EXHIBIT E

-Work Authorization

HIDALGO COUNTY

Professional Engineering Services

Contract # C-13-189-02-11

Work Authorization Form

WORK AUTHORIZATION NO. 1

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

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide
Plans, Specifications & Estimates (PS&E) Engineering Services for the reconstruction of Roosevelt Rd from the junction with Owassa Rd to FM 1423 (Valverde Rd)

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 **$ 55,250.00**. 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 **Article**/Part/Section **6** of the Agreement.

PART 4. FUNDING

This Work Authorization No.1 shall be funded through funding source:
Account No. 4-1303-431-00-124-143-0-731
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate ***upon completion of scopes of the work authorization***.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

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

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by **Hidalgo County Precinct #4,** Commissioner Joseph Palacios as to content and detail of this **Work Authorization No. 1**.

HIDALGO COUNTY PRECINCT No. 4

BY: _____
Hon. Joseph Palacios, Commissioner

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of ____ day of _____**,** 2014.

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP CONSULTING ENGINEERS

By: _____
Jesse Salinas, Principal

THE OWNER:
HIDALGO COUNTY

By:_____
Ramon Garcia, County Judge

ATTEST:

By: _____
Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS

ATTACHMENT "A" - Scope of Services to be provided by the Owner
ATTACHMENT "B" - Scope of Services to be provided by the Engineer
ATTACHMENT "C" - Work Schedule
ATTACHMENT "D" - Cost Proposal

ATTACHMENT "A"
Scope of Services to be provided by the Owner

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

The **OWNER** will provide to the **ENGINEER** the following:

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

2) Payment for work performed by the **ENGINEER** and accepted by the **OWNER** in accordance with Section 6 of the Agreement.

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

4) Provide any available relevant data the **OWNER** may have on file concerning the project.

5) Provide timely review and decisions in response to the **ENGINEER'S** request for information and/or required submittals and deliverables, in order for the **ENGINEER** to maintain the agreed- upon work schedule prepared in accordance with Attachment "C" of this Agreement.

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

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

8) Assist the **ENGINEER** as required in the coordination with regulatory agencies.

9) Review and approve the Project design criteria.

10) Review and approve change orders as required and prepared by the **ENGINEER**.

ATTACHMENT "B"
Scope of Services to be Provided by the Engineer

Roosevelt Rd - Junction with Owassa Rd to FM 1423 (Valverde Rd)
Approximately 0.5 miles

The **Engineer** shall provide the following engineering services required for the preparation of the plans, specifications and estimates (PS&E) for **Roosevelt Rd**. The **Engineer** shall maintain a direct line of communication and coordinate very closely with the Hidalgo County Pct 4.

A. BASIC ENGINEERING DESIGN SERVICES

UTILITIES
1. Coordinate and attend utility coordination meetings. Provide copies of plans to the utility companies at 60% and final plan submittals.
2. Coordinate with utility companies to determine areas of conflicts.

ROADWAY DESIGN CONTROLS
1. Develop Typical Sections – No pavement design will be completed as part of the scope of work. Pavement section will be based on Hidalgo County roadway standard for class "C" Pavement collector (2" ACP, 8" Flexible Base with 2% lime and 12" Subgrade with 6% lime). Asphalt = 24'wide, Flexible base = 26' wide, Subgrade = 28'wide and roadside ditches.
2. Prepare plan and profile sheets for roadway and intersecting streets as required for widening and/or reconstruction.
3. Determine roadway quantities, including cut and fill quantities, and prepare quantity summary sheet.

DRAINAGE
1. Coordinate all drainage design with Hidalgo County Pct 4 and Hidalgo County Drainage District No.1.
2. Identify the drainage watersheds for this project, by means of site visits, as built-plans, USGS data, Pct 4 Drainage Studies and Survey information.
3. Calculate the existing and proposed discharge values, analyze the existing outfall channels & storm sewer systems all for a 2 yr design frequency.
4. Culvert design
5. Design and develop outfall to drainage outfalls in the vicinity of Roosevelt Rd/Owassa Rd junction.
6. Compute and summarize all drainage quantities.
7. Select all drainage standards and develop all miscellaneous drainage details.
8. Storm Water Pollution Prevention Plan (SW3P)
   a) Develop SW3P Narrative
   b) Develop SW3P Plans. SW3P controls may include but are not limited to temporary sediment fence, construction exits, and rock berms.
   c) Compute and summarize all SW3P quantities.

MISCELLANEOUS (ROADWAY)
1. Develop Miscellaneous Roadway Details.
2. Prepare Advance Warning Signage and Barricades at intersecting roadways.
   a) Traffic Control Plan will be developed based on street closures.
3. Prepare Title Sheet and Index sheets.

4. Calculate project quantities and prepare quantity summary sheet.
5. Prepare general notes.
6. Prepare driveway tables
7. Prepare list of Standard Drawings to be included in the plans.
8. Assemble plans for project milestones. Two reproducible paper (11" x 17") copies of the plans shall be submitted to the Pct 4 at the 60% and final design completion stages.
9. Upon completion of the review of the final plans, the ENGINEER shall assemble and furnish signed original (11" x 17") drawings which shall include all applicable standards. The Engineer may sign/seal plans manually or include an electronic signature/seal.
10. Coordinate with Pct 4 and other agencies.
11. Develop and assemble Preliminary Construction Cost Estimates at 60% and final plan milestone submittals.
12. Develop Roadway Design Criteria.

