FILED
AT 3:30 O'CLOCK P M
JUN 19 2017
ARTURO GUAJARDO JR, COUNTY CLERK
HIDALGO COUNTY, TEXAS
BY _____ DEPUTY

HIDALGO COUNTY
Professional Engineering Services
Agreement #C-17-182-06-13

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 **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **B2Z ENGINEERING LLC,** professional engineers of Mission, Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK
The purpose of this Work Authorization is for the Schematic Design, Environmental, Limited Public Involvement & Design Survey for "Whalen Road" that encompass the limits of Hidalgo County Precinct 2.

The scope of services to be provided by the **Owner** is identified in **EXHIBIT "A" – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT "B" – Scope of Services to be provided by the Engineer** attached hereto.

PART 2. ESTIMATED COST
The estimated cost for services under this Work Authorization is **$149,467.95**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

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

PART 4. FUNDING
This Work Authorization No. 1 shall be funded through funding source:
Account No. _-_ _ _ _-_ _ _-_ _-_ _ _-_ _ _-_-_ _ _
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE
This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of scopes of the work authorization**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS
This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION
Acknowledgement and Confirmation by Hidalgo County Precinct No.2, Commissioner, Eduardo Cantu, as to content and detail of this **Work Authorization No. 1.**

HIDALGO COUNTY
COMMISSIONER PRECINCT No. 2:

BY: _____

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of _____ day of _____, 201__.

THE ENGINEER:
B2Z ENGINEERING

_____
By: Nicholus Muñoz, Vice President

THE OWNER:
HIDALGO COUNTY

_____
By: Ramon Garcia, County Judge

ATTEST:

_____
By: Arturo Guajardo Jr., County Clerk

APPROVED BY
COMMISSIONERS' COURT
ON: 6/13/17

COMMISSIONERS COURT
HIDALGO COUNTY, TEXAS

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

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

GENERAL:

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

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

2) Payment for work performed by the **Engineer** and accepted by the **Owner** in accordance with Article 5 of the Agreement.

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

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

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

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

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 1-PROJECT DESCRIPTION

The services designated herein as "Services provided by the ENGINEER" shall include the performance of all engineering services for the following described facility:

COUNTY/CITY: HIDALGO COUNTY

CONTROL:

PROJECT/DESCRIPTION: New location and 2 lane rural overlay

LENGTH: 1.7 miles

HIGHWAY: Whalen Road

LIMITS: From intersection of FM 1016 & SH 336 East to FM 2061

PROJECT CLASSIFICATION

(Place an "X" in only one Project Classification)

- ___ Surface Treatment
- ___ Overlay
- ___ Rehabilitation Existing Road (Scarify & Reshape)
- ___ Convert Non-Freeway to Freeway
- ___ Widen Freeway
- ___ Widen Non-Freeway
- ___ New Location Toll Freeway
- _X_ New Location Non-Freeway
- ___ Interchange (New or Reconstruct)
- ___ Bridge Widening or Rehabilitation
- ___ Bridge Replacement
- ___ Upgrade to Standards - Freeway
- ___ Upgrade to Standards - Non-Freeway
- ___ Miscellaneous Studies (Use Function Code 110 for All Tasks)

ENGINEER shall mean B2Z Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean Hidalgo County.

LPA shall mean Hidalgo County.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 2 – PRELIMINARY DESIGN VALUES
(Function Code 102)

Services Provided By: ENGINEER	LPA	
YES	NO	Preliminary Design Values *The Engineer will work with the Owner to establish basic design concepts, project controls and general scope of Projects.*
YES	NO	Preliminary Route Locations on Uncontrolled Mapping *The Engineer will evaluate various alternatives (route locations, alignment shifts, geometry) for the Project.*
YES	NO	Uncontrolled Mapping (w/Contours & GIS Info) *The Engineer will investigate the existing routes and coordinate with the Owner on establishing the best-fit alignments and mapping proposed geometry for Projects. Preliminary Location Exhibit will be developed.*
NO	NO	Preliminary Traffic Evaluations & Trends *The Engineer will investigate existing traffic models and trends for the proposed Projects and adjacent roadways tying into the proposed Projects.*
YES	NO	Preliminary Hydrologic Map *The Engineer will develop a Hydrologic Map for the Projects. Hydrologic Maps will be based on LIDAR and GIS information.*
YES	NO	Preliminary ROW Requirements *The Engineer will research and identify affected property owners on the Projects utilizing the latest appraisal district file information from Hidalgo County Appraisal District and information from Carson Maps.*
YES	NO	Preliminary Cost Estimates *The Engineer will calculate preliminary construction cost estimates for the location and geometry of the Projects.*
YES	NO	Preliminary Environmental Analysis (for fatal flaws) *The Engineer will perform Preliminary Environmental Constraint Mapping to determine if any fatal flaws exist along the proposed alignment.*
YES	NO	Project Fact Sheet with Est. Local Cost vs. Total Project Cost *The Engineer will produce a Project Fact Sheet providing summaries of all pertinent items in this scope of services (as required) and providing estimated local costs vs. total project costs for the Projects.*
YES	NO	Meetings, Coordination & Support for Project Development *The Engineer shall provide coordination services and shall assist in meetings and workshops with TxDOT, Hidalgo County, Hidalgo County Drainage District No. 1 and Hidalgo County Irrigation Districts, and all other affected parties. The Engineer shall serve as representative for the Owner in coordination items. The Engineer shall coordinate with the Owner's staff on all Project related items.*

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 3 - ROUTE AND DESIGN STUDIES

(Function Code 110)

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

SECTION 4 – PHASE I ENVIRONMENTAL SITE ASSESSMENT
(Function Code 120)

