HIDALGO COUNTY
Professional Engineering Services
Agreement #C-16-218-05-25

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 "engineering services" to provide Schematic Development, Plans, Specifications & Estimates (PS&E), ROW Support Services and Environmental Services for the Rancho Blanco Road Extension 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 $99,752.30.This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section 4 of the Agreement.

PART 4. FUNDING

This Work Authorization No. 1 shall be funded through funding source:
Account No. 6-1200-431-00-122-130-0-7211841
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**.

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.2, Commissioner, Eduardo Cantu, as to content and detail of this **Work Authorization No. 1.**

HIDALGO COUNTY
COMMISSIONER PRECINCT No. 2:

BY: _____

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on (cc approval date) as indicated below and effective as of _____ day of _____, 2016.

THE ENGINEER:
L&G ENGINEERING

By: Jacinto Garza, P.E.

THE OWNER:
HIDALGO COUNTY

By: Ramon Garcia, County Judge

ATTEST:

By: Arturo Guajardo Jr., County Clerk

COMMISSIONERS COURT HIDALGO COUNTY, TEXAS

APPROVED BY COMMISSIONERS COURT ON 5/25/16

EXHIBIT "A"
SCOPE OF SERVICES TO BE PROVIDED BY THE OWNER

The following provides an outline of the services to be provided by the **Owner** in the development of the proposed improvements to Rancho Blanco Road in Hidalgo County hereinafter denoted as the **Project**.

GENERAL:

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

1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.

2) Payment for work performed by the **Engineer** and accepted by the **Owner** in accordance with Article 3 of the Agreement.

3) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the **Engineer** cannot easily obtain.

4) Provide any available relevant data the **Owner** may have on file concerning the **Project**.

5) Provide timely review and decisions in response to the **Engineer's** request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed upon work schedule prepared in accordance with Exhibit "C" attached to this Work Authorization.

6) Attend and participate in progress meetings as required and as coordinated and conducted by **Engineer**.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

SECTION I - 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

PROJECT/DESCRIPTION: Rancho Blanco Road Extension Project
Schematic Development, Plans, Specifications & Estimates (PS&E), ROW Support Services and Environmental Services

ENGINEER shall mean L&G Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean Hidalgo County.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

SECTION 3 - ROUTE AND DESIGN STUDIES

(Function Code 110)

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

* The Phase I or better survey for hazardous material should be included as a determining factor of route selection. Projects which do not require additional right of way should be considered separately from an expansion or new location.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

SECTION 7 - ROADWAY DESIGN CONTROLS

(Function Code 160)

Services Provided By:
ENGINEER COUNTY

1. Geometric Design

YES NO a. Horizontal and Vertical Alignment

YES NO 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.

YES NO 2. General Guidelines for Project Development

a. Prior to preparing detailed plans for a proposed project, a preliminary schematic layout shall be prepared which indicates the general geometric features and location requirements peculiar to the project. An uncontrolled aerial mosaic will be provided for this use. Four copies of the schematic layout shall be submitted through the district to the Design Division for approval and subsequent coordination with the Federal Highway Administration (FHWA) where applicable. The layout shall be submitted for two-lane arterial highway projects on new locations and for all multi-lane highway projects. **No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout.**

b. All geometric design shall be in conformance with the State's Design Division, Operations and Procedures Manual, except where variances are permitted in writing by the STATE.

c. The schematic layout shall include basic information which is necessary for the proper review and evaluation including the items listed above in the checklist for schematic layout.

