

November 17, 2015



**AGENDA  
CC REGULAR  
HIDALGO COUNTY  
COMMISSIONERS COURT MEETING  
November 17, 2015  
9:30 A.M.**

*focio*

**NOTICE is hereby given in accordance with Chapter 551, Texas Government Code, that a SPECIAL MEETING of the Commissioners' Court will be held at the Edinburg Council Chambers 415 W. University Drive, Edinburg, Hidalgo County, Texas. Discussion and possible action relating to the following business will be transacted:**

**1. Roll Call**

All members of the court were in attendance for the exception of Judge Garcia.

**2. Pledge of Allegiance**

Commissioner Cantu led the courtroom in reciting the Pledge of Allegiance.

**3. Prayer**

Julia Sullivan led the courtroom in Prayer.

**4. Approval of Consent Agenda**

The Court moved to approve the Consent Agenda.

**5. Open Forum**

Verdelle Anderson from precinct 3 approached the members to speak about trash issues she is currently dealing with around her community, as well as dead animals in the surrounding areas. She explained that the issues with dead animals have been taken care of however, the consistent dumping of trash continues. She also mentioned that they have received help from Mingo Villarreal but understands he is not able to do so all the time. Victor Gallardo is another citizen who has contacted precinct 3 to report trash problems. She remarked that she called the director of operations Mr. Ramirez but has not received a call back from him. Moreover, she also mentioned the problems with the way the potholes are being covered up.

In regards to Mrs. Anderson's concerns Commissioner Flores assured the court that he will have someone look into these issues and fix the problems.

November 17, 2015

1. **AI-52256** a. Acceptance and approval to execute the final form of a Professional Engineering Agreement with L&G Consulting Engineers, Inc. dba L&G Engineering, for "Veterans Boulevard (SH 495) Project (from Abram Road East to La Homa Road)" as approved for negotiations on CC 04/14/15.

On motion by COMMISSIONER PCT. 1, A.C. CUELLAR, JR., seconded by COMMISSIONER PCT. 3, JOE M. FLORES, the Court made a UNANIMOUS vote of approval.

**Vote:** 4 - 0 - Unanimously

b. Acceptance and approval of Work Authorization No. 1 (with an estimated cost of \$843,140.00) as submitted by project engineer, L&G Consulting Engineers, Inc. dba L&G Engineering for, "Environmental Assessment, Public Involvement, Schematic and Hydrologic Design for Veterans Blvd (SH 495) project from Abram Rd to La Homa Rd (FM 364)" located Pct. No. 3 through Contract #C-15-161-11-17.

On motion by COMMISSIONER PCT. 4, JOSEPH PALACIOS, seconded by COMMISSIONER PCT. 3, JOE M. FLORES, the Court made a UNANIMOUS vote of approval.

**Vote:** 4 - 0 - Unanimously

2. **AI-52227** Acceptance and approval of Work Authorization No. 3 (estimated cost of \$1,797,300.00) for Engineering Services required for the preparation for the PS&E, ROW Mapping, Field Surveying and ROW Acquisition Services for the Liberty Rd Project from US 83 to Mile 3. C-12-246-10-16

On motion by COMMISSIONER PCT. 4, JOSEPH PALACIOS, seconded by COMMISSIONER PCT. 3, JOE M. FLORES, the Court made a UNANIMOUS vote of approval.

**Vote:** 4 - 0 - Unanimously

**E. WIC**

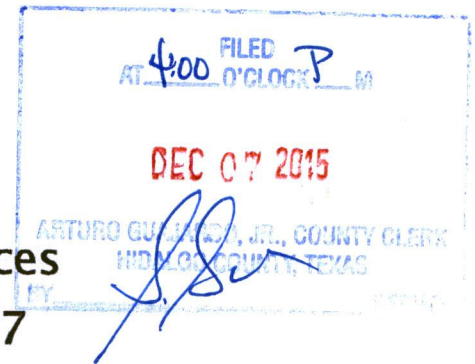
1. **AI-52078** Presentation of bids received for the purpose of award and approval of contract to the responsible vendor submitting the lowest and best bid [while meeting all specifications and/or requirements] as attached hereto for RFB No. 2015-321-10-21-HGO - "Medical Supplies" - WIC Program.

On motion by COMMISSIONER PCT. 1, A.C. CUELLAR, JR., seconded by COMMISSIONER PCT. 3, JOE M. FLORES, the Court made a UNANIMOUS vote of approval.

**Vote:** 4 - 0 - Unanimously

**F. Budget & Management**

HIDALGO COUNTY  
Professional Engineering Services  
Contract # C-15-161-11-17  
Work Authorization Form



**WORK AUTHORIZATION NO. 1**

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

**PART 1. SCOPE OF WORK**

The purpose of this Work Authorization is for the **Engineer** to provide Engineering Services required for the preparation for the Environmental Assessment, Public Involvement, Schematic and Hydrologic Design for the Veterans Boulevard (SH 495) project from Abram Road to La Homa Road (FM 364).

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

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

**PART 2. ESTIMATED COST**

The estimated cost for services under this Work Authorization is **\$843,140.00**. This amount is based upon the costs outlined in the **Estimated Cost Proposal** attached hereto as **EXHIBIT "D-1" – Estimated Man-hour Breakdown**.

**PART 3. PAYMENT**

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

**PART 4. FUNDING**

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

Account No. 5-1345-431-00-123-107-0-841

Requisition Number \_\_\_\_\_ (MUST BE INCLUDED AFTER CC APPROVAL)

**PART 5. PERIOD OF SERVICE**

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

**PART 6. RESPONSIBILITIES AND OBLIGATIONS**

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

**PART 7. ACKNOWLEDGEMENT AND CONFIRMATION**

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

HIDALGO COUNTY  
COMMISSIONER PRECINCT NO. 3

BY: *Joe M. Flores*

**PART 8. ACCEPTANCE AND APPROVAL**

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on \_\_\_\_\_ as indicated below.