1.0 Phase I Environmental Site Assessment (ESA)

B2Z's approach for performing the Phase I ESA consists of three tasks: first, a review of the public record and an examination of the history of the property; second, an on-site investigation of the property; and third, preparation of a final report summarizing the findings and recommendations of the assessment. The main focus of this site assessment will be to determine if there are any chemical constituents or hazardous materials on the property. B2Z will use the American Society for Testing and Materials (ASTM) Publication E1527-13 as technical guidance for the ESA. B2Z will conduct a search of the National Wetlands Inventory database and a field reconnaissance survey for the presence or absence of Section 404 jurisdictional "waters of the U.S." B2Z will review the existing files held by the Texas Archeological Research Laboratory (TARL) and the Texas Historical Commission (THC) to determine if any previously recorded sites or archeological sites occur within or near the property. In addition, B2Z will conduct a review of the Natural Diversity Database (NDD) checklist for federal and state listed threatened, endangered, and candidate species that potentially occur in the vicinity of the property.

1.1 Compilation and Review of Public Records

This task serves to identify evidence in the public record of activities that may have resulted or could result in contamination or deposition of hazardous materials on the site. Activities to be conducted by B2Z include:

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

1.2 Site Reconnaissance

A site reconnaissance will be performed to inspect for evidence of past and/or current presence of hazardous materials on the site and adjoining sites. In addition, B2Z will evaluate any factors in the review of the public record that might be indicative of activities that resulted in hazardous materials being used or deposited on the site or that could result in contamination of the site. The site reconnaissance will include:

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

2.0 Report Preparation

Upon completion of the above tasks, B2Z will provide one (1) original set of a written report documenting the Phase I which will include maps, sources consulted and findings of the historical, transcripts of the interviews, recommendations and findings of the site reconnaissance, etc.; however, will not include the government records search. Two (2) other original sets of the written report will be provided which will include the entire findings including the document records. Unless directed otherwise, only the client will receive the report, and no copies will be distributed without prior approval.

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

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

3.0 Contract Management

B2Z has conducted a preliminary background search on the project in order to develop a cost proposal for this project. B2Z will coordinate with Pct #2 on a bi-weekly basis to provide updates on the progress of the project. B2Z will develop a plan to ensure that the project tasks are performed within the budget and scope of the project. The work plan will include developing a project schedule and coordinating field work to ensure that all work is performed on a timely basis and that Quality Assurance and Quality Control (QA/QC) is performed on each task.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 6 - FIELD SURVEYING AND PHOTOGRAMMETRY

(Function Code 150)

Services Provided By:
SURVEYOR LPA

DESIGN AND CONSTRUCTION SURVEYS:

PURPOSE:

The purpose of a "design survey" is to provide field information in support of transportation systems design.

The purpose of a "construction survey" is to provide field data in support of highway construction.

DEFINITIONS:

A "design survey" is defined as the combined performance of research, field work, analysis, computation, and documentation necessary to provide detailed topographic (3-dimensional) mapping of a project site. A design survey may include, but need not be limited to, cross-sections or data to create cross-sections and Digital Terrain Models (DTM), horizontal and vertical location of utilities and improvements, detailing of bridges and other structures, review of right-of-way maps, establishing control points, etc.

A "construction survey" is defined as the combined performance of reconnaissance, field work, analysis, computation, and documentation necessary to provide the horizontal and vertical position of specific ground points to be used by the construction contractor for determining lines and grades.

1. Design Surveying

YES NO a. Primary Project Control – 3 to 5 miles spacing
Precision shall be 1 part in 20,000 or better, unless otherwise directed by the District Engineer.
(1) Establish horizontal control points
(2) Establish vertical control points

NOTE: ALL BEARING AND DISTANCE SHALL BE BASED ON THE STATE PLANE COORDINATE SYSTEM NAD 1983, SOUTH ZONE. ALL DISTANCES AND COORDINATES SHALL BE SURFACE AND MAY BE CONVERTED TO GRID BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999960

YES NO b. Secondary Project Control – Surveyor shall recover and/or reset H&V Control Points as provided by the Engineer and create Survey Control Data Sheets for inclusion in the Construction Project Plans signed and sealed by an R.P.L.S.
(1) No traverse should exceed 25 angle points. Planimetrics shall be 20 ft Lt & Rt from the proposed ROW as per the schematic provided by the Engineer.
(2) The unadjusted angular error should not exceed 2 seconds per angle, plus 14 seconds.
(3) The unadjusted ratio of precision should be one part in 10,000 or better. (The ratio of precision is the total length of the traverse divided by the total error.)
(4) The unadjusted vertical error should not exceed 0.03 foot per mile of traverse.
(5) Project control base lines

NO NO (6) Photogrammetric ground control
(a) Establish horizontal control
(b) Establish vertical control points
(c) Place and maintain control point targets

Services Provided By: SURVEYOR	LPA	
YES	NO	c. Other Design Surveying

(1) **The limit of the Design surveys shall be 500-ft before and after the limits of the project as identified by the Project Engineer on the schematic. Establish horizontal and vertical control.** Set H&V Control at 1000-ft intervals along the project proposed right-of-way. Provide x, y, z for each H&V Control. Provide an H&V Control along each outfall identified on the Hydrologic Map. The H&V Control shall be #5 I.R. 2-ft in depth set in concrete. **The surveyor shall provide an H&V Control Book (a Sample shall be provided by the Engineer to the Surveyor).** The Surveyor will provide a 3-pt reference sketch with ties to the BMs for inclusion the existing H&V Control Book. Establish benchmark circuit throughout the project with a tolerance of 0.03'/ft per mile error vertically.

