

WORK AUTHORIZATION NO. 1

PROJECT: Structural Engineering Services Cave Void Closure Plans (1904-314)

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated September 10, 2019 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Dunaway Associates (the "Engineer").

Part 1. The Engineer will provide the following Engineering Services set forth in Attachment "B" of this Work Authorization.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$50,000.00.

Part 3. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.

Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on September 30, 2020. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.

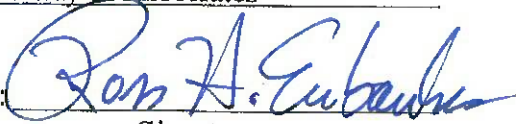
Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this ____ day of _____, 2019.

ENGINEER:

Dunaway & Associates

By:



Signature

Ross H. Eubanks, PE, SE

Printed Name

Vice President

Title

COUNTY:

Williamson County, Texas

By:

Signature

Bill Gravell, Jr.

Printed Name

Williamson County Judge

Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

Attachment A - Services to be Provided by County

Williamson County will provide a Project Manager and any requested data that is in the County's control.

Attachment B - Services to be Provided by Engineer

Please see following pages.

ENGINEERING SERVICES

Project Understanding and Approach

The Scope of Work consists of structural engineering review of cave void closure plan services and miscellaneous structural analysis for various void closures.

The Project approach follows the task items listed below in the detailed Scope of Work. In addition to the tasks listed herein, Engineer will coordinate the following subconsultants' work on behalf of Williamson County:

- Geotechnical Investigation to obtain in-situ soil/rock material properties
- Surface Elevation Survey to map topography within the roadway and determine cave roof thicknesses in relation to the geological void description and profiles.

DETAILED SCOPE OF WORK

1. Site Investigation and Stabilization Plan- Engineer will conduct site visits to document the as is conditions, research the appropriate regulatory approval agency requirements and prepare a site stabilization plan to the County. This exhibit will show an overlay of the extents of the void on an aerial map (as provided in the geologist's report), utility information, extents of demolition to the void opening, and procedure to stabilize and secure the void opening and adjacent areas.
2. Topographical and Right of Way Survey
3. Geotechnical Subsurface Exploration-
 - a. Perform a subsurface exploration to core the underlying limestone rock
 - b. Obtain rock recovery and rock quality designation (RQD) information
 - c. Perform unconfined compressive strength testing on five (5) rock cores to 30feet depth collected during the drilling.
4. Coordination with Approval Agencies (Hourly) -Engineer will participate in meetings and conferences to discuss the approach and development of mitigation procedures for the void. Engineer will coordinate with the following agencies:

- Williamson County
- Texas Commission on Environmental Quality (TCEQ)
- Brushy Creek Municipal Utility District (BCMUD)
- Geotechnical Engineering Company
- Licensed Surveyor
- Franchise Utility Companies

In addition, Engineer will respond to comments and requests. Engineer has included the time to make any and all necessary revisions to design plans per regulatory agency code and regulations. Engineer will perform site visits as requested.

5. Construction Documents – Public Improvements – Engineer will prepare construction documents for the public infrastructure repair and structural mitigation procedures for this project. The anticipated repairs consist of the following:
 - a. Replacement of the damaged water line, gas line and storm sewer.
 - b. Reconstruction of the roadway, curb and sidewalk improvements in the County ROW.
 - c. Structural mitigation plans, details and procedures to properly close off and seal the void in the County ROW and in accordance with TCEQ requirements.

