed officials, key community leaders, adjacent landowners, business owners, chamber of commerce leaders, neighborhood association presidents, religious leaders, senior citizen center coordinators, day care center administrators, school principals, utility providers, etc.). The CONSULTANT will initially develop the list from the Environmental Screening Tool (EST), and/or Property Appraisers' Offices. The CONSULTANT will continually update the contact/mailing list to add new names and/or addresses upon request, when elected or other officials change, or names of people or organizations are discovered during the project
- Identification of media (e.g. television, radio, newspaper, social media, websites) for news and/or advertisement
- Proposed public outreach activities (Outreach activities should offer everyone in a community the opportunity to participate in the PD&E effort, and therefore, must include reasonable accommodation of transit-dependent persons, persons with disabilities, and persons with limited English proficiency, etc.).
- Anticipated schedule of public outreach activities
- Methodology for collecting, analyzing, and responding to public comments. All comments and concerns should be analyzed in relationship to the project, its goals, and the overall impact to the community.

The DEPARTMENT requires the CONSULTANT to create and submit a PIP that demonstrates how the creation and maintenance of the Plan will be carried out.

The CONSULTANT will periodically review the PIP to evaluate the effectiveness of the public involvement activities in accordance with Part 1, Chapter 11 of the PD&E Manual and FDOT's Public Involvement Handbook. The evaluation should indicate whether there is a need to use new outreach strategies to improve public involvement.

No further public involvement activities may begin prior to the submission and approval of the PIP. The PIP shall be submitted no more than twenty (20) business days of Notice to Proceed. Upon approval of the PIP, the CONSULTANT shall update the PIP as necessary or upon notification by the DEPARTMENT of a deficiency in the PIP. The DEPARTMENT must approve any changes to the PIP.

3.1.2 Project Website and Social Media

As part of the project's PIP the CONSULTANT will develop public involvement materials using the DEPARTMENT's approved template and submit the information to be uploaded into the DEPARTMENT's project website (this is not the same as the DEPARTMENT's Public Notice Website). The project website will be created by CONSULTANT and maintained by the DEPARTMENT. The website must meet FDOT requirements (refer to **FDOT's Consultant Managed Website** page). The DEPARTMENT will handle Social Media postings.

The CONSULTANT will provide content updates for FDOT's project website or Social Media, as necessary. Content updates are usually completed on a set schedule, at project milestones, or to advise the public of new project information. The DEPARTMENT is responsible for the approval of any content updates and maintenance of the project website and Social Media.

3.1.3 Public Involvement Data Collection

The CONSULTANT will assist the DEPARTMENT with collecting data specific to the public involvement process and preparing responses to any public inquiries received throughout the project. The CONSULTANT will maintain and regularly update the public involvement project file to document all project public involvement activities.

The CONSULTANT is responsible for identifying and maintaining the project mailing list that shall include: officials and interested parties (any person or institution expressing an interest in the project), affected parties, and potential permit and review agencies.

The CONSULTANT will coordinate with the DEPARTMENT to generate or obtain mailing information of property owners using the appropriate County Property Appraiser's Office(s), for the most up-to-date property information.

The CONSULTANT will investigate potential meeting locations to advise the DEPARTMENT of their suitability meeting ADA requirements (room layout, parking, etc.). Refer to **Part 1**, **Chapter 11** of the **PD&E Manual** for the Sample Public Meeting Facility Checklist. The DEPARTMENT will ultimately approve the meeting location. The CONSULTANT will pay all costs for meeting location rental and insurance (if required). The CONSULTANT will be responsible for all logistics associated with setting up the meeting.

3.1.4 Public Involvement Comment Tracking

The CONSULTANT will compile comments received from the Public Meetings, Project Websites, or any other public outreach activities. The comments and responses will be maintained throughout Phase I and Phase II.

3.2 SCHEDULED PUBLIC MEETINGS

The CONSULTANT will actively support the DEPARTMENT in conducting public meetings, which may be conducted after normal working hours. The CONSULTANT will support the DEPARTMENT in preparation, scheduling, attendance, note taking, providing follow-up services, including debrief meetings with the DEPARTMENT and documenting each meeting. These activities shall be done in accordance with **Part 1**, **Chapter 11** of the **PD&E Manual** and the **FDOT Public Involvement Handbook**, documented in the updated PIP, Public Involvement Activities Report, or the Comments and Coordination Report and summarized in the Environmental Document.

3.2.1 Types of Public Meetings

The types and number of meetings to be held will depend on the project's COA, the complexity and size of the project, and the level of public interest or potential for controversy. The level of effort and requirements for each of these meetings are defined in the staff hour estimates. The following is a list of anticipated meetings for this project:

- 1 Hybrid Project Kick-off Meeting(s)
- 3 Sets of in-person presentations to Metropolitan Planning Organizations (MPOs) (includes associated technical and citizen committees, as applicable) and affected local governments.
- 1 Hybrid Corridor Workshop(s) or Public Informational Meeting(s)
- 1 Hybrid Public Hearing

3.2.2 Meeting Requirements (Phase I)

For any public meeting, the CONSULTANT will prepare and/or be responsible for the following:

- Agenda
- Presentation scripts and/or pre-recorded presentations
- Handouts
- Presentation graphics (provide electronic copies for virtual meetings and presentation boards for in-person)
- Set up Virtual Meeting platform
- Meeting equipment set-up and tear-down
- Display advertisements will be submitted to the DEPARTMENT for review and approval four weeks prior to the newspaper's deadline for meeting the publication date. (The CONSULTANT will pay any associated publishing costs.)
- Letters or email notices for elected and appointed officials, property owners, and other interested parties will be submitted to the DEPARTMENT for review and approval three weeks prior to the date for distribution. (The CONSULTANT will pay the cost of First-Class U.S. Mail.)
- News releases or project fact sheets. The DEPARTMENT must review news releases and fact sheets six weeks before the meeting or distribution.
- Meeting summaries shall be provided to the DEPARTMENT within two weeks of the meeting.
- Prepare responses to public comments for DEPARTMENT review.

The CONSULTANT will develop the meeting format for approval by the DEPARTMENT. Any materials prepared by the CONSULTANT for such meetings as listed above are also subject to review and approval by the DEPARTMENT. The CONSULTANT shall provide the DEPARTMENT with a draft of any proposed materials 7 weeks prior to the meeting.

The CONSULTANT will assist the DEPARTMENT when facilitating the public information meeting/workshop to present project details and obtain comments related to the project and/or project alternatives.

The CONSULTANT will participate in both briefing and debriefing meetings with DEPARTMENT staff related to the Public Meeting/Workshop.

The CONSULTANT will attend the meetings with a suitable number of personnel with appropriate technical expertise (based on project issues), as authorized by the DEPARTMENT Project Manager, to assist the DEPARTMENT in such meetings.

The CONSULTANT will provide personnel to facilitate the virtual portion of the meetings. The DEPARTMENT may request the CONSULTANT to identify the effect of the project to individual properties on aerial maps or concept plans in response to requests from property owners. The DEPARTMENT may also request the CONSULTANT to meet with individual property owners.

3.3 PUBLIC HEARING (Phase II)

In accordance with the FDOT Public Involvement Handbook, all Public Hearings must be a Hybrid format. In addition to the general public meeting requirements above, for the Public Hearing, the CONSULTANT will provide the approved Environmental Document for public availability at the location(s) identified in public notification materials at least 21 calendar days prior to the public hearing date. Locations where the Environmental Document is displayed should be in proximity to the project, easily accessible, and with public transportation availability, if possible. All locations must be Americans with Disabilities Act of 1990 (ADA) compliant and provide reasonable accommodation and access to physically handicapped and disabled persons. The DEPARTMENT will approve the locations.

The CONSULTANT will prepare the public hearing notifications on the DEPARTMENT's letterhead for DEPARTMENT review and signature three weeks prior to mailing, or as directed by the DEPARTMENT. The CONSULTANT will prepare an initial draft notification for review and approval by the DEPARTMENT, prior to submitting all notifications for review.

Notifications to elected officials will be signed/emailed by the District Secretary or designee. All other notifications to agencies or public officials may be signed/emailed by the DEPARTMENT Project Manager. The notification letters/emails must have the DEPARTMENT's return address. After the DEPARTMENT signs the notifications, the CONSULTANT may send them by First-Class U.S. Mail or email. The DEPARTMENT Project Manager will also send the notification letters by email. The CONSULTANT will remit notifications to the Lead Agency, local governments, and regulatory agencies at least 25, but no more than 30 calendar days prior to the public hearing date.

The CONSULTANT will prepare the public hearing notifications to property owners on the DEPARTMENT's letterhead for DEPARTMENT review and signature, three weeks prior to mailing or as directed by the DEPARTMENT. After the DEPARTMENT Project Manager signs the letters, the CONSULTANT will send via First-Class U.S. Mail. The letters must have the DEPARTMENT's return

address. The CONSULTANT will send notification letters to property owners at least 28 calendar days prior to the public hearing.

The CONSULTANT will prepare draft newspaper public hearing notice(s) for DEPARTMENT review and approval at least 15 days prior to the newspaper due date for publication. The CONSULTANT will ensure the approved public hearing notice is published a minimum of two (2) times. The first notice should appear 15 to 30 days prior to the hearing; and the second notice should appear 7 to 12 days prior to the hearing. The CONSULTANT will be responsible for the newspaper notification cost. See **Part 1, Chapter 11** and **Part 2, Chapter 4** of the **PD&E Manual**, the FDOT Public Involvement Handbook, and FDOT's Public Involvement Website for additional information.