THE ENGINEER:  
L&G ENGINEERING

*Jacinto Garza*  
By: Jacinto Garza, P.E.  
President

THE OWNER:  
HIDALGO COUNTY

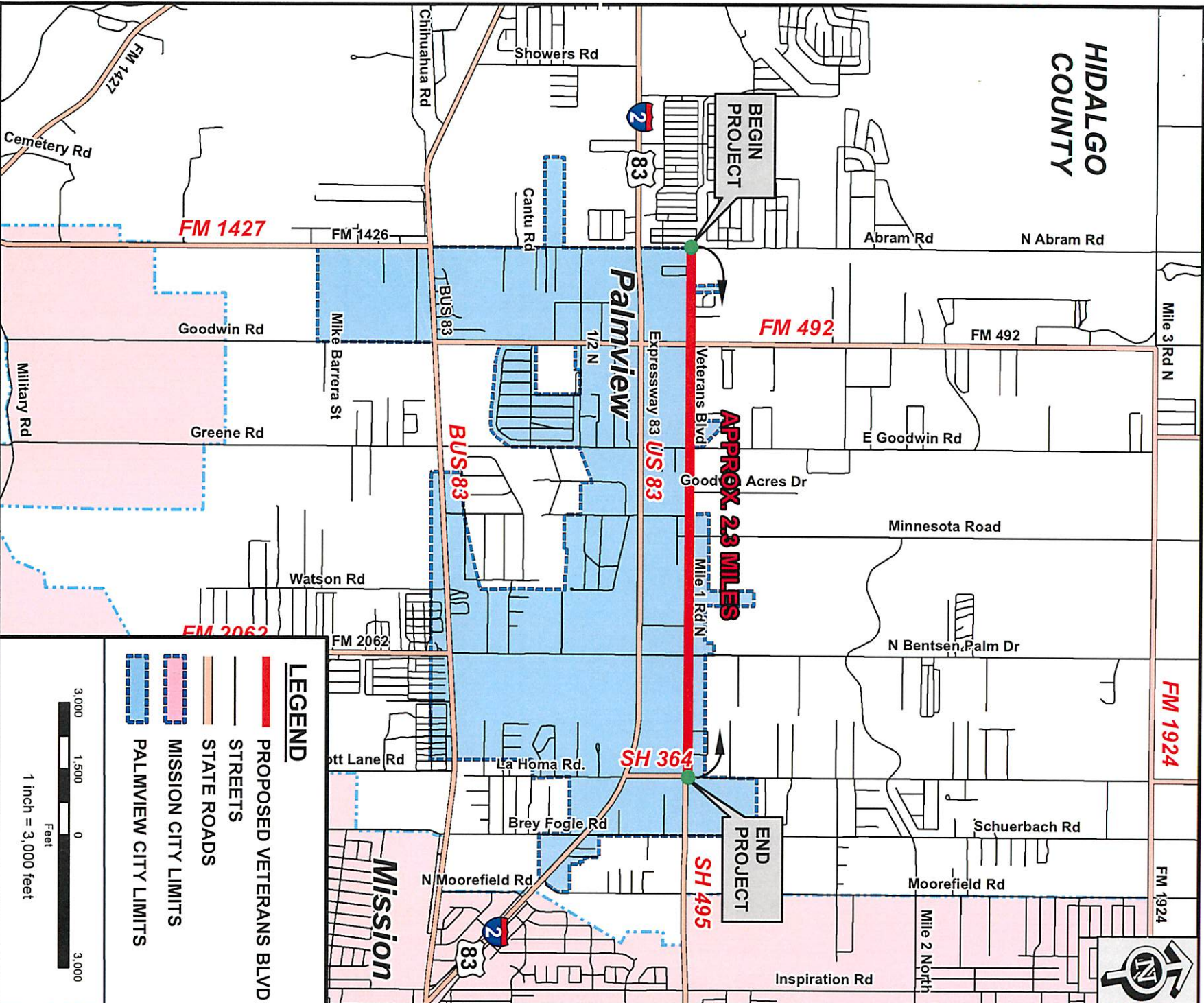
*Ramon Garcia*  
By: Ramon Garcia,  
County Judge

ATTEST:  
*Arturo Guajardo Jr.*  
By: Arturo Guajardo, Jr., County Clerk

APPROVED BY  
COMMISSIONERS' COURT  
ON: 11/17/15

- LIST OF EXHIBITS  
Location Map  
Exhibit A - Services to be provided by Owner  
Exhibit B - Services to be provided by Engineer  
Exhibit C - Work Schedule  
Exhibit D-1 - Estimated Man-hour Breakdown

# HIDALGO COUNTY



**APPROX. 2.3 MILES**

**BEGIN PROJECT**

**END PROJECT**

**LEGEND**

- PROPOSED VETERANS BLVD
- STREETS
- STATE ROADS
- MISSION CITY LIMITS
- PALMVIEW CITY LIMITS



## VETERANS BLVD (SH 495) LOCATION MAP

FROM ABRAM RD TO LA HOMA (SH 364) APPROX. 2.3 MILES

**L&G Engineering**  
 Highway • Structural  
 Environmental • Geotechnical  
 Construction Method Testing  
 Right-of-Way Acquisition Provider Services

2420 W. Engineering Dr.  
 Houston, TX 77077  
 Phone: (281) 555-4413  
 Fax: (281) 555-4413  
 Toll Free: (800) 555-4413

800 S. Thayer Rd., Ste. 8  
 Houston, TX 77072  
 Phone: (281) 555-1500  
 Fax: (281) 555-1500  
 Toll Free: (800) 555-1500



**EXHIBIT "A"**  
**Services to be provided by the County**

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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**SECTION 1-PROJECT DESCRIPTION**

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

COUNTY/CITY: HIDALGO COUNTY

CONTROL: 0865-01-082

PROJECT/DESCRIPTION: PROPOSED URBAN ROADWAY

LENGTH: 2.3 MILES

HIGHWAY: VETERANS BOULEVARD (SH 495)

LIMITS: FROM ABRAM RD TO LA HOMA RD (SH 364)

**PROJECT CLASSIFICATION**

(Place an "X" in only one Project Classification)

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

ENGINEER shall mean L&G Engineering.

SURVEYOR shall mean \_\_\_\_\_.

STATE shall mean Texas Department of Transportation and/or City of Palmview.

COUNTY shall mean the Hidalgo County.

CITY shall mean the Palmview.

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

**SECTION 2 – FEASIBILITY STUDIES**  
(Function Code 102)

Services Provided By:		
<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
<u>YES</u>	<u>NO</u>	<b>Preliminary Design Values</b> <i>The Engineer will work with the Owner to establish basic design concepts, project controls and general scope of Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Route Locations on Uncontrolled Mapping</b> <i>The Engineer will evaluate various alternatives (route locations, alignment shifts, geometry) for the Project.</i>
<u>YES</u>	<u>NO</u>	<b>Uncontrolled Mapping (w/Contours &amp; GIS Info)</b> <i>The Engineer will investigate the existing routes and coordinate with the Owner on establishing the best-fit alignments and mapping proposed geometry for Projects. Preliminary Location Exhibit will be developed.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Traffic Evaluations &amp; Trends</b> <i>The Engineer will investigate existing traffic models and trends for the proposed Projects and adjacent roadways tying into the proposed Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Hydrologic Map</b> <i>The Engineer will develop a Hydrologic Map for the Projects. Hydrologic Maps will be based on LIDAR and GIS information.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary ROW Requirements</b> <i>The Engineer will research and identify affected property owners on the Projects utilizing the latest appraisal district file information from Hidalgo County Appraisal District and information from Carson Maps.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Cost Estimates</b> <i>The Engineer will calculate preliminary construction cost estimates for the location and geometry of the Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Environmental Analysis (for fatal flaws)</b> <i>The Engineer will perform Preliminary Environmental Constraint Mapping to determine if any fatal flaws exist along the proposed alignment.</i>
<u>YES</u>	<u>NO</u>	<b>Project Fact Sheet with Est. Local Cost vs. Total Project Cost</b> <i>The Engineer will produce a Project Fact Sheet providing summaries of all pertinent items in this scope of services (as required) and providing estimated local costs vs. total project costs for the Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Meetings, Coordination &amp; Support for Project Development</b> <i>The Engineer shall provide coordination services and shall assist in meetings and workshops with TxDOT, Hidalgo County, Hidalgo County Drainage District No. 1 and Hidalgo County Irrigation Districts, and all other affected parties. The Engineer shall serve as representative for the Owner in coordination items. The Engineer shall coordinate with the Owner's staff on all Project related items.</i>

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

**SECTION 3 - ROUTE AND DESIGN STUDIES**

(Function Code 110)

Services  
 Provided By:  
ENGINEER CITY/COUNTY

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

**SECTION 4 - SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES  
AND PUBLIC INVOLVEMENT**

(Function Code 120)

