EXHIBIT "E"

Contract No. C-08-227-02-09
Work Authorization Form

WORK AUTHORIZATION NO.1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the **Agreement** made by and between the **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **TEDSI Infrastructure Group**, professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

PART 1. Scope of Work. The purpose of this Work Authorization is to provide services for Mile 6 West from SH-107 to Mile 9 North as indicated below:

The scope of services to be provided by the **Owner** is identified in **ATTACHMENT "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 **ATTACHMENT "B"** – ***Scope of Services to be Provided by the Engineer*** attached hereto.

PART 2. Estimated Cost. The lump sum amount for services under this Work Authorization is **$ 1,906,248.19**. This amount is based upon the costs outlined in the ***Estimated Cost Proposal*** attached hereto as **ATTACHMENT "D"**. This amount will be reduced by **$ 88,308.16** for amounts previously paid under **Contract No. C-07-050-05-22**. The new amount payable under **Contract No. C-08-227-02-09** is **$ 1,817,940.03**.

PART 3. Payment. Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement**.

PART 4. Funding. This Work Authorization No. 1 shall be funded through funding source:
Account No. **9-1315-431-00-121-039-0-731/711**
Requisition No. _____ **(MUST BE INCLUDED AFTER COUNTY COURT 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 scope of work as indicated in **Attachment B**.

PART 6. Responsibilities and Obligations. This Work 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. 1, Commissioner Sylvia S. Handy, as to the content and detail of this Work Authorization No. 1.

Hidalgo County Precinct No. 1

By:_____
Sylvia S. Handy, Commissioner

Part 8. Acceptance and Approval. This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of __ day of _____, 2009.

A purchase order will be issued by the Hidalgo County Purchasing Department after execution of this document. Issuance of the purchase order will serve as the written Notice to Proceed on this Work Authorization.

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP

BY:_____
Jessse Salinas, (Principal)

ATTEST:

BY: _____
Arturo Guajardo, Jr., County Clerk

THE OWNER
HIDALGO COUNTY

BY:_____
Juan D. Salinas, III, County Judge

LIST OF ATTACHMENTS
ATTACHMENT "A" - Services to be Provided by the Owner
ATTACHMENT "B" - Services to be Provided by the Engineer
ATTACHMENT "C" – Work Schedule
ATTACHMENT "D" - Estimated Cost Proposal

WORK AUTHORIZATION NO. 1

MILE 6 WEST ROAD

SH-107 to Mile 9 North

ATTACHMENT "A"

Services to be Provided by the Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **Work Authorizations**.

The **Owner** will provide to the **Engineer** the following:

1) Prepare and execute a Purchase Order with Hidalgo County Purchasing Department
2) Authorization to the Engineer to begin work.
3) Payment for work performed by the engineer.
4) Assistance to the Engineer, as necessary, to obtain required data and information from other local, regional, and state agencies that the Engineer cannot easily obtain.
5) Secure required Environmental permits from regulatory agencies
6) Acquire additional Right of Way identified by the Engineer
7) Provide any available relevant data that may on file concerning the Project.
8) Provide timely review and decisions in response to the Engineers request for information and/or submittals and deliverables.
9) Attend and participate in progress meetings and public involvement meetings as required and as coordinated and conducted by the Engineer.
10) Advertise and award, as assisted and recommended by the Engineer, construction contracts for the PS&E developed by the Engineer.
11) Attend pre-bid and pre-construction conferences coordinated and conducted by the Engineer.
12) Review and approve monthly and final estimates, developed by the Engineer, for payment to the Contractor. Compensate and pay the Contractor for work performed as identified in the approved monthly and final estimates.
13) Provide assistance to Engineer where necessary and possible with Owner information/resources to ensure project is completed within timely/efficient basis.
14) TxDOT to provide the Owner flexible pavement design for proposed pavement.
15) Traffic data and turning movement counts

WORK AUTHORIZATION NO. 1
MILE 6 WEST ROAD
SH-107 TO MILE 9 NORTH
ATTACHMENT "B"

Scope of Services to be Provided by the Engineer

CSJ:	0921-02-168
Highway:	Mile 6 West Road
County:	Hidalgo
Limits:	From SH 107 south to Mile 9 North
Project Length:	7.5 miles
Area Office:	Pharr Area Office

Project Description
Reconstruct and Widen Roadway

Existing Conditions
The existing 20-foot paved two-lane roadway

Proposed Improvements
Construct 68 foot paved rural roadway consisting of four 12-foot travel lanes and a two 10- foot shoulders. In addition a temporary detour shall be constructed to provide continuous two way traffic at all times.

GENERAL MANAGEMENT/COORDINATION

1) The Engineer shall design, develop and prepare all documents in English units.
2) The Engineer shall develop/submit a work schedule with milestone activities and/or deliverables identified.
3) The Engineer shall utilize Microstation computer graphics system. Roadway design for the route study will be developed in GEOPAK.
4) The Engineer shall be required to meet with designated County's representatives, utility companies, adjacent and affected landowners as required for coordination during the development of the project.
5) The Engineer shall be required to prepare the minutes for any meeting as required for documentation purpose.
6) Right of Entry: It will be the responsibility of the Engineer to secure permission, short of litigation, to enter private property for purposes of survey, environmental and Engineering investigations. The Engineer will, at all times, contact the property owner prior to any entry onto the owner's property.
7) The Engineer shall perform quality control and assurance (QC/QA) on all deliverables associated with this project.
8) The Project Manager will continually review the quality, progress and cost of the various tasks assigned to all firms within the team. Quality review will include technical requirements.

ROUTE AND DESIGN STUDIES

1) Develop and assemble Preliminary Construction Cost Estimates.
2) Develop Roadway Design Criteria; prepare the Design Summary Report.
3) Attend and participate in the Design Concept Conference.
4) Design Schematic
   a) Develop a design schematic based on alignment previously selected and submit to TxDOT for review.
   b) Revise schematic to incorporate TxDOT's comments
   c) Identify irrigation system impacted by proposed improvements. Show proposed location for relocation of irrigation systems impacted. Design and detailing of irrigation systems is not included in the scope of work.
5) Use TxDOT provided flexible pavement design report.
6) Assist in developing a public involvement plan and accomplish tasks as necessary to effectuate the plan
7) Identify existing right of way limits and locate all major utilities within the study limits.