The CONSULTANT will provide the following:

- Public Hearing Notice and publication in the Florida Administrative Register (FAR)
- Identification of the website(s) and/or locations where the technical reports and Environmental Documents will be available for public review and comment.
- Presentation with script
- Proposed display boards and exhibits, as specified by the DEPARTMENT:
    - Meeting location signs
    - Brochures or handouts
    - NEPA Assignment compliance signs
    - Laws and Regulations signs (see **Part 1**, **Chapter 11** of the **PD&E Manual**)
    - Title VI compliance signs
- Hard copies of technical reports and the version of the Environmental Document approved for public availability.
- Security (off-duty law enforcement), if needed.
- Newspaper advertisements; any press releases and/or advertisements will indicate that the meeting is a DEPARTMENT activity; the CONSULTANT will pay the cost of publishing.
- Expenses for services of a court reporter to be present and obtaining transcripts of comments made during the Public Hearing.
- Response to public comments.

The CONSULTANT will participate in briefing and debriefing meetings with the DEPARTMENT related to the Public Hearing. The CONSULTANT will prepare response letters for DEPARTMENT signature for all public comments. The DEPARTMENT Project Manager would review and approve any such response letters.

3.4 COMMENTS AND COORDINATION REPORT / PUBLIC INVOLVEMENT ACTIVITIES REPORT

The CONSULTANT will prepare either a Comments and Coordination Report or Public Involvement Activities Report incorporating the PIP, description of the public notification process, summary of all public outreach activities, justification for meeting locations, transcript, errata, and signed certification, as well as documentation for all public involvement activities conducted throughout the project in accordance with **Part 1**, **Chapter 11** of the **PD&E Manual** and the **FDOT Public Involvement Handbook**. The CONSULTANT will analyze comments received and prepare comment responses for DEPARTMENT approval. The CONSULTANT will summarize the public involvement process and

document the public comments received and the DEPARTMENT's responses in the Environmental Document. Supporting documentation will be maintained in the project file within SWEPT.

Any coordination regarding other projects should be documented in the Comments and Coordination Report.

3.5 NOTIFICATION OF APPROVED ENVIRONMENTAL DOCUMENT (Phase II)

The CONSULTANT shall prepare display advertisement for the notification of the Approved Environmental Document. The CONSULTANT will pay for the cost of publishing. The DEPARTMENT must review and approve the notice prior to publication.

3.6 ADDITIONAL PUBLIC INVOLVEMENT REQUIREMENTS

Not applicable for this project.

4.0 ENGINEERING ANALYSES AND CONSIDERATIONS

CONSULTANT activities to conduct and prepare engineering analyses and reports shall occur under the direction of the DEPARTMENT Project Manager. The CONSULTANT shall perform engineering activities essential to developing and evaluating project alternatives as outlined in **Part 2, Chapter 3** of the **PD&E Manual** and as specified in this section. The CONSULTANT will gather and review existing data from the DEPARTMENT, such as transportation planning data developed for long range plans or any previously completed technical studies within the project area. The CONSULTANT will collect additional data necessary to supplement existing data.

The CONSULTANT will verify, and if necessary, amend the purpose and need statement for the project based on information obtained from the Programming Screen Summary Report, existing data, safety analysis, evaluation of existing conditions, evaluation of traffic projections, and input received through the public involvement process.

The CONSULTANT shall develop and analyze conceptual design alternatives to address the project's Purpose and Need. Early in the alternatives development process the CONSULTANT must consider the DEPARTMENT's **Complete Streets**, **Policy No. 000-625-017**. Consideration and integration of complete streets during the PD&E Study promotes the efficient development of a multimodal transportation system. The complete streets context classification is determined based on the **FDOT Context Classification Guide** and in coordination with the DEPARTMENT.

Prior to evaluating build alternatives, engineering analysis must demonstrate that maximization of the existing system through various Transportation Systems Management and Operations (TSM&O) strategies will not meet the purpose and need for the project. The CONSULTANT will document the TSM&O Alternative in the alternatives section of the PER and Environmental Document. If the TSM&O Alternative does not meet the purpose and need for the project, the PER and Environmental Document must briefly explain why.

Based on engineering analysis, the public involvement process, and environmental analysis, the DEPARTMENT will identify a proposed design concept (the preferred alternative) to advance to the design phase.

4.1 REVIEW OF PREVIOUS STUDIES (Phase I)

The CONSULTANT shall review and summarize previously completed (or concurrent) planning studies and other studies that are related to this project and appropriately incorporate their results in the analysis of the project as described in the **PD&E Manual**. The following studies were conducted for this project:

- Cape Coral Evacuation Route Study
- I-75 Central Corridor Master Plan

4.2 EXISTING CONDITIONS ANALYSIS (Phase I)

The CONSULTANT will conduct field observations to review existing field conditions, verify desktop data, and obtain additional data required to understand the project area, assess project needs, identify physical and environmental constraints, develop and analyze project alternatives, and assess constructability issues.

The CONSULTANT will collect data describing existing conditions and characteristics of the project including roadway geometrics, as-built plans, pavement reports, existing right of way, tax maps, maintenance maps, typical section elements, signalization and other operational features, access features, and other data applicable to modes and sub-modes of transportation. Transportation methods may include pedestrians, bicyclists, public transit users (including transit vehicles and riders), paratransit users (carpools, vanpools, taxis, shuttles, jitneys, school buses, and coach buses), and freight users (including loading/unloading and parking, emergency response vehicles, service vehicles, and freight handler vehicles).

The CONSULTANT will analyze existing conditions to identify and verify current transportation deficiencies as they relate to the needs and objectives of this project.

The CONSULTANT will furnish necessary exhibits for use in this project, such as a Project Location Map, Corridor Maps, and Concept Plans.

4.3 SURVEY (Phase I)

The CONSULTANT will coordinate to obtain the latest aerials from the DEPARTMENT’s APLUS system or other sources as required. The CONSULTANT will also review the photography for project use to ensure compatibility and coverage.

4.4 GEOTECHNICAL INVESTIGATION (Phase I)

The CONSULTANT shall coordinate with the DEPARTMENT's geotechnical staff regarding project requirements, review of existing geotechnical data, and need for additional data. The CONSULTANT will review the US Department of Agriculture (USDA) soil data, US Geological Survey (USGS), and Natural Resource Conservation Service (NRCS) maps, US Coast and Geodetic Survey (USCGS) maps, and summarize the findings.

The CONSULTANT will perform a review of previously completed geotechnical surveys and compile available boring data from previous projects within the project limits. The CONSULTANT will perform field reconnaissance of the project area to determine conditions that may affect development of project alternatives. The CONSULTANT will prepare a Geotechnical Technical Memorandum summarizing the geotechnical investigation that will be used to facilitate the data for final design.

4.5 TRAFFIC ANALYSIS

4.5.1 Traffic Analysis Methodology (Phase I)

The CONSULTANT will prepare a Methodology Letter of Understanding (MLOU) to document the procedures to be followed in the Interchange Access Request (IAR). The MLOU will be prepared in accordance with the **Interchange Access Request User's Guide** and in consultation with the District Interchange Review Coordinator (DIRC). The CONSULTANT will perform traffic analysis in accordance with the MLOU and guidance from the **PD&E Manual**, **Traffic Analysis Handbook**, and **Project Traffic Forecasting Handbook**. The CONSULTANT will prepare a forecast and analysis methodology which must be agreed upon by the DEPARTMENT prior to beginning any analysis. The methodology must state the type of documentation, project study area to be analyzed, and method and assumptions that will be used to analyze existing and future traffic conditions. It must also establish the performance Measures of Effectiveness (MOE) for conducting a comparative evaluation of alternatives. The development of future forecast data must use the currently adopted version of the District's travel demand model: 2050 D1RPM. The DEPARTMENT will validate the travel demand model at a subarea level.

Capacity analysis will be based on the latest Highway Capacity Manual procedures. Use of micro-simulation software (Vissim) is anticipated for this Project. Calibration and validation are required when a microscopic simulation approach is used. Data should be gathered in accordance with the **Traffic Analysis Handbook**.

Traffic analysis methodology will include a methodology to evaluate safety performance of the project alternatives.

The CONSULTANT must submit all traffic analysis files for assumptions, inputs, outputs, network data, calculations, and results to the DEPARTMENT.

4.5.2 Traffic Counts

N/A – Traffic Counts will be collected by another contract

4.5.3 Vehicle Classification Counts on Roadway Segments and Ramps

N/A – Vehicle Classification Counts will be collected by another contract

4.5.4 Pedestrian, Bicycle and Other Multimodal Data

N/A – Multimodal data to be collected by another contract

4.5.5 Calibration and Validation Data for Microsimulation (Optional) (Phase I)

The CONSULTANT will collect calibration and validation data for the project analysis in accordance with **Part 2**, **Chapter 2** of the **PD&E Manual** and the **Traffic Analysis Handbook** and methodology as agreed upon in the analysis methodology.

4.5.6 Existing Traffic Operational Analysis (Phase I)

The CONSULTANT will conduct existing (base year) traffic operational analysis and report the operational performance measures as agreed upon in the analysis methodology. The analysis must include bicycle, pedestrian, and transit (if applicable) operations. The manual count data should be

reviewed for reasonableness and will be used to obtain the existing design hourly volumes using historical and seasonal adjustments as appropriate. All existing design hourly volumes must be balanced before being used in the analysis.

4.5.7 Future Demand Forecasting (Phase I)

No-Build Volumes: The CONSULTANT will develop opening year and design year design hourly volumes for the No-Build Alternative in accordance with the **Project Traffic Forecasting**, **Procedure No. 525-030-120**. The need for interim year analysis will be determined in the traffic analysis methodology.

Build Alternatives Volumes: The CONSULTANT will develop opening year and design year design hourly volumes only for viable or feasible Build Alternatives. The need for interim year analysis will be determined in the traffic analysis methodology.

4.5.8 No-Build Analysis (Phase I)

The CONSULTANT will analyze the operational performance of the No-Build Alternative for the analysis years to identify deficiencies related to the purpose and need for the project. The CONSULTANT will evaluate the operational effectiveness of the No-Build Alternative using agreed upon performance measures of effectiveness (MOEs). The analysis should include multimodal evaluation for pedestrian, bicycle, freight, and transit modes, as appropriate.