(2) Complete topographic and cross section survey, data processing, and CADD mapping (2D & 3D) for the limits of the project.

(3) Locate all visible utilities, data processing and CADD mapping (2D & 3D) including irrigation lines. Follow sample provided by the Engineer.

(4) Field locate cross culverts, driveway culverts, inverts, irrigation lines, within the project limits, data processing and CADD mapping (2D & 3D).

(5) Right of Entry, Right of Way Research, and Appraisal District Records is the responsibility of the Surveyor.

(6) The Surveyor shall stake the proposed centerline on the existing fields as approved by Engineer before construction for the purpose of utility adjustments and project location.

(7) Profile and cross section intersecting streets for ties into project (500-ft. beyond the proposed ROW per schematic and 20-ft wider than the existing ROW of intersecting street).

(8) Cross section irrigation crossings for a distance of 20-ft beyond the proposed ROW at 100-ft intervals in a DTM file. Provide a complete description of irrigation appurtances as identified by the engineer sample layout "EXHIBIT E". The SURVEYOR will meet with the ENGINEER before he ties down any irrigation lines. Jointly the SURVEYOR and the ENGINEER will identify from records such as the Irrigation District Maps and the A&M Data of existing irrigation lines that will need to be tied down. The SURVEYOR will follow the sample given to him by the ENGINEER and tie the structures horizontally and vertically and include in the field books to be submitted.

(9) Tie Horizontally and Vertically the existing storm drain system that lies within the existing proposed ROW including the elevation of the outfall of said recovered existing storm drain systems.

(10) Tie to existing underground and overhead utilities (location, elevation and direction)

Horizontally – The surveyor shall call the 1-800 number for the utilities to be marked on the ground as well as any city water and sewer lines. He shall tie all visible utility crossings with name, address and Phone #'s of utility companies. The engineer will coordinate with the utility companies and jointly the Surveyor and the Engineer will identify which utilities were missed and need to be tied down.

Vertically – The engineer shall identify all utilities that are potential conflicts and that need to be tied vertically. The engineer will advise the surveyor in writing of the needed vertical ties and the surveyor will tie the lines vertically once the surveyor has coordinated the exposure and provide the information to the engineer.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services Provided By: SURVEYOR	LPA	
YES	NO	(11) Cross section and profile all outfall channels identified on the Hydrologic Map for a distance of 200-ft beyond the proposed ROW upstream and downstream at 100-ft intervals. The SURVEYOR will provide a complete 2D/3D File including utilities of the outfalls identified.
		(12) Driveways and Turnouts (a) Inventory commercial entrances, public roads and side streets separately. (b) Obtain centerline station. (Width at ROW, PAV'T and existing radius. (c) Inventory by type (dirt, caliche, gravel or paved). If paved, indicate condition in terms of no patches, has patches or has potholes. (d) Obtain width at R.O.W. line. (e) Obtain elevations at both edges of the driveway or turnout in line with the side drain.
YES	NO	(13) ROW staking (Existing and Proposed @ 1,000 ft. stations PC's PT's and Angle points as per ROW Map)
YES	NO	(14) Soil core hole staking at bridge class structures.
YES	NO	(15) Determine changes in topography from voids and outdated maps due to development, erosion, etc.
YES	NO	(16) Profiles of existing drainage facilities.
NO	NO	(17) Measurement of hydraulic opening under existing bridges.
YES	NO	(18) Obtain elevations of manholes and valves of utilities
YES	NO	(19) Provide temporary signs, traffic control, flags, safety equipment, etc.
YES	NO	(20) Ties to existing bridges railroad rail elevations or culverts that may conflict with new construction.
NO	NO	(21) Bridge widening top of deck and/or top of cap elevations at the Profile Grade Line (PGL) and the edges of slab at bent locations.
YES	NO	(22) Inventory signs, mailboxes, and driveways
NO	NO	(23) Locate wetlands.
YES	NO	(24) Locate existing right-of-ways.
		d. Construction Surveys: In performing construction surveys, the following will be requested by the ENGINEER on an as needed basis, but need not be limited to:
NO	NO	(1) Stake existing and/or proposed right-of-ways.
NO	NO	(2) Stake existing and/or proposed baseline/centerline.
NO	NO	(3) Stake proposed bridge structures.
NO	NO	(4) Stake proposed drainage structures, such as manholes, culverts, etc.
NO	NO	(5) Set grade stakes.
NO	NO	(6) Recover and check existing control points.
NO	NO	(7) Establish additional control points.
NO	NO	(8) Check elevations and locations of structures.
NO	NO	(9) Determine and resolve conflicts associated with survey data.