Services  
Provided By:  
ENGINEER CITY/COUNTY

		1. Environmental Reports
		All Environmental Reports shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations, Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.
		a. Environmental Assessments
<u>N/A</u>	<u>N/A</u>	(1) An Environmental Assessment shall be prepared, anticipating a Categorical Exclusion.
<u>YES</u>	<u>NO</u>	(2) An Environmental Assessment shall be prepared in accordance with 23 USC 327 and the 2014 TxDOT-FHWA Memorandum of Understanding, anticipating a Finding of No Significant Impact.
<u>N/A</u>	<u>N/A</u>	(3) An Environmental Assessment shall be prepared, anticipating the need for a Draft Environmental Impact Statement.
		b. Environmental Impact Statement
<u>N/A</u>	<u>N/A</u>	(1) A Draft Environmental Impact Statement shall be prepared. After appropriate interagency and public reviews within time limits prescribed by the Code of Federal Regulations, Title 23, Part 771 and 43 Texas Administrative Code 2.40-2.51, a Final Environmental Impact Statement shall be prepared.
<u>N/A</u>	<u>N/A</u>	(2) A Section 4(f) Statement (Department of Transportation Act) shall be provided by the ENGINEER. The format and content of the statement is found in FHWA Technical Advisory T6640.8A.
		2. Public Involvement
		All public involvement procedures shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.
<u>YES</u>	<u>NO</u>	a. A public involvement meeting(s) and public hearing shall be scheduled, coordinated and conducted.
<u>YES</u>	<u>NO</u>	b. Technical assistance for one public meeting and one public hearing, preparation of, and maintenance of contact lists, minutes of meeting(s), exhibit preparation, and other tasks outlined by the COUNTY, shall be provided.
<u>YES</u>	<u>NO</u>	c. A Notice of Availability (NOA) shall be published by the COUNTY upon approval of the environmental decision.
		3. Technical Reports
		All technical reports shall be prepared in accordance with TxDOT's environmental rules and guidelines.
<u>YES</u>	<u>NO</u>	a. Air Quality Analysis
		An air quality analysis shall be prepared in accordance with the STATE'S Air Quality Guidelines. The air quality analysis shall be provided as a Technical Report and a summary of the air quality results included in the administratively complete document for the project.
<u>YES</u>	<u>NO</u>	b. Biological Technical Report
		A biological form and technical report shall be prepared in accordance with the STATE'S Biological Guidelines. The report will include water resources, and threatened and endangered species.
		c. Cultural Resources
		Historical and archeological studies shall be completed in accordance with the STATE'S guidelines.

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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Services Provided By:		
<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
<u>YES</u>	<u>NO</u>	
		(1) Historic Structure Studies A records search, project coordination request, and reconnaissance survey shall be performed, and documentation prepared regarding identification efforts, National Register eligibility and potential impacts to historic properties in accordance with the state's historic structure requirements.
<u>YES</u>	<u>NO</u>	(2) Archeological Studies File searches, project coordination request, an archeological reconnaissance, and an archeological survey shall be conducted to determine if known archeological sites are present or have been designated State Archeological Landmarks; and to identify the need (if any) to perform additional archeological investigations.
<u>YES</u>	<u>NO</u>	d. Community Impact Analysis A community impact analysis shall be prepared in accordance with the STATE'S Community Impact Guidelines.
<u>YES</u>	<u>NO</u>	e. Hazardous Materials The consultant shall perform an Initial Site Assessment (ISA) for hazardous materials impact in accordance with the American Society for Testing and Materials (ASTM) 1528.93 (Transaction Screen Process) and a Hazardous Materials Technical Report, as needed.
<u>YES</u>	<u>NO</u>	f. Indirect and Cumulative Impacts Analysis An indirect and cumulative impacts analysis shall be prepared in accordance with the STATE's guidelines.
<u>YES</u>	<u>NO</u>	g. Noise Analysis A noise analysis shall be prepared, including predicted noise levels and the consideration and evaluation of noise mitigation, in accordance with the STATE'S Noise Guidelines. The noise analysis shall be provided as a Technical Report and a summary of the noise analysis results shall be included in the administratively complete document.
<u>YES</u>	<u>NO</u>	4. Environmental Scoping The ENGINEER shall initiate the environmental scoping process with TxDOT. An environmental scoping document and risk assessment will be completed in coordination with TxDOT.
<u>YES</u>	<u>NO</u>	5. General Guidelines for Preparation of Environmental Documents <ul style="list-style-type: none"> <li>a. All technical reports will be submitted electronically to TxDOT through their FTP site.</li> <li>b. The draft administratively complete document will be submitted to TxDOT electronically through their FTP site.</li> <li>c. The administratively complete document will be prepared in accordance with the content and format of FHWA Technical Advisory T6640.8A and the TxDOT Administrative Code 43 TAC §2.44.</li> <li>d. The administratively complete document will be submitted to TxDOT electronically through their FTP site.</li> <li>e. Upon completion and approval of the administratively and technically complete document, the Engineer will provide one (1) hard copy to the Client. All copies to TxDOT will be digital.</li> <li>f. Exhibits in the environmental document shall be color copies and text shall be black and white.</li> </ul>

EXHIBIT "B"  
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

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SECTION 7 - ROADWAY DESIGN CONTROLS

(Function Code 160)

Services  
Provided By:  
ENGINEER COUNTY

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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Services  
 Provided By:  
ENGINEER COUNTY

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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Services  
Provided By:  
ENGINEER COUNTY

- |           |            |  |
|-----------|------------|--|
| <u>NO</u> | <u>N/A</u> | 5. Pavement Design ( <i>continued</i> )  |
|           |            | c. Embankment and Subgrade ( <i>continued</i> )  |
|           |            | (2) Identify, interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)  |
| <u>NO</u> | <u>N/A</u> | d. Traffic Data for Pavement Design by STATE   |
| <u>NO</u> | <u>N/A</u> | e. Basic Design Criteria   |
| <u>NO</u> | <u>N/A</u> | f. Life Cycle Cost Analysis(es)  |
| <u>NO</u> | <u>N/A</u> | g. Cost Data   |
| <u>NO</u> | <u>N/A</u> | h. Pavement Material Properties  |
| <u>NO</u> | <u>N/A</u> | i. Rehabilitation Investigations   |
| <u>NO</u> | <u>N/A</u> | (1) Core Hole Survey (Show cost estimate with Function Code 110)   |
|           |            | (a) Determine type and depth of existing material, pavement, etc. The Engineer will determine whether to salvage ACP and FLEXBASE as well as their properties and provide this information to TxDOT. |



# EXHIBIT D-1



**PROPOSAL  
CULTURAL RESOURCE INVESTIGATIONS  
VETERANS BOULEVARD (SH 495):  
FROM ABRAM ROAD TO SH 364 (LA HOMA ROAD)  
HIDALGO COUNTY, TEXAS**

## **Task 1: Project Coordination Request, Archeological Background Study Report, and NEPA Text**

- A) AmaTerra shall prepare a Non-Archeological Historic Resources Project Coordination Request (December 2013 version) for review and comment by TxDOT-ENV.
- B) AmaTerra will review the existing files held by the Texas Archeological Research Laboratory (TARL) and the Texas Historical Commission (THC) to determine if any previously recorded sites or archeological surveys occur within or near the proposed project area. The location of any previously recorded sites and surveys will be plotted onto USGS 7.5-minute topographic maps for use in the compliance coordination process. Archeologists will also consult the USDA NRCS soil survey maps for Hidalgo County, relevant aerial photography, historical maps, land use maps, and the Geologic Atlas of Texas in order to assess the likelihood for unrecorded archeological resources and make recommendations regarding the need for further field surveys. The results of this effort will be integrated into a background study report that conforms to TxDOT's *Review Standards for Archeological Background Studies* for review and comment by TxDOT-ENV.
- C) AmaTerra shall provide Client with language for the Cultural Resources section of the draft NEPA document.