4.5.9 Development and Screening of Build Alternatives (Phase I)

The CONSULTANT will identify, develop, assess, and screen preliminary project alternatives that would meet the purpose and need for this project in accordance with **Part 2, Chapter 3** of the **PD&E Manual**. Development of alternatives will consider previously completed planning products.

4.5.10 Intersection Control Evaluation (Optional) (Phase II)

If determined by the DEPARTMENT to be necessary, the CONSULTANT will develop a Stage I Intersection Control Evaluation (ICE) in accordance with the **Manual on Intersection Control Evaluation** and the **FDM**. The ICE evaluation must include evaluation of operation and geometrics with respect to safety, freight, design year traffic, access management, physical and right of way constraints, design vehicle, posted speed limit, and transit operations.

The ICE will be summarized in the PER and Environmental Document consistent with **Part 2, Chapter 3** of the **PD&E Manual**.

4.5.11 Operational Evaluation of Build Alternatives (Phase I)

The CONSULTANT will analyze the operational performance of viable or feasible alternative(s) for opening and design years and any interim years as appropriate. The analysis must include multimodal evaluation for pedestrian, bicycle, freight, and transit modes as appropriate. The analysis will also include evaluation of access management in relation to traffic safety and operational efficiency within the study area. The analysis may include other measures where appropriate to the goals and objectives of the project. The CONSULTANT will evaluate the operational effectiveness of Build Alternatives using agreed upon performance MOEs.

4.5.12 Project Traffic Analysis Report (Phase I)

As described in **Part 2, Chapters 2 and 3** of the **PD&E Manual**, the CONSULTANT will prepare the PTAR to document development of design traffic volumes and results of the traffic analysis for No-Build and Build Alternatives, which includes the transit, bicycle, and pedestrian analysis. The analysis may also include freight performance measures and emergency evacuation measures where appropriate to the goals and objectives of the project. The results must be shown on diagrams for each alternative and discussed in the report. The PTAR will also summarize the comparison of the operational and safety performance of all alternatives evaluated in detail and how they perform against each other.

4.5.13 Interchange Access Request (Phase I)

The CONSULTANT will prepare an Interchange Justification Report (IJR) for the construction of a new interchange at one of the following locations in accordance with the **Interchange Access Request User's Guide**.

- I-75 at Del Prado Boulevard extension or I-75 at Slater Road
- I-75 at Lee/Charlotte County line
- I-75 at Oil Well Road

4.5.14 Traffic Data for Noise Study (Phase II)

The CONSULTANT will provide traffic data required for the noise study in accordance with the **Traffic Noise Modeling and Analysis Practitioners Handbook**, and will include the following data for each road segment (i.e., intersection to intersection), ramps, cross streets, and frontage roads, for the existing year, opening year, and the design year for Build and No-Build alternatives:

- LOS C directional hourly volumes
- Number of Lanes
- Demand peak hourly volumes (peak and off-peak directions)
- Existing and proposed posted speed
- Target Speed
- Percentage of heavy trucks (HT) in the design hour
- Percentage of medium trucks (MT) in the design hour
- Percentage of buses in the design hour
- Percentage of motorcycles (MC) in the design hour

4.5.15 Traffic Data for Air Quality Analysis (Optional) (Phase II)

If determined necessary by the DEPARTMENT, the CONSULTANT will collect traffic data required for the air quality analysis which will include the following:

- Intersection type and approach speed
- Intersections - peak hour volumes for each approach
- Interchanges - peak hour volumes for each ramp regardless of percent turning volumes

4.5.16 Signalization Analysis (Optional) (Phase II)

In coordination with the DEPARTMENT's Traffic Operations Office, the CONSULTANT shall perform signalization analysis and/or signal warrant studies at the intersections in accordance with all applicable manuals, procedures, guidelines, and current design memorandums. The CONSULTANT will propose preliminary signal timing plan and signal operation plan for each intersection that requires signalization on the recommended alternative. The CONSULTANT shall coordinate with the local stakeholders before proposing any new system in their jurisdiction and define their roles and responsibilities in the Concept of Operations (ConOps).

4.6 SIGNAGE (Phase II)

An existing sign inventory will be completed by the CONSULTANT. The sign inventory may include regulatory, warning, guide, motorist information and Intelligent Transportation System (ITS) signs. As part of the documentation effort, each of these signs may be photographed, inventoried, numbered, classified and located on aerial photography. Sign structure numbers will also be collected where available. The CONSULTANT will evaluate existing signing and signage requirements for the project.

The CONSULTANT will prepare a conceptual signing masterplan for the preferred alternative. The conceptual signing masterplan is intended to identify conceptual locations and design for major sign structures or critical signing needs.

4.7 TOLLING CONCEPTS

Not applicable for this project.

4.8 SAFETY (Phase I)

The CONSULTANT, in consultation with the DEPARTMENT, will develop the methodology for conducting the safety analysis in accordance with **Part 2**, **Chapter 2** of the **PD&E Manual**, the **Safety Analysis Guidebook for PD&E Studies**, and the **Interchange Access Request User's Guide**.

4.8.1 Existing Conditions Analysis

The CONSULTANT will perform a safety analysis in accordance with the **Safety Analysis Guidebook for PD&E Studies**, **Safety Crash Data Guidance,** and **Safety, Operations and Engineering (SO&E) acceptability**. The CONSULTANT will obtain the most recent five (5) years of available data from the DEPARTMENT's crash database (Signal 4 Analytics) and other local sources for this project for the existing conditions analysis. The crash data will include the number and type of crashes, crash locations, number of fatalities and injuries, narratives for fatal and severe injury crashes, and estimates of property damage and economic loss. In addition to crash data, field observations, stakeholder input, and other information on existing operations may be necessary.

The CONSULTANT will review the DEPARTMENT's Safety Dashboard to identify safety needs to be considered in the PD&E Study.

4.8.2 Future Conditions Analysis

A future conditions analysis is performed to assess the potential safety benefits of the proposed alternatives in comparison to the No-Build Alternative. The CONSULTANT will analyze the safety performance of the alternatives based on future traffic volumes, proposed geometrics, modal needs, traffic control conditions, and users of the facility, as appropriate. Future conditions analysis must

consider the proposed design context, traffic operational performance and users of the facility. The CONSULTANT will use crash modification factors (CMFs) or the **Highway Safety Manual (HSM)** predictive method (preferred) as agreed upon in the Traffic Analysis Methodology/MLOU. Depending on the methodology, additional data may be needed including roadway characteristics and volumes.

The future conditions analysis should also review and assess ongoing or committed projects near the project area that may impact the transportation network.

4.8.3 Documentation of Safety Analysis

The CONSULTANT will document the results of the safety analysis in the SO&E Report and summarize the findings in the PER and Environmental Document.

The discussion of the safety analysis in the PTAR, Safety Analysis Memorandum, or Interchange Access Request will describe existing safety problems and identify the recommended corrective actions to be applied to the proposed alternatives. The CONSULTANT shall describe the future conditions analysis and discuss how the proposed alternatives improve upon any existing or potential safety problems. This will include a comparison of the safety performance of the future No-Build and Build conditions. If more than one Build alternative is being considered and there is a difference in the safety performance of the alternatives, a comparative analysis of the alternatives should be provided.

4.9 UTILITIES AND RAILROAD (Phase I)

The CONSULTANT will obtain information regarding utilities and railroad in accordance with **Part 2**, **Chapter 21** of the **PD&E Manual**.

4.9.1 Utilities

Prior to starting utility coordination, the CONSULTANT and the DEPARTMENT Project Manager shall meet with the District Utility Office (DUO) for guidance to ensure that all necessary utility coordination will be accomplished in accordance with DEPARTMENT procedures.

The CONSULTANT will utilize information from Sunshine 811 to determine which Utility Agency Owners (UAOs) are within or adjacent to the project. The CONSULTANT will prepare a PD&E Request Package containing items specified in **Part 2**, **Chapter 21** of the **PD&E Manual**. Upon approval by the DUO, the CONSULTANT will distribute the PD&E Request Package to the identified utility providers and request existing and planned utility information for major above ground and subsurface facilities within the project limits.

The CONSULTANT, DEPARTMENT Project Manager and DUO will meet with each UAO as necessary, separately or together, to understand utility conflicts and project potential impacts on utilities. The CONSULTANT will evaluate and consider potential utility conflicts as they may affect the chosen corridor and/or alignment. While evaluating potential impacts and recommending mitigation strategies, the CONSULTANT should refrain from making any compensability determinations in any of the documentation/assessments that they create.

The CONSULTANT will prepare a Utility Assessment Package in accordance with **Part 2**, **Chapter 21** of the **PD&E Manual** that summarizes the results of the coordination with utility providers.

The CONSULTANT will support the DEPARTMENT including the Office of General Counsel if right of way will be required from Florida Gas Transmission in accordance with the Right of Way Attachment of the Agreement and Global Settlement (August 21, 2013).

4.9.2 Railroads

The DEPARTMENT Project Manager will initiate coordination with the District Rail Administrator (DRA). The DEPARTMENT will coordinate with Seminole Gulf and local government regarding highway-rail grade separation in accordance with **Part 2, Chapter 21** of the **PD&E Manual**.

The CONSULTANT will address impacts to existing or proposed rail crossings. The CONSULTANT will analyze elevated crossings to determine clearance envelopes and intersection constraints.

4.10 ROADWAY ANALYSIS

Development of Build Alternatives must consider the DEPARTMENT's **Complete Streets**, **Policy No. 000-625-017**, early in the alternatives development process in accordance with **Part 2**, **Chapter 3** of the **PD&E Manual**. The Complete Streets Policy requires a context-sensitive approach to project development by accommodating all transportation users and their relationship to safety, economy, mobility, and the environment. The complete streets context classification for the project is based on the DEPARTMENT's **Context Classification Guide** in coordination with the DEPARTMENT.

The CONSULTANT will consider innovative alternatives such as Connected and Automated Vehicle (CAV) technology, autonomous vehicles and tunneling when practicable, especially on Major Projects, as defined in **Part 1**, **Chapter 4** of the **PD&E Manual**, or projects in highly congested urban areas.