8) Determine minimum ROW and easement requirements using the proposed typical sections and preliminary cross sections. Adjust the proposed typical sections to accommodate refinements in design of the proposed alternative. Such refinements may include widening of pavement for turn lanes, changes in side slopes to reduce ROW requirements, use of retaining walls to minimize ROW and environmental impacts, addition of the proposed pavement design section, and other changes in the roadway typical sections.
9) The ENGINEER will provide an Engineering Summary Report outlining the various design alternatives considered with reasons for selection of the preferred alternative. All of the engineering analysis and methodology used in determining the preferred alternative will be documented in the report.
10) Development of level of service analysis, turning movement counts or traffic counts are not included in scope.

FIELD SURVEYING

1) Work shall assure compliance and adherence to all rules, regulations and policies as set forth by the Texas Board of Professional Land Surveyors.
2) The Engineer shall provide all traffic control, labor and equipment for the Traffic Control Plan (TCP) while performing services under this work authorization. The Engineer's Surveyor shall comply with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices".
3) Project Control and Baseline (Set in location clear of proposed improvements)
   a) Establish Horizontal and Vertical Control Benchmarks by setting permanent benchmarks with an Aluminum disk on a 5/8" iron rod set in concrete, every 1000' throughout the limits of the project. Establish elevations on set points within the specifications of the TSPS Category 8. If applicable, NGS first order benchmarks shall be incorporated into the level loops utilizing the NAVD88 Datum elevations. Signed and Sealed, RPLS, control data sheets shall be created for the newly establish BMs and included in the deliverables.
   b) Stake existing centerline
      i) Set 2' #5 iron rods at every 1000 ft, at all angle points, PC's, PT's and all intersecting roadways. Center points to be set are every 1000 feet.
      ii) Reference all angle points, PC's, PT's, and at 1000 foot interval stations with iron pins on the right of way line (on both sides).
      iii) Stationing shall correspond with the design centerline. Stationing shall be painted at 500-foot stations on the pavement using traffic paint.
4) Obtain cross sections every 100 ft at whole stations. Cross sections to extend 10 ft outside of proposed right of way. Obtain additional survey information as necessary to accurate develop a digital terrain model (DTM).
5) Topographic Survey (All work will be to 10 foot outside of the proposed ROW)
   a) Obtain driveway cross sections. Cross sections to extend 10 ft outside of proposed right of way.
   b) Update Inventory public access, commercial, and private driveways by type (dirt, caliche, gravel, concrete or paved).
   c) Side Drains
      i) Obtain approximate roadway centerline station.
      ii) Obtain size, length, description of structure, and conditions.
      iii) Obtain F.L. elevations at both ends and offsets to driveway or turnout centerline.
      iv) Label descriptions (size and length) on each side drain.
6) Culverts:
   a) Obtain size of drainage structure, type, skewed angle, and material. Label and describe each structures (for example if it's an irrigation or drainage culvert) size and length.
   b) Locate and obtain inlet and outlet flow lines elevations at structures, top of headwall, aprons, edge of pavement, and center line.
   c) Obtain profile and cross sections of upstream and downstream ravines on man-made channels leading from and to the existing or proposed structure. These profiles and cross sections shall extend from inlet and outlet flow lines to distance of 500 ft. beyond the right of way or as directed by the Engineer.
   d) Determine type of wingwall (i.e. flared wingwall, parallel, etc...) and safety end treatments (pipe runners, safety end treatments, barrier rail, etc...) according to TxDOT standards. For barrier rail include type of end treatments, location, type, length, and height.
   e) Obtain pictures of culverts barrels and outlet and inlet view to right of way line.
7) Fence, Mailboxes, and Sign Inventory:
   a) Locate and obtain mailboxes inventory (type-identify as single, double or multiple) for all mailboxes within R.O.W. and at all intersection locations. Include photographs.

b) Locate and obtain sign inventory (type) for all signs within R.O.W. and at all intersection locations Include pictures.

8) Miscellaneous
   a) This item requires the surveyor to pick up any items that may be an obstruction for the proposed construction or may require special attention during the development of construction plans (ex: oil and gas on proposed right of way, etc.)
   b) ASCII files shall be provided to the State. These files shall be retrieved from GPS/Data Collector and shall be compatible with Microstation.
   c) Field books, containing all information gathered in the field, this information shall be to the surveyor's best knowledge, accurate and complete.
   d) Survey in miscellaneous items not indicated above that are within the existing and proposed right of way.

RIGHT OF WAY SURVEY

1) Utility (All work will be to 10 foot outside of the proposed ROW)
   a) The Engineer shall meet with Utility providers periodically to coordinate the work efforts and resolve any utility related problems. The Engineer shall prepare the minutes for these meetings and forwarded to the County. The Engineer shall address the following issues and any other items deemed necessary during the Utility Coordination meetings:
      i) Activities completed since last meeting
      ii) Problems encountered.
      iii) Late activities.
      iv) Activities required by the next progress meeting.
      v) Solutions for unresolved and/or anticipated problems.
      vi) Information or items required from other agencies/consultants.
   b) If a reimbursable utility relocation exists, the Engineer shall request conveyance documents from the utility provider.
   c) The Engineer shall notify the Utility companies in writing and request the following information in writing:
      i) Project letting date and request they relocate prior to letting.
      ii) Develop their relocation plan according to Utility Accommodation Policy Manual.
      iii) Forward their relocation plan to the Engineer.
      iv) Request in writing when relocation of utilities will be complete.
      v) Upon immediate completion of relocation, request they forward as-built plans to the County.
   d) The Engineer shall develop the typical sections, alignment, and preliminary cross sections addressing the utility location and shall forward these to the respective utility company.
   e) The Engineer shall update all files and plans based on the utility company responses.
   f) The Engineer shall identify all utility conflicts on the plans and prepare layouts and profiles of existing utility crossings showing conflicts of utilities with proposed improvements. The Engineer shall forward these layouts to the County and the utility companies. During design process, the Engineer shall field verify all visible utility conflicts.
   g) The Engineer shall verify the proposed relocation plan submitted by the Utility companies to assure their design is according to Utility Accommodation Policy Manual. Upon the Engineer's review and concurrence with the proposed relocation plan, they shall forward their recommendation for approval to the State.
   h) Contact "One Call" to request marking of underground utilities
   i) Request existing utility information from local utility companies
   j) The Engineer will perform any surveying necessary to for horizontal location of located, "Flagged", underground utilities and visible overhead utilities.
   k) The Engineer will obtain measure downs on utilities as follows
      i) Top of key on gas line values
      ii) Top of key on water line values
      iii) Flowline, size of tie-ins and direction of flow for sanitary sewer manholes
      iv) Flowline, size pipe for irrigation systems
      v) Flowline and size of system for inverted siphons.
   l) Subsurface Utility Engineering is not included in the scope of work.

