

THE STATE OF TEXAS §
 §
COUNTY OF HIDALGO §

AGREEMENT FOR GENERAL ENGINEERING SERVICES
Contract No. 10-062-02-16

THIS AGREEMENT is made, by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner’s Court**, hereinafter called the "**Owner**", and **TEDSI Infrastructure Group, Inc.**, professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

W I T N E S S E T H:

WHEREAS, the **Owner** desires to contract with the **Engineer** to provide **General Engineering Services** for the **Design and Right Of Way Mapping of HCMDS Phase II – J-09 Lateral Drain Ditch from North Main Drain to County Road 3601 (Approx. 8 Miles)** for Hidalgo County Precinct Number Four.

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 general engineering, rights of way & field topographic services 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 of the **Project** with the following:

2.1. Scope of Work. The **Owner** will furnish items and provide those services for the development of Work Authorizations 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. The **Engineer** shall render professional engineering services for the development of said Work Authorizations and fulfillment of this Agreement as identified in **EXHIBIT “B”-Services to be 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 at the completion of services as defined in Exhibit B, attached hereto. 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 or during periods when work is suspended.

3.2 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**.

3.3 Termination of Agreement. This Agreement may be terminated 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** with 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 Work Authorization 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 in 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 Work Authorization 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 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. 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 be 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 (hereinafter 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 3) of reports; additional copies (over 3) of plans (contract drawings), specifications, and estimates (PS&E); additional copies (over 3) of bidding documents; additional copies (over 3) 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 improvements provided in each Work Authorization.
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 OWNER fails to make any payment due ENGINEER for services and expenses within thirty days after receipt of ENGINEER's invoice therefore, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and, in addition, ENGINEER may, after giving seven days' written notice to OWNER, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses and charges. Payments will be credited first to interest and then to principal. In the event of a disputed or contested billing, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.

If the Work Authorization, or any portion(s) thereof, are deleted or otherwise not constructed, compensation to the **Engineer** by the **Owner** for the Work Authorization or such portions of the Work Authorization 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 Work Authorization for which the **Owner** has made payment to the **Engineer**;
- (4) If the **Owner**, in good faith judgment, 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 Work Authorization, 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 Work Authorization, as required through the course of the development of the Work Authorization. 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 Authorization** 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 Work Authorization'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** 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 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 costs 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** finds 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 to enable it to reduce the construction cost the **Engineer** will be required to make such revisions or changes. These changes will be considered additional work by the **Engineer**. Payment for this additional work will then be made to the **Engineer** in accordance with Article 9 hereof.

ARTICLE 11. Ownership and Release of Documents.

11.1 Ownership of Documents. Original drawings and specifications are the property of the **Engineer**; however, the Work Authorization deliverables are the property of the **Owner**, and the **Engineer** may not use the drawings and specifications thereof for any purpose not relating to the Work Authorization without 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 Work Authorization, including, but not limited to, additions to or completion of the Work Authorization. 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 Work Authorization will be in 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 Work Authorization 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 the Work Authorization 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 any Work Authorization 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** has been or is engaged at the time, and such inventions and improvements shall become the sole, exclusive property of the **Owner** without any obligation on its part to make any payment therefor in addition to any sums 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 Work Authorization, 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 State Board of Registration for Professional Engineers.

17.2 Engineer's Responsibility. The **Engineer** shall be responsible for the accuracy of the work performed in Work Authorizations, 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, judgment and abilities to design the improvements in each Work Authorization 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 Work Authorization, prior to the commencement of construction, the **Engineer** shall certify in writing to the **Owner** that the **PS&E** for the Work Authorization, 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 from the inception of the Agreement until the Work Authorization 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.

(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 Work Authorization; that because of such talent and training, the **Engineer** envisions the construction of the Work Authorization in its entirety, 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 improvements after acceptance by **Owner**; that as the design professional, the **Engineer** has some measure of control over any such dangerous conditions; that the **Engineer** has knowledge which will enable the **Engineer** to recognize specific dangers that may arise from the proper use of the improvements 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 improvements are within a class of foreseeable persons who will be relying on the improvements 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 Work Authorization, the **Engineer** represents, covenants and agrees that the **PS&E** of the improvements will be accurate and free from any material errors. The **Engineer** additionally represents, covenants, and agrees to the following: that the design of the improvements will conform to its foreseeable use with all the amenities as set forth in any **PS&E** developed by the **Engineer** for the Work Authorization; that the result of such **PS&E**, if built in accordance therewith, will be suitable for purposes for which the improvement is designed; that the result of **Engineer's** inspection of the improvements will be suitable for purposes for which the improvements were designed; and, the improvements will be inspected in a workmanlike, professional manner and will be suitable for the Work Authorization'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 Work Authorization, 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** shall use its best efforts to obtain from all vendors of equipment and materials, fullest possible warranties against defective materials and workmanship for the benefit 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 Work Authorization that is a registered professional engineer in the State of Texas. The **Project Manager** shall have such knowledge and experience as will enable the **Project Manager** to perform the duties required for the services under this Agreement. The **Engineer** may change the **Project Manager** during the course of the Work Authorization 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 improvements, 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 from association with the Work Authorization 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 Work Authorization. Taking into consideration that the **Owner** has a significant investment in the development of the improvements, 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 improvement. Therefore, the **Engineer** shall provide the

Owner with documents and information in accordance with the special requirements 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 therefrom 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 Work Authorization by the **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. Noncollusion. 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 a 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*
100 East Cano, 2nd Floor
Edinburg, Texas 78539

ENGINEER: **TEDSI Infrastructure Group, Inc.**
1201 E. Expressway 83
Mission TX 78572

The address may be changed by either party by written notice, and notice so 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. There 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** rights 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.

IN WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this **Agreement for Professional Services** to be effective as of the _____ day of _____, 2010.

ENGINEER:
TEDSI Infrastructure Group, Inc.

BY: _____
Jesse Salinas, Principal

OWNER:
HIDALGO COUNTY

BY: _____
Rene A. Ramirez, County Judge

ATTEST:

By: _____
Arturo Guajardo Jr., Hidalgo County Clerk

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 Contract Rates
- EXHIBIT E** -Work Authorization Form
- EXHIBIT F** -Supplemental Agreement Form
- EXHIBIT G** -Certificate of Insurance (*Hidalgo County*)

Approved As To Form:
Atlas & Hall, LLP

By: _____

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 **Work Authorizations**.

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

- 1) Prepare and execute a Purchase Order with Hidalgo County Purchasing Department
- 2) Authorization to the Engineer to begin work.
- 3) Payment for work performed by the engineer.
- 4) Assistance to the Engineer, as necessary, to obtain required data and information from other local, regional, and state agencies that the Engineer cannot easily obtain.
- 5) Secure required Environmental permits from regulatory agencies
- 6) Acquire additional Right of Way identified by the Engineer
- 7) Provide any available relevant data that may on file concerning the Project.
- 8) Provide timely review and decisions in response to the Engineers request for information and/or submittals and deliverables.
- 9) Attend and participate in progress meetings as required and as coordinated and conducted by the Engineer.
- 10) Advertise and award, as assisted and recommended by the Engineer, construction contracts for the PS&E developed by the Engineer.
- 11) Attend pre-bid and pre-construction conferences coordinated and conducted by the Engineer.
- 12) Review and approve monthly and final estimates, developed by the Engineer, for payment to the Contractor. Compensate and pay the Contractor for work performed as identified in the approved monthly and final estimates.
- 13) Provide assistance to Engineer where necessary and possible with Owner information/resources to ensure project is completed within timely/efficient basis.
- 14) Provide Engineer with Geotechnical Data for pavement design and thickness.

EXHIBIT "B"

Generalized Services to be Provided by the Engineer

HCMDS Phase II – J - 09

From North Main Drain to County Road 3601

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Hidalgo County / TEDSI Infrastructure Group
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CLASSIFICATION OF SERVICES. In accordance with Article 2.2 of this Agreement, the services to be provided by the **Engineer** shall be classified as either *Basic Services* or *Special Services*. The expanded descriptions of the services identified later in this exhibit and to be provided by the **Engineer** are classified as follows:

Management:

I. ENGINEERING MANAGEMENT (EM)

(A) Preliminary Project Planning and Development

- (1) Project Development Schedule *Basic*
- (2) Construction Estimate *Basic*
- (3) Quality Control / Quality Assurance Program *Basic*
- (4) Subcontract Administration *Basic*
- (5) Funding Liaison and Funding Application Preparation *Special*
- (6) Capital Improvement Program (CIP) *Basic*
- (7) Management / Coordination of Engineering Activities *Basic*
- (8) Implementation of QC/QA Program *Basic*

(B) Preliminary Engineering

- (1) Preliminary Concept Conference *Basic*
- (2) Management / Coordination of Engineering Activities *Basic*
- (3) Implementation of QC/QA Program *Basic*
- (4) Preparation of *“Preliminary Engineering Report”* *Basic*
- (5) Coordination with all reviewing agencies (FEMA, USACE, etc.) *Basic*

(C) Final Design

- (1) *“Design Policy & Procedures Manual”* *Basic*
- (2) Design Concept Conference *Basic*
- (3) Management / Coordination of Engineering Activities *Basic*
- (4) Implementation of QC/QA Program *Basic*

(D) Construction Management

- (1) *“Construction Management Policy & Procedures Manual”* *Basic*
- (2) Construction Bidding *Basic*
- (3) Owner's Representative *Basic*
- (4) Defects and Deficiencies *Basic*
- (5) Monthly Construction Progress Reports *Basic*
- (6) Recommendations for Payment to the Construction Contractor *Basic*
- (7) Project Site Management *Special*
- (8) Implementation of Qc/QA Program *Basic*
- (9) Change Orders *Special*
- (10) Final Acceptance, Performance Testing, Shop Drawing Review *Basic*

Engineering:

II. PRELIMINARY PROJECT PLANNING & DEVELOPMENT

- (1) Environmental Document Preparation & Public Involvement (if required By Federal agencies) *Special*
- (2) Field Surveying & Photogrammetry (if not provided by Owner) *Special*

Engineering:

III. PRELIMINARY ENGINEERING, FINAL DESIGN & CONSTRUCTION

(A) Preliminary Engineering:

- | | |
|--|--------------------------|
| (1) Preliminary Field Surveying (using Lidar/ provided by Owner) | <i>Provided by Owner</i> |
| (2) Data Collection | <i>Basic</i> |
| (3) Geographical Information System | <i>Basic</i> |
| (4) Hydrologic Analysis | <i>Basic</i> |
| (5) Hydraulic Analysis | <i>Basic</i> |
| (6) Flood Plain Mapping | <i>Basic</i> |
| (7) Alternate Solutions /Recommendations for Final Design | <i>Basic.</i> |
| (8) Final Report – “ <i>Preliminary Engineering Report</i> ” | <i>Basic</i> |