4.10.1 Design Controls and Criteria (Phase I)

The CONSULTANT will prepare design controls and criteria for developing project alternatives and designing initial geometrics and other roadway elements according to the DEPARTMENT standards. The DEPARTMENT will coordinate with Lee and/or Charlotte County to determine which standards to apply to local roads within the project limits.

4.10.2 Typical Section Analysis (Phase I)

The CONSULTANT will develop conceptual typical sections for the project alternatives which address transportation needs and context. Development of typical sections must consider the needs of all project users and the approaches contained in the DEPARTMENT's **Context Classification Guide and Complete Streets, Policy No. 000-625-017**.

4.10.3 Geometric Design

The CONSULTANT will perform geometric design using the established project design controls and criteria. The CONSULTANT will also use project traffic data and results of traffic analysis to design appropriate roadway elements. The CONSULTANT will establish both preliminary vertical profile and horizontal alignments of the mainline. The design of project alternatives must consider

environmental constraints, physical constraints, Context Sensitive Solutions, Complete Streets and any additional information, as required. See **Part 2**, **Chapter 3** of the **PD&E Manual** for more engineering and design considerations.

For each alternative evaluated in detail, the CONSULTANT shall prepare sketches of plan, profile, and typical sections as appropriate to show existing features, proposed geometry, and location of any environmental and geometric design constraints.

4.10.4 Intersections and Interchange Evaluation (Phase I)

The CONSULTANT will develop intersection and interchange concepts/layouts based on the results of traffic operational analysis. The layouts will include turn lanes, ramp, auxiliary lanes, storage lengths, ramp terminals, ramp junctions, and other geometric details at the following intersections:

- I-75 at Oil Well Road
- I-75 at Lee/Charlotte County line
- I-75 at Del Prado Boulevard extension
- I-75 at Slater Road

The CONSULTANT will review all planning studies for Intersection Control Evaluations and Interchange Analysis. Data older than 24 months should be validated and checked for reasonableness.

4.10.5 Access Management (Phase II)

The CONSULTANT will review the DEPARTMENT'S standards of the access management classification, found in **Part 2**, **Chapter 201** of the **FDM** and evaluate its application to the project. The DEPARTMENT will coordinate with Lee and/or Charlotte County regarding the applicability of the DEPARTMENT’s Access Management process towards local roads. The CONSULTANT will recommend the proper access classification and standard to be applied to the project.

The CONSULTANT will show appropriate access management features on the concept plans. Changes in access management should be consistent with the DEPARTMENT's **Median Opening and Access Management**, **Procedure No. 625-010-021**, and documented in the appropriate sections of the PER and the Environmental Document.

The proposed access management plan will be presented as part of the public involvement process, in accordance with **Part 2**, **Chapter 3** of the **PD&E Manual**. If a meeting is required, it may be combined with the PD&E Study Public Hearing or other Public Meeting.

4.10.6 Multimodal Accommodations

The CONSULTANT will identify and evaluate accommodations of freight, parking, pedestrian, bicycle, and transit and analyze the existing and planned multimodal needs and developing alternatives to accommodate these users. The CONSULTANT will coordinate with local governments, MPOs, transportation agencies, local Bike/Ped Office(s), rails to trails, etc., and the public in order to understand the transportation needs of users of all ages and abilities to promote the efficient development of multimodal transportation systems.

The CONSULTANT will review transportation systems planning data developed for long range plans, any previously completed technical feasibility studies, and other planning efforts within the study area.

The CONSULTANT will collect necessary data related to existing and planned transit infrastructure and service characteristics within the study area including stop locations, alignment/routing, frequency, span, vehicle loads, vehicle speeds and delays, excess passenger wait and transfer times, and ridership by stop and by route. The CONSULTANT will analyze the existing and planned transit system to identify deficiencies both from a transit agency and transit user perspective.

The CONSULTANT will review, evaluate, and document the location and condition of existing pedestrian, bicycle, and public transit accommodations and freight services in the study area. This activity includes reviewing existing plans, reports, and studies that outline strategies or define projects associated with alternative modes of travel.

The CONSULTANT will consider freight, pedestrian, bicycle, and transit in the development and evaluation of project alternatives commensurate with the context with a goal of improving overall mobility, access, connectivity, safety, and efficiency. Multimodal accommodation may include analysis of on-street parking and loading zone modifications and/or removal, park and ride needs, as necessary. The CONSULTANT will consider and evaluate the existing and anticipated future use of the project by bicyclists and pedestrians, the potential impacts of the project alternatives on bicycle and pedestrian travel, and propose measures to avoid or reduce adverse impacts to bicyclists and pedestrians that would use the project.

The CONSULTANT will also consider supportive Transportation Demand Management and parking management strategies consistent with the transportation context and the needs of all users of the project. The CONSULTANT will assist the DEPARTMENT with coordination with local agencies, transit operators and MPOs as appropriate.

4.10.7 Lighting (Phase II)

The CONSULTANT will evaluate the need for lighting in accordance with applicable manuals, guidelines, standards, and current design memorandums. The CONSULTANT will include the estimated cost for lighting in the construction cost estimate for the preferred alternative.

The CONSULTANT shall prepare a Lighting Justification Report, following the procedures outlined in the FDOT Manual on Uniform Traffic Studies (MUTS).

4.11 IDENTIFY CONSTRUCTION SEGMENTS

Not applicable for this project.

4.12 TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS

Intelligent Transportation Systems (ITS) Analysis is not required for this project.

4.13 STRUCTURES (Phase I)

4.13.1 Existing Structures

The CONSULTANT will collect the existing structures data as identified in **Part 2, Chapter 3** of the **PD&E Manual**. The following existing structures have been identified for evaluation:

Other Existing Structures:

No.	Location	Description
1	Slater Road	Over Branch of Daughtrey Creek (124031)
2	Slater Road	Over I-75 (120114)
3	Nalle Grade Road	Over Upper Daughtrey Creek (124032)
4	Nalle Grade Road	Over Upper Popash Creek (124033)
5	Oil Well Road	Over I-75 (010064)

Existing steel bridges require a fatigue evaluation as noted in **Part 2**, **Chapter 3** of the **PD&E Manual** and **Section 7.3.8** of the **Structures Design Guidelines** in the **FDOT Structures Manual**.

4.13.2 Structure Typical Sections

The CONSULTANT will develop typical sections options for the bridges. These will include the DEPARTMENT's standard typical sections, and any typical sections that may result in minimizing right of way and environmental impacts. Coordination with the District's Structures Design Engineer is required.

4.13.3 Proposed Structure

For existing bridges, the CONSULTANT will consider the age, sufficiency rating, typical section, repair costs, vertical and horizontal clearance, historic significance, maintenance of traffic plan, and availability of a detour route to determine if the bridge needs to be repaired or replaced.

For a bridge that is considered historic, or has substantial community value, the study must include a rehabilitation or repair alternative. If the bridge has an existing wildlife crossing feature, coordination with the District Environmental Manager and the resource agencies is required to ensure appropriate bridge design alternatives are considered.

For new bridges, the CONSULTANT will consider the proposed typical section, vertical and horizontal clearance requirements, location hydraulic evaluation and scour analysis, Soil Conservation Service (SCS) geotechnical data, existing geotechnical data, security requirements, aesthetics considerations and potential pier locations.

The CONSULTANT will document design assumptions used in the analysis in the PER.

4.13.4 Structures over Navigable Waters

N/A

4.14 DRAINAGE (Phase I)

The CONSULTANT will perform a drainage analysis in accordance with **Part 2**, **Chapters 11** and **13** of the **PD&E Manual** and the **DEPARTMENT's Drainage Manual**, **Procedure No. 625-040-002**. The CONSULTANT shall incorporate or consider any other related technical report findings into the Drainage Reports.

4.14.1 Floodplain and Drainage Data Collection

The CONSULTANT will gather floodplain data from FEMA Flood Insurance Rate Maps, and other relevant sources including local government, local agencies, and regulatory agencies. The CONSULTANT will gather data for drainage analysis including LiDAR, existing survey data, USGS Quadrangle Maps, and field observations.

4.14.2 Drainage Analysis

The CONSULTANT will perform drainage analysis by delineating the basin boundaries by using LiDAR information, existing survey data, and field observations. The CONSULTANT will analyze and determine high water elevations in each basin and use the information to establish the preliminary roadway profile. Drainage analysis will also include checking the capacity and structural adequacy of existing cross drains, preliminary design of potential cross drain and outfall structures and identifying the recommended conceptual drainage design for the project.

4.14.3 Floodplain Compensation Analysis

For each roadway alternative, the CONSULTANT will determine base floodplain elevations and estimate encroachments and appropriate compensation provisions, including incorporating floodplain compensation site requirements into the Pond Siting Report (PSR).

4.14.4 Sea Level Rise Analysis

For each alternative within the Coastal Building Zone as defined in **62S-7.010 F.A.C.**, the CONSULTANT will perform a Sea Level Impact Projection (SLIP) Study as described in **Part 2**, **Chapter 3** of the **PD&E Manual**.

4.14.5 Stormwater Management Analysis

The CONSULTANT will calculate the stormwater quality and attenuation requirements and estimate the stormwater management facility needs for each roadway alternative.

Using the Watershed Approach to Evaluate Regional Stormwater Solutions (WATERSS) Process, as described in the WATERSS Process Guidebook and **Part 2**, **Chapter 3** of the **PD&E Manual**, the CONSULTANT will evaluate potential regional opportunities and develop stormwater management facilities.

The CONSULTANT will accelerate any WATERSS Process steps that were not completed prior to starting the PD&E study if they were not completed during the Planning Phase.

The CONSULTANT will coordinate with the DEPARTMENT for permitting requirements and associated meetings with permitting agencies.

