

EXHIBIT D
Work Authorization Form

HIDALGO COUNTY
Professional Engineering Services
Agreement #C-18-307-02-26

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 4 of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner’s Court**, hereinafter called the “**Owner**,” and, Quintanilla, Headley & Associates, Inc. professional engineers of Edinburg, Texas, hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide Preliminary Civil Design Values, Data Collection, & Construction Phase Services for the **All Inclusive Park Project** for Hidalgo County Precinct No. 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 \$14,500.00. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT “D”**.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section 4 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 _____, 2019.

**THE ENGINEER:
QUINTANILLA, HEADLEY &
ASSOCIATES, INC.**

**THE OWNER:
HIDALGO COUNTY**

By: Alfonso Quintanilla, P.E./R.P.L.S

By: Richard Cortez, County Judge

ATTEST:

By: Arturo Guajardo Jr., County Clerk

EXHIBIT A

-Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

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 4 of this 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 projects.
- 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 "A" attached to this Agreement.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
- 7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT B

-Scope of Services to be provided by the Engineer

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION I - 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

PROJECT/DESCRIPTION: On-Call Services for "Road and Bridge, C.I.P. and Other Projects in General"

ENGINEER shall mean Quintanilla, Headley & Associates, Inc.

COUNTY shall mean Hidalgo County.

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION 2 – Preliminary Design Values & Data Collection

Preliminary Design Values

The ENGINEER will work with the Owner to establish basic design concepts, project controls and general scope of Projects.

Preliminary Route Locations, Site Planning, and Uncontrolled Mapping

The ENGINEER will evaluate various alternatives (route locations, alignment shifts, geometry) for the Projects as appropriate. The ENGINEER will perform all necessary site planning and field reconnaissance needed for options to be evaluated and approved by the COUNTY.

Uncontrolled Mapping (w/Contours & GIS Info)

The ENGINEER will investigate existing data available at each site, field recover any and all additional information needed for his coordination with the Owner on establishing the best option for the Project. Preliminary Location Exhibit will be developed.

Preliminary Traffic Evaluations & Trends

As needed, the ENGINEER will investigate existing traffic models and trends for the proposed Projects and adjacent roadways.

Preliminary Hydrologic Map & Drainage Plan

The ENGINEER will develop a Hydrologic Map, and Preliminary Drainage Plan for the Projects. Hydrologic Maps will be based on LIDAR and GIS information.

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.

Preliminary Cost Estimates

The ENGINEER will calculate preliminary construction cost estimates for the location and geometry of the Projects.

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.

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.

Meetings, Coordination & Support for Project Development

The ENGINEER shall provide coordination services and shall assist in meetings and workshops with all 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 - DESIGN CONTROLS

Geometric Design

The ENGINEER will work on all aspects of the Geometric Design of the project as needed to finalize a Site Plan, Schematic, and/or PS&E. The needed plan will include all necessary Grading, Typical Sections, Quantities, etc.

SECTION 4 - DRAINAGE

Hydrologic Map

The ENGINEER will develop a hydrologic data/discharge determination for coordination on any needed outfalls. The Engineer will produce this exhibit on an as-needed basis depending on project type.

Hydraulic Drainage Study and Documentation

The ENGINEER will perform all necessary Hydraulic computations and Drainage area maps showing existing conditions and proposed improvements, as well as:

- a.
 - (1) Storm water detention available within the ROW and/or Project Site
 - (2) Storm water detention required outside the ROW (as per HCDD#1)
 - (3) Culverts
 - (4) Bridge waterways
 - (5) Channels
 - (6) Storm sewers/inlets
 - (7) Pump stations
 - (8) Storm Water Management facilities
 - (9) Irrigation Canals/Siphons
- b. Hydraulic report(s)
- c. Federal Emergency Management Agency (FEMA) floodway requirements
- 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

Layout, Structural Design and Detailing of Drainage Features

- a. Culverts
 - (1) New culverts
 - (2) Culvert widening and/or lengthening
 - (3) Culvert replacements
- b. Storm sewers
 - (1) New storm sewers
 - (2) Modify existing storm sewers
 - (3) Inlets
 - (4) Manholes
 - (5) Trunk lines
- c. Pump stations
- d. Subsurface drainage at retaining walls
- e. Outfall channel(s) within the ROW and/or Project Site
- f. Outfall channel(s) outside the ROW and/or Project Site
- g. Detention Pond(s) within the ROW and/or Project Site
- h. Detention Pond(s) outside the ROW and/or Project Site
- i. Summary of Quantities
- j. Storm Water Management facilities

