



**LEON COUNTY BOARD OF COUNTY COMMISSIONERS
SCOPE OF SERVICES**

FOR

**BANNERMAN ROAD
FROM MERIDIAN ROAD TO THOMASVILLE ROAD**

LEON WORK ORDER NO. BC-04-29-09-28

JANUARY, 2010

**Leon County Public Works
Project Management Division
2280 Miccosukee Road
Tallahassee, Florida 32308**

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I. DESCRIPTION OF FACILITY

The proposed study limits for the Bannerman Road Corridor Study are from Meridian Road to Thomasville Road (approximately 4.6 miles in length). The proposed study shall produce a Leon County Corridor Study Report for this area, including applicable engineering and environmental documentation.

The study shall be in compliance with the Leon County Comprehensive Plan. The study shall also include an evaluation of alternative alignments and their proposed effect on the existing roadway. The study shall include the evaluation of a four lane typical section for the entire project. A no-build alternative shall be fully evaluated.

II. PURPOSE

The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with the Project Planning (Corridor Location), Preliminary Engineering (Conceptual Design), and Environmental Studies necessary for the proposed improvements to the herein described transportation facility.

III. STUDY OBJECTIVE

The general objective of the study is to provide documented information necessary for the County to reach a decision on the type, design, and location of the transportation facility described herein. All factors related to the design and location of the facility must be considered including alignment options, transportation needs, social impacts, economic factors, environmental impacts, and engineering analysis.

The specific objective of the study is to prepare reports documenting the requirements for preliminary design, including existing and predicted conditions, typical sections, right of way requirements, environmental impacts, and costs of the alignment options. The Consultant shall evaluate alignment options and make recommendations as to the best selection. The documentation shall be developed to be in compliance with all applicable State and Federal regulations, Chapter 339.155 of the Florida Statutes, and all applicable Federal Policy Guide issuances governing the content and development of this type study. The Study information shall be objective and complete.

IV. SERVICES TO BE PERFORMED BY THE CONSULTANT

In general, the Consultant is responsible for preparing engineering reports with environmental documentation acceptable to satisfy the requirements outlined the Scope of Services provided with the Requests for Proposals for the Bannerman Road Corridor Study Proposal Number BC-04-29-08-28, which is attached hereto as Exhibit B and is included by reference.

The following sections describe the specific Consultant responsibilities in more detail:

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ENGINEERING ANALYSIS and REPORTS

DATA COLLECTION

- Field Reviews
- Aerial Photography Coordination
- Survey Coordination with HSA
- Existing Roadway Characteristics
- Traffic Data – Turning Movement Counts collected by Marlin, RS&H will collect roadway traffic data

For the traffic data collection for intersection turning movements for this project, the Miovision system will be utilized.

The **Miovision** system is a traffic data counter/classifier. It is comprised of two parts: the hardware, a portable camera system that records the video, and the online software that analyzes the video and extracts the data. Once the video is uploaded to the online software, it is configured and processed by the Miovision software. The software goes frame by frame looking at contrasts and motions, tracking each vehicle as an independent object. The software is also capable of classifying vehicles into four classes and counting pedestrians.

Marlin will setup the units (usually 2 per intersection) process the data and provide the results (with video if requested) to the Consultant Project Manager.

- Crash Data
- Existing Signage Inventory
- Utilities
- Transportation Plans
- Base map

NEEDS

- Safety - includes collection of crash data at the 4 major intersections and safety analysis of the facility.
- Analysis of Existing Conditions
- Development of Need Statement

SURVEY

Utilizing Aerial Photography

The project corridor will be flown at 1500 feet with overlapping color photography. The imagery will be processed and brought into a stereo environment. The controlled stereo imagery will be used to extract 3D topographic data. An accurate ortho-rectified (2D) image will be produced providing a project base map for alternative development and evaluation, as well as being an excellent tool for public involvement and as a design base map.

The Leon County Public Works Surveying department has recorded a Maintenance Map of the corridor limits showing the existing property lines, section ties and an alignment for the project limits and along adjacent roadways that intersect Bannerman Road. The data is tied to State

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Plane Coordinates and would be used to re-establish the alignment and incorporate existing data layers to minimize the surveying effort for a savings of time and money.