d. Handling of traffic during construction shall be a consideration in the development of preliminary designs.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
YES	NO	2. General Guidelines for Project Development *(continued)*
		e. Upon approval of the schematic layout by Design Division (FHWA on Federal-aid projects), it shall be the basis for an exhibit at any required public hearing prior to final development of the project. If there are any changes to the schematic after the Design Division and FHWA approval and before the public hearing, four copies of the revised schematic, as displayed at the hearing, shall be submitted either prior to or accompanying the public hearing data. If there are no changes in the schematic as displayed at the hearing, only photographs of the schematic and other displays shall be submitted with the public hearing data.
		f. For all freeway construction projects, these schematics shall show the location and text of the proposed main lane guide signs. A schematic layout shall be submitted through the district to the Traffic Operations Division, Traffic Safety Section for approval and subsequent coordination with the FHWA. All signing shall be in conformance with the Texas MUTCD.
		g. On complex projects, informal contact through the district with the Design Division and FHWA personnel is encouraged with regard to development of preliminary design prior to official schematic submission.
		h. The engineer shall furnish a project tape that is compatible with the STATE's computer system, a project listing, and a cross section plot showing the original design sections containing the earthwork input and original cross sections for the project. **Accuracy of the earthwork design is of utmost importance since it is the basis for contractor payments and construction staking.**
NO	NO	3. Exhibit for Airway/Highway Clearance Permits
		4. Grading Design
NO	NO	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.
YES	NO	b. Typical Sections
YES	NO	c. Design Cross Sections
YES	NO	d. Determine Cut and Fill Quantities
NO	NO	e. Slope Stability Analysis
NO	NO	f. Embankment Foundation Stability Analysis
NO	NO	g. Embankment Settlement Analysis
		5. Pavement Design
NO	NO	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.
YES	NO	b. The typical section shall also reflect proposed geometric including pavement cross slopes, lane and shoulder widths, and slope rates whenever this data have not been previously shown on a schematic submission.
		c. Embankment and Subgrade
		(1) Soil Core Holes (Show cost estimate with Function Code 110)
NO	NO	(a) Along center line
NO	NO	(b) Along center line of each roadway
		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-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
		5. Pavement Design *(continued)*
		c. Embankment and Subgrade *(continued)*
NO	NO	(2) Identify,interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)
NO	NO	d. Traffic Data for Pavement Design by STATE
NO	NO	e. Basic Design Criteria
NO	NO	f. Life Cycle Cost Analysis(es)
NO	NO	g. Cost Data
NO	NO	h. Pavement Material Properties
NO	NO	i. Rehabilitation Investigations
NO	NO	(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 B-1

Scope of Services to be provided by the Engineer

SECTION 8 - DRAINAGE

(Function Code 161)

Services Provided By: ENGINEER	COUNTY	
		All hydraulic design shall be in accordance with the TxDOT's Hydraulic Manual, except where variances are permitted in writing by the COUNTY.
		1. Hydrologic Map
YES	NO	a. Hydrologic data/discharge determination for outfalls
		2. Hydraulic Drainage Study and Documentation
		a. Hydraulic computations and Drainage area maps showing existing conditions and proposed improvements.
NO	NO	(1) Storm water detention available within the ROW (linear ft. along side drain ditch).
NO	NO	(2) Storm water detention required outside the ROW (as per HCDD#1)
YES	NO	(3) Culverts
NO	NO	(4) Bridge waterways
YES	NO	(5) Channels
YES	NO	(6) Storm sewers/inlets
NO	NO	(7) Pump stations
NO	NO	(8) Storm Water Management facilities
NO	NO	(9) Other
		(a) Irrigation Canals/Siphons
NO	NO	b. Hydraulic report(s)
NO	NO	c. Federal Emergency Management Agency (FEMA) floodway requirements
YES	NO	d. Determine impact of proposed drainage plan on the following receiving stream(s)
		(1) Hidalgo County Drainage District Outfalls
		(2) All Irrigation District Outfalls impacted
		3. Layout, Structural Design and Detailing of Drainage Features
		a. Culverts
YES	NO	(1) New culverts
NO	NO	(2) Culvert widening and/or lengthening
YES	NO	(3) Culvert replacements
		b. Storm sewers
YES	NO	(1) New storm sewers
YES	NO	(2) Modify existing storm sewers
YES	NO	(3) Inlets
YES	NO	(4) Manholes
YES	NO	(5) Trunk lines
		c. Pump stations
NO	NO	d. Subsurface drainage at retaining walls
NO	NO	e. Outfall channel(s) within the ROW
YES	NO	f. Outfall channel(s) outside the ROW
NO	NO	g. Detention Pond(s) within the ROW
NO	NO	h. Detention Pond(s) outside the ROW
YES	NO	i. Summary of Quantities
NO	NO	j. Storm Water Management facilities
YES	NO	4. Storm Water Pollution Prevention Plan (SW3P)
NO	NO	5. Scour Evaluation - Waterway Structures only (to be completed by Bridge Engineer under FC 170.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

SECTION 9 - SIGNING, MARKINGS AND SIGNALIZATION

(Function Code 162)