(B) Final Design:

- | | |
|---|----------------|
| (1) Right-of-Way Data and ROW Map | <i>Special</i> |
| (2) Design Field Surveying | <i>Special</i> |
| (3) Geotechnical Investigations and Reports | <i>Special</i> |
| (4) Permitting | <i>Basic</i> |
| (5) Channel / Drainage Design | <i>Basic</i> |
| (6) Roadway Design | <i>Basic</i> |
| (7) Bridge Design | <i>Basic</i> |
| (8) Plans, Specifications & Estimates | <i>Basic</i> |

(C) Construction:

- | | |
|--|----------------|
| (1) Construction Bidding Documents | <i>Basic</i> |
| (2) Project Site Representation: | <i>Special</i> |
| a. Engineering Support Data for Defects & Deficiencies | <i>Special</i> |
| b. Daily and Weekly Construction Reports | <i>Special</i> |
| c. Measurement / Calculations for Contractor Payment | <i>Special</i> |
| d. Project Engineer / Resident Engineer Services | <i>Special</i> |
| (3) Miscellaneous Technical Activities: | |
| a. Construction Field Surveying | <i>Special</i> |
| b. Shop Drawing Review | <i>Basic</i> |
| c. Control of Materials & Equipment | <i>Special</i> |
| d. Change Orders | <i>Basic</i> |
| (4) Final Acceptance: | |
| a. Performance Testing | <i>Special</i> |
| b. As-Built Drawings | <i>Basic</i> |

EXPANDED DESCRIPTIONS OF SERVICES. The expanded descriptions of the services to be provided by the Engineer are described on the following pages.

I. ENGINEERING MANAGEMENT (EM)

The following outline provides a summary for the *basic* and *special services* to be provided by the **Engineer** under services of this Agreement. The contractual services will be outlined in each Work Authorization as outlined in Article 7.

For these services, the **Engineer** shall manage the **Project Team**, consisting of various sub-providers, in the development of the **Project** as defined and more particularly described in **EXHIBIT “B1”** attached to this Agreement. The services will include the following:

Hidalgo County / TEDSI Infrastructure Group
“*Master Drainage System Phase II – Lateral Drain Outfall System*”

EXHIBIT “B”

I. **EM** (continued)

(A) **Preliminary Project Planning and Development.** In general, this will include the *management* of the preliminary planning process and advance project development (APD) that is required for the **Project**. (A summary of specific requirements for *engineering* activities are outlined later in this exhibit.) The **Engineer** will identify, coordinate, and implement the *management* requirements for preliminary planning and advance **Project** development for the **Project**. Specific work activities to be provided by the **Engineer** will include:

- (1) **Project Development Schedule.** The **Engineer** will prepare a **Project Development Schedule**. This schedule will be developed from the notice to proceed with work through final record drawings. The schedule will be monitored, by the **Engineer**, throughout **Project** development. It will be provided, as well as any updates, to the **Owner** and each **Project Team** member as a part of the **Work Plan** identified in (1). The schedule will identify all major milestones and **Project** deliverables. The **Engineer** will inform the **Owner** (in reasonable advance of the delay) should the **Engineer** encounter delays that would prevent the performance of all work in accordance with the established schedule.
- (2) **Construction Estimate.** The **Engineer** shall prepare a preliminary estimate for the construction of the **Project**. The preliminary construction estimate shall be monitored, verified and updated throughout the course of **Project** development.
- (3) **Quality Control / Quality Assurance (QC/QA) Program.** The **Engineer** shall develop a quality control and quality assurance program for the **Project** to ensure the **Project Team** is producing quality work for the **Project**.
- (4) **Subcontract Administration.** The **Engineer** shall initiate, execute and monitor all subcontracts for the duration of the **Project**. The **Engineer** shall advise and/or provide recommendations to the **Owner**, as the **Project** progresses, should additional sub-providers be required. All subcontracting and assignment will be in accordance with Article 14.
- (5) **Funding Sources.** If approved by the **Owner** as *Special Services*, as outlined in Article 5.2, the development and construction of the **Project** may be eligible for funding from outside sources. If approved by the **Owner** as *Special Services*, the **Engineer's** responsibilities regarding funding sources will include the following:
 - (a) **Liaison (Engineer)** will act as Corporate Sponsor for obtaining funding from potential funding sources for the **Project**. The Corporate Sponsor will act as liaison for the **Owner** to applicable State and Federal resource agencies for possible funding assistance.
 - (b) The **Engineer** will identify and develop a list of possible funding sources for the **Project**.
 - (c) The **Engineer** will prepare all required applications to funding sources.
- (6) **Capital Improvement Program (CIP).** If approved by the **Owner** as *Special Services*, as outlined in Article 5.2, the **Engineer** will prepare a CIP based on a conceptual sequence of construction for the **Project** as identified in the final recommendations shown in the "**Preliminary Engineering Report**" developed by the **Engineer** under the preliminary engineering activities identified later in this exhibit. The primary focus will be to address the overall needs of the system, the funding availability, the identification of operational issues, the acquisition of right of way, and
Hidalgo County / TEDSI Infrastructure Group
"**Master Drainage System Phase II – Lateral Drain Outfall System**"

I. **EM** (continued)

the prioritization of those needs and issues in a cost effective and efficient manner (conducive of funding availability). The CIP will be continuously monitored and updated by the **Engineer** throughout **Project** development.

- (7) **Management/Coordination of Engineering Activities.** The **Engineer** shall *manage* and coordinate the specific *engineering* work activities, tasks, special services for Environmental Document Preparation (if required by Federal agencies), Public Involvement, and Field/Reconn/Surveying and Photogrammetry (more particularly identified later in this exhibit under II - Preliminary Project Planning and Development).
 - (8) **Implement QC/QA Program.** The **Engineer** will monitor and perform the program developed to ensure the quality of the Environmental Document (if required by Federal agencies), public involvement procedures, and the products and data from field/recon/surveying and aerial photogrammetry, and their compliance with applicable standards and requirements.
- (B) **Preliminary Engineering.** The **Engineer** will ultimately deliver the final recommendations for the design of the project in the **“Preliminary Engineering Report”**. (Specific requirements for *engineering* activities are outlined later in this exhibit under II - Preliminary Engineering, Design and Construction.) The **Engineer** shall *manage* and coordinate the activities of the **Project Team** in the collection of geographical information and *engineering* data, the selection of computer software, and the distribution of **Project** information and status to the **Owner** and **Project Team** throughout the development of the **“Preliminary Engineering Report”**. Specific *management* tasks to be provided by the **Engineer** will include:
- (1) **Preliminary Concept Conference.** The **Engineer** will coordinate and conduct a preliminary concept conference (PCC) with the **Owner**, and any other stakeholders approved by the **Owner**. At the PCC, the **Engineer** will outline the issues and aspects involved in the development of the **“Preliminary Engineering Report”**, identify existing conditions and design requirements, and present the approach to the development of the report for approval by the **Owner**.
 - (2) **Management/Coordination of Engineering Activities.** The **Engineer** shall *manage* and coordinate the **Project Team** in the preparation of specific *engineering* work activities, tasks, special services for the final development of the **“Preliminary Engineering Report”**, including Field Surveying, Data Collection, the development of a Geographical Information System, Hydrologic/Hydraulic Analysis, Flood Plain Mapping, Alternate Solutions, and Final Recommendations (more particularly defined with the *engineering* activities identified in this exhibit under II - Preliminary Engineering, Design and Construction (**Preliminary Engineering**)).
 - (3) **Implement QC/QA Program.** The **Engineer** will monitor and perform the QC/QA program developed to ensure the quality of the **“Preliminary Engineering Report”**, and its compliance with standards of sound *engineering* principles and the agreed-upon design criteria established at the PCC.
 - (4) **Final Report: “Preliminary Engineering Report”.** The **Engineer** will provide, to the **Owner**, five (5) bound, color copies of the **“Preliminary Engineering Report”**, including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimate.
 - (5) **Coordination with various agencies.** The development of the **“Preliminary Engineering**

I. **EM** (continued)

Report” may require documentation and/or coordination with various agencies. The **Engineer** will act as a liaison for the **Owner**, and will attend any meetings, and develop / prepare any required correspondence, documentation, and/or applications to satisfy the applicable Federal, State, and local regulations.

(C) **Final Design.** After the **Owner** has approved the **Engineer**'s final recommendations as shown in the **“Preliminary Engineering Report”** and the recommendations meet all Federal, State, and County permitting requirements, the **Engineer**, will coordinate the activities of the **Project Team** during the final design of the **Project** by developing and preparing all policies and procedures, managing the sub-providers activities and performance, and performing quality control and quality assurance for all design documents associated with the **Project**. One of the primary deliverables for the **Engineer** to provide the **Owner** is a complete and approved set of plans, specifications, and estimate (PS&E) for each phase of construction of the **Project**. Specific **management** work activities to be provided by the **Engineer** will include:

(1) **“Design Policy & Procedures Manual”.** The **Owner** will provide a policy and procedures manual for final design to be used by the **Project Team** in the development of the **Project**. The purpose of this will be to set policy with regards to the approved design criteria, and to provide consistency in the development of the documents for design, plans, specifications and estimates. Once the manual has been provided by the **Owner** it will be distributed by the **Engineer** to each member of the **Project Team**. The **Owner** will be responsible for updating and maintaining the manual and distributing any revisions throughout **Project** development. Items to be identified in the **“Design Policy & Procedures Manual”** provided by the **Owner** will include, but not be limited to, the following:

- (a) Project Description and Final Recommendations of the **“Preliminary Engineering Report”**
- (b) Environmental
- (c) Correlation and Agreement with Other Agencies
- (d) Application of Design Standards (City, County, State, AASHTO)
- (e) Requirements for Preliminary Submittals
- (f) Basic Design Criteria
- (g) Preparation for Plans, Specifications, and Estimate (PS&E) Submittals
- (h) Formats for Supporting Documents
- (i) CADD Standards
- (j) Specifications

(2) **Design Concept Conference (DCC).** The **Engineer** shall coordinate and conduct a design concept conference with the **Owner** and **Project Team**. At the DCC, the **Engineer** will distribute the **“Design Policy & Procedures Manual”** provided by **Owner** and discuss the **Project** Development Schedule with the **Project Team**.

(3) **Management/Coordination of Engineering Activities.** The **Engineer** shall **manage** and coordinate the **Project Team** in the development of the documents for final design, including: Right of Way Data, Design Field Surveying, Geotechnical Investigations, Permitting, Channel/Drainage Design, Roadway Design, Bridge Design, PS&E, and other miscellaneous design and plan preparation items (more particularly defined with the engineering activities identified in this exhibit under II – Preliminary Engineering, Design and Construction (**Final Design**)).