Proposed Surveying Services

HSA has researched and reviewed the survey data available for the proposed project limits involving the Bannerman Road Corridor Study project. A substantial amount of data is available and will be utilized to the maximum extent possible to avoid duplication of effort and reduce time and costs. All work will be performed in compliance with relevant FDOT standards unless other standards are designated by the County Surveyor, Jim Pilcher

- All existing survey and related data will be analyzed and qualified by field observations before being utilized.
- Following verification of existing survey data the layers will be merged with newly acquired survey data and design files.
- Using the stereo imagery, HSA technicians will extract all visible survey data
- An accurate ortho-mosaic will be produced of the project corridor.
- Field verification will be performed and data in all obstructed areas will be collected by conventional methods.
- Utility location, if necessary, will be brought into the CAD files from county as-built drawings and will be verified and collected by field methods and merged with data collected from stereo imagery.
- All work will conform to FDOT standards and Florida state statutes, certifications and requirements.
- The final set of CAD files will be prepared and submitted to RS&H with all data being in compliance with FDOT standards or as designated by the County Surveyor.

Surveying Activities

The following Surveying efforts will be performed:

- Survey control points will be set at 1000'+/- or at least at intervisible positions with x,y,z values. (derived from GPS and Electronic level bench runs.
- Alignment will be re-established based on the existing alignment developed by Leon County Surveying office.
- All beginning, ending, POC's POT's PRC's and intermediate points along alignment will be referenced.
- Topography will be collected throughout project limits.
- Cross-Section and Profiles will be collected where designated by the PM
- Underground Utilities will be located.
- Drainage Surveys will be performed at exiting side and cross drains and where designated by the PM
- Outfall and Dentention areas will be surveyed where designated by the PM
- Jurisdictional Line will be surveyed as marked.
- Boring site will be staked out and located.

Roadway Plans

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- All rights-of-way, including maintained rights-of-way will be located or verified.
- All Cadastral data, i.e., PLSS lines, subdivisions, streets and abutting parcels will be located or verified.
- All crossing road alignments will be located or verified.

Control Survey Map

A Control Survey Map will be prepared with horizontal position data to support the control of right-of-way related maps

All pertinent and required data will be shown and certification will adhere to Leon County requirements.

GEOTECHNICAL

The geotechnical services are directed at the obtaining the following:

- Identifying the general subsoils characteristics that impact the design of a stormwater management facility within each major watershed; and,
- Identifying the general geotechnical characteristics that will impact the design and construction of new roadway lanes within this corridor.

The geotechnical Scope of Services are based on the following understandings;

The subsurface information generated during this Phase will be general and may change based on the results of a more detailed geotechnical investigation that will be needed during the full design phase;

The locations of the soil borings will be based on the best estimate of the Design TEAM, with possible changes in locations of the stormwater management facility in the next design phase; and,

No site specific infiltration testing is included (this is deferred until the design phase).

TASK A: CONDUCT SUBSURFACE INVESTIGATION FOR POSSIBLE STORMWATER MANAGEMENT FACILITIES (PRELIMINARY DESIGN)

Field Investigation

Install 40 feet deep soil borings at select locations within each watershed -the general soil borings locations are summarized on the attached sheet 1440 feet) assume the soil borings can be installed in 2 mobilizations each soil boring will be grouted closed, as required by Leon County Ordinance (440 feet)

Laboratory Testing (Classification, Uniformity and infiltration estimates)

Conduct the following laboratory tests:

1 grain-size test per 10 feet of soil boring (44 tests)

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- 1 plasticity test per 20 feet of soil boring (22 tests)
- 1 plasticity test per 40 feet of soil boring (12 tests)

Reports (Assuming 2 Reports)

Each report will contain the following information:

- Summary of field investigation
- General subsurface conditions encountered
- Measured groundwater and estimated seasonal high groundwater
- Preliminary infiltration rates based on Material types
- Likelihood of karst feature below the Proposed Stormwater Management Facility

TASK B: CONDUCT PRELIMINARY SUBSURFACE INVESTIGATION FOR CORRIDOR ROADWAY STUDY (PRELIMINARY DESIGN)

Field Investigation

Install 140 feet deep soil boring every 1,000 feet of roadway (4.4 Mi = 24 borings @ . 5 ft/boring = 120 feet) assume the soil borings can be installed in 1 mobilization

Laboratory Testing (Classification, Uniformity and Infiltration Estimates)

Conduct the following laboratory tests:

- 1 grain-size test per soil boring (24 tests)
- 1 plasticity test per 2 soil borings (12 tests)
- 1 plasticity test per 2 soil borings (12 tests)

Report

Each report will contain the following information:

- Summary of field investigation
- General subsurface conditions encountered
- Measured groundwater and estimated seasonal high groundwater
- Preliminary infiltration rates based on Material types for Swale considerations
- Likely need for underdrains or special construction considerations

DESIGN ANALYSIS

- Drainage Analysis and Reports:

Due to the expected level of effort required for the Stormwater and Drainage efforts for this project the expanded scope detail is provided:

General: The project corridor traverses parts of the Lake Jackson Basin, the Lake Iamonia Basin, the Ochlockonee River Upper Basin, and the Lake Lafayette Basin. This includes several closed basins and watersheds of special concern such as the Lake McBride WS and the Bradfordville Study Area.