## **Task 2: Historic Resources Research Design, Field Investigation, and Survey Report**

- A) AmaTerra shall prepare a research design for review and comment by TxDOT-ENV. The research design shall conform to the TxDOT *Research Design Reports Review Standard* (March 2014 version).
- B) AmaTerra shall perform a reconnaissance survey conforming to the methodology outlined in Appendix B of the *Draft CRM Guide for Accurately Identifying Non-Archeological Cultural Resources* (Texas Department of Transportation, April 2006). The survey shall document each historic-age resource (defined by TxDOT as a building, structure, object, historic district or non-archeological site at least 45 years old at the time of letting) within the Study Area. The Study Area shall consist of the Area of Potential Effects (APE) plus all parcels that are wholly or partially within the APE.
- C) AmaTerra shall provide a report detailing the results and findings of the reconnaissance survey including effects to historic properties and the need, if any, to conduct intensive survey efforts. The report shall have sufficient detail and clarity to provide THC with the basis for making determinations of National Register of Historic Places (NRHP) eligibility or shall have sufficient detail and clarity to make recommendations concerning the scope of the intensive survey. The report shall conform to the TxDOT *Reconnaissance Survey Reports Review Standard* (March 2014 version).

**Cultural Resource Investigations**  
**Veterans Blvd (SH 495): From Abram Rd. to La Homa Rd. (SH 364)**  
**Hidalgo County, Texas**

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**Task 3: Archeological Field Survey and Survey Report**

Should an archeological survey be warranted, AmaTerra will develop an application for a Texas Antiquities Permit and submit it to TxDOT-ENV for review and processing. Upon issuance of the permit, AmaTerra will conduct a field survey. AmaTerra will deploy a team of archeologists to conduct a pedestrian survey including shovel testing along the entire length of the proposed APE. AmaTerra will follow the THC requirement of 16 shovel tests per mile per transect; up to 37 shovel tests would be excavated over the approximately 2.3 miles of the APE wherever potential for archeological materials is present. All excavated soil will be screened through ¼ inch mesh and all artifacts will be analyzed in the field and reburied; no artifacts will be collected. Sites (if any are discovered) will be delineated by digging additional manual shovel tests and their locations will be documented by sub-meter GPS. Sites will be recorded on State of Texas archeological data sheets, photographed and sketch mapped. Backhoe trenching is not anticipated as part of this scope of work.

AmaTerra will prepare a professional report documenting the results of the fieldwork. The report will fully document all methods and results of the survey and will offer clear assessments of NRHP/SAL eligibility for all sites. The report will present explicit management recommendations for each site. The draft report will be presented in electronic format to L&G for review and comment and upon approval will be submitted in hard copy for submission to TxDOT. Upon receipt of review comments, AmaTerra will prepare the final report and distribute these in compliance with the terms of the permit.

**SCHEDULE**

To be determined in consultation with Client.

**ASSUMPTIONS AND CONDITIONS**

1. Client will provide one individual to assist AmaTerra with the historic resources field survey.
1. If archeological survey is required following background study, AmaTerra assumes one field mobilization to conduct the work. Repeated field visits necessitated by partial right of entry may be considered supplemental to the currently proposed scope.
2. Backhoe trenching will not be included in the archeological field survey.
3. If TxDOT does not require cultural resources work beyond Task 1, AmaTerra shall only invoice Client for the work listed in the Schedule of Values shown below.

**COMPENSATION**

Client will compensate AmaTerra on a firm fixed price (lump sum) basis in accordance with the Schedule of Values shown below.

Schedule of Values	
Veterans Boulevard: Abram Road to SH 364 (La Homa Road)	
TASK	
1: Historical and Archeological Project Coordination Request/Draft NEPA Text	\$ 3,861.40
2: Historic Resources Research Design, Reconnaissance Survey and Report	\$ 12,472.50
3: Archeological Survey and Report	\$ 12,009.30
<b>TOTAL</b>	<b>\$ 28,343.20</b>

**EXHIBIT "C"**  
**WORK SCHEDULE**  
**Veterans Boulevard (SH 495) Project**  
 From La Homa Rd. (SH 364) to Abram Rd. (2.26 Miles)

TASK AND DESCRIPTION	FIRM	2015					2016												2017																				
		AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC									
<b>WORK AUTHORIZATION NO. 1</b>																																							
<b>Phase I: EA, PUBLIC INVOLVEMENT, SCHEMATIC</b>																																							
<b>(from La Homa Rd. to Abram Rd.)</b>																																							
Pre-design Meeting with TxDOT																																							
Develop Alternatives & Matrix	L&G																																						
Develop & Submit Schematic	L&G																																						
TxDOT Review																																							
Advertise & Conduct Public Meeting	L&G																																						
Select TPA	L&G																																						
Revise & Submit Final Schematic for FHWA approval	L&G																																						
FHWA/TxDOT Review & Revisions	TxDOT																																						
TxDOT Schematic Approval	TxDOT																																						
FHWA Schematic Approval	FHWA																																						
Process Technical Reports	TxDOT																																						
Agency Coordination	TxDOT																																						
Administratively Complete Document	TxDOT																																						
Environmental Decision	TxDOT																																						
Hydrological Map	L&G																																						
Preliminary Compensable Utilities	L&G																																						
<b>WORK AUTHORIZATION NO. 2</b>																																							
<b>Phase II: PS&amp;E, CONSTRUCTION OVERSIGHT</b>																																							
Design Field Surveys	L&G																																						
PS&E Development	L&G																																						
Geotechnical Soil and Scour Reports	L&G																																						
Permitted Utility Coordination	L&G																																						
TxDOT Construction Inspection	TxDOT																																						
Construction Management	L&G																																						
<b>WORK AUTHORIZATION NO. 3</b>																																							
<b>Phase III: ROW Acquisition</b>																																							
ROW Map	L&G																																						
ROW Acquisition Services	TxDOT																																						
Compensable Utility Management	TxDOT																																						
Compensable Utilities	L&G																																						

L&G Engineering Tasks  
 TxDOT Tasks

**EXHIBIT D-1**  
ESTIMATED MAN-HOUR BREAKDOWN

VETERANS BOULEVARD PROJECT  
(from Abram Road to La Homa Road (SH 364))

