

CONTRACT NO. C-12-119-07-31
DICKER ROAD
EXHIBIT "F"
WORK AUTHORIZATION NO. 3
SUPPLEMENTAL AGREEMENT NO. 1

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 Supplemental Agreement No. 1 to Work Authorization No. 3 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 additional Lump Sum Cost for services added by Supplemental Agreement No. 1 to Work Authorization No. 3 is **\$ 203,636.00**. This amount is based upon the costs outlined in the *Fee 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. Funding. This Supplemental Agreement No. 1 to Work Authorization No. 3 shall be funded through funding source:

Account No. _____
Requisition No. _____

PART 5. 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 terminate on the date of final acceptance of work contracted under Work Authorization No. 3 and Supplemental Agreement No. 1 to Work Authorization No. 3.

PART 6. Responsibilities and Obligations. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement. The following subconsultants are approved to work under the Agreement with this Supplemental Agreement No. 1 to Work Authorization No. 3:

ROW Surveying Services, LLC of Mission, Tx
Raba-Kistner, Inc. of McAllen, Tx

PART 7. Acceptance and Acknowledgement. Acknowledgement and confirmation by Hidalgo County Precinct No. 2, Commissioner Eduardo "Eddie" Cantu, as to the content and detail of this Supplemental Agreement No. 1 to Work Authorization No. 3.

Hidalgo County Precinct No. 2

By: _____
Eduardo "Eddie" Cantu, Commissioner Precinct No. 2

PART 8. Acceptance and Acknowledgement. This Supplemental Agreement No. 1 to Work Authorization No. 3 is hereby accepted and acknowledged as indicated below and effective as of _ day of _____, 2016.

A purchase order will be issued by the Hidalgo County Purchasing Department after the execution of this document. Issuance of the purchase order will serve as the written Notice to Proceed for Supplemental Agreement No. 1 to Work Authorization No. 3.

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP

THE OWNER:
HIDALGO COUNTY

BY:  _____ 03/14/2016
for Jesse Salinas (President)

Ramon Garcia (County Judge)

ATTEST:

By: _____
Arturo Guajardo Jr., Hidalgo County Clerk

LIST OF ATTACHMENTS

- ATTACHMENT "A" - Services to be Provided by the Owner
- ATTACHMENT "B" - Services to be Provided by the Engineer
- ATTACHMENT "D" - Fee Proposal

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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) Acquire additional Right of Way identified by the **Engineer**
- 6) Provide any available relevant data that may on file concerning the Project.
- 7) Provide timely review and decisions in response to the **Engineers** request for information and/or submittals and deliverables.
- 8) Attend and participate in progress meetings as required and as coordinated and conducted by the **Engineer**.
- 9) Advertise and award, as assisted and recommended by the **Engineer**, construction contracts for the PS&E developed by the Engineer.
- 10) Attend pre-bid and pre-construction conferences coordinated and conducted by the **Engineer**.
- 11) 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.
- 12) Provide assistance to **Engineer** where necessary and possible with **Owner** information/resources to ensure project is completed within timely/efficient basis.
- 13) Disseminate mail or deliver mail-out flyer, public meeting agendas and handouts, maps, and other related project information to the public.
- 14) Providing professional court transcribing and translation service as and when required for the public meeting and/or public hearing.
- 15) Provide a hard copy and digital copy of court transcript from meetings.
- 16) Provide hard copy of all public input received from meetings.
- 17) Publish the notices in the local newspaper, arrange for, pay and provide a location for the public meeting and hearing to be held,
- 18) Provide a mailing list and copy, collate and mail letters to adjacent property owners, local governmental officials and others as necessary.

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SCOPE OF WORK

“SERVICE TO BE PROVIDED BY ENGINEER”

The **ENGINEER** shall provide the following engineer services required for the preparation of the plans, specification and estimate (PS&E), and related documents for the Dicker Road project from 23rd Street to Jackson Road. The **ENGINEER** shall maintain a direct line of communication and coordinate very closely with the Hidalgo County Precinct 2 throughout the project.