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The corridor project is divided into three sections, from west to east; Meridian Road to Bull Headley; Bull Headley to Tekesta; Tekesta to the existing 4-lane near Thomasville Rd. There are three watersheds involvements in the west section, one in the middle section and two in the east section. There are three alternate corridors for each section; left, right and best fit which selects combinations of left and right. Therefore there will be essentially two complete alternates for each section. Two treatment alternates/pond sites would be required for each. This yields a potential minimum of $(3+1+2)(2)(2) = 24$ alternate conveyance/treatment alternates for the project although many of the alternates will be modifications of one concept. The Corridor Study Scope, Section C is the information gathering phase of the existing facilities located on the present corridor. This information gathering phase to inventory the existing drainage and stormwater management features is vital to the development of the most feasible stormwater management approaches to achieve the management requirements of the various basins and watersheds within the corridor limits for each of the project alternatives. Specific drainage and stormwater features to fully inventory the existing conditions include:

- Existing drainage facilities including size, location, condition, hydraulic performance, on the present roadway and outfall
- Identification of areas draining to the project including outfall function and deficiencies
- Reviewing recent permitted SWMF for design function and operation effectiveness
- Reviewing existing soils and permeability data from available sources to identify where additional preliminary geotechnical data will be required to adequately establish seasonal groundwater and permeability rates
- Identification of watershed boundaries and possible physical and jurisdictional limitations on the conveyance design
- Coordination and evaluation of areas which would preclude potential sites for stormwater management facilities;
 - a. 25 yr and 100 yr. flood plains
 - b. Wetlands and other environmental sensitive areas
 - c. Zoning regulations and conservation easements
- Funded and to a lesser extent unfunded public and private projects that could affect the project.

This information will be used to develop conceptual stormwater conveyance and management approaches suitable for three alternates (or more as provided for in the contract). Because of the stringent environmental constraints, several methods of treatment and attenuation are anticipated to be used concurrently to achieve the required management requirements.

A preliminary Pond Siting Report will be prepared identifying a minimum of 2 sites (or combination of feasible treatment options) for each of the basin alternates.

Section D requires the development of FDOT Phase I (30%) Plans. Whereas typically 30% plans include the proposed project drainage and stormwater management concept, this plan preparation effort would be scaled back to focus on the existing stormwater elements to allow the plans to better accommodate the Alternative Analysis required in Section E. Drainage activities that are included for the development of this initial plan preparation effort include:

- Detailed working and 30% plan Drainage Maps
- Design High Water information

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- Existing drainage features including stormwater management facilities, pipe, ditch and outfall information for each of the possible sites.

Section E requires the overlaying of the alternates identified in Section C on the 30% plans developed in Section D to allow the evaluation of the alternative by the CAC. This requires the preliminary design of the primary collection and conveyance system required for each alternative, a minimum of two alternative treatment sites when wet and/or dry ponds are utilized for stormwater management, identification of the impacts associated with each alternative design and any necessary outfall and outfall improvements. It is anticipated that this number could/would be reduced further prior to or in the preliminary portion of this section for CAC review and selection of a preferred alternate. A conceptual design will be developed and included in a Final Engineering Report. Estimates of the cost of the drainage and stormwater management facilities would be developed for each of the alternates.

The LPA Group will provide the drainage analyses and reports.

- Corridor Analysis - identification and evaluation of study corridors (existing corridor)
- Traffic Analysis
 - Design Traffic
 - Traffic Operational Analysis
 - Design Traffic Documentation
- Typical Section Analysis
- Roadway Design Alternatives
- Prepare Concept Plans
- Access Management
- Multi-modal Accommodations
- Maintenance of Traffic Analysis
- Geotechnical Coordination

RIGHT-OF-WAY ESTIMATION

Detailed Cost Estimate (Level C), Entire Corridor (3 Alignments):

Keystone will provide a Right of Way Cost Estimate for the Bannerman Road Corridor Study, pursuant to FDOT format with no FDOT/FHWA review or concurrence, as follows:

- Evaluation of **three (3) alignments**: Right, Left and Best Fit (each alignment is 150' wide).
- Evaluation of up to **194 physical parcels** located along Bannerman Road from Thomasville Road to Meridian Road, (with the exception of certain excluded parcels as listed in item C below).
- Each of the three (3) alignments will be evaluated on a parcel by parcel basis with **all cost criteria reported**. Keystone's cost estimate report will be based on supporting current comparable land sales and listings from the project area, the most currently available unit factors and historical data, and its professional judgment.
- Level C cost estimate adhering to FDOT Guidance Document for Right of Way Cost Estimates, as follows: *R/W Maps or other exhibits are preliminary and may not*

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identify individual parcels, areas of take and remainders. There is preliminary identification of potential relocations, property management, environmental and business damage concerns. Market data may be limited, but available. Comparable sales data does not need to be confirmed and may be taken from the Property Appraiser's office.

