

**CONTRACT FOR ENGINEERING SERVICES**  
**SUPPLEMENTAL AGREEMENT NO. 4**  
**TO THE PROFESSIONAL SERVICES AGREEMENT**

STATE OF TEXAS                       §  
COUNTY OF WILLIAMSON          §

www

THIS SUPPLEMENTAL AGREEMENT to contract for engineering services is by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and HNTB (the "Engineer") and becomes effective when fully executed by both parties.

WHEREAS, the *County* and the *Engineer* executed the contract on December 12, 2006;

WHEREAS, the not-to-exceed fee in Exhibit 1, Section 1, Item 1.1 of the agreement as amended by Supplemental Agreement No. 3 is \$3,000,000.00; and,

WHEREAS, the “*Compensation Cap*” in Exhibit 1, Section 4, Item 4.3 limits the maximum amount payable under the agreement as amended by Supplemental Agreement No. 3 to \$3,000,000.00; and,

WHEREAS, the Hourly Rates in Exhibit II are limited to the rates noted; and,

**WHEREAS, it has become necessary to amend the agreement.**

## AGREEMENT

NOW, THEREFORE, premises considered, the *County* and the *Engineer* agree that said contract is amended as follows:

- I. The not-to-exceed fee in Exhibit 1, Section 1, Item 1.1 is hereby increased from \$3,000,000.00 to \$3,500,000.00.
- II. The Compensation Cap in Exhibit 1, Section 4, Item 4.3 is hereby increased from \$3,000,000.00 to \$3,500,000.00.

**All other provisions are unchanged and remain in full force and effect.**

IN WITNESS WHEREOF, the *County* and the *Engineer* have executed this supplemental agreement in duplicate,

**ENGINEER:**

By: Richard L. Ridings  
Signature

Richard L. Ridings, P.E  
Printed Name

Vice President  
Title

12/2/09  
Date

**COUNTY:**

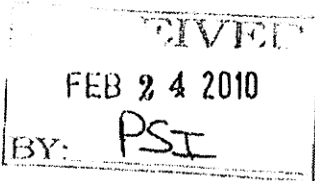
By: [Signature]  
Signature

Judge Dan A. Gattis  
Printed Name

Williamson County Judge  
Title

\_\_\_\_\_  
Date

OK  
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## ATTACHMENT A

### WORK AUTHORIZATION NO. 14

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the Agreement dated December 12, 2006, hereinafter identified as the "Agreement", entered into by and between Williamson County, a political subdivision of the State of Texas ("*County*"), and HNTB Corporation ("*Engineer*").

**Part 1.** The *Engineer* will provide the following engineering services:

FM 1660 at Landfill Road Intersection Improvements

**Part 2.** The maximum amount payable for services under this Work Authorization without modification is \$ 95,917.00. A fee schedule used to establish the maximum amount payable is attached hereto as Exhibit D-1. The billing rates and classifications are attached hereto as Exhibit D-2.

**Part 3.** Payment to the *Engineer* for the services established under this Work Authorization shall be made in accordance with the Agreement.

**Part 4.** This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate on March 1, 2011, unless extended by a Supplemental Work Authorization.

**Part 5.** This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

**Part 6.** This Work Authorization is hereby accepted and acknowledged below.



**EXHIBIT D-1  
HNTB FEE SCHEDULE**

TASK DESCRIPTION	PROJ PRINCP	ENV DIRECTOR	SR PROJ MNGR	PROJ MNGR	DEP PROJ MNGR	SR CONST SPEC	ENGR IV	ENGR I3	SR ENV TECH/PLNR	PROJ ADM	ENV TECH/ PLNR	CONST TECH	ENGR I
<b>JOB TOTALS (Hours)</b>													
TOTALS:	-	15	-	68	38	-	75	127	72	30	117	-	
JOB TOTALS	-	15	-	68	38	-	75	127	72	30	117	-	
BILLING RATES	\$ 203.00	\$ 187.00	\$ 185.00	\$ 140.00	\$ 120.00	\$ 120.00	\$ 109.00	\$ 94.00	\$ 94.00	\$ 86.00	\$ 85.00	\$ 70.00	\$ 80.00
TOTAL LABOR	\$ -	\$ 2,805.00	\$ -	\$ 9,520.00	\$ 4,560.00	\$ -	\$ 8,175.00	\$ 11,938.00	\$ 6,768.00	\$ 2,580.00	\$ 9,945.00	\$ -	\$ 2,720.00

FUNCTION CODE	Total Hours	Total Labor	Overhead Prm/ Ropro	Travel	Courier Postage	Subs Expense
TOTALS:						
FC 120 - PREPARATION OF A PROGRAMMATIC CATEGORICAL EXCLUSION	227					
FC 145 - PROJECT MANAGEMENT	68					
FC 150 - SURVEY (INLAND GEODETICS)						
FC 160 - ROADWAY DESIGN CONTROLS	104					
FC 161 - DRAINAGE	85					
FC 162 - SIGNING AND MARKINGS	24					
FC 163 - MISCELLANEOUS (ROADWAY)	119					
FC 190 - PRE-LETTING ACTIVITIES	97					
SUBTOTAL	725	\$ 73,510.00				
DIRECT EXPENSES			\$ 3,630.40	\$ 200.00	\$ 270.00	\$ 4,100.40
JOB TOTALS	725	\$ 73,510.00	\$ 3,630.40	\$ 200.00	\$ 270.00	\$ 4,100.40

**FC 120 - PREPARATION OF A PROGRAMMATIC CATEGORICAL EXCLUSION**

QA/QC	8	8	2	2		
DATA COLLECTION					12	12
IMPACTS					15	25
PROJECT DESCRIPTION					5	20
HISTORIC RESOURCES SURVEY					20	25
MEETINGS WITH AFFECTED PROPERTY OWNERS	10		4	4	5	5
DOCUMENT PREPARATION					15	30

SUBTOTAL LABOR HOURS	8	10	8	6	6	72	-	117	-	-	-	-	-
SUBTOTAL LABOR COST	\$ -	\$ 1,496.00	\$ -	\$ 1,400.00	\$ 960.00	\$ -	\$ 654.00	\$ 584.00	\$ 6,768.00	\$ -	\$ 9,945.00	\$ -	\$ -