A. PROJECT MANAGEMENT

- 1) Precinct Communication and Coordination.
- 2) Project Administration.
- 3) Manage Subconsultant’s working on additional service associated with this supplemental agreement
- 4) Project invoicing
- 5) Attendance to meetings for coordination with Precinct

B. RIGHT OF WAY SURVEY

Develop right of way documents as follows for the proposed parcel to be taken in the northeast corner of Dicker and Jackson Road. Additional parcel, if required will be added by supplemental agreement. Scope of work is as followings:

- 1) Preliminary title search and determination of ownership
- 2) Surveying for identification of platted boundaries.
- 3) Prepare parcel plats and metes and bound documents
- 4) Provide title reports
- 5) Provide right of way acquisition support services

C. FIELD SURVEYING (UPDATE)

The **ENGINEER** shall perform topographic survey in order to update the existing topographic information, due to recently improvements done on the followings locations:

- 1) McColl Road at Dicker Road. Work will include the following:
 - a) 100 foot east and west of the intersection of the two roadways
 - b) 300 foot north of the intersection of the two roadways
 - c) Above ground and underground utilities for the above indicated locations
- 2) Dicker Road and FM 2061 (Jackson Road) Intersection. Work will include the following:
 - a) 1,500 foot west of the intersection
 - b) 500 foot east of the intersection
 - c) 300 foot north and south of the intersection
 - d) Above ground and underground utilities for the above indicated locations
- 3) Dicker Road north side from HCWID No 3 irrigation canal to SH 336 (10th Street). Work will include the following:
 - a) Verification of existing Driveways.

The above will work will include at minimum the following:

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- 1) Work shall assure compliance and adherence to all rules, regulations and policies as set forth by the Texas Board of Professional Land Surveyors.
- 2) The **ENGINEER** shall provide all traffic control, labor and equipment for the Traffic Control Plan (TCP) while performing services under this work authorization. The **ENGINEER** shall comply with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices".
- 3) Obtain cross sections every 100 ft at whole stations. Cross sections to extend 10 ft outside of proposed Right Of Way (ROW). Obtain additional survey information as necessary to accurately develop a Digital Terrain Model (DTM).
- 4) Topographic Survey (All work will be to 10 foot outside of the proposed ROW)
 - a) Obtain driveway cross sections. Cross sections to extend 10 ft outside of proposed ROW.
 - b) Update Inventory public access, commercial, and private driveways by type (dirt, caliche, gravel, concrete or paved).
 - c) Side Drains
 - i) Obtain approximate roadway centerline station.
 - ii) Obtain size, length, description of structure, and conditions.
 - iii) Obtain F.L. elevations at both ends and offsets to driveway or turnout centerline.
 - iv) Label descriptions (size and length) on each side drain.
- 5) Culverts:
 - a) Obtain size of drainage structure, type, skewed angle, and material. Label and describe each structure (for example if it's an irrigation or drainage culvert) size and length.
 - b) Locate and obtain inlet and outlet flow lines elevations at structures, top of headwall, aprons, edge of pavement, and center line.
 - c) Obtain profile and cross sections of upstream and downstream ravines on man-made channels leading from and to the existing or proposed structure. These profiles and cross sections shall extend from inlet and outlet flow lines to distance of 500 ft. beyond the ROW.
 - d) Determine type of wingwall, i.e. flared wingwall, parallel, etc. and safety end treatments, pipe runners, safety end treatments, barrier rail, etc. For barrier rail include type of end treatments, location, type, length, and height.
 - e) Obtain pictures of culverts barrels and outlet and inlet view to ROW.
- 6) Fence, Mailboxes, and Sign Inventory:
 - a) Locate and obtain mailboxes inventory (type-identify as single, double or multiple) for all mailboxes within ROW and at all intersection locations, including photographs.
 - b) Locate and obtain sign inventory (type) for all signs within ROW and at all intersection locations, including photos.
- 7) Miscellaneous
 - a) Locate any topographic feature within the project area. All work will be to 10 foot outside of the proposed ROW in addition to the items specifically mentioned above.
 - b) This item requires the surveyor to pick up any items that may be an obstruction for the proposed construction or may require special attention during the development of construction plans (ex: oil and gas on proposed ROW, etc.)
 - c) Topo 3d and 2d dgn files with the collected information shall be provided to the Engineer. These files shall be retrieved from GPS/Data Collector and shall be compatible with Microstation V8.I.
 - d) Field books and ASCII files, containing all information gathered in the field, this information shall be to the surveyor's best knowledge, accurate and complete.
 - e) Survey in miscellaneous items not indicated above that are within the existing and proposed right of way.

