THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

AGREEMENT FOR PROFESSIONAL SERVICES
C- 07-451-12-26

THIS AGREEMENT is made, by and between **HIDALGO COUNTY**, acting 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 the "**Engineer**".

WITNESSETH:

WHEREAS, the **Owner** desires to contract with the **Engineer** to provide professional engineering services for "**FM 493 from MILE 10 to SH 107**" (**for Schematics, Environmental Assessments, Public Involvement, ROW Mapping, Surveying Bridge and Roadway Design**) project for **Hidalgo County Precinct No. 1** hereinafter referred to as the "**Project.**

NOW, THEREFORE, the **Owner** and the **Engineer** in consideration of the mutual covenants and agreements herein contained do mutually agree as follows:

ARTICLE 1. Employment of Engineer. The **Owner** agrees to employ the **Engineer** and the **Engineer** agrees to perform professional engineering services in connection

with the **Project** as stated in the articles to follow and for having rendered such services, the owner agrees to pay **the Engineer** compensation as stated in the articles to follow.

ARTICLE 2. Character and Extent of Services. This Agreement will provide for the development of the **Project** with the following:

2.1 Scope of Work. The **Owner** will furnish items and provide those services for the development of the **Project** and fulfillment of this Agreement, as identified in **EXHIBIT "A"** *Services to be Provided by the Owner*, attached hereto and made a part of this Agreement as identified in **EXHIBIT "B"**– Services to Provided by the Engineer, attached hereto and made a part of this agreement.

2.2 Classification of Services For this Agreement, the professional services to be provided by the **Engineer**, as more particularly identified in **EXHIBIT "B"**, attached hereto.

2.3 Schedule of Work. The **Engineer** shall prepare a schedule of work (hereinafter referred to as "**Work Schedule**") in accordance with the terms identified in **EXHIBIT "C"** - ***Work Schedule***, attached hereto and made a part of this Agreement.

ARTICLE 3. Period of Service. Upon execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof.

3.1 **Termination Date.** This Agreement shall terminate upon completion of projects (hereinafter referred to as the "**Termination Date**"), unless extended by written supplemental agreement, as provided in Article 8 hereof, duly executed by the **Engineer** and the **Owner** prior to the **Termination Date**, or otherwise terminated as provided in Article 3.4 herein and below. The **Owner** assumes no liability or obligation for payment to the **Engineer** for work performed or costs incurred by the **Engineer** prior to the date authorized by the **Owner** for the **Engineer** to begin work, during periods when work is suspended, or subsequent to the **Termination Date.**

3.2 **Extension of the Termination Date.** The **Engineer** shall notify the **Owner** in writing as soon as possible if it is determined, or reasonably anticipated, that the work under this Agreement cannot be completed before the **Termination Date,** and the **Owner** may , at the **Owner's** sole discretion, extend the **Termination Date** by written supplemental agreement as provided in Article 8 hereof. The **Engineer** shall allow adequate time for review and approval by the **Owner** of the written notice and request by the **Engineer** to extend the **Termination Date.**

3.3 **Suspension of Work.** Should the **Owner** desire to suspend the work under this Agreement, but not terminate this Agreement, the **Owner** shall provide thirty (30) calendar days verbal notification to the **Engineer**, followed by written confirmation from

the **Owner** to the **Engineer** to that effect. The thirty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer**. The work under this Agreement may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the **Owner** to the **Engineer**. The sixty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer.**

If the **Owner** suspends the work, the **Termination Date** as identified above is not affected, and this Agreement will terminate on the date specified, unless extended by written supplemental agreement, as provided in Article 8 hereof, duly executed by the **Engineer** and the **Owner** prior to the **Termination Date.**

3.4 Termination of Agreement. This Agreement may be terminated before the stated **Termination Date** identified in Article 3.1 herein by any of the following conditions:

(1) **Commitment of Current Revenues.** In the event that, during any term hereof, the **Owner** does not appropriate sufficient funds to meet to the obligations of this Agreement, the **Owner** may terminate this Agreement upon thirty (30) days written notice to the **Engineer.** The **Owner** agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this

Agreement at the expiration of each budget period of the **Owner** pursuant to the provisions of Tex. Loc. Govt. Code Ann. §271.903 (Vernon Supp. 1995).

(2) By mutual agreement and consent, in writing, of both the **Engineer** and the **Owner**.

(3) By the **Owner**, upon failure of the **Engineer** to fulfill the **Engineer's** obligations set forth herein in a satisfactory manner as determined by the **Owner** and in sole opinion of the **Owner**, after the **Owner** provides written notice to the **Engineer** of such failure and the **Engineer** has not corrected such failure within (30) days of such written notice by the **Owner**.

(4) By the **Engineer**, upon failure of the **Owner** to fulfill the **Owner's** obligations set forth herein, after the **Engineer** provides written notice to the **Owner** of such failure and the **Owner** has not corrected such failure within thirty (30) days of such written notice by the **Engineer**.

(5) By the **Owner** without cause upon thirty (30) days written notice to the **Engineer**.

(6) By satisfactory completion of all services and obligations described herein.

Should the **Owner** terminate this Agreement as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the **Engineer** notwithstanding anything herein to the contrary. In determining the value of the work performed by the **Engineer** prior to termination, the **Owner** shall be the sole judge of the value of such work performed. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the **Owner** terminate this Agreement under (5) of the paragraph above, the amount charged during the thirty (30) day notice period shall not exceed the amount charged during the preceding ninety (90) days.

If the termination of this Agreement is due to the failure of the **Engineer** to fulfill the **Engineer's** obligations under this Agreement, the **Owner** may take over the Project and prosecute the work to completion. In such case, the **Engineer** shall be liable to the Owner for any additional cost occasioned by the Owner.

If the **Engineer** defaults in the performance of this Agreement or if the **Owner** terminates this Agreement for fault on the part of the **Engineer**, the **Owner** will give consideration to payment of an amount in settlement to include: the actual costs incurred by the **Engineer** in performing the work to the date of default, the amount of

work required which was satisfactorily completed to date of default, the value of the work which is usable to the **Owner**, the cost to the **Owner** of employing another consultant and/or firm to complete the work required and the time required to do so, and other factors which affect the value to the **Owner** of the work performed at the time of default. This Agreement shall not be considered as specifying the exclusive remedy for any default by the **Engineer**, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

The termination of the Agreement and payment of an amount is settlement as prescribed above shall extinguish all rights, duties, and obligations of the **Owner** and the **Engineer** under this Agreement, except the obligations set forth in Articles 11.2, 12, 13, 15, 16, 17, 18.3, 19, 22 and 26 hereto.

ARTICLE 4. **Progress and Coordination.** The **Engineer** shall, from time to time during the progress of the work, confer with the **Owner**. The **Engineer** shall prepare and present such information as may be pertinent and necessary, or as may be requested by the **Owner**, in order to evaluate features of the **Engineer's** services and work.

At the request of the **Owner** or the **Engineer**, conferences shall be provided at the **Engineer's** office, the office of the **Owner**, or at other locations designated by the **Owner**.

These conferences shall also include evaluation of the **Engineer's** services and work when requested by the **Owner.**

All applicable study reports shall be submitted in preliminary form for approval by the **Owner** before the final report is issued. The **Owner's** comments regarding the **Engineer's** preliminary report will be addressed by the **Engineer** in the final report.

If funds by other agencies or entities are to be used for the development of the project under this Agreement, the **Engineer's** services and work will be subject to periodic review and approval by other agencies or entities, including those of the city, county, state and/or federal agencies.

Should it be determined that the progress in the production of the **Engineer's** services and work does not satisfy the requirements of the approved **Work Schedule** as provided by **Exhibit "C"**, attached hereto, the **Owner** shall review the approved **Work Schedule** with the **Engineer** to determine the corrective action needed by either the **Owner** or the **Engineer.**

The **Engineer** shall promptly advise the **Owner** in writing of events which have a significant impact upon the progress of the **Engineer's** services and work and the approved **Work Schedule**, including:

(1) problems, delays, adverse conditions which will materially affect the ability to attain contract objectives, prevent the meeting of time

schedules and goals, or preclude the timely completion and submittal of **Project** deliverables by the **Engineer** within established time periods; this disclosure will be accompanied by a statement by the **Engineer** of recommended or immediate action taken, or contemplated, and any **Owner** or other agency or entity assistance needed to resolve the situation: and

(2) favorable developments or events which enable meeting the **Work Schedule** goals sooner than anticipated.

ARTICLE 5. Compensation and Fees. For and in consideration of the services to be

rendered by the Engineer, the Owner shall compensate the Engineer as follows:

5.1 ***Basic Services***. For and in consideration of the ***Services*** to be rendered by the **Engineer**, as identified in Article 2 and more particularly identified in **EXHIBIT "B"**, attached hereto, the maximum amount payable by the **Owner** to the **Engineer** for ***Services***, subject to adjustment in accordance with Article 6.1 herein, will be provided in each work authorization issued. An outline and breakdown of the **Services Fee** is more particularly identified in **EXHIBIT "D1"**-***Fee Breakdown***, attached hereto and made a part of this Agreement. Payments to the **Engineer** for ***Services*** shall be made by the **Owner**,

upon presentation by the **Engineer** of the monthly **Request for Payment**, in accordance with the terms and provisions of Article 6 herein.

5.2 ***Special Services***. Those services that may be required to provided by the **Engineer** as ***Special Services*** are set forth below and more particularly described in **EXHIBIT "B"**, attached hereto. For and in consideration of these ***Special Services*** rendered as required by the **Engineer**, the **Owner** shall pay the **Engineer** a negotiated lump sum fee (hereafter referred to as "**Special Services Fee**") at the hourly labor rates and non-labor rates (hereinafter referred to as "**Contract Rates**") specified in **EXHIBIT "D"** - ***Contract Rates***, attached hereto and made a part of this Agreement, and as follows:

1. **RESIDENT OR SITE ENGINEER, INSPECTOR** Actual performance of services of project site engineer, resident engineer and/or inspector, if required by **Owner**.

2. **DOCUMENT COPIES** Actual performance and/or providing of additional copies (over 10) of report; additional copies (over 10) of plans (contract drawings), specifications and estimates (PS&E); additional copies (over 10) of bidding documents: additional copies (over 10) of as-built drawings.

3. **EXTRA TRAVEL** Extra travel required of **Engineer** and authorized by **Owner** to points outside of Hidalgo County.

4. **EXPERT WITNESS** Assistance to the **Owner** as expert witness in any litigation with third parties, arising from the development or construction of the **Project**.

5. **MISCELLANEOUS.** Investigations involving detailed consideration of operation, maintenance and overhead expenses and (unless otherwise agreed) the preparation of rate schedules, earning and expense

statements; preparation of feasibility studies; environmental document preparation; appraisals, valuations, and material audits; or inventories required for certification of force account construction performed by the **Owner**; preparation of change orders for extra work done by the **Contractor.**

ARTICLE 6. **Method of Payment.**

6.1 **Request for Payment.** Payments to the **Engineer** for services rendered will be made while work is in progress as executed through a lump sum fee assigned to each work authorization (hereinafter referred to as "**Work Authorization**") in accordance with **Article 7** herein. For each **Work Authorization,** the **Engineer** shall prepare and submit to the **Owner** monthly progress reports in sufficient detail to support the progress of the work and in support of a request for payment (hereinafter referred to as "**Request for Payment**"). The progress report shall indicate the percent completion of the work accomplished by the **Engineer** during the billing period and to the date of the **Request for Payment.** On or before noon of the first Monday of each month during the performance of the services, the **Engineer** shall submit to the **Owner** for approval a **Request for Payment.** Payment of the lump sum fee for each **Work Authorization** identified in the **Request for Payment** will be in proportion to the percent completion of the work tasks identified in such **Work Authorizations** together with a detailed breakdown of the amount and the sum of all prior payments. The **Owner** shall review each such **Request for Payment** and may make such exceptions as the **Owner** reasonably

deems necessary or appropriate under the circumstances then existing. About ten (10) working days after the Commissioners Court of the **Owner** meets approving such payment, the **Owner** shall make payment to the **Engineer** in the amount approved as aforesaid subject to Article 6.4 herein and below.

If the **Project**, or any portion(s) thereof, are deleted or otherwise not constructed, compensation to the **Engineer** by the **Owner** for the **Project** or such portions of the project shall be only the amounts paid the **Engineer** for actual work performed in accordance with the **Work Authorization**(s) approved by the **Owner.**

6.2 Final Payment. After final completion of the work and acceptance thereof by the **Owner,** the **Engineer** shall submit a final request for payment ("**Final Request for Payment**") which shall set forth all amounts due and remaining unpaid to the **Engineer** and upon approval thereof by the **Owner,** the **Owner** shall pay to the **Engineer** the amount due ("**Final Payment**") under such **Final Request for Payment** in accordance with the provisions of Article 6.1 hereof. The **Final Payment** shall not be made until the **Engineer** delivers to the **Owner** an affidavit that so far as the **Engineer** has knowledge or information any and all amounts due for materials and services over which the **Engineer** has control have been paid.

6.3 Qualification on Obligations to Pay. Any provision hereof to the contrary notwithstanding, the **Owner** shall not be obligated to make any payment (whether a

payment under Article 6.1 hereof or **Final Payment**) to the **Engineer** hereunder if any one or more of the following conditions precedent exist:

(1) The **Engineer** is in default of any of its obligations hereunder or otherwise is in default under this Agreement or under any contract documents related to this Agreement;

(2) Any part of such payment is attributable to the **Engineer's** services which are not performed in accordance with this Agreement; provided, however, such payment shall be made as to the part thereof attributable to the **Engineer's** services which were performed in accordance with this Agreement.

(3) The **Engineer** has failed to make payments promptly to consultants or other third parties used in connection with the **Project** for which the **Owner** has made payment to the **Engineer**;

(4) If the **Owner,** in good faith judgement, determines that the portion of the compensation then remaining unpaid will not be sufficient to complete the **Engineer's** services in accordance with this Agreement, no additional payments will be due the **Engineer** hereunder unless and until the **Engineer,** at its sole cost, performs a sufficient portion of the **Engineer's** services so that such portion of the compensation then remaining unpaid is determined by the **Owner** to be sufficient to so complete the **Engineer's** services.

6.4 No partial payment made hereunder shall be or construed to be final acceptance or approval of that part of the **Engineer's** services to which such partial payment related or relieves the **Engineer** of any of its obligations hereunder with respect thereto.

6.5 The **Engineer** shall promptly pay all bills for labor and material performed and furnished by others in connection with the performance of the **Engineer's** services.

6.6 Waiver. The making of the **Final Payment** shall constitute a waiver of all claims by the **Owner** except those arising from (1) faulty or defective services of the **Engineer** appearing after completion of the **Project.** (2) failure of the **Engineer's** services to comply with the requirements of this Agreement or any contracts or Agreements related to the **Project**, or (3) terms of any special warranties required by this Agreement or provided at law or in equity. The acceptance of **Final Payment** shall constitute a waiver of all claims by the **Engineer** except those previously made in writing and identified by the **Engineer** as unsettled at the time of the **Final Request for Payment.**

ARTICLE 7. **Work Authorization.** After execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof, only as authorized by the **Owner** through an agreed **Work Authorization** document in the form identified in **EXHIBIT** "E"- ***Work Authorization Form***, attached hereto and made a part of this Agreement. The **Engineer** will identify, as approved by the **Owner,** the needed services for the **Project,** as required through the course of the development to the **Project.** The **Owner** shall authorize the **Engineer** to perform one or more of the agreed tasks identified in **EXHIBIT "B",** attached hereto, in the form of individual work authorizations. Upon authorization from the **Owner,** the **Engineer** will prepare a **Work Authorization** document, which will include a description of the work to be performed, including a description of the tasks and milestones, a work schedule, and an estimated cost proposal agreed upon by the

Owner and the **Engineer**. The estimated cost proposal shall set forth in detail the computation of the cost of each work task, at the hourly rates established and identified in EXHIBIT "D", attached hereto. The **Work Authorizations** shall not waive the **Owner's** and the **Engineer's** responsibilities and obligations established in this Agreement.