- All parcel areas and areas of take to be furnished by RS&H.

COMPARATIVE ANALYSIS OF ALTERNATIVES

- Comparative Analysis and Evaluation Matrix
- Selection of Alternative(s)
- Conceptual Design Plans (preferred)
- Identify Construction Segments
- Construction Cost Estimates
- Typical Section Package
- Preliminary Engineering Report (PER)
 - First Draft
 - Second Draft
 - Final

ENVIRONMENTAL ANALYSIS and REPORTS

SOCIAL AND CULTURAL IMPACTS

- Land Use Changes
- Community Cohesion
- Community Services
- Social and Economic Impacts
- Relocation Potential
 - Concept Stage Relocation Plan
 - Review and Impact Determination
- Archaeological and Historical Sites - Not Applicable
- Section 4(f) – Not Applicable
 - Section 4 (f) Applicability
 - Section 4 (f) Statement
- Visual Impacts and Aesthetics – **Optional Service** - At the County's option, the consultant may be requested to provide Visual Impacts and Aesthetics services. The fee for these services has been separated in the fee estimate. This task includes the work necessary to analyze the visual impacts of the project, and the development of aesthetic treatments.
- Utilities & Railroad – Railroads are Not Applicable

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NATURAL IMPACTS

- Wetlands
 - Data Collection
 - Evaluation/Report
- Conceptual Mitigation Plan - Not Applicable
- Water Quality - Not Applicable
- Outstanding Florida Waters, Wild And Scenic Rivers, And Aquatic Preserves - Not Applicable
- Floodplains
- Coastal Barrier Resource - Not Applicable
- Wildlife and Habitat
 - Data collection
 - Analysis and report
 - Mitigation Plan
- Essential Fish Habitat - Not Applicable
 - Data collection
 - Analysis and report
 - Mitigation Plan
- Identify Permit Conditions
- Farmlands - Not Applicable

PHYSICAL IMPACTS

- Noise – for preferred alignment
 - Data collection, and field work
 - Analysis
 - Report
- Air Quality
 - Screening Analysis
 - Air Quality Modeling
- Construction Impact Analysis - Not Applicable
- Contamination
 - Field Data
 - Analysis/Report

PUBLIC PARTICIPATION (P²) PROGRAM

In general, the public involvement effort will follow Leon County’s Public Participation (P²) Program guidelines. Specifically the following efforts will be provided:

MEETINGS/REPORTS

- Attend meetings with County staff
- Develop description and analysis of the public participation needed, including:
 - Determine methods of identifying and notification of concerned public

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- Establish public notification techniques
- Prepare Advanced Notification Package
- Plan and coordinate general public meetings
- Prepare for and attend CAC meetings
- Provide CAC support services
- Documentation and record keeping of all meetings
- Correspondence

IMPLEMENT THE 7 STAGE PROCESS

- Living Room Chats
- Engaging Students
- Engaging the Faith Community
- Engaging Organizations
- Engaging the Business Community
- Engaging the Community through Media (including social networking techniques)
- Roving Field Office

Note: A community survey is not included in the scope or budget and can be addressed at a later date, if required.

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EXHIBIT B – REQUEST FOR PROPOSAL SCOPE OF SERVICES**III. SCOPE OF SERVICES****GENERAL PROGRAM DESCRIPTION****A. Public Participation**

The need to enact a Transportation Corridor Study on County-owned Bannerman Road from Meridian Road to Thomasville Road (U.S. 319) is identified in the 2030 Long Range Transportation Plan (LRTP). The LRTP is a key indicator of the type and size of transportation need that exists in Tallahassee, Leon County.

The purpose of the P² program is to fully inform and involve the community, all interested citizens, government agencies, and special interest groups in the planning and development of this local transportation project. The implementation of this program will comply with the Transportation Corridor Study Public Participation Policy. This project is to evaluate the existing and future needs of the roadway, along the Bannerman Road corridor between Meridian Road and Thomasville Road.

A critical component of the corridor study process is the Board appointed, seven member Citizen Advisory Committee (CAC) that makes up over 50% of the Project Team. The Project Team consists of the seven CAC members, County Project Manager, and the Consultant.

Essential to implementing this program is a Public Participation Plan that includes, but is not limited to, the following elements:

1. methods of identifying and notification of concerned public;
2. description of public notification techniques;
3. planning for informal neighborhood meetings;
4. possible inclusion of all area school festivals;
5. the preparation of advanced notification (Advanced Notification Package);
6. preparation for and attendance of the kick-off citizen advisory committee (CAC) meeting, remaining CAC meetings, formal public presentations, informal meetings, public workshops, and formal public hearings; and
7. description of techniques for following up comments, concerns, or issues raised in meetings, whether formal or informal, correspondence, documentation and record keeping.