D. SUBSURFACE UTILITY ENGINEERING

- 1) Subsurface Utility Engineering will perform any surveying necessary to provide Quality Service Level A. It is estimated that 60 test holes (TH) will be provided to uncover and locate utilities within the project corridor.
 - a) Investigate, evaluate, measure and record actual depth to top of utility referenced to a marker installed directly above the centerline of the exposed utility structure. Outside diameter of utility and configuration of non-encased, multi-conduit systems.
 - b) Furnish and install markers directly above the centerline of utility structure and in each excavated test hole (TH).
 - c) Furnish and provide traffic control as required to complete work.
 - d) Obtain excavation permits as required by local jurisdiction and/or Utility Companies policies. Provide copies and receipts of all excavation permits obtained. Should permits not be required, amounts indicated in Exhibit D will not be applicable.
 - e) Backfill around exposed facility using the excavated materials. Excavations will be backfilled and compacted in lifts. Compaction will comply with permits requirements. No open excavation test holes will be allow, they need to be backfilled as soon the work is done.
 - f) Provide permanent restoration of pavement within limits of original cut. When test holes are excavated in areas other than roadway pavement, these disturbed areas shall be restores as nearly as reasonably possible to the condition that existed prior to excavation.
 - g) Evaluate and compare field information with utility information described in utility record and resolve conflicts. Contact Utility companies to verify information and ownership.
 - h) Develop Subsurface Utility Binder Report signed and sealed by professional engineer, in 8.5"x 11" format sheets showing located utility information, survey data collected, pictures and field notes. Provide digital copies of the information obtained.
 - i) Provide x, y and z coordinates for each located utility accordingly with the project coordinate system, use Project monuments to be provided by the **ENGINEER**.
 - j) Provide Microstation V8.I 3d file with TH information obtained.

E. UTILITY COORDINATION / COORDINATION WITH HCID No 2

- 1) The Engineer shall update the Utility Coordination works done along Dicker Road taking into consideration ownership changes the Gas Pipelines companies and also latest improvements done within the project limits (All work will be to 10 foot outside of the proposed ROW)
 - a) The Engineer shall contact and meet with Utility providers periodically to coordinate the work efforts and resolve any utility related problems. The Engineer shall prepare the minutes for these meetings and forwarded to the County. The Engineer shall address the following issues and any other items deemed necessary during the Utility Coordination meetings:
 - i) Activities completed since last meeting
 - ii) Problems encountered.
 - iii) Late activities.
 - iv) Activities required by the next progress meeting.
 - v) Solutions for unresolved and/or anticipated problems.
 - vi) Information or items required from other agencies/consultants.
 - b) If a reimbursable utility relocation exists, the Engineer shall request conveyance documents from the utility provider.
 - c) The Engineer shall notify the Utility companies in writing and request the following information in writing:
 - i) Project letting date and request they relocate prior to letting.
 - ii) Develop their relocation plan according to Utility Accommodation Policy Manual.
 - iii) Forward their relocation plan to the Engineer.

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- iv) Request in writing when relocation of utilities will be complete.
 - v) Upon immediate completion of relocation, request they forward as-built plans to the County.
 - d) The Engineer shall update all files and plans based on the utility company responses and new topographic information provided by surveyor and SUE contractor.
 - e) The Engineer shall identify all utility conflicts on the plans and prepare layouts and profiles of existing utility crossings showing conflicts of utilities with proposed improvements. The Engineer shall forward these layouts to the County and the utility companies. During design process, the Engineer shall field verify all visible utility conflicts as well as verify the SUE information collected by the SUE contractor.
- 2) Schedule coordination meeting with HCID No 2 to review special requirements for access to and from Dicker Road at San Juan Main Canal.
 - 3) Determine design and plan modifications needed to accommodate requirements for HCID No 2 in relation with the proposed culvert crossings and irrigation lines relocation and/or adjustments.
 - 4) Determine exhibits needed to enter into Right of Way Easement Agreement between HCID No 2 and Hidalgo County.
 - 5) Coordinate with Hidalgo County Attorney in development of required agreements for HCID No 2.
 - 6) Develop Scope of Work and Fee proposal for additional services identified above.