**FC 145 - PROJECT MANAGEMENT**

PROJECT REVIEWS	2	4	4										
PROJECT MANAGEMENT AND COORDINATION		12	16										
PROJECT ADMINISTRATION										30			

SUBTOTAL LABOR HOURS	2	16	20	-	-	-	-	-	-	30	-	-	-
SUBTOTAL LABOR COST	\$ -	\$ 974.00	\$ -	\$ 2,240.00	\$ 2,400.00	\$ -	\$ -	\$ -	\$ -	\$ 2,580.00	\$ -	\$ -	\$ -

**FC 160 - ROADWAY DESIGN CONTROLS**

DESIGN CRITERIA				2	4								
PROJECT LAYOUT SHEETS				2	4								
DATA COLLECTION			4										
EXISTING TYPICAL SECTIONS				4									
PROPOSED TYPICAL SECTIONS				1									
HORIZONTAL ALIGNMENT DATA SHEETS				2									
ROADWAY PLAN AND PROFILE SHEETS					1								
ROADWAY DETAIL SHEETS				4									
MISC ROADWAY SHEETS				1									
DESIGN CROSS SECTIONS				4	8								
ROADWAY QUANTITIES					4								

SUBTOTAL LABOR HOURS			4			21	21						
SUBTOTAL LABOR COST	\$ -	\$ -	\$ 560.00	\$ -	\$ -	\$ 2,289.00	\$ 1,974.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**FC 161 - DRAINAGE**

DRAINAGE REPORT						4	16						
DRAINAGE AREA MAPS						4	4						

**EXHIBIT D-1  
HNTB FEE SCHEDULE**

TASK DESCRIPTION	PROJ PRINCP	ENV DIRECTOR	SR PROJ MNGR	PROJ MNGR	DEP PROJ MNGR	SR CONST SPEC	ENGR IV	ENGR II	SR ENV TECH/PLNR	PROJ ADM	ENV TECH/ PLNR	CONST TECH	ENGR
HYDRAULIC DATA SHEETS							4	4					
ROADWAY SWALE DETAIL SHEETS								2					
CULVERT LAYOUT SHEETS							4						
DITCH CALCULATION SHEETS							4						
SWAP SHEETS								1					
DRAINAGE QUANTITIES								1					
SUBTOTAL LABOR HOURS							20	26					
SUBTOTAL LABOR COST	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,180.00	\$ 2,632.00	\$ -	\$ -	\$ -	\$ -	\$ 1,440.00
<b>FC 162 - SIGNING AND MARKINGS</b>													
SMALL SIGN LAYOUT SHEETS								4					
PAVEMENT MARKING SHEETS								4					
SUBTOTAL LABOR HOURS								8					
SUBTOTAL LABOR COST	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 752.00	\$ -	\$ -	\$ -	\$ -	\$ -
<b>FC 163 - MISCELLANEOUS (ROADWAY)</b>													
EXISTING UTILITY LOCATION REVIEW								2					
CONSTRUCTION SEQUENCING AND TRAFFIC CONTROL							2	6					
TITLE SHEET								1					
GENERAL NOTES							1	4					
SPECIFICATION LIST							1	4					
INDEX SHEET								1					
COST ESTIMATES							2	8					
CONSTRUCTION TIME SCHEDULE							2	8					
DESIGN AND PS&E O&OG			5	12	10			8					
SUBTOTAL LABOR HOURS			5	12	10		8	36					
SUBTOTAL LABOR COST	\$ -	\$ 935.00	\$ -	\$ 1,680.00	\$ 1,200.00	\$ -	\$ 872.00	\$ 3,384.00	\$ -	\$ -	\$ -	\$ -	\$ -
<b>FC 169 - PRE-LETTING ACTIVITIES</b>													
PROJECT MANUAL				8			4	24					
PRE-BID MEETING				4									
RESPOND TO PRE-LETTING RFI'S				4			8	4					
PREPARE ADDENDA				4			8						
BID ANALYSIS AND COMPARISON				4									
RECOMMENDATION OF CONTRACT AWARD				2									
SUBTOTAL LABOR HOURS				20			20	28					
SUBTOTAL LABOR COST	\$ -	\$ -	\$ -	\$ 3,640.00	\$ -	\$ -	\$ 2,180.00	\$ 2,632.00	\$ -	\$ -	\$ -	\$ -	\$ 1,200.00

## EXHIBIT D - 2

Contract No. 45026

### WILLIAMSON COUNTY CONSULTING SERVICES HNTB RATES & CLASSIFICATIONS

<u>Classification</u>	<u>WA 14 Billing Rate</u>
Project Principal	\$203
Environmental Director	\$187
Sr. Project Manager	\$185
Project Manager	\$140
Sr. Engineer	\$130
Construction Manager	\$140
Business Manager	\$115
Deputy Project Manager	\$120
Sr. Construction Specialist	\$120
Environmental Specialist	\$109
Engineer IV	\$109
Construction Representative	\$100
Sr. CADD Technician	\$99
Sr. Environmental Tech/Planner	\$94
Engineer III	\$94
Project Administrator	\$86
Environmental Tech/Planner	\$85
Engineer II	\$80
Construction Technician	\$70
Engineer I/CADD Technician	\$65
Administrative Assistant	\$63
Expert Witness Testimony	\$240

## **EXHIBIT A**

### **SERVICES TO BE PROVIDED BY THE COUNTY**

The work to be performed by the Engineer under this Billing Rate Contract shall consist of providing engineering services required to develop the PS&E for the FM 1660 and Landfill Road (CR 128) Intersection Improvements.

The County will provide the following services:

1. Assist the Engineer, as necessary, to obtain required data and information, approvals from other local, regional, State and Federal agencies.
2. Review and provide comments on all aspects of the design and PS&E preparation.
3. Provide all required contract documents for Project Manual.
4. Provide decisions in a timely manner.
5. Process payment to Engineer in a timely manner.
6. Assist with right of entry, if required for the Engineer.