This plan should be prepared using Leon County's Public Participation Program (P² Program) and Florida Department of Transportation's (FDOT's) Project Development and Environment (PD&E) Manual as a guide. It describes the steps

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to be used to fully inform and involve the community, all interested citizens, government agencies, and special interest groups involved in the planning and development of this local transportation project.

As the corridor study progresses, the P² Plan will be subject to periodic updating as new information in the corridor is evaluated. The P² Plan, all updates, and schedule of events will be fully recorded for County records.

B. Corridor Study Planning Steps

The Corridor Study Planning Steps described below provide an overall outline of progressive steps of the Corridor Study and how the Corridor Study Project Team of which the Citizen's Advisory Committee is a part, is integrated into the process.

Step 1

Prepare Project Fact Sheet that details (County Staff, Consultant).

- a. Project Limits
- b. Long Range Plan (LRP) project description, with a "refined" discussion that the LRP simply calls for capacity enhancement and the corridor study details how the enhancement will occur.
- c. Project Need Statement that provides the base traffic data for existing historical growth and future projection, with a statement that the corridor study will "validate" this need in a technical memorandum early in the study.
- d. General definition of the types of alternatives that will be studied, such as lane additions, operational improvements, multi-modal applications (bike, pedestrian, transit), and that the improvements should be based on a 20 year planning horizon.

Step 2

Identify the Citizen's Advisory Committee members: (County Staff, Board of County Commissioners).

Step 3

Develop Consensus Building Process including, but not limited to, the following tasks:

- a. Joint effort with County staff and the CAC to prepare the Corridor Study Limits that will be evaluated in the Data Collection Phase and include the "physical survey information" with an understanding that this must be done in advance of Alternatives development.
- b. Preparation of the public noticing strategy for the project and data collection efforts (mail outs, church flyers, signage, etc.).

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- c. Creation of unique letterhead and graphics for public notices and correspondence.

Step 4

Convene the CAC to (County Staff, Consultant, CAC):

- a. Review the Fact Sheet and CAC charge.
- b. Establish meeting schedule (time, place).
- c. Elect chair, co-chair.

Step 5

Conduct Data Collection Phase (Consultant):

- a. Including, but not limited to, researching existing traffic information, GIS information, property appraisers database, existing surveys information, and field survey as necessary.
- b. This phase of the study will require collection of existing roadway, right-of-way, traffic, environmental, property, and cultural/social data to identify, develop and analyze various project alternatives.
- c. This information shall be compiled and presented in a Preliminary Engineering Report in accordance with FDOT's Project Development and Environment Manual.

Step 6

Present Data Collection Phase to CAC and begin discussions of alternatives (Consultant, County Staff, CAC):

- a. Information gathered in this phase shall be used by the CAC, Consultant, and County Staff to refine the corridor for the Consultant's development of 30% Design Plans.
- b. Identify conceptual design alternatives for Consultant to bring to the CAC for detailed review.
- c. Adjourn CAC until the Design survey is complete.

Step 7

Prepare 30% Design Plans (Consultant):

- a. The consultant will field survey the existing conditions and prepare 30% or FDOT Phase I Submittal plans for presentation to the CAC.
- b. Once the plans are completed, alternatives from the Preliminary Engineering Report shall be overlaid onto the plans and analyzed for viability with regard to engineering, environmental and permitting standpoints. The results of the analysis will be summarized for CAC review in the next step.

Step 8

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Re-Convene the CAC & Present 30% Design Plan (County Staff, Consultant, CAC):

- a. Series of meetings where the CAC will review alternatives and direct the Consultant to prepare revised drawings in an iterative process resulting in final project identification.

Step 9

CAC Selection of Preferred Alternative:

- a. An Evaluation Matrix will be developed by the Consultant with the criteria set by the Project Team in a consensual manner.
- b. The Evaluation Matrix will be used as a tool to rank and analyze the alternatives.

Step 10

Develop Memorandum of Understanding with CAC signatures (County Staff, CAC):

Step 11

Workshop presentations to the County Commission (County Staff, Consultant, CAC, Board of County Commissioners):

CONSULTANT'S SCOPE OF SERVICES

A. Corridor Study Project Management

In general, and where applicable, this corridor study is to follow the process outlined in the County's Transportation Corridor Study Public Participation Program Policy, which can be found in Attachment A. Due to the unknowns naturally associated with public involvement and participation, this process may be adapted throughout the study. Please note that this process shows the *minimum* number of required public meetings. Based on public response, additional meetings may be necessary.