Services Provided By: ENGINEER	COUNTY	
YES	NO	1. Signing and Markings Layout

a. Requirements (Separate Layout)
   (1) Roadway layout
   (2) Center line with station numbering
   (3) ROW lines
   (4) Culverts and other structures that present a hazard to traffic
   (5) Location of utilities, if not shown on plan and profile
   (6) Existing signs to remain, to be removed, to be relocated
   (7) Proposed signs (illustrated and numbered)
   (8) Existing overhead sign bridges to remain, to be revised, removed or relocated
   (9) Proposed overhead sign bridges indicating location by plan layout (electrical details need not be shown on this layout)
   (10) Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation
   (12) Quantities of existing pavement markings to be removed
   (13) Proposed delineators and object markers

b. For projects involving freeway to freeway or other types of directional interchanges, projects including left-hand ramps or connections, the following information must be provided:
   (1) The location of interchanges, main lanes, grade separations, frontage roads and ramps
   (2) complete explanation of the sequence and methods of stage construction, where applicable, which would include the initial and ultimate proposed treatment of crossovers and ramps
   (3) The number of lanes in each section of proposed highway and the location of changes in numbers of lanes
   (4) The projected traffic volumes as provided by the STATE (20 year traffic projection, unless otherwise determined by the District Engineer)
   (5) Tentative ROW limits
   (6) Direction of traffic flow on all roadways
   (7) Main lane, ramp, frontage road, and necessary cross road profiles at proposed interchanges or grade separations

YES	NO	2. Summary of Small Signs Tabulation
NO	NO	3. Summary of Large Signs Tabulation including all Guide Signs
YES	NO	4. Sign Detail Sheets

a. All signs except route markers
b. Design details for large guide signs
c. Dimensions of letters, shields, borders, corner radii etc.
d. Designation of shields attached to guide signs
e. Designation of arrow used on exit direction signs

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
		5. Traffic Signals
		a. Development of Justification (Warrant) Data
NO	NO	(1) Location Map Relationship of proposed installation to other traffic signals, highways, business areas and traffic generators
NO	NO	(2) Photographs as appropriate
NO	NO	(3) Accident data as appropriate
		(4) Vehicle volumes (provided by TxDOT)
NO	NO	(a) Existing
NO	NO	(b) Estimated
NO	NO	(c) Projected
NO	NO	(d) Pedestrian
NO	NO	(5) Traffic Survey - Count Analysis
NO	NO	(6) Recommendation based on above data
NO	NO	b. Layout
		(1) Title Sheet (when applicable)
		(a) Describe the location
		(b) Type of installation
		(c) Area map with project limits for each location
		(d) Index of sheets
		(e) Space for official signatures
		(2) Estimate and quantity sheet (when applicable)
		(a) List of all bid items
		(b) Bid item quantities
		(c) Specification item number
		(d) Paid item description and unit of measure
		(3) Basis of estimate sheet (list of materials)
		(4) General notes and specification data sheet
		(5) Condition diagram
		(a) Highway and intersection design features
		(b) Roadside development
		(c) Traffic control including illumination
		(6) Plan sheet(s)
		(a) Existing traffic control that will remain (signs and markings)
		(b) Existing utilities
		(c) Proposed highway improvements
		(d) Proposed installation
		(e) Proposed additional traffic controls
		(f) When applicable, proposed conduit for Railroad interconnect with standard details for runs under tracks.
		(g) Proposed illumination attached to signal poles.
		(7) Notes for plan layout
		(8) Elevation sheet(s) (span wire design)
		(9) Phase sequence diagram(s)
		(a) Signal locations
		(b) Signal indications
		(c) Phase diagram
		(d) Signal sequence table
		(e) Flashing operation (normal and emergency)
		(f) Preemption operation (when applicable)
		(g) Interval timing, cycle length and offset

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
		5. Traffic Signals *(continued)*
NO	NO	b. Layout *(continued)*
		(10) Construction detail sheets(s)
		(a) Poles (TxDOT standard sheets)
		(b) Detectors
		(c) Pull Box and conduit layout
		(d) Controller Foundation standard sheet
		(11) Marking details (when applicable)
		(12) Barricade and warning sign standard sheet and any special details for work zone traffic control for special conditions
		(13) Aerial or underground interconnect details (when applicable)
		c. General Requirements
		(1) Contact local utility company
NO	NO	(a) Confirm power source
NO	NO	(b) Discuss route of aerial or underground interconnect cable (when applicable)
NO	NO	(c) Adjustment of overhead utility lines
NO	NO	(2) Prepare governing specifications and special provisions list
NO	NO	(3) Prepare project estimate
NO	NO	d. Summary of Quantities

