

HIDALGO COUNTY
Professional Engineering Services
Contract # C-17-103-05-30
Work Authorization Form

FILED
AT <u>3:45</u> O'CLOCK <u>P</u> M
FEB 21 2018
ARTURO GUERRERO, JR. COUNTY CLERK HIDALGO COUNTY, TEXAS
BY _____ DEPUTY

WORK AUTHORIZATION NO. 2

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 Professional Engineering Services required for the completion of the Right-of-Way Map, Additional Surveying Services, Right-of-Way Acquisition Services for 11 parcels, Additional Appraisals/Reviews and Utility Management for the Mile 6 from Mile 9 to Mile 11 project.

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 \$457,600.00. 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. 2 shall be funded through funding source:

Account No. _____

Requisition Number _____ (MUST BE INCLUDED AFTER CC APPROVAL)

PART 5. PERIOD OF SERVICE

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

PART 6. RESPONSIBILITIES AND OBLIGATIONS

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

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by Hidalgo County Precinct No. 1, Commissioner David Fuentes as to the content and detail of this Work Authorization No. 2.

**HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 1**

BY: _____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on 2/20/18 as indicated below.

**THE ENGINEER:
L&G ENGINEERING**

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

**THE OWNER:
HIDALGO COUNTY**

By: **Ramon Garcia,**
County Judge

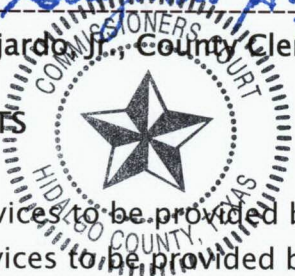
ATTEST:

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

APPROVED BY
COMMISSIONERS' COURT
ON: 2/20/18

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





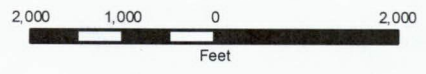
MILE 6 (WESTGATE) LOCATION MAP

FROM MILE 9 N TO 0.3 MI. N OF MILE 11
 APPROX. PROJECT LENGTH 2.3 MILES



LEGEND

- MILE 6 (WESTGATE)
- MAIN ROADS
- STATE ROADS
- CITY LIMITS



1 inch = 2,083 feet

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

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: 0921-02-168

PROJECT/DESCRIPTION: ROW MAPPING, ROW ACQUISITION SERVICES,
UTILITY MANAGEMENT

LENGTH: 2.3 MILES

HIGHWAY: MILE 6

LIMITS: FROM MILE 9 TO 0.3 MI. NORTH OF MILE 11

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.

STATE shall mean Texas Department of Transportation.

LPA (Local Public Agency) shall mean The COUNTY OF HIDALGO.

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

SECTION 5 - RIGHT-OF-WAY DATA
(Function Code 130)

Services
Provided By:
SURVEYOR LPA

ROW MAP FOR 11 PARCELS

NOTE: No work involving right-of-way (ROW) data is to be performed until the ENGINEER has given the SURVEYOR written approval of the final location of the proposed ROW lines as approved by TxDOT and the LPA.

A. RIGHT-OF-WAY MAPPING:

1. PURPOSE:

The purpose of right-of-way mapping is to prepare documents suitable for the acquisition of real property interests and the probable issuance of a title policy.

2. DEFINITIONS:

For purposes of this Contract, the following definitions shall apply:

- 2.1. Abstract Map – A drawing to scale prepared from record documents depicting proposed right-of-way lines, existing right-of-way lines, easement lines, and private property lines with relevant grantee names, recording data, and recording dates.
- 2.2. Closure/Area Calculation Sheet – A computer generated print-out of the area and the perimeter bearings, distances, curve data, and coordinates of an individual parcel of land to be acquired.
- 2.3. Access Denial Line – A line which indicates specific location where access to the roadway is denied.
- 2.4. Property Descriptions – A written metes and bounds description delineating the area and the boundary and describing the location of an individual parcel of land unique to all other parcels of land.
- 2.5. Owner – The most current title holder of record as determined by a study of the Real Property Records.
- 2.6. Parcel Plat – An 8 ½ inch by 11 inch drawing to scale depicting all the information shown on the right-of-way map regarding an individual parcel of land to be acquired.
- 2.7. Parent Tract – A unit or contiguous units of land under one ownership, comprising a single marketable tract of land consistent with the principle of highest and best use. A parent tract may be described by a single instrument or several instruments. A single parent tract cannot be severed by a public right-of-way, easement, or separate ownership which destroys unity of use.
- 2.8. Parent Tract Inset – A small line drawing, to an appropriate scale, of the parent tract perimeter placed upon the right-of-way map in the proximity of the respective parcel. Parent tract insets are used in cases where the parent tract cannot be shown to the same scale as the right-of-way map. Since parent tract insets are used to identify the limits and location of parent tracts, they should include public right-of-ways, utility easements and fee strips, and identifiable water courses which bound the parent tract.
- 2.9. Point of Beginning (P.O.B.) – A corner of the parcel of land to be acquired, located on the proposed right-of-way line and being the beginning terminus of the first course of the property description.
- 2.10. Point of Commencing (P.O.C.) – A monumented property corner which can be identified in the Real Property Records and is located outside the proposed right-of-way corridor. For title purposes, the point of commencing should be a monumented back corner of the parent tract. In the event a monumented back corner of the parent tract cannot be recovered, the nearest identifiable monumented property corner located outside the proposed right-of-way corridor may be used.

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

Services
 Provided By:
SURVEYOR LPA

- 2.11. Preliminary Right-of-Way Layout/Abstract Map – A drawing to scale depicting proposed right-of-way lines, existing right-of-way lines, proposed pavement, access denial lines, the proposed centerline alignment, private property lines, easement lines, visible improvements, visible utilities, the station and offset from the centerline alignment to each Point of Curvature (PC), Point of Tangency (PT), and angle point in the proposed right-of-way lines and to each PC, PT, and angle point in the existing right-of-way lines in areas of no proposed acquisition. *(Reference Sample Attached)*
- 2.12. Right-of-Way Maps/Property Description/Parcel Plats – A series of 22 inch by 34 inch and 11 inch by 17 inch drawings to scale depicting the results of relevant elements of records research, field work, analysis, computation, and map making required to determine title, delineate areas and boundaries, locate and describe utilities and improvements to the extent necessary to appraise the value and negotiate the acquisition of individual parcels of private land for a proposed right-of-way project. *(Reference Sample Attached)*

3. WORK TO BE PERFORMED:

YES NO

3.1. Preliminary Right-of-Way Layout/Abstract Map: **(est. 11 Parcels along Mile 11 and North of Mile 11)**

An abstract map shall be prepared sufficient to determine the following:

- 3.1.1. Any and all interests of public record held in the land to be acquired.
- 3.1.2. The total record holdings of an owner contiguous to land to be acquired from that owner.
- 3.1.3. Any and all interests in land to be acquired held in common (shopping mall parking lots, subdivision reserves, etc.)
- 3.1.4. Any and all improvements proposed by other agencies which may have a bearing on project development.
- 3.1.5. All called monuments, bearings, and distances as per recorded information.
- 3.1.6. Preliminary Parcel numbering system.
- 3.1.7. Any and all utilities (permitted or of record)
- 3.1.8. Reference Sample provided.

YES NO

3.2. Right-of-Way Map: **(est. 11 Parcels)**

The SURVEYOR shall field locate property corners, existing right-of-way markers, improvements, visible utilities, verify and update the planimetric file, if provided, and as directed by the ENGINEER.

A right-of-way map shall be prepared for each proposed right-of-way project. A right-of-way map shall include a title sheet, an index sheet, a survey control index sheet, a horizontal and vertical control data sheet, and sufficient plan sheets to cover the proposed project, or as directed by the ENGINEER. The STATE has developed standard title sheets, index sheets, and plan sheets, copies of which the SURVEYOR shall request and secure for all purposes of this Contract. Plan sheets shall include, but need not be limited to, the following items of information.

By mutual agreement between the Texas Board of Professional Land Surveying and the TxDOT, right-of-way maps need not be signed and sealed by a Registered Professional Land Surveyor.

- 3.2.1. Proposed right-of-way lines shall be delineated with appropriate bearings, distances, and curve data. Curve data shall include the radius, delta angle, arc length, and long chord bearing and distance.
- 3.2.2. Existing right-of-way lines shall be delineated with appropriate bearings, distances, and curve data to the extent necessary to describe the individual parcels of land to be acquired. Curve data shall include the radius, delta angle, arc length, and long chord bearing and distance.