The following conditions and steps have been adapted to generally follow the process shown in Attachment A.

1. Prior to beginning work, the Consultant shall meet with the County Staff. At this meeting, the County will:
 - a. Release all available information for the project such as previous correspondence; traffic data and planning information; existing right-of-way,

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- utility, and stormwater information; aerial photographs; contour maps; etc.;
and
- b. Issue a Notice To Proceed.
2. Within ten (10) days after the Notice To Proceed meeting, the draft Public Participation Plan shall be submitted to the County for approval as an attachment to a schedule for the progress and completion of the study. The schedule shall be submitted to the County for approval prior to the Consultant beginning work. Periodically, throughout the life of the study, the schedule shall be reviewed and adjusted as necessary to incorporate changes in the work and adjustments to the completion dates.
 3. Although there is no intent to apply for federal aid, all citizens and federal, state, and local agencies with a possible interest in the project's planning shall be notified at the beginning of the study process. An announcement in the form of an Advance Notification Package shall be prepared by the Consultant for the County's review and approval. The Advance Notification Package shall be prepared in accordance with FDOT's Project Development & Environment Manual. Upon the County's approval, the package shall be distributed by the Consultant.
 4. If desired by the County, a second notification shall be performed for an introductory or kickoff meeting to introduce the Consultant and inform the public, County officials, and agencies of the initiation of the study in accordance with FDOT's Project Development & Environment Manual. The Consultant shall prepare maps of the study area for orientation purposes, and provide the County with a summary of the meeting. Additional contacts shall be maintained throughout the study process where appropriate. For the kickoff meeting the Consultant shall:
 - a. Prepare public notice and notify officials and interested parties by letter, news releases, telephone, or any other appropriate means;
 - b. Prepare and formal presentation;
 - c. Deliver the presentation using knowledgeable staff; and
 - d. Answer follow-up questions.

The County and Consultant will identify appropriate meeting sites and the Consultant will make all necessary arrangements to secure the meeting places.

5. The assurance of technical quality and study completeness requires the assembly and preparation of a substantial volume of data, the analysis of that data by experts in several disciplines, and the integration and coordination of the results into cohesive documents. The Consultant and the County's Project Manager will work closely with other County Staff to ensure that the analysis is complete in a timely and competent manner.

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Written progress reports indicating progress on each task, the work remaining, and schedule adherence will be provided monthly. The invoice will not be accepted without a monthly progress report.

6. Throughout the duration of the study, informational meetings may be held to inform local officials of the project's status, and to receive their comments concerning design concepts. These informational meetings shall be held at the discretion of the County and in addition to those shown in the County's Public Participation Program Policy. Presentation materials for these meetings may include copies of aerial photography depicting the design concept(s) and may also include posters and slides as appropriate. The Consultant and staff shall be available within three (3) working days notice to attend or make these informational presentations.
7. The Consultant shall document the public's activities throughout the study period, provide summaries, and respond to comments received from the public participation, advanced notification, and other community involvement efforts.
8. Copies of all written correspondence between the Consultant and any party pertaining specifically to this study shall be provided to the County within one (1) week of the receipt or mailing of said correspondence.
9. The County will designate Project Manager who shall be the representative of the County for the project. While it is expected the Consultant shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters for the project shall remain with the County's Project Manager.

B. Public Participation (P²) Program:

The Consultant will be responsible for preparing a Public Participation Plan in accordance with *Leon County's Public Participation Program* policy and FDOT's Project Development & Environment Manual.

The Consultant and County staff shall be responsible for assisting the CAC with the development of its advisory duties regarding project development, alternative selection, etc., explanation of their place on the Corridor Study Project Team, bylaws and structure project team approach, which will include who can vote and assurance of majority of citizens on committee.

The Consultant shall attend all CAC meetings and keep detailed records and minutes of CAC and Project Team meetings of, but not limited to, all updates, correspondence and responses. The Consultant shall also be responsible for the application and

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implementation of community involvement techniques that are to be fully described and recorded in the Public Participation Program records.

At a minimum, the Public Participation Program shall include or address the items and conditions listed in Attachment A and the Corridor Study Planning Steps listed above.

C. Data Collection and Preliminary Engineering Report:

The Consultant shall be required to collect available information regarding existing roadway, right-of-way, traffic environmental, property, and cultural/social data which will be used to identify, develop and analyze various project alternatives. This data shall be collected from all available sources including, but not limited to, researching existing traffic information, GIS information, property appraiser's database, existing surveys information, and field surveys as necessary.

The information gathered shall be presented in a Preliminary Engineering Report in accordance with FDOT's Project Development & Environment Manual and should establish or re-establish the need for the project.