2) Right of Way
   a) The Engineer shall stake all proposed right of way and drainage easement necessary for preparation and construction of this project as required to finalize the acquisition process and as required for utility relocations.

b) Right of Way Map (NOT SEALED) Development – The Engineer will provide the Right of Way Maps in accordance with the TxDOT Checklist below:

i) General
   (1) Graphics files will be in Microstation and Word software.
   (2) Photos of proposed ROW staking included.
   (3) Field notes and Parcel Plats are numbered continuous.
   (4) Scale shall be 1"=50' for 34" x 22" plans and 1"=100" for 11" x 17" plans

ii) Title Sheet Requirements
   (1) Title and description of project including county, limits, etc.
   (2) Vicinity map with begin and end sta.
   (3) Equations and Exceptions
   (4) Index
   (5) Legend
   (6) Title block completely filled out with Construction and R.O.W. CSJs'
   (7) List all Major Utilities from Station to Station

iii) Individual Map Sheet Requirements
   (1) Sheet size 34" X 22"
   (2) Text legible when reduced to half-scale.
   (3) Title block completely filled out with R.O.W. CSJ
   (4) Matchlines
   (5) Project layout sheet

iv) Existing information:
   (1) R.O.W. lines
   (2) Whole property or whole property inset
   (3) Roadways
   (4) Survey, county, and city limit lines shown and labeled
   (5) Improvements shown and labeled (see below)
   (6) Monumentation i.e. P.C., P.T., Break Points
   (7) North arrow
   (8) Scale
   (9) Property lines
   (10) Property descriptions i.e., lot, block, tract, subdivision, etc.
   (11) Identify existing and proposed access denial locations (if applicable)

v) Proposed information:
   (1) Type II Monumentation i.e. P.C., P.T., Break Points and 1500' intervals
   (2) Survey and R.O.W. lines
   (3) Basis of bearings
   (4) Parcel bearings and distances correspond with traverse sheet
   (5) Outside ties (P.O.C.) corresponds with field notes
   (6) Point of beginning (P.O.B.) established on proposed R.O.W. line
   (7) Parcel tied to baseline
   (8) Baseline information shown i.e. Stationing, bearings, curve data, etc.
   (9) Conveyance information shown in tables i.e. parcel number, grantors name, amount of take, remainder etc.
   (10) Math checked on remainder

vi) Improvements:

vii) Improvements bisected or within 25' of proposed R.O.W. line are shown on map with stationing and distance from proposed R.O.W. line. Buildings are labeled and dimensioned.

viii) Off-premise outdoor advertising signs within proposed R.O.W. are shown and labeled.

ix) Utilities:
   (1) All utilities within or crossing existing and proposed right of way are shown and labeled as to size, easement or fee width, and recording data of instrument.
   (2) Location of underground storage tanks and/or filler caps are shown and labeled

c) Field Notes

i) Heading
ii) County
iii) Highway
iv) Parcel number
v) R.O.W. CSJ
vi) Construction CSJ
vii) General Description or "preamble"
viii) Area of parcel to be acquired is shown in acreage (0.000) for rural land and/or square feet (to nearest whole sq. ft.) for urban land or smaller parcels
ix) Parent tract data is shown:
(1) Size of parent tract
(2) Survey data or lot, block, and subdivision
(3) Name of last recorded seller and buyer
(4) Date, volume and page or document number of last recorded conveyance
(5) Records and county of last recorded conveyance
x) Beginning Description
(1) Point of commencement is on outside tie and is described accurately by bearings and distances as it leads to the point of beginning.
(2) Point of beginning is on proposed R.O.W. line
xi) Particular Description
(1) Traverse calls are clockwise sequence
(2) Bearings and distances correspond exactly with map, parcel sketch, and traverse sheet
(3) Bearings are to nearest whole second and distances are to the nearest one-hundredth of a foot
(4) Calls are numbered
(5) Denial of access shall be described from beginning to end (if applicable)
xii) Closing Description
(1) Last call leads back to P.O.B.
(2) Restates area of parcel
(3) Establishes taking in existing road R.O.W. if applicable
(4) Legal description is referenced to Plat
(5) Sealed and signed
(6) Include an access clause whether access is permitted or denied (if applicable)
(7) Shows P.O.B. and P.O.C.
(8) All data corresponds exactly with Map and Field Notes
(9) Sheet size is no larger than 81/2" x 11"
(10) Plat closely matches example provided
(11) Plat referenced to legal description
(12) Sealed and signed
(13) Include an access clause whether access is permitted or denied (if applicable)

d) Traverse Sheet
i) Computations show area to be acquired in sq. ft. or acres, whichever is applicable
ii) Computations show area that is existing road R.O.W. if applicable
iii) Traverse calls are in clockwise sequence
iv) Error of closure meets the following:
(1) Secondary rural .0003
(2) Primary rural - secondary urban .0002
(3) Urban or industrial .00013

ENVIRONMENTAL ASSESSMENT

An Environmental Assessment (EA) will be prepared by the Engineer for the Mile 6 West in accordance with applicable procedures of the State of Texas, and the requirements of the National Environmental Policy Act and Federal Highway Administration Technical Advisory 6640.8A. – As No significant environmental issues or impacts are expected for this project a FONSI (as identified by the NEPA process) is anticipated. Should it be determined that additional work beyond an EA be required, the additional work will be added by supplemental agreement.