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

Services	
Provided By:	
<u>SURVEYOR</u>	<u>LPA</u>
YES	NO

3.2 *Right-of-Way Map Continued (continued)*

- 3.2.3. The proposed project baseline alignment shall be delineated with appropriate bearings, distances, and curve data. Curve data shall include the station of the curve Point of Intersection (PI), radius, delta angle, arc length, tangent length, long chord bearing and distance, and the N and E coordinates of the curve PI. All alignment PCs, PTs, and even 500 foot stations shall be labeled as to station.
- 3.2.4. Proposed paving lines combined with relevant existing paving lines shall be shown to the extent necessary to compile a complete picture of proposed traffic movements. Proposed paving on the final mylars submitted to the ENGINEER shall be shaded with a dot pattern or highlighted by some other means acceptable to the ENGINEER.
- 3.2.5. Access denial lines shall be shown sufficiently to indicate areas where access is to be denied and where access is to be permitted if required by the ENGINEER.
- 3.2.6. Private property lines shall be delineated with appropriate bearings, distances, and curve data to the extent necessary to describe the individual parcels of land to be acquired. Curve data shall include the radius, delta angle, arc length, and long chord bearing and distance.
- 3.2.7. Porción lines, subdivision lines and survey lines shall be shown and identified by name and Porción number.
- 3.2.8. County lines and city limit lines shall be located and identified by name.
- 3.2.9. A north arrow shall be shown on each sheet, and, if possible, located in the upper right corner of the sheet.
- 3.2.10. Monumentation set or found shall be shown and described as to material and size.
- 3.2.11. A station and offset shall be shown for each PC, PT, and angle point in the proposed right-of-way lines. Stations and offsets shall be with respect to the proposed centerline alignment.
- 3.2.12. Intersecting and adjoining public right-of-ways shall be shown and identified by name, right-of-way width, and recording data.
- 3.2.13. Railroads shall be shown and identified by name, right-of-way width, and recording data.
- 3.2.14. Utility corridors shall be identified as to easement or fee and recording information shall be identified.
- 3.2.15. Easements and fee strips shall be shown and identified by width, owner, distance of easement to a property corner of the parent track, and recording data.
- 3.2.16. Building lines or set-back lines shall be shown and identified.
- 3.2.17. Visible improvements located within the proposed right-of-way corridor or within 50 feet of a proposed right-of-way line shall be shown and identified.
- 3.2.18. Structures shall be identified as commercial or residential, by number of stories, and as to type (brick, wood frame, etc.).
- 3.2.19. Structures which are severed by a proposed right-of-way line shall be dimensioned to the extent necessary to completely delineate the severed parts.
- 3.2.20. Parking areas, billboards, and other on-premise signs which are severed by a proposed right-of-way line shall be dimensioned to the extent necessary to delineate that portion of the parking area, billboard, or sign which is located within the proposed right-of-way corridor.
- 3.2.21.

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

Services	
Provided By:	
<u>SURVEYOR</u>	<u>LPA</u>
YES	NO

3.2 *Right-of-Way Map Continued (continued)*

- 3.2.22. In cases where structures are located outside the proposed right-of-way corridor and within 25 feet of a proposed right-of-way line, the shortest distance between the structure and the proposed right-of-way line shall be shown and field verified.
- 3.2.23. Visible utilities located within the proposed right-of-way corridor or within 50 feet of a proposed right-of-way line shall be shown and identified.
- 3.2.24. The location of underground utilities and fuel storage tanks situated within the proposed right-of-way corridor or within 50 feet of a proposed right-of-way line shall be determined and shown as required by the ENGINEER. The visible location of stand pipes, vents and filler caps in conjunction with available design and as-built drawings may be used to determine a most probable location and size in the event an actual location is indeterminable.
- 3.2.25. Points of commencing and points of beginning shall be shown and labeled. Points of beginning shall be shown with their respective N and E surface coordinates. As an exception, a point of commencing will not be required in the case of a total taking without a remainder.
- 3.2.26. Each parcel of land to be acquired shall be identified by a parcel number which shall appear in the ownership tabulation and on the right-of-way map in the proximity of the respective parcel. If the SURVEYOR is unfamiliar with the criteria used by the STATE to assign parcel numbers, he shall seek the assistance of the ENGINEER at the time the abstract map is complete. THE SURVEYOR SHALL SEEK ASSISTANCE FROM THE ENGINEER IN DEVELOPING AN OWNERSHIP TABULATION TABLE.
- 3.2.27. An ownership tabulation shall be shown which shall include the parcel number, existing area of the parent tract, lot(s) and block(s) constituting the parent tract when applicable, owner's name, type of conveyance, film code, county clerk's file number, taking area, and remaining area of the parent tract located left and/or right of the centerline alignment. Types of conveyance, film code and file numbers refer to conveyances into the STATE and will be added to the right-of-way map by the STATE at a later date. Several blank lines shall be provided in the tabulation block to facilitate future map additions.
- 3.2.28. A parent tract inset shall be shown for each parent tract which cannot be shown to scale on the right-of-way map. The use of broken scale lines should be avoided. When parent tract insets are used, the point of commencing with the appropriate bearing and distance to the point of beginning may be shown on the parent tract inset.
- 3.2.29. A note shall be included on the title sheet and each map sheet stating the source of bearings, coordinates, and datum used.
- 3.2.30. Appropriate notes shall be included on the title sheet and each map sheet stating the following:
- a. Month(s) and year abstracting upon which the map is based.
 - b. Month(s) and year field surveys were conducted upon which the map is based.
 - c. Month and year the map was completed by the SURVEYOR.
- 3.2.31. The right-of-way CSJ number, if available, shall be shown on each right-of-way map sheet.

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

Services
Provided By:
SURVEYOR LPA

3.3. Exhibits:

An Exhibit shall be prepared for each parcel or tract consisting of a property description and a parcel plat.

YES NO

3.3.1. Property Description:

A property description shall be prepared for each parcel of land to be acquired. Standard formats for property descriptions, copies of which the SURVEYOR shall request to the ENGINEER and secure for all purposes of this Contract. Property descriptions shall include, but need not be limited to, the following items of information.

All property descriptions shall be signed and sealed by a Registered Professional Land Surveyor. The property description shall begin with a general description which shall include as a minimum:

- a. State, County, and Survey within which the proposed parcel of land to be acquired is located.
- b. A reference to unrecorded and recorded subdivisions by name, lot, block, and recording data to the extent applicable.
- c. A reference by name to the grantor and grantee, date and recording data of the most current instrument(s) of conveyance describing the parent tract. Use execution dates in deed references as opposed to recording or filing dates. In any case, the property description shall make clear which date is being used.

The property description shall continue with a metes and bounds description which shall include as a minimum:

- d. A point of commencing.
- e. A point of beginning with the appropriate N and E surface coordinates.
- f. A series of courses, identified by number and proceeding in a clockwise direction, describing the perimeter of the parcel of land to be acquired, and delineated with appropriate bearings, distances, and curve data.

Curve data shall include the radius, delta angle, arc length, and long chord bearing and distance. Each course shall be identified either as a proposed right-of-way line, and existing right-of-way line, or a property line of the parent tract. Each property line of the parent tract shall be described with an appropriate adjoiner call.

- g. A description of all monumentation set or found shall include, as a minimum, size and material.
- h. A reference to the source of bearings, coordinates, and datum used.

YES NO

3.3.2. Parcel Plat:

A parcel plat shall be prepared for each parcel of land to be acquired. The STATE has developed standard formats for parcel plats, copies of which the SURVEYOR shall request from the ENGINEER and secure for all purposes in this Contract. Parcel plats shall include each and every item of information shown on the right-of-way map which concerns the individual parcel. All parcel plats shall be signed and sealed by a Registered Professional Land Surveyor.

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

Services
 Provided By:
SURVEYOR LPA

4. DELIVERABLES:

In preparing right-of-way maps, the following is an outline of the work to be submitted (records should be delivered in a binder):

- | | | |
|-----|----|--|
| YES | NO | 4.1. An Abstract Map of the current record title holders included in the Preliminary Map showing the proposed schematic and existing right-of-way as per General Specifications defined in 2.11. |
| YES | NO | 4.2. A Right-of-Way map for the project limits under cover of Title Sheet, Index Sheet, Control Data Sheet, and Exhibits of the property descriptions and parcel plats as per General Specifications defined in 2.12, 3.2 and 3.3.
<u>ROW Map Submittal Requirements:</u>
4.2.1. Two (2) paper sets of half-size ROW maps (11"x 17")
4.2.2. One (1) paper set of the full-size ROW maps (22"x 34")
4.2.3. Four (4) sets of original metes & bounds descriptions (field notes) with parcel plats (signed & sealed by the surveyor). <i>Do not include traverse sheet.</i>
4.2.4. City requires one (1) electronic copy of the ROW Map on a CD, and One (1) copy of the DGN electronic file on a CD from the surveyor- Both the electronic copy of the ROW Map and the DGN file can be on one CD.
<u>IF Roadway is ON-SYSTEM and after Administrative Approval of the ROW Maps by Division (REVISIONS) Submittal Requirements:</u>
4.2.5. Two (2) paper sets of the half-size of the affected ROW map sheets (11"x17"), detailing the <u>revision</u>
4.2.6. One (1) paper set of the full-size of the affected ROW map sheets (22"x 34"), detailing the <u>revision</u>
4.2.7. Four (4) sets of any <u>revised</u> original metes & bounds descriptions (field notes) with parcel plats (signed & sealed by the surveyor). <i>Do not include traverse sheet.</i>
4.2.8. Division needs one (1) electronic copy of the <u>revised</u> ROW Map sheets on a CD, and
4.2.9. One (1) copy of the DGN electronic file on a CD from the surveyor- detailing the <u>revision</u> -Both the electronic copy of the <u>revised</u> ROW Map sheets and the DGN file can be on one CD. |
| YES | NO | 4.3. Appropriate monuments on the proposed right-of-way lines at intersecting property lines, and at all PCs, PTs, angle points, intersecting right-of-way lines of side streets, and at 1,000 foot stations of the proposed centerline alignment. |
| YES | NO | 4.4. Appropriate monuments on the existing right-of-way lines in areas of no acquisition at all PCs, PTs, angle points, and 1,000 foot stations, and as directed by the ENGINEER of the proposed centerline. |
| YES | NO | 4.5. A SURVEYOR's report, outlining the approach, reasons or basis for the existing right-of-way determination, and conclusions made. |
| YES | NO | 4.6. Records used to establish ownership. |
| YES | NO | 4.7. ROW and parcel filed notes signed and sealed by a RPLS. |
| YES | NO | 4.8. Computation sheets of survey closures, ground surveys, etc. used to develop plats and meets and bound information. |
| YES | NO | 4.9. Items indicated under the Automation Requirements Section 6. |
| YES | NO | 4.10 Completed (Attached) Checklist with submittal of ROW Map etc. |