D. 30% Plans in accordance with FDOT Phase I Submittal Plans and Preparation Manual:

1. The Consultant will conduct field surveys of the existing conditions within the corridor identified by the CAC and prepare 30% or Phase I Submittal plans for presentation to the CAC in accordance with FDOT Roadway Plans Preparation Manual (which is available online through FDOT's homepage).

E. Alternative Analysis & Final Engineering Report:

1. The Consultant shall take the alternatives (fee calculation will be based on the iterative analysis of 3 alternatives, with an additional price established in the contract for each alternative over 3) from the Preliminary Engineering Report and overlay them on the 30% Plans for submission to the CAC for a comprehensive evaluation of various transportation design alternatives. Alternative analysis will be in accordance with FDOT's Project Development & Environment Manual and shall include the consideration of horizontal and vertical alignment, typical cross section, preliminary right-of-way costs, preliminary drainage to the extent of identifying possible out falls, traffic data, geometry, maintenance of traffic, schematic sketches of intersections, interchanges, preliminary utility information, extent of improvements to locations of retention basins and/or impoundments as may be required, possible locations of noise barriers, and other such design features that may be pertinent to the analysis of the environmental, engineering, and permitting impacts. The design of the proposed improvement shall be

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established and developed in conceptual form and in sufficient detail to permit alternative analysis. The engineering and permitting aspects of each alternate shall be quantified and documented in the report. For each alternative, a plan to control traffic through the work area is to be considered along with other factors in determining the recommended alternative. The types of items to be evaluated include, but are not limited to, the following:

- a. construction costs (includes drainage and stormwater management costs);
- b. right-of-way costs;
- c. engineering design costs (includes permitting);
- d. relocation plan and impacts;
- e. business damages;
- f. pedestrian/bicycle facilities;
- g. transit alternatives;
- h. maintenance of traffic;
- i. comprehensive economic evaluation; and
- j. environmental impacts (includes social/cultural impacts).

For comparison of alternatives and identification of the preferred alternative, the Consultant shall develop and include in the Final Engineering Report a decision matrix. The matrix shall, at a minimum, include the factors listed above.

Alternatives that are not permissible, by a permitting agency, may be analyzed and rejected, but shall not be included in the decision matrix analysis for viable alternatives. Additional guidance for the development and analysis of alternatives is provided in FDOT's Project Development & Environment Manual.

This will include a series of meetings where the Consultant will provide the analysis of alternatives, in plan & profile and cross-section as necessary to identify all potential impacts for CAC review. A State of the Art graphics will be used to illustrate the before and after conditions. The Consultant and County Staff will provide engineering guidance to address the potential impacts and possible solutions for CAC review. The Consultant will revise the drawings based on comments and resubmit to the CAC/Project Team for further refinement of alternatives. This will be an iterative process that will result in final project identification, which will be identified in the Final Engineering Report. This analysis will increase the probability of developing efficient and effective transportation solutions that are sensitive to the immediate community, cost effective, and environmentally sound alternative and reduce the necessity for decision making based on limited data or intuitive judgement.

The analysis of the alternatives should identify any non-viable alternates and provide documentation for rejection. Based on this alternative analysis, a preferred alternative shall be selected and a conceptual design developed. A conceptual design for the selected alternative shall be included as part of the Final Engineering Report.

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Please note the development and analysis of viable and non-viable alternatives will require close coordination with all permitting agencies. Alternatives that are not permissible, by a permitting agency, may be analyzed and reject.

2. The Final Engineering Report shall summarize the findings of the Alternative Analysis performed by the Consultant, Project Team, and public input. The report shall be prepared in customary format and shall present each alternative considered during the P² process, the conceptual design drawings and the alternative findings of the Consultant, the CAC and County Staff for each alternative. The Final Engineering Report will be in 8-1/2" x 11" format. Foldouts for aerials, schematics, and plan sheets are acceptable and encouraged.

F. Preliminary Roadway Plans

The Consultant shall prepare reproducible Preliminary Roadway Plans based on the selected alternative and conceptual design presented in the Final Engineering Report. These preliminary plans shall be prepared in sufficient detail to define all typical sections and provisions for pedestrians, bicycles, and other modes of transportation included in the study. To ensure sufficient detail, the preliminary plans shall:

1. Be added to the 30% plans previously developed; and
2. Show in the preliminary plans sheets the proposed right-of-way boundaries for the selected alternative.

- G. Upon selection and approval of the preferred alternative by the Project Team and approval by the Board of County Commissioners, the County may negotiate with the Consultant for the preparation of final design plans and associated engineering services. Upon satisfactory completion of the negotiations, a supplemental agreement shall be executed with the Consultant for the above services. If satisfactory negotiations between the Consultant and County cannot be achieved, as determined by the County, the services of the Consultant shall be terminated and the County will follow customary procedures to select another consultant to complete the project design.