F. TRAFFIC CONTROL PLANS (TCP) (UPDATE)

- 1) The Engineer shall update all the TCP plans in accordance with the latest improvements done on Dicker Road from McColl Road to Jackson Road, describe the type of work to be performed for each phase of sequence of construction and any special instructions (ex: storm sewer, culverts, bridges, railing, illumination, signals, retaining walls, signing, paving surface sequencing or concrete placement, ROW restrictions, utilities, etc.) that the contractor should be made aware to include limits of construction, obliteration, and shifting or detouring of traffic prior to the proceeding phase.
- 2) The Engineer shall update the work limits, the location of channelizing devices, positive barrier, location & direction of traffic, work area, stations, pavement markings, and other information deemed necessary for each phase of sequence of construction.
- 3) If Engineer determines that a standard is not applicable to address the entire project, then the Engineer shall prepare layouts for each respective phase of sequence of construction to illustrate any necessary additional construction details not covered by the Standards to address work limits for each sequence in stations, channelizing devices, barricades, positive barrier, tapers, buffer zones, TCP signage, signs, work zone pavement markings, work area, location & direction of traffic, locations for pedestrian crossings, and other information deemed necessary for each phase of sequence of construction. The Engineer shall develop the layouts by referring to the TxDOT standards, latest version of the TMUTCD for non-TCP signage that may be needed as part of the TCP signage for intersections. The layouts shall address construction of detours, access to business, homes, side streets, and driveways, and reroute of traffic to other roads.
- 4) The Engineer will address drainage issues that are a result of changes in horizontal and vertical profiles as per improvements done on Dicker Road by specifying the location and size of the temporary drainage structures.
- 5) The Engineer will update TCP plans (double stacked, 1" = 100') and Temporary Traffic Signals layouts developed.

G. ROADWAY DETAILS (UPDATE)

- 1) The Engineer shall update the alignment sheet(s) include the following for complex projects and/or where

it is not desirable to show the following information on the plan and profiles sheet(s): include the project limits for the entire project, label curve data bearings/coordinates for each alignment, computer generated data may be graphically place on the sheet(s) and if applicable the State Plane Coordinates System should be noted on this sheet(s).

- 2) The Engineer shall update and adjust the design the plan (horizontal) and profile (vertical) (Removal Layout and Plan and Profile sheets) for the entire project limits taking into consideration the latest improvements done from McColl Road to Jackson Road including roadway transitions based on the controlling criteria previously defined and as set forth in the previously listed. The Engineer shall develop the alignment for the project in GEOPAK format. Plan and Profile sheets will be developed at 1" = 100'.
- 3) The Engineer shall identify and notify the State all locations not meeting the set criteria. In addition, the Engineer shall provide alternatives and a recommendation to address these design issues.
- 4) The Engineer shall develop and verify all cross sections in preparation of the proposed traffic control plan, drainage, utilities, right-of-way, and access onto adjacent properties. In addition, the cross sections shall be drained to maintain the natural watershed unless otherwise directed by the State.
- 5) The Engineer shall determine the new all cut and fill quantities.
- 6) The Engineer shall update the McColl Road and Jackson Road intersection layouts taking into consideration the latest improvements done.
- 7) The Engineer shall design all intersections to accommodate the design vehicles turning radius. The ADA-wheelchair ramps shall be designed in accordance to the TDLR compliance and the latest TxDOT's Pedestrian Ramp Standards in conjunction with the requirement of the latest version of the TMUTCD as it relates location of the traffic signals pedestrian heads, signage, and pavement markings.
- 8) The Engineer shall review and update the proposed driveway table and summaries taking into consideration latest developments done from SH 336 (10th Street) to Jackson Road.
- 9) The Engineer shall design all longitudinal barriers (railing and guardrail), raised median, fencing, bus bays, parking areas, mailboxes, and shoulder texturing in accordance to the criteria set forth in the roadway design manual and standards. Miscellaneous Details Sheet(s) may be developed to illustrate any necessary additional construction details not covered by the Standards.
- 10) The Engineer shall update Miscellaneous Details and Estimate and Quantities.