EXHIBIT B-1

Scope of Services to be provided by the Engineer

SECTION 10 - MISCELLANEOUS (ROADWAY)

(Function Code 163)

Services Provided By: ENGINEER	COUNTY	
		1. Retaining Walls
		a. Structural Details
NO	NO	(1) Cast-in-Place Cantilever at _____ locations. (TxDOT Standard Retaining Wall)*
NO	NO	(2) Tiedback Retaining Wall at _____ location. (TxDOT standard retaining wall)
NO	NO	(3) Specialized Retaining Wall at _____ locations (Unique Design).*
		b. Alternate Patented Retaining Walls at all locations. (Layouts Only)**
NO	NO	(1) Mechanically Stabilized Earth
NO	NO	(2) Concrete Block Wall Systems
NO	NO	c. Retaining Wall Layout (PLAN)
		(1) Designation of reference line
		(2) Beginning and ending retaining wall stations
		(3) Station of each retaining wall joint***
		(4) Offset from reference line
		(5) Horizontal curve data
		(6) Number of retaining wall panels and lengths***
		(7) Total length of wall
		(8) Indicate face of wall
		(9) All wall dimensions and alignment relations (alignment data as necessary)
		(10) Soil core hole locations
NO	NO	d. Retaining Wall Layout (ELEVATION)
		(1) Top of wall elevations at each joint or intervals***
		(2) Existing and finished ground line elevations
		(3) Height of stem at each joint***
		(4) Wall panel designations***
		(5) Top of footing elevations***
		(6) Limits of measurement for payment****
		(7) Type, limits and anchorage details of railing (If applicable)
		(8) Top and bottom of wall profiles and soil core hole data plotted at correct station and elevation. The plot shall be at the same scale as the wall profile. Ground water elevations and the observation date shall be shown.
NO	NO	e. Foundation Studies (Show cost estimate with Function Code 110)
NO	NO	(1) The soil core holes shall be obtained at approximately 200 foot intervals along retaining wall alignments. The core holes shall extend 25 feet below the footing elevation.
NO	NO	f. Stability Analysis (the ENGINEER shall estimate this task as part of his bid to complete the work).
NO	NO	g. Estimate
NO	NO	h. Summary of Quantities
NO	NO	i. Typical X-section.
NO	NO	j. General Guidelines for Retaining Walls
		(1) The ENGINEER shall make final design calculations and final detail drawings in accordance with standard requirements of the Texas Department of Transportation. **The designer and checker shall check all calculations and initial each page.**
		(2) The ground water level should be observed at the water strike.
		(3) For purposes of uniformity statewide, soil core hole data shall be shown on layouts as illustrated in the Bridges and Structures Foundation Exploration and Design Manual.
		(4) Foundation exploration shall conform to the requirements set forth in Administrative Circular No. 25-84, Administrative Circular 33-87 and Administrative Circular No. 25-92.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
YES	NO	2. Traffic Control Plan, Detours and Sequence of Construction Traffic Control Plans (TCP) are required for all projects. A detailed TCP shall be developed when traffic handling during construction involves complications for which a feasible solution is not covered by the Texas MUTCD or the current Barricade and Construction (BC) Standards. The following items are required on all Traffic Control Plan Layouts: a. The sequence of construction and method of handling traffic during each phase. b. The existing and proposed traffic control devices that will be used to handle traffic during each construction sequence. Include signals, regulatory signs, warning signs, construction warning signs, guide signs, route markers, construction pavement markings, channelizing devices, portable changeable message signs, flashing arrow boards, barricades, barriers, etc. c. The proposed traffic control devices (stop signs, signals, flag person, etc.) at grade intersections during each construction sequence. d. Where detours are provided, typical cross sections shall be shown. e. Road construction work hours shall be developed after an investigation of the traffic volumes has been performed.
		3. Illumination