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

Services
 Provided By:
SURVEYOR LPA

5. GENERAL REQUIREMENTS:

For purposes of this Contract, the following general requirements shall apply:

YES NO

- 5.1. Copies of instruments of record submitted to the ENGINEER shall be indexed by parcel number.
- 5.2. Coordinates appearing on right-of-way maps, on parcel plats, and in property descriptions shall be surface coordinates based on the Texas State Plane Coordinate System. The combined adjustment factors (sea level factor x scale factor) which have been developed by the STATE for its use are as follows:
 - 5.2.1. In (List Applicable Counties): Counties (----- Zone), grid coordinates are multiplied by a combined adjustment factor of 1.xxxxxx to obtain surface coordinates. For work in Counties other than those listed, the ENGINEER will provide the combine adjustment factor.
- 5.3. Line and curve tables may be used when necessary.
- 5.4. The number of centerline alignment stations to be shown on a single plan sheet shall be restricted to the extent necessary to allow approximately 4 inches between match lines and sheet borders for future details and notes.
- 5.5. A minimum 4 inch by 4 inch space shall be reserved at the bottom right corner of each map sheet for future revision notes.

6. AUTOMATION REQUIREMENTS:

In addition to standard hard copy plots and mylar copies, the following will be required electronically:

YES NO

- 6.1. Right-of-way maps and parcel plats shall be prepared using a *Micro Station* software graphics system capable of producing graphics files that can be plotted and viewed without further modification or conversion using the State's *Micro Station V8* graphics system.
- 6.2. It is the intent of the ENGINEER to secure graphics files which have elements of equal integrity, singularity, and attributes as elements prepared using the State's *Micro Station V8* graphics system.
- 6.3. For purposes of clarity, consistency, and ease of utilization, the SURVEYOR shall request and secure standards relevant to right-of-way mapping to the extent necessary to ensure that the needs of the ENGINEER are met. This includes, but may not be limited to, TxDOT seed file and corresponding units.def file, TxDOT font resource file, TxDOT GEOPAK SMD file, TxDOT DGNLIB, associated cell libraries and custom line styles, and other files as deemed appropriate for the project.
- 6.4. Graphics files furnished to the ENGINEER by the SURVEYOR shall be submitted on a Compact Disk CD, DVD or USB, in a format compatible with the STATE's computer system. The SURVEYOR shall confer with the ENGINEER regarding acceptable media and formats before making submissions. The SURVEYOR shall request and secure a Consultant File Index form provided by the ENGINEER, to be completed by the SURVEYOR, and to be submitted to the ENGINEER along with the graphics files.
- 6.5. Property descriptions shall be prepared using a computer word processing system capable of producing data files readable using *Microsoft Office Word Version 2007* word processing software.
- 6.6. Data files furnished to the ENGINEER by the SURVEYOR shall be submitted in ACSII format on a CD, DVD or USB.
- 6.7. Provide to the ENGINEER electronic copies of all instruments of record acquired pursuant to a work authorization.

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

Services
Provided By:
SURVEYOR LPA

YES

NO

7. GENERAL SPECIFICATIONS:

For purposes of this Contract, the following general specifications for right-of-way mapping shall apply:

- 7.1. Completed right-of-way maps shall be submitted to the ENGINEER, 22 inches by 34 inches in size with a 21 inch by 32 inch printed border positioned ½ inch from the top, bottom, and right edge of the sheet. Two copies on 11 inch by 17 inch paper will also be supplied to the ENGINEER.
- 7.2. Parcel plats shall be submitted to the ENGINEER on 8 ½ inch by 11 inch bond paper with respective borders of 7 ½ inches by 10 inches, positioned ½ inch from the top, bottom, and right edge of the sheet. Match lines shall be used where more than one sheet is required.
- 7.3. Right-of-way maps shall be drawn to a scale of 1 inch = 50 feet. An appropriate scale other than 1 inch = 50 feet may be used on some proposed right-of-way projects upon prior approval by the ENGINEER.
- 7.4. Since right-of-way maps are reduced in size by one-half for archiving purposes, the smallest size lettering acceptable on a right-of-way map shall be 1/10 of one inch (Leroy #100). A right-of-way map which contains any lettering smaller than 1/10 of one inch will not be accepted by the ENGINEER.
- 7.5. Parcel plats shall be drawn to a preferred scale of 1 inch = 50 feet. An appropriate scale other than 1 inch = 50 feet may be used on some proposed right-of-way projects upon prior approval by the ENGINEER. In the case of a very large parcel which would be difficult to show with clarity on a single 8 ½ inch by 11 inch sheet, the SURVEYOR shall use multiple 8 ½ inch by 11 inch sheets with matching lines.
- 7.6. The smallest size lettering acceptable on a parcel plat shall be 0.06 of an inch (Leroy #60).
- 7.7. Property descriptions shall be submitted on 8 ½ inch by 11 inch bond paper.
- 7.8. Zip-A-Tone or other similar stick-on products shall not be used on right-of-way maps or parcel plats.

8. ADHERENCE TO STANDARDS:

For purposes of clarity, consistency, and ease of understanding, the LPA, as an acquiring agency of private property for public use, has adopted the STATE standards and formats for right-of-way mapping which have proven to facilitate the processes of negotiation, appraisal, relocation assistance, and condemnation. It shall be the responsibility of the SURVEYOR to adhere to these standards and formats to every extent possible to ensure that the needs of the acquiring agency are met.

SAMPLES ATTACHED FC 130:

- PRELIMINARY Right-of-Way Layout / Abstract Map
- Right-of-Way Map, Field Notes, Parcel Sketches and Area Computation Sheets

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

- Property descriptions i.e., lot, block, tract, subdivision, etc...
- Identify existing and proposed access denial locations (*if applicable*)

Proposed information:

- #5- 2-ft iron road set monumentation i.e. P.C., P.T., Break Points and 1000' stations at proposed ROW lines and where existing ROW line is the proposed ROW.
- Survey and R.O.W. lines
- Basis of bearings
- Parcel bearings and distances correspond with traverse sheet
- Outside ties (P.O.C.) corresponds with field notes
- Point of beginning (P.O.B.) established on proposed R.O.W. line
- Parcel tied to baseline
- Baseline information shown i.e. Stationing, bearings, curve data, etc...
- Conveyance information shown in tables i.e. parcel number, grantors name, amount of take, remainder etc.
- Math checked on remainder

Improvements:

- Improvements bisected or within 25' of proposed R.O.W. line are shown on map with stationing and distance from proposed R.O.W. line. Buildings are labeled and dimensioned.
- Off-premise outdoor advertising signs within proposed R.O.W. are shown and labeled.

Utilities:

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

FIELD NOTES - Heading

- County
- Highway
- Parcel number
- R.O.W. CSJ
- Construction CSJ

General Description or "preamble"

- Area of parcel to be acquired is shown in acreage (0.000) for rural land and/or square feet (to nearest whole sq. ft.) for urban land or smaller parcels

Parent tract data is shown:

- Size of parent tract
- Survey data or lot, block, and subdivision
- Name of last recorded seller and buyer
- Date, volume and page or document number of last recorded conveyance
- Records and county of last recorded conveyance

Beginning Description

- Point of commencement is on outside tie and is described accurately by bearings and distances as it leads to the point of beginning.
- Point of beginning is on proposed R.O.W. line

Particular Description

- Traverse calls are clockwise sequence
- Bearings and distances correspond exactly with map, parcel sketch, and traverse sheet
- Bearings are to nearest whole second and distances are to the nearest one-hundredth of a foot
- Calls are numbered
- Denial of access shall be described from beginning to end (*if applicable*)

Closing Description

- Last call leads back to P.O.B.
- Restates area of parcel

EXHIBIT "B"

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

- Establishes taking in existing road R.O.W. if applicable
- Legal description is referenced to Plat
- Sealed and signed
- Include an access clause whether access is permitted or denied (*if applicable*)

PARCEL SKETCH:

- Shows P.O.B. and P.O.C.
- All data corresponds exactly with Map and Field Notes
- Sheet size is no larger than 8 1/2" x 11"
- Plat closely matches example provided
- Plat referenced to legal description
- Sealed and signed
- Include an access clause whether access is permitted or denied (*if applicable*)
- Existing utility lines and easements (deed reference, if available);

TRAVERSE SHEET

- Computations show area to be acquired in sq. ft. or acres, whichever is applicable
- Computations show area that is existing road R.O.W. if applicable
- Traverse calls are in clockwise sequence
- Error of closure meets the following:

Secondary rural	.0003
Primary rural - secondary urban	.0002
Urban or industrial	.00013

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

SECTION 6 - FIELD SURVEYING AND PHOTOGRAMMETRY

(Function Code 150)

Services
Provided By:
SURVEYOR LPA

DESIGN AND CONSTRUCTION SURVEYS:

PURPOSE:

The purpose of a "design survey" is to provide field information in support of transportation systems design.