The estimated cost proposal for each **Work Authorization**, developed by the **Engineer** and approved by the **Owner** shall be used by the **Owner** to appropriate a purchase order for the **Work Authorization**. Each executed **Work Authorization** shall become a part of this **Agreement**. Upon satisfactory completion of the **Work Authorization**, the **Engineer** shall submit the **Project's** deliverables as specified in the executed **Work Authorization** to the **Owner** for review and acceptance.

Work included in a **Work Authorization** shall not begin until the **Owner** and the **Engineer** have signed the **Work Authorization**. All work must be completed on or before the completion date specified in the **Work Authorization**, unless extended by written agreement by the **Engineer** and the **Owner**. The **Engineer** shall promptly notify the **Owner** of any event that will affect completion of the **Work Authorization**. All **Work Authorizations** must be executed and completed by both the **Engineer** and the **Owner** within the period established for this Agreement as specified in Article 3 hereof.

The final acceptance by the **Owner** of each **Work Authorization** for the **Project** shall serve as evidence of completion, on the part of the **Engineer**, of all services under

this Agreement insofar as they pertain to that portion of work on the **Project** identified in the applicable work authorization.

ARTICLE 8. **Supplemental Agreements.** The terms of this Agreement may be amended by supplemental agreement if the Owner determines that (1) there is a need to extend the **Termination Date** identified in Article 3.1 hereof, (2) there has been a significant change in the scope, complexity or character of the services to be performed by the **Engineer,** and/or (3) for any other reason agreeable to the **Owner** and the Engineer. All supplemental agreements will be developed in the form identified in **EXHIBIT "F"** - ***Supplemental Agreement Form***, attached hereto and made a part of this Agreement, and incorporated herein by reference as "**Supplemental Agreement**".

If determined appropriate by the **Owner,** additional compensation to the **Engineer** for (1), (2) and/or (3) above shall be paid as a negotiated lump sum fee at the **Contract Rates** specified in **EXHIBIT "D"**, attached hereto. The negotiated lump sum fee shall be incorporated into the **Supplemental Agreement.**

Any **Supplemental Agreement** must be executed by both the **Engineer** and the **Owner** prior to the **Termination Date** specified in Article 3 hereof.

It is distinctly understood and agreed that no claim by the **Engineer** for additional work, as identified in Article 9 hereof, or changes or revisions in work, as identified in Article 10 hereof, shall be made by the **Engineer** until full execution of the **Supplemental**

Agreement and authorization to proceed is granted by the **Owner**. The **Owner** reserves the right to withhold payment to the **Engineer** pending verification of satisfactory work performed by the **Engineer.**

ARTICLE 9. **Additional Work**. If the **Engineer** is of the opinion that any work it has been directed to perform is beyond the scope of this Agreement and constitutes extra work, the **Engineer** shall promptly notify the **Owner** in writing, In the event the **Owner** finds that such work does constitute extra work, the **Owner** shall so advise the **Engineer** and a written supplemental agreement will be executed between the **Owner** and the **Engineer** as provided herein. The **Engineer** shall not perform any proposed additional work or incur any additional cost prior to the execution by both the **Engineer** and the **Owner** of a supplemental agreement. Additional compensation from the **Owner** to the **Engineer** shall be paid as a negotiated lump sum fee at the Contract Rates specified in **EXHIBIT "D"** attached hereto. The negotiated lump sum fee shall be incorporated into the supplemental agreement as specified in Article 8 hereof. The **Owner** shall not be liable or under any obligation to compensate the **Engineer** for work performed or costs incurred by the **Engineer** relating to additional work not directly associated with the performance of the work authorized in this Agreement or as amended through supplemental agreement.

ARTICLE 10. **Changes or Revisions in Work.** If the **Owner** finds it necessary to request changes to the work, and the changes are within the applications of sound engineering principles, the **Engineer** shall make such revisions if requested and directed by the **Owner.**

10.1 **Preliminary Work.** The **Engineer** will make, without expense to the **Owner,** such revisions of any preliminary reports or drawings as may be required to meet the needs of the **Owner** and the applications of sound engineering principles.

10.2 **Previously Approved or Satisfactorily Completed Work.** If the **Owner** funds it necessary to request the **Engineer** to make changes to work previously approved by the **Owner** or work satisfactorily completed for which the **Owner** approves or, after a definite plan has been approved by the **Owner**, if a decision is subsequently made by the **Owner**, which for proper execution involves extra services and expenses for changes in or additions to the drawings specifications or other documents, this will be considered as additional work, and compensation from the **Owner** to the Engineer will be in accordance with Article 9 hereof.

10.3 **Project Delays.** If the **Engineer** is required to perform additional work due to delays by the imposition of causes not within the **Engineer's** control, such as by the re-advertisement of bids or by the delinquency or insolvency of contractors, such work associated with these delays shall be considered additional work, and the **Engineer** shall

be compensated by the **Owner** for such extra services and expense in accordance with Article 9 hereof.

10.4 **Reduction of Project Cost.** Notwithstanding any provision herein to the contrary, in the event it is necessary for the **Owner** to require changes in the final plan of the **Project** to enable it to the reduce the construction cost of the **Project** to an amount within the sum estimated by the **Engineer,** the **Engineer** will be required to make such revisions or changes. These changes will only be considered additional work by the **Engineer,** if the **Engineer** previously provided these same changes as options to the **Owner** at the stage of preliminary work or prior to the approval of the final plan for the Project, and the option or options were not selected or approved by the **Owner** to be incorporated into the final plan of the Project. Payment for this additional work will then be made to the **Engineer** in accordance with Article 9 hereof. If **the Engineer** failed to provide these changes as an option or options to the **Owner** at the stage of preliminary work or prior to the approval of the final plan of the **Project,** these changes will not be considered additional work and no additional compensation will be made to the **Engineer.**

ARTICLE 11. **Ownership** and **Release of Documents.**

11.1 **Ownership of Documents.** Original drawings and specifications are the property of the **Engineer** however the **Project** is the property of the **Owner,** and the **Engineer** may not use the drawings and specifications thereof for any purpose not

relating to the **Project** with the **Owner's** consent. The **Owner** shall be furnished with such reproductions of drawings and specifications as the **Owner** may reasonably require. Upon completion of the work or any earlier termination of this Agreement under Article 3.4 hereof, the **Engineer** will revise drawings to reflect changes made during construction and will promptly furnish the **Owner** with one complete set of reproducible record prints. Prints shall be furnished by the **Engineer,** as an additional service, at any other time requested by **Owner.** All such reproductions shall be the property of the **Owner** who may use them without the **Engineer's** permission for any proper purpose relating to the **Project,** including but not limited to additions to or completion of the **Project.** Any additions or revisions by the **Owner** to a drawing signed, sealed, and dated by a registered professional engineer, shall be made in accordance with the Texas Engineering practice Act and the Rules of the State Board of Registration for Professional Engineers.

All documents furnished to the **Engineer** by the **Owner** shall be delivered to the **Owner** upon completion or termination of this Agreement. The **Engineer,** at the **Engineer's** own expense, may retain copies of such documents or any other data under this Agreement.

11.2 **Release of Documents or Information.** Release of information to the public or others regarding the **Project** will be accordance with the Texas Public Information Act.

ARTICLE 12 Discounts, Rebates, Refunds. In connection with procurement services rendered by the **Engineer,** if procurement services are required of the **Engineer** hereunder, all discounts, rebates and refunds shall accrue to the **Owner.** For some purchases, the **Engineer** may deem that payment within the discount period is not safe; and/or inspection, guarantees, or other considerations may dictate delay. In such cases, the **Engineer** shall promptly notify the **Owner** so that a course of action may be mutually agreed upon by the **Owner** and the **Engineer.**

ARTICLE 13. Records, Accounting, Inspection. The **Engineer** shall keep full and detailed records and accounts in a manner approved by the **Owner.** The **Engineer** shall afford the **Owner's** authorized personnel and independent auditors, if any, full access to the work performed by the **Engineer** regarding the **Project** and to all of the **Engineer's** books, records, correspondence, instructions, drawings, receipts, vouchers and other documents relating to such work under this Agreement and the **Engineer** shall preserve all such records for three (3) years after final payment. The **Engineer** shall deliver to the **Owner** upon completion of such work, a statement of the cost of such work detailed according to the accounting procedure and requirements of the **Owner.**

ARTICLE 14. Subcontracting and Assignment. The **Engineer** shall not assign, subcontract or transfer the **Engineer's** interest in this Agreement without the prior written consent of the **Owner.** The **Engineer** shall bind every subconsultant by written

subcontract to observe all the terms of this Agreement to the extent that they may be applicable to each subconsultant. No subcontract relieves the **Engineer** of any responsibilities under this Agreement.

The **Engineer,** and the **Owner,** do hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Agreement and to the successors, executors, administrators, and assigns of such other party in respect to all covenants of this contract.

ARTICLE 15. Patents. The **Engineer** shall indemnify and save the **Owner** harmless from all liability for alleged or actual infringement of any patent resulting from the use of apparatus or equipment furnished or designed by the **Engineer** or from the use of any process designed by the **Engineer** or effected by said apparatus or equipment, and the **Engineer** shall indemnify and save the **Owner** harmless from and against all costs, legal fees, expenses and liabilities incurred in or about any claim of or action for such infringement: provided, however, that the **Owner** shall promptly transmit to the **Engineer** all papers served on the **Owner** in any suit involving such claim of infringement, and provided further, that the **Owner** permits the **Engineer** to have entire charge and control of the defense of any such suit. If because of actual infringement the use of such apparatus, equipment, or process is enjoined, the **Engineer** shall refund the purchase price thereof in proportion to the length of service uncompleted, the life of such

apparatus or equipment being assumed as five years. The **Engineer** hereby grants to the **Owner** a non-exclusive, royalty-free license under patents now or hereafter owned by the **Engineer** covering any machines, apparatus, processes, articles, or products included in the **Engineer's** work hereunder.

ARTICLE 16. **Confidential Information, Inventions and Other Restrictions.**

16.1 **Confidential Information.** The **Engineer** shall not use in any way, commercial or otherwise, except to the extent required by the proper performance of this Agreement; and shall hold in confidence and not disclose to any person, for any reason or at any time, any information relating to the secret processes, products, compositions, machinery, apparatus or trade secrets of the **Owner**, or any other confidential information given to the **Engineer** by any of the **Owner's** commissioners, elected officials, employees, or representatives or acquired by the **Engineer** during the term of or as a result of this Agreement. Any information not generally available to the public shall be considered secret and confidential for the foregoing purposes; provided, however, that any technical information which was lawfully in the **Engineer's** possession prior to such disclosure to the **Engineer** by the **Owner** or which is or shall lawfully be published or become part of general knowledge from sources other than the **Engineer** or which otherwise shall lawfully become available to the **Engineer** from a source other than the **Owner**, shall not be subject to these provisions. All the foregoing stipulations shall apply to such information

and work hereunder as well as to any information and ideas originated or developed by the **Engineer** in performing such work. Such information may, of course, be disclosed to the proper officials or employees of the **Owner** if necessary to perform the work hereunder. The **Engineer** shall, however, inform each of its employees who receive such information of these restrictions and the **Engineer** shall take all reasonable precautions and exert all reasonable efforts to assure conformance with such restrictions by all of its officers, employees, and agents, obtaining from them if necessary, agreements satisfactory to the **Owner,** effectuating the purposes of this Article.

16.2 **Inventions.** The **Engineer** shall communicate to the **Owner** at once, and require the **Engineer's** employees assigned to this **Project** to communicate to the **Owner** all inventions and improvements which any of the **Engineer's** employees, either alone or in conjunction with any of the **Owner's** employees may conceive, make or discover during the course of or as a result of work on this **Project** under this or any ensuing agreement with the **Owner** that relates to the processes, products, compositions, machinery or plants of the **Owner**, or relating in any way to any of the operations in which the **Owner** may be obligated to pay to the **Engineer** as compensation for services rendered by the **Engineer** under contract with the **Owner**. The **Engineer** shall require its employees to execute patent applications and assignments thereof to the **Owner** or its nominees, and powers of attorney relating thereto for any country the **Owner** may

designate, and shall take all other actions as the **Owner** may request to maintain and protect such inventions and improvements. The **Owner** shall pay all costs or charges incurred in protecting such inventions and improvements if the **Owner** desires to protect them. Before assigning any of the **Engineer's** employees to work under any contract with the **Owner** concerning this **Project,** the **Engineer** shall obtain from them agreements satisfactory to **Owner** complying in all respects with the terms and provisions of this Article.

16.3 The rights and obligations set forth in Article 16 shall survive the performance of this Agreement, or any termination, discharge or cancellation thereof

ARTICLE 17. Engineer's Seal, Responsibility and Warranties.

17.1 **Engineer's Seal.** The **Engineer** shall assign a responsible engineer or engineers licensed to practice in the State of Texas, who shall sign, seal and date all appropriate engineering submissions to the **Owner** in accordance with the Texas Engineering Practice Act and the Rules of the Stare Board of Registration for Professional Engineers.

17.2 **Engineer's Responsibility.** The **Engineer** shall be responsible for the accuracy of the work for the **Project** and shall promptly make necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer.** No additional

compensation will be made to the **Engineer** for any necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer.**

The **Engineer's** responsibility for all questions arising from design errors and/or omissions will be determined by the **Owner** or a designee appointed by the **Owner.** The **Engineer** will not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the **Project** has been completed.

17.3 Warranties.

(a) The **Engineer** warrants that engineering design work performed by the **Engineer** hereunder shall be in accordance with sound engineering design practices and in conformance with applicable code and standards established for such work.

(b) Notwithstanding anything to the contrary contained in this Agreement, the **Owner** and the **Engineer** agree and acknowledge that the **Owner** is entering into this Agreement in reliance on the **Engineer's** experience and abilities with respect to performing the **Engineer's** services hereunder. The **Engineer** accepts the relationship of trust and confidence established between it and the **Owner** by this Agreement. The **Engineer** covenants with the **Owner** to use the **Engineer's** best efforts, skill, judgement and abilities to design the **Project** and to further the interests of the **Owner** in accordance with the **Owner's** requirements and procedures, in accordance with all professional

standards, and in compliance with all applicable national, federal, state, county and municipal laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction. If the development of plans, specifications and estimates (hereinafter referred to as **"PS&E"**) are identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project**, prior to the commencement of construction, the **Engineer** shall certify in writing to the **Owner** that the **PS&E** for the **Project**, and the improvements when built in accordance therewith, conform to all applicable governmental regulations, statutes and ordinances then in effect. The **Engineer** represents covenants and agrees that there are no obligations, commitments or impediments of any kind that will limit or prevent performance of the **Engineer's** services.

(c) The **Engineer** represents, covenants and agrees that all of **Engineer's** services to be furnished by the **Engineer** under or pursuant to this Agreement form the inception of the Agreement until the **Project** has been fully completed, shall be of the standard and quality which prevail among engineers of similar experience, knowledge, skill and ability engaged in engineering practice throughout Texas under the same or similar circumstances involving the design and construction of **Project.**

(d) The **Engineer** represents, covenants and agrees that the **Engineer's** special talent, training and experience cause the **Engineer** to be the prime professional on

the **Project**; that because of such talent and training, the **Engineer** envisions the construction of the **Project** in its entirely and possesses the special skills which enable the **Engineer** to recognize dangerous conditions that a reasonable, prudent engineer having such special skills could anticipate may arise from the proper use of the **Project** after acceptance by **Owner**; and that the **Engineer** recognizes that any commissioners, elected officials, employees and agents of the **Owner**, plus residents and owners of property within the area affected by the **Project** are within a class of foreseeable persons who will be relying on the project being designed in a professional and safe manner.