I. **EM** (continued)

(4) **Implement QC/QA Program.** The **Engineer** shall monitor and perform the QC/QA program developed to ensure the quality of the documents associated with Right of Way Data (Mapping), Design Field Surveying, Geotechnical Investigations, Permitting, Channel/Drainage Design, Roadway Design, Bridge Design, PS&E, and other miscellaneous design and plan preparation items (more particularly defined with the *engineering* activities identified in this exhibit under II – Preliminary Engineering, Design and Construction (**Final Design Engineering**)). These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(D) **Construction Management.** The **Engineer** shall provide construction *management* services for each authorized construction contract of the **Project**. The **Engineer** shall also assist the **Owner** in the advertisement for construction bids, the opening and tabulation of the bids, provide a recommendation as to the proper action on all bid proposals received, and assist in the preparation of formal contract documents for the award of contracts. Specific *management* work activities to be provided by the **Engineer** will include:

(1) **“Construction Management Policy & Procedures Manual”.** The **Owner** shall will provide a manual that outlines the policy and procedures for the *management* and administration of construction of the **Project**. The manual's information will include, but not be limited to, construction contract recordkeeping (daily reports, weekly reports, monthly progress reports, etc.), contractor payment, change order format and procedures, site inspection, scheduling, and final inspection.

(2) **Construction Bidding Documents.** The **Engineer** shall perform the following in preparation of the construction bidding documents:

(a) Upon completion of QC/QA, the **Engineer** shall furnish to the **Owner** all necessary copies of approved plans, specifications, **Engineer’s** estimate, notices to bidders, and proposals for each authorized construction contract.

(b) The **Engineer** shall assist the **Owner** in advertising for each authorized construction contract for the **Project**.

(c) The **Engineer** shall assist the **Owner** in the opening and tabulation of bids for each authorized construction for the **Project**, and recommend to the **Owner** as to the proper action on all bid proposals received.

(d) The **Engineer** shall assist the **Owner** in the preparation of formal contract documents for the award of construction contracts.

(3) **Owner's Representative.** In general, the **Engineer** shall provide the *management* activities required for consultation and advisement to the **Owner** during construction, and act as the **Owner's** representative as provided in the General Conditions of the Construction Contract. The extent and limitations of the duties, responsibilities and the authority of the **Engineer** as assigned in the General Conditions of the Contract shall not be modified, except as the **Engineer** may otherwise agree in writing.

(4) **Defects and Deficiencies.** In providing the *management and administration* of the authorized
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I. **EM** (continued)

construction contract, the **Engineer** shall use the **Engineer's** best efforts to protect the **Owner** against defects and deficiencies in the work of the construction contractor, hereinafter called the "**Contractor**".

The **Engineer** does not guarantee the performance of the **Contractor**; however, the **Engineer** will promptly notify the **Owner** of any such defect or deficiency, and take all steps possible to require the **Contractor** to correct the defect or deficiency.

- (5) **Progress Reports.** The **Engineer** will obtain the daily and weekly reports provided from the *engineering* activities identified under II – Preliminary Engineering, Design, and Construction (**Construction**) in this exhibit and prepare a monthly progress report, which outlines the construction progress in a form and manner satisfactory to the Owner.

- (6) **Contractor Payment.** The **Engineer** shall obtain the measurements and calculated quantities prepared under the *engineering* activities identified under II – Preliminary Engineering, Design, and Construction (**Construction**) in this exhibit, and review and approve the monthly and final estimates for payments to the **Contractor** for those items of work accepted and conforming to the construction contract specifications. The **Engineer** will furnish to the **Owner** any necessary certifications as to payments to the **Contractor** and suppliers. *Note: The Engineer is not responsible for actual payments to the Contractor.*

- (7) **Project Site Management.** The **Engineer** will coordinate and monitor the **Project** site representation of the authorized construction contract by providing the following special services, if authorized by **Owner**:

Project Manager. The **Engineer** will provide visits by the **Project Manager** or a competent representative of the **Engineer** to the site of construction at least twice a month for the purpose of monitoring the **Contractor's** progress and conformance to the construction contract plans and specifications. In the capacity of site inspection, the **Engineer** will issue instructions from the **Owner** to the **Contractor** and the **Resident Engineering Representative**, issuing necessary interpretations and clarifications of construction contract documents, and make recommendations to the **Owner** as to the acceptability of the **Contractor's** progress and work.

- (8) **Implement QC/QA Program.** The **Engineer** will monitor and perform the QC/QA program developed to ensure the quality of the *engineering* services and documents associated with Field Surveying, Shop Drawings, Control of Materials & Equipment, Change Orders, Performance Testing, and As-Built Drawings, more particularly identified under II – Preliminary Engineering, Design, and Construction (**Construction**) in this exhibit. These services shall in all respects combine the application of sound *engineering* principles with a high degree of economy and shall be submitted to the applicable City, County, State, Federal agencies for approval.

- (9) **Change Orders.** When applicable, the **Engineer** will review and provide recommendations for all change orders developed under II – Preliminary Engineering, Design, and Construction (**Construction**) in this exhibit for purpose of preparing construction contract change orders. These change orders may be required due to actual field conditions encountered or new requirements directed by the **Owner**. The **Engineer** will prepare, explain, and submit proposed change orders, when applicable.

- (10) **Final Acceptance.** Following the completion of construction by the **Contractor**, the **Engineer** will provide the services required for the final inspection and recommendation for **Project** acceptance. This

I. **EM** (continued)

will include coordinating the activities required for the inspection for conformance and recordkeeping of the necessary performance tests required by the construction contract specifications. The **Engineer** will also review and approve all as-built drawings (to show the work as actually constructed), and furnish to the **Owner** one set of prints of the as-built drawings. *Note: Services to be provided by the **Engineer** for Items II and III primarily involve the **engineering** work tasks for the **Project**.*

II. PRELIMINARY PROJECT PLANNING & DEVELOPMENT

In general, this will include all *engineering* activities required for the **Advance Project Development**. Primarily, this will involve the research and coordination for the social, economic and environmental impacts, public involvement and preliminary field/reconn/surveying / aerial photography of the **Project**. A summary of the *engineering* activities to be provided by the **Engineer** are listed below. The actual contractual services will be identified in each work authorization as outlined in Article 7.

- (1) **Environmental Document Preparation and Public Involvement (if required by Federal/State agencies)**
 - (a) The **Engineer** shall prepare an environmental document in accordance with the National Environmental Policy Act (NEPA) and the applicable Code(s) of Federal Regulations. The **Engineer** will prepare an environmental document in anticipation of a *Finding of No Significant Impact (FONSI)*, as identified by the NEPA process. This document will include, at a minimum, the following:
 - (i) **project** description
 - (ii) need for **project**
 - (iii) alternatives considered
 - (iv) impacts (socioeconomic, cultural resource, water resource, air quality, noise quality, biological, prime/unique farmland, construction impacts, hazardous materials)
 - (v) conclusion
 - (vi) **project** location map
 - (vii) preliminary structure and channel locations/layouts
 - (viii) scanned photographs
 - (b) The **Engineer** shall conduct and coordinate all public involvement in accordance with the National Environmental Policy Act (NEPA) and the applicable Code(s) of Federal Regulations.
 - (c) The **Engineer** shall coordinate with all resource agencies, government entities, and private landowners involved or impacted in the development of the **Project**. This will include individual meetings, newsletters and notices, as required.
 - (d) The **Engineer** shall coordinate and conduct the following public meetings/hearings:
 - (i) Public Meetings – These meetings will be scheduled to present the **Project** concept, including preliminary layouts and requirements for the **Project**, for the purpose of obtaining preliminary public comment.
 - (ii) Public Hearing – After completion / preliminary approval of the environmental document and applicable approval to move the **Project** forward for further processing, a public hearing will be afforded and/or conducted to present the approved draft environmental document and the **Project** layout (schematic) for the purpose of obtaining final public comment.
 - (e) The **Engineer** shall develop a **Project** coordination and mailing list.
 - (f) The **Engineer** shall prepare required presentation materials (including handouts, agenda, and sign-in roster) and exhibits for public meetings and a public hearing.

II. Preliminary Project Planning & Development (continued)

- (g) The **Engineer** shall prepare and submit a written document summarizing each proceeding: Public Meeting Reports and Public Hearing Report.
- (2) **Field Surveying and Photogrammetry (if not provided by Owner)**
 - (a) ***Right of Entry***: It will be the responsibility of the **Engineer** to secure written permission to enter private property for purposes of recon/survey, environmental and engineering investigations. The **Engineer** will, at times, contact the owner prior to any entry onto the owner's property. The property owner will be informed, by the **Engineer**, the name of the primary person of contact during each entry.
 - (b) For the purpose of schematic development, including a geographical information system of the **Project**, a base map background will be provided to the **Engineer** through the **Owner**.
 - (c) The **Owner** shall provide primary **Project** control for field surveying by establishing horizontal and vertical control points, and the **Engineer** shall establish secondary **Project** control to tie ground control to the State Plane Coordinate System.
 - (d) The **Engineer** shall obtain the following photogrammetric products:
 - (i) Contact Prints and Mosaics
 - (ii) Planimetric maps
 - (iii) Contour maps
 - (iv) Cross Sections
 - (v) Digital Terrain Model (DTM)

III. Preliminary Engineering, Final Design & Construction (continued)

III. PRELIMINARY ENGINEERING, DESIGN & CONSTRUCTION

The services listed below to be provided by the **Engineer** are a summary of the services; the actual contractual services will be identified in each work authorization as outlined in Article 7 of the Agreement. The services shall be divided into three phases with *engineering* work activities, as follows:

(A) Preliminary Engineering. For this phase, the **Engineer** will ultimately deliver the “*Preliminary Engineering Report*”. The “*Preliminary Engineering Report*” shall be based on the **Engineer**'s review and comments on the “*Raymondville Drain Outfall Study*” (to be provided by the **Owner**). Should the review and comments by the **Engineer** indicate deficiencies in the “*Raymondville Drain Outfall Study*”, or in the **Turner, Collie and Braden, Inc. Engineer Report – “Flood Protection Plan”**, dated September 1997, corrections of such deficiencies shall be the responsibility of the **Owner**, or deemed by the **Owner** as additional work to be performed by the **Engineer** and compensated in accordance with Articles 8 and 9 of this Agreement. Subsequently, the **Engineer** will prepare the “*Preliminary Engineering Report*” in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the **Owner**; to include preliminary layouts, sketches, and cost estimates for the **Project**, and to set forth clearly the **Engineer**'s recommendations. Specific *engineering* work activities, tasks, and/or special services to be provided by the **Engineer** will include:

(1) **Preliminary Field Surveying**

- (a) The **Engineer** shall establish benchmark identifications, if not already provided by the **Owner**.
- (b) The **Engineer** shall obtain data for existing drainage facilities and/or structures, including size, type, and flowline (upstream & downstream) elevations of structures.
- (c) The **Engineer** shall obtain profiles of intersecting roadways that cross existing and proposed channels.
- (d) The **Engineer** shall obtain flood plain and cross-sections (along with appropriate overbank data), and establish reach lengths, as required.

