

HIDALGO COUNTY
Professional Engineering Services
Contract # C-12-246-10-16
Work Authorization Form

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 1 of the Agreement made by and between HIDALGO COUNTY, action herein by and through the Commissioner's Court, hereinafter called the "Owner," and, L & G Consulting Engineers, Inc. d/b/a L & G Engineering, professional engineers of Mercedes, Texas hereinafter called "Engineer".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the Engineer to provide Engineering Services required for the preparation for the Environmental Assessment with TxDOT, Public Involvement and Schematic Design for the Tom Gill / Liberty Road project from US 83 North to FM 2221.

The scope of services to be provided by the Owner is identified in *EXHIBIT "A" - Scope of Services to be provided by the Owner* attached hereto.

The scope of services to be provided by the Engineer is identified in *EXHIBIT "B" - Scope of Services to be provided by the Engineer* attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is \$567,770.36. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as *EXHIBIT "D-1" - Fee Schedule*.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with **Article 6** of the Agreement.

PART 4. FUNDING

This Work Authorization No. 1 shall be funded through funding source:

Account No. _____

Requisition Number _____ (MUST BE INCLUDED AFTER CC APPROVAL)

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scopes of the work authorization, as identified on *EXHIBIT "C" - Work Schedule*.

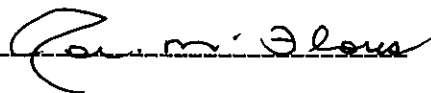
PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by Hidalgo County Precinct No. 3, Commissioner Joe Flores as to the content and detail of this Work Authorization No. 1.

**HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 3**

BY: 

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on September 18, 2012 as indicated below.