Services Provided By: SURVEYOR	LPA	
NO	NO	**2. Photogrammetric Products** a. Uncontrolled Photography (1) Contact Prints (2) Mosaics (3) Digital ortho plots b. Mapping (1) Planimetric Maps (2) Contour Maps (3) Cross Sections (4) Profiles (5) Digital Terrain Models (DTM)
		3. UTILITY SUBSURFACE INVESTIGATION: Utility Quality Levels are in cumulative order (least to greatest) as follows
NO	NO	3.1. Quality Level C - Existing Records: Utilities are plotted from review of available existing records that will be generated by the Engineer on the schematic and provided to the surveyor for his further creation of a Utility Map which will be turned in as a deliverable as part of this work order.
NO	NO	3.2. Quality Level B - Surface Visible Feature Survey: The Surveyor shall gather the field tied Utility Information and compare it to the existing records (if any) as provided by the Engineer and correlate with surveyed surface-visible features. The surveyor shall create a Utility Layout Map or plan layout 2D, showing the limits of the proposed project and limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right of way. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations. The Layout Map will include all utilities that have been field tied – 2D Horizontal Utilities. This Layout will be provided to the Engineer and a meeting held with Engineer to identify which utilities will need to be tied down vertically. A note must be placed on the designate deliverable only that states "lines sizes are from best available records". All above ground appurtenance locations must be included in the deliverable to the Engineer. This information will be provided in the latest version of Micro Station or Geopak used by the State. The electronic file will be delivered on C.D. or DVD. A hard copy is required and must be signed, sealed, and dated by the Surveyor. Note: Determine and inform the Engineer of the approximate utility depths at critical locations. This depth indication is understood by the Engineer to be approximate only and is not intended to be used for preparing the construction plans.
YES	NO	3.3. Subsurface Utility Locate (Test Hole) Service (Quality Level A), **THE SURVEYOR SHALL ESTIMATE LOCATING VERICALLY 25 UTILITES PER MILE OR AS IDENTIFIED BY THE ENGINEER.** Locate shall mean to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that ensures the integrity of the utility facility. Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B and C. The Surveyor shall: 3.3.1 Review the requested test hole locations that have been identified by the Engineer and Coordinate with utility owner inspectors as may be required by law or utility owner policy.

Services Provided By:
SURVEYOR LPA

3. *Utility Subsurface (continued)*

3.3.2 Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:

- Elevation of top and/or bottom of utility tied to the datum of the furnished plan.
- Identify a minimum of two benchmarks utilized. Elevations shall be within an accuracy of 15mm (.591 inches) of utilized benchmarks.
- Elevation of existing grade over utility at test hole location.
- Horizontal location referenced to project coordinate datum.
- Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
- Utility facility material(s).
- Utility facility condition.
- Coating/Wrapping information and condition.
- Unusual circumstances or field conditions.

3.3.3 Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation can only be utilized with written approval from the appropriate State District Office.

3.3.4 Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material. The Engineer shall be responsible for the integrity of the backfill and surface restoration for a period of three years. Install a marker ribbon throughout the backfill.

3.3.5 Provide complete restoration of work site and landscape to equal or better condition than before excavation.

3.3.6 Plot utility location position information on the Utility Layout sheet and identify the vertical elevation and sealed by the responsible Surveyor. This information will be provided in the latest version of Micro Station or Geopak format used by the State. The electronic file will be delivered on C.D or DVD.

4. DELIVERABLES:

The deliverables to be specified in individual work authorizations for design surveys and construction surveys may be any combination of the following:

YES NO 4.1. Digital Terrain Models (DTM) in a format acceptable by the ENGINEER.

YES NO 4.2. Final H&V Field Book Binder with all pertinent information obtained in the field for Design Surveys. Maps, plans, or sketches prepared by the SURVEYOR showing the results of field surveys.

YES NO 4.3. Computer printouts or other tabulations summarizing the results of field surveys.

YES NO 4.4. Digital files or media acceptable by the ENGINEER containing field survey data.

YES NO 4.5. Maps, plats, plans, sketches, or other documents acquired from utility companies, private corporations, or other public agencies, the contents of which are relevant to the survey.

YES NO 4.6. Field survey notes, as electronic and/or hard copies.

YES NO 4.7. A H&V Control Book identifying the basis of the Primary and Secondary Control and an 8 ½ inch by 11 inch survey control data sheet for each construction control point which shall include, but need not be limited to, a location sketch, a physical description of the point including a minimum of two reference ties, surface coordinates, a surface adjustment factor, elevation, and the horizontal and vertical datums used. Survey control data sheets shall be signed and sealed by the supervising Registered Professional Land Surveyor.

Services Provided By: SURVEYOR	LPA	
		4. *Deliverables (continued)*
YES	NO	4.8. Final mylar set of 11 inch by 17 inch Survey Control data sheets sign and seal by the RPLS per TxDOT guidelines.
YES	NO	4.9. A digital and/or hard copy of all computer printouts of horizontal and vertical conventional traverses, GPS analysis and results, data including property descriptions with field notes and plats, right-of-way maps, and survey control data sheets to include in the H&V Field Book Binder.
YES	NO	4.10. Survey reports in a format requested by the ENGINEER.
YES	NO	4.11. Items indicated under the Automation Requirements Section 6.

5. GENERAL REQUIREMENTS:

5.1. Design surveys and construction surveys shall be performed under the supervision of a Registered Professional Land Surveyor currently registered with the Texas Board of Professional Land Surveying.

5.2. Horizontal ground control used for design surveys and construction surveys, furnished to the SURVEYOR by the ENGINEER or based on acceptable methods conducted by the SURVEYOR, shall meet the standards of accuracy required by the STATE.

5.3. Reference may be made to standards of accuracy for horizontal control traverses, as described in the FGCS Standards and Specifications for Geodetic Control Networks, latest edition, the TxDOT Survey Manual, latest edition, the TxDOT GPS Manual of Practice, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

5.4. Vertical ground control used for design surveys and construction surveys, furnished to the SURVEYOR by the ENGINEER or based on acceptable methods conducted by the SURVEYOR, shall meet the standards of accuracy required by the ENGINEER.

