

EXHIBIT A



SCOPE OF SERVICES

FOR

ALTERNATIVE CORRIDOR EVALUATION

PD&E For Central Polk Parkway East – SR 60 to US 17/92

Part A: Alternative Corridor Evaluation (ACE)

Part B: Project Development and Environment (PD&E) Study

Florida's Turnpike Enterprise

Polk County

This Scope of Services is an Exhibit which is incorporated into the agreement between the State of Florida Department of Transportation (hereinafter referred to as the Department or FDOT) and _____ (hereinafter referred to as the Consultant) relative to the transportation facility described as follows:

Financial Project ID: *451419-2-22-01*

ETDM No.: *To Be Determined*

Federal Aid Project No.: *Not Applicable*

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1. GENERAL

1.1. Purpose

The scope of services describes tasks and responsibilities of the Consultant and the Department to produce an Alternative Corridor Evaluation Report (ACER) through performing an Alternative Corridor Evaluation (ACE). The purpose of the ACE is to identify, evaluate, eliminate and recommend project alternatives prior to the Project Development and Environment (PD&E) phase. The ACE will consider the purpose and need, document the general environmental setting for the project, identify preliminary environmental impacts and environmental mitigation, evaluate engineering feasibility, and propose improvements and recommendations to address the need for the project.

The ACER and related submittals will be prepared in a form that can be adopted or incorporated by reference, as appropriate, in the State Environmental Impacts Report (SEIR) or the National Environmental Policy Act (NEPA) document(s) as provided in Appendix A to 23 CFR Part 450 and required by 23 USC 168(d).

The development of the ACE must follow the guidance provided in the Department's current version of the PD&E Manual, Efficient Transportation Decision Making (ETDM) Manual, and FDOT Design Manual (FDM).

All activities encompassed by this Scope of Services include:

- Major work groups include: 2.0 and 3.3
- Minor work groups include: 4.1.1, 4.1.2, 4.2.2, 6.1, 6.2, 6.3.1, 6.3.2, 6.3.3, 7.1, 7.2, 7.3, 8.1, 8.2, 8.3, 8.4, 9.1, 9.2, 9.4.1, 14.0 and 15.0

This contract includes a Project Development and Environment (PD&E) study and has an option for design services necessary to accelerate the project's development. The DEPARTMENT will prepare the scope of services for the PD&E Study and related activities before the ACE is completed.

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 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 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. The Scope of Services also outlines work activities that will be the responsibility of the CONSULTANT and/or the DEPARTMENT.

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 subconsultants are expected to know the laws and rules governing their profession and are expected to provide professional services in accordance with current and applicable regulations, codes, ordinances, and standards.

The DEPARTMENT has acquired the services to act on their behalf as General Consultants. The DEPARTMENT's General Consultants 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.

1.2. Project Description

This is an Alternative Corridor Evaluation and Project Development and Environment Study for Central Polk Parkway East from State Road (SR) 60 to US 17/92 within the study area, in Polk County. The study will also evaluate interchanges along the corridor.

The preferred alternative alignment identified in FDOT District One's Final State Environmental Impact Report for Central Polk Parkway from SR 60 to Polk Parkway (SR 570) and from SR 60 to I-4 (FPID 423601-1) shall be evaluated as a corridor alternative.

1.3. Project Objectives

The project will conduct an Alternative Corridor Evaluation to evaluate corridors for Central Polk Parkway East and a Project Development and Environment (PD&E) Study on the selected corridor to determine a preferred alternative.

The CONSULTANT will develop and document the viable corridor alternatives within the Study area using rectified digital aerial photography. These alternatives will be presented to the public at public meetings. The CONSULTANT shall evaluate the viable corridor alternatives as part of the ACE.

The purpose of the Central Polk Parkway East study is to identify an environmentally sensitive preferred alternative for a new multi-lane limited access highway that will provide an additional north-south facility to enhance mobility and increase accessibility on the regional roadway network and also improve emergency evacuation and response times. The addition of another north-south facility to the network will reduce traffic congestion, including truck traffic, on several corridors in central Polk County, particularly parallel facilities such as U.S. 98, U.S. 17, and U.S. 27. The Central Polk Parkway is anticipated to support the increased travel demands expected from the continued residential and employment growth projected within the county and throughout the entire region.