(e) If the development of **PS&E** is identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project**, the **Engineer** represents, covenants and agrees that the **PS&E** of the **Project** will be accurate and free from any material errors. The **Engineer** additionally represents, covenants and agrees to the following: that the design of the **Project** will conform to its foreseeable use as a **Project** with all the amenities as set forth in any **PS&E** developed by the **Engineer** for the **Project**; that the result of such **PS&E**, if built in accordance therewith, will be suitable for purposes for which the **Project** is designed; and the **Project** will be inspected in a workmanlike, professional manner and will be suitable for the **Project's** intended purpose. The **Engineer's** responsibilities as set forth herein shall at no time be in any way diminished by reason of any approval by the **Owner** of any

PS&E developed by the **Engineer** for the **Project**, nor shall the **Engineer** be released from any liability by reason of such approval by the **Owner**, it being understood that the **Owner** at all times is ultimately relying upon the **Engineer**'s skill and knowledge in preparing such **PS&E.**

(f) In connection with the **Engineer**'s performance of procurement services hereunder, if any, the **Engineer** use its best efforts to obtain from all vendors of equipment and materials, fullest possible warranties against defective materials and workmanship for the benefit of the **Owner.**

ARTICLE 18. Engineer's Resources. The **Engineer** shall furnish and maintain, at the **Engineer's** own expense, office space for the performance of all services, skilled and sufficient personnel, as well as adequate and sufficient equipment to perform the services as required under this Agreement.

18.1 Project Manager. The **Engineer** shall provide a manager **(Project Manager)** for the **Project** that is a registered professional engineer in the State of Texas. The **Project** manager shall have such knowledge and experience as will enable that **Project Manager** during the course of the **Project** without prior consent of the **Owner.** If, due to situations beyond the control of the **Engineer,** the **Engineer** must change the **Project Manager** prior to the completion and acceptance of the **Project,** the **Engineer** will submit a request to change the **Project Manager** to the **Owner** for approval.

18.2 **Employees of the Engineer.** All employees of the **Engineer** shall have such knowledge and experience as will enable them to perform the duties assigned to them and required for the services under this Agreement. Any employee of the **Engineer** who, in the opinion of the **Owner**, is incompetent, or whose conduct becomes detrimental to the work required under this Agreement, shall immediately be removed form association with the **Project** when so instructed by the **Owner.** The **Engineer** certifies that the **Engineer** presently has employed sufficient and qualified personnel, and will maintain sufficient and qualified personnel for performance of the services under this Agreement.

18.3 **Documents/Information Exchange** The purpose of this Article is to define the required automated resources, format for graphics files, and information exchange pertaining to the **Project.** Taking into consideration that the **Owner** has a significant investment is the development of the **Project,** there is a need for the **Engineer** to provide consistency in document development for information exchange. Consistency in document development for information exchange and production will help facilitate an economically efficient **Project.** Therefore, the **Engineer** shall provide the **Owner** with documents and information in accordance with the special requirement outlined in **EXHIBIT "B"** attached hereto.

ARTICLE 19. Indemnification. To the fullest extent permitted by applicable law, the **Engineer** and its agents, partners, subcontractors, and consultants (collectively

"**Indemnitors**") shall and do agree to indemnify, and hold harmless the **Owner**, the **Owner's** respective directors, elected officials, employees and agents (collectively "**Indemnitees**") from and against all claims, damages, losses, liens, causes of action, suits, judgments and expenses, including attorney fees, of any nature, kind or description (collectively "Liabilities") of any person or entity whomsoever arising out of, caused by or resulting from the negligent performance of the **Engineer's** services through activities of the **Engineer**, its agents, partners, subcontractors and/or consultants performed under this Agreement, and which are caused by or result from error, omission, or negligent act of the **Engineer** or of any person employed or contracted by the **Engineer** provided that any such **Liabilities** (1) are attributable to bodily injury, personal injury, sickness, disease or death of any person, or to the injury to or destruction of tangible personal property including the loss of use and consequential damages resulting there from and (2) are caused in whole or in part by any negligent act or omission of the **Engineer,** anyone directly or indirectly employed by the **Engineer** or anyone for whose acts the **Engineer** may be legally liable. The **Engineer** shall also save harmless the **Owner** from any and all expense, including but not limited to, attorney fees which may be incurred by the **Owner** in litigation or otherwise resisting said claim or liabilities which may be imposed on the **Owner** as a result of such activities by the **Engineer,** its agents partners, subcontractors and/or consultants. In this connection, it is agreed and understood that the **Engineer**

shall not be responsible for any portion of the liability proximately caused by the **Owner's** negligence.

ARTICLE 20. **Joint and Several Liability.** In the event more than one of the **Indemnitors** are connected with an accident or occurrence covered by the indemnification in Article 19 hereof, then each of such **Indemnitors** shall be jointly and severally responsible to the **Indemnitees** for indemnification and the ultimate responsibility among such **Indemnitors** for the loss and expense of any such indemnification shall be settled by separate proceedings and without jeopardy to any **Indemnitee.** The provisions of this Article shall not be construed to eliminate or reduce any other indemnification or right which the **Owner** or any of the **Indemnitees** has by law.

ARTICLE 21. **Insurance.** The **Engineer** shall obtain and maintain insurance in the limits of liability for each of the types of insurance coverage identified as follows.

(1) **Workers' Compensation**, endorsed with a waiver of subrogation in favor of the **Owner** in accordance with the statutory obligations imposed by Worker's Compensation or Occupational Disease laws under the Texas Workers' Compensation Law ("**Statutory Texas**")

(2) **Commercial General Liability**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** ***all to the extent of the liabilities assumed by the Engineer***

under Article 19 and Article 20 herein, in limits of liability not less than one million dollars ($1,000,000) combined single limit each occurrence and in the aggregate for bodily injury and property damage.

(3) **Texas Business Automobile Policy**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** *all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20 herein*, in limits of liability not less than two hundred fifty thousand dollars ($250,000) each person for bodily injury, five hundred thousand dollars ($500,000) each occurrence for bodily injury, and one hundred thousand dollars ($100,000) each occurrence for property damage.

(4) **Professional Liability** in limits of $1,000,000 each claim and aggregate.

The **Engineer** covenants and agrees to maintain an insurance policy in the minimum limits of liability for each of the types of insurance coverage identified above. The **Engineer** shall furnish the **Owner** with a certificate of insurance (***Hidalgo County Certificate of Insurance***) showing the said policy to be in full force and effect during the period of service, identified in Article 3 hereto, for this Agreement. The completed Hidalgo County Certificate of Insurance shall be attached hereto and identified as **EXHIBIT "G"**- *Hidalgo County Certificate of Insurance*. The **Engineer** will be considered in breach

of contract should the **Engineer** fail to maintain an insurance policy in the minimum limits of liability and requirements identified above while performing services for and under this Agreement, and will be subject to default and termination of the Agreement as outlined in Article 3.4 hereto. Additionally, the **Engineer** covenants and agrees to use its best efforts to maintain an insurance policy in the minimum limits of liability and requirements identified above until one year following the date of the acceptance of the **Project** by **Owner.**

ARTICLE 22. Compliance with Laws. The **Engineer** shall comply with all applicable Federal, State and local laws, statutes, codes, ordinances, rules and regulations and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Agreement including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations and licensing laws and regulations. When required the **Engineer** shall furnish the **Owner** with satisfactory proof of its compliance therewith.

ARTICLE 23. Non-collusion. The **Engineer** warrants that the **Engineer** has not employed or retained any company or persons, other than a bona fide employee working solely for the **Engineer**, to solicit or secure this Agreement, and that the **Engineer** has not paid or agreed to pay any company, engineer or any other person or entity any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon

or resulting from the award or execution of this Agreement. For breach or violation of this warranty the **Owner** shall have the right to annul this Agreement without liability or, in the **Owner's** discretion, to deduct from the *Services Fee*, or otherwise recover, the full amount of each fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 24. Gratuities. The **Owner** mandates that employees of the **Owner** shall not accept any benefits, gifts or favors from any person doing business or who reasonably speaking may do business with the **Owner** under this Agreement; the only exceptions allowed are ordinary business meals. Any person doing business with or who may reasonably seeking to do business with the **Owner** under this Agreement may not make any offer of benefits, gifts or favors to **Owner** employees, except as mentioned herein above. Failure on the part of the **Engineer** to adhere to this provision may result in the termination of this Agreement.

ARTICLE 25. Payment of Franchise Tax. The **Engineer** hereby certifies that the **Engineer** is not delinquent in Texas franchise tax payments, or that the **Engineer** is exempt from, or not subject to, such as tax. A false statement concerning corporation's franchise tax status shall constitute grounds for termination of the Agreement at the sole option of the **Owner.**

ARTICLE 26. **Disputes.** The **Engineer** shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the **Engineer** in support of the services under this Agreement.

ARTICLE 27. **Severability.** In the event any one or more of the provisions contained in this Agreement shall for any reason, be held to be invalid, illegal, or unenforceable in any respect such invalidity, illegality or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein .

ARTICLE 28. **Notices.** All notices to either party by the other required under this Agreement shall be personally delivered or mailed to such party at the following respective addresses:

OWNER:	**Hidalgo County Inc.** **100 E. Cano, 2nd Floor** **Edinburg, Texas 78539**	ENGINEER:	**L & G Consulting Engineers** **2100 West Expwy 83** **Mercedes, Texas 78570**

The Address may be changed by either party by written notice and notice sol mailed shall be effective upon mailing.

ARTICLE 29. **Miscellaneous Provisions.**

(a) This Agreement constitutes the entire Agreement between the **Engineer** and the **Owner** relating to the work herein described and supersedes any prior

understanding or written or oral contracts between the parties respecting the subject matter defined herein. These are no previous or contemporary representations or warranties of the **Owner** or the **Engineer** not set forth herein.

(b) Except as specifically provided herein no modification, waiver, termination, rescission, discharge or cancellation of this Agreement or of any terms thereof shall be binding on the **Owner** unless in writing and executed by an officer or employee of the **Owner** specifically authorized to do so.

(c) No waiver of any provision of or a default under this Agreement shall affect the right of the **Owner** thereafter to enforce said provision or to exercise any right or remedy in the event of any other default whether or not similar.

(d) No modification, waiver, termination, discharge or cancellation of this Agreement or of any terms thereof shall impair the **Owner's** right with respect to any liabilities whether or not liquidated of the **Engineer** to the **Owner** theretofore accrued.

(e) All rights and remedies of the **Owner** specified in this Agreement are in addition to the Owner's other rights and remedies.

(f) The **Engineer** shall remain an independent contractor and shall have no power nor shall the **Engineer** represent that the **Engineer** has any power to bind the **Owner** or to assume or to create any obligation express or implied on behalf of the **Owner** except as specifically authorized in advance by the **Owner.**

(g) The Agreement shall be construed under the laws of the State of Texas and is performable in Hidalgo County, Texas.

(h) This Agreement may only be amended by a written document executed by the Owner and the **Engineer** as provided by Article 8 herein.

ARTICLE 30. **Signatory Warranty** The undersigned signatory or signatories for the **Engineer** hereby represent and warrant that the signatory is an officer of the organization for which he or she has executed this Agreement and that he or she has full and complete authority to enter into this Agreement on behalf of the **Engineer.** The above-stated representations and warranties are made for the purpose of inducing the **Owner** to enter into this Agreement.

WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this **Agreement for Professional Services** to be effective as of the 26th day of December, 2007.

ENGINEER:
L & G CONSULTING ENGINEERS INC.
d/b/a **L & G ENGINEERING**

BY: _____
Jacinto Garza, P.E./President

OWNER:
HIDALGO COUNTY

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

ATTEST:

_____
Arturo Guajardo, Jr., County Clerk

Approved on Commissioners' Court: 12th day of February, 2007

APPROVED AS TO FORM:
Atlas & Hall, L.L.P.

By: _____

ATTACHMENTS:

EXHIBIT A	-Scope of Services to be provided by the Owner
EXHIBIT B	-Scope of Services to be provided by the Engineer
EXHIBIT C	-Work Schedule
EXHIBIT D	-Engineer's Rates
EXHIBIT E	-Work Authorization Form
EXHIBIT F	-Supplemental Agreement Form
EXHIBIT G	-Certificate of Insurance (*Hidalgo County)*

AI-7110 **11.B.2.**

Pct. 1- Professional Engineering Svc-L & G Engineering-C-07-451-00-00-FM 493 frm MILE 10 TO SH 107

CC REGULAR

Date: 12/26/2007
Submitted By: Letty Saenz, PURCHASING DEPT.
Submitted For: Letty Saenz
Department: PURCHASING DEPT.
Agenda Area: Purchasing Department **Purchasing only:** Prct. 1

Information

CAPTION

A. Requesting approval of a professional engineering services contract with L & G Consulting Engineers Inc. d/b/a L & G Engineering for the " FM 493 from MILE 10 to SH 107 (for Schematics, Environmental Assessments, Public Involvement, ROW Mapping, Surveying Bridge and Roadway Design) for Hidalgo County Precinct No. 1 (as selected after evaluation of S.O.Q.'s from the POOL OF ENGINEERS and previously approved by C.C. on November 27, 2007 for negotiation of the contract with L & G ENGINEERING and approved by legal council to proceed with final execution of contract)

B. Presentation for consideration, discussion, acceptance and approval of WORK AUTHORIZATION NO. 1 in the amount of $ 1,598,950.00 with L & G Engineering Laboratory, LLC for: FM 493 from MILE 10 to MILE 14 (for Schematics, Environmental Assessments, Public Involvement, ROW Mapping, Surveying Bridge and Roadway Design) for Hidalgo County Precinct No. 1, in connection with Contract No. C-07-451-00-00.

BACKGROUND

Contract approved by legal counsel.
Work Authorization No. 1

Fiscal Impact

FISCAL YEAR: 2007 **ACCT. #:** 7-1336-431-00-121-049-0-841
FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:**
BUDGETARY IMPACT:
$1,600,000 available balance as of 12/17/07.

Attachments

Link: Contract apprvd by Legal Counsel
Link: WA #1-L&G Engineering

Form Routing/Status

Route Seq	Inbox	Approved By	Date	Status
1	Purchasing Department	Marty Salazar	12/14/2007 04:48 PM	APRV
2	Budget & Management	Dina Trevino	12/17/2007 02:41 PM	APRV

3	Rey Salazar	Rey Salazar	12/18/2007 03:15 PM	APRV
4	Auditor's Office	Becky Morales	12/20/2007 02:06 PM	APRV
5	Court Administrator	Monica Badillo	12/20/2007 03:06 PM	APRV

Form Started By: Letty Saenz Started On: 12/13/2007 05:10 PM

Final Approval Date: 12/20/2007

EXHIBIT "A"

SERVICES TO BE
PROVIDED BY OWNER

EXHIBIT "A"

Services to be provided by the OWNER

The following provides an outline of the services to be provided by the OWNER in the development of the Project.

The OWNER will provide to the ENGINEER the following:

(1) Authorization to the ENGINEER to begin work in accordance with Section 3 of this Agreement.

(2) Payment for work performed by the ENGINEER and accepted by the OWNER in accordance with Section 6 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 that 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 Attachment "C" of this Agreement.

(6) Attend and participate in progress meetings as required and as coordinated and conducted by the ENGINEER.

(7) Assist the ENGINEER in the preparation of the project mailing list; provide representation, a site and stenographer for all public meetings; additionally:

Public Meetings

(a) Approve agenda and all exhibits prior to public meeting.
(b) Approve date and location of the meeting.
(c) Review/approve Public Meeting Report.