5.5. Reference may be made to standards of accuracy for vertical control traverses, as described in the FGCS Standards and Specifications for Geodetic Control Networks, latest edition, the TxDOT Survey Manual, latest edition, the TxDOT GPS Manual of Practice, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

5.6. Side shots or short traverse procedures used to determine horizontal and vertical locations shall meet the following criteria:

- Side shots or short traverses shall begin and end on horizontal and vertical ground control as described above.
- Standards, procedures, and equipment used shall be such that horizontal locations relative to the control may be reported within the following limits:
- Bridges and other roadway structures: less than 0.1 of one foot.
- Utilities and improvements: less than 0.2 of one foot.
- Cross-sections and profiles: less than 1 foot.
- Bore holes: less than 3 feet.
- Standards, procedures, and equipment used shall be such that vertical locations relative to the control may be reported within the following limits:
- Bridges and other roadway structures: less than 0.02 of one foot.
- Utilities and improvements: less than 0.1 of one foot.
- Cross-sections and profiles: less than 0.2 of one foot.
- Bore holes: less than 0.5 of one foot.

Services
Provided By:
SURVEYOR LPA

5. **AUTOMATION REQUIREMENTS:**

6.1 Planimetric design files (DGN) shall be fully compatible with the State's *Micro Station V8* graphics program without further modification or conversion.

6.2 Electronically collected and processed field survey data files shall be fully compatible with the State's *CADD* systems without further modification or conversion. All files shall incorporate only those feature codes currently being used by the STATE.

6.3 Digital Terrain Models (DTM) shall be fully compatible with the STATE's GEOPAK system without further modification or conversion. All DTM files shall be fully edited and rectified to provide a complete digital terrain model with all necessary break lines.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

ADDITIONAL RESPONSIBILITIES

A. TRAFFIC CONTROL:

The SURVEYOR shall control traffic in and near surveying operations adequately to comply with provisions of the latest edition of the TxDOT Manual on Uniform Traffic Control Devices – Part VI and the latest edition of the Occupational Safety Manual both of which can be found on the TxDOT internet site.

In the event field crew personnel must divert traffic or close traveled lanes, a Traffic Control Plan based upon principles outlined in the latest edition of the TxDOT Manual on Uniform Traffic Control Devices – Part VI shall be prepared by the SURVEYOR and approved by the ENGINEER prior to commencement of field work. A copy of the approved plan shall be in the possession of field crew personnel on the job site at all times and shall be made available to the ENGINEER for inspection upon request.

B. INVOICING:

Payment requests shall include a SURVEYOR's invoice. With each payment request, the SURVEYOR shall submit a project status report which will, as a minimum, include the percentage of total work complete as of the date of the payment request and a description of current work activity. The percentage of total work complete shall not be based simply on the percentage of funds expended, but shall be based on the best judgment of the SURVEYOR as to the percentage of actual work complete.

C. EASEMENTS, LETTERS OF PERMISSION, ETC.

The SURVEYOR shall be responsible for delineating easements. The SURVEYOR will be responsible for securing the necessary legal instruments and obtaining all Right-of-Entries (ROEs).

D. MEETINGS:

The ENGINEER shall setup the necessary meetings with the SURVEYOR in order to assure all field information is provided on-time and products are delivered in accordance with TxDOT's specifications. SURVEYOR must attend all meetings involving data provided if requested by ENGINEER.

E. PROJECT MANAGER/SURVEYOR COMMUNICATION:

The SURVEYOR shall designate one Texas Registered Professional Land Surveyor (RPLS) to be responsible throughout the project for project surveying coordination and all communications, including billing, with the ENGINEER.

F. OFFICE LOCATION:

The SURVEYOR will perform the services to be provided under this agreement out of a local office and have a crew available to perform requested tasks within 24 hours of request. The coordinating SURVEYOR's Project Manager (RPLS) shall be accessible at all times and working from the local office.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 7 - ROADWAY DESIGN CONTROLS

(Function Code 160)

Services Provided By: ENGINEER	LPA	
		1. Geometric Design
YES	NO	a. Horizontal and Vertical Alignment (Preliminary based on office surveys)
YES	NO	b. Schematic Layout
		(1) The location of interchanges, main lanes, grade separations, frontage roads and ramps.
		(2) Develop vertical and horizontal alignment of main lanes, ramps and cross roads at proposed interchanges or grade separations. Frontage road alignment data need not be shown on the schematic; however, it should be developed in sufficient detail to determine ROW needs. The degree of horizontal curves and vertical curve data, including "K" values, shall also be shown for ease of checking.
		(3) For freeways, show the location and text of the proposed main lane guide signs. Lane lines and/or arrows indicating the number of lanes shall also be shown.
		(4) A complete explanation of the sequence and methods of stage construction, if proposed, including the initial and ultimate proposed treatment of crossovers and ramps.
		(5) The tentative ROW limits.
		(a) Provide a roadway Design System (RDS) or (GEOPAK) computer tape of the preliminary earthwork to verify ROW requirements.
		(b) Provide a graphics file containing the approved schematic.
		(6) The geometric (pavement cross slopes, lane and shoulder widths, slope rates for fills and cuts) of the typical sections of proposed highway main lanes, ramps, frontage roads, and cross roads.
		(7) The current and projected traffic volumes as provided by the TxDOT (20 year traffic projection, unless otherwise determined by the District Engineer).
		(8) The control of access lines if Interstate or designated under House Bill 179.
		(9) Direction of traffic flow on all roadways.
		(10) Location and width of median openings for highway without access control.
		(11) The geometric of speed change (acceleration, deceleration, climbing) lanes.
YES	NO	2. General Guidelines for Project Development
		a. Prior to preparing detailed plans for a proposed project, a preliminary schematic layout shall be prepared which indicates the general geometric features and location requirements peculiar to the project. An uncontrolled aerial mosaic will be provided for this use. Four copies of the schematic layout shall be submitted through the district to the Design Division for approval and subsequent coordination with the Federal Highway Administration (FHWA) where applicable. The layout shall be submitted for two-lane arterial highway projects on new locations and for all multi-lane highway projects. **No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout.**
		b. All geometric design shall be in conformance with the State's Design Division, Operations and Procedures Manual, except where variances are permitted in writing by the STATE.
		c. The schematic layout shall include basic information which is necessary for the proper review and evaluation including the items listed above in the checklist for schematic layout.
		d. Handling of traffic during construction shall be a consideration in the development of preliminary designs.