H. DRAINAGE DETAILS (UPDATE)

- 1) The Engineer shall use the Roadway Design Manual, Hydraulic Manual, PS&E Preparation Manual, and other deemed necessary State approved manuals to prepare and submit the work under this section
- 2) The Engineer shall use the above-listed manuals to update, prepare and submit the work under this task. The hydraulic calculations shall have the following based on previously County approved drainage study:
 - a) Description-Material, Size, & Entrance (headwall)
 - b) Design discharges, Flow per barrel, barrel slope, and Manning n-value
 - c) Inlet flow line, allowable headwater, roadway (shoulder) elevation, calculated inlet headwater elevation
 - d) Outlet flow line, Tailwater for design frequency/frequencies, type of flow, critical depth, and calculated friction losses, calculated outlet water elevation
 - e) Controlling headwater elevation, outlet velocity, and recommended countermeasures to maintain an acceptable outlet velocity.
- 3) The Engineer shall show the location of culverts and ditches on the roadway plan view.
- 4) The Engineer shall update the Hydrologic and Hydraulic calculations as per latest improvements done within the project limits.
- 5) The Engineer shall update the Utility and Drainage plans and the Irrigation Layouts and Details
- 6) The Engineer shall use TxDOT standards preferably at all times. Modification to inlets, pipe connection, bedding details, and other elements pertaining to drainage details shall be included under this work task. The BCS sheet must be submitted for all box culverts within the project limits. This sheet must be signed

and sealed by the Engineer.

I. TRAFFIC ITEMS (UPDATE)

The Engineer shall coordinate with the TXDOT Pharr District for traffic items under TXDOT maintenance (Signs, Pavement Markings and Traffic Signals). The Engineer will incorporate TXDOT comments into the PS&E.

1) SIGNS

- a) The Engineer shall review and update the inventory of all signage through the project limits including those limits that are considered incidental to the project limits in order to consider the latest improvements done on Dicker Road. All intersections and roadway signage shall be designed and spaced according to the requirements set forth in TXDOT's Sign Crew Field Book and standards for work under this task. Any signs no longer used by the State shall be taken out and replaced by an accepted TXMUTCD sign. The Engineer shall design all signage according to the latest version of the TXMUTCD, Supplemental to TXMUTCD, and TXDOT's Signs and Markings Manual.
- b) Signing Layouts (double banked 1"=100') shall be updated and should include the following:
 - i) Legend
 - ii) Notes
 - iii) Callouts/dimensions
 - iv) Existing signs to remain
 - v) Existing signs to be removed
 - vi) Proposed signs type/location
 - vii) Summary - Proposed signs
 - viii) Summary - Existing signs to be removed

2) PAVEMENT MARKINGS

- a) The Engineer shall review and update the design of all pavement markings in order to consider the latest improvements done on Dicker Road according to the latest version of the TXMUTCD, Supplemental to TXMUTCD, and TXDOT's Signs and Markings Manual. The Engineer will develop pavement marking details within the work area. All striping to be removed will be so indicated along with complete restriping of the project area.
- b) Pavement Markings Layouts (double banked 1"=100') shall be updated and should include the following:
 - i) Legend
 - ii) Notes
 - iii) Callouts/dimensions
 - iv) Existing striping to remain
 - v) Existing striping to be removed
 - vi) Proposed pavement markings
 - vii) Tie in proposed pavement markings to existing striping
 - viii) Summary - Pavement Markings

3) TRAFFIC SIGNALS

- a) The Engineer shall make an update inventory all traffic signals through the project limits including those limits that are considered incidental to the project limits. All traffic signals shall be designed and spaced according to the requirements set forth in TXDOT's standards for work under this task. The Engineer will submit to TXDOT traffic signal warrants.
- b) Traffic Signal will be installed at the following intersections:
 - i) Dicker Rd at Spur 115 (23rd St) – Modification (no changes from previous design)
 - ii) Dicker Rd at SH 336 (10th St) – Modification (no changes from previous design)
 - iii) Dicker Rd at McColl Rd – Modification (shall be updated)

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- iv) Dicker Rd at FM 2061 (Jackson Rd) – Modification (shall be updated)
- c) General Requirements:
 - i) Contact Local Utility Company, conduct joint field investigation, determines service drop locations, and determines need for adjustment of overhead utility lines.
 - ii) Select TXDOT standard drawings.
 - iii) Signal configuration shall be span wire with luminaries on signal poles.
- d) Traffic Signal Layouts to include the following layouts:
 - i) General Notes
 - ii) Summary - Traffic Signal
 - iii) Existing Conditions Layout (single bank 1"=50')
 - iv) Proposed Signal Layouts (single bank 1"=60') shall include the following:
 - (1) Legend
 - (2) Notes
 - (3) Signal configuration type
 - (4) Detection location
 - (5) Controller location/type
 - (6) Ground box location/type
 - (7) Wiring/Conduit location
 - (8) Signal head orientation
 - (9) Luminaries location/orientation
 - (10) Overhead signs location
 - (11) Phasing/Phase sequence diagram
 - (12) Electrical schedule
 - (13) Detector schedule
 - (14) Signal head schedule
 - (15) Foundation schedule
 - (16) Sign details schedule
 - (17) Timing chart (isolated)
 - (18) Electrical service data