The preferred alternative must be consistent with meeting the following needs that have been identified:

- *Improve connectivity to the regional transportation network*
- *Enhance freight mobility and economic competitiveness*
- *Improve emergency evacuation capabilities*
- *Accommodate future population and growth*

1.4. 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 schedule to the Department. The schedule must indicate all required submittals, critical path activities, and key project milestones/activity codes. The Consultant shall include a review period of at least *ten (10) working days* for each draft document. *The CONSULTANT is responsible for preparing monthly schedule updates.*

The estimated time to complete the work effort described in this scope is approximately *eighteen (18) months*.

1.5. Submittals

The Consultant will compile and transmit draft documents identified in this Scope of Services to the Department for review. All submittals identified in this scope must be of such quality that they could be adopted or incorporated by reference into subsequent PD&E document(s). For each submittal, the Consultant will include a transmittal cover letter that includes, at a minimum, the file name and format of each electronic file and the number of hardcopies (if any) as directed by the Department Project Manager.

The Consultant will submit to the Department the following documents:

- Public Involvement Plan
- Public Involvement Documentation
- Quality Control Plan
- Existing Conditions Report
- Methodology Memorandum (MM)
- Traffic Forecasting Memorandum (*Completed by Department*)
- Traffic Analysis Report (*Completed by Department*)
- *Environmental Technical Memorandum*
- Alternative Corridor Evaluation Report (ACER)

After Department review of the draft documents, the Consultant will address comments, prepare a matrix of comments and responses as applicable, and submit revised documents. The Consultant will also assist the Department in resolving the comments received from agencies and the public.

Upon completion of the Project, the Consultant will transfer to the Department, in an organized manner, all project electronic files, data, calculations, maps, sketches, worksheets, and other materials used or generated during the study in an acceptable portable storage drive such as flash drives or USB drives.

1.6. Coordination with other Projects

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 proposed Project concepts are compatible with local transportation improvements that are planned or on going near the project area.

The Consultant shall coordinate with the following projects and studies located near the Project area:

- *PD&E for Central Polk Parkway East from south of US 17/92 to SR 538 (Poinciana Parkway)*
- *Polk County Powerline Road Extension and other ongoing/planned County projects*
- *FDOT District 1 US 17/92 Improvements and other ongoing/planned District projects*
- *Investigate status of developments within the study area*

The Consultant shall present the status of efforts weekly to the Department, and request discipline-specific meetings as needed. Close coordination with FDOT District 1 is required.

1.7. FDOT Manuals and Guidance

The Consultant shall obtain and utilize the most recent FDOT policies, procedures, manual, guidance including manuals and software, and electronic files of applicable standards, referenced in this scope or as directed by the Department Project Manager.

1.8. FDOT Contact

The Department will designate a Project Manager to represent the Department for this Project in overall planning and execution of this project. The Department Project Manager shall be responsible for coordination with the Consultant pertaining to all contractual matters, invoicing and reporting. The Department Project Manager shall be responsible for approval of any additional staffing including additional Sub-Consultant staff (approval must be coordinated with the Procurement Office).

1.9. Consultant Responsibility and Duties

The Consultant is fully responsible for all work performed and work products developed under this Scope of Services, including work products prepared by Sub Consultants. The Consultant and Sub Consultants are expected to know the laws and rules governing their profession and are expected to provide professional services in accordance with current and applicable regulations, codes, ordinances, and standards.

The Consultant will maximize the use of existing information available from federal, State, regional, and local agencies, private sources, and its own files. Examples include the ETDM Screening Summary Report, Concept Reports, previously completed studies, listed species reports, Florida Department of Environmental Protection databases, and other sources as appropriate.

The Consultant shall develop conceptual plans and alternatives designs utilizing Computer Aided Drafting and Design (CADD) systems. It is the responsibility of the Consultant to meet the CADD production requirements in the FDOT CADD Manual. Conceptual plans and alternatives designs shall also be displayed using Google Earth-ready KMZ files.

The Department may allow the Consultant to use the Department's computer facilities upon proper authorization as described in Department Procedure Topic No. 325-060-401.

1.10. Consultant Personnel on the Project

The Consultant will assign a Project Manager who will communicate regularly with the Department Project Manager regarding development of this Project. The Consultant must maintain staffing levels and personnel qualifications necessary to complete the required activities for this Scope of Services. The Consultant must have a Licensed Professional Engineer in the State of Florida to sign and seal engineering reports. The Consultant's work must be performed to Department standards and procedures by personnel identified in the contract. 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 Scope of Services activities unless otherwise identified.