(8) Attend the Preliminary Concept Conference coordinated and conducted by the ENGINEER and more particularly identified in Attachment "B" of the Agreement.

(9) Assist the ENGINEER as required in the coordination with the USACE and the Federal Emergency Management Agency (FEMA) and any other coordinating agency or entity.

(10) Review and approve the Project design criteria.

(11) Review and approve change orders as required and prepared by the ENGINEER.

EXHIBIT "B"

SCOPE OF SERVICES

TO BE PROVIDED BY ENGINEER

EXHIBIT "B"

Services to be provided by the Engineer

PROJECT LIMITS:

- **FM 493: From Mile 10 North to SH 107**

GENERAL SCOPE OF WORK:

The work to be performed by the Engineer under this Work Authorization shall consist of providing Engineering Services required for the preparation of Schematics, Environmental Assessment, Public Involvement, ROW Mapping, Surveying, Bridge and Roadway Design. The Engineer will prepare bid packages as identified in each Work Authorization for Plans, Specifications, and Estimates (PS&E) for the reconstruction of FM 493 From Mile 10 to SH 107, in Segments, from an existing 40' rural roadway to a 5-lane curb & gutter roadway with a continuous left turn lane including all associated drainage, structures, bridge & grading including Traffic Control, Signing & Striping, and Traffic Signal/Flashing Beacon Installations for the subject limits.

The work to be performed by the Engineer under this Work Authorization shall also include the review of the existing drainage patterns to determine if the proposed roadway can be designed utilizing the existing outfalls. The basis for this estimate is based on the premise that the existing outfalls located at the ROW line of FM 493 will be utilized. The Engineer will examine the proposed outfall locations and associated hydrologic and hydraulic conditions and determine the feasibility and practicality of using the existing outfalls or if new outfalls are needed. **This scope does not include designing outfalls outside of the existing ROW for FM 493.**

The **Engineer** will furnish all equipment, materials, supplies, and incidentals as needed to perform the services required by this Work Authorization, except as otherwise specified in Exhibit A, "Services to be Provided by the State".

GENERAL SCOPE OF WORK:

The Scope of Work for this Work Authorization will be identified as follows:

- ***FC110 ~ Design Schematic Development***
- ***FC120 ~Social, Economic, and Environmental Studies, and Public Involvement***
- ***FC130 ~ Existing Right-of-Way Determination***
- ***FC150 ~ Design Surveys***
- ***FC160 ~ Roadway Design***
- ***FC161 ~ Hydrologic/Hydraulic Study***
- ***FC162 ~ Signing, Pav't Marking, Signals***
- ***FC163 ~ Irrigation Str., Estimate, Specs, Gen Notes, Misc***
- ***FC164 ~ Contract Management***
- ***FC70 ~ Bridge Design***

FC 110 ~ DESIGN SCHEMATIC DEVELOPMENT

After the existing centerline alignment is recovered and the proposed centerline is approved by TxDOT, the Engineer will develop a design schematic for submittal to TxDOT's Design Division.

Design Criteria

- The Engineer will prepare a Design Summary Report (DSR) to document the design criteria for the project and submit it to TxDOT for further processing.
- A Design Concept Conference (DCC) will be held to discuss and review the design criteria. The Engineer will prepare a Meeting Summary Report which will describe in detail the decisions made at the DCC and distribute it to everyone in attendance.
- The Engineer will prepare a preliminary construction cost estimate based on the results of the DCC and submit it to TxDOT.

Design Schematic

- The Engineer will develop a preliminary design schematic, based on the alignment previously selected, and submit to TxDOT for review.
- The Engineer will revise the schematic to incorporate TxDOT's comments and provide to TxDOT.
- A public meeting/hearing is not proposed for this project; however, a workshop/meeting with the City of Elsa is proposed and the Engineer will attend and will provide TxDOT with technical support.
- The Engineer will meet with TxDOT after the workshop/meeting to discuss modifications, if any, to the design schematic. The Engineer will incorporate the changes agreed upon, into the schematic and submit the revised schematic to TxDOT for further submittal to the Design Division and/or FHWA.
- After receiving approval of the design schematic from TxDOT, the Engineer will proceed with finalizing the design and complete the PS&E.
- This Scope does not include technical assistance for either a Public Meeting and/or Public Hearing.
- The Schematic details will be completed to the Districts identified checklist.

Drainage

- The Engineer will evaluate the adequacy of the existing outfalls and develop a Hydrologic Map for the project identifying if any outfalls are needed for the project. The Engineer will coordinate with the Hidalgo County Drainage District No. 1, the Irrigation Districts, and cities in the area.

Irrigation Structures

- The Engineer will define the horizontal layout of the irrigation system in place and draw on the schematic the basis for maintaining the irrigation system whole.

FC 120 ~ ENVIRONMENTAL STUDIES, AND PUBLIC INVOLVEMENT

The Engineer will conduct the necessary research and field investigations to prepare an Environmental Assessment document to obtain a Categorical Exclusion clearance for the project.

Task I. Document Purpose and Need for the Project: This section will include text and graphics illustrating the description, purpose and need, objectives of the project and the existing and proposed project design. This section will also provide a description of the issues eliminated from further study.

Task II. Alternatives: This section will include text and graphics illustrating the different alternatives considered prior to selecting the preferred. It will also describe the reasonable alternatives and those eliminated from further study.

Task III. Affected Environment and Environmental Consequences: For each of the following categories the necessary background and field reconnaissance will be performed to gather data necessary for the completion of the EA. This will assist in determining which issues should be eliminated from further study or studied in detail.

Land Use and Socio-economic Impacts: Pertinent social and economic issues will be addressed in the EA; a separate report will not be prepared. At this time, it is unknown if relocations will occur; however, the EA will address any relocations anticipated. No other impacts to land use, land planning or socio-economic issues are anticipated. A Section 4(f)/6(f) will not be prepared.

Ecological Resources: A characterization of the project's ecological resources, including wetlands, vegetation, prime farmland and wildlife habitat characteristics will be performed. Ecologically sensitive resources including protected species, if any, will be identified in order to assess potential effects of project construction and operation. Any presence or absence surveys for endangered species will not be conducted. The project will be assessed for compliance with the Nationwide Permit Program; however, a permit is not anticipated. Any permitting required will be conducted by TxDOT.

Hazardous Materials: A field screening and an internet data search for potential hazardous materials sites will be conducted. A Phase I Environmental Site Assessment for hazardous materials will not be conducted.

Noise and Air Quality: A noise analysis and air quality impacts will be assessed under this scope.

Field Investigations: Field visits to identify potential environmental constraints involving land use, ecological resources and potential hazardous material sites will be conducted.

Graphics: Report graphics will be prepared for the EA as needed to show the project location, typical sections and project area photographs. In addition, the project layouts/photographs will show those resources that are necessary to convey the project's impacts to the reviewers.

Public Involvement – A discussion will be provided regarding any public involvement which occurs on the project. The Engineer will assist the District in providing technical support for one workshop/meeting. No other public involvement activities will be done under this scope.

Report Preparation and Submittal – The Engineer will prepare an environmental document (EA) that complies with applicable procedures of the National Environmental Policy Act (EPA) and Federal Highway Administration Technical Advisory 6640.8A. The analysis will address the adverse and beneficial impacts of project construction and operation. Mitigation options will be emphasized where adverse impacts may potentially occur.

The Engineer will submit one draft copy of the report for review by the District. Color photographs and exhibits will be included in both the draft and final reports. All review comment responses will be provided in writing and a meeting will not be required to discuss review comments. The draft report will be revised to incorporate District's comments. Thirteen (13) sets of the revised report will be submitted for review by ENV. After ENV reviews the report, the document will be revised and eight (8) sets of the report will be submitted. Because this project would obtain a Categorical Exclusion, no other revisions will need to be made. Upon receiving a Categorical Exclusion, a CD which includes the document and exhibits will be provided to the District for their files.

Coordination – L&G will coordinate with the SWCA to conduct the Historical Resources Survey and report. TxDOT will coordinate with the appropriate resource agencies to obtain environment clearance for completion of project.

Assumptions used to derive to proposed fee estimate and scope of services:

- The Engineer will conduct field investigations in two field trips.
- The Engineer will attend the DCC and one workshop/meeting.
- All investigations will be conducted based on existing literature, field reconnaissance and aerial photographic interpretation.
- The draft EA will be submitted to TxDOT in less than 30 days after obtaining a preliminary schematic and/or receipt of data needed.

FC 120 ~ ENVIRONMENTAL STUDIES, AND PUBLIC INVOLVEMENT

(SERVICES TO BE PROVIDED BY SWCA)

SWCA, Inc. will conduct the historic resource investigations for inclusion in this report and/or submittal to the Texas Historical Commission (THC).

The following tasks will be performed by SWCA on behalf of L&G Engineering for a proposed 6-mile road improvement project of Farm-to-Market (FM) 493 from Mile 10 Road to SH 107 in Hidalgo County, Texas. SWCA will identify, document, and record extant buildings, structures, and objects constructed 50 years prior to the letting date of the construction project or earlier within the project's Area of Potential Effect (APE). SWCA will then evaluate all identified resources for National Register of Historic Places (NRHP) eligibility. The scope of services and associated cost estimate are based on the assumption that the APE/survey area will extend 150 feet beyond the proposed right-of-way boundaries. It is additionally assumed that up to 100 historic resources may be located within the survey area, based on a cursory examination of the Edcouch USGS 7.5' quadrangle maps, and the fact that the project area travels through the center

of the town of Elsa (established in 1927). The client shall provide SWCA with details of the proposed project, including a description of the existing roadway and an outline of the proposed roadway construction. This outline will include road improvements and landscape alterations such as the development of curbs, drainage systems, sidewalks, and ditches. The proposed scope of services is a reconnaissance-level identification and evaluation of non-archaeological historic-age resources, which includes a literature review, reconnaissance survey, and summary reconnaissance report.

Literature Review and Research Design

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

Reconnaissance Survey

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

Summary Reconnaissance Report

SWCA will provide L&G Engineering, Inc. with four copies of a summary reconnaissance report that will include the following:

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

- Photographic documentation for each identified historic resource. At a minimum, this documentation will include an oblique view of the primary facade and a side elevation of each resource, with the subject filling the frame. All photographs will be 3.5" x 5" or 4" x 6" color prints. All photographs will be well-focused and clearly depict architectural and other details relevant to an evaluation of the resource's character-defining features. Photographs will be attached to separately labeled pages that clearly identify project name, address (or location) of resource, and site ID number.

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

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

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

Draft copies of the report will be submitted to L&G Engineering for review and comment prior to submittal to ENV for their review. Once the draft has been reviewed, any appropriate edits will be made and a final report will be submitted to L&G Engineering and ENV.

FC 130 ~ PRELIMINARY ROW DETERMINATION

(SERVICES TO BE PROVIDED BY RODS SURVEYING)

FM 493 FROM MILE 10 TO SH 107

General

1. The **Surveyor** will recover and or re-establish the existing Right-of-Way for the subject project.
2. The **Surveyor** shall monument the recovered ROW at all at all PCs, PTs, angle points, intersecting right-of-way lines of side streets, and 1000-feet stations after coordinating with the L&G Engineer. The **Surveyor** shall also monument all ROW corners.
3. **The Surveyor will submit a separate existing R.O.W. layout drawing (at scale of 1 inch = 100 feet), delineating the existing points recovered and all R.O.W. monuments that will be set before setting any points on the ground**. This map shall be utilized by L&G to attach it to the requests for the utility companies to adjust their lines prior to construction.
   a. This map shall also contain the proposed centerline as set on the ground – **again do not set a centerline for construction until L&G Engineers have approved.**
   b. Existing right-of-way lines will be delineated with appropriate bearings, distances, and curve data. The proposed centerline alignment will be delineated with appropriate bearings, distances, curve data and stationing. The existing ROW layout sheets stationing will be based on the proposed alignment. A north arrow will be shown on each sheet and, if possible, in the upper right hand corner.
   c. Monumentation set or found will be shown and described as to material and size.
   d. A station and offset based on the proposed alignment will be shown for all points set and/or recovered.
   e. Intersecting streets will be shown and identified by name and right-of-way width.
   f. Railroads will be shown and identified by name and right-of-way width.
   g. A note will be included on each sheet stating the basis of bearings, coordinates, and datum used.
   h. All existing right-of-way layout sheets shall be 11" x 17". The borders around these map sheets should ½" from the right side of the map, the top and the bottom. The border on the left side is 2". Scale of 1"=100'.

FC 150 ~ DESIGN SURVEYING

(SERVICES TO BE PROVIDED BY RODS SURVEYING)

FM 493 FROM MILE 10 TO SH 107

A. Design Survey

1. **The Limit of the Design survey shall be 1000-ft before and after the limits of the project. Set horizontal and vertical control for FM 493 between Mile 10 and SH 107. The Basis for the H &V Control shall be the control previously established on FM 493 south of Mile 10.** Set benchmarks at max 1000-ft intervals. The BM's shall be #5 I.R. 2-ft in depth set in concrete. An H&V Book will be provided to the Engineer with 3-pt reference ties.
2. Field Topographic Survey - Verify accuracy of existing topographic information by checking coordinates of Horizontal control points and elevations of benchmarks previously established by TxDOT.

3. Update existing planimetric data with current information of any improvements and apparent changes in the topography since the original planimetric data was obtained as well as field tie all existing drainage structures, driveways, and pavement edges as well as all existing roadway centerline and roadside drainage ditch profiles.
4. Fill all existing planimetric mapping void areas along FM 493, data processing and CADD mapping (2d and 3d) update, (4.7 Miles including additional limits).
5. Field locate cross culverts, driveway culverts, inverts, irrigation lines, within the project limits, data processing and CADD mapping (2d and 3d) update.
6. Right of Entry, Right of Way Research, and Appraisal District Records is the responsibility of the surveyor.

6a. The surveyor shall recover and reestablish the existing centerline then coordinate with the Engineer to establish the existing centerline stationing based on the old stationing of the previous plans south of Mile 10.

7. Stake proposed centerline/baseline at 1000-foot stations, PC's and PT's as directed by Engineer. (No. 5 I.R. 2-ft long).—FOR CONSTRUCTION but not until the Engineer directs the surveyor to do so.
8. **The Surveyor shall also paint the proposed centerline on the proposed pavement. (500-ft stations and a tick mark at 100-ft stations ---12 inches long with approved paint by Engineer) before construction for the purpose of utility adjustments and project location.**
9. Extend topographic survey 500 feet to each side of the existing Right-of-Way on all the intersecting streets for the limit of the project except at the existing drain ditches, the survey shall be extended 500-ft east and west from the existing FM 493 ROW and the x-sections shall be 50-ft Lt and Rt from the ditch centerline plus tieing in all topo.

B. Utilities

1. Coordinate with engineer to have all existing underground utilities marked by utility companies along FM 493 and intersecting streets. Field tie the marked locations and process the information to include in the planimetric CADD mapping files. Utility lines shall be properly labeled and placed in separate levels in accordance with TxDOT requirements.
2. Collect vertical information of all exposed (by utility companies) utilities that have been identified as possible conflicts by the Engineer and process as above.

C. Miscellaneous

1. Provide the engineer with a copy of all field books developed during this project. The field books shall supplement the graphical information submitted by the surveyor. Accurate sketches of the existing conditions of all irrigation and drainage structures that were tied down by the surveyor shall be included in the field books.

2. A horizontal and vertical. control book shall be submitted to the engineer. This control book shall include the reference sketches to the BM's and Horizontal Control. Points as well as describe the basis of the datum's used.