## **EXHIBIT B**

### **SERVICES TO BE PROVIDED BY THE ENGINEER**

#### **PROJECT DESCRIPTION**

The work to be performed by the Engineer under this Billing Rate Contract shall consist of providing engineering services required to develop the PS&E and associated Bid Phase Services for the FM 1660 and Landfill Road (CR 128) Intersection Improvements. The improvements include widening FM 1660 for the addition of a left turn lane from northbound FM 1660 to Landfill Road; adding a deceleration lane to southbound FM 1660 and an acceleration lane from Landfill Road. The project is approximately 0.50 miles in length.

Plans from the Engineer, and all subproviders, will be developed in accordance with the TxDOT Graphics Standards.

The Engineer will prepare a Programmatic Categorical Exclusion (PCE) related to the proposed improvements at the intersection. This scope assumes that less than 30 acres of new right of way will be acquired as part of this project.

#### **PREPARATION OF A PROGRAMMATIC CATEGORICAL EXCLUSION (FUNCTION CODE 120)**

Assuming that the proposed improvements will be paid for with Williamson County funds, the Engineer shall prepare environmental documentation utilizing the appropriate outline in accordance with TxDOT's Environmental Manual, Title 23, Part 771, 772, FHWA's Technical Advisory T6640.8A, TxDOT's 1996 Noise Guidelines, and TxDOT 2006 Air Guidelines. The Engineer will prepare a PCE, and will assist the County in following this document through the TxDOT review process. Tasks included in preparation of the PCE include the following:

##### **Data Collection**

The data collection phase and site reconnaissance visits will begin upon notice to proceed. The Engineer will obtain or update periodically publicly available information including:

- Locations of public buildings, schools, churches, parks, etc.

## **EXHIBIT B**

- Aerial/Infrared photography, if available.
- National Wetland Inventory Maps.
- County Soil Survey Maps.
- TCEQ & EPA Hazardous Materials Database Information.
- FEMA 100-year floodplains.
- Vegetation Information.
- Threatened and Endangered Species Information.

### **Environmental Project Description**

The Engineer will prepare a description of the existing facility, a description of the proposed action, and a description of the existing environment. The purpose and need for the project will also be developed and presented.

### **Impacts**

The Engineer will address any impacts of the proposed action on the existing environment. Resources addressed include historical and archeological resources, wildlife, vegetation, and endangered species, displacements, land use analysis, socioeconomic and environmental justice impacts, jurisdictional waters, water quality, wetlands, permits, floodplains, parkland, hazardous materials, aesthetics, construction impacts, air and noise, and items of special nature and conclusion.

### **Historic Resources Survey**

The Engineer will conduct surveys, research and documentation of historic buildings, structures, and objects within the Area of Potential Effect (APE) for each project. The historic structures survey will follow the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and will include:

- Research Design for approval by TxDOT;
- Field inspection;
- Documentation of the survey results;
  - For buildings and other structures, objects and districts, the documentation will include the following for the area of survey, within the APE on either side of the right of way, for any property over 45 years old:

## **EXHIBIT B**

- A map showing the location of the property in relation to the proposed project area.
  - Date of construction.
  - Clear photographic prints, including at least one front elevation and one oblique view of each property surveyed, and area or streetscape views in potential districts.
  - Research on historical associations.
- 
- Identification of cultural resources that may be eligible for listing or are listed in the National Register of Historic Places, including historic and prehistoric archeological sites, buildings and other structures, objects, districts, traditional cultural properties, and cultural or historic landscapes located during the survey.
  - Recommendations regarding National Register eligibility of identified cultural resources;
  - Recommendations and descriptions on findings of potential effect; and
  - Project effects on potentially eligible cultural resources.

### **Public Involvement Activities**

The Engineer will conduct up to five (5) meetings with affected property owners for the purpose of presenting proposed design changes and resultant effects on access. The Engineer will prepare a summary of each meeting and submit to TxDOT and Williamson County. If requested by TxDOT or Williamson County, the Engineer can coordinate a Public Meeting, however a supplemental agreement will be required.

### **Document Preparation**

The Engineer will prepare the PCE document per TxDOT guidance and will submit to the County and TxDOT for review. Per new TxDOT policy, it is anticipated that TxDOT Austin District will require one round of revisions to the PCE. The Engineer will address up to one round of comments from TxDOT Austin District. It is anticipated that TxDOT ENV will not review the PCE. Additional rounds of comments will require a supplemental agreement.

## **EXHIBIT B**

The Engineer will address minor design changes which occur prior to document submittal. Document preparation includes preparation of exhibits to support descriptions and conclusions in the document.

### **PROJECT MANAGEMENT/ADMINISTRATION (FUNCTION CODE 145)**

#### **Project Management and Coordination**

The Engineer shall manage all activities associated with the project. Establishment of project schedules and channels of communication will be included in this task. The Engineer shall secure resources necessary to produce the project deliverables and meet the project schedule. All communications associated with the project will be directly channeled through the Engineer for distribution to the project team as appropriate. The Engineer shall designate one Texas Registered Professional Engineer, Ronald L. Tabor, P.E., as Project Manager to be responsible throughout the project for project management and all communications, including billing.

The Engineer will be required to meet with the designated County Project Manager, TxDOT Project Manager, and other TxDOT or Williamson County representatives, as necessary to report on progress and to ensure all components of the project are proceeding in compliance with the scope of services and according to the project schedule. The purpose of these meetings is to evaluate the project status, determine necessary adjustments to the project work plan and schedule, plan upcoming events and to discuss and resolve project technical issues. The Engineer will prepare minutes of each meeting and circulate to all attendees.

The engineering work on this project may be inspected by the County and TxDOT at any time in the offices of HNTB Corporation at 301 Congress Avenue, Suite 600, Austin, Texas, 78701. Other fieldwork and miscellaneous specialized subcontract work will be performed on site or at our Subconsultants' offices.