**THE ENGINEER:
L&G ENGINEERING**

**THE OWNER:
HIDALGO COUNTY**


By: Jacinto Garza, P.E.
President

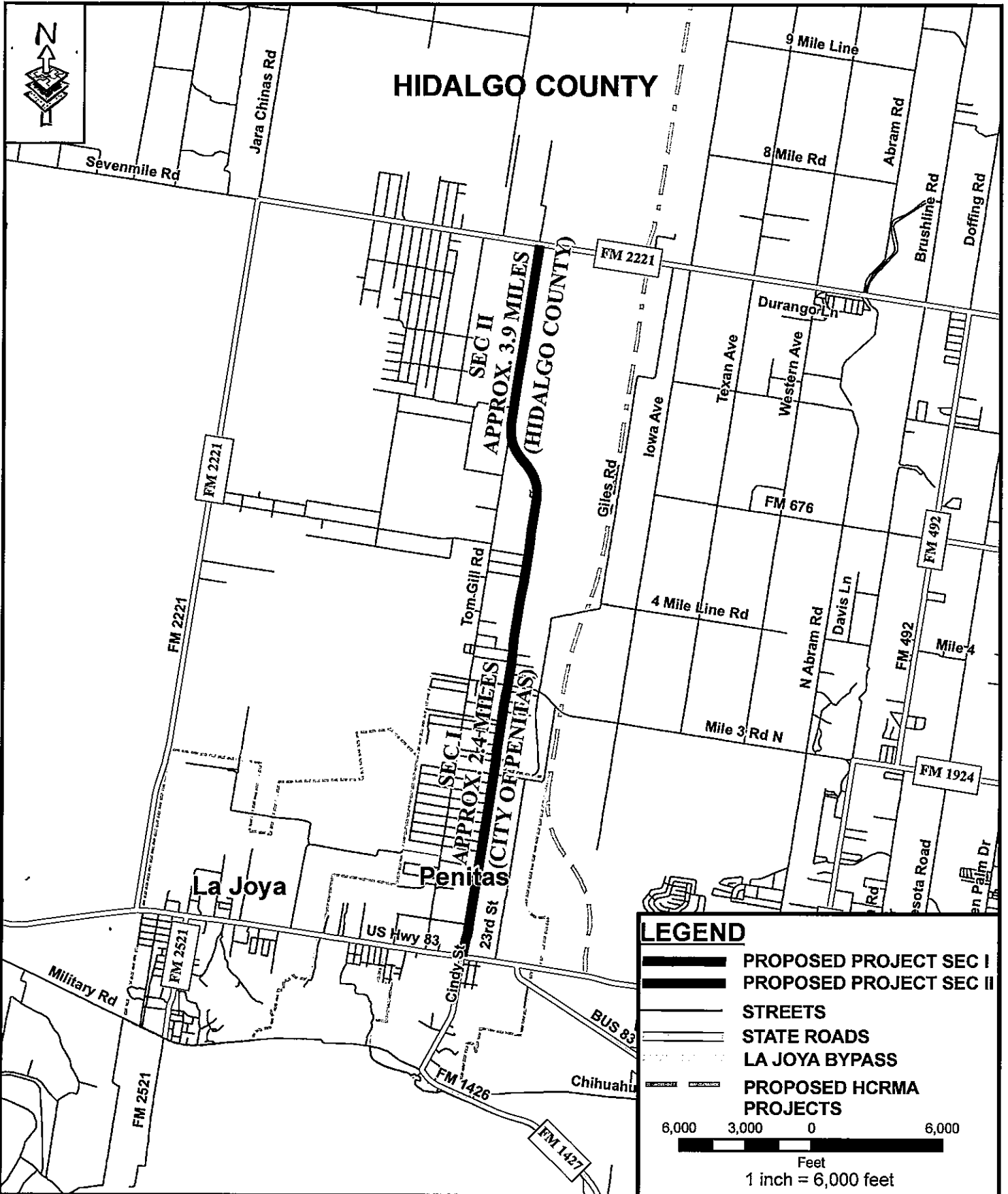
By: Ramon Garcia,
County Judge

ATTEST:

By: Arturo Guajardo, Jr., County Clerk

LIST OF EXHIBITS

- Location Map
- Exhibit A - Services to be provided by Owner
- Exhibit B - Services to be provided by Engineer
- Exhibit C - Work Schedule
- Exhibit D-1 - Fee Schedule



**TOM GILL ROAD/LIBERTY BLVD
LOCATION MAP**
FROM EXPRESSWAY 83 TO FM 2221
APPROX. PROJECT LENGTH 6.3 MILES



L & G Engineering
Transportation Consulting Engineers

EXHIBIT "A"
SERVICES TO BE PROVIDED BY THE OWNER

1. The COUNTY will issue work authorization to initiate all required services and designate the authorized representative of the coordination of each work authorization.
2. The COUNTY will provide copies of all subdivision plats of record and/or in the subdivision process.
3. The COUNTY will provide the ENGINEER with on-going guidance, timely reviews, and decisions necessary to complete services required by the work authorization in order to permit the ENGINEER to maintain an agreed upon project schedule.
4. The COUNTY will process all acceptable requests for payment in a timely manner.

WORK AUTHORIZATION NO. 1
EXHIBIT B
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

PROJECT DESCRIPTION

The services designated herein as "Services provided by the ENGINEER" shall include the performance of all engineering services for the following described facility:

CITY/COUNTY: HIDALGO COUNTY PRECINCT #3

CONTROL: _____

PROJECT/DESCRIPTION: SCHEMATIC, PUBLIC INVOLVEMENT, EA, SURVEYS, PS&E DESIGN, UTILITY COORDINATION, RIGHT-OF-WAY MAPPING AND ACQUISITION SERVICES, CONSTRUCTION MANAGEMENT FOR THE TOM GILL/LIBERTY RD PROJECT

LENGTH: 6.3 MILES

HIGHWAY: TOM GILL/LIBERTY ROAD PROJECT

LIMITS: FROM EXPRESSWAY 83 NORTH TO FM 2221

PROJECT CLASSIFICATION

- Surface Treatment
- Overlay
- Rehabilitation Existing Road (Scarify & Reshape)
- Convert Non-Freeway to Freeway
- Widen Freeway
- Widen Non-Freeway
- New Location Toll Freeway
- New Location Non-Freeway
- Interchange (New or Reconstruct)
- Bridge Widening or Rehabilitation
- Bridge Replacement
- Upgrade to Standards - Freeway
- Upgrade to Standards - Non-Freeway
- Miscellaneous Studies (Use Function Code 110 for All Tasks)

NOTES

ENGINEER shall mean L&G Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean the Hidalgo County.

