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October 6, 2016

Mr. Emery E. Gallagher
Water/Wastewater Utility Director
City of Seguin
P.O. Box 591
Seguin, Texas 78156-0591

**RE: Walnut Branch WWTP**
**Outfall Structure Replacement Project**
**Engineering Services Proposal**

Dear Mr. Gallagher:

At the request of the City of Seguin, this letter represents TRC's engineering services proposal for the above-referenced project, which will consist of the removal of the existing concrete outfall structure and replacement with a new concrete structure and replacement of approximately 20 linear feet of effluent pipeline. The pipeline will be sized for future flows. The project will be bid and constructed as part of the Water Plant Filter Rehabilitation Project.

The cost to provide the engineering services, based on the attached preliminary scope of work, is as follows:

| | |
|---|---|
| Design Services: | $43,488 |
| Topographical Surveying: | $2,480 |
| Environmental: | $22,503 |
| Geotechnical: | $3,630 |
| Total: | $72,101 |

The services will be provided under the Master Services Agreement executed by the City and TRC.

The opportunity to provide this proposal is greatly appreciated. If you have any questions regarding this information, please feel free to contact this office.

Sincerely,

H. Craig Bell, PE
Austin CES Practice Leader

**CITY OF SEGUIN**

**WALNUT BRANCH WWTP**
**OUTFALL STRUCTURE REPLACEMENT PROJECT**

**ENGINEERING SERVICES PROPOSAL**
**PRELIMINARY SCOPE OF WORK**
**(10/06/16)**

## ENGINEERING SCOPE OF WORK:

1. Acquire field topographical data needed for the project design.
2. Acquire one (1) geotechnical bore and prepare report.
3. Provide environmental services (See attached scope).
4. Provide submittal package to TCEQ for project notification.
5. Prepare construction plans/specifications for the proposed project, including all details.
6. Assist the City in bidding process including preparation of advertisement document, assist the City in the opening and tabulation of bids, prepare award recommendation letter and prepare construction contract documents.
7. Assist the City during construction consisting of pre-construction meeting, contractor correspondence, submittal review, pay request review, periodic site visits (maximum of three), final inspection, preparation of contractor punch list and record drawing preparation (3 sets of hard copies and one CD electronic copy).

## EXCLUSIONS:

The following items are specifically excluded from the scope of work:

- Construction staking.
- Continuous construction inspection.
- Detailed title search or title policy.
- Attendance at or preparation for condemnation hearings.
- Easement or Plat documents, landowner contact or easement negotiations (other than listed above).
- Archaeological surveys (if applicable).
- Endangered species mitigation plans/costs (if applicable).
- Species-specific threatened and endangered survey.
- Clean Water Act Section 404 individual permit.

## ENVIRONMENTAL SCOPE OF WORK:

### USACE Permitting Services

TRC anticipates that the work done would require a USACE Section 404 Nationwide Permit (NWP) 7 (Outfall Structures and Associated Intake Structures) with Pre-construction Notification (PCN).

*Waters of the U.S. Delineation*

TRC will perform a background review of existing and available data, including U.S. Geological Survey (USGS) topographic maps, U.S. Fish and Wildlife Service (USFWS), National Wetland Inventory (NWI) maps, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Surveys, Federal Emergency Management Agency (FEMA) floodplain maps, aerial photography, as well as other available planning maps and reports.

Following the background data review, two (2) TRC biologists will conduct a field survey to determine the location and extent of any potential waters of the U.S., including wetlands, within the proposed project area. The survey will be performed in accordance with methods described in the *1987 Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Great Plains Region* (Version 2.0; USACE 2010). The boundary of water bodies potentially subject to USACE jurisdiction are defined by the OHWM, except where wetlands are present. Vegetation, soils, and hydrology will be recorded for each wetland and non-wetland site on appropriate USACE field data forms. The boundaries of the wetlands will be marked in the field with flagging at intervals necessary to accurately depict the waters of the U.S. boundaries. Data collection locations and jurisdictional wetland and/or water body boundaries will be surveyed using a sub-meter Global Positioning System (GPS) unit.

*Habitat Assessment for Threatened and Endangered Species*

In accordance with USACE Section 404 permitting requirements, the Endangered Species Act of 1973, and State of Texas regulations, TRC will perform a background review of existing and available data to determine the potential for protected species to occur within the project area. The background data review will include a search for the current listing of federal and state-listed rare, threatened, and endangered species for Guadalupe County, Texas; federally-designated Critical Habitat; the TPWD's Texas Natural Diversity Database (TXNDD); as well as other available data to assess the potential for protected species to occur within the project area.

Following the background data review, TRC biologists will conduct a survey concurrent with the waters of the U.S. delineation for T&E species habitat, vegetation communities, and other sensitive natural resources that may be present within or adjacent to the project area. TRC will identify predominant vegetation communities and address their abilities to provide habitat to support T&E species.

*USACE Section 404 Permitting and Coordination*

TRC anticipates that the work done would require a USACE Section 404 NWP 7 with a PCN. On behalf of the City, TRC will complete and submit a draft NWP 7 PCN application to the City for review and comment. TRC will incorporate one round of editorial comments provided by the City and

prepare one electronic copy and one hard copy of the final NWP 7 PCN application within 10 working days of receipt of comments for submittal to the USACE – Fort Worth District.