SIGNING, PAVEMENT MARKINGS

1. Signing and Pavement Markings are to be shown on roadway P&P

CONSTRUCTION SUPPORT

1. Prepare Bid Documents
2. Attend and Coordinate Pre-bid Conference
3. Evaluate Bids
4. Make Award Recommendation
5. Assist County with preparation of Contract Documents.
6. Attend and Coordinate Pre-construction Conference.
7. Site visit once a week during construction.
8. Respond to Request for Information (RFI) from Contractor
9. Review Pay Requests
10. Preparation of Change Orders
11. Final Site Visit
12. Record Drawings

B. SPECIAL ENGINEERING DESIGN SERVICES

TRAFFIC SIGNALIZATION

The Engineer shall inventory traffic signal at the intersection of Roosevelt Rd at FM 1423 (Valverde Rd). Traffic signal shall be designed as a modifications as per requirements set forth in TXDOT's standards.

General Requirements:

- Contact Local Utility Company, conduct joint field investigation, determine service drop locations, determine need for adjustment of overhead utility lines.
- Select TXDOT standard drawings.
- Signal configuration shall be span wire with luminaires on signal poles.

Traffic Signal Layouts to include the following layouts:

- General Notes
- Summary - Traffic Signal

- Existing Conditions Layout (single bank 1"=50')
- Proposed Signal Layouts (single bank 1"=60') shall include the following:
    - Legend
    - Notes
    - Signal configuration type
    - Detection location
    - Controller location/type
    - Ground box location/type
    - Wiring/Conduit location
    - Signal head orientation
    - Luminaires location/orientation
    - Overhead signs location
    - Phasing/Phase sequence diagram
    - Electrical schedule
    - Detector schedule
    - Signal head schedule
    - Foundation schedule
    - Sign details schedule
    - Timing chart (isolated)
    - Electrical service data

IRRIGATION

1. Coordination with Irrigation District for development of inverted siphon or culvert crossing.
2. Design and detail inverted siphon or culvert crossing.

C. FIELD DESIGN SURVEY SERVICES

FIELD SURVEYING

1. Cross Sections
    a) Provide cross sections every 100' up to existing apparent Right Of Way (ROW) line
    b) Cross section for drainage channels. Three sections (0 ft, 100 ft and 200 ft) down and upstream of proposed outfall as required.
2. Topographics survey of entire project length including:
    a) Topography within existing apparent ROW.
    b) Topography shall include any existing drainage crossings.
    c) Intersections for 100 feet within project's area
    d) Include flow lines, size and direction of irrigation and drainage channels/structures
    e) Include utilities and drainage structures
    f) Perform one-call (Dig Tess) and identify and locate utilities (within limits of R.O.W.) as flagged/marked by utility companies
    g) Provide copies of all utility maps obtained from utility companies along with one call (Dig Tess) documentation/confirmation.
    h) Provide list of each utility contact person
    i) Include inverts on sanitary sewer, measure downs to top of keys on water and gas mains
    j) Survey sanitary sewer manholes downstream and upstream of project to determine flow and connectivity.
    k) Locate proposed soil core holes as drilled.
    l) Establish x, y, and z coordinates of power poles, manholes and valves of various utilities, flow lines of

existing sanitary sewer and storm sewer lines, and subsequent utility ties of facilities exposed by others. Surveyor to survey nearest manhole/valve invert outside project limits.

m) Establish 2 benchmarks for project control.
n) Provide project ties at limits of project in order to provide adequate length to establish grades.
o) Determine apparent ROW based on existing features, i.e. fences, power lines, corner pins, etc.

D. ADDITIONAL SERVICES NOT INCLUDED AS PART OF THIS PROJECT

1. Utility Design
2. ROW Survey and Acquisition Services
3. Traffic Studies
4. No separate sign, pavement marking, sign details or summaries will be prepared.
5. Design of irrigation ditches and lines
6. Bridge Design
7. Construction staking
8. Right of Way recovery and or documents.
9. Development of specifications.
10. Submittal of documents to other agencies: Pct 4 to submit required documents (prepared by TEDSI)
11. Design of new drainage outfalls (design to tie into existing outfalls)
12. All Environmental Services and Site Assessment and necessary permits in regards to:
    a) Impacts
    b) Wetlands
    c) Endangered species
    d) Historic/archaeological/cultural
    e) Assist in developing a public involvement plan.
13. Coordination with regulatory agencies
14. Advertisement and award of construction contract
15. Geotechnical Services:
    a) Pavement section design or testing prior to PS&E development
    b) Material testing during construction
16. Perform evaluations and other tasks related to permitting issues for particular locations or elements of the project.
17. Construction Management:
    a) Construction Inspection
    b) Construction Staking
    c) R.O.W. Staking

Additional Services to be negotiated by Supplemental Agreement.

ATTACHMENT "C"

Work Schedule

Roosevelt Rd - Junction with Owassa Rd to FM 1423 (Valverde Rd)

Task	Months from Notice to Proceed							
	1	2	3	4	5	6	7	8
Field Survey	■							
Engineering Design		■	■	■				
Construction Support					■	■	■	■

ATTACHMENT "D"

Estimated Fee Proposal

Roosevelt Rd

Junction with Owassa Rd to FM 1423 (Valverde Rd) - 0.5 miles

Rate = $500K/mile

Construction Cost (Roadway)		=	**$250,000.00**
Construction Cost (Irrigation Siphon + Traffic Signal)		=	**$160,000.00**
Engineering Services			
Basic Engineering Design Services Fee at	10%	=	**$25,000.00**
Special Engineering Design Services Fee at			
Traffic Signalization	LS	=	$10,000.00
Irrigation Design	LS	=	$10,000.00
Subtotal			**$20,000.00**
Field Design Survey Services Fee at	2.5%	=	**$10,250.00**
Total Engineering Services			**$55,250.00**