WORK AUTHORIZATION NO. 1
EXHIBIT B
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

ROUTE AND DESIGN STUDIES
(Function Code 110)

Services Provided By:		
<u>ENGINEER</u>	<u>COUNTY</u>	
<u>YES</u>	<u>NO</u>	1. Route Location Studies
<u>N/A</u>	<u>N/A</u>	2. Level of Service Analysis
<u>NO</u>	<u>NO</u>	3. Traffic Evaluations and Projections (To be provided by TxDOT)
<u>YES</u>	<u>NO</u>	4. Develop Roadway Design Criteria
<u>YES</u>	<u>NO</u>	5. Preliminary Cost Estimates
<u>YES</u>	<u>NO</u>	6. Design Schematic (See Section 7, page 7-1 for schematic layout requirements)
<u>YES</u>	<u>NO</u>	7. Preliminary Right-of-Way Requirements
<u>YES</u>	<u>YES</u>	8. Design Concept Conference (In coordination with TxDOT)
		9. Soil Core Hole Drilling
<u>YES</u>	<u>NO</u>	a. Pavement (See Section 7, pages 7-3 thru 7-4 for requirements)
<u>N/A</u>	<u>N/A</u>	b. Retaining Walls (See Section 10, page 10-1 thru 10-2 for requirements)
<u>YES</u>	<u>YES</u>	c. Miscellaneous Structures (See Section 10, page 10-4 for requirements)
<u>N/A</u>	<u>N/A</u>	d. Bridges (See Section 11, page 11-3 for requirements)

WORK AUTHORIZATION NO. 1

EXHIBIT B

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SOCIAL, ECONOMIC/ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT

(Function Code 120)

Services		
Provided By:		
<u>ENGINEER</u>	<u>COUNTY</u>	
<u>YES</u>	<u>NO</u>	
		1. Environmental Reports
		All Environmental Reports shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations, Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.
		a. Environmental Assessments
<u>N/A</u>	<u>N/A</u>	(1) An Environmental Assessment shall be prepared, anticipating a Categorical Exclusion.
<u>YES</u>	<u>NO</u>	(2) An Environmental Assessment shall be prepared, anticipating a Finding of No Significant Impact.
<u>N/A</u>	<u>N/A</u>	(3) An Environmental Assessment shall be prepared, anticipating the need for a Draft Environmental Impact Statement.
		b. Environmental Impact Statement
<u>N/A</u>	<u>N/A</u>	(1) A Draft Environmental Impact Statement shall be prepared. After appropriate interagency and public reviews within time limits prescribed by the Code of Federal Regulations, Title 23, Part 771 and 43 Texas Administrative Code 2.40-2.51, a Final Environmental Impact Statement shall be prepared.
<u>N/A</u>	<u>N/A</u>	(2) A Section 4(f) Statement (Department of Transportation Act) shall be provided by the ENGINEER. The format and content of the statement is found in FHWA Technical Advisory T6640.8A.
		2. Public Involvement
		All public involvement procedures shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.
<u>YES</u>	<u>NO</u>	a. A public involvement meeting(s) shall be scheduled, coordinated and conducted.*
<u>YES</u>	<u>NO</u>	b. Technical assistance, meeting(s) preparation, maintenance of contact lists, minutes of meeting(s), exhibit preparation, and other tasks outlined by the STATE, shall be provided.
		3. Cultural Resources
		Formal consultation with the State Historic Preservation Office (SHPO) and the Texas Historical Commission (THC) will be conducted by STATE.
<u>YES</u>	<u>NO</u>	a. Historic Structure Studies
		A records search and reconnaissance survey shall be performed, and documentation prepared regarding identification efforts, National Register eligibility and potential impacts to historic properties in accordance with the state's historic structure requirements.
		b. Archeological Studies
<u>YES</u>	<u>NO</u>	(1) Files searches shall be conducted to determine if known archeological sites are present; to identify whether these sites have been listed or determined eligible for the National Register of Historic Places or have been designated State Archeological Landmarks; and to identify the need (if any) to perform additional archeological investigations.
<u>YES</u>	<u>NO</u>	(2) Archeological reconnaissance will be performed under a Texas Antiquities Permit (13 TAC 26) signed for the Sponsor by a professional archeologist with the STATE.
<u>YES</u>	<u>NO</u>	(3) Archeological survey shall be performed under a Texas Antiquities Permit (13 TAC 26) signed for the Sponsor by a professional archeologist with the STATE.