#### **General Administration**

Perform general administration duties required to maintain the project. These duties include:

## **EXHIBIT B**

- **Coordination with subconsultants:** Prepare and execute contracts with subconsultants, monitor subconsultant activities (staff and schedule), and review and recommend approval of subconsultant invoices. Subconsultant progress reports and invoices will be incorporated into the monthly progress report and invoices.
- **Preparation of monthly progress reports and invoices:** Invoices for work completed during the period will be submitted monthly for the Engineer and subconsultants. The invoice content and format will be in accordance with the specified County criteria. Monthly progress reports will include:
  - Activities during the reporting period.
  - Activities planned for the following months.
  - Project action item and project schedule maintenance.
  - Overall status of project.
  - Pending issues that need short-term attention.
  - Record keeping and file management.
  - Data management and file transfers for required elements of the project.
  - Files will be posted to Internet database management system as requested.
  - All plans, including electronic files, shall be turned over to the State and County at project's completion/contract close-out

### **SURVEY (FUNCTION CODE 150)**

#### **PROJECT SURVEY CONTROL**

The Engineer will provide the following services:

- Engineer will recover and/or establish and utilize established control (projects in vicinity). The values will be relative to NAD 83 Texas State Plane Coordinates, Central Zone 4203 (scaled to surface values). Vertical Datum will be GPS Orthometric heights and projected through the length of the project.

#### **ON-THE-GROUND TOPOGRAPHIC SURVEY SERVICES**

The Engineer will provide the following services:

## **EXHIBIT B**

- Engineer will collect sufficient spot elevations and grade breaks that will include an area within the existing ROW. The data will consist of: visible utilities, drainage features, and any improvements within the defined area. The basic cross section of data will have ditch tops, bottoms, edges of pavement, striping, and super elevations at approximately 50 foot intervals.
- Engineer will generate a 1 foot contour interval DTM file of the project area.
- Engineer will research, reconstruct, and include the existing ROW schematic per the record information and field recovery of markers thereof.
- Survey Deliverables- Engineer will deliver a 2D Microstation V8 dgn file with planimetrics, survey control and approximate ROW lines; 3D Microstation V8 (dtm) file, TIN file, ascii text file containing the survey data points, a GPK (geopak file) and field book copies.

### **RIGHT OF WAY (ROW) MAPPING**

Engineer will provide the following ROW mapping services:

- Engineer will prepare metes and bounds descriptions with accompanying survey plats for up to 3 parcels along the west side of the project out of the County properties north and south of Landfill Road. This task will be prepared to TxDOT standards according to the Right-of-Way Manuals Volumes I and II. The acquisition packages will include a numbered parcel plat and metes and bounds description for each affected tract.

### **ROADWAY DESIGN CONTROLS (FUNCTION CODE 160)**

The Engineer will:

- Provide Subtask Management and Coordination of Roadway Design efforts related to the project.
- Design horizontal and vertical alignments for FM 1660, Landfill Road and pavement transitions.
- No additional right of way is anticipated at this time. If additional right of way is required, a supplemental agreement will be required for this additional service.

## **EXHIBIT B**

The Engineer will develop:

- Project Layout sheets.
- Existing Typical Section sheets for FM 1660 and Landfill Road.
- Proposed Typical Sections for FM 1660 and Landfill Road.
- Horizontal Alignment Data, Survey Control and Benchmark Data sheets.
- Roadway Plan and Profile Sheets for FM 1660 and Landfill Road.
- Roadway Detail Sheets for FM 1660 and Landfill Road intersection.
- Miscellaneous Roadway Detail sheets.
- Design Cross Sections and determine Earthwork Volumes utilizing Geopak.
- Roadway Quantity Summaries and Cost Estimates.
- Roadway Standard sheets.

### **DRAINAGE (FUNCTION CODE 161)**

The Engineer will:

- Provide Subtask Management and Coordination of Drainage Design efforts related to the project.
- Determine basis of flow by performing hydrologic studies, including drainage area maps, discharge determination and stage-discharge determination.
- Perform hydraulic drainage data, including hydraulic computations for culverts and channels (if applicable). Prepare Hydraulic Data Sheets to include in the plans.
- Provide drainage design for swales and drainage structures to accommodate the surface drainage along the project limits. All designs will be prepared in conformance with TxDOT standards. Prepare roadway swale detail sheets as required.
- Prepare a SW3P plan for the project location in accordance with current US EPA requirements and local criteria. Prepare SW3P plans and details as required.
- Layout, design, and detail drainage features. Design may include new culverts, improvements to existing and outfall channels. Prepare Drainage Plan and Profile sheets and miscellaneous details of proposed drainage facilities.
- Calculate drainage quantities and prepare a summary of drainage quantities sheets.

## **EXHIBIT B**

- Identify and insert required drainage standards.

### **SIGNING AND MARKINGS (FUNCTION CODE 162)**

#### **Signing**

The Engineer will provide:

- Overall Subtask Management and Coordination of the Signing design and plan preparation efforts.
- Existing Sign Removal Layouts.
- Small Sign Layouts.
- Miscellaneous Sign Details as required.
- Summary of Small Signs.
- Signing standards.

#### **Pavement Markings**

The Engineer will provide:

- Overall Subtask Management and Coordination of the Pavement Marking design and plan preparation efforts.
- Summary of Pavement Markings Quantities sheet.
- Pavement Marking and Delineation Layouts. Layout will show the project centerline stationing and proposed markings, delineators and object markers. Layouts will include a summary of existing markings to be removed.
- Pavement marking standards.

### **MISCELLANEOUS (ROADWAY) (FUNCTION CODE 163)**

#### **Utilities**

The Engineer will:



## **EXHIBIT B**

- Provide Subtask Management and Coordination for the Utility coordination activities associated with the design of the project. Coordination efforts will include TxDOT, Williamson County, utility companies, and other function code tasks.
- Review proposed highway design data for potential conflicts with existing utilities based on the information provided by utility companies and field observation.
- Coordinate with TxDOT, Williamson County and the appropriate utilities to address solutions to utility conflicts.

NOTE: No utility conflicts are anticipated at this time. Subsurface utility exploration efforts and utility relocation plans are not included in this scope of work. Any utility relocation plans to be completed by the Engineer that may be necessary for the project shall be completed under a separate Work Authorization.

### **Construction Sequencing and Traffic Control Plan**

The Engineer will:

- Provide overall Subtask Management and Coordination of the Traffic Control design effort, and coordinate activities with other function code tasks.
- Prepare traffic control plans (TCP) for each phase necessary for the construction of the FM 1660 and Landfill Road intersection. The TCP shall show the detailed construction sequences and the necessary phases, complete with barricades, signing, striping, delineation, detours, temporary traffic signals and their adjustments. Each phase of the TCP shall show the location of the traffic flow indicated by directional arrows.
- Prepare quantity estimates for each traffic control bid item. These quantities will be estimated for each sheet and totaled by phase.
- Determine the project construction sequence and design a traffic control plan based upon the Texas Manual on Uniform Traffic Control Devices (TxMUTCD) and the latest Austin District traffic control design requirements.