1.11. Communication

The Department Project Manager will be the representative of the Department for this 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 federal, state, regional, local agencies, and citizen groups. The final direction on all matters for this Project remains with the Department Project Manager.

The Consultant must respond to information requests relative to the project from third parties at the direction, and with the approval, of the Department. The Consultant will assist the Department in preparing the content of the letters from Department personnel to other agencies, public officials, and others as needed or requested.

1.12. Quality Control

The Consultant will independently and continually review submittals for accuracy and completeness. The Consultant shall develop and follow the Quality Control Plan throughout the development of this study. The Department will review and approve the Consultant's Quality Control Plan. At a minimum, the Quality Control Plan must include review procedure, quality review checklist, and a certification that the Consultant has performed the quality control review for the submittal(s).

1.13. Contract Maintenance

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. 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 subconsultant efforts and executing subconsultant agreements.

The Consultant will prepare monthly progress reports. The Consultant shall schedule and conduct regular project meetings with the Department's Project Manager and other Department staff as appropriate throughout the project as well as at key milestones to review and discuss specific aspects of the project. The Consultant shall be responsible for preparing and keeping a record of meeting minutes.

1.14. Services to be Performed by the Department

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 to standards and requirements, and are not meant to substitute Consultant's quality reviews of documents.

The Department will lead and participate in coordination efforts with appropriate District Offices, Central Office, environmental resource and regulatory agencies, the public, and other stakeholders, as appropriate.

The Department will provide the following project data currently on file or available from study partners.

- *PD&E for Central Polk Parkway from SR 60 to Polk Parkway and from SR 60 to I-4 (FPID: 423601-1) documents*
- *Central Polk Parkway East from SR 60 to Poinciana Parkway Extension Connector Concept Evaluation Technical Memorandum - Part 1 & 2*
- *Central Polk Parkway East from US 17/92 to Poinciana Parkway Extension Planning Level Evaluation Technical Memorandum*
- *Central Polk Parkway East Eastern Feasibility Options Planning Level Evaluation White Paper from east of US 27 to US 17/92*
- *442805-1, US 27 Toll Lanes Feasibility Study from SR 60 to US 192 Technical Summary Memorandum*
- *442805-1, US 27 Toll Lanes Feasibility Study Alternative Alignments from SR 60 to I-4 Technical Summary Memorandum*
- *442805-1, Central Polk Parkway East from SR 60 to SR 538 / Poinciana Parkway Concept Evaluation*
- *Power Line Road Design Traffic Study*

1.15. Optional Services

At the Department's option, the Consultant may be requested to provide professional services not explicitly outlined in this Scope of Services. It is anticipated that this contract may be supplemented for additional services above any noted in this Scope of Services. Additional services will require a

Supplemental Agreement and Department approval prior to beginning any work efforts. 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. A Supplemental Agreement for the optional services shall be executed in accordance with Section 2 of the Standard Professional Services Agreement Terms. Optional services may include but not limited to the following:

- *Additional public involvement*
- *PD&E Study*
- *Final design services*

2. ETDM Support

The Consultant will provide Efficient Transportation Decision Making (ETDM) support associated with ACE, as directed by the Department ETDM Coordinator. Support services may include, but not be limited to:

- Preparation of Preliminary Environmental Discussion.
- Preparation and/or review of Purpose and Need.
- Preparation and participation in Pre-screening activities.
- Digitizing the project alternative corridors into the Environmental Screening Tool.
- Reviewing Environmental Technical Advisory Committee (ETAT) commentary and assisting the ETDM Coordinator with assignment of Degrees of Effect (DOE).
- Review, finalization and publication of Methodology Memorandum, Alternative Corridor Evaluation Report, Planning Summary Report, and Programming Summary Reports.
- Preparation of and justification for determining Class of Action.
- Coordination with the ETAT during the ETDM Screening events.
- Review of ETAT commentary and identification of pertinent issues.
- Summarization of all ETAT issues and recommendation of a Summary DOE.
- Assisting the Department during informal consultation and resolution of potential disputes with resource agencies.