FC 160 – DESIGN (SERVICES TO BE PROVIDED BY L&G)

PS&E for the above work shall be prepared in accordance with the applicable requirements of TxDOT Specifications, Standards, and manuals (updated for revisions). Whenever possible, the Department's standard drawings, standard specifications, or previously approved special provisions and/or special specifications will be used. If a special provision and/or special specification must be developed for this project, it shall be in the Departmental format and, to the extent possible, incorporate references to approved Department test procedures.

The Engineer shall furnish three (3) final cross-section plots showing both the original terrain (modified) and the design cross-sections, showing the roadway template. The design cross-sections shall indicate the slope rate on the side slopes.

FC 161 – DRAINAGE (SERVICES TO BE PROVIDED BY L&G)

The Engineer will perform a Geopak Drainage generated drainage analysis for all drain systems which will also include contributing runoff from the Adjacent Properties. This drainage analysis will be prepared prior to detailed design of drainage structures and will contain drainage area map(s), hydraulic calculations and Thysys and/or HEC-RAS analysis for TxDOT to approve.

FC 161 - STORM WATER POLUTION PREVENTION PLAN (SW3P)
(SERVICES TO BE PROVIDED BY L&G)

The **ENGINEER** shall complete the plans adequately addressing a storm water pollution prevention plan for the entire project during all phases of construction. SW3P layouts shall be developed on the TCP plan sheets. SW3P plans shall **generally** include the following drawings:

- **Summary Sheet on TCP's**
- **Details & Standards**

The Engineer shall develop a project specific Storm Water Pollution Prevention Plan (SW3P) to comply with the Federal Regulations (40 CFR part 122) published in the Federal Register on Sept. 9, 1992.

FC 162 - SIGNAL DESIGN

(SERVICES TO BE PROVIDED BY ETSI)

PROJECT LIMITS:

FM 493: From Mile 10 North to SH 107

GENERAL SCOPE OF WORK:

Project Understanding

Ergonomic Transportation Solutions, Inc. (ETSI) will produce a complete set of Plans, Specifications and Estimates (PS&E) that cover the installation of permanent signals along FM 493 at the following intersections:

- FM 493 at Mile 10 1/2 – Existing signal will require major modifications, such as pole relocation and rewiring, new loop detector placement and controller relocation.
- FM 493 at Mile 14 1/2 – Install new flashing beacon.
- FM 493 at Mile 15 – Existing signal will require major modifications, such as pole relocation and rewiring, new loop detector placement and controller relocation.
- FM 493 at SH 107 – Existing signal will require major modifications, such as pole relocation and rewiring, new loop detector placement and controller relocation.
- FM 493 at Mile 16 – Existing Flashing Beacon will require major modifications such as pole relocation and re-wiring.
- FM 493 at SH 107 – Existing signal will require significant modifications, such as rewiring and new loop detector placement.

TASK 1 – General Notes for Traffic Signal installation

ETSI will setup the General Notes sheet(s) and prepare the general notes for the traffic signal design, as well as the signing, pavement marking and wheelchair ramp design at the above intersections.

TASK 2 – Estimate and Quantities

ETSI will prepare Basis of Estimate sheets with adequate number of columns to reflect the number of the above intersections and one column for the total quantities.

ETSI will calculate quantities and prepare cost estimates at 60%, 90% and 100% levels of completion.

TASK 3 – Condition Diagram

ETSI will setup the condition diagram sheets that would show the existing configuration of each intersection and other elements as required by TxDOT.

TASK 4 – Proposed Signal Plan Layout

ETSI will setup proposed signal layout sheets that would show the proposed geometry of the above intersections along with the basic elements of the signal design, such as location of signal poles, pedestrian poles, wheel chair ramps, cross walks and service pole locations.

ETSI with assistance from L&G Engineering will contact the local power company for electrical service requirements at each of the above interceptions.

ETSI will produce submittals for TxDOT's review at the 60%, 90% and 100% completion levels.

TASK 5 – Signal Phasing and Timing

Based on traffic counts furnished by TxDOT, ETSI will develop optimal phasing and timing charts for each of the AM peak, PM peak and Off-peak time periods, using appropriate software. The charts will be presented to TxDOT for review and approval before their incorporation into the plan sheets.

TASK 6 – Standard Sheets List

ETSI will prepare a list of standard sheets for the 60%, 90% and 100% submittals. ETSI will also prepare the drill shaft tables on the TSFD standard sheet as well as the shipping parts list on the SP/SMA standard sheet.

TASK 7 –Specifications List and Cost Estimate

ETSI will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. ETSI will also prepare cost estimates at the 60%, 90% and 100% submittals.

TASK 8 – Electrical Schedules

ETSI will prepare tables, depicting the electrical schedule for each signalized intersection. The electrical schedules will be shown on the same sheets with the loop detector schedules and phasing/timing tables.

TASK 9 – Field Investigation and Meetings

ETSI will conduct field investigations at the above intersection locations and record pertinent signal design information as well as identify potential design issues.

ETSI will participate in one project progress meeting with L&G/TxDOT.

TASK 10 – Other services

ETSI will provide tables with electrical service data for each of the services poles required at the above intersections.

Other services not covered in the above scope will be negotiated separately.

ADDITIONAL SERVICES

Additional services not covered in the above scope will be negotiated separately. In addition to the above intersections, ETSI will conduct field investigations at the intersection of FM 493 and Mile 10. From available photographs, it appears that no signal work will be necessary at this intersection. However, if during field investigations, it is determined that signal modifications are necessary, the effort required to prepare the signal modification plans will be negotiated separately.

It is also possible that temporary traffic signal plans may be necessary at the intersection of FM 493 with SH 107, to control traffic during construction. The right of way at this intersection is limited and handling traffic during contraction may require interim traffic signals. After development of the traffic control plans, ETSI will investigate the need for temporary traffic signals and the effort required to prepare temporary signal plans will be negotiated separately.

FC 162 - SIGNAL DESIGN

(SERVICES TO BE PROVIDED BY L&G)

L&G shall furnish ETSI hard copies and electronic versions of the existing topographic data as well as the proposed geometric design with all related reference files.

L&G will be responsible for contacting all utility companies present at the above intersections and furnish such information to ETSI. ETSI will assist L&G in identifying and resolving utility conflicts as required by L&G.

L&G shall also provide coordination and communication for the progress of the signal design work among all parties involved.

FC 162 – PAVEMENT MARKING AND MARKER LAYOUTS

(SERVICES TO BE PROVIDED BY L&G)

TASK 1 – Plan Layouts (1"=100')

L&G will produce a complete set of Plans, Specifications and Estimates (PS&E) that cover the pavement marking and markers along FM 493 and all cross street approaches for the length shown in the plan and profile layouts. Work will include design of ADA compliant wheelchair ramps that line up with the proposed crosswalks and signal pole locations. L&G will coordinate signal pole placement with cross walks and wheel chair ramps. L&GI will prepare pavement marking details for the following cross streets:

FM 493 at Mile 10 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 11 - Pavement markings for transition to existing roadway.
FM 493 at Mile 11 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 12 - Pavement markings for transition to existing roadway.
FM 493 at Mile 12 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 13 - Pavement markings for transition to existing roadway.
FM 493 at Mile 13 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 14 - Pavement markings for transition to existing roadway.
FM 493 at Mile 14 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 15 - Pavement markings for transition to existing roadway.
FM 493 at Mile 15 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 16 - Pavement markings for transition to existing roadway.
FM 493 at SH 107 - Pavement markings for transition to existing roadway.

TASK 2 – Estimate and Quantities

L&G will prepare a summary of pavement marking and marker quantities (Basis of Estimate sheet) with adequate number of columns to reflect the types of markings to be installed by each payout sheet and one column for the total quantities.

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 3 – Standard Sheets List

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 4 –Specifications List and Cost Estimate

L&G will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. L&G will also prepare cost estimates at the 60%, 90% and 100% submittals.

FC 162 – SIGNING AND DELINEATION LAYOUTS

(SERVICES TO BE PROVIDED BY L&G)

TASK 1 – Plan Layouts (1"=100')

L&G will produce a complete set of Plans, Specifications and Estimates (PS&E) that cover the signing and delineation along FM 493 and all cross street approaches for the length shown in the

plan and profile layouts. The work will include design of flashing beacons near the School. The plans will show the following:

Existing signs to remain in place
Existing signs to be removed
Proposed new signs
Proposed new delineators and object markers.

L&G will prepare signing and delineation plans for all major cross streets.

TASK 2 – Summary of Small Signs

L&G will prepare a summary of small signs sheets along with a descriptive codes sheet. (Basis of Estimate sheet).

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 3 – Standard Sheets List

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 4 –Specifications List and Cost Estimate

L&G will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. L&G will also prepare cost estimates at the 60%, 90% and 100% submittals.

FC 163 - IRRIGATION SIPHONS AND CANALS

(SERVICES TO BE PROVIDED BY L&G)

The ENGINEER shall coordinate with the Irrigation District(s) and prepare all necessary drawings needed for maintaining the functionality of irrigation districts irrigation lines.

FC 163: TRAFFIC CONTROL

(SERVICES TO BE PROVIDED BY L&G)

The Engineer shall determine the project construction sequence and design a traffic control plan based upon the Texas MUTCD and the latest district traffic control design requirements. This shall include field investigations into such items as any Drainage Structures, utilities, R.O.W. restrictions, adjacent properties and cross street access, and other items which may ultimately affect the safe handling of traffic during the construction sequence.

The engineer shall meet with the Pharr District personnel early in the project design as soon as a construction sequence is developed. The construction sequence shall be updated periodically as the design progresses.

The engineer shall prepare drawings for each phase, based upon the agreed sequence of construction. The drawings shall indicate traffic lanes versus work zones per phase, including all required detours. Consideration shall be given to the use of temporary traffic control signals and, if needed, how to utilize and coordinate with the various phases. The drawings will be used by the District to obtain final concept approval of the TCP from the District Traffic Control Review

Committee. Based on the results of the safety review team meeting, the detailed Traffic Control PS&E will be completed.

FC 163: UTILITIES

(SERVICES TO BE PROVIDED BY L&G)

The Engineer shall coordinate the utilities as follows: (L&G will conduct two utility meetings with the owners at the District Office or at L&G's office)

A. Determine the ownership of the existing utilities on the subject project.

B. Contact the utility owners and locate (horizontally and vertically) existing utilities on the ground.

C. Evaluate utility conflicts with proposed construction. Prepare and submit drawings to the City, Utility Companies and copies to TxDOT, for required utility adjustment. The following information will be submitted for each required utility adjustment.

1. A reproducible drawing 8-1\2" x 11", 11" x 17", or 22" x 34" (as appropriate) for each utility adjustment

2. Drawing will include the following:

   a) Existing and/or proposed R.O.W lines.
   b) Existing and/or proposed roadways.
   c) Proposed drainage structure
   d) Existing underground utility in plan and profile.
   e) Owner of utility.
   f) Benchmark

3. Provide copies to TxDOT of correspondence with utility companies and cities. If initial contact was made by phone, provide name of company and representative's name and telephone number.

4. Prepare a detailed list to TxDOT of all conflicts with existing utilities during the drainage structure design phase. List must include the following:

   a) Highway station number.
   b) Name of utility company and type of facility.
   c) Proposed highway facility - the conflict with: storm sewer, roadway, drainage ditch, drill shaft, etc.

4. The Engineer shall be responsible for notifying all utility owners, early in the design phase, regarding any utility adjustments.

5. Utility agreements to be developed by consultant, sent by consultant to companies and coordinate with them.

FC 164 – CONTRACT MANAGEMENT

(SERVICES TO BE PROVIDED BY L&G)

The Engineer will be required to meet with designated TxDOT representatives on a regularly scheduled basis to report on progress. A typewritten progress report will be required, together with evidence of the work accomplished during the period since the previous report. A bar chart indicating the percentage of completion of each task shown on Attachment "C" will also be required. Formal progress reports with bar charts will be required on a monthly basis.

The Engineer will establish a separate cost accounting system for each control-section-job (C-S-J) number to properly allocate all labor and expenses incurred. The Engineer shall invoice monthly according to Function Code breakdowns.

FC 170 – BRIDGE DESIGN

(SERVICES TO BE PROVIDED BY L&G)

A. Develop one (1) bridge layout for the proposed structure as outlined by the Pharr District Bridge Layout checklist. The proposed structure will yield one layout sheet. Scale will be 1"=20' horizontal and vertical.
   1. This scope assumes one (1) proposed bridge structure just south of SH107 over HCDD#1 Drain.
   2. Perform a study to justify structure type.

B. Develop one (1) sheet showing construction phasing for the proposed structure.

C. L&G will provide all other design and detailing necessary for the bridge.

EXHIBIT "C"
WORK SCHEDULE

Client: Hidalgo County

ATTACHMENT C
WORK SCHEDULE
FM 493
FROM MILE 10 TO SH 107

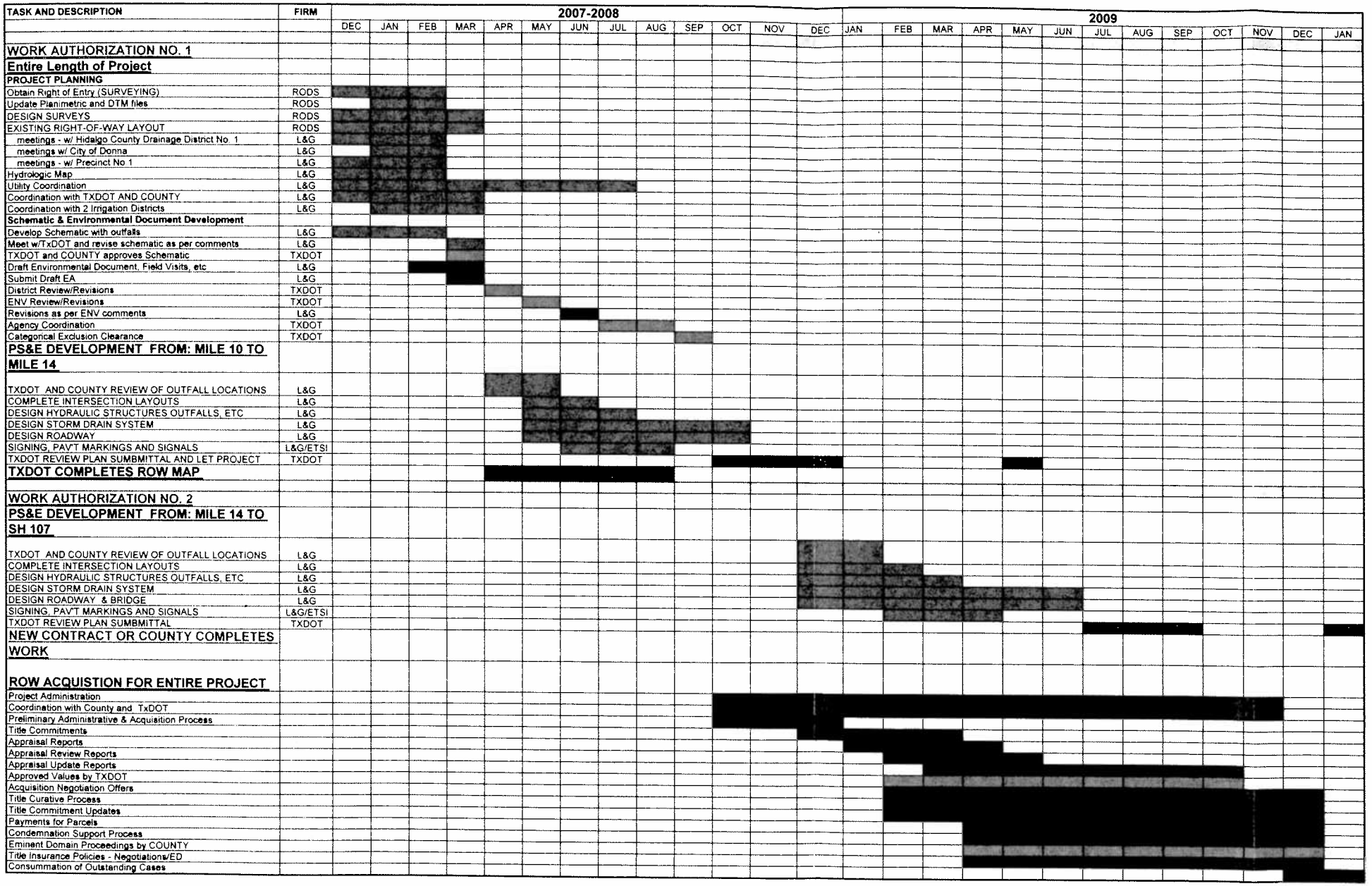

EXHIBIT "D"