Storm Water Pollution Prevention Plan (SW3P)

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION 5 - SIGNING, MARKINGS AND SIGNALIZATION

Signing and Markings Layout

The ENGINEER will work on all aspects of the needed Signing, Marking, and Signalization needed to finalize a Site Plan, Schematic, and/or PS&E. As needed, and depending on the project type, the needed plan will include:

- (1) Roadway layout
- (2) Center line with station numbering
- (3) ROW lines
- (4) Culverts and other structures that present a hazard to traffic
- (5) Location of utilities, if not shown on plan and profile
- (6) Existing signs to remain, to be removed, to be relocated
- (7) Proposed signs (illustrated and numbered)
- (8) Existing overhead sign bridges to remain, to be revised, removed or relocated
- (9) Proposed overhead sign bridges indicating location by plan layout (electrical details need not be shown on this layout)
- (10) Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation
 - (2) Quantities of existing pavement markings to be removed
 - (3) Proposed delineators and object markers

Summary of Signs and Sign Detail Sheets

The ENGINEER will produce a summary of both the Small Signs, as well as the Large Signs (inc. Guide Signs)

The ENGINEER will produce all necessary Sign Detail Sheets

- a. All signs except route markers
- b. Design details for large guide signs
- c. Dimensions of letters, shields, borders, corner radii etc.
- d. Designation of shields attached to guide signs
- e. Designation of arrow used on exit direction signs

The ENGINEER will produce the necessary Traffic Signals

- a. Development of Justification (Warrant) Data
 - (1) Location Map
Relationship of proposed installation to other traffic signals, highways, business areas and traffic generators
 - (2) Photographs as appropriate
 - (3) Accident data as appropriate
 - (4) Vehicle volumes (provided by TxDOT)
 - (a) Existing
 - (b) Estimated
 - (c) Projected
 - (d) Pedestrian
 - (5) Traffic Survey - Count Analysis
 - (6) Recommendation based on above data
- b. Layout
 - (1) Title Sheet (when applicable)
 - (a) Describe the location
 - (b) Type of installation
 - (c) Area map with project limits for each location
 - (d) Index of sheets
 - (e) Space for official signatures
 - (2) Estimate and quantity sheet (when applicable)
 - (a) List of all bid items
 - (b) Bid item quantities

EXHIBIT B

Scope of Services to be provided by the Engineer

- (c) Specification item number
 - (d) Paid item description and unit of measure
 - (3) Basis of estimate sheet (list of materials)
 - (4) General notes and specification data sheet
 - (5) Condition diagram
 - (a) Highway and intersection design features
 - (b) Roadside development
 - (c) Traffic control including illumination
 - (6) Plan sheet(s)
 - (a) Existing traffic control that will remain (signs and markings)
 - (b) Existing utilities
 - (c) Proposed highway improvements
 - (d) Proposed installation
 - (e) Proposed additional traffic controls
 - (f) When applicable, proposed conduit for Railroad interconnect with standard details for runs under tracks.
 - (g) Proposed illumination attached to signal poles.
 - (7) Notes for plan layout
 - (8) Elevation sheet(s) (span wire design)
 - (9) Phase sequence diagram(s)
 - (a) Signal locations
 - (b) Signal indications
 - (c) Phase diagram
 - (d) Signal sequence table
 - (e) Flashing operation (normal and emergency)
 - (f) Preemption operation (when applicable)
 - (g) Interval timing, cycle length and offset
 - (10) Construction detail sheets(s)
 - (a) Poles (TxDOT standard sheets)
 - (b) Detectors
 - (c) Pull Box and conduit layout
 - (d) Controller Foundation standard sheet
 - (11) Marking details (when applicable)
 - (12) Barricade and warning sign standard sheet and any special details for work zone traffic control for special conditions
 - (13) Aerial or underground interconnect details (when applicable)
- c. **General Requirements**
- (1) Contact local utility company
 - (a) Confirm power source
 - (b) Discuss route of aerial or underground interconnect cable (when applicable)
 - (c) Adjustment of overhead utility lines
 - (2) Prepare governing specifications and special provisions list
 - (3) Prepare project estimate
- d. **Summary of Quantities**

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION 6 – MISCELLANEOUS DESIGN ELEMENTS

The Engineer will produce final Construction Cost Estimates

The Engineer will produce final Summary of Quantities

The Engineer will produce final Typical X-section.