Services Provided By: ENGINEER	LPA	
NO	NO	2. General Guidelines for Project Development *(continued)*
		e. Upon approval of the schematic layout by Design Division (FHWA on Federal-aid projects), it shall be the basis for an exhibit at any required public hearing prior to final development of the project. If there are any changes to the schematic after the Design Division and FHWA approval and before the public hearing, four copies of the revised schematic, as displayed at the hearing, shall be submitted either prior to or accompanying the public hearing data. If there are no changes in the schematic as displayed at the hearing, only photographs of the schematic and other displays shall be submitted with the public hearing data.
		f. For all freeway construction projects, these schematics shall show the location and text of the proposed main lane guide signs. A schematic layout shall be submitted through the district to the Traffic Operations Division, Traffic Safety Section for approval and subsequent coordination with the FHWA. All signing shall be in conformance with the Texas MUTCD.
		g. On complex projects, informal contact through the district with the Design Division and FHWA personnel is encouraged with regard to development of preliminary design prior to official schematic submission.
		h. The engineer shall furnish a project tape that is compatible with the STATE's computer system, a project listing, and a cross section plot showing the original design sections containing the earthwork input and original cross sections for the project. **Accuracy of the earthwork design is of utmost importance since it is the basis for contractor payments and construction staking.**
NO	NO	3. Exhibit for Airway/Highway Clearance Permits
		4. Grading Design
NO	NO	a. Refine the horizontal and vertical alignment of main lanes, frontage roads, ramps, cross roads and direct connectors based upon the approved schematic layout. Determine vertical clearances at grade separations and overpasses, taking into account the appropriate super elevation rate.
NO	NO	b. Typical Sections
NO	NO	c. Design Cross Sections
NO	NO	d. Determine Cut and Fill Quantities
NO	NO	e. Slope Stability Analysis
NO	NO	f. Embankment Foundation Stability Analysis
NO	NO	g. Embankment Settlement Analysis
		5. Pavement Design
NO	NO	a. Prior to initiating detailed plan preparations for a project, a preliminary investigation shall be made to determine the approximate section and pavement type to be used for the pavement structure. The Flexible Pavement Design Manual for flexible pavement, "Appendix F" of the Design Division, Operations and Procedures Manual, and the current AASHTO Guide for the Design of Pavement Structures, may be used for this purpose.
NO	NO	b. The typical section shall also reflect proposed geometric including pavement cross slopes, lane and shoulder widths, and slope rates whenever this data have not been previously shown on a schematic submission.
		c. Embankment and Subgrade
		(1) Soil Core Holes (Show cost estimate with Function Code 110)
NO	NO	(a) Along center line
NO	NO	(b) Along center line of each roadway
		The location and minimum number of soil core holes required for this project are as follows: (To be determined when schematic is being completed)

Services Provided By: ENGINEER	LPA	
		5. Pavement Design *(continued)*
		c. Embankment and Subgrade *(continued)*
NO	NO	(2) Identify,interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)
NO	NO	d. Traffic Data for Pavement Design by STATE
NO	NO	e. Basic Design Criteria
NO	NO	f. Life Cycle Cost Analysis(es)
NO	NO	g. Cost Data
NO	NO	h. Pavement Material Properties
NO	NO	i. Rehabilitation Investigations
NO	NO	(1) Core Hole Survey (Show cost estimate with Function Code 110)
		(a) Determine type and depth of existing material, pavement, etc. The Engineer will determine whether to salvage ACP and FLEXBASE as well as their properties and provide this information to TxDOT.

SECTION 8 - DRAINAGE

(Function Code 161)

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

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

ADDITIONAL RESONSIBILITIES

Easements, Letters of Permission, Etc.

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

Coordination of Utilities

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

Meetings

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

Specifications, Special Provisions, Special Specifications

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

Project Manager/Engineer Communication

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

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

Design Responsibilities

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

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

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

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Document and Information Exchange

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

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

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

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

CD Tape Required (YES or NO): YES

Proposal Time

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

Office Location

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

Service	Office Location
Schematic	Mission Office
Environmental Document	Mission Office

The work effort will be managed out of the Mission (City) office located at 900 S. Stewart Rd, Suite 4 (Address), Mission (City), Texas (State).

EXHIBIT "C"
PROJECT SCHEDULE

WHALEN ROAD EXTENSION PROJECT
From Intersection of FM 1016 SH 336 East to FM 2061

	2017						2018				
TASK AND DESCRIPTION	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY
WA #1: Phase I - EA, Limited Public Involvement & Schematic											
Notice to Proceed											
Limited Public Involvement with Project Stakeholders											
Phase I Environmental Site Assessment											
Schematic Design & Hydrologic Mapping											
Field Surveys for Design & Construction											
WA #2: Phase II - PS&E and Construction Oversight											
PS&E Design (Including Bridge & Traffic Signals)											
Permitted Utility Adjustment Coordination											
Local Letting Procedures for Bridge & Signal Work											
Let Project											
Construction Inspection for Bridge & Signal Work											
WA #3: Phase III - ROW Mapping											
Complete ROW Map											
ROW Acquisition											