As part of the WATERSS process, the CONSULTANT will coordinate with the District WATERSS Champion and District Stormwater Team and become familiar with decisions and agreements made during the planning and ETDM Phase. Those decisions and agreements will be carried forward and more fully developed as applicable for each alternative. The CONSULTANT will review and become familiar with all the previous decisions, and considerations documented in the Stormwater Management Alternatives Report (SMARt). The CONSULTANT will update the SMARt report to document activities and coordination in PD&E phase.

If the WATERSS process reveals no watershed approach solutions, the CONSULTANT will prepare a PSR or Conceptual Drainage Design Report in accordance with the DEPARTMENT's Drainage Manual and Drainage Design Guide.

4.14.6 Drainage Design

N/A

4.14.7 Location Hydraulics Report

This task includes development of the Location Hydraulics Report in accordance with **Part 2**, **Chapter 13** of the **PD&E Manual**.

4.15 LANDSCAPING ANALYSIS

N/A

4.16 PROJECT COST ESTIMATES

4.16.1 Construction Cost Estimates

The CONSULTANT will develop pay items and quantities for use by the DEPARTMENT to determine construction cost estimates using Long Range Estimate (LRE) program for viable alternatives. The CONSULTANT will be responsible for reviewing and mark-ups to the cost estimate when scope changes occur, at project milestones, and during the DEPARTMENT's regular update cycle.

4.16.2 Right of Way Cost Estimates

Based on typical section analysis and DEPARTMENT design standards, the CONSULTANT will establish construction limits and determine the proposed right of way requirements throughout the limits of the project. Establishment of construction limits will consider the location of drainage features, the transportation management plan, utility relocations, stormwater pond requirements, floodplain compensation, and identified environmental issues, among other factors.

The CONSULTANT will compare the existing right of way with the proposed right of way requirements to estimate the amount of right of way that the DEPARTMENT must acquire.

The DEPARTMENT will estimate the cost for right of way acquisition, and cost estimates for relocations and business damages, if any. The CONSULTANT will submit concept plans for the Build Alternatives that include the parcel identification number, existing right of way lines, proposed

right of way lines, and acreage of property required. Additionally, the CONSULTANT will provide a spreadsheet with the following parcel information: owner, address, acreage of parent parcel and required amount of property for the project, and parcel number.

The DEPARTMENT's Right of Way Office staff and CONSULTANT may conduct an interactive field trip to review conditions in the corridor as they pertain to actual conditions that might impact the cost of right of way acquisition for the project.

The CONSULTANT may jointly meet with the District Roadway Engineer, Traffic Operations staff, Right of Way Office staff, and DEPARTMENT's Office of General Counsel staff prior to the development of right of way cost estimates. The purpose of the meeting is to jointly review the proposed design parameters and the proposed alternative alignments to identify those alternatives for which right of way cost estimates will be developed by the DEPARTMENT. The goal is to evaluate the alternatives necessary to comply with PD&E requirements and to satisfy the evaluation needed for eminent domain considerations for each alternative. The CONSULTANT will review and provide comments to the right of way cost estimates developed by the DEPARTMENT.

4.16.3 Other Cost Estimates

The CONSULTANT shall incorporate and reference other costs as appropriate from supporting documents such as Utility Impact Assessment Report, Preliminary Engineering Report (PER), and Environmental Reviews.

Other Costs may include utilities, mitigation, contamination, aesthetics, and percentage costs such as Design estimates as appropriate.

4.17 ALTERNATIVES EVALUATION (Phase II)

The CONSULTANT shall document the preliminary alternatives in accordance with the **PD&E Manual** for the following types of alternatives:

- No-Action Alternative, or No-Build Alternative
- TSM&O Alternative
- Multimodal Alternative
- Build Alternative(s)

In order to conduct a preliminary evaluation of alternatives, the CONSULTANT shall develop each alternative sufficiently to evaluate its reasonableness and ability to meet the project's purpose and need in accordance with **Part 2**, **Chapter 3** of the **PD&E Manual**. Those alternatives that do not meet the project's purpose and need, or are not reasonable or feasible, shall have the basis for their elimination documented in the Preliminary Engineering Report (PER) and Environmental Document. The No-Build and reasonable alternatives will then be advanced for further design and comparative analysis as described below.

By considering project goals and objectives, purpose and need, and ETDM Programming Screen results, the CONSULTANT, in consultation with the DEPARTMENT, will identify and document alternatives to be eliminated from further detailed study. Only viable or feasible alternatives should be carried forward for detailed study. The CONSULTANT must include in the PER a discussion of alternatives, including associated TSM&O strategies, which were considered for the project but eliminated from detailed study (during the Feasibility or PD&E phase). The discussion should describe each alternative

considered; the methodology for eliminating alternatives, data used in the evaluation, agency and public input into the evaluation process; and at what point in the process (Feasibility or PD&E phase) the alternatives were eliminated.

The CONSULTANT will evaluate the No-Build and viable alternatives, their development, including accommodation of pedestrian and bicycle facilities, access management measures, incorporation of safety and operational measures into the alternatives' design, and stormwater management facilities. The CONSULTANT will document the evaluation in the PER and the Environmental Document.

4.17.1 Comparative Alternatives Evaluation

The CONSULTANT will establish evaluation criteria at the beginning of the project, which must be agreed upon with the DEPARTMENT before use in the comparative evaluation of alternatives. After developing the viable alternatives, analyzing alternatives, and estimating costs, the CONSULTANT will prepare an evaluation matrix which compares the environmental impacts, performance, and costs of the alternatives evaluated, in detail, in the PD&E study. The evaluation matrix will include the performance of the No-Build Alternative as the baseline for comparison.

4.17.2 Selection of Preferred Alternative

The DEPARTMENT will select a preferred alternative based on review and analysis of engineering, environmental, and public involvement issues related to this project.

4.17.3 Value Engineering

Not applicable for this project.

4.18 CONCEPT PLANS

The CONSULTANT will prepare concept plans for all viable project alternatives, in appropriate scales, overlaid on the base map.

4.18.1 Base Map (Phase I)

The CONSULTANT will produce a base map of the project area using DEPARTMENT CADD standards as according to the **CADD Manual**. The base map will contain an aerial photo and existing characteristics for the project. The base map must show environmental issues that are specific to the study area such as cemeteries, wetlands, historic properties, high-risk contamination sites, public parks, and property lines.

The CONSULTANT will prepare base maps for the following uses (at noted scales):

- Overall Project Location Map 1: 2000
- Overall Drainage Map 1: 500
- Corridor Maps (Roll Plots) 1: 200

4.18.2 Alternatives Concept Plans (Phase I)

The CONSULTANT will prepare and overlay alternative concept plans on the base map. The concept plans must show potential location for bridges, culverts, retaining walls, right of way lines (existing and proposed), known utility facilities, intersection, critical driveways, and median

openings, among other roadway elements, at appropriate scale according to the DEPARTMENT's **CADD Manual**.

4.18.3 Preferred Alternative (Phase II)

The CONSULTANT will finalize concept plans for the preferred alternative in accordance with **Part 2**, **Chapter 3** of the **PD&E Manual**.

4.18.4 Typical Section Package (Phase II)

The CONSULTANT will prepare the Typical Section Package (excluding pavement design) in accordance with the **FDM** and attach to the **PER** for inclusion in SWEPT.

4.18.5 Design Exceptions and Design Variations (Phase II)

The CONSULTANT will prepare Design Exceptions and Design Variations Package or Memo for the preferred alternative for DEPARTMENT approval in accordance with the **FDM**, **Chapter 122**. The design exceptions and design variations shall be identified in the **PER**. The CONSULTANT will prepare and document a safety analysis as required by the **FDM** for design variations or exceptions as applicable.

4.19 TRANSPORTATION MANAGEMENT PLAN (Phase II)

The CONSULTANT will prepare a conceptual Transportation Management Plan (TMP) which includes traffic control strategies and may also include additional work zone management strategies based upon the expected work zone impacts of the project in accordance with **Part 2, Chapter 3** of the **PD&E Manual**.

4.20 RISK MANAGEMENT (Phase II)

The CONSULTANT will prepare a Project Risk Checklist and a Risk Management Memo at milestones during the PD&E study.

4.21 ENGINEERING ANALYSIS DOCUMENTATION (Phase II)

The CONSULTANT will prepare a **PER** per **Part 2**, **Chapter 3** of the **PD&E Manual** and the Preliminary Engineering Report Outline and Guidance document.

The CONSULTANT shall include sufficient supporting information related to all computer programs and parameters used in the analyses to facilitate the review of the engineering documentation. The engineering documentation shall be orderly and logically presented. The final engineering analysis document prepared by the CONSULTANT shall be signed and sealed by a Florida-licensed professional engineer.

4.21.1 Constructability Review

The CONSULTANT will review the constructability of the project by considering the likely response by contractors bidding on the proposed projects, as well as the ability to efficiently construct the project, maintain traffic, and maintain multimodal accommodations for the study area.

5.0 ENVIRONMENTAL ANALYSIS AND REPORTS

Tasks described within this section direct work efforts applicable to the environmental analysis, coordination, and documentation for this project. Prior to beginning any environmental work, the CONSULTANT must review the ETDM Programming Screen Summary Report which includes the summary degree of effects, resource agencies' comments, potential permits, GIS information, and Class of Action from the EST. This review will support the CONSULTANT's ability to adequately assess the potential for project alternatives to affect known environmental resource issues.

CONSULTANT activities to conduct and prepare environmental analysis and reports shall be done under the direction of the DEPARTMENT Project Manager. The CONSULTANT will collect pertinent environmental data, conduct analyses, assist the DEPARTMENT in coordination, and document the results of this analysis within technical reports or memoranda. The analyses, coordination, and reporting will be performed and presented in accordance with the **PD&E Manual**.