1) Document Need for and Purpose of the Project. This task will be based on existing roadway design elements and constraints, current and projected traffic volumes, traffic accident data, and proposed typical sections, schematics, and intersection configurations. As this data is developed, the information will be incorporated into appropriate EA sections describing the need for the project, the objectives and issues eliminated from further study. The project description section will include text and graphics illustrating the proposed project design.
2) Alternatives Analysis
   a) This task will include text and graphics illustrating the different alternatives considered prior to selecting the preferred.
   b) It will also describe the reasonable alternatives and those eliminated from further study.
3) Affected Environment and Environmental Consequences. For each of the categories listed below, the necessary background and field reconnaissance will be performed to include in the EA. Data will be provided on a regional scale, but will be specific to the project study area and alternatives that received primary consideration during the planning process. A study corridor will be identified which adequately provides the resource information used in the decision – making process and assist in determining which issues should be eliminated from further study.
   a) Land Use and Public Facilities.
   b) The effects of project alternatives will be characterized in light of land use trends, plans, and policies within the study area. This effort will entail close coordination with local and regional planning bodies and will include an analysis of potential secondary effects of the proposed improvements. Potential effects on public and community facilities will also be identified and discussed.
   c) Social Economic Impacts, Environmental Justice and Limited English Proficiency. As applicable, this task will address potential changes to local neighborhoods or communities and the effects on community cohesion relating to travel patterns, access, and public safety, particularly as those changes may differently affect various social groups and minorities. This information will include race/ethnicity, limited English proficiency, income, and other relevant data. The assessment will conform to FHWA guidance for compliance with Executive Order 12898, Environmental Justice. Project alternatives will also be evaluated with respect to potential effects on local economic development, secondary growth effects, tax revenues, public expenditures, employment and income, and access effects on local agricultural and commercial enterprises. The assessment will also address potential economic effects upon adjacent businesses due to changes in traffic patterns during and after construction.
   d) Noise. The project noise assessment will inventory potential noise sensitive receptors. In accordance with TxDOT noise assessment guidelines, the existing alignment for the design year will be computer simulated, and future noise levels will be predicted at each of the sensitive receptors using the FHWA/TxDOT approved Traffic Noise Model (TNM).
   e) Air Quality. Since the Average Annual Daily Traffic is expected to be below 140,000 vehicles per day, an air quality analysis will not be required, however, a mobile source air toxics (MSAT) qualitative analysis will be required. The qualitative analysis will include:
      i) Brief MSAT description and discussion of national trend data projecting substantial overall reductions in emissions due to stricter engine and fuel regulations issued by EPA;

ii) Comparison of the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated assumed changes in MSATs;

iii) An assessment of schools, licensed day cares, elder care facilities, and hospitals located within 100 and 500 meters of the ROW;

iv) Discussion of information that is incomplete or unavailable for a project-specific assessment of MSAT impacts, in compliance with CEQ regulations (40 CFR 1502.22(b)); and

v) Summary of current studies regarding the health impacts of MSATs, in compliance with 40 CFR 150.22(b);

f) Water Resources. The effort will reflect the requirements of the National Pollutant Discharge Elimination System (NPDES) storm water general permit program for construction activities and the anticipated project Storm Water Pollution Prevention Plan (SW3P), particularly with respect to potential mitigation benefits to be achieved through the SW3P. Additionally, the 100-year floodplain, as delineated by FEMA, will be identified and the impacts of the proposed project will be assessed. Flood management effects will also be addressed through coordination with the local flood management agency.

g) Wetlands and Waters of the U.S. The Engineer will perform jurisdictional identifications, including wetlands and evaluations in all areas potentially affected by the primary alternatives. If required, delineations of wetlands, approved jurisdictional determination forms and Individual Section 404 wetlands permit(s) and/or Nationwide Permit(s) requiring a Pre-discharge Notification or wetland mitigation planning will be added by supplemental agreement.

h) Ecological Resources. The Engineer will perform a characterization of project area ecological resources, including descriptions of vegetation, prime farmland and wildlife habitat resources. Ecologically sensitive resources, if any, will be identified and discussed in the EA. An assessment of the project area's potential to support federally threatened or endangered species will be conducted. This includes a data search of the Natural Diversity Database (NDD), an assessment of habitat in the project area for any listed species determined to be of potential occurrence and early coordination with the U.S. Fish and Wildlife Service. A list of all state and federally sensitive species of potential occurrence in the project area will be provided in the EA. If required, any required threatened or endangered species presence/absence surveys would be added by supplemental agreement.

i) Archaeological Resources

i) The archaeological investigations, the archaeologist will search site files and maps at the Texas Archeological Research Laboratory and the THC's Texas Archeological Sites Atlas on-line database for any previously recorded surveys and historic or prehistoric archaeological sites located in or near the proposed alignment. This will provide site and geographic information that will be essential to the discovery and interpretation of any undiscovered cultural resources along the proposed alignment. Because the project involves lands owned by a political subdivision of the state, any archaeological field investigations will require a Texas Antiquities Permit. The archaeologist will prepare a permit application and submit the THC.

ii) Once the background review is completed and the permit is obtained, the archaeologist will conduct an archaeological survey of the project area. The field survey will consist of one archaeologist walking the entire proposed project area with particular focus on any new, undisturbed right-of-ways and previously recorded sites. The survey will be of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. During the survey, the archaeologist will be examining the ground surface and erosional profiles for cultural resources and excavating small shovel tests where appropriate to test for subsurface archaeological deposits or assess the geomorphic setting. Any discovered or previously documented sites will be document and plotted on USGS 7.5 minute topographic maps using hand-held Global Position System (GPS) units.

iii) Once the field survey has been completed, the archaeologist will prepare a report of the investigations. The report will document previous investigations in the area, background cultural settings, the methodology used in the investigations, the presence and condition of any previously recorded sites revealed in the records review, the general nature of the survey area with respect to archaeological potential, and recommendations on the need for further work. Draft copies of the report will be submitted to the Engineer for review and comment. Once this has been accomplished, any appropriate edits will be made and a draft report will be submitted to TxDOT and the THC for review. The Texas Antiquities Code also requires that 20 copies of the final report be submitted once the project is completed. Additionally, text will be provided to incorporate into the EA.

j) Historical Resources

i) For the historic portion of the project, a historian will conduct a literature review of the project area and present a research design to TxDOT-Environmental Affairs Division (ENV), as described in ENV guidance procedures regarding historic resource surveys. This review includes examination of files at THC to identify historic properties that have been previously listed in the NRHP, designated as Recorded Texas Historical Landmarks, and/or are included in the Texas Historic Sites Inventory or other available local historical surveys. The historical will also check other available archival sources, such as historic maps or aerial photographs, to locate previously unidentified potential historic resources in the project's area of potential effect. A historic literature review will also be conducted to establish appropriate historical and cultural contexts for the project area. This information will be compiled along with a survey methodology as part of the research design that will be submitted to ENV and the THC for final determination of the APE and approval for the project to proceed.

ii) Following completion of the preliminary research tasks, two architectural historians will carry out a reconnaissance field survey of the proposed alignment to identify and record historic buildings, structures, and objects within the project's APE. The historians will plot the location of each identified resource on a USGS (or similar) map, take photographs, obtain addresses, and gather physical data on the structure such as property type and subtype classifications, stylistic influences, construction dates, integrity issues and preliminary eligibility recommendations.

iii) Four copies of a summary reconnaissance report will be provided and will include the following:

(1) A letter report containing an overview of the results of the reconnaissance survey. The letter report will describe the findings of the reconnaissance survey and recommend the need, if any, to conduct further survey efforts. The letter report will have sufficient detail and clarity to provide a basis for making determinations of NRHP eligibility.