The purpose of a "construction survey" is to provide field data in support of highway construction.

DEFINITIONS:

A "design survey" is defined as the combined performance of research, field work, analysis, computation, and documentation necessary to provide detailed topographic (3-dimensional) mapping of a project site. A design survey may include, but need not be limited to, cross-sections or data to create cross-sections and Digital Terrain Models (DTM), horizontal and vertical location of utilities and improvements, detailing of bridges and other structures, review of right-of-way maps, establishing control points, etc.

A "construction survey" is defined as the combined performance of reconnaissance, field work, analysis, computation, and documentation necessary to provide the horizontal and vertical position of specific ground points to be used by the construction contractor for determining lines and grades.

- | | | |
|----|----|--|
| NO | NO | <p>1. Design Surveying</p> <p>a. Primary Project Control – Recover/Verify existing primary points set by TEDSI Between Mile 11 and 0.30 miles north of Mile 11.</p> <p>Precision shall be 1 part in 20,000 or better, unless otherwise directed by the District Engineer.</p> <p>(1) Establish horizontal control points</p> <p>(2) Establish vertical control points</p> <p>NOTE: ALL BEARING AND DISTANCE SHALL BE BASED ON THE STATE PLANE COORDINATE SYSTEM NAD 1983, SOUTH ZONE. ALL DISTANCES AND COORDINATES SHALL BE SURFACE AND MAY BE CONVERTED TO GRID BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999960</p> |
| NO | NO | <p>b. Secondary Project Control – Recover/Verify and set as needed for section from Mile 11 north 0.30 miles. Surveyor shall recover and/or reset H&V Control Points as provided by the Engineer and create Survey Control Data Sheets for inclusion in the Construction Project Plans signed and sealed by an R.P.L.S.</p> <p>(1) No traverse should exceed 25 angle points. Planimetrics shall be 20 ft Lt & Rt from the proposed ROW as per the schematic provided by the Engineer.</p> <p>(2) The unadjusted angular error should not exceed 2 seconds per angle, plus 14 seconds.</p> <p>(3) The unadjusted ratio of precision should be one part in 10,000 or better. (The ratio of precision is the total length of the traverse divided by the total error.)</p> <p>(4) The unadjusted vertical error should not exceed 0.03 foot per mile of traverse.</p> |
| NO | NO | <p>(5) Project control base lines</p> <p>(6) Photogrammetric ground control</p> <p>(a) Establish horizontal control</p> <p>(b) Establish vertical control points</p> <p>(c) Place and maintain control point targets</p> |

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

Services
Provided By:
SURVEYOR LPA

NO NO

c. Other Design Surveying

- (1) **The limit of the Design surveys shall be from Mile 11 north approximately 0.25 miles. Also, need to establish horizontal and vertical control along Mile 6 north of Mile 11.** Set H&V Control at 1000-ft intervals along the project proposed right-of-way. Provide x, y, z for each H&V Control. Provide an H&V Control along each outfall identified on the Hydrologic Map. The H&V Control shall be #5 I.R. 2-ft in depth set in concrete. **The surveyor shall provide an H&V Control Book (a Sample shall be provided by the Engineer to the Surveyor).** The Surveyor will provide a 3-pt reference sketch with ties to the BMs for inclusion the existing H&V Control Book. Establish benchmark circuit throughout the project with a tolerance of 0.03'/ft per mile error vertically.
- (2) Complete topographic and cross section survey, data processing, and CADD mapping (2D & 3D) for the **limits shown above.**
- (3) Locate all visible utilities, data processing and CADD mapping (2D & 3D) including irrigation lines. Follow sample provided by the Engineer.
- (4) Field locate cross culverts, driveway culverts, inverts, irrigation lines, within the project limits, data processing and CADD mapping (2D & 3D).
- (5) Right of Entry, Right of Way Research, and Appraisal District Records is the responsibility of the Surveyor.
- (6) The Surveyor shall stake the proposed centerline on the existing fields as approved by Engineer before construction for the purpose of utility adjustments and project location.
- (7) Profile and cross section intersecting streets for ties into project (500-ft. beyond the proposed ROW per schematic and 20-ft wider than the existing ROW of intersecting street).
- (8) Cross section irrigation crossings for a distance of 20-ft beyond the proposed ROW at 100-ft intervals in a DTM file. Provide a complete description of irrigation appurtances as identified by the engineer sample layout "EXHIBIT E". The SURVEYOR will meet with the ENGINEER before he ties down any irrigation lines. Jointly the SURVEYOR and the ENGINEER will identify from records such as the Irrigation District Maps and the A&M Data of existing irrigation lines that will need to be tied down. The SURVEYOR will follow the sample given to him by the ENGINEER and tie the structures horizontally and vertically and include in the field books to be submitted.
- (9) Tie Horizontally and Vertically the existing storm drain system that lies within the existing proposed ROW including the elevation of the outfall of said recovered existing storm drain systems.
- (10) Tie to existing underground and overhead utilities (location, elevation and direction)
Horizontally – The surveyor shall call the 1-800 number for the utilities to be marked on the ground as well as any city water and sewer lines. He shall tie all visible utility crossings with name, address and Phone #'s of utility companies. The engineer will coordinate with the utility companies and jointly the Surveyor and the Engineer will identify which utilities were missed and need to be tied down.
Vertically – The engineer shall identify all utilities that are potential conflicts and that need to be tied vertically. The engineer will advise the surveyor in writing of the needed vertical ties and the surveyor will tie the lines vertically once the surveyor has coordinated the exposure and provide the information to the engineer.

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

Services
 Provided By:
SURVEYOR LPA

- | | | |
|-----|----|--|
| NO | NO | (11) Cross section and profile all outfall channels identified on the Hydrologic Map for a distance of 200-ft beyond the proposed ROW upstream and downstream at 100-ft intervals. The SURVEYOR will provide a complete 2D/3D File including utilities of the outfalls identified. Identify size and flow lines of structures in outfall D. Tie-down MBGF at Outfall D. |
| | | (12) Driveways and Turnouts |
| | | (a) Inventory commercial entrances, public roads and side streets separately. |
| | | (b) Obtain centerline station. (Width at ROW, PAV'T and existing radius. |
| | | (c) Inventory by type (dirt, caliche, gravel or paved). If paved, indicate condition in terms of no patches, has patches or has potholes. |
| | | (d) Obtain width at R.O.W. line. |
| | | (e) Obtain elevations at both edges of the driveway or turnout in line with the side drain. |
| YES | NO | (13) ROW staking (Existing and Proposed @ 1,000 ft. stations PC's PT's and Angle points as per ROW Map) Need staking of entire Mile 6 limits (from Mile 10 to 0.25 mi. North of Mile 11). |
| NO | NO | (14) Soil core hole staking at bridge class structures. |
| NO | NO | (15) Determine changes in topography from voids and outdated maps due to development, erosion, etc. |
| NO | NO | (16) Profiles of existing drainage facilities. |
| NO | NO | (17) Measurement of hydraulic opening under existing bridges. |
| NO | NO | (18) Obtain elevations of manholes and valves of utilities |
| NO | NO | (19) Provide temporary signs, traffic control, flags, safety equipment, etc. |
| NO | NO | (20) Ties to existing bridges railroad rail elevations or culverts that may conflict with new construction. |
| NO | NO | (21) Bridge widening top of deck and/or top of cap elevations at the Profile Grade Line (PGL) and the edges of slab at bent locations. |
| NO | NO | (22) Inventory signs, mailboxes, and driveways |
| NO | NO | (23) Locate wetlands. |
| NO | NO | (24) Locate existing right-of-ways. |

d. Construction Surveys:

In performing construction surveys, the following will be requested by the ENGINEER on an as needed basis, but need not be limited to:

- | | | |
|----|----|--|
| NO | NO | (1) Stake existing and/or proposed right-of-ways. |
| NO | NO | (2) Stake existing and/or proposed baseline/centerline. |
| NO | NO | (3) Stake proposed bridge structures. |
| NO | NO | (4) Stake proposed drainage structures, such as manholes, culverts, etc. |
| NO | NO | (5) Set grade stakes. |
| NO | NO | (6) Recover and check existing control points. |
| NO | NO | (7) Establish additional control points. |
| NO | NO | (8) Check elevations and locations of structures. |
| NO | NO | (9) Determine and resolve conflicts associated with survey data. |

EXHIBIT "B"

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services
 Provided By:
SURVEYOR LPA
 NO NO

2. **Photogrammetric Products**

- a. Uncontrolled Photography
 - (1) Contact Prints
 - (2) Mosaics
 - (3) Digital ortho plots
- b. Mapping
 - (1) Planimetric Maps
 - (2) Contour Maps
 - (3) Cross Sections
 - (4) Profiles
 - (5) Digital Terrain Models (DTM)

3. **UTILITY SUBSURFACE INVESTIGATION:**

Utility Quality Levels are in cumulative order (least to greatest) as follows

NO NO

3.1. Quality Level C - Existing Records: Utilities are plotted from review of available existing records that will be generated by the Engineer on the schematic and provided to the surveyor for his further creation of a Utility Map which will be turned in as a deliverable as part of this work order.