The CONSULTANT will analyze the Build Alternatives and the No-Build Alternative, with respect to impacts to cultural, natural, social, and physical resources, and document all analyses in the supporting technical reports. Where appropriate, the CONSULTANT will describe existing conditions, project impacts, and proposed measures to avoid, minimize, or mitigate project impacts on the environmental resources or issues. The CONSULTANT will summarize the analysis results and project's effect on environmental resources in the Environmental Document. This may include analysis results or documents prepared by the CONSULTANT or others, either as part of this project or another concurrent study. Additionally, the CONSULTANT must verify and record any environmental resources that is identified as "No Involvement" within the Environmental Document.

5.1 SOCIOCULTURAL EFFECTS

The CONSULTANT will conduct a Sociocultural Effects (SCE) evaluation in accordance with **Part 2**, **Chapter 4** of the **PD&E Manual** and any related chapters identified below, as appropriate. The CONSULTANT will review the project's ETDM Programming Screen Summary Report, if available, to identify potentially affected resources and the level of importance placed on those resources. The CONSULTANT will consider direct, indirect, and cumulative effects on the community, greater local area and region, as appropriate, and recommend methods to avoid, minimize or mitigate project impacts. The CONSULTANT will review the SDR and verify community data. If the SDR is not available or if there have been significant changes since the previous document, the CONSULTANT will run a new SDR. The CONSULTANT may be required to obtain the affected community's input on the project, verify community data, and identify community concerns and preferences for project alternatives or features. The CONSULTANT will document the results of the SCE Evaluation in the Environmental Document with supporting documentation included in the project file in SWEPT. The following issues will be evaluated and if no involvement for an issue or resource is indicated, then standard statements (as applicable) to that effect from **Part 2**, **Chapter 4** of the **PD&E Manual** will be included in the Environmental Document.

5.1.1 Social

The CONSULTANT shall evaluate and document the following social environment features within the project study area:

- **Community Cohesion**: The CONSULTANT will identify and assess potential project impacts on physical barriers, traffic pattern changes, social pattern changes, and loss of, or change in, connectivity to community features and facilities.
- **Special Community Designation**: The CONSULTANT will identify and assess potential project impacts on schools, churches, parks, emergency facilities, social services, daycare facilities, retirement centers, community centers, and retail locations.
- **Safety / Emergency Response**: The CONSULTANT will identify and assess potential project impacts including creation of isolated areas; emergency response time changes; and locations of police, fire, emergency medical services, healthcare facilities, and government offices.
- **Demographics**: The CONSULTANT will identify and assess potential for project impacts on minority, LEP persons, disabled persons, low-income populations, and/or special populations within the project study area. If minority or low-income populations are in the affected area, the determination of adverse effects to those populations, may need to consider potential effects beyond the six (6) SCE issues for the purposes of Environmental Justice, per **Part 2**, **Chapter 4** of the **PD&E Manual** and may require additional coordination with the affected community to establish mitigation measures. The CONSULTANT in coordination with the DEPARTMENT, must determine whether the project effects are "disproportionately high and adverse". The CONSULTANT will discuss the magnitude and distribution of disproportionately high and adverse human health or environmental effects on minority and low-income populations for all alternatives. Coordination with the affected community and the identification of mitigation measures will be documented in the Environmental Document.
- **Community Goals and Quality of Life**: The CONSULTANT will identify and assess potential project impacts on social values and compatibility with community goals and vision.

5.1.2 Economic

The CONSULTANT shall evaluate and document the following economic features:

- **Business and Employment**: The CONSULTANT will assess potential project impacts to business and employment activity in the region, the local area, and the project study area, including industries with special needs (e.g., freight distributor) or significance (e.g., regional employer), economic-oriented land use, economic development plans, special designations, and community development priorities. Assessment will also include identification of changes to routes, access, parking, or visibility that could benefit or impair businesses, employment centers, community facilities, or population.
- **Property Values and Tax Base**: The CONSULTANT will assess potential project impacts on the tax base, employment opportunities, and property values.

5.1.3 Land Use Changes

The CONSULTANT will evaluate the project's consistency with the physical character of the area and applicable community plans.

5.1.4 Mobility

The CONSULTANT will evaluate potential project impacts on mobility and accessibility with regard to all transportation modes (i.e., pedestrian, bicycle, transit and vehicles) in the study area.

5.1.5 Aesthetic Effects

This resource is not present or will not be impacted by the project. The CONSULTANT must verify and record in the Environmental Document.

5.1.6 Relocation Potential

The CONSULTANT will identify right of way needed for proposed improvements. The DEPARTMENT will determine which residences, businesses, and institutional or community facilities require relocation to accommodate the project. The CONSULTANT will obtain additional site-specific information needed to evaluate the effect of each project alternative on the displacement of residences and businesses and the availability of comparable replacement housing and/or suitable unoccupied buildings for businesses.

The CONSULTANT will collect the data and perform the analysis necessary to complete a Conceptual Stage Relocation Plan (CSRP) for the proposed alternatives, according to **Part 2**, **Chapter 14 of the PD&E Manual and Chapter 9 of the Right of Way Procedures Manual** and summarize the findings in the Environmental Document**.**

5.1.7 Farmland (Phase II)

The CONSULTANT will perform a Farmlands evaluation in accordance with **Part 2**, **Chapter 6** of the **PD&E Manual**.

5.2 CULTURAL RESOURCES

The CONSULTANT will summarize cultural resources in the Environmental Document. If no involvement for a cultural resource(s) is indicated, then a statement to that effect will be included. If there is involvement with a cultural resource(s), the CONSULTANT will document the assessment of direct and indirect effects of the project on the resource(s), recommend avoidance measures, methods to minimize or mitigate impacts, and any coordination efforts.

5.2.1 Archaeological and Historical Resources

The CONSULTANT will use a professional qualified under the provisions of **36 CFR 61** in compliance with the **National Historic Preservation Act of 1966 (NHPA, Public Law 89-665**, as amended,) and implementing regulations (**36 CFR 800**). All work shall be performed in accordance with the NHPA (Section 106), Florida Statutes (Chapter 267), **PD&E Manual** (**Part 2**, **Chapter 8**), the DEPARTMENT's **Cultural Resource Management (CRM) Handbook**, and the **Section 106 Programmatic Agreement** among FHWA, the Advisory Council on Historic Preservation (ACHP), the Florida Division of Historical Resources (DHR) State Historic Preservation Officer (SHPO), and the DEPARTMENT.

Analysis: The CONSULTANT will review and address any issues or comments concerning archaeological or historical resources as mentioned by SHPO or other interested parties, including Native American Tribes, in the project's Programming Screen Summary Report. The CONSULTANT shall research existing information about historic properties, including data concerning the potential for the occurrence of historic properties not yet identified, and a map of the zones of probability within the project study area. The CONSULTANT, in coordination with the

DEPARTMENT, will establish the Area of Potential Effect (APE), including pond sites, and prepare a Research Design and Survey Methodology, in accordance with **Part 2**, **Chapter 8** of the **PD&E Manual** and **Chapter 5** of the CRM Handbook. The Research Design and Survey Methodology will be submitted to the DEPARTMENT for approval prior to the initiation of field work.

The CONSULTANT will conduct a desktop analysis for all Stormwater Management Facilities (SMF)/ Floodplain Compensation (FPC) areas. Desktop analysis results will be provided in a Desktop Assessment, to the District in support of the Pond Siting Report (PSR) or Stormwater Management Alternatives Report (SMARt).

Upon approval of the Research Design and Survey Methodology, the CONSULTANT shall conduct field investigation to identify the presence of archaeological sites and historic resources located within the APE. The CONSULTANT shall identify the boundaries for all historic resources within the APE and evaluate the significance of each resource in accordance with the NRHP criteria for evaluation set forth by the National Park Service (NPS). Should the proposed project potentially effect historical or archaeological resources that are listed on, eligible, or potentially eligible for the NRHP, the CONSULTANT shall prepare a Section 106 Case Report. The Section 106 Case Report shall document the project's direct, indirect and cumulative effects to historical and archaeological resources using the Criteria of Adverse Effect, in accordance with **Part 2**, **Chapter 8** of the **PD&E Manual** and the **CRM Handbook**, and include avoidance, minimization and mitigation measures.

Coordination: The CONSULTANT shall coordinate all work with DHR SHPO, federally recognized Native American Tribes, and other State and Federal agencies, as appropriate, by the DEPARTMENT's direction. Any coordination with Native American Tribes or State and Federal agencies will be through the District or OEM, as appropriate. The CONSULTANT will be required to assist the DEPARTMENT by providing technical support for Section 106 meetings. In addition, attendance at public meetings may be required.

Documentation: The CONSULTANT will prepare the Cultural Resources Assessment Survey Report (CRAS), or appropriate document, describing and justifying the boundaries of the APE, detailing the survey techniques, geographic extent of the surveys, the survey results, and assessments of resource significance, including preparation of Florida Master Site File forms, and coordination with SHPO and the Advisory Council on Historic Preservation (ACHP), if applicable. If any agreements or commitments are made, they are recorded in the Project Commitment Record (PCR) and the commitment section of the Environmental Document. In the event the project has an adverse effect on a historic property(ies), the CONSULTANT will prepare a Section 106 Case Report and a Section 106 Memorandum of Agreement (MOA). The CONSULTANT will summarize the results of the CRAS, and any cultural resource associated consultation or subsequent cultural resource documents, in the appropriate section of the Environmental Document. If no involvement for an issue is indicated, then a statement to that effect will be included. If required, the CONSULTANT will assist the DEPARTMENT in obtaining a determination of eligibility from the Keeper of the NRHP as set forth in **36 CFR Part 63**.