	MANHOURS							TOTAL HOURS	Sub-Contract Amounts / ROW COST	TOTAL LINE ITEM COST
	Senior Project Manager	Senior Engineer	Senior Environmental Scientist /Specialist	Project Engineer	Senior Engineer Tech	CADD Operator / GIS Analyst	Admin / Clerical			
<b>CONTRACT RATE</b>	218.04	180.66	152.63	133.94	93.45	68.53	62.30			
<b>WORK AUTHORIZATION NO. 1</b>										
<b>PHASE I - EA, PUBLIC INVOLVEMENT, SCHEMATIC, HYDROLOGIC DESIGN</b>										
1 Environmental Assessment with TxDOT	100		460	300		84	191	1135		\$ 149,850.00
2 Public Involvement with stakeholders and 1 Public Meeting	60		84	82		61	9	296		\$ 41,625.00
3 Archeological and Historical Research (See Page 2 & 3 of 3 for Sub Cost)	60		90	44	15	19	20	248	\$ 28,343.20	\$ 36,656.80
4 Engineering Technical Support at Public Meetings with Layouts, etc.	40		61	59		64	19	243		\$ 31,500.00
5 Schematic for Roadway	100	100	38	322	400	300	37	1297		\$ 149,040.00
6 Hydrological Map for Outfall Drain Ditch	20	45	22	160	195	146	8	596		\$ 66,000.00
7 Schematics for Outfall Ditches	82	100	39	191	220	160		792		\$ 99,000.00
8 Schematic Design for Siphon with Steel Pipe Bypass for Irrigation District	60	20	10	46	59	39	7	241		\$ 33,000.00
9 Office Surveys for Schematic	40	20	14	100	82	89	6	351		\$ 42,000.00
10 Preliminary Compensable Utility Identification on Schematic	30	20	10	119	161	160	6	506		\$ 54,000.00
11 Update Schematic based on comments as provided by TxDOT/FHWA	20	10	6	102	169	160	8	475		\$ 48,000.00
12 Engineering Technical Support at Public Hearing with Layouts, etc.	20	20	51	33		33	1	158		\$ 22,500.00
13 Public Involvement for 1 Public Hearing	60	20	80	60		62	7	289		\$ 41,625.00
<b>SUB-TOTAL</b>	<b>692</b>	<b>355</b>	<b>965</b>	<b>1618</b>	<b>1301</b>	<b>1377</b>	<b>319</b>	<b>6627</b>	<b>\$ 28,343.20</b>	<b>\$ 814,798.80</b>

Sub-Total Manhours Fee with Subconsultant Fee:	\$ 843,140.00
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<b>TOTAL PROJECT FEE:</b>	<b>\$ 843,140.00</b>
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**HIDALGO COUNTY**  
**Professional Engineering Services**  
**Contract # C-15-161-11-17**  
**Work Authorization Form**

**WORK AUTHORIZATION NO. 1**

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

**PART 1. SCOPE OF WORK**

The purpose of this Work Authorization is for the **Engineer** to provide Engineering Services required for the preparation for the Environmental Assessment, Public Involvement, Schematic and Hydrologic Design for the Veterans Boulevard (SH 495) project from Abram Road to La Homa Road (FM 364).

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

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

**PART 2. ESTIMATED COST**

The estimated cost for services under this Work Authorization is **\$843,140.00**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as ***EXHIBIT "D-1" - Estimated Man-hour Breakdown***.

**PART 3. PAYMENT**

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

**PART 4. FUNDING**

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

Account No. 5-1345-431-00-123 107-0-81

Requisition Number \_\_\_\_\_ (MUST BE INCLUDED AFTER CC APPROVAL)

**PART 5. PERIOD OF SERVICE**

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

**PART 6. RESPONSIBILITIES AND OBLIGATIONS**

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

**PART 7. ACKNOWLEDGEMENT AND CONFIRMATION**

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

HIDALGO COUNTY  
COMMISSIONER PRECINCT NO. 3

BY: *Joe Flores*

**PART 8. ACCEPTANCE AND APPROVAL**

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on \_\_\_\_\_ as indicated below.

THE ENGINEER:  
L&G ENGINEERING

*Jacinto Garza*  
By: Jacinto Garza, P.E.  
President

THE OWNER:  
HIDALGO COUNTY

*Ramon Garcia*  
By: Ramon Garcia,  
County Judge

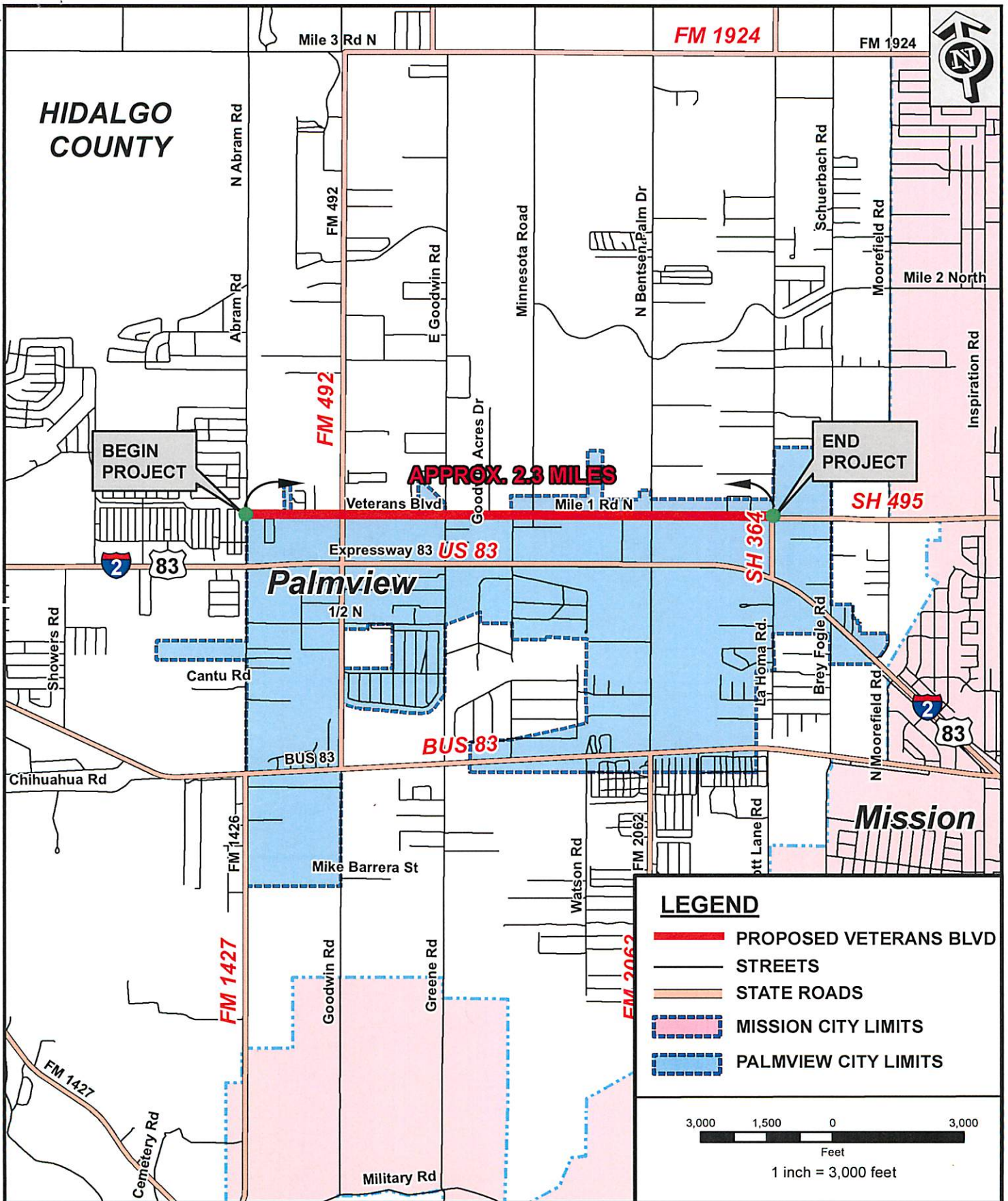
ATTEST: *Arturo Guajardo Jr.*  
By: Arturo Guajardo, Jr., County Clerk