NO	NO	a. Preliminary Roadway Illumination Layout and Circuit Layout (1) For projects involving freeway to freeway or other types of directional interchanges and projects including left-hand ramps or connections, provide the following: (a) The location of interchanges, main lanes, grade separations, frontage roads and ramps (b) A complete explanation of the sequence and methods of stage construction, where applicable, which would include the initial and ultimate proposed treatment of crossovers and ramps (c) The number of lanes in each section of proposed highway and the location of changes in the number of lanes (d) The projected traffic volumes as provided by the STATE (20 year traffic projection unless otherwise determined by the district engineer) (e) Tentative ROW limits (f) Direction of traffic flow on all roadways (g) Main lane, ramp, frontage road, and necessary cross road profiles at proposed interchanges or grade separations
NO	NO	b. Final Roadway Illumination and Electrical Circuit Layouts (1) Roadway layout showing pavement edges, shoulders, curbs, retaining walls, etc. (2) Center line with station numbering. (3) ROW lines. (4) Symbol legend. Use department standard symbols for lighting and electrical. (5) Culverts and other structures that present a hazard to traffic. (6) Location of underground utilities, if not shown on plan profile. (7) Location of overhead electrical lines, both crossing and parallel to ROW. (8) Existing sign lighting circuits and roadway illumination to remain, to be removed, to be relocated. (9) Existing service poles, electrical circuits, ground boxes, etc. (10) Contact electric utility for service pole locations, voltage characteristics. (11) Location of proposed sign lighting circuits and roadway illumination. (12) Proposed electrical circuits. (13) Tabulation of all quantities including proposed, existing to be relocated, existing to be removed. The layout sheet quantities and lighting summary shall be shown. Tabulations to include estimated quantity with a column for final quantities.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY		
		3.	Illumination *(continued)*
NO	NO		c. General Guidelines for Illumination (If applicable) The ENGINEER shall submit to the COUNTY, well in advance of PS&E due date, the roadway illumination and electrical circuit layout sheets for review by the STATE. Two copies of the layout sheets are to be submitted. One copy will be returned to the Engineer showing corrections that are to be made by the ENGINEER. When final plan submission is made, the ENGINEER shall provide a written statement regarding completion of the corrections.
		4.	Miscellaneous Drafting/Standards
YES	NO		a. Erosion Control
NO	NO		b. Landscape Development
YES	NO	5.	Compute and Tabulate Quantities
YES	NO	6.	Special Utility Details (Irrigation lines)
		7.	Miscellaneous Structures
			a. Type of Structure*
			(1) Overhead Sign Bridges (O.S.B.) Modifications or special O.S.B. designs shall be prepared using the same design assumptions that are used for the standard O.S.B structures.
NO	NO		(a) New O.S.B. structure(s)
NO	NO		(b) Structural evaluation of existing O.S.B. structure(s) that are to remain in place or to be relocated.
NO	NO		(2) High Mast Illumination Poles (HMIP)
NO	NO		(3) Traffic Signal Supports
NO	NO		(4) Conventional Illumination Poles
NO	NO		(5) Sound Barrier Walls
NO	NO		b. Checklist for Layouts
			(1) Reference appropriate O.S.B. standard
			(2) Drilled shaft size and length
			(3) Soil strength used for design {indicate basis and boring(s) used}
			(4) Design height
			(5) Tower heights
			(6) Leg spacings
			(7) Design wind speed
NO	NO		c. Foundation Studies (Show cost estimate with Function Code 110) The soils exploration requirements for miscellaneous structures on this project are as follows: (To be provided by the Engineer on an as-needed basis)
		8.	Agreements
YES	NO		a. Utility Agreements
YES	NO		b. Exhibits for Utility Agreements
NO	NO		c. Railroad Agreements
			d. Railroad Exhibits
NO	NO		(1) Railroad Underpasses
NO	NO		(2) Railroad Overpasses
NO	NO		(3) Railroad Grade Crossing (Replanking)
NO	NO		(4) Railroad Grade Crossing Warning Systems (Signals)
NO	NO		(5) Other Miscellaneous Sketches for Railroads
NO	NO		e. Traffic Signal Agreements
NO	NO		f. Exhibits for Traffic Signal Agreements
NO	NO	9.	Estimate
NO	NO	10.	Specifications and General Notes

