REQUEST FOR PROPOSAL TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR

Well 22 Comprehensive Site Assessment and Hydrogeologic Services for Well Drilling and Construction Support

ADDENDUM NO. 1 - Issued date – May 3, 2023

The following changes, omissions, and/or additions shall apply shall apply to proposals made for and to the execution of the various parts of the work affected thereby, and all other conditions shall remain the same.

1. **Question:** In the first paragraph of Page 4 “Well 22 Standby status will remain active until the completion of the city’s Comprehensive Site Assessment for further direction.” Task 6 (Final Design and Bid Documents) includes the destruction of Existing well 22. Please verify that the decision has been made to destroy well 22. If yes, please let us know when it will be destroyed and if we should include it in the scope of work of the present project.

   **Answer:** In order to restore Well 22 to its original pumping capacity of approximately 3,000 gpm, the existing well will need to be destroyed and a new well constructed. Destruction of the existing well including its building and necessary appurtenances will be part of the well drilling scope. Consultant to provide demolition plans and abandonment specifications for the well drilling contract work. Existing onsite utilities may need to re-located and/or protected in place such as the existing generator. Consultant to verify all necessary components for abandonment and protection-in-place as part of the Comprehensive Site Analysis and determine most efficient layout and provide necessary plans for the well drilling contractor to perform as part of his scope.

2. **Question:** Task 7 specifies that consultants shall provide field inspection during the construction phase. We assume it’s a part-time inspection, not full-time 24/7 inspection.

   **Answer:** Consultant to provide full-time inspection during well drilling.

3. **Question:** Is “spinner survey” included in the scope of work?

   **Answer:** Yes, spinner survey will be part of the scope of work.
4. **Question:** Is there a way we can get a copy of the structural assessment of the existing reservoir and their recommendations for rehabilitation.
   **Answer:** A copy of the structural assessment is included.

5. **Question:** Does the City prefer a topographic survey of the site in the Scope of Work that includes Item A.3 of Task 4 of the RFP (“...right-of-way lines, property lines, existing and proposed easements of a permanent or temporary nature.”)?
   **Answer:** A topographic survey is not required. The work will occur within the property.

6. **Question:** It was mentioned at the pre-proposal meeting that there is a report on the reservoir condition. Can the City provide the report as a part of the proposal preparation process?
   **Answer:** A copy of the structural assessment is included.

7. **Question:** Does the City have a Water Master Plan? If so, can you please provide it.
   **Answer:** The 2017 Water Master Plan can be downloaded from the following link: https://www.lakewoodcity.org/Government/City-Documents/Water-Department-Documents/Water-Master-Plan

8. **Question:** Does the City have a hydraulic model of the water distribution system? If so, what software is it in?
   **Answer:** Yes, the latest hydraulic model is through the Sedaru platform but we currently do not have the license to access the model. We can request for a copy of the file if needed.

9. **Question:** At the pre-proposal meeting, a treatment piloting system was mentioned. What is the City's intent for treatment piloting for this phase of the project?
   **Answer:** A water treatment piloting system is not required for this phase of the project.

**Submittal Requirement:**
Five (5) copies of the complete proposals including an electronic PDF copy in a flash drive must be received by **2PM PST on May 11, 2023**. Deliver or mail proposals to:

City of Lakewood  
City Clerk’s Office  
5050 Clark Avenue  
Lakewood, CA 90712  
Attn: Derwin Dy, P.E. – Assistant Director of Water Resources

Consultant to acknowledge the receipt of Addendum No. 1 in proposal submittal.

End of Addendum No. 1
October 6, 2017

Mr. Tyrone Peter  
Project Manager  
Willdan Engineering

Subject: City of Lakewood, CA – Candlewood Reservoir inspection

Dear Mr. Peter:

The following is a summary of our visual inspection, on 10-3-17, of the Candlewood Reservoir, a predominately buried tank.

This structural inspection report is an adjunct to the Tank Inspection Of 2.4MG Candlewood Reservoir report dated 10-3-17 by Mark Moore of Associated Engineering & Consulting.