B2Z Engineering
Hidalgo County

B2Z ENGINEERING

EXHIBIT "D"
FEE PROPOSAL

Whalen Road - Contract # 17-182-06-13

Precinct #2

		Hidalgo County Precinct #2 *WA #1*	MANHOURS Senior Project Manager	Project Engineer	Senior Engineer Tech	Admin/Clerical	B2Z Total Hours	Total Line Item Cost
		TASKS						
	1	Environmental Phase I Site Assessment	10	26	39	8	83	$10,011.09
	2	Schematic Design	32	85	151		268	$33,221.02
	3	Limited Public Involvement w/Project Stakeholders	20	18	0		38	$6,748.70
	4	Hydrologic Mapping	10	32	72		114	$13,534.72
	5	Office Surveys for Schematic	4	11	18	6	39	$4,493.95
	6	Preliminary Permitted/Compensable Utility Identification on Schematic	3	17	36		56	$6,484.35
	7	Mangement of Field Surveys for Design & Construction	14	24		8	46	$6,817.12
	8	Field Surveys for Design & Construction - SUB	See Detailed Proposal from ROWSS Page 2 of 2					$68,157.00
			93	**213**	**316**	**22**	**622**	
Labor Hours			**93**	**213**	**316**	**22**	**622**	
Hourly Base Rates			$ 68.00	$ 45.00	$ 31.00	$ 20.00		
Contract Rate FY2017			$ 211.48	$ 139.95	$ 96.41	$ 62.20		
Total Labor Costs			**$ 19,667.64**	**$ 29,809.35**	**$ 30,465.56**	**$ 1,368.40**		**$149,467.95**

Direct Expenses

B2Z Engineering Total Cost	**$ 149,467.95**

Exhibit "D"
BUDGET
LUMP SUM RATE BASIS OF PAYMENT

Work Authorization No. 1

	A	B	C	D	E	F	G	H	I	J	K
1	**Highway: Whalen Road**							**R.O.W. Surveying Services, L.L.C.**			
2	County: Hidalgo County, Texas										
3	Limits: From Intersection of FM 1016 & SH336 East to FM 2061										
4	Description of Work: Design Survey										
5	**TASK AND DESCRIPTION**										
6	**FC 150 Field Surveying**	**Survey PM**	**RPLS**	**Survey Technician**	**4-man Survey Crew**	**3-man Survey Crew**	**2-man Survey Crew**	**SUE/per unit**	**Admin/ Clerical**	**Total Hours**	**Cost**
7	**HOURLY RATE**	**$124.00**	**$125.00**	**$82.00**	**$175.00**	**$155.00**	**$130.00**	**$1,250.00**	**$50.00**		
8	**PHASE 1 - FC 150 Field Surveying (Control Hz & Vt)**										
9	A. Primary Project Control										
10	a. Establish Primary Control	0	1	2	0	10	0	0	0	13	$ 1,839.00
11	B. Secondary Project Control										
12	a. Set additional secondary control points as needed	0	1	5	0	5	0	0	0	11	$ 1,310.00
13	b. Horizontal values established with RTK or VRS	0	1	4	0	8	0	0	0	13	$ 1,693.00
14	c. Vertical values established with digital level	0	1	2	0	0	16	0	0	19	$ 2,369.00
15	Subtotal Hours	0	4	13	0	23	16	0	0	56	
16	Subtotal Cost - Phase 1	$0.00	$500.00	$1,066.00	$0.00	$3,565.00	$2,080.00	$0.00	$0.00		**$ 7,211.00**
17	**PHASE 2 - DTM Topography and Cross sections (Total Length =1.1 Miles, Side Streets= 0.6 Miles, and 500' X-Sections**										
18	C. Setting Benchmarks										
19	1. Setting Benchmarks @ 1000'(ft) intervals	0	0	0	0	8	0	0	0	8	$ 1,240.00
20	2. Topographic & Crossections	0	0	16	0	8	0	0	0	24	$ 2,552.00
21	3. Locate Visible Utilities	0	0	16	0	8	0	0	0	24	$ 2,552.00
22	4. Cross Culverts, Driveway Culverts, Inverts	0	0	8	0	8	0	0	0	16	$ 1,896.00
23	5. Right of Entry, ROW Research, Aprraisal Dist. Records	0	1	0	0	0	0	0	10	11	$ 625.00
24	6. Proposed Centerline on Existing Pavement Pre-Construction for Utilities	2	1	16	0	8	0	0	0	27	$ 2,925.00
25	7. Profile and Cross section Intersecting Streets	0	0	8	0	8	0	0	0	16	$ 1,896.00
26	8. Irrigation Crossings	0	0	8	0	8	0	0	0	16	$ 1,896.00
27	9. Existing Storm Drain H&V	0	0	8	0	8	0	0	0	16	$ 1,896.00
28	10. Tie Existing Underground and Overhead Utilities Coordinate with Engineer (No SUE)	2	1	8	0	8	0	0	0	19	$ 2,269.00
29	11. Additional Field Surveying										
30	a. Irrigation Lines	2	1	8	0	8	0	0	0	19	$ 2,269.00
31	b. Outfalls	2	1	8	0	8	0	0	0	19	$ 2,269.00
32	c. Driveways and Turnouts	0	0	8	0	8	0	0	0	16	$ 1,896.00
33	15. Profiles of Existing Drainage Facilities	0	0	8	0	8	0	0	0	16	$ 1,896.00
34	17. Obtain Elevations of Manholes and Valves of Utilities	0	0	8	0	8	0	0	0	16	$ 1,896.00
35	18. Provide temp. signs, traffic control, flags, safety equip. etc.	0	0	0	0	8	0	0	0	8	$ 1,240.00
36	19. Ties to Existing Bridges or Culverts that may be in conflict with new construction	0	0	8	0	8	0	0	0	16	$ 1,896.00
37	21. Inventory Signs, mailboxes, and driveways	0	0	8	0	8	0	0	0	16	$ 1,896.00
38	22. Survey Control Data Sheets per TxDOT	0	4	8	0	0	0	0	0	12	$ 1,156.00
39	23. Recover and Establish Existing CL and ROW	0	0	0	0	0	0	0	0	0	$ -
40	24. Coordinate with the Engineer for Existing CL Stationing	2	2	0	0	0	0	0	0	4	$ 498.00
41	25. Right of Way Restaking (Pre Construction)	0	2	8	0	8	0	0	0	18	$ 2,146.00
42	26. SUE Level A Data Sheets	0	8	16	0	0	0	0	0	24	$ 2,312.00
43	Subtotal Hours	10	21	176	0	144	0	0	10	361	
44	Subtotal Cost - Phase 2	$1,240.00	$2,625.00	$14,432.00	$0.00	$22,320.00	$0.00	$0.00	$500.00		**$ 41,117.00**
45	*** PHASE 3- SUBSURFACE UTILITY ENGINEERING** ***(See Note Below)***										
46	1. Hydro Excavation SUE Level A (10 holes at $1250 each)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$12,500.00	$0.00	$0.00	$ 12,500.00
47	Total Cost-Phase 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$12,500.00	$0.00	$0.00	**$ 12,500.00**
48	**PHASE 4 - FINAL REPORT & DELIVERABLES**										
49	A. CADD file (2D & 3D) for limits of project	0	0	8	0	0	0	0	0	8	$ 656.00
50	B. Final Report and Deliverables	4	8	8	0	0	0	0	2	22	$ 2,252.00
51	Subtotal Hours	4	8	16	0	0	0	0	2	30	
52	Subtotal Cost - Phase 4	$496.00	$1,000.00	$1,312.00	$0.00	$0.00	$0.00	$0.00	$100.00		**$ 2,908.00**
53	**PROJECT MANAGEMENT & OVERSIGHT**										
54	A. Meeting & Coordination w/ Engineers	5	5	0	0	0	0	0	2	12	$ 1,345.00
55	B. QC/QA Survey	8	8	12	0	0	0	0	2	30	$ 3,076.00
56	Subtotal Hours	13	13	12	0	0	0	0	4	42	
57	Subtotal Cost - PM & Oversight	$1,612.00	$1,625.00	$984.00	$0.00	$0.00	$0.00	$0.00	$200.00	0	**$4,421.00**
58	**Total Fee FC 150**	**$3,348.00**	**$5,750.00**	**$17,794.00**	**$0.00**	**$25,885.00**	**$2,080.00**	**$12,500.00**	**$800.00**	0	**$68,157.00**
59	*** Number of SUE Test Holes dependant on Utility Investigation and Engineer Approval**										