(2) **Data Collection**

- (a) The **Engineer** shall perform site visits for field reconnaissance.
- (b) The **Engineer** shall identify and obtain data to include, but not be limited to:

Previous Studies:

- (i) Available previous hydraulic and/or engineering studies
- (ii) Previous documentation and/or studies for Federal Emergency Management Agency (FEMA) floodway requirements.

Land Records:

- (iii) Parcel mapping
- (iv) Property assessment
- (v) USGS topographic mapping

Property and Facility Management

- (vi) Land acquisition and disposition
- (vii) Building and property inventory

III. Preliminary Engineering, Final Design & Construction (continued)

Land Use Planning and Zoning

- (viii) General plan mapping
- (vix) Zoning mapping
- (x) Demographic mapping
- (xi) Economic development
- (xii) Linking to permitting systems
- (xiii) Existing aerial photographs and/or mapping

Engineering

- (xiv) Storm drain mapping
- (xv) Subdivision mapping
- (xvi) Street mapping

Public Safety

- (xvii) Emergency preparedness plans

Environmental Assessment (if required by Federal/State agencies)

- (xviii) Wetland mapping
- (xix) National Pollution Discharge Elimination System (NPDES) permitting
- (xx) Facility mapping
- (xxi) Vegetation mapping
- (xxii) Coastal zone management

Elections

- (xxiii) District Boundary definition

(3) **Geographical Information System**

The **Engineer** shall develop a Geographical Information System (GIS) utilizing Environmental Systems Research Institute, Inc. (ESRI) ArcView with 3-D Analyst and GIS StreamPro, where appropriate to be compatible with the existing GIS being developed in the “***Raymondville Drain Project***”. Import the collected data into ArcView for mapping purposes and presentations to facilitate the decision-making and analytical process for the development of the “***Preliminary Engineering Report***”. ArcView will also be used to export data to the USACE Hydrologic Center's computer program HEC-River Analysis System (HEC-RAS), which will be used to develop the ***engineering*** models required for the hydraulic analysis of each lateral channel (and associated tributaries) and the plotting of the resultant floodplains. Specifically, ArcView will be used to export this data to HEC-RAS where it will be combined with the field surveyed channel data in order to construct full flood plain cross sections that reflect accurate channel and overbank data for the HEC-RAS models.

Note: During the performance of the following hydrologic / hydraulic analysis and the development of the alternate solutions and final recommendation, the **Engineer** will address and incorporate any findings of the environmental documentation process.

(4) **Hydrologic Analysis**

- (a) The **Engineer** shall review and comment on the hydrologic analyses of portions of the Raymondville drainage watershed(s) that are located in Precinct No. 1 and No. 4.
- (b) The **Engineer** shall review and comment on the comparison of peak flow rates, identified in the Raymondville drainage watershed(s) that are located in Precinct No. 1 and No. 4, with any available data from the National Flood Insurance Program (NFIP) or other studies to determine consistency of results.

(5) **Hydraulic Analysis**

- (a) The **Engineer** shall review and comment on the hydraulic analysis for each existing and proposed structure location utilizing the HEC-RAS computer program; utilizing Manning's Equation to compute water surface profiles with the inputs of cross-section data, roughness coefficients, and flow rates. Specific steps for the hydraulic analysis are outlined in tasks (b) through (g) below.
- (b) The **Engineer** shall create the terrain Triangulated Irregular Network (TIN), if not provided by the **Owner**. This will be developed from a combination of field survey, aerial photogrammetry, and topographic mapping data in the development of a point table. With this point table, an event theme will be created in ArcView, which will create the terrain TIN with 3-D Analyst.
- (c) The **Engineer** shall create 2-dimensional lines representing the channel centerline, high bank locations, flow path lines, and cross-section locations by locating the various and required poly lines over the terrain TIN develop the watershed layout over the base map
- (d) The **Engineer** shall create the HEC-RAS GIS import file (ASCII text file); this will involve the correlation of the alignment of the cross-sections with the terrain TIN by extracting the elevations from the terrain TIN and creating a 3-dimensional cross-section theme.
- (e) For verification of measured elevations, the **Engineer** shall edit the HEC-RAS GIS import file by selectively replacing the points taken from the terrain TIN at the channel with actual channel points obtained by the field survey.
- (f) The **Engineer** will review and comment on the accuracy of the HEC-RAS modeling of the existing and proposed structures within Precinct No. 1 and No. 4 facilities authorized in work authorizations as outlined in Article 7 of the Agreement, and compare the hydraulic results to the effective FIS and existing 100-year flood levels.
- (g) After the HEC-RAS model is satisfactory and the output deemed acceptable, the **Engineer** shall apply the GIS export function to create the HEC-RAS export file in preparation for the flood plain mapping.

(6) **Flood Plain Mapping**

- (a) Utilizing the HEC-RAS GIS export file, and ArcView GIS StreamPro, the **Engineer** shall map the floodplain over the terrain TIN.
- (b) The **Engineer** shall compare the results by placing the resulting floodplain mapping over the existing Flood Insurance Rate Map (FIRM): scan the FIRM and bring into ArcView an image for this comparison.

(7) **Alternate Solutions and Recommendations**

- (a) The **Engineer** shall prepare preliminary cost estimates for each alternate solution and final recommendation.
- (b) The **Engineer** shall summarize each alternate solution in sufficient detail to indicate clearly the

problems involved in order for the **Owner** to make the appropriate comparisons to the **Engineer's** final recommendations and provide the approval for the final design of the **Project**.

(c) The **Engineer** shall provide a formal and clearly outlined recommendation regarding the final design of the **Project**.

(8) **Final Report**

The **Engineer** shall prepare five (5) bound, color copies of the final "***Preliminary Engineering Report***", including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimates.

(B) **Final Design.** After the **Owner** has approved the **Engineer's** final recommendations as shown in the "***Preliminary Engineering Report***" and the recommendations meet all Federal, State, and County regulations and requirements (including permitting), the **Engineer** will perform all required **engineering** activities to provide the **Owner** with a complete and approved set of plans, specifications, and estimate (PS&E) for each phase of construction of the **Project**. Specific **engineering** activities, tasks, and/or special services to be provided by the **Engineer** will include:

(1) **Right-of-Way Data (Special Services)**

The **Engineer** shall provide a right-of-way (ROW) map to the **Owner** that properly describes the ROW the **Owner** is to acquire. All procedures and tasks involved in the development of the ROW map will be in accordance with the **Owner's** local operating procedures and the Texas Board of Professional Land Surveying Practices Act. Individual activities and/or requirements include:

(a) Abstracting – The **Engineer** shall perform a preliminary title search and determine ownership information.

(b) Surveying – The **Engineer** shall obtain the required survey data needed to establish existing and proposed right-of-way lines, channel centerline alignment, private property lines, county and/or city limits, and any topographic information not clearly indicated by the aerial photogrammetry.

(c) The **Engineer** shall prepare the ROW map.

(d) The **Engineer** shall prepare field note descriptions on 8-1/2 x 14" sheets, signed and sealed by a Registered Professional Land Surveyor, for each parcel of land to be acquired as shown on the ROW map.

(e) The **Engineer** shall prepare parcel plats for each parcel of land to be acquired as shown on the ROW map. All parcel plats will be prepared on 8-1/2" x 14" sheets and signed and sealed by a Registered Professional Land Surveyor.

(f) Any revisions required to the ROW map, and associated documents, shall be made by the **Engineer** promptly, and at no additional cost or expense to the **Owner**. The **Engineer** shall immediately furnish such revised right-of-way map, and associated documents, to the **Owner** at no additional cost or expense to the **Owner**.

(2) **Design Field Surveying (Special Services)**

The **Engineer** shall perform field surveys and provide field layouts and/or information necessary to collect information required in the final design of the **Project**. This may include, but not be limited to, additional channel sections for the determination of final earthwork, roadway cross sections and profiles for intersecting roadways, soil bore staking, and right-of-way staking.

(3) **Geotechnical Investigations (Special Services)**

The **Engineer** shall perform geotechnical investigations and testing for the purpose of foundation studies and design for any pavement, retaining walls, bridges, and/or miscellaneous structures that may be required for final

design.

(4) **Permitting**

The **Engineer** shall furnish the necessary *engineering* data required to apply for regulatory permits from local, State, or Federal authorities.

(5) **Channel/Drainage Design**

The **Engineer** shall perform channel / drainage design for the proposed improvements to existing channels and/or facilities, as well as the proposed channels of the **Project**. The design of drainage improvements shall conform to the **Project** design criteria, and when possible, the standard designs required by the **Owner** (City, County, or State) of any associated roadways. These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(6) **Roadway Design**

The **Engineer** shall perform roadway design for any intersecting roadway approaches to the proposed improvements to the existing channels and/or proposed channels of the **Project**. The design of these roadways shall conform to the **Project** design criteria, and when possible, the standard designs required by the **Owner** (City, County, or State) of the associated roadway. These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(7) **Bridge Design**

(a) The **Engineer** shall perform bridge design required for any roadway crossings to the proposed improvements to the existing channels and/or proposed channels of the **Project**. The design of these bridges shall conform to the **Project** design criteria required by the **Owner** (City, County, or State), of the associated bridge structure and/or roadway, and the requirements set forth by the American Association of State Highway and Transportation Officials (AASHTO), "Standard Specifications for Highway Bridges". These designs shall

in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(b) Prior to performing structural detailing, the **Engineer** shall provide a bridge layout to the governing entity of the associated bridge structure and/or roadway for approval. Each bridge layout will include the required information set forth by the governing entity.

(8) **Plans, Specifications & Estimates (PS&E)**

(a) The **Engineer** shall prepare contract drawings, specifications and estimates for construction of the **Project** or portions of the **Project** as authorized by the **Owner**. These documents shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(b) All final plan sheets shall be developed, by the **Engineer**, on 11" x 17" reproducible, 4 mil, double-matte, white, opaque film.

(c) Graphics files shall be developed by the **Engineer** in Microstation design file format, and must plot consistent with the reproducible plots submitted.

(d) **Plan Sheets.** Plan sheets developed by the **Engineer** shall include, but not be limited to, title sheet, typical sections, sequence of construction, traffic control (as applicable), specification data (including schedules for minimum sampling and testing), estimate and quantity, plan-profile, channel details, roadway details (as applicable), bridge and culvert details, hydraulic details, and standards. (Standards may be used

from governing entities, but must be signed and dated by the **Project Engineer** of responsible supervision as being applicable to the **Project**.)

