



**TO:** Board of Contracts and Awards  
**FROM:** Michael P. Slevin III, P.E., Director, Environmental Services  
 Geoffrey M. Smyth, P.E., Division Manager, Science and Engineering *JD for MPS*  
**COPY:** City Council, City Manager, City Clerk, SBE Coordinator, LEAP Coordinator,  
 Max Drathman, P.E., Project Manager, and Jessica Tonka, Finance/Purchasing  
**SUBJECT:** CTP Electrical Distribution System Replacement Project – Engineering Services  
 – Architectural and Engineering (A&E) Roster – May 15, 2018  
**DATE:** April 26, 2018

**RECOMMENDATION SUMMARY:**

The Environmental Services Department recommends a contract be awarded to Carollo Engineers, Inc., Seattle, WA, for design engineering services on the Central Wastewater Treatment Plant Electrical Distribution System Replacement project, in the amount of \$1,954,350, plus applicable sales tax, budgeted from the ES Wastewater Fund.

**STRATEGIC POLICY PRIORITY:**

- Strengthen and support a safe city with healthy residents.
- Assure outstanding stewardship of the natural and built environment.

This project will help protect the water quality of Commencement Bay through replacement of the Central Wastewater Treatment (CTP) internal electrical distribution system. This infrastructure replacement will improve the Plant’s electrical system reliability and redundancy which will help reduce the chances of wastewater treatment interruption which can result in untreated wastewater discharges to Commencement Bay.

**BACKGROUND:** The City requires engineering services to assist City staff during the design of the CTP Electrical Distribution System Replacement project. Industrial scale electrical system design is beyond the expertise of Environmental Service’s current in-house engineering expertise. The work will include electrical and geotechnical field investigations, design development and review, drafting, environmental permitting assistance, and assistance during procurement. This will allow the City to procure the services of a general contractor using a traditional Design-Bid-Build approach, to construct the electrical system replacement. This contract does not include engineering services that will be necessary during construction since the necessary scope of these services will not be known until the design is complete. The intent is that once the necessary scope is known, a recommendation to amend this contract would be brought before the City Council for consideration, likely in mid-2019.

**ISSUE:** The City’s existing medium voltage electrical distribution system at the CTP is at the end of its service life and is at risk of failing. Electrical system failures are unpredictable and can have serious negative impacts to the wastewater treatment process. Failures at certain locations within the system would blackout power to the entire facility. This scenario would lead to untreated wastewater overflowing into Commencement Bay for potentially an extended period of time, costly emergency repairs, and likely regulatory fines.



**ALTERNATIVES:** The alternative is taking no action and accepting the risk of relying on an existing electrical distribution system that is beyond its design life, to power one of the City’s most important infrastructure assets. Minor failures to the system have occurred in the past. The risk of a larger failure will only increase with time.

**COMPETITIVE SOLICITATION:** The City of Tacoma solicited engineering and architectural services to develop the citywide Architectural and Engineering (A&E) Roster. Three consulting firms were selected from the A&E Roster and subsequently evaluated to find the most qualified consultant for this project. This evaluation process resulted in Carollo Engineers, Inc. as the most qualified.

<u>Respondent</u>	<u>Location (city and state)</u>	<u>Score or Rank</u>
<b>Carollo Engineers, Inc.</b>	<b>Seattle, WA</b>	<b>1</b>
Brown and Caldwell, Inc.	Tacoma, WA	2
CH2M HILL, Inc.	Bellevue, WA	3

**CONTRACT HISTORY:** New Contract.

**SUSTAINABILITY:** Replacing the aging electrical system to prevent electrical power failures at the CTP represents the best solution with respect to potential impacts on human health and the environment.

**SBE/LEAP COMPLIANCE:** Not applicable.

**FISCAL IMPACT:**

**EXPENDITURES:**

FUND NUMBER & FUND NAME *	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300-ES Wastewater Fund	ENV-04015-13	5330100	\$1,954,350
<b>TOTAL</b>			<b>\$1,954,350</b>

\* General Fund: N/A

**REVENUES:**

FUNDING SOURCE	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300-ES Wastewater Fund	ENV-04015-13	Rate	\$1,954,350
<b>TOTAL</b>			<b>\$1,954,350</b>

**FISCAL IMPACT TO CURRENT BIENNIAL BUDGET:** Not to exceed \$1,954,350

**ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED?** Yes

**FINANCE PURCHASING**  
**MAY 1 2018 9:20:17**