APPROVED BY \_\_\_\_\_  
COMMISSIONERS' COURT  
ON: \_\_\_\_\_

APPROVED BY \_\_\_\_\_  
COMMISSIONERS' COURT  
ON: 11/17/15

**LIST OF EXHIBITS**

- Location Map
- Exhibit A - Services to be provided by Owner
- Exhibit B - Services to be provided by Engineer
- Exhibit C - Work Schedule
- Exhibit D-1 - Estimated Man-hour Breakdown



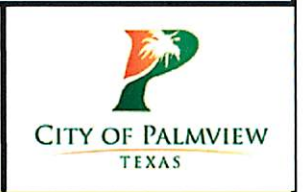
**L&G Engineering**  
 Highway/Civil • Structural/Bridge  
 Environmental • Geotechnical  
 Construction Material Testing  
 Right-of-Way Acquisition Provider Services

2100 W. Expressway 83  
 Mercedes, TX 78570  
 Phone: (956) 565-9813  
 Fax: (956) 565-9818  
 Toll Free: (888) 565-9813

900 S. Stewart Rd., Ste B  
 Mission, TX 78572  
 Phone: (956) 585-1909  
 Fax: (956) 585-1927  
 Toll Free: (866) 585-1909

# VETERANS BLVD (SH 495) LOCATION MAP

FROM ABRAM RD TO LA HOMA (SH 364) APPROX. 2.3 MILES



**EXHIBIT "A"**  
**Services to be provided by the County**

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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**SECTION 1-PROJECT DESCRIPTION**

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

COUNTY/CITY: HIDALGO COUNTY

CONTROL: 0865-01-082

PROJECT/DESCRIPTION: PROPOSED URBAN ROADWAY

LENGTH: 2.3 MILES

HIGHWAY: VETERANS BOULEVARD (SH 495)

LIMITS: FROM ABRAM RD TO LA HOMA RD (SH 364)

**PROJECT CLASSIFICATION**

(Place an "X" in only one Project Classification)

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

ENGINEER shall mean L&G Engineering.

SURVEYOR shall mean \_\_\_\_\_.

STATE shall mean Texas Department of Transportation and/or City of Palmview.

COUNTY shall mean the Hidalgo County.

CITY shall mean the Palmview.

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

**SECTION 2 – FEASIBILITY STUDIES**

(Function Code 102)

Services Provided By:		
<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
<u>YES</u>	<u>NO</u>	<b>Preliminary Design Values</b> <i>The Engineer will work with the Owner to establish basic design concepts, project controls and general scope of Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Route Locations on Uncontrolled Mapping</b> <i>The Engineer will evaluate various alternatives (route locations, alignment shifts, geometry) for the Project.</i>
<u>YES</u>	<u>NO</u>	<b>Uncontrolled Mapping (w/Contours &amp; GIS Info)</b> <i>The Engineer will investigate the existing routes and coordinate with the Owner on establishing the best-fit alignments and mapping proposed geometry for Projects. Preliminary Location Exhibit will be developed.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Traffic Evaluations &amp; Trends</b> <i>The Engineer will investigate existing traffic models and trends for the proposed Projects and adjacent roadways tying into the proposed Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Hydrologic Map</b> <i>The Engineer will develop a Hydrologic Map for the Projects. Hydrologic Maps will be based on LIDAR and GIS information.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary ROW Requirements</b> <i>The Engineer will research and identify affected property owners on the Projects utilizing the latest appraisal district file information from Hidalgo County Appraisal District and information from Carson Maps.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Cost Estimates</b> <i>The Engineer will calculate preliminary construction cost estimates for the location and geometry of the Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Preliminary Environmental Analysis (for fatal flaws)</b> <i>The Engineer will perform Preliminary Environmental Constraint Mapping to determine if any fatal flaws exist along the proposed alignment.</i>
<u>YES</u>	<u>NO</u>	<b>Project Fact Sheet with Est. Local Cost vs. Total Project Cost</b> <i>The Engineer will produce a Project Fact Sheet providing summaries of all pertinent items in this scope of services (as required) and providing estimated local costs vs. total project costs for the Projects.</i>
<u>YES</u>	<u>NO</u>	<b>Meetings, Coordination &amp; Support for Project Development</b> <i>The Engineer shall provide coordination services and shall assist in meetings and workshops with TxDOT, Hidalgo County, Hidalgo County Drainage District No. 1 and Hidalgo County Irrigation Districts, and all other affected parties. The Engineer shall serve as representative for the Owner in coordination items. The Engineer shall coordinate with the Owner's staff on all Project related items.</i>

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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**SECTION 3 - ROUTE AND DESIGN STUDIES**

(Function Code 110)

Services  
Provided By:  
ENGINEER CITY/COUNTY

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

**SECTION 4 - SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES  
AND PUBLIC INVOLVEMENT**

(Function Code 120)

Services  
Provided By:  
ENGINEER CITY/COUNTY

		1. Environmental Reports
		All Environmental Reports shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations, Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.
		a. Environmental Assessments
<u>N/A</u>	<u>N/A</u>	(1) An Environmental Assessment shall be prepared, anticipating a Categorical Exclusion.
<u>YES</u>	<u>NO</u>	(2) An Environmental Assessment shall be prepared in accordance with 23 USC 327 and the 2014 TxDOT-FHWA Memorandum of Understanding, anticipating a Finding of No Significant Impact.
<u>N/A</u>	<u>N/A</u>	(3) An Environmental Assessment shall be prepared, anticipating the need for a Draft Environmental Impact Statement.
		b. Environmental Impact Statement
<u>N/A</u>	<u>N/A</u>	(1) A Draft Environmental Impact Statement shall be prepared. After appropriate interagency and public reviews within time limits prescribed by the Code of Federal Regulations, Title 23, Part 771 and 43 Texas Administrative Code 2.40-2.51, a Final Environmental Impact Statement shall be prepared.
<u>N/A</u>	<u>N/A</u>	(2) A Section 4(f) Statement (Department of Transportation Act) shall be provided by the ENGINEER. The format and content of the statement is found in FHWA Technical Advisory T6640.8A.
		2. Public Involvement
		All public involvement procedures shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.
<u>YES</u>	<u>NO</u>	a. A public involvement meeting(s) and public hearing shall be scheduled, coordinated and conducted.
<u>YES</u>	<u>NO</u>	b. Technical assistance for one public meeting and one public hearing, preparation of, and maintenance of contact lists, minutes of meeting(s), exhibit preparation, and other tasks outlined by the COUNTY, shall be provided.
<u>YES</u>	<u>NO</u>	c. A Notice of Availability (NOA) shall be published by the COUNTY upon approval of the environmental decision.
		3. Technical Reports
		All technical reports shall be prepared in accordance with TxDOT's environmental rules and guidelines.
<u>YES</u>	<u>NO</u>	a. Air Quality Analysis
		An air quality analysis shall be prepared in accordance with the STATE'S Air Quality Guidelines. The air quality analysis shall be provided as a Technical Report and a summary of the air quality results included in the administratively complete document for the project.
<u>YES</u>	<u>NO</u>	b. Biological Technical Report
		A biological form and technical report shall be prepared in accordance with the STATE'S Biological Guidelines. The report will include water resources, and threatened and endangered species.
		c. Cultural Resources
		Historical and archeological studies shall be completed in accordance with the STATE'S guidelines.