- (e) **Specifications.** Whenever possible, the **Engineer** shall use the Texas Department of Transportation's 1993 Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges. Other specifications may be developed by the **Engineer**, but must incorporate, to the extent possible, references to standard requirements of AASHTO design and AASHTO testing procedures.
 - (f) **Estimates.** The **Engineer** shall prepare detailed cost estimates and proposals of authorized construction, which shall include summaries of bid items and quantities based, insofar as practicable, on the unit price system of bidding. The **Engineer** shall not be required to guarantee the accuracy of those estimates.
- (C) **Construction Phase Services.** The **Engineer** shall provide *engineering* services for each authorized construction contract of the **Project**. Specific *engineering* work activities, tasks, and/or special services to be provided by the **Engineer** will include:

(1) **Construction Bidding**

The **Engineer** shall prepare the documents for all necessary copies of approved plans, specifications, notices to bidders, and proposals.

Note: Services for assistance in advertising for each authorized construction contract for the **Project**, opening and tabulation of bids, recommendations to the **Owner** as to the proper action on all bid proposals received, and the preparation of formal contract documents for the award of each construction contract will be performed by the **Engineer**.

(2) **Project Site Representation**

(a) In general, the **Engineer** shall provide the *engineering support and data* required for consultation and advisement to the **Owner**, and to protect the **Owner** against defects and deficiencies in the work of the **Contractor**.

(b) **Daily and Weekly Reports.** The **Engineer** shall provide the *engineering support and data* required to monitor the **Contractor's** progress with daily and weekly reports as outlined in the "**Construction Management Policy & Procedures Manual**" developed and more particularly identified under I – Engineering Management in this exhibit. This information will be utilized for the development of the *monthly progress report* to be provided to the **Owner** as identified under I – Engineering Management in this exhibit.

(c) **Contractor Payment.** The **Engineer** shall take measurements and calculate quantities, in accordance with the construction contract specifications, of those items of work accepted and conforming to the construction contract specifications, for the preparation of the monthly and final estimates for payment to the **Contractor** as identified and performed under I – Engineering Management in this Exhibit. *Note:* The **Engineer** is not responsible for actual payments to the **Contractor**.

(d) The **Engineer** will provide **Project** site representation of the authorized construction contract as follows:

(i) **Project Engineer.** The **Engineer** will provide visits by the **Project Engineer** or a competent representative of the **Engineer** to the site of construction at least three times each week for the purpose of monitoring the **Contractor's** progress and conformance to the construction contract plans and specifications.

(ii) **Resident Engineer.** If authorized by the **Owner**, the **Engineer** will furnish the services of a **Resident**

Engineer and/or construction representative(s) for continuous on-the-site representation.

(3) **Miscellaneous Technical Activities**

- (a) **Construction Field Surveying.** The **Engineer** shall perform all field surveys and field layouts, including construction staking and right-of-way staking.
- (b) **Shop Drawings.** The **Engineer** shall review and check all shop or working drawings furnished by the **Contractor**.
- (c) **Control of Materials & Equipment.** The **Engineer** shall provide inspection of all materials and equipment furnished/used by the **Contractor** as follows:
 - (i) Review and record all laboratory, shop and mill tests of materials and equipment for compliance with the construction contract specifications.
 - (ii) Observe and/or perform **Project** record testing and/or independent assurance testing as outlined in the construction contract specifications.
- (d) **Change Orders.** When applicable, the **Engineer** will prepare the *engineering* data, including plan sheet drawings, specifications, and estimates, for the preparation of construction contract change orders, which may be required due to actual field conditions encountered or new requirements directed by the **Owner**.

(4) **Final Acceptance**

- (a) **Performance Testing.** Following the completion of construction by the **Contractor**, the **Engineer** shall provide the *engineering* support and data required for the initial operation of the **Project**. This will include inspection for conformance and recordkeeping for the necessary performance tests required by the construction contract specifications. The **Engineer** will provide this inspection with either the *Project Engineer* or *Resident Engineer*, as directed by the **Owner**.
- (b) **As-Built Drawings.** The **Engineer** shall develop as-built drawings to show the work as actually constructed.

EXHIBIT "C"
Work Schedule

A detailed work schedule for each **Work Authorization**, identified and more particularly described in Article 7 of this Agreement, shall be prepared by the **Engineer** to be submitted and approved by the Owner in writing for each **Work Authorization**. The work schedule will provide specific work sequence and definite review times by the **Owner** and the **Engineer** of the work performed.

The **Engineer** will diligently pursue the completion of each **Work Authorization** as defined by the milestones and deliverable due dates outlined in each **Work Authorization**'s associated work schedule.

The **Engineer** will inform the **Owner** (in reasonable advance of the delay) should the **Engineer** encounter delays that would prevent the performance of all work in accordance with the established work schedule.

Exhibit D

Engineer's Contract Rate Schedule

LABOR

JOB DESCRIPTION	CONTRACT RATE
Engineering	
Sr. Project Manager	\$243.43
Project Manager	\$174.65
Sr. Engineer	\$167.20
Project Engineer	\$148.76
Engineer	\$128.75
Sr. Engineer Designer	\$120.75
Engineering Designer	\$112.06
CADD Operator	\$91.04
Secretary	\$74.38

DIRECT EXPENSES:***

Mileage	\$ Current GSA Travel Rate/Mi.
Car Rental	\$ At Cost
Lodging (in state)	\$ Current GSA Per Diem Rate
Meals	\$ Current GSA Per Diem Rate
Air Travel	at cost
Overnight Carrier cost	\$40/letter
GPS Equipment	\$500/day
Copies (8 ½ x 11)	\$0.10/ea
Color Copies (8 ½ x 11)	\$1.00/ea
Copies (11 x 17)	\$0.20/ea
Color Copies (11 x 17)	\$2.00/ea
Mylar (11 x 17) Plots	\$3.50/ea
Color Mylar (11 x 17) Plots	\$7.00/ea
Bond Plots	\$1.00/sq. ft.
Color Bond Plots	\$2.50/sq. ft.
Mylar Plots	\$2.50/sq. ft.
Color Mylar Plots	\$5.00/sq. ft.
Photo Quality Color Plots	\$12.00/sq. ft.

*** These are the anticipated non-labor rates to be used to negotiate purchase orders for special or excluded services, and/or additional work; and may be re-negotiated on a yearly basis. Other non-labor rates may be determined at time of negotiation. At the rates authorized by Hidalgo County for County Official

EXHIBIT "E"
Work Authorization Form

WORK AUTHORIZATION NO. ___

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the **Agreement** made by and between the **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **TEDSI Infrastructure Group**, professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

PART 1. Scope of Work. The purpose of this Work Authorization is to provide services as indicated below:

The scope of services to be provided by the **Owner** is identified in **ATTACHMENT "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 **ATTACHMENT "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 **ATTACHMENT "D"**.

PART 3. Payment. Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement**.

PART 4. Period of Service. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and all work associated with this Work Authorization shall be performed within the time period identified in the **Work Schedule** attached hereto as **ATTACHMENT "C"**.

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

PART 6. Acceptance and Acknowledgement. This Work Authorization is hereby accepted and acknowledged as indicated below and effective as of _____ day of _____, 2010.

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP

BY: _____
Jesse Salinas, (Principal)

THE OWNER:
HIDALGO COUNTY

BY: _____
Oscar L. Garza, Jr., (County Commissioner)

LIST OF ATTACHMENTS

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

EXHIBIT "F"
Supplemental Agreement Form

WORK AUTHORIZATION NO. ____
SUPPLEMENTAL AGREEMENT NO. ____

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 **TEDSI INFRASTRUCTURE GROUP**, professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

PART 1. Scope of Work. The purpose of this Work Authorization is to provide services as indicated below:

The scope of services to be provided by the **Owner** is identified in ATTACHMENT "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 ATTACHMENT "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 ATTACHMENT "D".

PART 3. Payment. Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement**.

PART 4. Period of Service. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and all work associated with this Work Authorization shall be performed within the time period identified in the *Work Schedule* attached hereto as ATTACHMENT "C".

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

PART 6. Acceptance and Acknowledgement. This Work Authorization is hereby accepted and acknowledged as indicated below and effective as of _____ day of _____, 2010.

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP

BY: _____
Jesse Salinas, (Principal)

THE OWNER:
HIDALGO COUNTY

BY: _____
Oscar L. Garza, Jr., (County Commissioner)

LIST OF ATTACHMENTS

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

EXHIBIT "G"

Certificate of Insurance Form – Hidalgo County

Hidalgo County CERTIFICATE OF INSURANCE



NOTE: Copies of the endorsements listed below are not required as attachments to this certificate.

The named Engineer, Consultant or Contractor shall not commence work until he/she has obtained the minimum insurance specified in Section II, below, and obtained the following endorsements: **Hidalgo County** as an **Additional Insured** for coverages 3 and 4, and a **Waiver of Subrogation** in favor of the **Hidalgo County** under coverages 2, 3 and 4. Only certificates of insurance published by **Hidalgo County** are acceptable as proof of insurance; commercial carriers' certificates are unacceptable.

SECTION I IDENTIFICATION DATA

1.1 Insured Name (of Engineer, Consultant or Contractor)

1.2 Street/Mailing Address

1.3 City

1.4 State

1.5 Zip

1.6 Phone Number

Area Code ()

SECTION II TYPE OF INSURANCE

Type	Policy Number:	Effective Date:	Expiration Date:	Limits of Liability Not Less Than:
2. WORKERS' COMPENSATION				
	2.1 _____	2.2 _____	2.3 _____	Statutory Texas
Endorsed with a Waiver of Subrogation in favor of Hidalgo County				
3. COMMERCIAL GENERAL LIABILITY				
Bodily Injury/Property Damage	3.1 _____	3.2 _____	3.3 _____	\$1,000,000 combined single limit each occurrence and in the aggregate
Endorsed with Hidalgo County as an Additional Insured and endorsed with a Waiver of Subrogation in favor of Hidalgo County .				
4. TEXAS BUSINESS AUTOMOBILE POLICY				
A. Bodily Injury	4.1 _____	4.2 _____	4.3 _____	\$250,000 ea. Person \$500,000 ea. Occurrence
B. Property Damage	4.4 _____	4.5 _____	4.6 _____	\$100,000 ea. Occurrence
Endorsed with Hidalgo County as an Additional Insured and endorsed with a Waiver of Subrogation in favor of Hidalgo County .				
5. PROFESSIONAL LIABILITY				
	5.1 _____	5.2 _____	5.3 _____	\$1,000,000 combined single limit each occurrence and in the aggregate

SECTION III CERTIFICATION

This Certificate of Insurance neither affirmatively or negatively amends, extends, or alters the coverage afforded by the above insurance policies issued by the insurance company named below.

