

COUNCIL AGENDA: JANUARY 20, 2015

SUBJECT: AUTHORIZATION TO ADVERTISE FOR BIDS – SLUDGE DEWATERING AND ELECTRIC BLOWERS PROJECT

SOURCE: Public Works Department - Engineering Division

COMMENT: On June 4, 2013, Council approved the pre-selection of a screw press dewatering machine and three electric blowers. Both pieces of equipment will be installed at the treatment plant. The current method of processing the sludge consists of piping the sludge in liquid form 5 ½ miles to the sludge drying beds adjacent to the Sports Park. The power cost associated with pumping heavy liquid sludge to the drying beds is substantial. The sludge dewatering machine, known as a screw press, will compress the water content from the sludge, allowing staff to truck the much drier sludge to the sludge drying beds.

The electric blowers will replace the Waukesha methane driven blowers that are nearing the end of their useful life. The cost to repair the Waukesha engines has become prohibitive but we continue to use them because they have been “grandfathered in” with regard to their air quality performance. The electric blowers are more efficient and easily meet and exceed all air quality performance requirements.

Plans and specifications have been prepared by AECOM of Bakersfield for the installation of the screw press and three electric blowers, and the plans and specifications are available in the Pete V. McCracken Conference Room. The bid schedule will include the pre-agreed upon price for the screw press and the electric blowers (\$390,000 & \$772,599, respectively) and the Engineer’s Estimate of Probable Cost is \$2,789,500. Funds for the project are available in the Wastewater Treatment Facility Capital Reserve account and was approved in the 2014/2015 Annual Budget.

RECOMMENDATION: That the City Council:

1. Approve the plans and project manual; and
2. Authorize staff to advertise for bids on the project.

ATTACHMENT: Engineer’s Estimate

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Dir BSL Appropriated/Funded MPB CM [Signature]

Item No. 5

Porterville WWTP Blower and Solids Dewatering
 Engineers Estimate of Construction Cost

Bid Schedule

1/14/2015

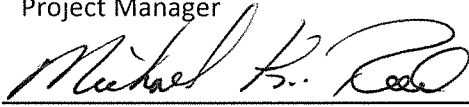
Item	Description	Est. Quantity	Unit	Unit Price	Total Price
1	Mobilization / Demobilization / Site Cleanup / Bonds / Insurance / Construction Schedule / Construction Facilities & Control (not to exceed 5% of the total base bid)	1	LS	\$ 126,000.00	\$ 126,000.00
2	All salvaging, abandonment, and demolition, and site grading and paving including but not limited to demolition of facilities, clearing and grubbing, earthwork, access roads, and curbs	1	LS	\$ 111,600.00	\$ 111,600.00
3	Receive and Inspect Preselected Equipment (Blower and Dewatering Packages)	1	LS	\$ 5,000.00	\$ 5,000.00
4	General Site Civil including but not limited to site piping between processes, the Claraeator #1 motorized valve vault, and manholes in accordance with the plans and specifications	1	LS	\$ 103,400.00	\$ 103,400.00
5	General Site Electrical including but not limited to furnishing all on-site electrical facilities not included in other bid items in accordance with the plans and specifications.	1	LS	\$ 138,900.00	\$ 138,900.00
6	General Site Instrumentation including but not limited to furnishing all on-site instrumentation and controls facilities not included in other bid items in accordance with the plans and specifications.	1	LS	\$ 17,000.00	\$ 17,000.00
7	Precommissioning and Commissioning activities in accordance with the plans and specifications	1	LS	\$ 10,000.00	\$ 10,000.00
8	Stormwater Pollution Prevention Plan preparation, compliance and erosion control	1	LS	\$ 5,000.00	\$ 5,000.00
9	Furnish Record Drawings	1	LS	\$ 5,000.00	\$ 5,000.00
10	Furnish O&M Manuals	1	LS	\$ 5,000.00	\$ 5,000.00
11	Furnish, install, maintain, and remove adequate sheeting, shoring, and bracing conforming to applicable safety orders, complete	1	LS	\$ 7,500.00	\$ 7,500.00
12	Foundation / subgrade stabilization in accordance with the plans and specifications	150	CY	\$ 150.00	\$ 22,500.00
13	Compliance monitoring and reporting in accordance with the plans and specifications	1	LS	\$ 7,500.00	\$ 7,500.00
	Technical Processes				
	Process 20 Grit Removal				
14	Process 20 – Furnish and install rotary lobe blowers and controls in accordance with the plans and specifications	1	EA	\$ 132,300.00	\$ 132,300.00
15	Process 20 – Civil and mechanical work including but not limited to piping and valves in accordance with the plans and specifications	1	LS	\$ 40,100.00	\$ 40,100.00
16	Process 20 – Structural work including but not limited to foundations, and slabs in accordance with the plans and	1	LS	\$ 25,000.00	\$ 25,000.00
17	Process 20 – Electrical work in accordance with the plans and specifications	1	LS	\$ 27,500.00	\$ 27,500.00
	Process 30 Biological Treatment Blower Building				
18	Process 30 – Based on the attached pre-negotiated scopes and costs for specified Piller Electric Turbo Blowers System, furnish Blower system and controls (equipment only) including but not limited to blowers with VFDs, instrumentation and controls in accordance with the plans and specifications	1	LS	\$ 695,340.00	\$ 695,340.00
19	Process 30 – Based on the attached pre-negotiated scope and additional cost for sequencing/ control of Electric Turbo Blower system, provide sequencing detailed in Appendix D description (Optional Pricing Item)	1	LS	\$ 5,000.00	\$ 5,000.00
20	Process 30 – Civil and mechanical work including but not limited to installation of blower system (labor and materials not included in Item []), blower building exterior and interior work, furnishing and installing piping, valves and vault in accordance with the plans and specifications	1	LS	\$ 61,800.00	\$ 61,800.00
21	Process 30 – Electrical work in accordance with the plans and specifications	1	LS	\$ 88,000.00	\$ 88,000.00