5.2.2 Recreational Areas and Protected Lands

Analysis: The CONSULTANT will review the project's Programming Screen Summary Report to determine the presence of recreation areas and protected lands within the study area. The CONSULTANT will identify the applicability of Section 4(f) and/or concurrent requirements, such

as Section 6(f) of the Land and Water Conservation Fund (LWCF). The CONSULTANT will verify whether the proposed project requires an unavoidable use of state-owned upland conservation lands which are managed for conservation, outdoor resource-based recreation, or archaeological or historic preservation and subject to review by the FDEP Acquisition and Restoration Council (ARC).
Coordination: The CONSULTANT shall develop alternatives to avoid and minimize involvement with recreation areas and protected lands. The CONSULTANT will assist the DEPARTMENT by compiling materials needed for coordination with the ARC board and/or Official with Jurisdiction (OWJ).
Documentation: If Section 4(f) or concurrent requirements are applicable, the CONSULTANT will prepare the appropriate documentation for recreation areas and/or protected lands impacted by the project, as discussed below, and in accordance with **Part 2**, **Chapter 7** of the **PD&E Manual**. The CONSULTANT will summarize the recreation area, the project impacts to that recreation area, any avoidance, minimization, or mitigation measures, and the Section 4(f) determination in the Environmental Document.
The CONSULTANT will support the DEPARTMENT, by preparing the Uplands Easement Application and a State Lands Impact Report (SLIR), if required, as specified in **Part 2**, **Chapter 23** of the **PD&E Manual**. The CONSULTANT will document the project's involvement with state-owned lands in the Environmental Document. Documentation in the Environmental Document will include a description of state-owned upland conservation lands subject to review by ARC in the project area, a summary of project impacts to these lands, and the ARC review process.
For project involvement with recreation areas and protected lands not subject to Section 4(f) or concurrent requirements, the CONSULTANT will document the project's impacts, measures to avoid and/or minimize harm, and any coordination conducted. If no involvement with recreational areas and protected lands is indicated, then a statement to that effect will be included.

5.2.3 Section 4(f) and Concurrent Requirements

Analysis: The CONSULTANT will review the project's Programming Screen Summary Report for comments regarding the project's potential involvement with resources protected by Section 4(f) or concurrent requirements, as described in **Part 2**, **Chapter 7** of the **PD&E Manual**.

Section 4(f) Resources
The CONSULTANT will identify potential Section 4(f) resources, assist the DEPARTMENT in conducting initial coordination with the OWJ to determine the significance of the property, identify the characteristics and functions of the Section 4(f) resource, determine the "use" of the property by the project and prepare the appropriate documentation when Section 4(f) approval is required.

- **Section 4(f) Determination of Applicability**: The CONSULTANT will complete the documentation in the SWEPT Section 4(f) Tool and coordination required to determine the applicability of Section 4(f) in accordance with **Part 2**, **Chapter 7** of the **PD&E Manual**.
- **Section 4 (f) "de minimis" Documentation**: The CONSULTANT will prepare Section 4(f) "de minimis" documentation in the SWEPT Section 4(f) Tool in accordance with **Part 2**, **Chapter 7** of the **PD&E Manual**.
- **Individual Section 4(f) Evaluation**: The CONSULTANT will complete the documentation for an Individual Section 4(f) evaluation in accordance with **Part 2**, **Chapter 7** of the **PD&E Manual**. The CONSULTANT will be required to evaluate a prudent and feasible avoidance alternative and/or conduct a Least Overall Harm Analysis.

The CONSULTANT will assist the DEPARTMENT in coordinating with the OWJ to identify measures to avoid and/or minimize the use of Section 4(f) resource(s) by the project.

Concurrent Requirements

The CONSULTANT will determine whether there are concurrent laws requiring federal or state approvals, as described in **Part 2**, **Chapter 7** of the **PD&E Manual**. If any viable alternative proposes the use of land from a Section 4(f) property purchased or improved with federal grant-in-aid funds, the CONSULTANT shall assist the DEPARTMENT in coordination with the appropriate federal agency to ascertain the agency's position on the land conversion or transfer and in meeting the requirements for conversion of the land to a different use.

Documentation: The CONSULTANT shall document whether Section 4(f) or concurrent requirements are applicable, including the project's involvement, agency coordination, compliance with Section 4(f), and summarize in the Environmental Document. The CONSULTANT will incorporate any agreed upon minimization or mitigation measures as environmental commitments in the Environmental Document and the PCR.

5.3 NATURAL RESOURCES

The CONSULTANT will review the project's Programming Screen Summary Report to identify the natural resources present and agency comments and concerns regarding these resources. The CONSULTANT will use this information as a basis for identifying natural resource evaluation areas to be field verified. The condition of the existing natural resources will be updated following field evaluation with the resource agencies. The CONSULTANT will assess the project's direct and indirect effects on the natural resources and document in the Natural Resources Evaluation (NRE) Report and/or the Environmental Document. The assessment and documentation shall include the severity of the impacts, avoidance and minimization measures, anticipated permits, resolution of agency concerns, and the agency coordination process, as appropriate. If there is no involvement with a resource, then a statement to that effect will be provided, in accordance with **Part 2, Chapters 9, 11, 12, 13, 14, 15, 16 and 17** of the **PD&E Manual**, as appropriate. Supporting documentation will be uploaded to the project file in SWEPT.

5.3.1 Wetlands and Other Surface Waters

Data Collection: The CONSULTANT will identify wetlands along the project as per **Part 2**, **Chapter 9** of the **PD&E Manual**, through review of GIS data, maps, plans, field reviews, and agency coordination.

Analysis: The CONSULTANT will estimate the impacts to the wetlands and other surface waters in the project area in accordance with **Part 2**, **Chapter 9** of the **PD&E Manual**. The CONSULTANT will utilize the Uniform Mitigation Assessment Method (UMAM) to determine the type, quality, and function of wetlands. The CONSULTANT will evaluate the alternatives' direct and indirect impact to wetlands, including functional loss, and identify measures that avoid wetland impacts. Where wetland impacts are unavoidable, the CONSULTANT will identify practicable measures to minimize impacts.

Conceptual Mitigation: The CONSULTANT will identify mitigation options, which will address potential impacts. If sufficient compensatory mitigation is not available, the CONSULTANT will propose alternative mitigation options.

5.3.2 Essential Fish Habitat

This resource is not present or will not be impacted by the project. The CONSULTANT must verify and record in the Environmental Document.

5.3.3 Protected Species and Habitat

Data Collection and Analysis: The CONSULTANT will review the project's Programming Screen Summary Report and develop a study design (to be approved by the DEPARTMENT) to evaluate the magnitude of the project involvement with, and potential impacts to protected species and designated or proposed critical habitats within the study area. Information should also be collected on habitat connectivity, areas that are ecologically important, and species that are otherwise protected by regulation. Upon approval of the study design, the CONSULTANT will perform additional GIS and literature review, field reviews, survey, and coordination necessary to determine the project's involvement with and potential impacts to, federal and state protected, threatened, or endangered species and their habitats, in accordance with **Part 2**, **Chapter 16** of the **PD&E Manual**. The CONSULTANT may be required to perform specific species surveys for formal consultation. Anticipated species-specific surveys include Audubon's crested caracara (*Polyborus plancus audubonii*), Eastern black rail (*Laterallus jamaicensis jamaicensis*), Southeastern American kestrel (*Falco sparverius paulus*), Florida scrub jay (*Aphelocoma coerulescens*), Everglade snail kite (*Rostrhamus sociabilis plumbeus*), and Florida bonneted bat (*Eumops floridanus*).

The CONSULTANT will assist the DEPARTMENT in consultations, including providing responses to agency requests for information, if required.

Conservation Measures and Mitigation Plan: The CONSULTANT will provide an analysis of wildlife and habitat conservation measures such as wildlife crossing and species relocation plans.

5.3.4 Natural Resource Documentation

The CONSULTANT will document the results of the Wetlands and Other Surface Waters, EFH, and Protected Species and Habitat evaluations in a Natural Resources Evaluation (NRE) Report in accordance with **Part 2**, **Chapter 16** of the **PD&E Manual**. The CONSULTANT will also refer to OEM's **Natural Resources Evaluation Outline and Guidance** document to ensure the proper documentation of natural resources.

Wetland and Other Surface Waters Documentation: The CONSULTANT will document in the NRE or Technical Memorandum, the identification and classification of wetlands and other surface waters, the functional analysis of wetlands, calculation of direct and indirect impacts, avoidance and minimization of impacts, conceptual mitigation measures for unavoidable impacts, and coordination with the resource agencies in accordance with **Part 2**, **Chapter 16** of the **PD&E Manual**. The CONSULTANT will summarize the findings in the Environmental Document.

EFH Documentation: If an EFH Assessment is required, the CONSULTANT will prepare the EFH Assessment in accordance with **Part 2**, **Chapter 17** of the **PD&E Manual** as part of the NRE report or Technical Memorandum (**Part 2**, **Chapter 16** of the **PD&E Manual**). If an EFH Assessment is not required, the CONSULTANT will document the EFH analysis and agency coordination conducted in the NRE report or Technical Memorandum and provide a summary in the Environmental Document.

Protected Species and Habitat Documentation: The CONSULTANT will document the protected species and habitat evaluation and agency consultation in the NRE report or Technical Memorandum, in accordance with **Part 2**, **Chapter 16** of the **PD&E Manual**, and summarize in the Environmental Document. Documentation should also include effect determinations, dates of concurrence, and/or outcomes of consultation. If it is necessary to prepare a Biological Assessment, this documentation will be compiled as part of the NRE report or Technical Memorandum.

5.3.5 Water Resources

Analysis: The CONSULTANT shall review the project's Programming Screen Summary Report, WATERSS EST GIS Analysis Results, and/or SMARt document for identification of the water resources in the project area and agency comments to be considered during the evaluation of the project's involvement with water resources. The CONSULTANT shall review water resource basins or watershed boundaries where the project may have a direct impact on water quality and identify water resource characteristics within the basin boundaries. The CONSULTANT will meet with the District Stormwater Team (DST) to determine applicability of WATERSS and to identify any regional/joint use stormwater management projects. The CONSULTANT shall assess a project's potential impacts to water resources, including Outstanding Florida Waters (OFW), Aquatic Preserves, Outstanding Natural Resource Waters (ONRW), and sole source aquifers (SSA). The CONSULTANT shall identify and evaluate mitigation measures (if necessary) and assist the DEPARTMENT with regulatory agencies and appropriate stakeholder coordination, in accordance with **Part 2**, **Chapter 11** of the **PD&E Manual**.