Cancellation of the insurance policies shall not be made until THIRTY DAYS AFTER the undersigned agent or his/her company has sent written notices by certified mail to the Engineer, Consultant or Contractor and **Hidalgo County**.

THIS IS TO CERTIFY to **Hidalgo County** that the insurance policies above meet all the requirements stipulated above and such policies are in full force and effect.

6.1 Name of Insurance Company			7.1 Name of Authorized Agent		
6.2 Company Address			7.2 Agent's Address		
6.3 City	6.4 State	6.5 Zip	7.3 City	7.4 State	7.5 Zip
7.6 Authorized Agent's Phone No. Area Code ()			Original Signature of Authorized Agent _____ Date		

Hidalgo County

CERTIFICATE OF INSURANCE (Back of Form)

Hidalgo County Certificate of Insurance Requirements

Only the Hidalgo County Certificate of Insurance (COI) forms are acceptable as proof of insurance.

The named insured on the COI and the name of the Engineer, Consultant, or Contractor, as it appears on the Agreement for Professional Services, must be the same.

The signature of the agent must be original in ink; stamped/typed/printed signatures are unacceptable.

WORKER'S COMPESATION

The following requirements apply to *WORKER'S COMPENSATION* coverage:

- If the Engineer, Consultant, or Contractor has *any* employees, in addition to himself/herself, then the Engineer, Consultant, or Contractor is required to have workers' compensation insurance.
- The word STATUTORY, under limits of liability, means that the benefits allowed under the Texas Workers' Compensation Law will be paid by the insurer.
- Relatives of the Engineer, Consultant or Contractor (spouse, sons, daughters) must be covered by workers' compensation insurance.

GROUP HEALTH insurance may not be substituted for *WORKERS' COMPENSATION* insurance.

COMMERCIAL GENERAL LIABILITY

COMMERCIAL GENERAL & PROFESSIONAL LIABILITY insurance is usually sold in only Combined Single Limit coverage. In the event the coverages are specified separately, they must be *at least* these amounts:

Bodily Injury	-	\$750,000 each occurrence
Property Damage	-	\$250,000 each occurrence \$1,000,000 aggregate

Note: This coverage was previously known as Comprehensive General Liability insurance. Some older policies may still carry this identification. This is acceptable.

MANUFACTURERS' AND CONTRACTORS' LIABILITY insurance is not an acceptable substitute for COMMERCIAL GENERAL LIABILITY insurance.

TEXAS BUSINESS AUTOMOBILE POLICY

The coverage amount for a *TEXAS BUSINESS AUTOMOBILE POLICY* may be shown as a minimum of \$1,000,000 Combined Single Limit for bodily injury and property damage by a typed or printed entry and deletion of the specific amounts listed for Bodily Injury and Property Damage.

BASIC AUTOMOBILE LIABILITY insurance is *not* an acceptable substitute for a TEXAS BUSINESS AUTOMOBILE POLICY or COMPREHENSIVE AUTOMOBILE LIABILITY insurance.

EXHIBIT “E”
Work Authorization Form
Hidalgo County Contract No.

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the **Agreement** made by and between the **HIDALGO COUNTY**, acting herein by and through the **Commissioner’s Court**, hereinafter called the “**Owner**”, and **TEDSI Infrastructure Group, Inc.**, professional engineers of Mission, Texas, hereinafter called the “**Engineer**”.

PART 1. Scope of Work. The purpose of this Work Authorization is to provide Professional Engineering, Right Of Way Mapping and Topographic services for construction of HCMDS Phase II - Lateral J-09 from North Main Drain to County Road 3601 as indicated below::

The scope of services to be provided by the **Owner** is identified in **ATTACHMENT “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 **ATTACHMENT “B” – *Scope of Services to be Provided by the Engineer*** attached hereto.

PART 2. Estimated Cost. The estimated lump sum cost for services under this Work Authorization is \$ 1,086,900. This amount is based upon the costs outlined in the ***Estimated Cost Proposal*** attached hereto as **ATTACHMENT “D”**.

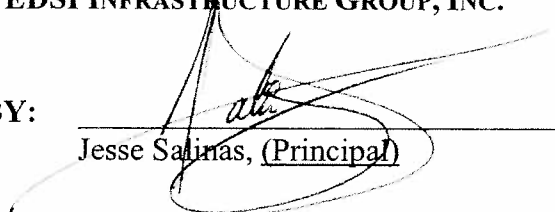
PART 3. Payment. Lump Sum compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement**.

PART 4. Period of Service. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and shall remain open until all work associated with this Work Authorization is completed. An estimated time associated with this work is identified in the ***Work Schedule*** attached hereto as **ATTACHMENT “C”**.

PART 5. Responsibilities and Obligations. This Work Authorization does not waive the parties’ responsibilities and obligations provided under the **Agreement**.

PART 6. Acceptance and Acknowledgement. This Work Authorization is hereby accepted and acknowledged as indicated below and effective as of _ day of _____, 2010.

**THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP, INC.**

BY: 

Jesse Salinas, (Principal)

**THE OWNER:
HIDALGO COUNTY**

BY: _____
Oscar L. Garza, Jr., (County Commissioner)

LIST OF ATTACHMENTS

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



ATTACHMENT “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 **Work Authorizations**.

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

- 1) Prepare and execute a Purchase Order with Hidalgo County Purchasing Department
- 2) Authorization to the Engineer to begin work.
- 3) Payment for work performed by the engineer.
- 4) Assistance to the Engineer, as necessary, to obtain required data and information from other local, regional, and state agencies that the Engineer cannot easily obtain.
- 5) Secure required Environmental permits from regulatory agencies
- 6) Acquire additional Right of Way identified by the Engineer
- 7) Provide any available relevant data that may on file concerning the Project.
- 8) Provide timely review and decisions in response to the Engineers request for information and/or submittals and deliverables.
- 9) Attend and participate in progress meetings as required and as coordinated and conducted by the Engineer.
- 10) Advertise and award, as assisted and recommended by the Engineer, construction contracts for the PS&E developed by the Engineer.
- 11) Attend pre-bid and pre-construction conferences coordinated and conducted by the Engineer.
- 12) Review and approve monthly and final estimates, developed by the Engineer, for payment to the Contractor. Compensate and pay the Contractor for work performed as identified in the approved monthly and final estimates.
- 13) Provide assistance to Engineer where necessary and possible with Owner information/resources to ensure project is completed within timely/efficient basis.
- 14) Provide Engineer with Geotechnical Data for pavement design and thickness.

ATTACHMENT “B”
Services to be Provided by the Engineer

INDEX

CLASSIFICATION OF SERVICES (*Basic or Special*)
EXPANDED DESCRIPTION OF SERVICES:

I. ENGINEERING MANAGEMENT (EM)

(B) Preliminary Engineering

- (1) Preliminary Concept Conference
- (2) Management/Coordination of Engineering Activities
- (3) Implementation of QC/QA Program
- (4) Preparation of “*Preliminary Engineering Report*”
- (5) Coordination with all Reviewing Agencies

(C) Final Design

- (1) “*Design Policy & Procedures Manual*”
- (2) Design Concept Conference
- (3) Management/Coordination of Engineering Activities
- (4) Implementation of QC/QA Program

III. PRELIMINARY ENGINEERING, DESIGN AND CONSTRUCTION

(A) Preliminary Engineering

- (1) Preliminary Field Surveying
- (2) Data Collection
- (3) Geographical Information System
- (4) Hydrologic Analysis
- (5) Hydraulic Analysis
- (6) Flood Plain Mapping
- (7) Alternate Solutions & Recommendations
- (8) Final Report – “*Preliminary Engineering Report*”

(B) Final Design

- (1) Right-of-Way Data
- (2) Design Field Surveying
- (3) Geotechnical Investigations
- (4) Permitting
- (5) Channel / Drainage Design
- (6) Roadway Design
- (7) Bridge Design
- (8) Plans, Specifications, and Estimates (PS&E)

CLASSIFICATION OF SERVICES. In accordance with Article 2.2 of this Agreement, the services to be provided by the **Engineer** shall be classified as either **Basic Services** or **Special Services**. The expanded descriptions of the services identified later in this exhibit and to be provided by the **Engineer** are classified as follows:

Management:

I. ENGINEERING MANAGEMENT (EM)

(B) Preliminary Engineering

- (1) Preliminary Concept Conference
- (2) Management / Coordination of Engineering Activities
- (3) Implementation of QC/QA Program
- (4) Preparation of “*Preliminary Engineering Report*”

Basic
Basic
Basic
Basic

Hidalgo County Drainage District No. 1 / TEDSI Infrastructure Group
“*Master Drainage System Phase II – Lateral Drain Outfall System*”

- | | |
|--|--------------|
| (5) Coordination with all reviewing agencies (FEMA, USACE, etc.) | <i>Basic</i> |
| (C) Final Design | |
| (1) <i>“Design Policy & Procedures Manual”</i> | <i>Basic</i> |
| (2) Design Concept Conference | <i>Basic</i> |
| (3) Management / Coordination of Engineering Activities | <i>Basic</i> |
| (4) Implementation of QC/QA Program | <i>Basic</i> |

Engineering:

III. PRELIMINARY ENGINEERING, FINAL DESIGN & CONSTRUCTION

- | | |
|--|--------------------------|
| (A) Preliminary Engineering: | |
| (1) Preliminary Field Surveying (using Lidar/ provided by Owner) | <i>Provided by Owner</i> |
| (2) Data Collection | <i>Basic</i> |
| (3) Geographical Information System | <i>Basic</i> |
| (4) Hydrologic Analysis | <i>Basic</i> |
| (5) Hydraulic Analysis | <i>Basic</i> |
| (6) Flood Plain Mapping | <i>Basic</i> |
| (7) Alternate Solutions /Recommendations for Final Design | <i>Basic.</i> |
| (8) Final Report – <i>“Preliminary Engineering Report”</i> | <i>Basic</i> |
| (B) Final Design: | |
| (1) Right-of-Way Data and ROW Map | <i>Special</i> |
| (2) Design Field Surveying | <i>Special</i> |
| (3) Permitting | <i>Basic</i> |
| (4) Channel / Drainage Design | <i>Basic</i> |
| (5) Roadway Design | <i>Basic</i> |
| (6) Bridge Design | <i>Basic</i> |
| (7) Plans, Specifications & Estimates | <i>Basic</i> |

EXPANDED DESCRIPTIONS OF SERVICES. The expanded descriptions of the services to be provided by the Engineer are described on the following pages.

I. ENGINEERING MANAGEMENT (EM)

The following outline provides a summary for the *basic* and *special services* to be provided by the **Engineer** under services of this Agreement. The contractual services will be outlined in each Work Authorization as outlined in Article 7.