FEE SCHEDULE

EXHIBIT "D" FEE SCHEDULE
L&G Consulting Engineers, Inc
2007

Job Description (NSPE Grade)	Base Rate*	Contract Rate**
Project Manager	50.00	155.00
Senior Engineer	44.00	136.40
Env. Manager/Specialist	43.00	133.30
Engineer	33.65	104.32
GIS/ Env. Specialist	32.09	99.48
Designer	33.00	102.30
Engineer in Training (EIT)	24.72	76.63
Engineering Technician	24.04	74.52
CADD Operator	21.00	65.10
Administrative Assistant	17.50	54.25

Direct Labor = 100.00%
Overhead = 175.00%
Direct Labor + Overhead = 275.00%
Profit Rate = 12.5%
(275.00 x 0.125) =34.38
Multiplier = (275.00+ 34.38)/100 = 3.10

* Base Rate = average weighted estimated salary without burden.
** These are the rates to be used to negotiate work authorizations: These rates are estimates: Billings will be invoiced at Base Rate marked up by 3.10

*Base Rate = estimated raw salary without burden

REIMBURSABLE DIRECT EXPENSES

Mileage	$(***)/mi	*** Not to exceed prevailing rate for client
Car Rental	$60.00/Day	employees (additional lodging taxes allowed)
Lodging	$(***)/day	
Meals	$(***)/day	
Air Travel	$200/Round Trip	
B&W Copies (8.5x11)	$ 0.10 /sheet	
B&W Copies (11x17)	$ 0.20 /sheet	
Color Copies (8.5x11)	$ 1.00 /sheet	
Color Copies (11x17)	$ 1.50 /sheet	
Mylar (11x17)	$ 2.00 /sheet	
Report Binders/Materials	$ 9.00 /report	
Digital Plotter (Schematics)	$ 1.25 /sq. ft.	
Overnite Carrier Cost	$ 15.00 /each	
Bond Plots, third party	$ 2.00 /linear ft.	
Mylar Plots, third party	$ 3.50 /sq. ft.	
CADD Machine Cost	$ -	included in Overhead Rate

EXHIBIT "D" FEE SCHEDULE

ENGINEERING BUDGET ESTIMATE AND FEE FOR FM 493 NORTH PROJECT

ROADWAY PROJECT ENTIRE LENGTH.....	FM 493: Mile 10 to SH 107
LIMITS: Segment 1	Mile 10 North to Mile 14
LIMITS: Segment 2	Mile 14 North to SH 107
EXISTING ROADWAY SECTION:	40' - Rural
EXISTING ROW WIDTH:	variable 80' - Rural
PROPOSED ROADWAY SECTION:	64'-84' F-F max Urban + aux
PROPOSED ROW WIDTH:	120' max
ESTIMATED CONSTRUCTION COST for Segment 1...(3.5 Mil/mi).....	$14,000,000.00
EST CONSTRUCTION COST for Segment 2 plus Bridge...(3.5 Mil/mi plus 500K).....	$9,250,000.00
ESTIMATED TOTAL CONSTRUCTION COST for Segment 1 & 2.....	$23,250,000.00
LENGTH:	6.5 Miles

ESTIMATED PROJECT COSTS	*STATE*	*LOCAL*
TOTAL ROADWAY CONSTRUCTION COST	$23,250,000.00	$ -
WORK AUTHORIZATION NO. 1		
PHASE IA - PLANNING & DESIGN FOR SEGMENT 1&2		
Schematic		$ 292,950.00
L&G Survey Work		$ 25,000.00
H&V Control		$ 18,000.00
Establish Existing ROW		$ 73,500.00
Design Surveys including outfalls		$ 83,500.00
Environmental Assessment & PI Support and Hist and Archeological		$ 90,000.00
PHASE IB - DESIGN FOR SEGMENT 1		
PS&E Development		$ 980,000.00
Construction Management		$ 36,000.00
WORK AUTHORIZATION NO. 2		
PHASE IC - DESIGN FOR SEGMENT 2		
PS&E Development		$ 647,500.00
Bridge Design		$ -
Bridge Scour Report for TxDOT		$ 15,000.00
Bridge Layout for TxDOT		$ 25,000.00
Construction Management		$ 36,000.00
NEW CONTRACT OR COUNTY COMPLETES WORK		
PHASE II - ESTIMATED RIGHT OF WAY COSTS FOR SEGMENT 1 & 2		
ROW Mapping & Field Surveying (based on 130 parcels)	$ 286,000.00	
Compensible Utilities	$ 500,000.00	$ -
Roadway Right-of-Way Costs - 576000 sqft @ $4.00 average/sq ft	$ 934,187.00	$ -
Roadway Right-of-Way Costs - Acq.Services @ (est. 130 Parcels @ $10,000/Parcel Avg.)		$ 1,300,000.00
PHASE III - CONSTRUCTION FOR SEGMENT 1 & 2		
TxDOT Construction Inspection	$ 2,557,500.00	

SUB-TOTAL WORK AUTHORIZATION NO. 1		**$ 1,598,950.00**
SUB-TOTAL WORK AUTHORIZATION NO. 2		**$ 723,500.00**
ESTIMATED SUB-TOTAL PHASE II	**$1,720,187.00**	**$ 1,300,000.00**
ESTIMATED SUB-TOTAL PHASE III	**$25,807,500.00**	
TOTAL PROJECT COST		**$ 31,150,137.00**

EXHIBIT "E"
WORK AUTHORIZATION

HIDALGO COUNTY

Professional Engineering Services
Contract # _____
Work Authorization Form

WORK AUTHORIZATION NO. ___

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, _____, professional engineers of _____, Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide _____

_____

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 **$** _____. 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____ of the Agreement.

PART 4. FUNDING

This Work Authorization No.1 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.

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** _____, Commissioner _____ as to content and detail of this **Work Authorization No. ___**.

HIDALGO COUNTY

BY:_____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of ____ day of _____, 2006.

THE ENGINEER:

_____

By: Engineer

THE OWNER:
HIDALGO COUNTY

_____

By: Juan D. Salinas, III, County Judge

ATTEST:

_____

By: Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS

ATTACHMENT "A" - Service to be Provided by the Owner
ATTACHMENT "B" - Services to be Provided by the Engineer
ATTACHMENT "C" - Work Schedule
ATTACHMENT "D" - Cost Proposal

EXHIBIT "F"

SUPPLEMENTAL AGREEMENT

EXHIBIT "F"

Supplemental Agreement Form

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

SUPPLEMENTAL AGREEMENT NO. ___

TO AGREEMENT FOR PROFESSIONAL SERVICES

THIS **SUPPLEMENTAL AGREEMENT** is made pursuant to the terms and conditions of Article 8 of the Agreement made by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and _____, Professional Engineers of, _____, Texas, hereinafter called the "**Engineer**".

WITNESSETH

WHEREAS, the **Owner** and the **Engineer** executed the **Agreement** on the _____ day of _____ **2007** concerning engineering for _____
(hereinafter referred to as the "**Project**"); and,

WHEREAS, Article ___ of the **Agreement**, (article title), establishes _____; and,

WHEREAS, it has become necessary to amend the contract to

_____
_____

A. AGREEMENT

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

1. Article ___ of the **Agreement**, (article title), is revised to

_____
_____
_____
_____
_____
_____
_____

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

IN WITNESS WHEREOF, the Engineer and the Owner have caused this Supplemental Agreement to the Agreement for Professional Services to be executed as of the _____ day of _____, 20__.

THE ENGINEER:
ENGINEER

BY:_____

THE OWNER:
HIDALGO COUNTY

BY:_____
Juan D. Salinas III, County Judge

LIST OF ATTACHMENTS

(as required)

EXHIBIT "G"
CERTIFICATE OF INSURANCE

Client#: 11802 LGCONSU

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/05/07

PRODUCER
Hilb Rogal & Hobbs
(956)682-9423 FAX(956)687-1286
1400 N McColl Rd Suite 105
McAllen, TX 78501

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
L & G Consulting Engineers Inc
dba L & G Engineering
2100 W Expressway 83
Mercedes, TX 78570

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Fidelity & Guaranty Insurance Compan	35386
INSURER B: Travelers Casualty & Surety Co	25658
INSURER C: Ace American Insurance Company	22667
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC	PACP2822L500TLC07	07/19/07	07/19/08	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$2,000,000 $300,000 $5,000 $2,000,000 $4,000,000 $4,000,000
A		AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS	PACP2822L500TLC07	07/19/07	07/19/08	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000 $ $ $
		GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
		EXCESS/UMBRELLA LIABILITY [ ] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [ ] RETENTION $				EACH OCCURRENCE AGGREGATE	$ $
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	IACRUB2567B95507	07/23/07	07/23/08	[ ] WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$1,000,000 $1,000,000 $1,000,000
C		OTHER Professional	G2363384A001	07/20/07	07/20/08	$1,000,000 ea. claim $1,000,000 aggregate $15,000 ded. ea. claim	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

** Supplemental Name **

First Supplemental Name applies to all policies - L & G Consulting Engineers Inc

CERTIFICATE HOLDER

County of Hidalgo
100 E Cano
Edinburg, TX 78539

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Brian E. Lewis

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

HIDALGO COUNTY
Professional Engineering Services
Contract # C-07-451-12-26
Work Authorization Form

WORK AUTHORIZATION NO. 1

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

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide Engineering Services required for the preparation of Schematics, Environmental Assessment, Public Involvement, ROW Mapping, Surveying, and Roadway Design for the reconstruction of FM 493 from Mile 10 to Mile 14.

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 **$1,598,950.00**. 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 **7** of the Agreement.

PART 4. FUNDING

This Work Authorization No.1 shall be funded through funding source:
Account No. **7-1336-431-00-121-049-0-841**
Requisition Number **123580** **(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. 1,** Commissioner Sylvia S. Handy, as to content and detail of this **Work Authorization No. 1**

HIDALGO COUNTY PRECINCT NO. 1

BY: _____
Sylvia S. Handy, Commissioner

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of ____ day of _____, 2007.

THE ENGINEER:

_____
By: Jacinto Garza, P.E.

THE OWNER:
HIDALGO COUNTY

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

ATTEST:

_____
By: Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS

EXHIBIT "A" - Service to be Provided by the Owner
EXHIBIT "B" - Services to be Provided by the Engineer
EXHIBIT "C" - Work Schedule
EXHIBIT "D" - Cost Proposal

EXHIBIT "A"

SERVICES TO BE
PROVIDED BY OWNER

EXHIBIT "A"

Services to be provided by the OWNER

The following provides an outline of the services to be provided by the OWNER in the development of the Project.

The OWNER will provide to the ENGINEER the following:

(1) Authorization to the ENGINEER to begin work in accordance with Section 3 of this Agreement.

(2) Payment for work performed by the ENGINEER and accepted by the OWNER in accordance with Section 6 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 that 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 Attachment "C" of this Agreement.

(6) Attend and participate in progress meetings as required and as coordinated and conducted by the ENGINEER.

(7) Assist the ENGINEER in the preparation of the project mailing list; provide representation, a site and stenographer for all public meetings; additionally:

Public Meetings

(a) Approve agenda and all exhibits prior to public meeting.
(b) Approve date and location of the meeting.
(c) Review/approve Public Meeting Report.

(8) Attend the Preliminary Concept Conference coordinated and conducted by the ENGINEER and more particularly identified in Attachment "B" of the Agreement.

(9) Assist the ENGINEER as required in the coordination with the USACE and the Federal Emergency Management Agency (FEMA) and any other coordinating agency or entity.

(10) Review and approve the Project design criteria.

(11) Review and approve change orders as required and prepared by the ENGINEER.

EXHIBIT "B"

SCOPE OF SERVICES

TO BE PROVIDED BY ENGINEER

EXHIBIT "B"

Services to be provided by the Engineer

PROJECT LIMITS:

- **FM 493: From Mile 10 North to Mile 14**

GENERAL SCOPE OF WORK:

The work to be performed by the Engineer under this Work Authorization shall consist of providing Engineering Services required for the preparation of Schematics, Environmental Assessment, Public Involvement, ROW Mapping, Surveying, Bridge and Roadway Design. The Engineer will prepare bid packages as identified in each Work Authorization for Plans, Specifications, and Estimates (PS&E) for the reconstruction of FM 493 From Mile 10 to Mile 14 in Segments, from an existing 40' rural roadway to a 5-lane curb & gutter roadway with a continuous left turn lane including all associated drainage, structures, and grading including Traffic Control, Signing & Striping, and Traffic Signal/Flashing Beacon Installations for the subject limits.

The work to be performed by the Engineer under Work Authorization No. 1 shall also include the review of the existing drainage patterns to determine if the proposed roadway can be designed utilizing the existing outfalls. The basis for this estimate is based on the premise that the existing outfalls located at the ROW line of FM 493 will be utilized. The Engineer will examine the proposed outfall locations and associated hydrologic and hydraulic conditions and determine the feasibility and practicality of using the existing outfalls or if new outfalls are needed. **This scope does not include designing outfalls outside of the existing ROW for FM 493.**

The **Engineer** will furnish all equipment, materials, supplies, and incidentals as needed to perform the services required by this Work Authorization, except as otherwise specified in Exhibit A, "Services to be Provided by the State".

GENERAL SCOPE OF WORK:

The Scope of Work for this Work Authorization will be identified as follows:

- ***FC110 ~ Design Schematic Development***
- ***FC120 ~Social, Economic, and Environmental Studies, and Public Involvement***
- ***FC130 ~ Existing Right-of-Way Determination***
- ***FC150 ~ Design Surveys***
- ***FC160 ~ Roadway Design***
- ***FC161 ~ Hydrologic/Hydraulic Study***
- ***FC162 ~ Signing, Pav't Marking, Signals***
- ***FC163 ~ Irrigation Str., Estimate, Specs, Gen Notes, Misc***
- ***FC164 ~ Contract Management***

FC 110 ~ DESIGN SCHEMATIC DEVELOPMENT

After the existing centerline alignment is recovered and the proposed centerline is approved by TxDOT, the Engineer will develop a design schematic for submittal to TxDOT's Design Division.

Design Criteria

- The Engineer will prepare a Design Summary Report (DSR) to document the design criteria for the project and submit it to TxDOT for further processing.
- A Design Concept Conference (DCC) will be held to discuss and review the design criteria. The Engineer will prepare a Meeting Summary Report which will describe in detail the decisions made at the DCC and distribute it to everyone in attendance.
- The Engineer will prepare a preliminary construction cost estimate based on the results of the DCC and submit it to TxDOT.

Design Schematic

- The Engineer will develop a preliminary design schematic, based on the alignment previously selected, and submit to TxDOT for review.
- The Engineer will revise the schematic to incorporate TxDOT's comments and provide to TxDOT.
- A public meeting/hearing is not proposed for this project; however, a workshop/meeting with the City of Elsa is proposed and the Engineer will attend and will provide TxDOT with technical support.
- The Engineer will meet with TxDOT after the workshop/meeting to discuss modifications, if any, to the design schematic. The Engineer will incorporate the changes agreed upon, into the schematic and submit the revised schematic to TxDOT for further submittal to the Design Division and/or FHWA.
- After receiving approval of the design schematic from TxDOT, the Engineer will proceed with finalizing the design and complete the PS&E.
- This Scope does not include technical assistance for either a Public Meeting and/or Public Hearing.
- The Schematic details will be completed to the Districts identified checklist.