NOTE: Typical sections showing the traffic lanes, construction pavement markings, delineators, barriers, buffer zone for barrels and CTB, pavement drop-off and construction detail shall be shown on each sheet. Construction signing shall be

## **EXHIBIT B**

represented pictorially and designated with the appropriate identification number as shown in the TxMUTCD.

- Prepare temporary detour sheets as necessary.
- Prepare miscellaneous TCP details sheets as necessary.
- Provide Barricade and Construction standards and other appropriate standard drawings.

NOTE: Temporary lighting during the construction sequencing is not anticipated in this project. If temporary lighting is required, it will be considered additional services.

### **Miscellaneous**

The Engineer will provide:

- Title sheet for the plan set.
- TxDOT Form 1002.
- General notes for the construction documents.
- List of governing specifications.
- Index of sheets.
- Cost estimates will be prepared using a spreadsheet format and will be updated at approximately 60%, 90%, and 100% completion of the design.
- Quality Control/Quality Assurance for all design and plan production activities.

## **PRE-LETTING ACTIVITIES (FUNCTION CODE 190)**

### **Bid Phase Services**

The Engineer will:

- Provide Project Manual with all required TxDOT and Williamson County contract documents as deemed appropriate by Williamson County.
- Attend the pre-bid meeting and the bid opening.
- Respond to pre-letting Requests for Information and clarifications as requested by bidders.

## **EXHIBIT B**

- Prepare Addenda as needed to clarify or correct plans or contract documents as needed.
- Provide bid analysis and comparison.
- Provide Recommendation of Contract Award.

## **PROJECT DELIVERABLES**

Deliverables will consist of the following and will include posting to ProjectWise:

- Four (4) paper copies of the 60% PS&E and 90% PS&E submittals;
- Four (4) bound paper copies of the Project Manual at the 90% and 100% PS&E submittals;
- Four (4) bound paper copies of the Project Manual after the bid award;
- Four (4) paper copies of the final plans and one (1) mylar copy of the Title Sheet;
- Electronic and four (4) paper copies of cross sections and \*.xsr output.
- An electronic copy of the final design files in Microstation and .pdf format. The project QLD deliverables consist of two (2) sets of plan sheets and two (2) sets of electronic files in MicroStation US feet (2D) DGN format and all available utility records scanned and placed on CD-ROM.
- Four (4) bound copies of the Right of Way Plans
- One (1) mylar copy of the Right of Way Plans

It is anticipated that TxDOT Austin District will require up to two rounds of revisions to the PCE.

- The Engineer will address up to two (2) rounds of comments from TxDOT Austin District.
- The Engineer will provide up to four (4) copies of the PCE following each round of comments (a total of 8 copies).

It is anticipated that TxDOT ENV may require up to three (3) rounds of revisions to the PCE.

- The Engineer will address up to three (3) rounds of comments from TxDOT ENV.
- The Engineer will provide up to eleven (11) copies of the PCE following each round of comments (a total of 33 copies).
- The Engineer will address any final comments from TxDOT ENV and prepare eleven (11) copies of the Final PCE.
- The Engineer will also provide an electronic version of the PCE and any necessary supporting documentation on a CD for the State's files. Two iterations of the Historic Resources report will be prepared. The first iteration will include 6 copies of the Historic Resources report for TxDOT-District review and comment. The second iteration will