For these services, the **Engineer** shall manage the **Project Team**, consisting of various sub-providers, in the development of the **Project** as defined and more particularly described in **EXHIBIT “B1”** attached to this Agreement. The services will include the following:

- (B) Preliminary Engineering.** The **Engineer** will ultimately deliver the final recommendations for the design of the project in the *“Preliminary Engineering Report”*. (Specific requirements for *engineering* activities are outlined later in this exhibit under II - Preliminary Engineering, Design and Construction.) The **Engineer** shall *manage* and coordinate the activities of the **Project Team** in the collection of geographical information and *engineering* data, the selection of computer software, and the distribution of **Project** information and status to the **Owner** and **Project Team** throughout the development of the *“Preliminary Engineering Report”*. Specific *management*

Hidalgo County Drainage District No. 1 / TEDSI Infrastructure Group
“Master Drainage System Phase II – Lateral Drain Outfall System”

I. *EM* (continued)

tasks to be provided by the **Engineer** will include:

- (1) **Preliminary Concept Conference.** The **Engineer** will coordinate and conduct a preliminary concept conference (PCC) with the **Owner**, and any other stakeholders approved by the **Owner**. At the PCC, the **Engineer** will outline the issues and aspects involved in the development of the "**Preliminary Engineering Report**", identify existing conditions and design requirements, and present the approach to the development of the report for approval by the **Owner**.
 - (2) **Management/Coordination of Engineering Activities.** The **Engineer** shall *manage* and coordinate the **Project Team** in the preparation of specific *engineering* work activities, tasks, special services for the final development of the "**Preliminary Engineering Report**", including Field Surveying, Data Collection, the development of a Geographical Information System, Hydrologic/Hydraulic Analysis, Flood Plain Mapping, Alternate Solutions, and Final Recommendations (more particularly defined with the *engineering* activities identified in this exhibit under II - Preliminary Engineering, Design and Construction (**Preliminary Engineering**)).
 - (3) **Implement QC/QA Program.** The **Engineer** will monitor and perform the QC/QA program developed to ensure the quality of the "**Preliminary Engineering Report**", and its compliance with standards of sound *engineering* principles and the agreed-upon design criteria established at the PCC.
 - (4) **Final Report: "**Preliminary Engineering Report**".** The **Engineer** will provide, to the **Owner**, five (5) bound, color copies of the "**Preliminary Engineering Report**", including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimate.
 - (5) **Coordination with various agencies.** The development of the "**Preliminary Engineering Report**" may require documentation and/or coordination with various agencies. The **Engineer** will act as a liaison for the **Owner**, and will attend any meetings, and develop / prepare any required correspondence, documentation, and/or applications to satisfy the applicable Federal, State, and local regulations.
- (C) **Final Design.** After the **Owner** has approved the **Engineer's** final recommendations as shown in the "**Preliminary Engineering Report**" and the recommendations meet all Federal, State, and County permitting requirements, the **Engineer**, will coordinate the activities of the **Project Team** during the final design of the **Project** by developing and preparing all policies and procedures, managing the sub-providers activities and performance, and performing quality control and quality assurance for all design documents associated with the **Project**. One of the primary deliverables for the **Engineer** to provide the **Owner** is a complete and approved set of plans, specifications, and estimate (PS&E) for each phase of construction of the **Project**. Specific *management* work activities to be provided by the **Engineer** will include:
- (1) "**Design Policy & Procedures Manual**". The **Owner** will provide a policy and procedures manual for final design to be used by the **Project Team** in the development of the **Project**. The purpose of this will be to set policy with regards to the approved design criteria, and to provide consistency in the development of the documents for design, plans, specifications and estimates. Once the manual has been provided by the **Owner** it will be distributed by the **Engineer** to each member of the **Project Team**. The **Owner** will be responsible for updating and maintaining the manual and distributing any revisions throughout **Project** development.

Hidalgo County Drainage District No. 1 / TEDSI Infrastructure Group
"Master Drainage System Phase II – Lateral Drain Outfall System"

I. *EM* (continued)

Items to be identified in the “*Design Policy & Procedures Manual*” provided by the **Owner** will include, but not be limited to, the following:

- (a) Project Description and Final Recommendations of the “*Preliminary Engineering Report*”
 - (b) Environmental
 - (c) Correlation and Agreement with Other Agencies
 - (d) Application of Design Standards (City, County, State, AASHTO)
 - (e) Requirements for Preliminary Submittals
 - (f) Basic Design Criteria
 - (g) Preparation for Plans, Specifications, and Estimate (PS&E) Submittals
 - (h) Formats for Supporting Documents
 - (i) CADD Standards
 - (j) Specifications
- (2) **Design Concept Conference (DCC).** The **Engineer** shall coordinate and conduct a design concept conference with the **Owner** and **Project Team**. At the DCC, the **Engineer** will distribute the “*Design Policy & Procedures Manual*” provided by **Owner** and discuss the **Project** Development Schedule with the **Project Team**.
- (3) **Management/Coordination of Engineering Activities.** The **Engineer** shall *manage* and coordinate the **Project Team** in the development of the documents for final design, including: Right of Way Data, Design Field Surveying, Geotechnical Investigations, Permitting, Channel/Drainage Design, Roadway Design, Bridge Design, PS&E, and other miscellaneous design and plan preparation items (more particularly defined with the engineering activities identified in this exhibit under II – Preliminary Engineering, Design and Construction (**Final Design**)).
- (4) **Implement QC/QA Program.** The **Engineer** shall monitor and perform the QC/QA program developed to ensure the quality of the documents associated with Right of Way Data (Mapping), Design Field Surveying, Geotechnical Investigations, Permitting, Channel/Drainage Design, Roadway Design, Bridge Design, PS&E, and other miscellaneous design and plan preparation items (more particularly defined with the *engineering* activities identified in this exhibit under II – Preliminary Engineering, Design and Construction (**Final Design Engineering**)). These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

III. Preliminary Engineering, Final Design & Construction (continued)

III. PRELIMINARY ENGINEERING, DESIGN & CONSTRUCTION

The services listed below to be provided by the **Engineer** are a summary of the services; the actual contractual services will be identified in each work authorization as outlined in Article 7 of the Agreement. The services shall be divided into three phases with *engineering* work activities, as follows:

(A) **Preliminary Engineering.** For this phase, the **Engineer** will ultimately deliver the "*Preliminary Engineering Report*". The "*Preliminary Engineering Report*" shall be based on the **Engineer's** review and comments on the "*Raymondville Drain Outfall Study*" (to be provided by the **Owner**). Should the review and comments by the **Engineer** indicate deficiencies in the "*Raymondville Drain Outfall Study*", or in the **Turner, Collie and Braden, Inc. Engineer Report – "Flood Protection Plan"**, dated September 1997, corrections of such deficiencies shall be the responsibility of the **Owner**, or deemed by the **Owner** as additional work to be performed by the **Engineer** and compensated in accordance with Articles 8 and 9 of this Agreement. Subsequently, the **Engineer** will prepare the "*Preliminary Engineering Report*" in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the **Owner**; to include preliminary layouts, sketches, and cost estimates for the **Project**, and to set forth clearly the **Engineer's** recommendations. Specific *engineering* work activities, tasks, and/or special services to be provided by the **Engineer** will include:

(1) **Preliminary Field Surveying**

- (a) The **Engineer** shall establish benchmark identifications, if not already provided by the **Owner**.
- (b) The **Engineer** shall obtain data for existing drainage facilities and/or structures, including size, type, and flowline (upstream & downstream) elevations of structures.
- (c) The **Engineer** shall obtain profiles of intersecting roadways that cross existing and proposed channels.
- (d) The **Engineer** shall obtain flood plain and cross-sections (along with appropriate overbank data), and establish reach lengths, as required.

(2) **Data Collection**

- (a) The **Engineer** shall perform site visits for field reconnaissance.
- (b) The **Engineer** shall identify and obtain data to include, but not be limited to:

Previous Studies:

- (i) Available previous hydraulic and/or engineering studies
- (ii) Previous documentation and/or studies for Federal Emergency Management Agency (FEMA) floodway requirements.

Land Records:

- (iii) Parcel mapping
- (iv) Property assessment
- (v) USGS topographic mapping

Property and Facility Management

- (vi) Land acquisition and disposition
- (vii) Building and property inventory

III. Preliminary Engineering, Final Design & Construction (continued)

Land Use Planning and Zoning

- (viii) General plan mapping
- (vix) Zoning mapping
- (x) Demographic mapping
- (xi) Economic development
- (xii) Linking to permitting systems
- (xiii) Existing aerial photographs and/or mapping

Engineering

- (xiv) Storm drain mapping
- (xv) Subdivision mapping
- (xvi) Street mapping

Public Safety

- (xvii) Emergency preparedness plans

Environmental Assessment (if required by Federal/State agencies)

- (xviii) Wetland mapping
- (xix) National Pollution Discharge Elimination System (NPDES) permitting
- (xx) Facility mapping
- (xxi) Vegetation mapping
- (xxii) Coastal zone management

Elections

- (xxiii) District Boundary definition

(3) **Geographical Information System**

The **Engineer** shall develop a Geographical Information System (GIS) utilizing Environmental Systems Research Institute, Inc. (ESRI) ArcView with 3-D Analyst and GIS StreamPro, where appropriate to be compatible with the existing GIS being developed in the “**Raymondville Drain Project**”. Import the collected data into ArcView for mapping purposes and presentations to facilitate the decision-making and analytical process for the development of the “**Preliminary Engineering Report**”. ArcView will also be used to export data to the USACE Hydrologic Center's computer program HEC-River Analysis System (HEC-RAS), which will be used to develop the **engineering** models required for the hydraulic analysis of each lateral channel (and associated tributaries) and the plotting of the resultant floodplains. Specifically, ArcView will be used to export this data to HEC-RAS where it will be combined with the field surveyed channel data in order to construct full flood plain cross sections that reflect accurate channel and overbank data for the HEC-RAS models.

Note: During the performance of the following hydrologic / hydraulic analysis and the development of the alternate solutions and final recommendation, the **Engineer** will address and incorporate any findings of the environmental documentation process.

(4) **Hydrologic Analysis**

- (a) The **Engineer** shall review and comment on the hydrologic analyses of portions of the Raymondville drainage watershed(s) that are located in Precinct No. 1 and No. 4.
- (b) The **Engineer** shall review and comment on the comparison of peak flow rates, identified in the Raymondville drainage watershed(s) that are located in Precinct No. 1 and No. 4, with any available data from the National Flood Insurance Program (NFIP) or other studies to determine consistency of results.