Drainage

- The Engineer will evaluate the adequacy of the existing outfalls and develop a Hydrologic Map for the project identifying if any outfalls are needed for the project. The Engineer will coordinate with the Hidalgo County Drainage District No. 1, the Irrigation Districts, and cities in the area.

Irrigation Structures

- The Engineer will define the horizontal layout of the irrigation system in place and draw on the schematic the basis for maintaining the irrigation system whole.

FC 120 ~ ENVIRONMENTAL STUDIES, AND PUBLIC INVOLVEMENT

The Engineer will conduct the necessary research and field investigations to prepare an Environmental Assessment document to obtain a Categorical Exclusion clearance for the project.

Task I. Document Purpose and Need for the Project: This section will include text and graphics illustrating the description, purpose and need, objectives of the project and the existing and proposed project design. This section will also provide a description of the issues eliminated from further study.

Task II. Alternatives: This section will include text and graphics illustrating the different alternatives considered prior to selecting the preferred. It will also describe the reasonable alternatives and those eliminated from further study.

Task III. Affected Environment and Environmental Consequences: For each of the following categories the necessary background and field reconnaissance will be performed to gather data necessary for the completion of the EA. This will assist in determining which issues should be eliminated from further study or studied in detail.

Land Use and Socio-economic Impacts: Pertinent social and economic issues will be addressed in the EA; a separate report will not be prepared. At this time, it is unknown if relocations will occur; however, the EA will address any relocations anticipated. No other impacts to land use, land planning or socio-economic issues are anticipated. A Section 4(f)/6(f) will not be prepared.

Ecological Resources: A characterization of the project's ecological resources, including wetlands, vegetation, prime farmland and wildlife habitat characteristics will be performed. Ecologically sensitive resources including protected species, if any, will be identified in order to assess potential effects of project construction and operation. Any presence or absence surveys for endangered species will not be conducted. The project will be assessed for compliance with the Nationwide Permit Program; however, a permit is not anticipated. Any permitting required will be conducted by TxDOT.

Hazardous Materials: A field screening and an internet data search for potential hazardous materials sites will be conducted. A Phase I Environmental Site Assessment for hazardous materials will not be conducted.

Noise and Air Quality: A noise analysis and air quality impacts will be assessed under this scope.

Field Investigations: Field visits to identify potential environmental constraints involving land use, ecological resources and potential hazardous material sites will be conducted.

Graphics: Report graphics will be prepared for the EA as needed to show the project location, typical sections and project area photographs. In addition, the project layouts/photographs will show those resources that are necessary to convey the project's impacts to the reviewers.

Public Involvement – A discussion will be provided regarding any public involvement which occurs on the project. The Engineer will assist the District in providing technical support for one workshop/meeting. No other public involvement activities will be done under this scope.

Report Preparation and Submittal – The Engineer will prepare an environmental document (EA) that complies with applicable procedures of the National Environmental Policy Act (EPA) and Federal Highway Administration Technical Advisory 6640.8A. The analysis will address the adverse and beneficial impacts of project construction and operation. Mitigation options will be emphasized where adverse impacts may potentially occur.

The Engineer will submit one draft copy of the report for review by the District. Color photographs and exhibits will be included in both the draft and final reports. All review comment responses will be provided in writing and a meeting will not be required to discuss review comments. The draft report will be revised to incorporate District's comments. Thirteen (13) sets of the revised report will be submitted for review by ENV. After ENV reviews the report, the document will be revised and eight (8) sets of the report will be submitted. Because this project would obtain a Categorical Exclusion, no other revisions will need to be made. Upon receiving a Categorical Exclusion, a CD which includes the document and exhibits will be provided to the District for their files.

Coordination – L&G will coordinate with the SWCA to conduct the Historical Resources Survey and report. TxDOT will coordinate with the appropriate resource agencies to obtain environment clearance for completion of project.

Assumptions used to derive to proposed fee estimate and scope of services:

- The Engineer will conduct field investigations in two field trips.
- The Engineer will attend the DCC and one workshop/meeting.
- All investigations will be conducted based on existing literature, field reconnaissance and aerial photographic interpretation.
- The draft EA will be submitted to TxDOT in less than 30 days after obtaining a preliminary schematic and/or receipt of data needed.

FC 120 ~ ENVIRONMENTAL STUDIES, AND PUBLIC INVOLVEMENT

(SERVICES TO BE PROVIDED BY SWCA)

SWCA, Inc. will conduct the historic resource investigations for inclusion in this report and/or submittal to the Texas Historical Commission (THC).

The following tasks will be performed by SWCA on behalf of L&G Engineering for a proposed 6-mile road improvement project of Farm-to-Market (FM) 493 from Mile 10 Road to SH 107 in Hidalgo County, Texas. SWCA will identify, document, and record extant buildings, structures, and objects constructed 50 years prior to the letting date of the construction project or earlier within the project's Area of Potential Effect (APE). SWCA will then evaluate all identified resources for National Register of Historic Places (NRHP) eligibility. The scope of services and associated cost estimate are based on the assumption that the APE/survey area will extend 150 feet beyond the proposed right-of-way boundaries. It is additionally assumed that up to 100

historic resources may be located within the survey area, based on a cursory examination of the Edcouch USGS 7.5' quadrangle maps, and the fact that the project area travels through the center of the town of Elsa (established in 1927). The client shall provide SWCA with details of the proposed project, including a description of the existing roadway and an outline of the proposed roadway construction. This outline will include road improvements and landscape alterations such as the development of curbs, drainage systems, sidewalks, and ditches. The proposed scope of services is a reconnaissance-level identification and evaluation of non-archaeological historic-age resources, which includes a literature review, reconnaissance survey, and summary reconnaissance report.

Literature Review and Research Design

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

Reconnaissance Survey

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

Summary Reconnaissance Report

SWCA will provide L&G Engineering, Inc. with four copies of a summary reconnaissance report that will include the following:

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

- Photographic documentation for each identified historic resource. At a minimum, this documentation will include an oblique view of the primary facade and a side elevation of each resource, with the subject filling the frame. All photographs will be 3.5" x 5" or 4" x 6" color prints. All photographs will be well-focused and clearly depict architectural and other

details relevant to an evaluation of the resource's character-defining features. Photographs will be attached to separately labeled pages that clearly identify project name, address (or location) of resource, and site ID number.

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

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

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

Draft copies of the report will be submitted to L&G Engineering for review and comment prior to submittal to ENV for their review. Once the draft has been reviewed, any appropriate edits will be made and a final report will be submitted to L&G Engineering and ENV.

FC 130 ~ PRELIMINARY ROW DETERMINATION

(SERVICES TO BE PROVIDED BY RODS SURVEYING)

FM 493 FROM MILE 10 TO MILE 14

General

1. The **Surveyor** will recover and or re-establish the existing Right-of-Way for the subject project.
2. The **Surveyor** shall monument the recovered ROW at all at all PCs, PTs, angle points, intersecting right-of-way lines of side streets, and 1000-feet stations after coordinating with the L&G Engineer. The **Surveyor** shall also monument all ROW corners.
3. **The Surveyor will submit a separate existing R.O.W. layout drawing (at scale of 1 inch = 100 feet), delineating the existing points recovered and all R.O.W. monuments that will be set before setting any points on the ground**. This map shall be utilized by L&G to attach it to the requests for the utility companies to adjust their lines prior to construction.
   a. This map shall also contain the proposed centerline as set on the ground – **again do not set a centerline for construction until L&G Engineers have approved.**
   b. Existing right-of-way lines will be delineated with appropriate bearings, distances, and curve data. The proposed centerline alignment will be delineated with appropriate bearings, distances, curve data and stationing. The existing ROW layout sheets stationing will be based on the proposed alignment. A north arrow will be shown on each sheet and, if possible, in the upper right hand corner.
   c. Monumentation set or found will be shown and described as to material and size.
   d. A station and offset based on the proposed alignment will be shown for all points set and/or recovered.
   e. Intersecting streets will be shown and identified by name and right-of-way width.
   f. Railroads will be shown and identified by name and right-of-way width.
   g. A note will be included on each sheet stating the basis of bearings, coordinates, and datum used.
   h. All existing right-of-way layout sheets shall be 11" x 17". The borders around these map sheets should ½" from the right side of the map, the top and the bottom. The border on the left side is 2". Scale of 1"=100'.

FC 150 ~ DESIGN SURVEYING

(SERVICES TO BE PROVIDED BY RODS SURVEYING)

FM 493 FROM MILE 10 TO MILE 14

A. Design Survey

1. **The Limit of the Design survey shall be 1000-ft before and after the limits of the project. Set horizontal and vertical control for FM 493 between Mile 10 and SH 107. The Basis for the H &V Control shall be the control previously established on FM 493 south of Mile 10.** Set benchmarks at max 1000-ft intervals. The BM's shall be #5 I.R. 2-ft in depth set in concrete. An H&V Book will be provided to the Engineer with 3-pt reference ties.

2. Field Topographic Survey - Verify accuracy of existing topographic information by checking coordinates of Horizontal control points and elevations of benchmarks previously established by TxDOT.
3. Update existing planimetric data with current information of any improvements and apparent changes in the topography since the original planimetric data was obtained as well as field tie all existing drainage structures, driveways, and pavement edges as well as all existing roadway centerline and roadside drainage ditch profiles.
4. Fill all existing planimetric mapping void areas along FM 493, data processing and CADD mapping (2d and 3d) update, (4.7 Miles including additional limits).
5. Field locate cross culverts, driveway culverts, inverts, irrigation lines, within the project limits, data processing and CADD mapping (2d and 3d) update.
6. Right of Entry, Right of Way Research, and Appraisal District Records is the responsibility of the surveyor.

6a. The surveyor shall recover and reestablish the existing centerline then coordinate with the Engineer to establish the existing centerline stationing based on the old stationing of the previous plans south of Mile 10.

7. Stake proposed centerline/baseline at 1000-foot stations, PC's and PT's as directed by Engineer. (No. 5 I.R. 2-ft long).—FOR CONSTRUCTION but not until the Engineer directs the surveyor to do so.
8. **The Surveyor shall also paint the proposed centerline on the proposed pavement. (500-ft stations and a tick mark at 100-ft stations ---12 inches long with approved paint by Engineer) before construction for the purpose of utility adjustments and project location.**
9. Extend topographic survey 500 feet to each side of the existing Right-of-Way on all the intersecting streets for the limit of the project except at the existing drain ditches, the survey shall be extended 500-ft east and west from the existing FM 493 ROW and the x-sections shall be 50-ft Lt and Rt from the ditch centerline plus tieing in all topo.

B. Utilities

1. Coordinate with engineer to have all existing underground utilities marked by utility companies along FM 493 and intersecting streets. Field tie the marked locations and process the information to include in the planimetric CADD mapping files. Utility lines shall be properly labeled and placed in separate levels in accordance with TxDOT requirements.
2. Collect vertical information of all exposed (by utility companies) utilities that have been identified as possible conflicts by the Engineer and process as above.

C. Miscellaneous

1. Provide the engineer with a copy of all field books developed during this project. The field books shall supplement the graphical information submitted by the surveyor. Accurate sketches of the existing conditions of all irrigation and drainage structures that were tied down by the surveyor shall be included in the field books.

2. A horizontal and vertical. control book shall be submitted to the engineer. This control book shall include the reference sketches to the BM's and Horizontal Control. Points as well as describe the basis of the datum's used.

FC 160 – DESIGN (SERVICES TO BE PROVIDED BY L&G)

PS&E for the above work shall be prepared in accordance with the applicable requirements of TxDOT Specifications, Standards, and manuals (updated for revisions). Whenever possible, the Department's standard drawings, standard specifications, or previously approved special provisions and/or special specifications will be used. If a special provision and/or special specification must be developed for this project, it shall be in the Departmental format and, to the extent possible, incorporate references to approved Department test procedures.

The Engineer shall furnish three (3) final cross-section plots showing both the original terrain (modified) and the design cross-sections, showing the roadway template. The design cross-sections shall indicate the slope rate on the side slopes.

FC 161 – DRAINAGE (SERVICES TO BE PROVIDED BY L&G)

The Engineer will perform a Geopak Drainage generated drainage analysis for all drain systems which will also include contributing runoff from the Adjacent Properties. This drainage analysis will be prepared prior to detailed design of drainage structures and will contain drainage area map(s), hydraulic calculations and Thysys and/or HEC-RAS analysis for TxDOT to approve.

FC 161 - STORM WATER POLUTION PREVENTION PLAN (SW3P)
(SERVICES TO BE PROVIDED BY L&G)

The **ENGINEER** shall complete the plans adequately addressing a storm water pollution prevention plan for the entire project during all phases of construction. SW3P layouts shall be developed on the TCP plan sheets. SW3P plans shall **generally** include the following drawings:

- **Summary Sheet on TCP's**
- **Details & Standards**

The Engineer shall develop a project specific Storm Water Pollution Prevention Plan (SW3P) to comply with the Federal Regulations (40 CFR part 122) published in the Federal Register on Sept. 9, 1992.

FC 162 - SIGNAL DESIGN
(SERVICES TO BE PROVIDED BY ETSI)

PROJECT LIMITS:
FM 493: From Mile 10 North to MILE 14

GENERAL SCOPE OF WORK:

Project Understanding

Ergonomic Transportation Solutions, Inc. (ETSI) will produce a complete set of Plans,

Specifications and Estimates (PS&E) that cover the installation of permanent signals along FM 493 at the following intersections:

FM 493 at Mile 10 1/2 – Existing signal will require major modifications, such as pole relocation and rewiring, new loop detector placement and controller relocation.

TASK 1 – General Notes for Traffic Signal installation

ETSI will setup the General Notes sheet(s) and prepare the general notes for the traffic signal design, as well as the signing, pavement marking and wheelchair ramp design at the above intersections.

TASK 2 – Estimate and Quantities

ETSI will prepare Basis of Estimate sheets with adequate number of columns to reflect the number of the above intersections and one column for the total quantities.

ETSI will calculate quantities and prepare cost estimates at 60%, 90% and 100% levels of completion.

TASK 3 – Condition Diagram

ETSI will setup the condition diagram sheets that would show the existing configuration of each intersection and other elements as required by TxDOT.

TASK 4 – Proposed Signal Plan Layout

ETSI will setup proposed signal layout sheets that would show the proposed geometry of the above intersections along with the basic elements of the signal design, such as location of signal poles, pedestrian poles, wheel chair ramps, cross walks and service pole locations.

ETSI with assistance from L&G Engineering will contact the local power company for electrical service requirements at each of the above interceptions.

ETSI will produce submittals for TxDOT's review at the 60%, 90% and 100% completion levels.

TASK 5 – Signal Phasing and Timing

Based on traffic counts furnished by TxDOT, ETSI will develop optimal phasing and timing charts for each of the AM peak, PM peak and Off-peak time periods, using appropriate software. The charts will be presented to TxDOT for review and approval before their incorporation into the plan sheets.

TASK 6 – Standard Sheets List

ETSI will prepare a list of standard sheets for the 60%, 90% and 100% submittals. ETSI will also prepare the drill shaft tables on the TSFD standard sheet as well as the shipping parts list on the SP/SMA standard sheet.

TASK 7 –Specifications List and Cost Estimate

ETSI will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. ETSI will also prepare cost estimates at the 60%, 90% and 100% submittals.

TASK 8 – Electrical Schedules

ETSI will prepare tables, depicting the electrical schedule for each signalized intersection. The electrical schedules will be shown on the same sheets with the loop detector schedules and phasing/timing tables.