WORK AUTHORIZATION NO. 1

EXHIBIT B

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services
Provided By:
ENGINEER
COUNTY

- | | | |
|------------|-----------|--|
| <u>YES</u> | <u>NO</u> | 4. Noise and Air Quality Analyses |
| | | a. Noise Analysis |
| | | A noise analysis shall be prepared, including predicted noise levels and the consideration and evaluation of noise mitigation, in accordance with the STATE'S Noise Guidelines. The noise analysis or a summary of the noise analysis shall be included in the environmental document for the project. |
| <u>YES</u> | <u>NO</u> | b. Air Quality Analysis |
| | | An air quality analysis shall be prepared in accordance with the STATE'S Air Quality Guidelines. The air quality analysis or a summary of the air quality shall be included in the environmental document for the project. |
| <u>YES</u> | <u>NO</u> | 5. Ecological Investigations |
| | | A wetland survey and if necessary, a wetland delineation shall be conducted and a "wetland finding" shall be provided if necessary. As part of the environmental phase of the project, the consultant should notify the District if it is believed that a Section 404 or Section 9 permit is required, and provide the technical data to the District for application to the U.S. Army Corps of Engineers and/or the U.S. Coast Guard. |
| | | A determination should be made if there are potential federally listed endangered or threatened species that could be impacted. The District will be notified as soon as possible that Section 7 or 10 consultations may be required. Supporting data will be furnished to the district when consultation with the U.S. Fish and Wildlife Service is undertaken. |
| <u>YES</u> | <u>NO</u> | 6. Hazardous Materials |
| | | The consultant shall perform an Environmental Site Assessment for hazardous materials impact in accordance with the American Society for Testing and Materials (ASTM) 1528.93 (Transaction Screen Process). |
| <u>YES</u> | <u>NO</u> | 7. General Guidelines for Preparation of Environmental Documents |
| | | a. The environmental document prepared shall be provided on paper and on a formatted diskette that is compatible with the word processor program and equipment of the district office. |
| | | b. Three draft copies and twelve final copies of the Environmental Assessment shall be provided. |
| | | c. Ten draft copies and thirty final copies of the Draft and Final Environmental Impact Statements shall be provided. |
| | | d. The environmental document shall be prepared in accordance with the content and format of FHWA Technical Advisory T6640.8A. |
| | | e. Exhibits in the environmental document shall be limited to 297 millimeters by 420.5 millimeters (11 inches by 17 inches) where possible. |

EXHIBIT B
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

ROADWAY DESIGN CONTROLS
(Function Code 160)

Services
Provided By:
ENGINEER COUNTY

- | | | |
|------------|-----------|--|
| <u>YES</u> | <u>NO</u> | 1. Geometric Design |
| <u>YES</u> | <u>NO</u> | a. Horizontal and Vertical Alignment |
| | | b. Schematic Layout |
| | | (1) The location of interchanges, main lanes, grade separations, frontage roads and ramps. |
| | | (2) Develop vertical and horizontal alignment of main lanes, ramps and cross roads at proposed interchanges or grade separations. Frontage road alignment data need not be shown on the schematic; however, it should be developed in sufficient detail to determine ROW needs. The degree of horizontal curves and vertical curve data, including "K" values, shall also be shown for ease of checking. |
| | | (3) For freeways, show the location and text of the proposed main lane guide signs. Lane lines and/or arrows indicating the number of lanes shall also be shown. |
| | | (4) A complete explanation of the sequence and methods of stage construction, if proposed, including the initial and ultimate proposed treatment of crossovers and ramps. |
| | | (5) The tentative ROW limits. |
| | | (a) Provide a roadway Design System (RDS) or (GEOPAK) computer tape of the preliminary earthwork to verify ROW requirements. |
| | | (b) Provide a graphics file containing the approved schematic. |
| | | (6) The geometric (pavement cross slopes, lane and shoulder widths, slope rates for fills and cuts) of the typical sections of proposed highway main lanes, ramps, frontage roads, and cross roads. |
| | | (7) The current and projected traffic volumes as provided by the TxDOT (20 year traffic projection, unless otherwise determined by the District Engineer). |
| | | (8) The control of access lines if Interstate or designated under House Bill 179. |
| | | (9) Direction of traffic flow on all roadways. |
| | | (10) Location and width of median openings for highway without access control. |
| | | (11) The geometric of speed change (acceleration, deceleration, climbing) lanes. |
| <u>YES</u> | <u>NO</u> | 2. General Guidelines for Project Development |
| | | a. Prior to preparing detailed plans for a proposed project, a preliminary schematic layout shall be prepared which indicates the general geometric features and location requirements peculiar to the project. An uncontrolled aerial mosaic will be provided for this use. Four copies of the schematic layout shall be submitted through the district to the Design Division for approval and subsequent coordination with the Federal Highway Administration (FHWA) where applicable. The layout shall be submitted for two-lane arterial highway projects on new locations and for all multi-lane highway projects. No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout. |
| | | b. All geometric design shall be in conformance with the State's Design Division, Operations and Procedures Manual, except where variances are permitted in writing by the STATE. |
| | | c. The schematic layout shall include basic information which is necessary for the proper review and evaluation including the items listed above in the checklist for schematic layout. |
| | | d. Handling of traffic during construction shall be a consideration in the development of preliminary designs. |