III. Preliminary Engineering, Final Design & Construction (continued)

(5) Hydraulic Analysis

- (a) The **Engineer** shall review and comment on the hydraulic analysis for each existing and proposed structure location utilizing the HEC-RAS computer program; utilizing Manning's Equation to compute water surface profiles with the inputs of cross-section data, roughness coefficients, and flow rates. Specific steps for the hydraulic analysis are outlined in tasks (b) through (g) below.
- (b) The **Engineer** shall create the terrain Triangulated Irregular Network (TIN), if not provided by the **Owner**. This will be developed from a combination of field survey, aerial photogrammetry, and topographic mapping data in the development of a point table. With this point table, an event theme will be created in ArcView, which will create the terrain TIN with 3-D Analyst.
- (c) The **Engineer** shall create 2-dimensional lines representing the channel centerline, high bank locations, flow path lines, and cross-section locations by locating the various and required poly lines over the terrain TIN develop the watershed layout over the base map
- (d) The **Engineer** shall create the HEC-RAS GIS import file (ASCII text file); this will involve the correlation of the alignment of the cross-sections with the terrain TIN by extracting the elevations from the terrain TIN and creating a 3-dimensional cross-section theme.
- (e) For verification of measured elevations, the **Engineer** shall edit the HEC-RAS GIS import file by selectively replacing the points taken from the terrain TIN at the channel with actual channel points obtained by the field survey.
- (f) The **Engineer** will review and comment on the accuracy of the HEC-RAS modeling of the existing and proposed structures within Precinct No. 1 and No. 4 facilities authorized in work authorizations as outlined in Article 7 of the Agreement, and compare the hydraulic results to the effective FIS and existing 100-year flood levels.
- (g) After the HEC-RAS model is satisfactory and the output deemed acceptable, the **Engineer** shall apply the GIS export function to create the HEC-RAS export file in preparation for the flood plain mapping.

(6) Flood Plain Mapping

- (a) Utilizing the HEC-RAS GIS export file, and ArcView GIS StreamPro, the **Engineer** shall map the floodplain over the terrain TIN.
- (b) The **Engineer** shall compare the results by placing the resulting floodplain mapping over the existing Flood Insurance Rate Map (FIRM): scan the FIRM and bring into ArcView an image for this comparison.

(7) Alternate Solutions and Recommendations

- (a) The **Engineer** shall prepare preliminary cost estimates for each alternate solution and final recommendation.
- (b) The **Engineer** shall summarize each alternate solution in sufficient detail to indicate clearly the problems involved in order for the **Owner** to make the appropriate comparisons to the **Engineer's** final recommendations and provide the approval for the final design of the **Project**.

III. Preliminary Engineering, Final Design & Construction (continued)

(c) The **Engineer** shall provide a formal and clearly outlined recommendation regarding the final design of the **Project**.

(8) **Final Report**

The **Engineer** shall prepare five (5) bound, color copies of the final "**Preliminary Engineering Report**", including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimates.

(B) Final Design. After the **Owner** has approved the **Engineer**'s final recommendations as shown in the "**Preliminary Engineering Report**" and the recommendations meet all Federal, State, and County regulations and requirements (including permitting), the **Engineer** will perform all required **engineering** activities to provide the **Owner** with a complete and approved set of plans, specifications, and estimate (PS&E) for each phase of construction of the **Project**. Specific **engineering** activities, tasks, and/or special services to be provided by the **Engineer** will include:

(1) **Right-of-Way Data (Special Services)**

The **Engineer** shall provide a right-of-way (ROW) map to the **Owner** that properly describes the ROW the **Owner** is to acquire. All procedures and tasks involved in the development of the ROW map will be in accordance with the **Owner**'s local operating procedures and the Texas Board of Professional Land Surveying Practices Act. Individual activities and/or requirements include:

- (a) Abstracting – The **Engineer** shall perform a preliminary title search and determine ownership information.
- (b) Surveying – The **Engineer** shall obtain the required survey data needed to establish existing and proposed right-of-way lines, channel centerline alignment, private property lines, county and/or city limits, and any topographic information not clearly indicated by the aerial photogrammetry.
- (c) The **Engineer** shall prepare the ROW map.
- (d) The **Engineer** shall prepare field note descriptions on 8-1/2 x 14" sheets, signed and sealed by a Registered Professional Land Surveyor, for each parcel of land to be acquired as shown on the ROW map.
- (e) The **Engineer** shall prepare parcel plats for each parcel of land to be acquired as shown on the ROW map. All parcel plats will be prepared on 8-1/2" x 14" sheets and signed and sealed by a Registered Professional Land Surveyor.
- (f) Any revisions required to the ROW map, and associated documents, shall be made by the **Engineer** promptly, and at no additional cost or expense to the **Owner**. The **Engineer** shall immediately furnish such revised right-of-way map, and associated documents, to the **Owner** at no additional cost or expense to the **Owner**.

(2) **Design Field Surveying (Special Services)**

The **Engineer** shall perform field surveys and provide field layouts and/or information necessary to collect information required in the final design of the **Project**. This may include,

Hidalgo County Drainage District No. 1 / TEDSI Infrastructure Group
"Master Drainage System Phase II – Lateral Drain Outfall System"

III. Preliminary Engineering, Final Design & Construction (continued)

but not be limited to, additional channel sections for the determination of final earthwork, roadway cross sections and profiles for intersecting roadways, soil bore staking, and right-of-way staking.

(3) **Permitting**

The **Engineer** shall furnish the necessary *engineering* data required to apply for regulatory permits from local, State, or Federal authorities.

(4) **Channel/Drainage Design**

The **Engineer** shall perform channel / drainage design for the proposed improvements to existing channels and/or facilities, as well as the proposed channels of the **Project**. The design of drainage improvements shall conform to the **Project** design criteria, and when possible, the standard designs required by the **Owner** (City, County, or State) of any associated roadways. These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(5) **Roadway Design**

The **Engineer** shall perform roadway design for any intersecting roadway approaches to the proposed improvements to the existing channels and/or proposed channels of the **Project**. The design of these roadways shall conform to the **Project** design criteria, and when possible, the standard designs required by the **Owner** (City, County, or State) of the associated roadway. These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(6) **Bridge Design**

(a) The **Engineer** shall perform bridge design required for any roadway crossings to the proposed improvements to the existing channels and/or proposed channels of the **Project**. The design of these bridges shall conform to the **Project** design criteria required by the **Owner** (City, County, or State), of the associated bridge structure and/or roadway, and the requirements set forth by the American Association of State Highway and Transportation Officials (AASHTO), "Standard Specifications for Highway Bridges". These designs shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(b) Prior to performing structural detailing, the **Engineer** shall provide a bridge layout to the governing entity of the associated bridge structure and/or roadway for approval. Each bridge layout will include the required information set forth by the governing entity.

(7) **Plans, Specifications & Estimates (PS&E)**

(a) The **Engineer** shall prepare contract drawings, specifications and estimates for construction of the **Project** or portions of the **Project** as authorized by the **Owner**. These documents shall in all respects combine the application of sound *engineering* principles with a high degree of economy, and shall be submitted to the applicable City, County, State, and/or Federal agencies for approval.

(b) All final plan sheets shall be developed, by the **Engineer**, on 11" x 17" reproducible, 4 mil,

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"Master Drainage System Phase II – Lateral Drain Outfall System"

III. Preliminary Engineering, Final Design & Construction (continued)

double-matte, white, opaque film.

- (c) Graphics files shall be developed by the **Engineer** in Microstation design file format, and must plot consistent with the reproducible plots submitted.
- (c) **Plan Sheets.** Plan sheets developed by the **Engineer** shall include, but not be limited to, title sheet, typical sections, sequence of construction, traffic control (as applicable), specification data (including schedules for minimum sampling and testing), estimate and quantity, plan-profile, channel details, roadway details (as applicable), bridge and culvert details, hydraulic details, and standards. (Standards may be used from governing entities, but must be signed and dated by the **Project Engineer** of responsible supervision as being applicable to the **Project**.)
- (d) **Specifications.** Whenever possible, the **Engineer** shall use the Texas Department of Transportation's 1993 Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges. Other specifications may be developed by the **Engineer**, but must incorporate, to the extent possible, references to standard requirements of AASHTO design and AASHTO testing procedures.
- (e) **Estimates.** The **Engineer** shall prepare detailed cost estimates and proposals of authorized construction, which shall include summaries of bid items and quantities based, insofar as practicable, on the unit price system of bidding. The **Engineer** shall not be required to guarantee the accuracy of those estimates.

ATTACHMENT D

Work Authorization No. 1

Contract No. _____

J - 09 - 00 (8 Miles)

Estimated Construction Cost \$9,400,000

Basic Services:

Basic Services 9% \$846,000

Basic Engr. Services 90% \$761,400

- Less Feasibility Services \$100,000

Subtotal Engineering Services \$661,400

Subtotal Basic Topo Services \$188,000

**Total Basic Services this
WA \$849,400**

Additional Services:

Control Points & Benchmarks
30 points @ \$2,500/ea. \$75,000

ROW Parcels Donated
25 Parcels @ \$3,500/ea. \$87,500

ROW Parcels Purchased
15 Parcels @ \$5,000/ea. \$75,000

Total Additional Services \$237,500

**Total WA Lump Sum
Amount \$1,086,900**

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
02/10/2010

PRODUCER 713-463-4550 **FAX** 713-463-4590
 Bell Insurance Group
 4544 Post Oak Place, Suite 320
 Houston, TX 77027

INSURED TEDSI Infrastructure Group, Inc.
 10260 Westheimer
 Suite 460
 Houston, TX 77042

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.

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: American Casualty Co.	20427
INSURER B: National Fire Ins. Co.	20478
INSURER C: Continental Casualty Co.	20443
INSURER D: Transportation Ins. Co.	20494
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 ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A		GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS MADE <input type="checkbox"/> OCCUR <input checked="" type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	1075066054	09/11/2009	09/11/2010	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B		AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS <input checked="" type="checkbox"/> 500 Comp Ded <input checked="" type="checkbox"/> 500 Collision Ded	2097261054	09/11/2009	09/11/2010	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EA ACC \$ AGG \$
C		EXCESS/UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10,000	2090503299	09/11/2009	09/11/2010	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$ \$ \$
D		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	WC268980107	09/11/2009	09/11/2010	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C		OTHER Professional Liability	AEH113771047	09/11/2009	09/11/2010	Each claim \$2,000,000 Aggregate \$2,000,000

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

County of Hidalgo is named as additional insured with respects to general liability and automobile policies, but only the specific risk and liabilities assumed under written contract with the named insured and subject to policy conditions. A blanket Additional Insured endorsement is attached to the automobile liability and general liability policies.

CERTIFICATE HOLDER

Hidalgo County
 New Administration Building
 2802 S. Business Hwy 281
 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 MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Byron Johnson/NI COLE



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.