3. PUBLIC INVOLVEMENT

The Consultant will coordinate and perform the appropriate level of public involvement for this Project as outlined in Part 1 Chapter 11 of the PD&E Manual and the FDOT Public Involvement Handbook. The Consultant will prepare all public involvement materials (e.g., newsletters, property owner letters, advertisements, handouts, and exhibits) associated with the following tasks for review and approval at least *forty (40)* business days prior to printing and / or distribution.

3.1. Public Involvement Plan

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 is responsible for creating the Public Involvement Plan (PIP) in accordance with Part 1, Chapter 11 of the PD&E Manual. The Consultant will maintain and regularly update the public involvement file, which will document a record of all public involvement activities for this Project.

3.1.2 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 both an electronic and paper public involvement project file, which will document a record of all public involvement activities for this project.

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

The CONSULTANT will work with the DEPARTMENT to generate or obtain mailing labels of property owners using the ETDM Environmental Screening Tool (EST) or the County Property Appraisers' Offices.

The CONSULTANT will investigate potential meeting locations to advise the DEPARTMENT of their suitability. 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 logistics associated with setting up the meeting. Requirements for appropriate meetings locations are outlined in Part 1, Chapter 11 of the PD&E Manual, the FDOT Public Involvement Handbook, and the FDOT Public Involvement webpage.

3.2. Scheduled Public Meetings

The Consultant will support the Department in conducting various public meetings, which may be conducted during weekends or after normal working hours. The Consultant will assist the Department in preparing, scheduling, noting attendance, taking notes, documenting, and follow-up services for each meeting. The following are scheduled public meetings for this project:

- *One (1) Project Kick-off Meeting (In-Person and Virtual on different days)*
- *One (1) Alternatives Corridor Public Meeting (In-Person and Virtual on different days)*
- *One (1) Preferred Corridor/PD&E Kick-off Public Meeting (In-Person and Virtual on different days)*
- *Six (6) Polk TPO TAC and Board Presentations. Includes three (3) rounds prior each public meeting*
- *Twenty-One (21) Coordination Meetings with Key Agencies (Davenport, Dundee, Haines City, Lake Hamilton, Lake Wales, Polk County and Polk TPO Staff)*
- *Ten (10) Environmental Groups*
- *Ten (10) Other Public and Agency Meetings or informal meetings*
- *(FDOT District 1 Coordination in Section 1.6)*
- *Three (3) Community Meetings*

The Consultant will investigate potential meeting locations and advise the Department of the meeting location's suitability. The Department will ultimately approve the meeting location. The Consultant will pay all costs for renting meeting venue and insurance (if required).

The Consultant will be responsible for logistics associated with setting up the meeting. The Department will approve the meeting format developed by the Consultant. For any of the listed meetings, the CONSULTANT will prepare the following, as applicable:

- Agenda
- PowerPoint Presentations and scripts, with voiceover and possibly closed captioning
- *Graphics for presentation*
- Handouts
- Display boards (*paper/static boards and large electronic display monitors*)
- Meeting room set-up and tear-down
- Display advertisements (*The CONSULTANT will pay the cost of publishing*)
- Letters for notification of elected and appointed officials, property owners, and other interested parties (*including Spanish translation if needed*), and other interested parties (*the CONSULTANT will pay the cost of first-class postage*)
- News releases or project fact sheets *The DEPARTMENT must review news releases and fact sheets at least three (3) weeks before the meeting or mail out.*
- Meeting summaries and notes and provide to the Department no later than five (5) business days after the meeting.
- Response letters for Department signature on public comments

The Consultant will assist the Department when facilitating the public meeting to present Project information and obtain comments related to the Project. 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. The Consultant will attend Department briefings after the public meetings.

The Department may request the Consultant to identify the effect of the Project to individual properties on aerial maps or plans in response to requests from property owners. The Department may also request the Consultant to meet with individual property owners with Department representative in attendance as well.

3.3. Communication Aids

The Consultant will assist the Department in preparing materials to be used in the following public communication aids:

- *Branding*
 - *The CONSULTANT will create branding guidelines for the project to ensure design consistency and increase public recognition of project outreach materials and tools. The branding guide will contain branding elements such as the project logo, color scheme, font choices, iconic project graphics, and templates for all outreach materials. Three (3) logos will be developed; one will be selected by key project representatives. The Consultant will hold three (3) in person branding workshops with the determined group at client location. Templates to be created as a part of the branding task include, but are not limited to:*
 - *Microsoft Word*
 - *Display boards*