NO NO

3.2. Quality Level B - Surface Visible Feature Survey: The Surveyor shall gather the field tied Utility Information and compare it to the existing records (if any) as provided by the Engineer and correlate with surveyed surface-visible features. The surveyor shall create a Utility Layout Map or plan layout 2D, showing the limits of the proposed project and limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right of way. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations. The Layout Map will include all utilities that have been field tied - 2D Horizontal Utilities. This Layout will be provided to the Engineer and a meeting held with Engineer to identify which utilities will need to be tied down vertically. A note must be placed on the designate deliverable only that states "lines sizes are from best available records". All above ground appurtenance locations must be included in the deliverable to the Engineer. This information will be provided in the latest version of Micro Station or Geopak used by the State. The electronic file will be delivered on C.D. or DVD. A hard copy is required and must be signed, sealed, and dated by the Surveyor. Note: Determine and inform the Engineer of the approximate utility depths at critical locations. This depth indication is understood by the Engineer to be approximate only and is not intended to be used for preparing the construction plans.

NO NO

3.3. Subsurface Utility Locate (Test Hole) Service (Quality Level A), THE SURVEYOR SHALL ESTIMATE LOCATING VERICALLY 25 UTILITES PER MILE OR AS IDENTIFIED BY THE ENGINEER. Locate shall mean to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that ensures the integrity of the utility facility. Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B and C. The Surveyor shall:

3.3.1 Review the requested test hole locations that have been identified by the Engineer and Coordinate with utility owner inspectors as may be required by law or utility owner policy.

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

Services
 Provided By:
SURVEYOR LPA

3. *Utility Subsurface (continued)*
 - 3.3.2 Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:
 - Elevation of top and/or bottom of utility tied to the datum of the furnished plan.
 - Identify a minimum of two benchmarks utilized. Elevations shall be within an accuracy of 15mm (.591 inches) of utilized benchmarks.
 - Elevation of existing grade over utility at test hole location.
 - Horizontal location referenced to project coordinate datum.
 - Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
 - Utility facility material(s).
 - Utility facility condition.
 - Coating/Wrapping information and condition.
 - Unusual circumstances or field conditions.
 - 3.3.3 Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation can only be utilized with written approval from the appropriate State District Office.
 - 3.3.4 Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material. The Engineer shall be responsible for the integrity of the backfill and surface restoration for a period of three years. Install a marker ribbon throughout the backfill.
 - 3.3.5 Provide complete restoration of work site and landscape to equal or better condition than before excavation.
 - 3.3.6 Plot utility location position information on the Utility Layout sheet and identify the vertical elevation and sealed by the responsible Surveyor. This information will be provided in the latest version of Micro Station or Geopak format used by the State. The electronic file will be delivered on C.D or DVD.

4. DELIVERABLES:

The deliverables to be specified in individual work authorizations for design surveys and construction surveys may be any combination of the following:

- | | | |
|----|----|--|
| NO | NO | 4.1. Digital Terrain Models (DTM) in a format acceptable by the ENGINEER. |
| NO | NO | 4.2. Final H&V Field Book Binder with all pertinent information obtained in the field for Design Surveys. Maps, plans, or sketches prepared by the SURVEYOR showing the results of field surveys. |
| NO | NO | 4.3. Computer printouts or other tabulations summarizing the results of field surveys. |
| NO | NO | 4.4. Digital files or media acceptable by the ENGINEER containing field survey data. |
| NO | NO | 4.5. Maps, plats, plans, sketches, or other documents acquired from utility companies, private corporations, or other public agencies, the contents of which are relevant to the survey. |
| NO | NO | 4.6. Field survey notes, as electronic and/or hard copies. |
| NO | NO | 4.7. A H&V Control Book identifying the basis of the Primary and Secondary Control and an 8 ½ inch by 11 inch survey control data sheet for each construction control point which shall include, but need not be limited to, a location sketch, a physical description of the point including a minimum of two reference ties, surface coordinates, a surface adjustment factor, elevation, and the horizontal and vertical datums used. Survey control data sheets shall be signed and sealed by the supervising Registered Professional Land Surveyor. |

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

Services
Provided By:
SURVEYOR LPA

4. *Deliverables (continued)*
- | | | |
|----|----|--|
| NO | NO | 4.8. Final mylar set of 11 inch by 17 inch Survey Control data sheets sign and seal by the RPLS per TxDOT guidelines. |
| NO | NO | 4.9. A digital and/or hard copy of all computer printouts of horizontal and vertical conventional traverses, GPS analysis and results, data including property descriptions with field notes and plats, right-of-way maps, and survey control data sheets to include in the H&V Field Book Binder. |
| NO | NO | 4.10. Survey reports in a format requested by the ENGINEER. |
| NO | NO | 4.11. Items indicated under the Automation Requirements Section 6. |

5. **GENERAL REQUIREMENTS:**

- 5.1. Design surveys and construction surveys shall be performed under the supervision of a Registered Professional Land Surveyor currently registered with the Texas Board of Professional Land Surveying.
- 5.2. Horizontal ground control used for design surveys and construction surveys, furnished to the SURVEYOR by the ENGINEER or based on acceptable methods conducted by the SURVEYOR, shall meet the standards of accuracy required by the STATE.
- 5.3. Reference may be made to standards of accuracy for horizontal control traverses, as described in the FGCS Standards and Specifications for Geodetic Control Networks, latest edition, the TxDOT Survey Manual, latest edition, the TxDOT GPS Manual of Practice, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.
- 5.4. Vertical ground control used for design surveys and construction surveys, furnished to the SURVEYOR by the ENGINEER or based on acceptable methods conducted by the SURVEYOR, shall meet the standards of accuracy required by the ENGINEER.
- 5.5. Reference may be made to standards of accuracy for vertical control traverses, as described in the FGCS Standards and Specifications for Geodetic Control Networks, latest edition, the TxDOT Survey Manual, latest edition, the TxDOT GPS Manual of Practice, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.
- 5.6. Side shots or short traverse procedures used to determine horizontal and vertical locations shall meet the following criteria:
- Side shots or short traverses shall begin and end on horizontal and vertical ground control as described above.
 - Standards, procedures, and equipment used shall be such that horizontal locations relative to the control may be reported within the following limits:
 - Bridges and other roadway structures: less than 0.1 of one foot.
 - Utilities and improvements: less than 0.2 of one foot.
 - Cross-sections and profiles: less than 1 foot.
 - Bore holes: less than 3 feet.
 - Standards, procedures, and equipment used shall be such that vertical locations relative to the control may be reported within the following limits:
 - Bridges and other roadway structures: less than 0.02 of one foot.
 - Utilities and improvements: less than 0.1 of one foot.
 - Cross-sections and profiles: less than 0.2 of one foot.
 - Bore holes: less than 0.5 of one foot.

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

Services
Provided By:
SURVEYOR LPA

5. **AUTOMATION REQUIREMENTS:**

- 6.1 Planimetric design files (DGN) shall be fully compatible with the State's *Micro Station V8* graphics program without further modification or conversion.
- 6.2 Electronically collected and processed field survey data files shall be fully compatible with the State's *CADD* systems without further modification or conversion. All files shall incorporate only those feature codes currently being used by the STATE.
- 6.3 Digital Terrain Models (DTM) shall be fully compatible with the STATE's *GEOPAK* system without further modification or conversion. All DTM files shall be fully edited and rectified to provide a complete digital terrain model with all necessary break lines.

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

ADDITIONAL RESPONSIBILITIES

A. **TRAFFIC CONTROL:**

The SURVEYOR shall control traffic in and near surveying operations adequately to comply with provisions of the latest edition of the TxDOT Manual on Uniform Traffic Control Devices – Part VI and the latest edition of the Occupational Safety Manual both of which can be found on the TxDOT internet site.

In the event field crew personnel must divert traffic or close traveled lanes, a Traffic Control Plan based upon principles outlined in the latest edition of the TxDOT Manual on Uniform Traffic Control Devices – Part VI shall be prepared by the SURVEYOR and approved by the ENGINEER prior to commencement of field work. A copy of the approved plan shall be in the possession of field crew personnel on the job site at all times and shall be made available to the ENGINEER for inspection upon request.