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

---

Services Provided By:		
<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
<u>YES</u>	<u>NO</u>	
		(1) Historic Structure Studies A records search, project coordination request, and reconnaissance survey shall be performed, and documentation prepared regarding identification efforts, National Register eligibility and potential impacts to historic properties in accordance with the state's historic structure requirements.
<u>YES</u>	<u>NO</u>	(2) Archeological Studies File searches, project coordination request, an archeological reconnaissance, and an archeological survey shall be conducted to determine if known archeological sites are present or have been designated State Archeological Landmarks; and to identify the need (if any) to perform additional archeological investigations.
<u>YES</u>	<u>NO</u>	d. Community Impact Analysis A community impact analysis shall be prepared in accordance with the STATE'S Community Impact Guidelines.
<u>YES</u>	<u>NO</u>	e. Hazardous Materials The consultant shall perform an Initial Site Assessment (ISA) for hazardous materials impact in accordance with the American Society for Testing and Materials (ASTM) 1528.93 (Transaction Screen Process) and a Hazardous Materials Technical Report, as needed.
<u>YES</u>	<u>NO</u>	f. Indirect and Cumulative Impacts Analysis An indirect and cumulative impacts analysis shall be prepared in accordance with the STATE's guidelines.
<u>YES</u>	<u>NO</u>	g. Noise Analysis A noise analysis shall be prepared, including predicted noise levels and the consideration and evaluation of noise mitigation, in accordance with the STATE'S Noise Guidelines. The noise analysis shall be provided as a Technical Report and a summary of the noise analysis results shall be included in the administratively complete document.
<u>YES</u>	<u>NO</u>	4. Environmental Scoping The ENGINEER shall initiate the environmental scoping process with TxDOT. An environmental scoping document and risk assessment will be completed in coordination with TxDOT.
<u>YES</u>	<u>NO</u>	5. General Guidelines for Preparation of Environmental Documents <ul style="list-style-type: none"> <li>a. All technical reports will be submitted electronically to TxDOT through their FTP site.</li> <li>b. The draft administratively complete document will be submitted to TxDOT electronically through their FTP site.</li> <li>c. The administratively complete document will be prepared in accordance with the content and format of FHWA Technical Advisory T6640.8A and the TxDOT Administrative Code 43 TAC §2.44.</li> <li>d. The administratively complete document will be submitted to TxDOT electronically through their FTP site.</li> <li>e. Upon completion and approval of the administratively and technically complete document, the Engineer will provide one (1) hard copy to the Client. All copies to TxDOT will be digital.</li> <li>f. Exhibits in the environmental document shall be color copies and text shall be black and white.</li> </ul>

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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**SECTION 7 - ROADWAY DESIGN CONTROLS**

(Function Code 160)

Services  
Provided By:  
ENGINEER COUNTY

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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Services  
 Provided By:  
ENGINEER COUNTY

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

**EXHIBIT "B"**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

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Services  
Provided By:  
ENGINEER COUNTY

- |           |            |  |
|-----------|------------|--|
| <u>NO</u> | <u>N/A</u> | 5. Pavement Design ( <i>continued</i> )  |
|           |            | c. Embankment and Subgrade ( <i>continued</i> )  |
|           |            | (2) Identify, interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)  |
| <u>NO</u> | <u>N/A</u> | d. Traffic Data for Pavement Design by STATE   |
| <u>NO</u> | <u>N/A</u> | e. Basic Design Criteria   |
| <u>NO</u> | <u>N/A</u> | f. Life Cycle Cost Analysis(es)  |
| <u>NO</u> | <u>N/A</u> | g. Cost Data   |
| <u>NO</u> | <u>N/A</u> | h. Pavement Material Properties  |
| <u>NO</u> | <u>N/A</u> | i. Rehabilitation Investigations   |
| <u>NO</u> | <u>N/A</u> | (1) Core Hole Survey (Show cost estimate with Function Code 110)   |
|           |            | (a) Determine type and depth of existing material, pavement, etc. The Engineer will determine whether to salvage ACP and FLEXBASE as well as their properties and provide this information to TxDOT. |



**EXHIBIT "C"**  
**WORK SCHEDULE**  
**Veterans Boulevard (SH 495) Project**  
**From La Homa Rd. (SH 364) to Abram Rd. (2.26 Miles)**

TASK AND DESCRIPTION	FIRM	2015					2016												2017																				
		AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC									
<b>WORK AUTHORIZATION NO. 1</b>																																							
<b>Phase I: EA, PUBLIC INVOLVEMENT, SCHEMATIC</b> (from La Homa Rd. to Abram Rd.)																																							
Pre-design Meeting with TxDOT																																							
Develop Alternatives & Matrix	L&G																																						
Develop & Submit Schematic	L&G																																						
TxDOT Review																																							
Advertise & Conduct Public Meeting	L&G																																						
Select TPA	L&G																																						
Revise & Submit Final Schematic for FHWA approval	L&G																																						
FHWA/TxDOT Review & Revisions	TxDOT																																						
TxDOT Schematic Approval	TxDOT																																						
FHWA Schematic Approval	FHWA																																						
Process Technical Reports	TxDOT																																						
Agency Coordination	TxDOT																																						
Administratively Complete Document	TxDOT																																						
Environmental Decision	TxDOT																																						
Hydrological Map	L&G																																						
Preliminary Compensable Utilities	L&G																																						
<b>WORK AUTHORIZATION NO. 2</b>																																							
<b>Phase II: PS&amp;E, CONSTRUCTION OVERSIGHT</b>																																							
Design Field Surveys	L&G																																						
PS&E Development	L&G																																						
Geotechnical Soil and Scour Reports	L&G																																						
Permitted Utility Coordination	L&G																																						
TxDOT Construction Inspection	TxDOT																																						
Construction Management	L&G																																						
<b>WORK AUTHORIZATION NO. 3</b>																																							
<b>Phase III: ROW Acquisition</b>																																							
ROW Map	L&G																																						
ROW Acquisition Services	TxDOT																																						
Compensable Utility Management	TxDOT																																						
Compensable Utilities	L&G																																						

■ L&G Engineering Tasks  
 ■ TxDOT Tasks

**EXHIBIT D-1**  
ESTIMATED MAN-HOUR BREAKDOWN

VETERANS BOULEVARD PROJECT  
(from Abram Road to La Homa Road (SH 364))