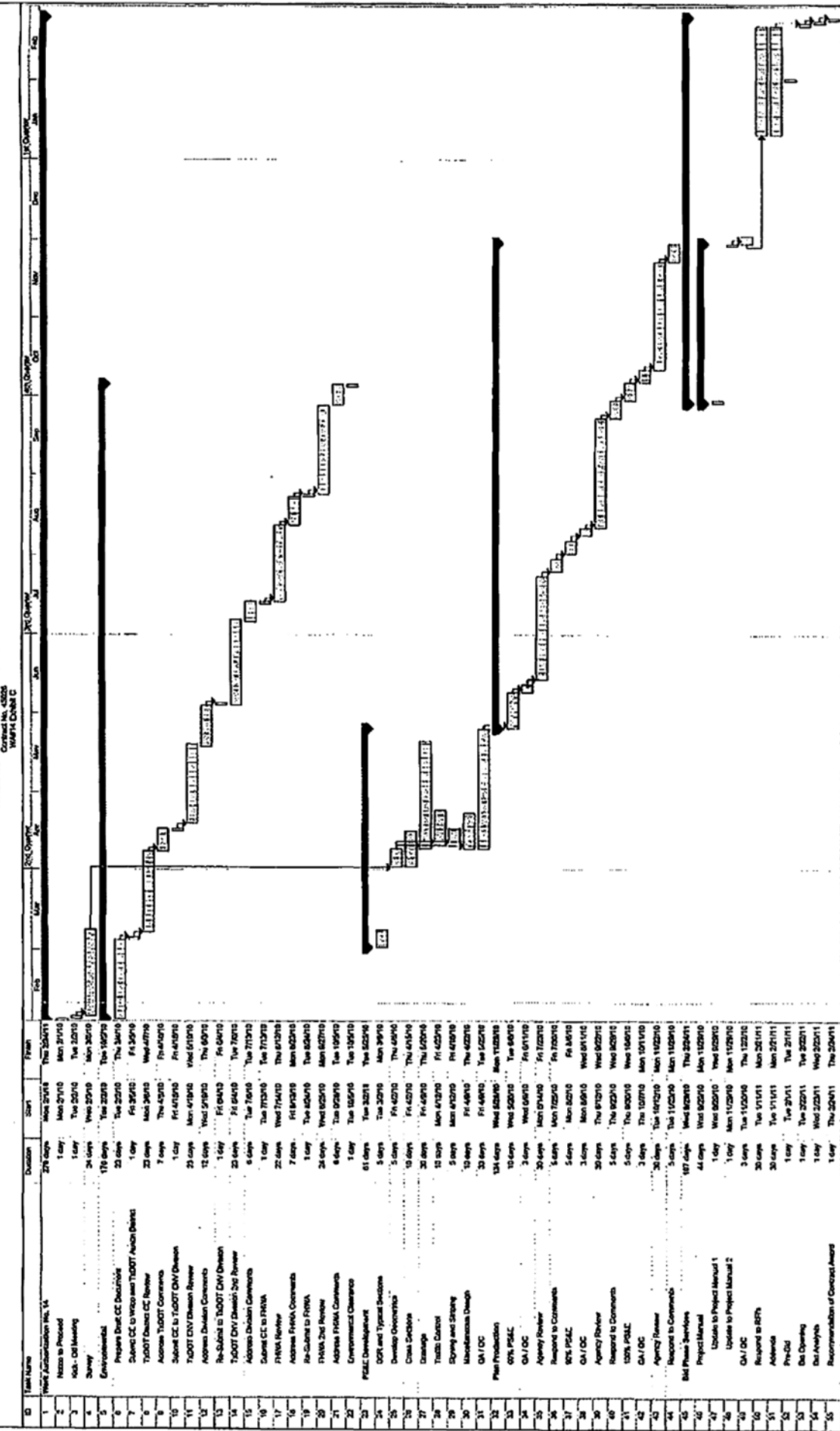
## **EXHIBIT B**

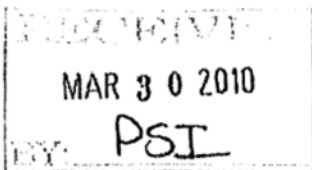
include 6 copies of the final Historic Resources report for TxDOT ENV and Williamson County.

### **EXCLUSIONS**

The following tasks are not included in this work authorization and would be scoped and detailed at a later date, as necessary:

- Archeological coordination involving National Register Testing and/or Data Recovery-level excavation or mitigation or Section 106 Coordination;
- Karst investigations;
- Traffic noise analysis;
- Section 7 USFWS Consultation or the preparation of a Biological Assessment;
- Preparation and coordination for Section 4(f) or Section 6(f) approval;
- Hazardous materials Phase II Environmental Site Assessment;
- Construction monitoring;
- Indirect and Cumulative Impacts Analysis;
- Additional documentation services requested as a result of a change in environmental regulations or TxDOT documentation standards from those in practice and acceptable at the time of approval of this Work Authorization;
- Work associated with outfalls outside the project ROW.
- Public Meetings or a Public Hearing.
- Subsurface utility exploration (SUE) services.
- Illumination design or plans.
- Geotechnical or pavement design services.
- Traffic studies.
- Warrant studies.
- Utility relocation design or plans.
- Temporary lighting.
- Services after the award of the construction contract.





## ATTACHMENT A

### WORK AUTHORIZATION NO. 15

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the Agreement dated December 12, 2006, hereinafter identified as the "Agreement", entered into by and between Williamson County, a political subdivision of the State of Texas ("*County*"), and HNTB Corporation ("*Engineer*").

**Part 1.** The *Engineer* will provide the following engineering services:

Develop PS&E documents for an isolation bridge structure to span over two existing Atmos Energy gas lines.

**Part 2.** The maximum amount payable for services under this Work Authorization without modification is \$ 49,488.00. A fee schedule used to establish the maximum amount payable is attached hereto as Exhibit D-1. The billing rates and classifications are attached hereto as Exhibit D-2.

**Part 3.** Payment to the *Engineer* for the services established under this Work Authorization shall be made in accordance with the Agreement.

**Part 4.** This Work Authorization shall become effective on the date of final acceptance by the parties hereto and shall terminate on January 01, 2011, unless extended by a Supplemental Work Authorization.

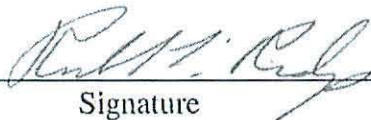
**Part 5.** This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

**Part 6.** This Work Authorization is hereby accepted and acknowledged below.

## ATTACHMENT A

ENGINEER:  
HNTB Corporation

COUNTY:  
Williamson County, Texas

By:   
Signature

Richard L. Ridings, P.E.  
Printed Name

Vice President  
Title

3/27/2010  
Date

By:   
Signature

Judge Dan A. Gattis  
Printed Name

Williamson County Judge  
Title

                      
Date

### LIST OF EXHIBITS

- Exhibit A - Services to be Provided by the County
- Exhibit B - Services to be Provided by the Engineer
- Exhibit C - Work Schedule
- Exhibit D-1 - Fee Schedule
- Exhibit D-2 - HNTB Rates and Classifications

OK  
m 3/30/2010

## **EXHIBIT A**

### **SERVICES TO BE PROVIDED BY THE COUNTY**

The *County* will provide the following services:

1. Attend kickoff meeting with the *Engineer* at the State offices.
2. Assist the *Engineer*, as necessary, to obtain required data and information, approvals from other local, regional, State and Federal agencies.
3. Provide assistance with utility coordination, reviews, and approvals.
4. Review and provide comments on all aspects of the design.
5. Provide decisions in a timely manner.
6. Process payment to *Engineer* in a timely manner.
7. Assist with right of entry, if required for the *Engineer*.



## **EXHIBIT B**

### **SERVICES TO BE PROVIDED BY THE ENGINEER**

#### **PROJECT DESCRIPTION**

The work to be performed by the *Engineer* under this Work Authorization shall consist of providing engineering services required to develop a load isolation structure to clear-span a 50 foot wide utility easement on Chandler Rd. The deliverable will consist of PS&E documents for an at-grade bridge structure.

**Geotechnical Engineering** – Geotechnical Field work will require two site borings provided in standard TxDOT Wincore format.

**PS&E Documents** – The PS&E design for this Work Authorization will include bridge layouts, quantities, detail sheets, specifications, an estimate, project coordination and quality efforts for construction plans of the bridge structure.

Plans from the *Engineer*, and all subproviders, will be developed in accordance with the TxDOT Georgetown Area Office Graphics Standards.

#### **PROJECT MANAGEMENT/ADMINISTRATION (FUNCTION CODE 145 (for activities with FC 102-150) (FUNCTION CODE 164 (for activities with FC 160-190)**

##### **Project Management and Coordination**

The *Engineer* shall manage activities associated with the project. Establishment of project schedules and channels of communication will be included in this task. The *Engineer* shall secure resources necessary to produce the project deliverables and meet the project schedule. All communications associated with the project will be directly channeled through the *Engineer* for distribution to the project team as appropriate. The *Engineer* shall designate one Project Manager to be responsible throughout the project for project management and all communications, including billing.