B. **INVOICING:**

Payment requests shall include a SURVEYOR's invoice. With each payment request, the SURVEYOR shall submit a project status report which will, as a minimum, include the percentage of total work complete as of the date of the payment request and a description of current work activity. The percentage of total work complete shall not be based simply on the percentage of funds expended, but shall be based on the best judgment of the SURVEYOR as to the percentage of actual work complete.

C. **EASEMENTS, LETTERS OF PERMISSION, ETC.**

The SURVEYOR shall be responsible for delineating easements. The SURVEYOR will be responsible for securing the necessary legal instruments and obtaining all Right-of-Entries (ROEs).

D. **MEETINGS:**

The ENGINEER shall setup the necessary meetings with the SURVEYOR in order to assure all field information is provided on-time and products are delivered in accordance with TxDOT's specifications. SURVEYOR must attend all meetings involving data provided if requested by ENGINEER.

E. **PROJECT MANAGER/SURVEYOR COMMUNICATION:**

The SURVEYOR shall designate one Texas Registered Professional Land Surveyor (RPLS) to be responsible throughout the project for project surveying coordination and all communications, including billing, with the ENGINEER.

F. **OFFICE LOCATION:**

The SURVEYOR will perform the services to be provided under this agreement out of a local office and have a crew available to perform requested tasks within 24 hours of request. The coordinating SURVEYOR's Project Manager (RPLS) shall be accessible at all times and working from the local office.

EXHIBIT "B"

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 13 - FC 600 – ACQUISITION PROVIDER SERVICES
(for EST. 11 PARCELS AND 0 RELOCATIONS/DISPLACEMENTS) +
(APPRAISALS/REVIEWS ONLY FOR 37 PARCELS)

(Services to be provided by L&G Engineering)

Services
Provided By:
ENGINEER LPA

- | | | |
|-----|----|---|
| YES | NO | 1) PROJECT ADMINISTRATION |
| YES | NO | a) Negotiation of Scope of Services for Work Authorization
i) Acquisition Provider will visit project site with COUNTY personnel if necessary. |
| YES | NO | b) Project Presence at L&G Consultant Office Headquarters
i) Full Project Office
(1) No Joint Use of COUNTY facilities
(2) Open during normal COUNTY work hours
(3) Personnel available to answer questions
(4) Availability of Project Files
(5) At least one office staff member is required to be a current commissioned notary public. |
| YES | NO | c) Overhead Costs
i) Administrative costs |
| YES | NO | d) Communication
i) Provide monthly progress reports with invoice.
ii) Participate in project review meetings as determined by the COUNTY.
iii) Prepare initial property owner contact list for use by the COUNTY in distribution of Acquisition Provider introduction letters.
iv) Prepare and Mail via Certified, Return Receipt Requested method, all introduction letters for each individual parcel. |
| YES | NO | e) File Management
i) Project and parcel files will be kept in the COUNTY's Office, if necessary. Working files will be kept in the Acquisition Provider's project administrative office, but documents generated or received by the Acquisition Provider will be forwarded to the COUNTY office as they are generated or received by the Acquisition Provider, if necessary.
ii) Prepare payment transmittal request utilizing standard payment submissions forms with supporting documentation.
iii) Maintain records of all payments including check number, amount, and date paid, etc.
iv) Provide copies of all incoming and outgoing correspondence as generated if requested by COUNTY at provider conference.
v) Maintain copies of all correspondence and contacts with property owners. |
| YES | NO | 2) TITLE SERVICES |
| YES | NO | a) Secure preliminary title commitments from the Title Company that will be providing title insurance. Cost of preliminary title commitments will be paid by the Acquisition Provider (if requested by the title company) and will be included in the Acquisition Provider's scope of work for payment and paid as a separate item. |
| YES | NO | b) Secure title commitment updates in accordance with insurance rules and requirements for parcel payment submissions. Cost of title commitment updates will be paid by the Acquisition Provider (if requested by the title company) and will be included in the Acquisition Provider's scope of work and paid as a separate item. |
| YES | NO | c) Secure title insurance for all parcels acquired, insuring acceptable title to COUNTY OF HIDALGO. Written approval by the COUNTY required for any exception. |

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

Services Provided By:		
<u>ENGINEER</u>	<u>LPA</u>	
		3) APPRAISAL
YES	NO	a) Appraiser may be selected from TxDOT's Department Certificate for Professional Real Estate Appraisers. This list will be available for review at all District offices or at the Right of Way Division Office at 118 E. Riverside Drive, Austin, Texas, upon request.
YES	NO	b) Secure written permission (if necessary) from the owner to enter the property from which land is to be acquired. If the Acquisition Provider and/or the fee appraiser, after diligent effort, are unable to secure the necessary letter of permission from the property owner, a waiver must be obtained, in writing from the COUNTY. Maintain permission letters with appraisal reports.
YES	NO	c) Prepare (if necessary) pre-appraisal contact with interest owner(s) for each parcel using acceptable COUNTY forms.
YES	NO	d) Contact property owners or their designated representative to offer opportunity to accompany the appraiser on the appraiser's inspection of subject property. Maintain record of contact in file.
YES	NO	e) Prepare complete appraisal report for each parcel to be acquired utilizing TxDOT Forms No. ROW-A-5 and ROW-A-6 as applicable. These reports shall conform to COUNTY policies and procedures along with the Uniform Standards of Professional Appraisal Practices.
YES	NO	f) As necessary, prepare written notification to COUNTY of any environmental concerns associated with the right of way to be acquired which could require environmental remediation.
YES	NO	g) All completed appraisals will be administratively reviewed by L&G Engineering ROW Office and recommended for approval by COUNTY.
YES	NO	h) As necessary, the appraiser will appear and or testify as an Expert Witness in eminent domain proceedings and be available for pre-hearing /pre-trial meetings as directed by L&G Engineering and/or COUNTY.
YES	NO	i) As necessary, the appraiser will coordinate with review appraiser regarding revisions, comments, or additional information that may be required.
YES	NO	j) The cost of the appraiser appearing as an expert witness for testimony at special commissioners hearing must be included in the proposed fee schedule for the appraiser. The cost of the appraiser's expert witness testimony for trial is not part of this contract, and shall be paid by the COUNTY.
		4) APPRAISAL REVIEW
YES	NO	a) Review Appraiser may be selected from TxDOT's from TxDOT's Department Certificate for Professional Real Estate Appraisers. This list is available for viewing at all District offices or the Right of Way Division office at 118 E. Riverside Drive, Austin, Texas upon request.
YES	NO	b) Review all appraisal reports for each parcel to determine consistency of values, supporting documentation related to the conclusion reached and compliance with COUNTY policies and procedures and the Uniform Standards of Professional Appraisal Practices.
YES	NO	c) Prepare and submit to COUNTY the Form ROW-RTA-10 "Tabulation of Values", for each appraisal.

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

Services
 Provided By:
ENGINEER LPA

- | | | |
|-----|----|---|
| YES | NO | d) The cost of the review appraiser appearing as an expert witness for testimony at special commissioners hearing must be included in the proposed fee schedule for the review appraiser. The cost of the appraiser's expert witness testimony for trial is not part of this contract, and shall be paid by the COUNTY. |
| | | 5) APPRAISAL UPDATES |
| YES | NO | a) Prepare complete appraisal update for the parcel to be acquired utilizing TxDOT Form No. ROW-A-5. These reports shall conform to COUNTY policies and procedures along with the Uniform Standards of Professional Appraisal Practices. |
| YES | NO | b) As necessary, prepare written notification to COUNTY of any environmental concerns associated with the right of way to be acquired which could require environmental remediation. All completed appraisals will be administratively reviewed by L&G Engineering Right of Way Office and recommended for approval by COUNTY. |
| YES | NO | c) As necessary, the appraiser will appear or testify as an Expert Witness in eminent domain proceedings and be available for pre-hearing or pre-trial meetings as directed by the COUNTY. |
| YES | NO | d) The cost of the appraiser appearing as an expert witness for testimony at special commissioners hearing must be included in the proposed fee schedule for the appraiser. The cost of the appraiser's expert witness testimony for trial is not part of this contract, and shall be paid by the COUNTY. |
| YES | NO | e) As necessary, the appraiser will coordinate with the review appraiser regarding corrections and/or additional information that may be required. |
| | | 6) NEGOTIATION, TASKS AND FEES (Negotiations of Providers must be licensed as either a broker or sales agent under the Real Estate License Act) |
| YES | NO | a) Analyze appraisal and appraisal review reports and confirm the COUNTY's approved value prior to making offer for each parcel. |
| YES | NO | b) Analyze preliminary title report to determine potential title problems, propose methods to cure title deficiencies. |
| YES | NO | c) Prepare the initial offer letter, instruments of conveyance, and any other documents required or requested by COUNTY on applicable COUNTY forms. |
| YES | NO | d) Mail (Certified Mail Return Receipt Requested) initial offer letter, draft deed, Bill of Rights Brochures, Acknowledgement of Appraisal and Appraisal Reports to address confirmed with the Appraisal District of Hidalgo County. Maintain follow-up contacts and secure the necessary instruments upon acceptance of the offer for the closing. |
| YES | NO | e) Provide a copy of the appraisal report for the subject property exclusively to the property owner or authorized representative at mailing of initial offer. Maintain original signed Receipt of Appraisal. (unless property owner refuses to sign it). |
| YES | NO | f) Respond to property owner inquiries verbally and in writing within two business days. |
| YES | NO | g) Prepare a separate negotiator contact report for each parcel per contact. |