**Cultural Resource Services**

An archeological file search using the Texas Historical Commission Archeological Sites Atlas (THC Atlas) shall be performed to compile current information on recorded cultural resources that are situated inside and within a 1-mile radius of the area of potential effect (APE). Other documents including historic aerial photographs and topographic maps, Sanborn maps, documents from the Texas General Land Office (GLO) website, maps from the Historic Texas Overlay database, and cemetery records and online cemetery databases may also be reviewed. The results of this search will be compiled in a letter of consultation for submission to the Texas Historical Commission (THC).

If the THC concludes that the proposed undertaking could impact existing archeological sites or areas of high archeological potential, they will require further investigation by a professional archeologist in the form of an archeological survey in compliance with the guidelines set forth in Section 106 of the National Historic Preservation Act (36 CFR § 800), the Antiquities Code of Texas (Section 191.0525), and the Texas Health and Safety Code (Title 1, Section 711). Costs for an archaeological survey are not included in this SOW.

**Freshwater Mussel Survey**

*TPWD Coordination and Development of a Freshwater Mussel Survey Protocol*

Based on the proposed construction activities provided under Scenario 2, TRC anticipates that the proposed project would require coordination with TPWD regarding freshwater mussel surveys and the relocation of aquatic resources to satisfy project compliance with the Texas Parks and Wildlife Code. TRC will coordinate the proposed project with the TPWD Kills and Spills Team (KAST) and develop a Freshwater Mussel Survey Protocol (Survey Protocol) for submittal to TPWD. The Survey Protocol will outline TRC's efforts for conducting the freshwater mussel survey in accordance with State law and TPWD provisions.

*Freshwater Mussel Survey and Reporting*

TRC will conduct a freshwater mussel presence/absence survey using randomized sampling within the proposed project area. Two (2) biologists will conduct a freshwater mussel presence/absence survey using a timed survey method, conducting tactile surveys, or "brailing," which involves manually feeling the substrate for the presence of mussels either directly on the surface or a few inches below the surface. All complete specimens will be collected, identified, and counted. Live specimens will be returned to the Guadalupe River within the project area, or upon TPWD approval, relocated upstream from the project area.

Following the freshwater mussel presence/absence survey, TRC will prepare a survey report in accordance with TPWD approved survey protocols. The survey report will include a description of the survey area, survey methodology, photographs, and geo-referenced locations of any identified freshwater mussels.

If state-listed freshwater mussel species are identified within the project area, then TPWD may require additional action prior to construction activities. If necessary, TRC will prepare a separate proposa for submittal to the City for approval prior to the performance of any additional services.

**Aquatic Resource Relocation Services**

*Development of an Aquatic Resource Relocation Plan and Introduction Permit*

TRC will develop an Aquatic Resource Relocation Plan (ARRP) to comply with State guidelines and regulations. TRC assumes that the proposed construction activities will include hydraulically and mechanically dredging, utilization of a cofferdam, and dewatering within the Guadalupe River. To control and limit potential impacts to aquatic resources, TRC will coordinate the proposed construction plans and activities with TPWD and develop an ARRP for the proposed project. The ARRP details the procedures for the recovery and relocation of aquatic species that may be present within the area proposed for dredging and dewatering along the Guadalupe River. The ARRP will be contingent upon the approval of an Introduction Permit authorized by TPWD for the introduction of recovered aquatic species to appropriate release locations. The removal and relocation of aquatic species would be performed in accordance with the approved ARRP and TPWD requirements.

*Aquatic Resource Relocation and Reporting*

Two (2) biologists will conduct aquatic resource relocation activities during the placement of the cofferdams and dewatering activities. TRC will notify TPWD KAST and the County Game Warden of any in-stream activities 48-hours prior to the associated activities. Due to the assumed size of the area to be dewatered (approximately 15 feet long by 30 feet wide), TRC anticipates the use of both electrofishing and seining/netting methodologies to facilitate the removal of aquatic species from the project area. The removal and relocation of aquatic species would be performed in accordance with the approved ARRP and TPWD protocols.

At the conclusion of aquatic resource relocation activities, TRC will prepare a relocation report in accordance with the approved ARRP and TPWD requirements for submittal to TPWD. The relocation report will document relocation activities, including a record of relocated or disposed species.

**Contingency Aquatic Resource Relocation Event (*as necessary*)**

Due to the hydrological characteristics of streams and creeks, potential flooding of the project area is a possibility following heavy precipitation events. It is possible that potential flooding along the Guadalupe River could overtop the cofferdam and reintroduce fish and other aquatic resources to the dewatered work area. Therefore, contingency relocation events are included as part of this SOW. The City will be contacted for approval prior to the initiation of activities for any contingency event.
During the period that the project area is dewatered, TRC will monitor daily precipitation forecasts and communicate closely with City and project contractors regarding flow conditions along the river. In the event of flooding resulting in water overtopping the cofferdam, TRC will implement a two-phase contingency relocation event. All contingency relocation activities would be initiated by TRC only after receiving written authorization from City, with costs billed on a lump sum basis for each contingency relocation event.

## ASSUMPTIONS

TRC proposes to complete the services identified in this proposal with the following assumptions:

- The City of Seguin will provide all necessary reports, documents, maps, drawings, etc. necessary to complete the services described herein.
- This proposal covers a prescribed level of effort through the archeological site file search and THC consultation. If after consultation THC requires additional work in the form of an archeological survey, reconnaissance, and/or monitoring, then TRC will prepare a separate proposal and cost estimate for additional services and submit to the City for approval.