These construction documents will be signed and sealed by a Registered Professional Engineer licensed in the State of Texas and will be processed with Williamson County for approval and construction. A set of engineering specifications will accompany the construction drawings. A tentative list of drawings required to meet the objectives of this Project are as follows:

Cover Sheet
 General Notes
 Existing Site Civil Plan w/ Erosion Control Facilities & Details
 Final Site Civil Plan
 Structural Mitigation Plan
 Utility Details
 Miscellaneous Details

6. Project Management and Construction Administration Services (Hourly) -- Engineer will provide the following services as necessary:
 - a. Submit bid documents and specifications to prequalified contractors (invited by Williamson County) to bid construction documents. Engineer will help manage the procurement of bids and present to Williamson County for selection and approval.
 - b. Review and respond on the County's behalf for site plan submittals related to elements of the design for which Engineer is responsible.
 - c. Review and respond to written Requests for Information from the County's contractor regarding elements of the design for which Engineer is responsible.
 - d. Make site visits, as required, during construction to monitor the progress of construction in accordance with the approved plans and specifications.

Only those services specifically mentioned in the Scope of Work above shall be provided by Engineer.

ADDITIONAL SERVICES (not included in the Scope of Work)

The following is a list of services not included in the Scope of Work. If the County determines any of these services are necessary to the Project, Engineer and County shall execute a contract modification setting out a description of the Additional Services, fees for such services and a schedule for performing the Additional Services.

1. Design of franchise utilities (gas, electric, telephone and cable TV) will be conducted by the franchise utility companies. Usually, each franchise utility company will provide its own design. If desired, Engineer will show the conduit for each of these on our drawings provided that the size, number and material for each conduit is provided to Engineer by the utility company.
2. Redesign efforts related to site plan changes after significant design efforts have begun or redesign efforts to meet construction budgets are not included.
3. Surveying services such as boundary, tree, and as-built surveys and easements by separate instrument are not included unless specifically mentioned in the Scope of Work.
4. Soil Investigation/Laboratory Testing - Engineer recommends that the County retain an independent laboratory for use in any testing required during the design phase, i.e., for density approval in the street rights-of-way, and for any site excavation and embankment that might be required for this Project.
5. Construction testing services are not included; however, Engineer recommends that the County retain a geotechnical engineering consultant to provide construction testing services.
6. Sanitary sewer design and maintenance services will not be included in the Scope of Services.
7. All civil work within the Scope of Work is limited to the public Right-of-Way.
8. Water profile design is not included in the Scope of Services.
9. Traffic control plan and details will not be included as part of this Project's Scope of Work.
10. Contract amendments by contractor are not included in the Scope of Work.

Attachment C – Work Schedule

Work shall begin immediately upon receipt of agreement between County and Dunaway Associates on the work schedule and authorization to proceed on assigned services. Dunaway Associates will provide a work schedule for the assigned tasks.

Attachment D - Fee Schedule

Please see next page.



2019 STANDARD HOURLY BILL RATE SCHEDULE

<u>STAFF TYPE</u>	<u>HOURLY BILL RATE</u>	
Administrative.....	\$85.00	- \$154.00
Information Systems.....	\$100.00	- \$110.00
Marketing/Business Development	\$90.00	- \$220.00
Financial.....	\$120.00	- \$220.00
Civil Technician	\$95.00	- \$121.00
Civil Designer	\$120.00	- \$143.00
Graduate Engineer	\$118.00	- \$135.00
Project Engineer.....	\$135.00	- \$209.00
Managing Engineer	\$175.00	- \$193.00
Technical Engineer.....	\$195.00	- \$242.00
Project Surveyor.....	\$140.00	- \$154.00
Survey Party Chief	\$120.00	- \$154.00
Survey Technician.....	\$100.00	- \$127.00
Survey Field Assistant.....	\$63.00	- \$75.00
GIS.....	\$105.00	- \$116.00
Planner.....	\$100.00	- \$209.00
Landscape Designer	\$105.00	- \$116.00
Landscape Architect.....	\$100.00	- \$138.00
Environmental Scientist.....	\$105.00	- \$116.00
Intern.....	\$75.00	- \$83.00
Discipline Lead.....	\$130.00	- \$242.00
Engagement Manager	\$175.00	- \$297.00
Line of Business Manager/Executive.....	\$220.00	- \$259.00
Regional Executive.....	\$235.00	- \$259.00
Managing Partner.....	\$325.00	- \$358.00
President.....	\$400.00	- \$440.00