The Engineer will produce all necessary Traffic Control Plans, Detours, and Sequence of Construction

Traffic Control Plans (TCP) are required for all projects. A detailed TCP shall be developed when traffic handling during construction involves complications for which a feasible solution is not covered by the Texas MUTCD or the current Barricade and Construction (BC) Standards. The following items are required on all Traffic Control Plan Layouts:

- a. The sequence of construction and method of handling traffic during each phase.
- b. The existing and proposed traffic control devices that will be used to handle traffic during each construction sequence. Include signals, regulatory signs, warning signs, construction warning signs, guide signs, route markers, construction pavement markings, channelizing devices, portable changeable message signs, flashing arrow boards, barricades, barriers, etc.
- c. The proposed traffic control devices (stop signs, signals, flag person, etc.) at grade intersections during each construction sequence.
- d. Where detours are provided, typical cross sections shall be shown.
- e. Road construction work hours shall be developed after an investigation of the traffic volumes has been performed.

The ENGINEER will produce all necessary Design/Detailing related to Illumination

- a. Preliminary Illumination Layout and Circuit Layout
- b. Final Illumination and Electrical Circuit Layouts
- c. General Guidelines for Illumination (If applicable)
The ENGINEER shall submit to the COUNTY, well in advance of PS&E due date, the illumination and electrical circuit layout sheets for review and approval.

The ENGINEER will produce all necessary Miscellaneous Drafting/Standards

- a. Erosion Control
- b. Landscape Development

The ENGINEER will produce all Miscellaneous Structure Design and Details

- a. Type of Structure
 - (1) Overhead Sign Bridges (O.S.B.)
Modifications or special O.S.B. designs shall be prepared using the same design assumptions that are used for the standard O.S.B structures.
 - (a) New O.S.B. structure(s)
 - (b) Structural evaluation of existing O.S.B. structure(s) that are to remain in place or to be relocated.
 - (2) High Mast Illumination Poles (HMIP)
 - (3) Traffic Signal Supports
 - (4) Conventional Illumination Poles
 - (5) Sound Barrier Walls
- b. Checklist for Layouts
 - (1) Reference appropriate O.S.B. standard
 - (2) Drilled shaft size and length
 - (3) Soil strength used for design {indicate basis and boring(s) used}
 - (4) Design height
 - (5) Tower heights
 - (6) Leg spacings
 - (7) Design wind speed

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Scope of Services to be provided by the Engineer

The ENGINEER will produce all Agreements

- a. **Utility Agreements**
- b. **Exhibits for Utility Agreements**
- c. **Railroad Agreements**
- d. **Railroad Exhibits**
 - (1) **Railroad Underpasses**
 - (2) **Railroad Overpasses**
 - (3) **Railroad Grade Crossing (Replanking)**
 - (4) **Railroad Grade Crossing Warning Systems (Signals)**
 - (5) **Other Miscellaneous Sketches for Railroads**
- e. **Traffic Signal Agreements**
- f. **Exhibits for Traffic Signal Agreements**

The ENGINEER will include all Specifications and General Notes

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION 7 - CONSTRUCTION PHASE SERVICES

CONSTRUCTION MANAGEMENT SERVICES:

The ENGINEER will provide engineering and support services for and during the construction of the Project or portions of the Project approved by the COUNTY. Specific (basic and special) services for CONSTRUCTION MANAGEMENT AND SUPPORT by the ENGINEER will include the following:

Construction Bidding:

- 1) The ENGINEER will furnish the COUNTY the necessary copies of approved plans, specifications, notices to bidders, and proposals as prepared under PS&E.
- 2) The ENGINEER will assist the COUNTY on the tabulation of bids, recommendations to the Owner as to the proper action on all bid proposals received, and the preparation of formal contract documents for the award of each construction contract.