- *Power Point*
- *Brochures*
- *Letterhead*
- *General public correspondence*
- *Three (3) newsletters during the Project – one (1) beginning of study, one (1) prior to the Alternatives Corridor Meeting, and one (1) prior to Preferred Corridor Meeting. A draft shall be submitted for DEPARTMENT review and the final shall be distributed to all parties on the mailing list. The CONSULTANT will pay for printing and first-class postage.*
- *Frequently Asked Questions (FAQ)*
- *Videos, simulations, renderings, 3-dimensional visualizations*
- *Video, rendering, fly-through, 3-dimensional visualization*
- *Smart Boards to be used at the Alternatives Corridor Meeting, and one (1) prior to Preferred Corridor Meeting. Smartboard rental is the responsibility of the Consultant.*

3.4. Public Involvement Documentation

The Consultant will document comments/responses, coordination, correspondences with agencies, presentation aids, and documentation for all public involvement activities conducted throughout the project in accordance with Part 1, Chapter 11 of the PD&E Manual and the Public Involvement Handbook.

Comment Management and Social Media Tracking

The CONSULTANT will use a secure web-based database to log communication activity, social media sites and track participation throughout the project. The DEPARTMENT will have access to input information and comments into the database, as well as access to customized reports.

The CONSULTANT will establish a protocol to organize and summarize comments and social media posts in the database, code comment contact information and summary information into database, summarize comment information in weekly comment reports.

4. ACE METHODOLOGY

4.1. Review of Previous Studies

The Consultant shall review and summarize the following planning studies and other studies related to this Project and appropriately incorporate their results in the analysis of the Project:

- *PD&E for Central Polk Parkway from SR 60 to Polk Parkway and from SR 60 to I-4 (FPID: 423601-1) documents*
- *Central Polk Parkway East from SR 60 to Poinciana Parkway Extension Connector Concept Evaluation Technical Memorandum - Part 1 & 2*
- *Central Polk Parkway East from US 17/92 to Poinciana Parkway Extension Planning Level Evaluation Technical Memorandum*
- *Central Polk Parkway East Eastern Feasibility Options Planning Level Evaluation White Paper from east of US 27 to US 17/92*

4.2. Existing Conditions

The Consultant will conduct field observations to review existing field conditions, verify desktop data, and obtain additional data required to understand the study area, assess needs, identify physical and environmental constraints, develop and analyze project alternatives, and identify conditions that will prevent implementation of project alternatives.

The Consultant will review the ETDM Screening Report (if available), information used to develop of the Preliminary Environmental Discussion of the ETDM screening process, and other appropriate databases to understand environmental issues that may affect development of the project alternatives. The Consultant's review will include at minimum: known existing and future land use planning; state-managed lands; archaeological sites; historical sites; known Section 4(f) sites; known Section 6(f) sites; contamination sites; designated wild and scenic rivers; protected species and habitat (locations or likely presence); floodways and 100-year floodplain; wetlands; and navigation. The Consultant will utilize LiDAR information, USGS topographic maps, flood maps, existing survey data and field observations to determine watershed characteristics and delineate general basin boundaries.

The Consultant will review and document in the Existing Conditions Report the following transportation elements: transportation network characteristics, roadway geometrics, drainage, soils, lighting, typical section elements, signalization and other traffic control features, access features, and right of way requirements, utilities, railroads, right of way lines, property lines/boundaries, property use, and other data applicable to multimodal transportation. The Consultant will analyze existing conditions to identify and verify current transportation deficiencies as they relate to the needs and objectives of this Project. Where possible, the Consultant will locate the deficiencies on a base map for use at the public meetings.

The Consultant will furnish necessary exhibits for use in the evaluation of alternatives, such as a study area base map and corridor maps. The Consultant will obtain available aerial photography and digital topographic mapping for the study area from available sources and compile information for use with conceptual design tasks and identification of potential issues. The Consultant will include right of way lines and property boundaries into the aerial maps. The Consultant will also map environmental resources in the base map.

4.3. Identification and Development of Initial Alternatives

The Consultant will identify a universe of improvement options from which alternatives that address the need for the project and account for potential environmental impacts within the Project area will be derived. Improvement options will include consideration of multimodal options such as pedestrian, bicycle, recreational/trail, freight and goods movement, and transit improvement alternatives. The Consultant will use the information from previous planning studies, Purpose and Need, existing conditions analysis, and land suitability mapping to identify improvement options and alternatives in the study area. The consultant will confirm and document logical termini and independent utility of the alternative corridors.