Documentation: The CONSULTANT will document the analysis of impacts to water quality in a **Water Quality Impact Evaluation (WQIE) Checklist**, **Form No. 650-050-37**, prepared for the preferred alternative and briefly summarized in the Environmental Document, and attached to the SMARt. If coordination with regulatory agencies or other stakeholders is required, additional documentation shall be included in the SMARt or Drainage Documentation. In addition, the CONSULTANT will summarize the drainage analysis and proposed stormwater management system in the Environmental Document and **PER**.

5.3.6 Wild and Scenic Rivers

N/A

5.3.7 Floodplains

The CONSULTANT shall summarize the findings of the LHR regarding the project's involvement with floodplains or regulatory floodways, measures to avoid and/or minimize impacts to floodplains or floodways, and any coordination with flood management agencies in the Environmental Document and PER, in accordance with **Part 2**, **Chapter 13** of the **PD&E Manual**.

5.3.8 Coastal Zone Consistency

The CONSULTANT will document the status of the project's Coastal Zone Consistency Determination in the Environmental Document and PER.

5.3.9 Coastal Barrier Resources

N/A

5.4 PHYSICAL EFFECTS

The CONSULTANT will review the project's Programming Screen Summary Report to determine agency concerns regarding the physical effects of the project. The CONSULTANT will establish the physical environment study area, conduct the appropriate analyses to assess the effects of the project on the physical environment. The CONSULTANT will summarize the physical effects analysis, including avoidance and minimization measures taken and coordination efforts in the Environmental Document. If the project has no involvement with an issue, then a statement to that effect will be included in the Environmental Document, in accordance with the appropriate chapter in the **PD&E Manual**.

5.4.1 Highway Traffic Noise

The CONSULTANT will perform the noise analysis, noise abatement evaluation, and assessment of construction noise and vibration impacts in accordance with the **Part 2**, **Chapter 18** of the **PD&E Manual** and the current version of FDOT's **Traffic Noise Modeling and Analysis Practitioner's Handbook**. The CONSULTANT will prepare materials for, attend, and document a noise study methodology meeting with the DEPARTMENT prior to beginning analysis.

Analysis: The CONSULTANT shall review the project's Programming Screen Summary Report, if available, to identify the locations of potential noise sensitive sites. The CONSULTANT will utilize traffic data from the Preliminary Traffic Analysis Report (PTAR) or its equivalent to conduct a predictive analysis required by 23 CFR § 772.9 using the FHWA Traffic Noise Model (TNM) as described in FHWA's Traffic Noise Model (FHWA TNM©), User's Guide (Version 2.5 Addendum). The CONSULTANT will provide analysis for the no-build alternative (existing and design year) and any build alternatives (existing and design year). If traffic noise impacts are identified, the CONSULTANT shall identify and analyze alternative noise abatement measures to abate identified impacts. Proposed noise barriers will be analyzed for reasonableness and feasibility in accordance with **Part 2**, **Chapter 18** of the **PD&E Manual**.

If noise barriers that might block the motorist's view of an existing, conforming and legally permitted outdoor advertising sign are found to be feasible, the District Outdoor Advertising section of the Office of Right of Way must be notified (consistent with the **Right of Way Manual, Procedure No. 575-000-000**). CONSULTANT will assist the DEPARTMENT in coordination with the local government regarding consistency with local ordinances or land development codes. Noise barrier modifications required to meet local ordinances will be analyzed to verify the modified noise barrier will meet the noise reduction requirements. The CONSULTANT will assist the DEPARTMENT in coordination with affected property owners benefitting from the noise barrier in accordance with **Part 2**, **Chapter 18** of the **PD&E Manual**.

Documentation: The CONSULTANT will document the methodology and results of the noise analysis and noise abatement evaluation, in the Noise Study Report (NSR). The CONSULTANT will provide an electronic copy of the NSR, in PDF format, as well as all TNM input/output files, and a “readme” file that supports the information documented in the report. The CONSULTANT shall summarize the traffic noise analysis in the Environmental Document, including identification of locations where noise impacts are predicted to occur, where noise abatement is feasible and

reasonable, and locations with impacts that have no feasible or reasonable noise abatement alternative in accordance with **Part 2**, **Chapter 18** of the **PD&E Manual**.

If the project is determined to be a Type III project, the CONSULTANT will document the determination in the Project File.

The CONSULTANT will assist the DEPARTMENT with public meetings support as requested.

5.4.2 Transit Noise and Vibration Impact Analysis

This resource is not present or will not be impacted by the project. The CONSULTANT must verify and record in the Environmental Document.

5.4.3 Air Quality

The CONSULTANT will gather data, perform the air quality screening analysis, and prepare the Air Quality Technical Memorandum, to document the results of the screening analysis in accordance with **Part 2**, **Chapter 19** of the **PD&E Manual**. Traffic data shall be prepared by the project's Traffic Engineer.
The CONSULTANT will coordinate air quality modeling if the project fails the Screening Analysis.

For projects that are an EA or EIS, the CONSULTANT will conduct a Qualitative mobile source air toxics (MSAT) assessment per **Part 2**, **Chapter 19** of the **PD&E Manual**.

5.4.4 Construction

The CONSULTANT will evaluate and document the potential impacts of the alternatives' construction activities and identify measures to reduce the amount of disruption which could result, in accordance with **Part 2**, **Chapter 3** of the **PD&E Manual**.

5.4.5 Contamination

The CONSULTANT will review the project's Programming Screen Summary Report for the initial identification of potential contamination sites. The CONSULTANT shall conduct a Level 1 Assessment in accordance with **Part 2**, **Chapter 20** of the **PD&E Manual**. The CONSULTANT shall investigate the contamination issues within and adjacent to the project's right of way considering the potential for each alternative to encounter contamination during excavation and acquiring new right of way. The CONSULTANT shall develop measures in coordination with the DEPARTMENT to address identified contamination issues in accordance with **Part 2**, **Chapter 20** of the **PD&E Manual**.

The CONSULTANT will document data reviewed, findings, risk rating of potential contamination sites, and recommendation for additional assessment actions in accordance with **Part 2**, **Chapter 20** of the **PD&E Manual** in a technical memorandum or the Contamination Screening Evaluation Report (CSER), depending on the level of contamination risk. The CONSULTANT will summarize the technical memorandum or CSER in the Environmental Document.

5.5 CUMULATIVE EFFECTS EVALUATION (WHEN APPLICABLE) (SWEPT DIRECTION)

The CONSULTANT will perform a cumulative effects evaluation of each resource of concern identified, based on context and in consultation with the DEPARTMENT, as per the process outlined in the DEPARTMENT's **Cumulative Effects Evaluation Handbook**. The cumulative effects evaluation should build upon information derived from the direct and indirect effects analyses. The CONSULTANT will document the cumulative effects analysis in a Technical Memorandum or a Cumulative Effects Report and summarize the results in the Environmental Document.

5.6 PROJECT COMMITMENTS

The CONSULTANT shall document the development of commitments that have been coordinated and approved by the DEPARTMENT in the appropriate technical report(s), appropriate section(s) of the Environmental Document, and the Commitments section of the Environmental Document per **Part 2**, **Chapter 22** of the **PD&E Manual**. The Commitments section of the Environmental Document will contain a list of commitments made, the agreed upon language, and the stakeholder(s) involved. The CONSULTANT will ensure that the commitment language is consistent between the technical report(s), and the various sections of the Environmental Document.

6.0 ENVIRONMENTAL DOCUMENT

The CONSULTANT will prepare an Environmental Document in accordance with the **PD&E Manual**. When another agency is serving as a joint lead agency with FDOT, or is the lead agency, or is using the DEPARTMENT's Environmental Document to support issuance of a permit, the CONSULTANT must address that agency's NEPA requirements, including requirements not normally included in a FDOT Environmental Document. All projects must demonstrate compliance with planning consistency prior to approval of the Environmental Document.

The CONSULTANT will assist the DEPARTMENT in preparing an Environmental Assessment in accordance with **Part 1**, **Chapter 6** of the **PD&E Manual**.

Upon completion of the EA, should the Lead Agency determine there are no significant impacts as a result of the project, the CONSULTANT will prepare a Finding of No Significant Impact (FONSI). The CONSULTANT will prepare the FONSI, under the direction of the DEPARTMENT and in accordance with **Part 1**, **Chapter 7** of the **PD&E Manual**, for review and approval by the Lead Agency. If the EA reveals the project will result in significant impacts, the DEPARTMENT will upgrade the project to an Environmental Impact Statement (EIS).

6.1 PLANNING CONSISTENCY

6.1.1 Transportation Plans

The CONSULTANT will coordinate with the DEPARTMENT to obtain and review transportation plans throughout the life of the project for all modes of transportation including freight, transit, and non-motorized. The following plans or studies should be reviewed as appropriate:

- MPO's adopted Long Range Transportation Plan (LRTP) Cost Feasible and Needs Plans
- Local Government Transportation Improvement Plan (TIP)
- State Transportation Improvement Program (STIP)
- Urban Area Transportation Study
- Local Government Comprehensive Plan (LGCP)
- Local Transit Development Plans (TDP) for bus, rail, or other services

- Non-motorized (bicycle and pedestrian) Plans

6.1.2 Planning Consistency Form

The CONSULTANT will assist the DEPARTMENT's finalization of Planning Requirements for Environmental Document approval.

7.0 METHOD OF COMPENSATION

Payment for the work accomplished will be in accordance with **Exhibit B** of this contract. The DEPARTMENT's Project Manager and the CONSULTANT will monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the study schedule and the work accomplished and accepted by the DEPARTMENT. The DEPARTMENT Project Manager will decide whether work of sufficient quality and quantity has been accomplished by comparing the reported Scope of Services percent complete against actual work accomplished.

Payments will not be made that exceed the percentage of work identified in the approved payout curve and schedule provided. 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 occurred and the results are acceptable to the DEPARTMENT.