The *Engineer* will be required to meet with the designated *County* Project Manager, TxDOT Project Manager and other TxDOT representatives, as necessary to report on progress and to ensure all components of the project are proceeding in compliance with the scope of services and according to the project schedule. The purpose of these meetings is to evaluate the project status, determine necessary adjustments to the project

## EXHIBIT B

work plan and schedule, plan upcoming events and to discuss and resolve project technical issues. The *Engineer* will prepare minutes of each meeting and circulate to all attendees.

The engineering work on this project may be inspected by the *County* and TxDOT at any time in the offices of HNTB Corporation at 301 Congress Avenue, Suite 600, Austin, Texas, 78701. Other fieldwork and miscellaneous specialized subcontract work will be performed on site or at our Subconsultants' offices.

### General Administration

Perform general administration duties required to maintain the project. These duties include:

- **Coordination with subconsultants:** Prepare and execute contracts with subconsultants, monitor subconsultant activities (staff and schedule), and review and recommend approval of subconsultant invoices. Subconsultant progress reports and invoices will be incorporated into the monthly progress report and invoices.
- **Preparation of monthly progress reports and invoices:** Invoices for work completed during the period will be submitted monthly for the *Engineer* and subconsultants. The invoice content and format will be in accordance with the specified *County* criteria. Monthly progress reports will include:
  - Activities during the reporting period.
  - Activities planned for the following months.
  - Project action item and project schedule maintenance
  - Overall status of project.
  - Pending issues that need short-term attention.
  - Record keeping and file management
  - Data management and file transfers for required elements of the project.
  - Quality Control/Quality Assurance (Submittals will be reviewed by project principle)

### **ROUTE AND DESIGN STUDIES (FUNCTION CODE 110)**

#### Soil Core Hole Drilling

- Field services for the geotechnical study will consist of 2 bridge soil borings. Borings shall be performed on east and west sides of the Atmos Gas Easement on Chandler Road. One boring shall be provided adjacent to one proposed abutment

## **EXHIBIT B**

of the load isolation structure on the eastbound lanes. The other boring shall be provided adjacent to the opposite abutment of the future westbound mainlanes.

- Drilled shaft foundations are anticipated with a maximum 100 Ton service load per shaft. Borings shall be drilled to depths considering site specific soil conditions and ensuring the boring test hole tip elevation will be at least 5 feet below the expected drilled shaft tip elevation. The length of bore, below the estimated tip elevation, should be in like strata with no detrimental geological seams which would adversely affect the foundation capacity. If such seams exist the depth of the bore should be extended until sound founding material is encountered.
- Drilling and sampling of the subsurface materials will use truck mounted, rotary type drilling equipment. Texas Cone Penetration (TCPs) tests will be conducted at 5-foot intervals in each of the borings. In addition to the TCP's, samples will be obtained at 5-foot intervals using either Shelby tube samplers in general accordance with ASTM D 1587 or split barrel samplers in accordance with ASTM D 1586. Rock core samples will be obtained between the 5 ft interval TCP tests with NX-sized rock core barrel equipped with tungsten carbide and/or diamond bits. Core recovery and RQD will be recorded and reported on boring logs.
- This scope of services includes those coordinating activities and corresponding costs that will be associated with locating buried utilities that may exist in the area of these borings and with providing traffic control if necessary. This scope of services does not include costs that will be incurred if contamination is encountered during any of the drilling operations associated with this work.
- All samples will be removed from the sampling device during drilling operations. Field measurement will be performed on the recovered specimens, visually classify the specimens, and recording the appropriate data on field boring logs. Following completion of the drilling and sampling operations, all bore holes shall be grouted from tip to the ground surface using a bentonite hole plug. In addition, any borings conducted through existing pavements will be patched with cold-mix asphaltic concrete patching materials.
- The findings and conclusions derived from the analysis will be presented in a written engineering Design Memorandums by an engineer specializing in geotechnical engineering. The Design Memorandum will include a boring location plan (including sufficient data to determine station and offset from the Chandler Road baseline) and individual boring logs providing depth and description of the subsurface strata, ground water levels, and conditions encountered.

## EXHIBIT B

- Boring logs will be provided in standard TxDOT Wincore format (both output and Wincore executable files provided). The Design Memorandum will provide recommended depths and supporting capacities for drilled shafts to be utilized for these structures. These recommendations will be based on the results of the TCP tests, and the criteria outlined in the TxDOT Foundation Exploration and Design Manual and will be presented as allowable friction and end bearing values.
- Should unique conditions be encountered at the site, the Design Memorandum will also provide specific engineering recommendations with regard to drilled shaft foundation systems for the bridge support structures addressing those conditions.

### RIGHT OF WAY AND UTILITIES (FUNCTION CODE 130)

#### Utility Location/Layout

- The Engineer will coordinate with Atmos Energy regarding proposed isolation structure.

### BRIDGE DESIGN (FUNCTION CODE 170)

The *Engineer* will provide bridge design and plan preparation for a load isolation structure over the Atmos Energy easement on Chandler Road in compliance with TxDOT's LRFD Bridge Design, Geotechnical, Detailing Manuals, Atmos Energy Guidelines, and other standard as necessary. For this structure the *Engineer* will need to deviate from TxDOT Bridge Standards but will endeavor to provide plans in a format compatible with TxDOT and Williamson County detailing standard and meeting a similar performance standard. The bridge will incorporate proven methods used by TxDOT, other State DOT's, and FHWA to provide a suitable at-grade structure spanning the easement. No aesthetic treatments are associated with the bridge elements.

- The *Engineer* will prepare an estimate, quantities, and specifications.
- Bridge Layout Sheet
- Abutment Design
- Abutment Detail sheets
- Slab Plan Sheet
- Post-Tensioned Slab Beam Design
- Post-Tensioning Details

## **EXHIBIT B**

- Miscellaneous Details (Soil Retention, Void Forms, Drainage, Guardrail, etc.)