J. CROSS SECTION (UPDATE)

The Engineer shall update the final cross - section on 11"x17" sheets, showing both the original terrain and the design cross-sections, showing the roadway template, at a vertical scale of 1"=10' and a horizontal scale of 1"=10'. The design cross - sections shall indicate the slope rate on the side slopes. The Engineer shall use GeoPak software and provide the state with the applicable files. Cross sections are to show proposed pavement thickness, top of subgrade, finish grade of side bar ditches with slopes and location of right of way. Indicating other features within the cross sections is not part of the scope of work, ie. Underground utilities, storm sewer lines, top soil, etc.

K. SITE ASSESSMENT (FOR PARCEL ADQUISITION)

A description of project tasks to be performed as part of this scope of services is provided in the following sections.

- 1) Historical Records Research and Interviews
 - a) As part of the proposed LSI services, perform the following in order to collect historical SITE data and attempt to determine if USTs and/or related system equipment remains in place at the SITE:
 - b) Historical aerial photographs, Sanborn fire insurance maps and local telephone city directory records will be reviewed for SITE UST history determination. In addition, reasonably ascertainable records located at the TCEQ Central Files Office in Austin, Texas will be reviewed to obtain information

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- pertaining to former UST system operations.
- c) Attempt to interview past/present SITE owners for historical property usage information to support the SITE UST history determination.
- 2) Subsurface Assessment Activities
- a) Recommend an LSI work scope to consist of the collection and chemical analysis of representative soil and groundwater samples with associated data reduction and reporting. Assessment activities will consist of the following primary elements:
 - b) Utilize the services of a licensed environmental drilling contractor to install approximately 3 environmental soil borings at the SITE, spatially distributed within the extent of the proposed Texas Department of Transportation (TxDOT) parcel acquisition. Borings will be installed to depths on the order of 25-30 feet below ground surface using direct-push methods. In conjunction with drilling efforts, continuous sampling and field screening activities will be conducted using a portable hydrocarbon and volatile organic compound (VOC) detector, to evaluate residual impacts to soils resulting from past hydrocarbon spills or hazardous materials. Field observations will be documented in a field notebook and subsequently utilized to generate boring logs.
 - c) To facilitate laboratory testing, representative environmental samples will be collected from subsurface soils at select boring locations where maximum indications of impact are encountered during the drilling sampling process. It is anticipated that up to 6 soil samples will be collected from the borings in accordance with standard environmental sampling procedures. In the absence of observed impacts during sampling, soil samples collected from near-surface (0-5 ft) and the shallow water table interface will be submitted, at a minimum, for analytical testing to confirm the absence of significant residual impacts.
 - d) If necessary, temporary well casing will be installed to facilitate collection of groundwater "grab" samples at one or more soil boring locations in order to evaluate shallow groundwater conditions. Following the completion of sampling activities, environmental borings will be backfilled utilizing granular bentonite with a 2-ft concrete cap. It is anticipated that up to 3 groundwater samples will be collected from the borings in accordance with standard environmental sampling procedures.
 - e) For budgetary purposes, it is assumed that up to 6 soil samples and 3 grab groundwater samples will be submitted for analytical testing. In order to evaluate potential impacts from past SITE usage, environmental samples will be analyzed for the following constituents of concern in accordance with standard TCEQ Petroleum Storage Tank (PST) Program assessment guidelines:
 - i) benzene, toluene, ethylbenzene, and total xylenes (BTEX);
 - ii) methyl tertiary butyl ether (MTBE),
 - iii) total petroleum hydrocarbons (TPH); and
 - iv) total lead
 - v)
 - f) Soil and groundwater samples exhibiting the highest values for TPH will be further analyzed for semi-volatile hydrocarbon constituents (i.e., polycyclic aromatic hydrocarbons [PAHs]). Soil samples exhibiting maximum concentrations of heavy metals contaminants (i.e., lead) in excess of naturally-occurring or background levels will also be analyzed by the synthetic precipitation leaching procedure (SPLP) to evaluate the potential leachability of contaminants.
- 3) Report Preparation: Provide a verbal report of LSI results upon receipt and interpretation of analytical data from the contract laboratory. Upon completion of project activities and receipt of final analytical data, prepare a letter report with appropriate graphical attachments documenting project activities and discussing collective assessment results. The written report will include the following elements:
- a) A Site Map drawn to scale which depicts the locations of the soil borings.
 - b) Boring logs documenting soil conditions and any observed evidence of adverse environmental conditions.
 - c) Tabulated analytical results and laboratory reports of analyses with chain-of-custody documentation.