Construction Contract Administration and Inspection:

- 1) In general, the ENGINEER will provide the management and engineering support/data required for consultation and advisement to the COUNTY and act as the COUNTY's representative as provided in the General Condition of the Construction Contract.
- 2) The ENGINEER will coordinate and conduct a pre-construction conference (if required).
- 3) Defects and Deficiencies. The ENGINEER will use his best efforts to protect the COUNTY against defects and deficiencies in the work of the Contractor. The ENGINEER will promptly notify the COUNTY of any such defect or deficiency, and take all steps possible to require the Contractor to correct the defect or deficiency.
- 4) Contractor Payment. The ENGINEER will review quantities as submitted by the Contractor and will coordinate with the COUNTY for the preparation of the monthly and final estimates for payment to the Contractor.
- 5) The ENGINEER will provide Project site inspection of the authorized construction contract as follows:
 - a) Project Engineer. The ENGINEER will provide visits by the Project Engineer or a competent representative of the ENGINEER to the site of construction for the purpose of monitoring the Contractor's progress and conformance to the construction contract plans and specifications.
 - b) Resident Engineer and/or Construction Inspector(s). The ENGINEER will furnish the services of a Resident Engineer and/or Construction Inspector(s) for on the site inspection construction to monitor/inspect the Contractor's daily progress and conformance to TxDOT's PS&E specifications.

Miscellaneous Technical Activities:

- 8) Shop Drawings. The ENGINEER will review and check all shop or working drawings furnished by the Contractor.
- 9) Control of Materials & Equipment. The ENGINEER will provide inspection of all materials and equipment furnished/used by the Contractor as follows:
 - a) Review and record all laboratory, shop and mill tests of materials and equipment for compliance with the construction contract specifications.

EXHIBIT B

Scope of Services to be provided by the Engineer

- b) **Observe and/or perform Project record testing and/or independent assurance testing as outlined in the construction contract specifications.**
- 10) **Change Orders. When applicable the ENGINEER will prepare the engineering data, including plan sheet drawings, specifications, and estimates, for the preparation of construction contract change orders, which may be required due to actual field conditions encountered or new requirements directed by the COUNTY.**
- 11) **As Built Drawings. The ENGINEER will develop as built drawings to depict the work as actually constructed. The COUNTY will be furnished five (5) set of prints.**

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION 14 - ADDITIONAL RESPONSIBILITIES

Coordination of Utilities

The ENGINEER shall furnish the COUNTY prints of a project layout which will be distributed by the 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 COUNTY. The ENGINEER shall coordinate through the COUNTY 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 COUNTY's Director. Any replacements to the ENGINEER's designated Project Manager/Engineer must be approved by the COUNTY.

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.

Office Location

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

Service
All Services

Office Location
Edinburg Office

The work effort will be managed out of the Edinburg
(City)

office located at 124 E. Stubbs St., Edinburg, Tx. 78539
(Address)

Edinburg, Texas
(City) (State)



QUINTANILLA, HEADLEY AND ASSOCIATES, INC.

EXHIBIT D
 FEE PROPOSAL
 All Inclusive Park Project at Valley View School (McColl Rd. & Dicker Rd.)
 Hidalgo County Precinct #2
 Work Authorization No.1

Hidalgo County Precinct #2 All Inclusive Park Project at Valley View School Preliminary Design Values & Data Collection Construction Phase Services			MANHOURS					
			Registered Professional Engineer	Engineering Field Technician	Computer Technician	Administrative	Research	Total
TASKS								
Las Milpas Park Youth Facility								
1.	Preliminary Route Locations, Site Planning and Uncontrolled Mapping		20	10	20	4	3	57
2.	Uncontrolled Mapping (w/ Contours & GIS Info)		20	10	20	4	3	57
3.	Preliminary Cost Estimates		3			3		6
4.	Meetings, Coordination and Support for Project Development		5			3		8
		Subtotal:	48	20	40	14	6	128
Labor Hours			48	20	40	14	6	
Hourly Base Rates			\$170.00	\$90.00	\$85.00	\$60.00	\$50.00	
Total Labor Costs			\$8,160.00	\$1,800.00	\$3,400.00	\$840.00	\$300.00	\$14,500.00

Quintanilla, Headley & Associates, Inc. Total Cost

\$14,500.00