TASK 9 – Field Investigation and Meetings

ETSI will conduct field investigations at the above intersection locations and record pertinent signal design information as well as identify potential design issues.

ETSI will participate in one project progress meeting with L&G/TxDOT.

TASK 10 – Other services

ETSI will provide tables with electrical service data for each of the services poles required at the above intersections.

Other services not covered in the above scope will be negotiated separately.

ADDITIONAL SERVICES

Additional services not covered in the above scope will be negotiated separately. In addition to the above intersections, ETSI will conduct field investigations at the intersection of FM 493 and Mile 10. From available photographs, it appears that no signal work will be necessary at this intersection. However, if during field investigations, it is determined that signal modifications are necessary, the effort required to prepare the signal modification plans will be negotiated separately.

It is also possible that temporary traffic signal plans may be necessary at the intersection of FM 493 with MILE 14, to control traffic during construction. The right of way at this intersection is limited and handling traffic during contraction may require interim traffic signals. After development of the traffic control plans, ETSI will investigate the need for temporary traffic signals and the effort required to prepare temporary signal plans will be negotiated separately.

FC 162 - SIGNAL DESIGN

(SERVICES TO BE PROVIDED BY L&G)

L&G shall furnish ETSI hard copies and electronic versions of the existing topographic data as well as the proposed geometric design with all related reference files.

L&G will be responsible for contacting all utility companies present at the above intersections and furnish such information to ETSI. ETSI will assist L&G in identifying and resolving utility conflicts as required by L&G.

L&G shall also provide coordination and communication for the progress of the signal design work among all parties involved.

FC 162 – PAVEMENT MARKING AND MARKER LAYOUTS

(SERVICES TO BE PROVIDED BY L&G)

TASK 1 – Plan Layouts (1"=100')

L&G will produce a complete set of Plans, Specifications and Estimates (PS&E) that cover the pavement marking and markers along FM 493 and all cross street approaches for the length shown in the plan and profile layouts. Work will include design of ADA compliant wheelchair ramps that line up with the proposed crosswalks and signal pole locations. L&G will coordinate signal pole placement with cross walks and wheel chair ramps. L&GI will prepare pavement marking details for the following cross streets:

FM 493 at Mile 10 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 11 - Pavement markings for transition to existing roadway.
FM 493 at Mile 11 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 12 - Pavement markings for transition to existing roadway.
FM 493 at Mile 12 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 13 - Pavement markings for transition to existing roadway.
FM 493 at Mile 13 ½ - Pavement markings for transition to existing roadway.
FM 493 at Mile 14 - Pavement markings for transition to existing roadway.

TASK 2 – Estimate and Quantities

L&G will prepare a summary of pavement marking and marker quantities (Basis of Estimate sheet) with adequate number of columns to reflect the types of markings to be installed by each payout sheet and one column for the total quantities.

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 3 – Standard Sheets List

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 4 –Specifications List and Cost Estimate

L&G will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. L&G will also prepare cost estimates at the 60%, 90% and 100% submittals.

FC 162 – SIGNING AND DELINEATION LAYOUTS

(SERVICES TO BE PROVIDED BY L&G)

TASK 1 – Plan Layouts (1"=100')

L&G will produce a complete set of Plans, Specifications and Estimates (PS&E) that cover the signing and delineation along FM 493 and all cross street approaches for the length shown in the

plan and profile layouts. The work will include design of flashing beacons near the School. The plans will show the following:

Existing signs to remain in place
Existing signs to be removed
Proposed new signs
Proposed new delineators and object markers.

L&G will prepare signing and delineation plans for all major cross streets.

TASK 2 – Summary of Small Signs

L&G will prepare a summary of small signs sheets along with a descriptive codes sheet. (Basis of Estimate sheet).

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 3 – Standard Sheets List

L&G will calculate quantities at 60%, 90% and 100% levels of completion.

TASK 4 –Specifications List and Cost Estimate

L&G will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. L&G will also prepare cost estimates at the 60%, 90% and 100% submittals.

FC 163 - IRRIGATION SIPHONS AND CANALS

(SERVICES TO BE PROVIDED BY L&G)

The ENGINEER shall coordinate with the Irrigation District(s) and prepare all necessary drawings needed for maintaining the functionality of irrigation districts irrigation lines.

FC 163: TRAFFIC CONTROL

(SERVICES TO BE PROVIDED BY L&G)

The Engineer shall determine the project construction sequence and design a traffic control plan based upon the Texas MUTCD and the latest district traffic control design requirements. This shall include field investigations into such items as any Drainage Structures, utilities, R.O.W. restrictions, adjacent properties and cross street access, and other items which may ultimately affect the safe handling of traffic during the construction sequence.

The engineer shall meet with the Pharr District personnel early in the project design as soon as a construction sequence is developed. The construction sequence shall be updated periodically as the design progresses.

The engineer shall prepare drawings for each phase, based upon the agreed sequence of construction. The drawings shall indicate traffic lanes versus work zones per phase, including all required detours. Consideration shall be given to the use of temporary traffic control signals and, if needed, how to utilize and coordinate with the various phases. The drawings will be used by the District to obtain final concept approval of the TCP from the District Traffic Control Review

Committee. Based on the results of the safety review team meeting, the detailed Traffic Control PS&E will be completed.

FC 163: UTILITIES

(SERVICES TO BE PROVIDED BY L&G)

The Engineer shall coordinate the utilities as follows: (L&G will conduct two utility meetings with the owners at the District Office or at L&G's office)

A. Determine the ownership of the existing utilities on the subject project.

B. Contact the utility owners and locate (horizontally and vertically) existing utilities on the ground.

C. Evaluate utility conflicts with proposed construction. Prepare and submit drawings to the City, Utility Companies and copies to TxDOT, for required utility adjustment. The following information will be submitted for each required utility adjustment.

1. A reproducible drawing 8-1\2" x 11", 11" x 17", or 22" x 34" (as appropriate) for each utility adjustment

2. Drawing will include the following:

   a) Existing and/or proposed R.O.W lines.
   b) Existing and/or proposed roadways.
   c) Proposed drainage structure
   d) Existing underground utility in plan and profile.
   e) Owner of utility.
   f) Benchmark

3. Provide copies to TxDOT of correspondence with utility companies and cities. If initial contact was made by phone, provide name of company and representative's name and telephone number.

4. Prepare a detailed list to TxDOT of all conflicts with existing utilities during the drainage structure design phase. List must include the following:

   a) Highway station number.
   b) Name of utility company and type of facility.
   c) Proposed highway facility - the conflict with: storm sewer, roadway, drainage ditch, drill shaft, etc.

4. The Engineer shall be responsible for notifying all utility owners, early in the design phase, regarding any utility adjustments.

5. Utility agreements to be developed by consultant, sent by consultant to companies and coordinate with them.

FC 164 – CONTRACT MANAGEMENT

(SERVICES TO BE PROVIDED BY L&G)

The Engineer will be required to meet with designated TxDOT representatives on a regularly scheduled basis to report on progress. A typewritten progress report will be required, together with evidence of the work accomplished during the period since the previous report. A bar chart indicating the percentage of completion of each task shown on Attachment "C" will also be required. Formal progress reports with bar charts will be required on a monthly basis.

The Engineer will establish a separate cost accounting system for each control-section-job (C-S-J) number to properly allocate all labor and expenses incurred. The Engineer shall invoice monthly according to Function Code breakdowns.

EXHIBIT "C"
WORK SCHEDULE

Client: Hidalgo County
WA #1

TASK AND DESCRIPTION	FIRM	2009							
		JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
WORK AUTHORIZATION NO. 1									
Entire Length of Project									
PROJECT PLANNING									
Obtain Right of Entry (SURVEYING)	RODS								
Update Planimetric and DTM files	RODS								
DESIGN SURVEYS	RODS								
EXISTING RIGHT-OF-WAY LAYOUT	RODS								
meetings - w/ Hidalgo County Drainage District No. 1	L&G								
meetings w/ City of Donna	L&G								
meetings - w/ Precinct No.1	L&G								
Hydrologic Map	L&G								
Utility Coordination	L&G								
Coordination with TXDOT AND COUNTY	L&G								
Coordination with 2 Irrigation Districts	L&G								
Schematic & Environmental Document Development									
Develop Schematic with outfalls	L&G								
Meet w/TxDOT and revise schematic as per comments	L&G								
TXDOT and COUNTY approves Schematic	TXDC								
Draft Environmental Document, Field Visits, etc	L&G								
Submit Draft EA	L&G								
District Review/Revisions	TXDC								
ENV Review/Revisions	TXDC								
Revisions as per ENV comments	L&G								
Agency Coordination	TXDC								
Categorical Exclusion Clearance	TXDC								
PS&E DEVELOPMENT FROM: MILE 10 TO MILE 14									
TXDOT AND COUNTY REVIEW OF OUTFALL LOCATIONS	L&G								
COMPLETE INTERSECTION LAYOUTS	L&G								
DESIGN HYDRAULIC STRUCTURES OUTFALLS, ETC	L&G								
DESIGN STORM DRAIN SYSTEM	L&G								
DESIGN ROADWAY	L&G								
SIGNING, PAV'T MARKINGS AND SIGNALS	L&G/E								
TXDOT REVIEW PLAN SUMBMITTAL AND LET PROJECT	TXDC								
TXDOT COMPLETES ROW MAP									

Client. Hidalgo County
WA #1

ATTACHMENT C
WORK SCHEDULE
FM 493
FROM MILE 10 TO MILE 14

TASK AND DESCRIPTION	FIRM	2007-2008													2009								
		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
WORK AUTHORIZATION NO. 1																						
Entire Length of Project																						
PROJECT PLANNING																						
Obtain Right of Entry (SURVEYING)	RODS																					
Update Planimetric and DTM files	RODS																					
DESIGN SURVEYS	RODS																					
EXISTING RIGHT-OF-WAY LAYOUT	RODS																					
meetings - w/ Hidalgo County Drainage District No. 1	L&G																					
meetings w/ City of Donna	L&G																					
meetings - w/ Precinct No.1	L&G																					
Hydrologic Map	L&G																					
Utility Coordination	L&G																					
Coordination with TXDOT AND COUNTY	L&G																					
Coordination with 2 Irrigation Districts	L&G																					
Schematic & Environmental Document Development																						
Develop Schematic with outfalls	L&G																					
Meet w/TxDOT and revise schematic as per comments	L&G																					
TXDOT and COUNTY approves Schematic	TXDOT																					
Draft Environmental Document, Field Visits. etc	L&G																					
Submit Draft EA	L&G																					
District Review/Revisions	TXDOT																					
ENV Review/Revisions	TXDOT																					
Revisions as per ENV comments	L&G																					
Agency Coordination	TXDOT																					
Categorical Exclusion Clearance	TXDOT																					
PS&E DEVELOPMENT FROM: MILE 10 TO MILE 14																						
TXDOT AND COUNTY REVIEW OF OUTFALL LOCATIONS	L&G																					
COMPLETE INTERSECTION LAYOUTS	L&G																					
DESIGN HYDRAULIC STRUCTURES OUTFALLS, ETC	L&G																					
DESIGN STORM DRAIN SYSTEM	L&G																					
DESIGN ROADWAY	L&G																					
SIGNING, PAV'T MARKINGS AND SIGNALS	L&G/ETSI																					
TXDOT REVIEW PLAN SUMBMITTAL AND LET PROJECT	TXDOT																					
TXDOT COMPLETES ROW MAP																						

ENGINEERING WORK FOR SCHEMATIC & PS&E
ENVIRONMENTAL ASSESSMENT WORK
TXDOT FUNCTION

EXHIBIT "D"
FEE SCHEDULE

EXHIBIT "D" FEE SCHEDULE

ENGINEERING BUDGET ESTIMATE AND FEE FOR FM 493 NORTH PROJECT

ROADWAY PROJECT ENTIRE LENGTH	FM 493: Mile 10 to SH 107
LIMITS: Segment 1	Mile 10 North to Mile 14
LIMITS: Segment 2	Mile 14 North to SH 107
EXISTING ROADWAY SECTION:	40' - Rural
EXISTING ROW WIDTH:	variable 80' - Rural
PROPOSED ROADWAY SECTION:	64'-84' F-F max Urban + aux
PROPOSED ROW WIDTH:	120' max
ESTIMATED CONSTRUCTION COST for Segment 1...(3.5 Mil/mi)	$14,000,000.00
EST CONSTRUCTION COST for Segment 2 plus Bridge...(3.5 Mil/mi plus 500K)	$9,250,000.00
ESTIMATED TOTAL CONSTRUCTION COST for Segment 1 & 2	$23,250,000.00
LENGTH:	6.5 Miles

ESTIMATED PROJECT COSTS	*STATE*	*LOCAL*
TOTAL ROADWAY CONSTRUCTION COST	$23,250,000.00	$ -
WORK AUTHORIZATION NO. 1		
PHASE IA - PLANNING & DESIGN FOR SEGMENT 1&2		
Schematic		$ 292,950.00
L&G Survey Work		$ 25,000.00
H&V Control		$ 18,000.00
Establish Existing ROW		$ 73,500.00
Design Surveys including outfalls		$ 83,500.00
Environmental Assessment & PI Support and Hist and Archeological		$ 90,000.00
PHASE IB - DESIGN FOR SEGMENT 1		
PS&E Development		$ 980,000.00
Construction Management		$ 36,000.00
WORK AUTHORIZATION NO. 2		
PHASE IC - DESIGN FOR SEGMENT 2		
PS&E Development		$ 647,500.00
Bridge Design		$ -
Bridge Scour Report for TxDOT		$ 15,000.00
Bridge Layout for TxDOT		$ 25,000.00
Construction Management		$ 36,000.00
NEW CONTRACT OR COUNTY COMPLETES WORK		
PHASE II - ESTIMATED RIGHT OF WAY COSTS FOR SEGMENT 1 & 2		
ROW Mapping & Field Surveying (based on 130 parcels)	$ 286,000.00	
Compensible Utilities	$ 500,000.00	$ -
Roadway Right-of-Way Costs - 576000 sqft @ $4.00 average/sq ft	$ 934,187.00	$ -
Roadway Right-of-Way Costs - Acq.Services @ (est. 130 Parcels @ $10,000/Parcel Avg.)		$ 1,300,000.00
PHASE III - CONSTRUCTION FOR SEGMENT 1 & 2		
TxDOT Construction Inspection	$ 2,557,500.00	
SUB-TOTAL WORK AUTHORIZATION NO. 1		**$ 1,598,950.00**
SUB-TOTAL WORK AUTHORIZATION NO. 2		**$ 723,500.00**
ESTIMATED SUB-TOTAL PHASE II	**$1,720,187.00**	**$ 1,300,000.00**
ESTIMATED PHASE III plus Const. Cost	**$25,807,500.00**	
TOTAL PROJECT COST		**$ 31,150,137.00**

L&G Engineering Proposed Engineering Fee for Work Authorization No. 1 (% is for info purposes)

SPECIAL SERVICES				
L&G	Surveys	**0.108%** of Total Const. Cost	$ 25,000.00	
RODS	**Surveys**	**0.753% of Total Const. Cost**	**$ 175,000.00**	
L&G	TXDOT Schematic	**1.260%** of Total Const. Cost	$ 292,950.00	
L&G	Environ Assessment & Public Involment	**0.387%** of Total Const. Cost	$ 90,000.00	
L&G	Construction Management with TXDOT	**0.257%** of Const. Cost for Segment 1	$ 36,000.00	
SUB-TOTAL				$ 618,950.00
BASIC SERVICES				
L&G	PS&E Engineering Fee	**7.000%** of Const. Cost for Segment 1	$ 980,000.00	
SUB-TOTAL				$ 980,000.00

Proposed maximum amount payable under the Work Authorization #1 **$ 1,598,950.00**