H. PRODUCTS TO BE DELIVERED

1. Public Participation Plan 3 draft copies/ 1 final copy
2. Advance Notification and Kickoff Package 1 draft copy/ 1 final copy
3. Preliminary Engineering Report 10 draft copies/ 15 final copies
4. Final Engineering Report 10 draft copies/ 15 final copies

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- 5. 30% Roadway Plans1 reproducible set (half size)/
..... 2 blue-line sets (full size)/AutoCad Digital file
- 6. Certified Control Survey Maps 1 reproducible set (half size)/2 blue-line sets/
.....AutoCad Digital file
- 7. Baseline Control Survey 1 reproducible set (full size)/ AutoCad Digital file
- 8. Survey Deliverables:
Field Books originals
Electronic Data Files ASCII format

I. SURVEY REQUIREMENTS

1. General:

The CONSULTANT shall perform all survey services necessary to prepare the Final Engineering Report and 30% Design Plans as parts of the PD&E Study. The survey data must be sufficient to evaluate different alternatives for the right-of-way (ROW) impacts and other parameters included in the PD&E Study. Survey services and deliverable data must be in accordance with the FDOT's current procedures, including special instructions and directions, if any, issued in writing by the County's Chief of Survey and Right-of-Way. Survey services must also comply with all pertinent Florida Statutes and applicable rules in the Florida Administrative Code. All field survey data will be furnished in a digital format, readily available for input and used in CADD Design files.

The CONSULTANT will submit Roadway Plans, based upon and referenced to the Control Survey Map, to the County for review at the following stage of completion with data as specified.

Survey activities may include, but shall not be limited to, the following:

- a. Survey Control
- b. Alignments
- c. Reference Points
- d. Bench Levels
- e. Topography
- f. Roadway Cross-Sections/Profiles
- g. Underground Utilities
- h. Drainage Survey
- i. Outfall, Retention
- j. Jurisdictional Line Survey
- k. Stake-Out for Borings

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2. Roadway Plans:
 - a. Baseline control as established by the Control Survey Map.
 - b. Project alignment with station ties and curve data.
 - c. All existing rights-of-way, including maintained rights-of-way.
 - d. All pertinent Section line, Quarter line, Subdivision Boundary and Block, and property ties as established by the Control Survey Map.
 - e. All blocks, lots and streets within subdivisions that are affected by right-of-way acquisition and/or along the project corridor must be shown.
 - f. Subdivision names and limits with recording information.
 - g. All abutting parcels.
 - h. Cross road alignments.
 - i. Copies of unrecorded subdivision plats, if available, and copies of field survey notes showing alignment, land line ties, and improvements.

3. Control Survey Map:

A Control Survey Map is prepared to provide horizontal position data for the support or control of right-of-way related maps. The Control Survey Map will be certified and must be in accordance with the FDOT standards and will depict, at a minimum, the following:

- a. Survey Base Line with reference points.
- b. Sufficient land line ties. (At a minimum this will include, but will not be limited to, Section Line ties, Quarter Section Line ties and, if applicable, Quarter-Quarter Line ties, Property ties and Subdivision Boundary and Block ties).
- c. Recorded subdivisions, condominiums, and cooperatives along with recording data.
- d. North arrow and scale of map.
- e. All state, county, municipal, and private roads intersection the survey line.
- f. Bearing basis.
- g. Source of dimensions.
- h. Sufficient general notes.
- i. Leon County standard title block.
- j. A legend of abbreviations and symbols.
- k. The certification by the Professional Surveyor and Mapper on Sheet One as follows:

I hereby certify this control survey map was made for the purpose of surveying, referencing, describing and mapping the survey line, and providing horizontal position data for the support or control of right-of-way related maps for the transportation facility shown and depicted hereon. I further certify said survey was done under my responsible charge and is in compliance with the Minimum Technical Standards as set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6, Florida Administrative Code pursuant to Section 472.027, Florida Statutes.

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4. Specifications:

All survey work must be accomplished in accordance with the FDOT's Location Survey Manual, Right-of-Way Mapping Handbook, and Survey Manual. This work must comply with the Minimum Technical Standards for Land Surveyors Rule 61G17-6, Florida Administrative Code, pursuant to Section 472.027, F.S., and any special instructions from the COUNTY. The survey must comply with the Department of Environment Protection Rule, Chapter 18-5 F.A.C., pursuant to Chapter 177, Florida Statutes, and the Department of Environmental Protection state jurisdictional boundary surveys where applicable. ATTACHMENT A is the Leon County Transportation Corridor Study Public Participation Program Policy.