EXHIBIT B-1

Scope of Services to be provided by the Engineer

SECTION 13 - FC 600 **– ACQUISITION PROVIDER SERVICES**
(for EST. 5 PARCELS, ? EASEMENTS AND ? RELOCATIONS/DISPLACEMENTS)
(Services to be provided by L&G Engineering)

Services Provided By: ENGINEER	COUNTY	
		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 or TxDOT facilities (2) Open during normal COUNTY and State 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.
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.
		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-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
		3) APPRAISAL
YES	NO	a) Appraiser may be selected from TxDOT's list of state approved fee 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, is unable to secure the necessary letter of permission from the property owner, a waiver must be obtained, in writing from the COUNTY/TxDOT. 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/TxDOT 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 TxDOT/COUNTY policies and procedures along with the Uniform Standards of Professional Appraisal Practices.
YES	NO	f) As necessary, prepare written notification to COUNTY/TxDOT 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 TxDOT.
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 TxDOT.
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
NO	NO	a) Review Appraiser may be selected from TxDOT's list of state approved fee 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.
NO	NO	b) Review all appraisal reports for each parcel to determine consistency of values, supporting documentation related to the conclusion reached and compliance with TxDOT/COUNTY policies and procedures and the Uniform Standards of Professional Appraisal Practices.
NO	NO	c) Prepare and submit to TxDOT the Form ROW-RTA-10 "Tabulation of Values", for each appraisal.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
NO	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, which will be furnished to the provider by TxDOT. These reports shall conform to COUNTY/TxDOT policies and procedures along with the Uniform Standards of Professional Appraisal Practices.
YES	NO	b) As necessary, prepare written notification to COUNTY/TxDOT 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 TxDOT.
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 TxDOT/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
NO	NO	a) Analyze appraisal and appraisal review reports and confirm the TxDOT's approved value prior to making offer for each parcel.
NO	NO	b) Analyze preliminary title report to determine potential title problems, propose methods to cure title deficiencies.
NO	NO	c) Prepare the initial offer letter, instruments of conveyance, and any other documents required or requested by COUNTY /TxDOT on applicable COUNTY /TxDOT forms.
NO	NO	d) Mail (Certified Mail Return Receipt Requested) initial offer letter, draft deed, Bill of Rights Brochures 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.
NO	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).
NO	NO	f) Respond to property owner inquiries verbally and in writing within two business days.
NO	NO	g) Prepare a separate negotiator contact report for each parcel per contact.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
NO	NO	h) Maintain parcel files of original documentation related to the purchase of the real property or property interests.
NO	NO	i) Advise property owner on the Administrative Settlement process. Transmit to TxDOT any written counter offer from property owners including supporting documentation, and provider recommendation with regard to Administrative Settlements in accordance with COUNTY /TxDOT policy and procedures.
NO	NO	j) Prepare final offer letter, documents of conveyance as necessary.
NO	NO	k) Appear and provide Expert Witness testimony as an Acquisition Provider when requested.
NO	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.
NO	NO	m) Provide a monthly progress report per parcel by the 25th of the month with invoice.
NO	NO	n) The consultant shall, as part of this proposal, estimates 10% of the parcels identified on Page 37 may end up in condemnation. The consultant shall be available for any meeting/hearings as requested by the COUNTY Attorney.
		7) CLOSING SERVICE FEES
NO	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.
NO	NO	b) Acquisition Provider shall attend closings and provide closing services in conjunction with Title Company.
NO	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 TxDOT for acceptance by the Texas Transportation Commission.
		8) RELOCATION ASSISTANCE SERVICES (separate Work Authorization will be issued once relocations have been identified, unless noted otherwise).
NO	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)
NO	NO	b) L&G will provide advisory services to business displacements and relocate them effectively.
NO	NO	c) TxDOT will review, approve and pay for all relocation costs as per the Agreement.
		9) CONDEMNATION SUPPORT
NO	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. Spouses of owners must also be joined.

EXHIBIT B-1

Scope of Services to be provided by the Engineer

Services Provided By: ENGINEER	COUNTY	
		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.
NO	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.

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:

YES NO a) Preliminary Design Consultations
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.

YES NO b) Field Observations and Verifications
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.

YES NO c) Exchange of Information with Utility Providers
i) Provide project schedule.
ii) Request schedules for utility adjustments.
iii) Identify who is responsible for utility process.