The preferred alternative alignment identified in FDOT District One's Final State Environmental Impact Report for Central Polk Parkway from SR 60 to Polk Parkway (SR 570) and from SR 60 to I-4 (FPID: 423601-1) shall be evaluated as a corridor alternative.

4.4. Methodology Memorandum

The Consultant will develop the Methodology Memorandum (MM) for the Project which will contain criteria for evaluating the improvement solutions identified to meet the objectives of the ACE study. The Consultant will include the following in the evaluation criteria: purpose and need, engineering feasibility (i.e. traffic operational and safety performance measures, design components, urban design issues and opportunities, constructability, maintainability, utility conflicts), construction costs, avoidance of potential environmental impacts (social-economic, cultural, natural, and physical environmental resources), consistency with adopted plans, and other unique issues specific to the Project area. The Consultant will also describe (in the MM) data and tools that will be used in evaluating alternatives. The Consultant will submit the MM to the Department for review and approval per the process described in PD&E Manual and ETDM Manual.

4.5. Traffic Analysis

The *Department* will develop a traffic analysis methodology that reflects the objectives of the project and purposes of the ACE. The *Department* will obtain current (existing) traffic counts for the project limits and roadway network within the study area and evaluate the existing traffic operating conditions. As needed, the *Department* will collect additional traffic counts to supplement existing data to complete traffic analysis on the study area. The *Department* will identify specific transportation problems on various modes of transportation (highway, freight, pedestrian, bicycle, and transit) that exist in the study area. The *Department* will prepare a traffic report to document development of future year traffic volumes, results of the traffic analysis, and discussion of safety concerns.

4.5.1. Traffic Analysis Methodology

The *Department* will prepare traffic forecast, traffic analysis and safety analysis methodology which must be agreed upon by the Department prior to beginning analysis. The *Department* will utilize the adopted regional travel demand model to extract a sub-area model specific to the study corridor and develop 2050 traffic volumes on major roadways within the study area. The *Department* will ensure the utility of traffic analysis results in the next phase (PD&E Study) by documenting the assumptions and analytical methods used to develop project traffic. The traffic analysis shall be in accordance with the FDOT Project Traffic Forecasting Handbook and PD&E Manual, Part 2 Chapter 2.

The Consultant will review the Traffic Analysis Methodology prepared by Department.

4.5.2. Traffic Counts

The Department will provide existing traffic data. The DEPARTMENT will collect supplemental traffic data as determined in methodology development.

4.5.3. Existing Traffic Analysis

The *Department* will analyze and document the operational performance measures of the existing transportation corridor(s) as agreed upon in the analysis methodology.

4.5.4. Future Demand Forecasting

The Consultant will review future travel demand volumes provided by the Department.

4.5.5. Operational Analysis

The *Department* will evaluate future operating characteristics of viable alternatives using the agreed upon traffic analysis methodology. The *Department* will document if the analysis identifies sections of the alternatives with insufficient capacity based on future traffic demand, and include the year of failure, as appropriate. Based on the outcome of operational analysis, the *Department* will also recommend short-term operational improvements on existing transportation facilities that may be implemented on the project area network while the ultimate improvements are being studied or programmed. The *Department* will also evaluate feasibility of roundabouts and applicable alternative intersections on viable alternatives evaluated in detail (in Section 4.2).

4.5.6. Safety Analysis

The *Department* shall obtain and review crash reports from the District Safety Engineer. The *Department* will identify and document any crash patterns or types that could indicate safety problems and propose strategies to mitigate the problems.

The Consultant will review safety measures of effectiveness prepared by the Department.

4.5.7. Traffic Analysis Report

The **Department** will document the results of operational analysis and safety analysis in the Traffic Analysis Report.

5. ALTERNATIVE CORRIDORS EVALUATION

5.1. Purpose and Need

The Consultant will refine the purpose and need statement for the project based on the information obtained from the previous planning studies, evaluation of existing conditions and future traffic projections, input received through the public involvement process and from any ETDM screening activities.

By considering the purpose and need, the Consultant will perform sketch level evaluations of each alternative identified in Section 3.3. The Consultant will discuss the outcome of the sketch level evaluation with the Department, so that alternatives that do not meet the purpose and need or are otherwise not feasible can be eliminated as soon as practical. The Consultant will document reasons for eliminating the alternatives in the ACER. Only viable or feasible alternatives shall be carried forward for more detailed analysis in the corridor evaluation process (Section 4.2).