### **DELIVERABLES**

Deliverables will consist of the following:

- One (1) 11"x17" signed and sealed mylar original of each plan sheet and two (2) electronic copies of the Plans, Specifications and Estimates (PS&E) and all related contract documents.
- Ten (10) 11"x17" copies of the conceptual plan and layout for District Plan Review and Area Office Review
- Ten (10) 11"x17" copies of the PS&E at 90% completion for District Plan Review and Area Office Review
- Ten (10) 11"x17" copies of the PS&E at 100% completion for District Review and Processing.

### **EXCLUSIONS**

The following tasks are not included in this work authorization:

- Design revisions to other project elements beyond the load isolation structure made necessary by the incorporation of this structure.
- Bridge shop drawing review.
- Survey services to include locating existing right of way limits and easements.
- Environmental services.
- Public Meetings or a Public Hearing.
- Subsurface utility exploration (SUE) services.
- Services after the award of the construction contract.
- Any services not identified in this scope of services.

## EXHIBIT C

### WORK SCHEDULE

**Work Authorization Schedule is based on the following assumptions:**

- |                             |                                       |
|-----------------------------|---------------------------------------|
| ➤ Notice to Proceed (NTP)   | March 29, 2010                        |
| ➤ Concept Submittal         | April 19, 2010                        |
| ➤ TxDOT Review/Coordination | April 19, 2010 through April 23, 2010 |
| ➤ 90% Submittal             | June 7, 2010                          |
| ➤ TxDOT Review/Coordination | June 7, 2010 through June 18, 2010    |
| ➤ Final Submittal           | July 19, 2010                         |

FUNCTION CODE / TASK DESCRIPTION			Labor Classifications								
			PROJ PRINCP	SR PROJ MNGR	PROJ MNGR	SENIOR ENGINEER	ENGR IV	ENGR III	ENGR II	ENGR/CADD TECH	PROJ ADMIN
			\$ 203.00	\$ 165.00	\$ 140.00	\$ 130.00	\$ 109.00	\$ 94.00	\$ 80.00	\$ 65.00	\$ 66.00
NO. OF SHEETS	NO. OF STDS/ OTHERS										
FC130 - ROW AND UTILITIES											
Coordination Meetings				2	4		4				
QA/QC				2							
FC130 SUBTOTAL	0	0	0	4	4	0	4	0	0	0	0
FC145/164 - PROJECT MANAGEMENT / ADMINISTRATION											
Project Management and Administration			4		8						
General Administration											
Coordination with Subconsultants											
Coordination with Williamson County/TxDOT											
Monthly Invoices											
Administrative Tasks											8
QA/QC											
FC145 SUBTOTAL	0	0	4	0	8	0	0	0	0	0	8
FC170 - BRIDGE DESIGN											
Load Isolation Structure Over Atmos Gas Line @ Chandler Road											
Bridge Layouts	1			4	8	4		16			
Quantities	1			1	2	2		4			
Abutment Details	2			8	16	12		28			
Pier Boon	1			2	4	4		16			
Post-Tensioned Details	2			6	28	8		24			
Miscellaneous Details (Void Forming, Soil Retention, Drain Details, Etc.)	2				8	8		48			
Specification					6	6					
Estimate					4	4					
QA/QC				4	4	20					
FC 170 SUBTOTAL	9	0	0	25	80	68	0	136	0	0	0
TOTAL SHEETS	9										
TOTAL HOURS			4	29	82	68	4	136	0	0	8
BASE RATE			\$ 203.00	\$ 165.00	\$ 140.00	\$ 130.00	\$ 109.00	\$ 94.00	\$ 80.00	\$ 65.00	\$ 66.00
TOTAL LABOR			\$ 812.00	\$ 5,365.00	\$ 12,880.00	\$ 8,940.00	\$ 436.00	\$ 12,784.00	\$ -	\$ -	\$ 688.00
PERCENT OF TOTAL			1.2%	8.5%	27.0%	19.9%	1.2%	39.9%	0.0%	0.0%	2.3%

DIRECT EXPENSES	ITEM	AMT.	SETS	TOTAL	SF/ SET	UNIT	UNIT COST/Estimate	QTY	Cost
CADD PLOTTING	Route Study Map	1	1	1	96	SF	\$ 1.70	96	\$ 163.00
11"X 17" MYLAR	"	30	2	60		SHEET	\$ 4.18	60	\$ 251.00
8 1/2" X 11" B/W PAPER COPIES	"	200	1	200		SHEET	\$ 0.10	200	\$ 20.00
11"X 17" B/W PAPER COPIES	"	30	40	1200		SHEET	\$ 0.20	1,200	\$ 240.00
8 1/2"X 11" COLOR PAPER COPIES	"	100	1	100		SHEET	\$ 1.00	100	\$ 100.00
MEALS	"	0	0	0		DAY	\$ 30.00	0	\$ -
MILEAGE	"	0	0	900		MILE	\$ 0.500	900	\$ 450.00
EXPRESS MAIL (FEDEX)	"	0	0	5		EA	\$ 20.00	5	\$ 100.00
<b>Total Direct Expenses</b>									\$ 1,324.00
FUGRO, Inc. (FC 119)	"	1	1	1		EA	\$ 6,359	1	\$ 6,359.00
<b>Total Subconsultant Expense</b>									\$ 6,359.00

\* Expenses will be at cost, receipts will be attached to monthly invoice.

TOTAL COST

## EXHIBIT D - 2

Contract No. 45026

### WILLIAMSON COUNTY CONSULTING SERVICES HNTB RATES & CLASSIFICATIONS

<u>Classification</u>	<u>WA 09 Billing Rate</u>
Project Principal	\$203
Environmental Director	\$187
Sr. Project Manager	\$185
Project Manager	\$140
Sr. Engineer	\$130
Construction Manager	\$140
Business Manager	\$115
Deputy Project Manager	\$120
Sr. Construction Specialist	\$120
Environmental Specialist	\$109
Engineer IV	\$109
Construction Representative	\$100
Sr. CADD Technician	\$99
Sr. Environmental Tech/Planner	\$94
Engineer III	\$94
Project Administrator	\$86
Environmental Tech/Planner	\$85
Engineer II	\$80
Construction Technician	\$70
Engineer I/CADD Technician	\$65
Administrative Assistant	\$63
Expert Witness Testimony	\$240