YES NO d) Confirmation of Property Interests
i) Request Documents.
ii) Coordination of data on maps and citation of property interest documents.
iii) Confirm utilities are within easements.

YES NO e) Coordination of Agreements
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.

YES NO f) Utility Meetings throughout project development
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-1

Scope of Services to be provided by the Engineer

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 COUNTY OF HIDALGO 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-1

Scope of Services to be provided by the Engineer

SECTION 14 - ADDITIONAL RESONSIBILITIES

Easements, Letters of Permission, Etc.

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

Coordination of Utilities

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

Meetings

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

Specifications, Special Provisions, Special Specifications

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

Project Manager/Engineer Communication

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

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

Design Responsibilities

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

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

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

Document and Information Exchange

EXHIBIT B-1

Scope of Services to be provided by the Engineer

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

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

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

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

CD Tape Required (YES or NO): YES

Proposal Time

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

Office Location

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

Service	Office Location
PS&E	Mission Office
Schematic	Mission Office
Environmental Document	Mercedes Office

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

EXHIBIT "B-2"
SERVICES TO BE PROVIDED BY L&G ENGINEERING

L&G Engineering (L&G) is pleased to submit the following Scope of Services to provide a Phase I Environmental Site Assessment (ESA) as it relates to Rancho Blanco Road from FM 2061 to 0.3 mile east as shown on the attached Exhibit B in McAllen, Hidalgo County, Texas. A Phase II ESA is not included in this scope of work and would be supplemented under a separate scope of services. The scope of work is outlined below.

SCOPE OF WORK

1.0 Phase I Environmental Site Assessment (ESA)

L&G's approach for performing the Phase I ESA consists of three tasks: first, a review of the public record and an examination of the history of the property; second, an on-site investigation of the property; and third, preparation of a final report summarizing the findings and recommendations of the assessment. The main focus of this site assessment will be to determine if there are any chemical constituents or hazardous materials on the property. L&G will use the American Society for Testing and Materials (ASTM) Publication E1527-13 as technical guidance for the ESA. L&G will conduct a search of the National Wetlands Inventory database and a field reconnaissance survey for the presence or absence of Section 404 jurisdictional "waters of the U.S." L&G 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 sites occur within or near the property. In addition, L&G will conduct a review of the Natural Diversity Database (NDD) checklist for federal and state listed threatened, endangered, and candidate species that potentially occur in the vicinity of the property.

1.1 Compilation and Review of Public Records

This task serves to identify evidence in the public record of activities that may have resulted or could result in contamination or deposition of hazardous materials on the site. Activities to be conducted by L&G include:

- Compilation and review of pertinent public records (e.g., Texas Commission on Environmental Quality, U.S. Environmental Protection Agency, Texas Railroad Commission) regarding past, present and pending enforcement actions and/or investigations at the site and on the adjoining sites.
- Collect and study topographic maps, soil maps, descriptions of soil composition, and hydrology
- Review reasonably obtainable standard historical information to attempt to identify those uses or occupancies that are likely to have led to recognized environmental conditions. Typical historical information that will be reviewed, if obtainable are as follows: aerial photographs, Fire Insurance Maps, city directories, county tax records, topographic maps, etc.
- A government records review check will be conducted for federal, state, or municipal list of contaminated sites.
- Interviews will be conducted with anyone who may have knowledge of the property's prior uses, which would include current and previous owners and neighbors, previous employees, local government officials, etc.

1.2 Site Reconnaissance

A site reconnaissance will be performed to inspect for evidence of past and/or current presence of hazardous materials on the site and adjoining sites. In addition, L&G will evaluate any factors in the review of the public record that might be indicative of activities that resulted in hazardous materials being used or deposited on the site or that could result in contamination of the site. The site reconnaissance will include:

- Performance of a detailed physical and visual reconnaissance of every section of the site and adjacent property to observe any signs which may indicate the presence of contaminants on the property and contaminant pathways to the property.
- Photographic documentation of all indicative features of the site for inclusion in the final report.

2.0 Report Preparation

Upon completion of the above tasks, L&G will provide one (1) original and two (2) copies of a written report documenting the Phase I which will include maps, sources consulted and findings of the historical, transcripts of the interviews, recommendations and findings of the site reconnaissance, and document records. Unless directed otherwise, only the client will receive the report, and no copies will be distributed without prior approval.