Zimbra **erika.zamora@co.hidalgo.tx.us**

RE: Whalen Road Contract

From : Steve Crain <scrain@atlashall.com> Mon, Jun 12, 2017 01:50 PM
Subject : RE: Whalen Road Contract 5 attachments
To : 'Erika Zamora' <erika.zamora@co.hidalgo.tx.us>

Good to go.

From: Erika Zamora [mailto:erika.zamora@co.hidalgo.tx.us]
Sent: Monday, June 12, 2017 1:38 PM
To: Steve Crain <scrain@atlashall.com>
Subject: Whalen Road Contract

Steve,

As discussed this morning, attached please find the engineering contract with B2Z for Whalen Road with the requested revisions.

Please let me know if you approve.

Respectfully,

Erika Zamora
Director of Management Operations
Hidalgo County Precinct #2
300 West Hall Acres, Suite G
Pharr, Tx 78589
(956) 787-1891 Ext. 2015 - Office
erika.zamora@co.hidalgo.tx.us

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AI-60201 **Purchasing Department 21. D. 3.**
CC - REGULAR
Meeting Date: 06/13/2017
Submitted For: Marty Salazar, PURCHASING DEPT.
Submitted By: Rocio Villarreal, PURCHASING DEPT.
Department: PURCHASING DEPT.

Information

CAPTION

a. Acceptance and approval to execute the final form of a professional engineering services agreement (subject to legal counsel's review) with B2Z Engineering, LLC for "Whalen Road Extension Project," [as approved for negotiations on CC 05/16/17];

b. Acceptance and approval of Work Authorization No. 1 (with an estimated cost of $149,467.95) as submitted by project engineer, B2Z Engineering, LLC, to provide Schematic Design, Environmental, Limited Public Involvement & Design Survey for "Whalen Road Extension Project," through Contract# C-17-182-06-13;

c. Pursuant to current contract with B2Z Engineering, LLC (Article 14), a request by engineer to permit the subcontracting of R.O.W. Surveying Services, LLC in connection with C-17-182-06-13 for Pct 2 Whalen Road Extension Project.

BACKGROUND

Fiscal Impact

CALENDAR YEAR: 2017 **ACCT. #:** 7-1200-431-00-122-139-0-721/841
FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**
BUDGETARY IMPACT:
Funding pending approval of AI#60259 CC 6/13/17

Attachments

Form 1295
Subcontracting
contract
legal
WA1

Form Review

Inbox	Reviewed By	Date
Purchasing - Internal	Marty Salazar	06/09/2017 04:15 PM
Budget & Management	Veronica Ortiz	06/09/2017 04:16 PM
Final Approval	Monica Badillo	06/09/2017 05:19 PM
Form Started By: Rocio Villarreal		Started On: 06/08/2017 08:58 AM
Final Approval Date: 06/09/2017		