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- d) A professional opinion as to the presence of significant environmental impacts based on assessment findings and discussion of environmental sampling results with respect to TCEQ assessment levels and cleanup criteria in the event that contaminants of concern are encountered.
 - e) If applicable, recommendations for additional assessment activities to further evaluate environmental impacts determined to be present at the subject property.
- 4) The following assumptions were made with regard to the scope of services described herein:
- a) Access will be granted when needed to perform assessment activities and weather or SITE conditions will not preclude access or performance of environmental sampling activities within (interior and exterior) operations areas targeted for assessment.
 - b) Costs for analytical chemistry included as part of the total project fee assume a standard 7-10 day turnaround time.
 - c) Although attempts will be made to identify subsurface utilities within the area of interest utilizing the Texas Excavation Safety System, RKEI cannot take responsibility for contacting/rupturing unidentified buried utilities during assessment activities. It is assumed that CLIENT will provide locations of subsurface utilities/structures located in the vicinity of proposed soil borings, if known.
 - d) As direct push methods will be utilized, it is not anticipated that appreciable drill cuttings or other investigation derived wastes will be generated as the result of the LSI. In the event that wastes are generated as part of this investigation, RKEI will provide a separate cost proposal for waste handling and disposal. It is assumed that wastes will be stored onsite pending the receipt of analytical results and completion of waste profiling activities.

L. DELIVERABLES

PS&E

The Engineer shall deliver to the County and TxDOT Project Manager one copies and one CD's containing PDF's of the plan sheets provided, respective of the 95% submittal. For the final submittal, the Engineer shall submit one set in Mylar accompanied by a paper copy and two CD's containing PDF's of the final plans.

95% Submittal -

- 1) Title Sheet
- 2) Final Index of Sheets
- 3) Traffic Control Plans
- 4) Traffic Control Standards
- 5) Roadway Details
- 6) Drainage Details
- 7) Bridge Details
- 8) Traffic Items
- 9) Signing Details
- 10) Pavement Markings Layouts
- 11) Environmental Items
- 12) Final Proposed Cross Sections
- 13) Corresponding Quantity Summary Sheets
- 14) Corresponding Standard Detail Sheets for all Items of Work in this submittal
- 15) Final Estimate
- 16) General Notes
- 17) Certifications
- 18) Form 1002

Final Submittal -

- 1) PS&E Package 100% Complete

- 2) Final Utility Coordination Package

M. ADDITIONAL SERVICE NOT INCLUDED AS PART OF THIS PROJECT

- 1) Utility Design
- 2) Review of Utility Companies Relocation Permits.
- 3) Construction Staking
- 4) Right of Way acquisition negotiations.
- 5) Services not identified above or within Work Authorization No. 3, Supplemental Agreement No 1.

CONTRACT C-12-119-07-31
DICKER ROAD
WORK AUTHORIZATION NO. 3
SUPPLEMENTAL AGREEMENT NO. 1
ATTACHMENT "D" FEE PROPOSAL
UPDATED: 03/14/2016

ADDITIONAL ENGINEERING SERVICES

ITEM	AMOUNT
A. Project Management	\$ 21,336.00
B. Right of Way Survey (Parcel @ Jackson Rd)	\$ 5,095.00
C. Field Surveying (Update from McCoil Rd to Jackson Rd)	\$ 18,547.00
D. Subsurface Utility Engineering (SUE)	\$ 54,900.00
E. Utility Coordination / Coordination with HCID No 2 (Update)	\$ 28,042.00
F. Traffic Control Plan (TCP) (Update)	\$ 10,704.00
G. Roadway Details (Update)	\$ 26,519.00
H. Drainage Details (Update)	\$ 10,104.00
I. Traffic Items (Update)	\$ 10,029.00
J. Cross Sections (Update)	\$ 4,460.00
K. Site Assessment (For Parcel Acquisition)	\$ 13,900.00
TOTAL ADDITIONAL ENGINEERING SERVICES	\$ 203,636.00
TOTAL FEE PROPOSAL	\$ 203,636.00