**Exterior inspection**

- There were no apparent defects visible on the above ground portion of the tank walls. The roof finish, comprised of hot mop asphalt with a fine gravel aggregate and metal flashing, appeared to be in relatively good condition.

**Interior inspection**

**The north tank cell:**

- The floor appeared to be in fair to good condition with no major cracking visible (sediment deposits may have obscured some cracking) and none were discovered by foot traffic as we inspected the cell. The construction joints (approximately 2,550 linear feet) are located at the exterior wall footings, column footings and along the north-south and east-west column lines. There appears to be little vertical offset at these joints. The caulking appears to be in poor condition at these joints and appeared to be uneven with some joints having surface applied repairs.

- The exterior walls of the tank appeared to be in fair to good condition with minor predominately vertical cracking at semi-regular horizontal intervals (roughly 20 feet) A few of these cracks span floor to roof with most only partial height predominately at the top of the tank walls. These cracks appeared tight and not unexpected on a concrete tank of this age. The vertical construction joints (approximately 550 linear feet) are located at column lines. The caulking appears to be in poor condition at these joints.

- The interior columns (21 columns) appeared to be in fair to good condition with no defects visible.
The roof of the tank appeared to be in fair condition. Cracks (approximately 775 lineal feet) were visible in all but 5 of the 40 grid line segments (approximately 20 feet by 20 feet). The majority of the cracks were relatively tight but 10 to 15 percent of the cracks showed minor spalling. One area in the north-east corner had major spalling exposing reinforcing. The cracking varies running through approximately one to three frames in a generally north-south direction with a few east-west runs. All four tank corner grid segments have diagonal cracking. Reinforcing bar are visible (rust stains) in some areas because inadequate embedment depth during construction.

The south tank cell:

The floor appeared to be in fair to good condition with no major cracking visible (6 inches of residual water and sediment deposits may have obscured some cracking) and none were discovered by foot traffic as we inspected the cell. The construction joints (approximately 1,750 linear feet) are located at the exterior wall footings, column footings and along the north-south and east-west column lines. There appears to be little vertical offset at these joints. The caulking appears to be in poor condition at these joints and appeared to be uneven with some joints having surface applied repairs.

The exterior walls of the tank appeared to be in fair to good condition with minor predominately vertical cracking at semi-regular horizontal intervals (roughly 20 feet) A few of these cracks span floor to roof with most only partial height predominately at the top of the tank walls. One horizontal crack approximately 50 feet long at mid-height was observed at the south wall. These cracks appeared tight and not unexpected on a concrete tank of this age. The vertical construction joints (approximately 480 linear feet) are located at column lines. The caulking appears to be in poor condition at these joints.

The interior columns (14 columns) appeared to be in fair to good condition with no defects visible.

The roof of the tank appeared to be in fair condition. The south cell is smaller in area but it has substantially more cracking than the north cell roof. Cracks (approximately 1050 lineal feet) were visible in all but 1 of the 24 grid line segments (approximately 20 feet by 20 feet). The majority of the cracks were relatively tight but 10 to 15 percent of the cracks showed minor spalling. The cracking varies running through approximately one to three frames in a generally north-south direction with a few east-west runs. All four tank corner grid segments have diagonal cracking. Reinforcing bar are visible (rust stains) in some areas because inadequate embedment depth during construction.

The pump chambers:

The pump chambers at the west side of the reservoir were inaccessible and not inspected.
Summary

The reservoir, designed in 1951, does not comply with current seismic code but the predominately buried tank is at a lower risk of damage from seismic acceleration than an above ground tank because of the earth retaining the majority of the concrete walls.

Structural upgrades to meet current codes would most likely be cost prohibitive for minimal gains. Exposed reinforcing should be cleaned and sealed with epoxy to prevent further deterioration of the reinforcing. With proper resealing of the tank to eliminate the current 7.5 MG of water leakage per year, extending the useable life of the tank for another 20 years appears to be a feasible option.

Sincerely,

Fredrick Crooks
Vice President