(2) Photographic documentation for each identified historic resource. At a minimum, this documentation will include an oblique view of the primary facade and a side elevation of each resource, with the subject filling the frame. All photographs will be 3.5-x-5-inch or 4-x6-inch color prints. All photographs will be well focused and clearly depict architectural and other details relevant to an evaluation of the resource's character-defining features. Photographs will be attached to separately labeled pages that clearly identify project name, address (or location) of resource, and site ID number.

(3) An inventory of all identified resources provided in tabular form that lists their site ID numbers, locations, property and subtype classifications, stylistic influences, construction dates, integrity issues, and preliminary NRHP eligibility recommendations.

(4) A map or maps showing the location of each identified historic resource labeled with its appropriate site ID number. Outbuildings and landscape features will be reported as subsets of the main site ID number for a property. The project APE, major street names, and other directional landmarks will be clearly indicated on the map. Maps will be based on aerial photographs, USGS 7.5-minute quadrangle topographic maps, or similarly detailed maps.

(5) Proposed changes to the research design arising from the results of the reconnaissance survey, including contextual issues, comparative property information needs, data gaps, and other items necessary to finalize the evaluation and documentation phases of the project.

k) Recreational Resources. The assessment will include a review of the applicability of Section 4(f) of the DOT Act. A Section 4(f) Evaluation, should one be required, will be added as a supplemental agreement.

l) Hazardous Materials. An electronic search of potential hazardous materials sites will be conducted followed by reconnaissance-level field investigations to verify the location of potential sites and collect additional preliminary information. If required, a Phase I Environmental Site Assessments will be added by supplemental agreement. Information will be incorporated into the EA, along with a discussion of potential impacts, based on the best available information.

m) Indirect and Cumulative Impacts. The Engineer will identify indirect and cumulative impacts in accordance with the requirements of FHWA Technical Advisory T 6640.8A (1987), Report 466: Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects (National Cooperative Highway Research Program 2002), TxDOT Guidance on Preparing Indirect and Cumulative Impact Analyses (2006), and related guidance from FHWA and TxDOT.

n) Identify Corridor Issues and Field Investigations. The Engineer will perform collect, research, review and assemble available environmental data and review various maps. The Engineer will perform site visits to identify environmental constraints including land use, socioeconomic issues, wetlands and other waters of the U.S., recreational issues (Section 4[f]), industrial waste issues, and ecological resources. If necessary, any threatened or endangered species presence/absence surveys or wetland delineation will be added by supplemental agreement.

o) Graphics. The Engineer will prepare base maps for field use, stakeholder and public meeting presentation graphics, and final EA graphics using digital aerial photography. Screening graphics will be developed for each resource constraint category appropriate for the project. Alternatives will be mapped and each resource category quantified to provide the objective basis for the alternatives analysis. Report graphics will be prepared as needed to show the potential impacts of the proposed action on various resources and how these impacts may be minimized and/or avoided through the EA process.

4) Report Preparations. The EA document will comply in all respects with the NEPA and the guidelines of TxDOT and the FHWA for preparing environmental documents. The analysis will address the adverse and beneficial impacts of project construction and operation, and will also include indirect and cumulative impacts. The impact analysis will be organized to facilitate equivalent comparisons of alternatives, employing charts, tables, maps, and matrices as appropriate. Generalized preliminary mitigation options will be emphasized where adverse impacts may potentially occur. The Engineer will submit the EA document in accordance with the provisions in Phase II.

5) Public Involvement

a) Draft and advertise project Public Notices (English and Spanish) in accordance with the standards set forth by the Texas Department of Transportation public hearing requirements to provide effective notification procedures for project events and meetings that will heighten overall public participation.

b) Design and develop project support materials (English and Spanish}, including mail-out flyer, public meeting agendas and handouts, maps, and other related project information, for public dissemination. Owner to be responsible for disseminating provided material.

c) Provide coordination of professional transcribing and translation services for Public Meetings and/or Public Hearings. Additionally, the Engineer will provide technical support and assistance at one mock meeting and one public hearing. Upon receipt of the transcripts the Engineer will prepare the Summary and Analysis for submittal to TxDOT. Owner is responsible for providing professional transcribing and translation service.

d) Hidalgo County will publish the notices in the local newspaper, arrange for, pay and provide a location for the public meeting and hearing to be held, will provide a mailing list and copy, collate and mail letters to adjacent property owners, local governmental officials and others as necessary.

e) Agency Coordination: As part of the proposed effort, the Engineer intends to communicate with local, state, and federal agencies and organizations regarding project compliance with applicable environmental approvals, including the regulatory programs. These entities include:

i) Local, county and municipal government agencies

ii) U.S. Army Corps of Engineers regarding jurisdictional determinations, if necessary

iii) U.S. Fish & Wildlife Service regarding federally threatened or endangered species

iv) Federal Emergency Management Agency and local flood management agency regarding NFIP compliance, if necessary.

v) Texas Parks & Wildlife Department (TPWD) regarding area parks, wildlife refuges, state-listed endangered species, and compliance with TxDOT/TPWD Memorandum of Understanding and request for data from the Natural Diversity Database

vi) Texas Commission on Environmental Quality (TCEQ) regarding hazardous materials and groundwater protection compliance with TxDOT/TCEQ Memorandum of Understanding.

6) All correspondence will be preserved for inclusion in the EA document; telephone or in-person discussions with agency officials will be logged as part of the project file.

7) Assumptions Used to Derive the Proposed Scope of Services:

a) All investigations will be conducted based on existing literature and mapped data, aerial photographic interpretation, interactions with local and regional experts, and field reconnaissance. If necessary for specific site investigations, access to private property will be the responsibility of the Engineer.

b) The Engineer team assumes an EA that leads to the issuance of a Finding of No Significant Impact will fulfill the NEPA requirements for this project (as opposed to an Environmental Impact Statement). Additional work beyond EA will be added by supplemental agreement.

c) Any technical studies required as a result of modifications in project design alignment, or alternatives submitted after submittal of the draft EA will added by supplemental agreement.

d) The Engineer assumes that requisite engineering information such as traffic data will be provided by the Pharr District of TxDOT in a timely manner. The draft EA will be submitted to County/TxDOT not less than 60 days after receiving final engineering information, including diagrams for all alternative alignments or design options to be addressed in the EA.

e) The Engineer will prepare a scoping letter for distribution to resource and public agencies. This letter will also include minutes of the meetings with City/County officials, and Public Hearing.

f) This scope and fee is based on the current standards of practice for environmental documents developed for Texas Department of Transportation as of the date of signature of this Agreement. Modifications to submitted document required by subsequent changes to the standards of practice are additional services. Additional services will be added by supplemental agreement.

