



City of Biggs

Agenda Item for the
Next regular City Council Meeting
June 12, 2018 at 6:30pm

To: Honorable Mayor
And Members of the City Council

Date: June 6, 2018

From: Trin Campos, PE – City Engineer

Subject: Task Order No. 15 to Engineering Services Agreement dated September 1, 2016

Regarding: Phase II Soil Assessment and the Geotechnical Investigation Report for Water Tank and Pump Station Project.

Background

MBI's Phase I assessment completed during the environmental review recommends a Phase II soil assessment be completed. The finding or recommendations, if any, will be incorporated into the construction contract work.

The Geotechnical Investigation Report is needed for consideration during the project final design phase and should have been included in the previously approved Task Order for project design support.

Completing the geotechnical investigation work early will provide additional site information for use in the estimation of project construction cost. The estimated Task Order cost is as follows:

Phase II Soil Assessment:	\$11,690
Geotechnical Investigation Report:	<u>\$12,645</u>
Task Order Total:	\$24,335

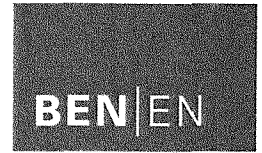
Budget

City cost for this Task Order is anticipated to be reimbursed by SRF grant/loan funding.

Recommendation

Staff recommends that the City Council authorize the City Administrator to execute Task Order No. 15 for Phase II Soil Assessment and Geotechnical Investigation Report for the Water Tank and Pump Station Project in the amount of \$24,335.

EXHIBIT A: Scope of Services



TRUSTED ENGINEERING ADVISORS

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Client:	City of Biggs
Consultant:	Bennett Engineering Services Inc
Project:	Tank and Pump Station
Date:	May 7, 2018

Consultant's services shall be limited to those expressly set forth below, and Consultant shall have no other obligations or responsibilities for the Project or to the Client except as agreed to in writing or as provided in this Agreement. All of Consultant's services in any way related to the Project or Client shall be subject to the terms of this Agreement.

TASK 5. Phase II Soil Assessment

Advance 22 exploratory borings using direct-push drilling equipment. Borings will be advanced to depths of approximately 2½ feet to collect soil samples in driven clear acetate tubes. A surface soil sample (0 to 6 inches) from each boring will be submitted to Advanced Technology Laboratories (ATL) for chemical analyses. The deeper soil samples will be retained for further analyses, if needed. The borings will be located and sampling and analyses performed as follows in order to target the potential source areas of the RECs outlined in the ESA:

- Eight borings around the perimeter of the eastern warehouse building. The 8 surface samples will be composited into two composite samples for analyses for OCPs by Environmental Protection Agency (EPA) Test Method 8081A and arsenic by EPA Test Method 6010.
- Six borings around the perimeter of the western warehouse building. The 6 surface samples will be composited into two composite samples for analyses for OCPs by EPA Test Method 8081A and Arsenic by EPA Test Method 6010.
- Three borings, one below each of the pole-mounted transformers along the northern site perimeter. The 3 surface samples will be composited into one composite sample for analyses for PCBs by EPA Test Method 8082A.
- One boring at the approximate location of the discarded oil filters on the western site boundary. The discrete surface sample will be analyzed for total petroleum hydrocarbons as diesel and motor oil (TPHd/TPHmo) by EPA Test Method 8015M.
- Four borings within the undeveloped former row crop areas in the southern portion of the site. The 4 surface samples will be composited into one composite sample for analyses for OCPs by EPA Test Method 8081A and Arsenic by EPA Test Method 6010.

Log the borings in accordance with the Unified Soil Classification System. We will analyze the laboratory analysis data and prepare a report presenting our observations, findings, conclusions, and recommendations for handling of impacted soil and groundwater during construction. Our report will include, but not be limited to:

- Site Plan showing the locations of our borings;
- Logs of the exploratory borings including depth to groundwater;
- Laboratory analysis results,

INITIALS:

- Site preparation, remedial grading, and earthwork recommendations,

TASK 6. Geotechnical Report

Perform a limited geologic literature review to aid in evaluating the geologic conditions present at the site.

- Review available design plans to select exploratory excavation locations.
- Pay required fees and obtain a drilling permit from Butte County Environmental Health Department (BCEHD).
- Perform a site reconnaissance to review project limits and mark out exploratory boring locations for subsequent utility clearance.
- Notify subscribing utility companies via Underground Service Alert (USA) a minimum of two working days (as required by law) prior to performing exploratory borings at the site.
- Perform two exploratory borings at the site using a truck-mounted drill rig equipped with hollow-stem augers to depths ranging from approximately 20 to 60 feet based on conditions encountered.
- Obtain representative samples from the exploratory borings.
- Log the borings in accordance with the Unified Soil Classification System (USCS).
- Upon completion, backfill the borings with neat cement grout in accordance with BCEHD requirements.
- Perform laboratory tests on selected samples to evaluate pertinent geotechnical parameters.
- Analyze the field and laboratory testing data, and develop geotechnical recommendations and design parameters with respect to design and construction of the project.
- Prepare a summary report with our conclusions and recommendations. Our report will include (but not be limited to) the following:
 - Site Plan showing the locations of the exploratory borings,
 - Logs of the exploratory borings, including depth to groundwater (if encountered),
 - Laboratory test results,
 - Seismic hazard analysis,
 - Geotechnical constraints and mitigation recommendations,
 - Anticipated excavation characteristics,
 - Site preparation and grading recommendations,
 - Suitability of onsite materials for use as engineered fill, import fill recommendations, Utility trench excavation and backfill recommendations,
 - Foundation recommendations, including suitable foundation type(s), allowable bearing capacity, minimum embedment depths, anticipated settlement,

- Slab-on-grade recommendations,
- Lateral earth pressures,
- Seismic design criteria (2016 California Building Code) and American Water Works Association
- Flexible and rigid pavement structural section design,
- Exterior flatwork recommendations, and
- Screening-level soil corrosion potential.

We will submit a draft report for your review followed a signed and stamped originals of our final report.