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

Services
 Provided By:
ENGINEER LPA

- | | | |
|-----|----|---|
| YES | NO | h) Maintain parcel files of original documentation related to the purchase of the real property or property interests. |
| YES | NO | i) Advise property owner on the Administrative Settlement process. Transmit to COUNTY any written counter offer from property owners including supporting documentation, and provider recommendation with regard to Administrative Settlements in accordance with COUNTY policy and procedures. |
| YES | NO | j) Prepare final offer letter, documents of conveyance as necessary. |
| YES | NO | k) Appear and provide Expert Witness testimony as an Acquisition Provider when requested. |
| YES | NO | l) Meet at the L&G Engineering ROW office in Mission once per week as agreed-upon with the Right of Way Acquisition Manager/Administrator. |
| YES | NO | m) Provide a monthly progress report per parcel by the 25th of the month with invoice. |
| YES | NO | n) The consultant estimates 20% of the parcels to be acquired through the condemnation proceedings. The consultant shall be available for any meeting/hearings as requested by the COUNTY Attorney. |
| | | 7) CLOSING SERVICE FEES |
| YES | NO | a) Coordinate with COUNTY and Title Company to obtain an updated title commitment along with other Forms and certified copy of the instrument of conveyance necessary when requesting the Parcel Payment from the COUNTY. |
| YES | NO | b) Acquisition Provider shall attend closings and provide closing services in conjunction with Title Company. |
| YES | NO | c) Acquisition Provider shall record all original instruments immediately after closing at the respective County Clerk's Office, except for donations which must be forwarded to COUNTY for acceptance by the COUNTY. |
| | | 8) RELOCATION ASSISTANCE SERVICES (separate Work Authorization will be issued once relocations have been identified, unless noted otherwise). |
| N/A | NO | a) The amount of relocations or displacements as identified. L&G will provide relocation advisory services. L&G will compute replacement housing supplements (owner occupant and/or tenants) |
| N/A | NO | b) L&G will provide advisory services to business displacements and relocate them effectively. |
| N/A | NO | c) COUNTY will review, approve and pay for all relocation costs as per the Agreement. |
| | | 9) CONDEMNATION SUPPORT |
| N/A | NO | a) Pre-Hearing Support |
| | | i) Upon receipt of a copy of the final offer, request an updated title commitment for Eminent Domain from the Title Company. |
| | | ii) Prepare a Bisection Clause for the original set of Legal Descriptions supplied by Surveyor, if applicable. |
| | | iii) Use the information from the Title Commitment to join all interested parties on the necessary forms. <u>Spouses of owners must also be joined.</u> |

EXHIBIT "B"

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services

Provided By:

ENGINEER LPA

- iv) Upon completion of the necessary forms, prepare a packet containing 2 copies each of the following documents: Title Commitment, Negotiator's Reports, Appraisal Acknowledgment, Preappraisal Contact Sheet, signed and sealed property description, and plat, Final Offer Letter, any correspondence from the land owner or representatives, along with one copy of the appraisal report. Submit packet to the COUNTY Office for submission to the COUNTY Attorney's office.
 - v) Upon receipt of concurrence for the Appraisal Witness, request the update of appraisal.
 - vi) Upon receipt of packet prepared by the COUNTY Attorney which will include Petition for Condemnation, Lis Pendens, Order Appointing Special Commissioners, Order Setting Hearing, Oath of Special Commissioner, and Notice of Hearings, developed by the COUNTY Attorney; the attorney shall file the original petition with the COUNTY Court at Law or other appropriate Court for a cause number to be assigned.
 - vii) The COUNTY attorney shall file the Lis Pendens including the cause number with the COUNTY Clerk's Office.
 - viii) Upon assignment of a court, the COUNTY Attorney shall file the Order Appointing Commissioners with the judge retaining a copy of the Order for the files.
 - ix) Following appointment of Special Commissioners by the judge, the COUNTY shall secure the following documents: Oath of Commissioners signed by the Commissioners, Order Setting Hearing, 2 copies of the Notice of Hearing signed by the Commissioners.
 - x) The COUNTY shall file all originals with the court and send copies marked "copy" to L & G Engineering.
 - xi) The COUNTY Attorney shall send a copy of the petition to the Title Company so that the Title Company can make sure the appropriate parties were joined and that no changes in title have occurred.
 - xii) The COUNTY Attorney shall set the Special Commissioners Hearing after the updated appraisal has been submitted, if there is no change in value. If there is an increase in value, COUNTY will approve the new value and the COUNTY's provider will present a revised offer and a final offer letter and submit a copy of the final offer letter.
 - xiii) The COUNTY Attorney shall coordinate a pre-hearing conference prior to the hearing (the day before or earlier) to discuss facts of the case with the COUNTY, Appraiser, and Negotiator.
 - xiv) After the hearing is set, the COUNTY Attorney shall serve Notices of Hearing to the indicated parties at least 11 days prior to the Commissioner's hearing. If it is necessary to join the Federal Government, be advised that they have an additional 60 days to prepare for the Hearing.
 - xv) Once the notices have been served, the COUNTY Attorney shall file the original notices with the court and send copies stamped "copy" to L&G Engineering ROW Office.
 - xvi) The COUNTY's Attorney shall send a reminder letter 2-3 weeks in advance to the COUNTY Administration offices, Acquisition Provider, the three special commissioners and court reporter concerning Hearing dates.
- N/A NO
- b) Post Hearing Support (by COUNTY Attorney)
 - i) For the hearing, prepare the necessary forms and Special Commissioners time sheets and submit forms to Hidalgo COUNTY clerk's office.
 - ii) Obtain the signatures of Special Commissioners on the Award of Commissioners and file with the court for the judge's signatures within 48 hours of the Hearing.
 - iii) Give timesheets to Judge. The amount paid to the Special Commissioners is determined by the Judge.
 - iv) Obtain and distribute 3 certified copies of the award as follows: 1 certified copy to the title company with a request for a commitment, 1 certified copy to the COUNTY, 1 certified copy to L&G Engineering with the Commitment to request the warrant in the amount of the Special Commissioners Award.

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

Services
Provided By:
ENGINEER LPA

- v) Send the Commitment and the Award to COUNTY, along with individual special commissioner's billing requesting the payment for their fees.
- vi) File COUNTY warrant in the registry of the court. File a Notice of Deposit with the court and send certified copies to each defendant notifying them of the date of the deposit. The Date of Deposit is the Date of Take.
- vii) Take photograph of the interest to be acquired (if necessary) on the day of deposit for relocation verification.
- viii) Send written notices of the date of deposit to the COUNTY Administration office and all interested parties.
- ix) Appear as Expert Witness as requested. Sub-contractors must also appear as Expert Witnesses as requested.
- x) All acquisition negotiations file indicating all "due diligence" provided by the Acquisition Provider will be directed to the COUNTY Attorney's office for his further handling in accordance to the Eminent Domain process by the COUNTY.

10) COMPENSABLE UTILITIES

Utility Accommodation is an integral factor in road construction and design. Coordination of utility adjustments is a necessary function within planning, design, acquisition and construction and requires the administration of property rights issues, utility policy, and reimbursement of eligible utility adjustments. It includes the following tasks:

- | | | |
|----|----|--|
| NO | NO | a) Preliminary Design Consultations <ul style="list-style-type: none">i) Conduct Field Investigation and review Certificate of Convenience and Necessity boundaries to identify utility providers within the project area. Communications through letter, phone calls and email to establish a contact list. Coordinate data gathering by surveyors and design team. Introduce project to utility providers. |
| NO | NO | b) Field Observations and Verifications <ul style="list-style-type: none">i) Provide maps to Utility providers to "redline" and identify conflicts. Coordinate exposures and data collection by surveyor. Provide and confirm utility data on project maps. Order Utility Location Service. |
| NO | NO | c) Exchange of Information with Utility Providers <ul style="list-style-type: none">i) Provide project schedule.ii) Request schedules for utility adjustments.iii) Identify who is responsible for utility process. |
| NO | NO | d) Confirmation of Property Interests <ul style="list-style-type: none">i) Request Documents.ii) Coordination of data on maps and citation of property interest documents.iii) Confirm utilities are within easements. |
| NO | NO | e) Coordination of Agreements <ul style="list-style-type: none">i) Identify utilities that are compensable.ii) Determine parties and agreements necessary to complete compensable process.iii) Coordinate execution and processing of Standard Utility Agreements. |
| NO | NO | f) Utility Meetings throughout project development <ul style="list-style-type: none">i) Set up and coordinate utility meetings during planning, design, acquisition and construction phases.ii) Attend and participate in meetings by other parties. |