	MANHOURS							TOTAL HOURS	Sub-Contract Amounts / ROW COST	TOTAL LINE ITEM COST
	Senior Project Manager	Senior Engineer	Senior Environmental Scientist /Specialist	Project Engineer	Senior Engineer Tech	CADD Operator / GIS Analyst	Admin / Clerical			
<b>CONTRACT RATE</b>	218.04	180.66	152.63	133.94	93.45	68.53	62.30			
<b>WORK AUTHORIZATION NO. 1</b>										
<b>PHASE I - EA, PUBLIC INVOLVEMENT, SCHEMATIC, HYDROLOGIC DESIGN</b>										
1 Environmental Assessment with TxDOT	100		460	300		84	191	1135		\$ 149,850.00
2 Public Involvement with stakeholders and 1 Public Meeting	60		84	82		61	9	296		\$ 41,625.00
3 Archeological and Historical Research (See Page 2 & 3 of 3 for Sub Cost)	60		90	44	15	19	20	248	\$ 28,343.20	\$ 36,656.80
4 Engineering Technical Support at Public Meetings with Layouts, etc.	40		61	59		64	19	243		\$ 31,500.00
5 Schematic for Roadway	100	100	38	322	400	300	37	1297		\$ 149,040.00
6 Hydrological Map for Outfall Drain Ditch	20	45	22	160	195	146	8	596		\$ 66,000.00
7 Schematics for Outfall Ditches	82	100	39	191	220	160		792		\$ 99,000.00
8 Schematic Design for Siphon with Steel Pipe Bypass for Irrigation District	60	20	10	46	59	39	7	241		\$ 33,000.00
9 Office Surveys for Schematic	40	20	14	100	82	89	6	351		\$ 42,000.00
10 Preliminary Compensable Utility Identification on Schematic	30	20	10	119	161	160	6	506		\$ 54,000.00
11 Update Schematic based on comments as provided by TxDOT/FHWA	20	10	6	102	169	160	8	475		\$ 48,000.00
12 Engineering Technical Support at Public Hearing with Layouts, etc.	20	20	51	33		33	1	158		\$ 22,500.00
13 Public Involvement for 1 Public Hearing	60	20	80	60		62	7	289		\$ 41,625.00
<b>SUB-TOTAL</b>	<b>692</b>	<b>355</b>	<b>985</b>	<b>1618</b>	<b>1301</b>	<b>1377</b>	<b>319</b>	<b>6627</b>	<b>\$ 28,343.20</b>	<b>\$ 814,796.80</b>

Sub-Total Manhours Fee with Subconsultant Fee:	\$	843,140.00
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<b>TOTAL PROJECT FEE:</b>	<b>\$</b>	<b>843,140.00</b>
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# EXHIBIT D-1



**PROPOSAL  
CULTURAL RESOURCE INVESTIGATIONS  
VETERANS BOULEVARD (SH 495):  
FROM ABRAM ROAD TO SH 364 (LA HOMA ROAD)  
HIDALGO COUNTY, TEXAS**

## **Task 1: Project Coordination Request, Archeological Background Study Report, and NEPA Text**

- A) AmaTerra shall prepare a Non-Archeological Historic Resources Project Coordination Request (December 2013 version) for review and comment by TxDOT-ENV.
- B) AmaTerra will review the existing files held by the Texas Archeological Research Laboratory (TARL) and the Texas Historical Commission (THC) to determine if any previously recorded sites or archeological surveys occur within or near the proposed project area. The location of any previously recorded sites and surveys will be plotted onto USGS 7.5-minute topographic maps for use in the compliance coordination process. Archeologists will also consult the USDA NRCS soil survey maps for Hidalgo County, relevant aerial photography, historical maps, land use maps, and the Geologic Atlas of Texas in order to assess the likelihood for unrecorded archeological resources and make recommendations regarding the need for further field surveys. The results of this effort will be integrated into a background study report that conforms to TxDOT's *Review Standards for Archeological Background Studies* for review and comment by TxDOT-ENV.
- C) AmaTerra shall provide Client with language for the Cultural Resources section of the draft NEPA document.

## **Task 2: Historic Resources Research Design, Field Investigation, and Survey Report**

- A) AmaTerra shall prepare a research design for review and comment by TxDOT-ENV. The research design shall conform to the TxDOT *Research Design Reports Review Standard* (March 2014 version).
- B) AmaTerra shall perform a reconnaissance survey conforming to the methodology outlined in Appendix B of the *Draft CRM Guide for Accurately Identifying Non-Archeological Cultural Resources* (Texas Department of Transportation, April 2006). The survey shall document each historic-age resource (defined by TxDOT as a building, structure, object, historic district or non-archeological site at least 45 years old at the time of letting) within the Study Area. The Study Area shall consist of the Area of Potential Effects (APE) plus all parcels that are wholly or partially within the APE.
- C) AmaTerra shall provide a report detailing the results and findings of the reconnaissance survey including effects to historic properties and the need, if any, to conduct intensive survey efforts. The report shall have sufficient detail and clarity to provide THC with the basis for making determinations of National Register of Historic Places (NRHP) eligibility or shall have sufficient detail and clarity to make recommendations concerning the scope of the intensive survey. The report shall conform to the TxDOT *Reconnaissance Survey Reports Review Standard* (March 2014 version).

**Cultural Resource Investigations**  
**Veterans Blvd (SH 495): From Abram Rd. to La Homa Rd. (SH 364)**  
**Hidalgo County, Texas**

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**Task 3: Archeological Field Survey and Survey Report**

Should an archeological survey be warranted, AmaTerra will develop an application for a Texas Antiquities Permit and submit it to TxDOT-ENV for review and processing. Upon issuance of the permit, AmaTerra will conduct a field survey. AmaTerra will deploy a team of archeologists to conduct a pedestrian survey including shovel testing along the entire length of the proposed APE. AmaTerra will follow the THC requirement of 16 shovel tests per mile per transect; up to 37 shovel tests would be excavated over the approximately 2.3 miles of the APE wherever potential for archeological materials is present. All excavated soil will be screened through ¼ inch mesh and all artifacts will be analyzed in the field and reburied; no artifacts will be collected. Sites (if any are discovered) will be delineated by digging additional manual shovel tests and their locations will be documented by sub-meter GPS. Sites will be recorded on State of Texas archeological data sheets, photographed and sketch mapped. Backhoe trenching is not anticipated as part of this scope of work.

AmaTerra will prepare a professional report documenting the results of the fieldwork. The report will fully document all methods and results of the survey and will offer clear assessments of NRHP/SAL eligibility for all sites. The report will present explicit management recommendations for each site. The draft report will be presented in electronic format to L&G for review and comment and upon approval will be submitted in hard copy for submission to TxDOT. Upon receipt of review comments, AmaTerra will prepare the final report and distribute these in compliance with the terms of the permit.

**SCHEDULE**

To be determined in consultation with Client.

**ASSUMPTIONS AND CONDITIONS**

1. Client will provide one individual to assist AmaTerra with the historic resources field survey.
1. If archeological survey is required following background study, AmaTerra assumes one field mobilization to conduct the work. Repeated field visits necessitated by partial right of entry may be considered supplemental to the currently proposed scope.
2. Backhoe trenching will not be included in the archeological field survey.
3. If TxDOT does not require cultural resources work beyond Task 1, AmaTerra shall only invoice Client for the work listed in the Schedule of Values shown below.

**COMPENSATION**

Client will compensate AmaTerra on a firm fixed price (lump sum) basis in accordance with the Schedule of Values shown below.

Schedule of Values	
Veterans Boulevard: Abram Road to SH 364 (La Homa Road)	
TASK	
1: Historical and Archeological Project Coordination Request/Draft NEPA Text	\$ 3,861.40
2: Historic Resources Research Design, Reconnaissance Survey and Report	\$ 12,472.50
3: Archeological Survey and Report	\$ 12,009.30
<b>TOTAL</b>	<b>\$ 28,343.20</b>