5.2. Alternatives Analysis

The Consultant will assist the Department in developing feasible alternatives (including corridors and meaningful implementation segments) resulting from the initial alternatives to a level of detail sufficient to allow for evaluation based on the MM criteria. The development of alternatives should attempt to balance functional integrity (mobility, accessibility, and safety) and environmental context within the project area.

5.2.1. Environmental Analysis

The Consultant will compile information obtained from the ETDM Screening, GIS analyses, field observations, existing conditions report, land suitability mapping, and utilize the MM criteria to evaluate potential environmental impacts to natural, cultural, social and physical environment for each alternative. The Consultant will consider conceptual avoidance and minimization measures following identification of impacts and concerns.

For each resource or group of resources reviewed, the Consultant will document (in the ACER) the level of detail and the method of review; anticipated project impacts; issues that may require further analysis during PD&E; and potential mitigation requirements that would be addressed during PD&E. The Consultant will list environmental resources that were not reviewed in this study and indicate whether the resources will need to be reviewed in the subsequent PD&E study. The Consultant will summarize results from coordination with various agencies performed through the ETDM Screening events and additional correspondences.

5.2.2. Engineering Analysis

The Consultant will develop the design criteria for use in the conceptual design of the alternatives. Engineering analysis shall be conceptual only, and limited to determining the general concept of design and relative design suitability of each alternative.

5.2.2.1. Conceptual Plans

The Consultant will develop conceptual layouts for each corridor (laid on the base map) to a level of detail adequate to define the corridor's general location and determine potential right of way needs based on typical section analysis. The conceptual layouts should include the corridor alignments, intersection and interchange concepts, access management, major multimodal features, major utility and railroad conflicts, and right of way limits. The Consultant will develop general profiles and cross sections for critical areas (such as interchanges, bridges, etc.) to determine general right of way and structure requirements, and constructability issues for alternatives. The Consultant will also develop conceptual plans as necessary for presentation to agencies and the public.

5.2.2.2. Construction Cost Estimates

The Consultant will develop conceptual construction cost estimates and right-of-way cost estimates. The Consultant will determine an engineer's estimate based on broad assumptions of cost for the different alternatives to provide an order-of-magnitude comparison of costs without using specific quantities for materials.

5.2.2.3. Right of Way Needs

The Consultant will establish preliminary construction limits based on typical section analysis and determine minimum right of way requirements for each alternative. The Consultant will compare the existing right of way width with the proposed right of way requirements to estimate the amount of right of way that the Department may acquire for each alternative. At the direction of the Department, the Consultant will include general order of magnitude stormwater management right of way needs without identifying actual stormwater pond sites. The Consultant may be required to provide order of magnitude right of way cost estimates for each alternative.

5.2.3. Refine Corridors

The Department may request the Consultant to further refine and document alternatives based on input obtained from the public involvement process or if the Department obtains new detailed data that may assist in avoiding potential environmental impacts.

5.3. Comparative Evaluation

The Consultant will evaluate feasible alternatives utilizing evaluation criteria agreed upon in the MM. The Consultant will compile the evaluation matrix to show the differences between each alternative in a manner appropriate for public use. The Consultant will assist the Department in presenting the results of comparative alternative evaluation in the public meeting and in soliciting public and agencies opinions on the alternatives recommended for elimination and alternatives that may be advanced in the PD&E study.

5.4. Alternative Corridor Evaluation Report

The Consultant will prepare an ACER to document the methodology and results of the alternative corridor evaluation. The ACER will include the reasons for recommending the alternative(s) to be advanced in the next project development phase and reasons for eliminating other alternatives.

The Consultant shall submit a draft of the ACER for review and comment prior to the submittal of the final report per the process described in the ETDM Manual. The Department will post the draft ACER in the EST to solicit resource agency comments. The Consultant will revise the report as necessary based on the comments received and finalize the ACER. The final ACER will include a discussion of any unresolved issues with the public, stakeholders, and/or agencies and recommendations for resolving the issues in the next phases of the project development process.

6. METHOD OF COMPENSATION

Payment for the work accomplished will be in accordance with Exhibit B of the contract for this project. 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 accomplished is of sufficient quality and quantity 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.

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