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

Services
Provided By:
ENGINEER LPA

11) PAYMENT SCHEDULE

- | YES | NO | |
|-----|----|---|
| | | a) Project Administration |
| | | i) Payment and Milestones |
| | | (a) Full Project Office |
| | | (1) Lump Sum Basis (assume 1 year project presence) |
| | | (2) Initial payment of 25% upon establishment of a project office with functional phone and utility services. |
| | | (3) Remainder paid out in equal monthly installments of 15% starting the following month. |
| | | (4) Monthly billing to L will be required. |
| | | b) Title Services |
| | | ii) Payment |
| | | (a) Per Parcel basis. |
| | | iii) Milestones |
| | | (a) 100% upon securing initial title commitment. |
| | | c) Appraisal Services |
| | | i) Payment |
| | | (a) Per Parcel Basis |
| | | ii) Milestones |
| | | (a) 100% paid upon delivery of complete and acceptable appraisal report |
| | | d) Appraisal Review |
| | | i) Payment |
| | | (a) Per Parcel Basis |
| | | ii) Milestones |
| | | (a) 100% upon submission of ROW-A-10 |
| | | e) Appraisal Update |
| | | i) Payment |
| | | (a) Per Parcel Basis |
| | | ii) Milestones |
| | | (a) 100% upon delivery of complete and acceptable appraisal update. |
| | | f) Negotiation, Task, and Fees |
| | | i) Payment |
| | | (a) Per Parcel Basis |
| | | ii) Milestones |
| | | (a) 80% upon presentation of initial offer. |
| | | (b) 20% upon successful negotiation and all instruments are recorded. |
| | | g) Closing Service Fees |
| | | i) Payment |
| | | (a) Per Parcel Basis |
| | | ii) Milestones |
| | | (a) 100% upon recordation of instrument of conveyance. |
| | | h) Relocation Assistance |
| | | i) Payment |
| | | (a) Per Relocation |
| | | ii) Milestones |
| | | (a) 100% upon issuance of 90-day vacancy letter. |
| | | i) Compensable Utilities |
| | | i) Payment |
| | | (a) By percent complete |

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

ADDITIONAL RESONSIBILITIES

Easements, Letters of Permission, Etc.

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

Coordination of Utilities

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

Meetings

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

Specifications, Special Provisions, Special Specifications

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

Project Manager/Engineer Communication

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

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

Design Responsibilities

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

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

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

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

Document and Information Exchange

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

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

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

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

CD Tape Required (YES or NO): YES

Proposal Time

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

Office Location

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

<u>Service</u>	<u>Office Location</u>
ROW Acquisition Services	Mission Office
Utility Management	Mission Office

The work effort will be managed out of the _____ Mercedes _____
(City)

office located at 2100 West Expressway 83 _____,
(Address)

Mercedes _____, _____ Texas _____.
(City) (State)

EXHIBIT "C"
WORK SCHEDULE
 Mile 6 Project
 From (Mile 9 to Mile 11)

TASK AND DESCRIPTION	FIRM	2017												2018								
		MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	
WORK AUTHORIZATION NO. 1																						
PHASE II & III: ROW MAP, PS&E, ROW ACQ.																						
From Mile 9 to Mile 11																						
Re-Evaluation of the EA to include Outfalls in Project Construction	L&G																					
Field Surveys for Design and Construction of ROADWAY	L&G																					
Field Surveys for Design and Construction of OUTFALLS	L&G																					
PS&E Development Roadway	L&G																					
Sub-Surface Utility Engineering (SUE)	L&G																					
Permanent Signal Designs (Mile 9, Mile 10 and Mile 11)	L&G																					
Temporary Signal Designs during Construction	L&G																					
Permitted Utilities Coordination to Adjust	L&G																					
Right-of-Way Acquisition Services	L&G																					
Compensable Utility Management for Acquisition of Property Rights	L&G																					
WORK AUTHORIZATION NO. 2																						
PHASE III: ROW MAP, ROW ACQ., UTILITY MNGMT																						
From Mile 9 to Mile 11																						
Right-of-Way Map (11 Parcels)	L&G																					
Right-of-Way Acquisition Services (11 Parcels)	L&G																					
Additional appraisals / reviews (37 Parcels)	L&G																					
Compensable Utility Management for Acquisition of Property Rights	L&G																					

L&G Engineering Tasks

EXHIBIT D-1
 ESTIMATED MAN-HOUR BREAKDOWN
 MILE 6 PROJECT ~ from Mile 9 to Mile 11

		CONTRACT RATE																
WORK AUTHORIZATION NO. 2 - WITH HIDAGO COUNTY																		
PHASE III - ROW MAPPING, ROW ACQUISITION, UTILITY MANAGEMENT																		
1	Right-of-Way Mapping (11 Parcels) Coordination with the SUB (ROWSS)																	
1a	SUB: ROW Map (11 Parcels) - See Exhibit D-1, Page 2 of 4																	
2	Addnl Survey Work for Re-Staking Exist/Prop ROW for Entire Limits Coordination with the SUB (ROWSS)																	
2a	SUB: Addnl Survey Work for Re-Staking Exist/Prop ROW for Entire Limits - See Exhibit D-1, Page 3 of 4																	
3	Right-of-Way Costs - Acquisition Services (est. 11 Parcels) - See Exhibit D-1, Page 3 of 4																	
4	ROW Appraisal/Reviews (37 Parcels due to NAWSC) - See Exhibit D-1, Page 4 of 4																	
5	Compensable Utility Management																	
SUB-TOTAL		80	206	341	119,734	150	22,083	918,817	\$ 342,332.00	\$ 115,268.18								

Sub-Total Manhours Fee with Subconsultant Fee: \$ 457,600.18

* TOTAL PROJECT FEE: \$ 457,600.00

EXHIBIT "D-1"
FEE SCHEDULE - L&G ENGINEERING'S ROW ACQUISITION SERVICES

Weslaco North Lateral Project
 Limits: from Mile 9 to 0.3 Mi. North of Mile 11
 CSJ: 0921-02-168

The following is an estimated Parcel No. Cost for completing the subject project's Right-of-Way Acquisition Services as outlined in Exhibit B according to the Exhibit D "Fee Schedule" of the contract. The parcels are estimated from the approved Schematic. **The work and payment, for these services will be accomplished by L&G Engineering and approved and paid for by Hidalgo County - on a percent complete basis as approved by Hidalgo County.** L&G Engineering will be completing the work on the approximate schedule provided in Exhibit C of this Work Order or as approved by Hidalgo County. The Parcels will be acquired either by completing the entire negotiation of the parcel or by modifying the approved schematic to acquire the parcels. This is a lump sum cost proposal.

RIGHT-OF-WAY ACQUISITION SERVICES

Estimated Number of Parcels	Project Admin (Per Parcel)	Title Services Per Parcel	Appraisal Services Per Parcel	Appraisal Review Per Parcel	Appraisal Update	Negotiation Fees Per Parcel	Closing Services Per Parcel	**Relocation (Residential/ Business)	Grand Total of Task
11	\$5,820.00	\$600.00	\$2,500.00	\$650.00		\$4,000.00	\$230.00		
Sub Total of Tasks	\$64,020.00	\$6,600.00	\$27,500.00	\$7,150.00	*	\$44,000.00	\$2,530.00	**	\$151,800.00

- (*) Appraisal Update costs included in Project Administration.
- (**) Relocation assistance cost or displacements included in Project Administration.
- Any condemnation support required will be provided by L&G Engineering as part of the administrative costs.

EXHIBIT "D-1"
FEE SCHEDULE - L&G ENGINEERING'S ROW ACQUISITION SERVICES

Weslaco North Lateral Project
 Limits: from Mile 9 to 0.3 Mi. North of Mile 11
 CSJ: 0921-02-168

The following is an estimated Parcel No. Cost for completing the subject project's Right-of-Way Acquisition Services as outlined in Exhibit B according to the Exhibit D "Fee Schedule" of the contract. The parcels are estimated from the approved Schematic. **The work and payment for these services will be accomplished by L&G Engineering and approved and paid for by Hidalgo County - on a percent complete basis as approved by Hidalgo County.** L&G Engineering will be completing the work on the approximate schedule provided in Exhibit C of this Work Order or as approved by Hidalgo County. The Parcels will be acquired either by completing the entire negotiation of the parcel or by modifying the approved schematic to acquire the parcels. This is a lump sum cost proposal.

RIGHT-OF-WAY ACQUISITION SERVICES

Estimated Number of Parcels	Project Admin (Per Parcel)	Title Services Per Parcel	Appraisal Services Per Parcel	Appraisal Review Per Parcel	Appraisal Update	Negotiation Fees Per Parcel	Closing Services Per Parcel	**Relocation (Residential/ Business)	Grand Total of Task
37	\$0.00	\$600.00	\$2,500.00	\$650.00		\$0.00	\$250.00		
Sub Total of Tasks	\$0.00	\$22,200.00	\$92,500.00	\$24,050.00	*	\$0.00	\$9,250.00	**	\$148,000.00

(*) Appraisal Update costs included in Project Administration.
 (**) Relocation assistance cost or displacements included in Project Administration.
 • Any condemnation support required will be provided by L&G Engineering as part of the administrative costs.