PLAN, SPECIFICATIONS AND ESTIMATE SERVICES

1) The Engineer shall prepare and submit work under this task in accordance to the PS&E Preparation Manual. The location of project should depict the entire project with beginning and ending (Station Numbers/Reference Markers) for each noted CSJ. Mapping landmarks (side streets, creeks, etc.) along with North Arrow and a scale should be shown to help relate the physical location of the project.

2) The Engineer shall use the Design Speed, the Funding Category, Average Daily Traffic, ADT, Roadway Classification, Location Type, and the appropriate Design Criteria to develop the typical sections as set forth in the Roadway Design Manual, PS&E Preparation Manual and other deemed necessary State approved manuals to prepare and submit the work under this task. The existing typical section should be shown with current roadway (pavement, right of way, etc.) characteristics. The proposed typical sections should be shown below the existing typical section with all related pertinent (pavement, right of way, etc.) information for the proposed roadway construction.

3) For Roadway, Bridge and Traffic quantities, the Engineer shall prepare and submit work under this task in accordance to the PS&E Preparation Manual and other deemed necessary State approved manuals. All summaries shall be consolidated

per CSJ, City or County participation, etc. Any quantities shown "For Contractor Information Only" should be shown as such.

TRAFFIC CONTROL PLANS (TCP)

1) The Engineer will develop a conceptual traffic control plan (TCP), roll plot, and narrative. These information will be submitted to the County and TxDOT for review. The Engineer shall make a presentation to the District Traffic Control Safety Review Committee to obtain approval of the TCP prior to development of plan sheets. Modifications requested by TxDOT or County after approval will be consider additional work and be added by supplemental agreement.
2) The Engineer shall notify the State if they plan on requesting a speed reduction at the work zones. The Engineer shall prepare the request form using the latest approved Strip Map within the project limits in conjunction with the Traffic Standards for this request. If the project limits is within the city limits, the request shall be coordinated with the State and the local municipality at the early design process.
3) The Engineer shall provide the State with a hardcopy and accompanying electronic file of a schedule and Critical Path Method for project duration for each phase of construction using SureTrack software
4) The Engineer shall describe the type of work to be performed for each phase of sequence of construction and any special instructions (ex: storm sewer, culverts, bridges, railing, illumination, signals, retaining walls, signing, paving surface sequencing or concrete placement, ROW restrictions, utilities, etc.) that the contractor should be made aware to include limits of construction, obliteration, and shifting or detouring of traffic prior to the proceeding phase.
5) The Engineer shall include the work limits, the location of channelizing devices, positive barrier, location & direction of traffic, work area, stations, pavement markings, and other information deemed necessary for each phase of sequence of construction.
6) If Engineer determines that a standard is not applicable to address the entire project, then the Engineer shall prepare layouts for each respective phase of sequence of construction to illustrate any necessary additional construction details not covered by the Standards to address work limits for each sequence in stations, channelizing devices, barricades, positive barrier, tapers, buffer zones, TCP signage, signs, work zone pavement markings, work area, location & direction of traffic, locations for pedestrian crossings, and other information deemed necessary for each phase of sequence of construction. The Engineer shall develop the layouts by referring to the TxDOT standards, latest version of the TxMUTCD for non-TCP signage that may be needed as part of the TCP signage for intersections. The layouts shall address construction of detours, access to business, homes, side streets, and driveways, and reroute of traffic to other roads.
7) The Engineer will address drainage issues that are a result of changes in horizontal and vertical profiles by specifying the location and size of the temporary drainage structures.
8) The Engineer shall prepare the plan and profile sheets and cross sections for all detours.
9) The Engineer will develop TCP plans as double stacked, 1" = 100'. TCP plans will be developed for a two phase approach to traffic control.

ROADWAY DETAILS

1) The alignment sheet(s) include the following for complex projects and/or where it is not desirable to show the following information on the plan and profiles sheet(s): include the project limits for the entire project, label curve date bearings/coordinates for each alignment, computer generated data may be graphically place on the sheet(s) and if applicable the State Plane Coordinates System should be noted on this sheet(s).
2) The Benchmark Data sheet shall be developed in tabulated form and accompanied by surveyor's sketch showing the Station Number from respective alignment, Offset, and Elevation and Physical Description.
3) The Engineer shall design the plan (horizontal) and profile (vertical) including roadway transitions based on the controlling criteria previously defined and as set forth in the previously listed. The Engineer shall develop the alignment for the project in GEOPAK format. Plan and Profile sheets will be developed at 1" =100'.
4) The Engineer shall identify and notify the State all locations not meeting the set criteria. In addition, the Engineer shall provide alternatives and a recommendation to address these design issues.
5) The Engineer shall develop and verify all cross sections in preparation of the proposed traffic control plan, drainage, utilities, right-of-way, and access onto adjacent properties. In addition, the cross sections shall be drained to maintain the natural watershed unless otherwise directed by the State.
6) The Engineer shall determine all cut and fill quantities.
7) The Engineer shall design all intersections to accommodate the design vehicles turning radius. The ADA-wheelchair ramps shall be designed in accordance to the TDLR compliance and the latest TxDOT's Pedestrian Ramp Standards in conjunction with the requirement of the latest version of the TxMUTCD as it relates location of the traffic signals

pedestrian heads, signage, and pavement markings.

8) The Engineer shall design all longitudinal barriers (railing and guardrail), raised median, fencing, bus bays, parking areas, mailboxes, and shoulder texturing in accordance to the criteria set forth in the roadway design manual and standards. Miscellaneous Details Sheet(s) may be developed to illustrate any necessary additional construction details not covered by the Standards.

DRAINAGE DETAILS

1) The Engineer shall use the Roadway Design Manual, Hydraulic Manual, PS&E Preparation Manual, and other deemed necessary State approved manuals to prepare and submit the work under this section
2) The Engineer shall use the above-listed manuals to prepare and submit the work under this task. The hydraulic calculations shall have the following based on previously County approved drainage study:
   a) Description-Material, Size, & Entrance (headwall)
   b) Design discharges, Flow per barrel, barrel slope, and Manning n-value
   c) Inlet flow line, allowable headwater, roadway (shoulder) elevation, calculated inlet headwater elevation
   d) Outlet flow line, Tailwater for design frequency/frequencies, type of flow, critical depth, and calculated friction losses, calculated outlet water elevation
   e) Controlling headwater elevation, outlet velocity, and recommended countermeasures to maintain an acceptable outlet velocity.
3) The Engineer shall show the location of culverts and ditches on the roadway plan view.
4) The Engineer shall use TxDOT standards preferably at all times. Modification to inlets, pipe connection, bedding details, and other elements pertaining to drainage details shall be included under this work task. The BCS sheet must be submitted for all box culverts within the project limits. This sheet must be signed and sealed by the Engineer.