EXHIBIT B
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services Provided By:		
<u>ENGINEER</u>	<u>COUNTY</u>	
<u>YES</u>	<u>NO</u>	
		2. General Guidelines for Project Development (<i>continued</i>)
		<ul style="list-style-type: none"> e. Upon approval of the schematic layout by Design Division (FHWA on Federal-aid projects), it shall be the basis for an exhibit at any required public hearing prior to final development of the project. If there are any changes to the schematic after the Design Division and FHWA approval and before the public hearing, four copies of the revised schematic, as displayed at the hearing, shall be submitted either prior to or accompanying the public hearing data. If there are no changes in the schematic as displayed at the hearing, only photographs of the schematic and other displays shall be submitted with the public hearing data. f. For all freeway construction projects, these schematics shall show the location and text of the proposed main lane guide signs. A schematic layout shall be submitted through the district to the Traffic Operations Division, Traffic Safety Section for approval and subsequent coordination with the FHWA. All signing shall be in conformance with the Texas MUTCD. g. On complex projects, informal contact through the district with the Design Division and FHWA personnel is encouraged with regard to development of preliminary design prior to official schematic submission. h. The engineer shall furnish a project tape that is compatible with the STATE's computer system, a project listing, and a cross section plot showing the original design sections containing the earthwork input and original cross sections for the project. Accuracy of the earthwork design is of utmost importance since it is the basis for contractor payments and construction staking.
<u>N/A</u>	<u>N/A</u>	3. Exhibit for Airway/Highway Clearance Permits
		4. Grading Design
<u>N/A</u>	<u>N/A</u>	<ul style="list-style-type: none"> a. Refine the horizontal and vertical alignment of main lanes, frontage roads, ramps, cross roads and direct connectors based upon the approved schematic layout. Determine vertical clearances at grade separations and overpasses, taking into account the appropriate super elevation rate. b. Typical Sections c. Design Cross Sections d. Determine Cut and Fill Quantities e. Slope Stability Analysis f. Embankment Foundation Stability Analysis g. Embankment Settlement Analysis
<u>N/A</u>	<u>N/A</u>	
<u>N/A</u>	<u>N/A</u>	
<u>N/A</u>	<u>N/A</u>	
<u>N/A</u>	<u>N/A</u>	
<u>N/A</u>	<u>N/A</u>	
<u>N/A</u>	<u>N/A</u>	5. Pavement Design
<u>N/A</u>	<u>N/A</u>	<ul style="list-style-type: none"> a. Prior to initiating detailed plan preparations for a project, a preliminary investigation shall be made to determine the approximate section and pavement type to be used for the pavement structure. The Flexible Pavement Design Manual for flexible pavement, "Appendix F" of the Design Division, Operations and Procedures Manual, and the current AASHTO Guide for the Design of Pavement Structures, may be used for this purpose. b. The typical section shall also reflect proposed geometric including pavement cross slopes, lane and shoulder widths, and slope rates whenever this data have not been previously shown on a schematic submission. c. Embankment and Subgrade <ul style="list-style-type: none"> (1) Soil Core Holes (Show cost estimate with Function Code 110) <ul style="list-style-type: none"> (a) Along center line (b) Along center line of each roadway
<u>N/A</u>	<u>N/A</u>	<ul style="list-style-type: none"> The location and minimum number of soil core holes required for this project are as follows: (To be determined when schematic is being completed)

EXHIBIT B
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

ADDITIONAL RESONSIBILITIES

Easements, Letters of Permission, Etc.