If required, services that would be performed at additional cost that are not included in this Scope are as follows:

- Any sampling, analysis, or any environmental hazard or contaminant (including but not limited to asbestos-containing materials, lead-based paint, or radon).
- Any wetlands delineation.
- Remedial or correction actions.
- Preparation of detailed cost estimates for any Phase II ESA activities.

3.0 Contract Management

L&G has conducted a preliminary background search on the project in order to develop a cost proposal for this project. L&G will coordinate with Pct #2 on a bi-weekly basis to provide updates on the progress of the project. L&G will develop a plan to ensure that the project tasks are performed within the budget and scope of the project. The work plan will include developing a project schedule and coordinating field work to ensure that all work is performed on a timely basis and that Quality Assurance and Quality Control (QA/QC) is performed on each task.

EXHIBIT "C"
PROJECT SCHEDULE
Rancho Blanco Road Extension Project

WA #1 - Schematic Development, PS, ROW Support Services Environmental Services

*Estimated Construction Letting October 2016 (Pending ROW Acquisition By County & Construction Phase WA)	2016								2017			
TASK AND DESCRIPTION	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
Design Phase Services												
Schematic Development												
Office Surveys for Schematic (Prel. Ownership Identification and Property Rights)												
PS&E												
Coordination with Surveyor on Design Surveys & ROW Mapping												
ROW Support Services												
Uitility Coordination												
Coordination/Outreach with HCID#2 for Permits and Potential Bypass												
Meetings & Coordination												
Phase I Environmental Study												

L&G Engineering

EXHIBIT D-1
FEE PROPOSAL
Rancho Blanco Road Extension Project
Work Authorization No. 1

	Rancho Blanco Road Extension Project (Schematic Development, PS&E, ROW Support Services & Environmental)	MANHOURS								
		Senior Project Manager	Senior Engineer	Project Engineer	Senior Environmental Scientist/ Specialist	CADD Operator/ GIS Analyst	Senior Engineering Technician	Admin / Clerical	L&G TOTAL HOURS	Total Line Item Cost
	CONTRACT RATE (FY 2016)	**217.74**	**180.41**	**133.76**	**152.42**	**68.43**	**99.54**	**62.21**		
1	Schematic Development	6	14	16			18		54	$ 7,764.06
2	Office Surveys for Schematic (Prel. Ownership Identification and Property Rights)	2	6	6			5	4	23	$ 3,067.04
3	PS&E (Estimated at 8% of Construction Cost)	30	60	70			130		290	$ 39,660.20
4	Coordination with Surveyor on Design Surveys & ROW Mapping	4	6	8			14		32	$ 4,417.06
5	SUB: FC 150 ~ Design Surveys	(Services to be Provided by the County)								
6	SUB: FC 130 ~ ROW Mapping	(Services to be Provided by the County)								
7	ROW Support Services (Estimated 5 Parcels)	(See Fee Proposal Breakdown on Exhibit D-2)								$ 19,250.00
8	Utility Coordination	4	10	10			12		36	$ 5,207.14
9	Coordination/Outreach with HCID#2 for Permits and Potential Bypass	8	6	14			20		48	$ 6,687.82
10	Meetings & Coordination	14	10	8					32	$ 5,922.54
11	Phase I Environmental Study				38	19		11	68	$ 7,776.44
	Subtotal Hours	**68**	**112**	**132**	**38**	**19**	**199**	**15**	**583**	**$ 99,752.30**

Grand Total $ 99,752.30

EXHIBIT "D-2"

FEE SCHEDULE - L&G ENGINEERING's ROW ACQUISITION SERVICES

Rancho Blanco Road Extension Project
Limits: 0+00 to 13+20

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 Pct. 2- on a percent complete basis as approved by Hidalgo County Pct. 2.** 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 Pct. 2. 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
5	$500.00	$600.00	$2,750.00	$0.00		$0.00	$0.00	N/A	
Sub Total of Tasks	$2,500.00	$3,000.00	$13,750.00	$0.00	*	$0.00	$0.00	$0.00	**$19,250.00**

(*) Appraisal Update costs included in Project Administration.
(**) Relocations - $6,000 (Residential), $5,000 (Business)
- Any condemnation support required will be provided by L&G Engineering as part of the administrative costs.