TRAFFIC ITEMS

The Engineer shall inventory all signage through the project limits including those limits that are considered incidental to the project limits. All intersections and roadway signage shall be designed and spaced according to the requirements set forth in TxDOT's Sign Crew Field Book and standards for work under this task. Any signs no longer used by the State shall be taken out and replace by an accepted TxMUTCD signs. The Engineer shall design all signage according to the latest version of the TxMUTCD, Supplemental to TxMUTCD, and TxDOT's Signs and Markings Manual. Design of flashing beacons or traffic signals not specifically indicated in Attachment D is not included. Additional locations will be added by supplemental agreement.

STORM WATER POLLUTION PREVENTION PLANS (SW3P)

The Engineer shall submit and prepare separate SW3P sheets when soil is to be disturbed as part of the erosion control measures during each phase of the sequence of construction. The general plan for the SW3P on this project is to enclose the area under construction including existing and proposed inlets with erosion control devices and provide a stabilized construction entrances at points where traffic will be entering or leaving the construction site. The Engineer shall also design structures or features to control erosion and suspended sediments for post-construction. A standardized General Note will serve as the SW3P where there is to be no soil disturbance (seal coats, overlays, etc.) in the project. The Engineer shall refer to the Hydraulic Design Manual, TxDOT standards, TxDOT Storm Water Management Guidelines, the Environmental Manual, and District Environmental Staff for guidance on work under this task. Erosion Control measures shall conform to one or more of the approved TxDOT / Texas Natural Resources Conservation Commission (TNRCC) / US Environmental Protection Agency (EPA) / US Army Corps of Engineers (USACE) Best Management Practices. The appropriate Best Management Practice(s) shall be listed on the Environmental Issues, Permits, and Commitments (EIPC) sheet to be included as a Plan Sheet and shall be followed by the Engineer and Contractor to completion. Plan sheets will be develop separate from TCP as 1"=100', double stacked.

CROSS SECTIONS

For the Final Submission, the Engineer shall furnish the final cross - section plots, on 36" wide x 120" long roll plots, showing both the original terrain and the design cross-sections, showing the roadway template, at a vertical scale of 1"=10' and a horizontal scale of 1"=10'. The design cross - sections shall indicate the slope rate on the side slopes. The Engineer shall use GeoPak software and provide the state with the applicable files. Cross sections are to show proposed pavement thickness, top of subgrade, finish grade of side bar ditches with slopes and location of right of way. Indicating other features within the cross sections is not part of the scope of work, ie. Underground utilities, storm sewer lines, top soil, etc.

DELIVERABLES

PS&E

The Engineer shall deliver to the County and TxDOT Project Manager one copies and one CD's containing PDF's of the plan sheets provided, respective of the 1st, 2nd, and 3rd submittal. For the final submittal, the Engineer shall submit one set in Mylar accompanied by a paper copy and two CD's containing PDF's of the final plans.

1st Submittal -

1) Design Summary Report
2) Title Sheet
3) Typical Sections (existing and proposed)
4) Traffic Control Plan
5) Utility Layout (conflicts identified)
6) Plan & Profile
   a) Vertical Alignment (existing and proposed)
   b) Horizontal Alignment (existing and proposed)
7) Miscellaneous Details
8) Corresponding Quantity Summary Sheets
9) Corresponding Standard Detail Sheets for all Items of Work in this submittal
10) Preliminary Estimate
11) Design Exceptions/Waivers required
12) Newly created Special Provisions/Specifications to be used (Form 1814)
13) R.O.W. (issues identified)
14) 2 Rolls of Cross Sections

2nd Submittal -

1) Index Sheet
2) Hydrologic Computation Sheets
3) Hydraulic Data Sheets
4) Drainage Area Maps
5) Drainage Plan & Profile
6) Drainage Structure Details
7) Storm Sewer Details
8) Storm Water Pollution Prevention Plan
9) Miscellaneous Details
10) Corresponding Quantity Summary Sheets
11) Corresponding Standard Detail Sheets for all Items of Work in this submittal
12) Updated Estimate
13) Utility Adjustment/Relocation Details
14) R.O.W. Acquisition Detail
15) 2 Rolls of Cross Sections

3rd Submittal -

1) Final Index of Sheets
2) Pavement Marking Layout/Details
3) Miscellaneous Details
4) Corresponding Quantity Summary Sheets
5) Corresponding Standard Detail Sheets for all Items of Work in this submittal
6) Final Estimate
7) General Notes
8) Certifications
9) Form 1002
10) Cross Sections

4th Submittal - PS&E Package 100% complete.

ENVIRONMENTAL ASSESSMENT
The Engineer shall submit the Environmental Assessment to the Texas Department of Transportation for review and approval. Three hard copies and one CD with PDF's of the submittal will be provided for the preliminary draft, final draft and final assessment.

HYDRAULIC DELIVERABLES
The Engineer shall submit the Hydraulic Report signed and sealed by a Registered Professional Engineer in the State of Texas.

SURVEY DELIVERABLES
The Engineer shall submit, after completion of PS&E, all original field books containing all survey information requested for this work authorization. The field book shall contain all information gathered in the field. The survey information provided shall be to the surveyor's best knowledge, accurate, and complete.

Electronic files (*.txt) containing survey information with proper identification and with the following data format x, y, and z NAD-83 coordinate system. The x-coordinate corresponding to the east bearing, the y-coordinate corresponding to the north bearing, and the z-coordinate corresponding to the vertical elevation.

Electronic 2d and 3d Microstation files (*.dgn) containing survey information with proper identification and with the following data format x, y, and z NAD-83 coordinate system.