The ENGINEER shall be responsible for delineating easements. The ENGINEER will be responsible for securing the necessary legal instruments.

Coordination of Utilities

The ENGINEER shall furnish the COUNTY prints of a project layout which will be distributed by ENGINEER to various utility companies to determine which utilities are in the limits of the project. These shall be preliminary layouts. Upon completion of the preliminary drainage plans and U&D sheets, the ENGINEER shall distribute to the various utility companies and request return. Upon return of these prints, the ENGINEER will schedule a meeting with the various utility companies to discuss potential conflicts and conformance with the State's Utility Accommodation Policy. The ENGINEER is responsible for coordination with the various utility companies for exposing potential conflicts and field ties to uncover utilities in potential conflict areas.

Meetings

Meetings will be held with the FHWA, State Officials, local governments, property owners, utility owners, railroad companies, other consulting firms, etc., as needed or required by the COUNTY. The ENGINEER shall coordinate through the COUNTY for the development of this project with any local entity having jurisdiction or interest in the project (i.e., city, county, etc).

Specifications, Special Provisions, Special Specifications

Use the State's standard specifications or previously approved special provisions and/or special specifications. If a special provision and/or special specification is developed for this project, it shall be in the State's format and incorporate references to approved State test procedures.

Project Manager/Engineer Communication

The ENGINEER shall designate one Texas Registered Professional Engineer to be responsible throughout the project for project management and all communications, including billing, with the COUNTY's Director. Any replacements to the ENGINEER's designated Project Manager/Engineer must be approved by the COUNTY.

Engineering documents produced for the department's engineering projects shall be signed, sealed and dated or CADD sealed in accordance with Administrative Order No. 5-89 and Administrative Circular No. 26-91.

Design Responsibilities

The ENGINEER is responsible for design errors and/or omissions that become evident before, during or after construction of the project. The ENGINEER's responsibility for all questions arising from design errors and/or omissions will be determined by the COUNTY and all decisions shall be final and binding. This would include, but not necessarily be limited to:

1. All design errors and/or omissions resulting in additional design work to correct the errors and/or omissions.
2. Preparation of design documents and detail drawings necessary for a field change due to design errors and/or omissions.
3. Revision of original tracings to the extent required for a field change due to design errors and/or omissions.

The ENGINEER shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of the work by the COUNTY will not relieve the ENGINEER of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities.

EXHIBIT B
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Document and Information Exchange

Data, Plan Sheets, General Notes and/or Specifications provided to the COUNTY shall be furnished on 8GB USB flash drives. Each 8 GB flash drive shall have a file titled Table of Contents. The Table of Contents shall indicate the locations of files within the directory structure of the documentation.

General Notes and specifications shall be provided in MS Office 2007 format. Plan sheets shall be provided in Microstation DGN or GEOPAK GPK format. PDF copies of plan sheets shall also be provided.

Two copies of the documentation shall be provided to the COUNTY.

If required, the ENGINEER shall provide to the COUNTY, a CD that contains all the plan sheets for the project. The graphics tape shall be compatible with the COUNTY's computer system.

CD Tape Required (YES or NO): YES

Proposal Time

The time indicated in the proposal and the contract shall include time necessary for reviews, approval, etc.

Office Location

The ENGINEER will perform the services to be provided under this agreement out of their office or offices listed below:

<u>Service</u>	<u>Office Location</u>
PS&E	Mission Office
Schematic	Mission Office
Environmental Document	Mercedes Office

The work effort will be managed out of the _____ Mercedes _____
(City)
office located at 2100 West Expressway 83 _____,
(Address)
Mercedes _____, Texas _____.
(City) (State)