ATTACHMENT "C"

Work Schedule

	Months																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Notice To Proceed																		
Environmental Assessment Report																		
Finalize Schematic																		
TxDOT FHWA EA Review																		
Survey																		
PS&E Production																		
TxDOT Reviews @ 30%, 60% & 90%																		
ROW Mapping																		
Appraisals (By Others)																		
ROW Acquisitron (By County)																		

General Management/Coordination

Descripton	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
Project Meetings (4 per month for 18 months)	144		72			36	252
Preliminary Estimate	8	16	24		40		88
Project Administration/Coordination	36					36	72
Total	188	16	96	0	40	72	412

Topographic Survey

Descripton	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
QA/QC Survey		24		40			64
Subconsultant Management	72					72	144
Total	72	24	0	40	0	72	208

Utility Coordination

Descripton	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
Utility coordination/meeting	72				120	40	232
Prepare and send utility submittals	4				60	60	124
Determine/resolve utility conflicts	24		60		80		164
Maintain communication documentation	36		72			72	180
QA/QC Survey		24		60			84
Subconsultant Management							0
Total	136	24	132	60	260	172	784

Schematic, EA and Public Involvement

Descripton	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
Schematic Document	80	120	160	320	360	80	1120
Coordination of EA Document	80		40		80	60	260
Review Meetings during schematic development	48	48				24	120
Development of DSR	4		8			2	14
Development of exhibits for Public Meeting	4	8	16		24	4	56
Development of Mailing List	1	4				8	13
MAPO Meetings (110 at 2 Hours Ea)	220				80	110	410
Attend Public Meeting (2 Meetings)	16	16				8	40
Document Public Meeting	12	12				12	36
Development of exhibits for Public Hearing	8	12	16		32	8	76
Attend Public Hearing (1 Meeting)	8	8					16
Respond to comments from Public Hearing	24	24				16	64
Prepare Submittals for TxDOT/FHWA review/approval	4	8		16	16	8	52
Revise documents as necessary	16		40		80	16	152
Total	525	260	280	336	672	356	2429

General PS&E

Descripton	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		Sheet Count
Title Sheet	1		4		8		13	1
Project Layout	8		16		40		64	8
Typ Sections	4	4	16		24		48	4
Pavement Design							0	
General Notes	1	4	8			4	17	
Estimate and Quantity	8		40		72	12	132	8
Miscellanous Forms	1	2				1	4	
Preparation of Submittals	5	20		40	40	24	129	
Review meetings	10		10			10	30	
Determine and Plot Standards	2	4			30		36	50
QA/QC Submittals	100	120				40	260	
Summaries	8	16		60	80		164	40
Total	148	170	94	100	294	91	897	107

Traffic Control Plan	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Phase Narrative	8	16				16	40	2
Typical Sections	4	8	16		16		44	2
Phase Layouts (Two Phase, Double Stacked, 1"=100')	24	40	72	100	200		436	40
Temporary Traffic Signals (Two Phases, 3 Intersections)	16	24	32	40	60		172	6
Detours and Miscellaneous Details	8		24	32	40		104	10
Total	60	88	144	172	316	16	796	60

Roadway Details	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Alignment Sheets	1	2			4		7	4
Benchmark Data Sheets		1			4		5	2
Plan and Profile (Roadway)(1"=100')	50	72	120	160	240		642	40
Intersection Layouts (6 Locations)	8	12	20	32	48		120	6
Side street Layouts (30 Locations, 2 per sheet)	24	48	60	80	100		312	15
Driveway Details and Summarier	4		32		60		96	6
Cross Sections (2 per STA, 12 per sheet)	8		60	100	120		288	66
Misc. Details	4	8	24	32	40		108	6
Total	99	143	316	404	616	0	1578	145

Drainage Details	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Drainage Area Maps	16	32	40		64		152	8
Hydrology Calculations	16	24	36			4	80	4
Hydraulic Calculations	24	60	72			4	160	8
Culvert Layouts, Cross-sections and Detail Sheets	16	24	40	60	80		220	20
Misc. Details			8		24		32	4
Total	72	140	196	60	168	8	644	44

Traffic Items	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Traffic Signal Warrant Study (Mile 9 N)	1	4	4		10	2	21	
Existing Conditions (Mile 9 N)	1	4	4		12		21	1
Prop. Signal (Mile 9N)	4	10	24		40		78	2
Traffic Signal Warrant Study (Mile 10N)	1	4	4		10	2	21	
Existing Conditions (Mile 10N)	1	4	4		12		21	1
Traffic Signal Layouts (Mile 10N Existing)	4	10	24		40		78	2
Traffic Signal Warrant Study (SH 107)	1	4	4		10	2	21	
Existing Conditions (SH 107)	2	8	8		20		38	2
Traffic Signal Layouts (SH 107 Existing)	8	12	24		40	2	86	4
Electrical Service Data Sheet	1	4	9		12	1	27	2
Summary of Quanties for Signalization	1	2	8		12	2	25	1
Signing and Striping Plans (1"=100')	24	40	60	100	160		384	40
Summary of Quantities for Signs	4	8			40		52	8
Summary of Quantities for Striping	2		6		8		16	1
Intersection striping details	4	8			24		36	3
District Standard Detail Drawings	1	4	8		12		25	4
Total	60	126	191	100	462	11	950	71

Environmental & SW3P	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
SW3P Sheets (Two Phases, Double Stacked, 1"=100')	24		48	100	120	16	308	40
Epic Sheet	2		6		8		16	2
Total	26	0	54	100	128	16	324	42
Total Hours	1386	991	1503	1372	2956	814	9022	469
	$ 183.19	$ 154.46	$ 137.55	$ 117.91	$ 103.37	$ 59.03		
	$ 253,901.34	$ 153,068.86	$ 206,737.65	$ 161,772.52	$ 305,561.72	$ 48,050.42	$	1,129,093.51

Project DirectCosts

Copies, Bond Plots, Mylar Plots & Mileage	$ 56,454.68

Sub-Total Basic Fee **$ 1,185,548.19**

Additional Services

Aerial & Topographic Survey $30,000/mile	7.5 Mile X $30,000/Mile	=	$225,000.00
Horiz. & Vert. Control Benchmarks	38 Ea. X $1,400.00/ Ea.	=	$53,200.00
Right of Way Mapping 110 parcels at $2,750/parcels	110 Ea. X $2,750/Ea.	=	$302,500.00
Environmental Assessment at $30,000/mile		=	$140,000.00
	Sub-Total Additional Services	=	**$720,700.00**
	Total Lump Sum Fee (Basic +Additional)	=	**$ 1,906,248.19**

Texas Department of Transportation

PO BOX 1717 • PHARR TEXAS 78577-1717 • (956) 702-6100

January 28, 2009

PROJECT: Mile 6 W.
COUNTY: HIDALGO
DISTRICT: PHARR

Hidalgo County Department of Budget & Management-Budget Division
100 E. Cano, 2nd Floor, Administrative Building
Edinburg, TX 78539
ATTN: Mr. Sergio Cruz

Dear Mr. Cruz:

We have reviewed the scope and fees for the aforementioned project. We concur with the scope and fees. We recommend endorsement of contract.

If you have any questions or if we may be of any assistance, please call Jesus A. Noriega at 702-6264.

Sincerely,

Hector P.Gonzalez, P.E.
Pharr Area Engineer