Process 40 Biological Treatment					
22	Process 40 – Civil and mechanical work including but not limited to furnishing and installing piping, and valves for Claraetor #2 and Plant #3 & #4, and Claraetor #2 walkway in accordance with the plans and specifications	1	LS	\$ 98,300.00	\$ 98,300.00
23	Process 40 – Structural work including but not limited to walkway, utility trench filling, and grating in accordance with the plans and specifications	1	LS	\$ 21,600.00	\$ 21,600.00
24	Process 40 – Electrical work in accordance with the plans and specifications	1	LS	\$ 14,100.00	\$ 14,100.00
Process 50 Solids Dewatering					
25	Process 50 – Based on the attached pre-negotiated scopes and costs for specified Huber Dewatering Screw Press system, furnish dewatering screw press system and controls (equipment only) including but not limited to screw press, instrumentation and controls in accordance with the plans and specifications	1	LS	\$ 351,000.00	\$ 351,000.00
26	Process 50 – Furnish and install shaftless screw conveyor, sludge feed pump, polymer system, and tote mixer (equipment only) in accordance with the plans and specifications	1	LS	\$ 207,060.00	\$ 207,060.00
27	Process 50 – Civil and mechanical work including but not limited to installation of dewatering system (labor and materials not included in Item []), relocation of Transfer Pump #1 & 2, Sludge Transfer Building interior and exterior work, and furnishing and installing piping and valves in accordance with the plans and specifications	1	LS	\$ 65,700.00	\$ 65,700.00
28	Process 50 – Structural work including but not limited to Sludge Dewatering Area slabs, Sludge Transfer Building foundations and pads, and sludge transfer pump slab grating in accordance with the plans and specifications	1	LS	\$ 54,700.00	\$ 54,700.00
29	Process 50 – Electrical work in accordance with the plans and specifications	1	LS	\$ 84,000.00	\$ 84,000.00

Base Price Estimate: \$ 2,535,900.00
10% Contingency \$ 253,590.00
Total Base Price Estimate: \$ 2,789,500.00

Project Manager

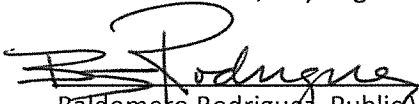
Date



1/14/15

Michael K. Reed, City Engineer

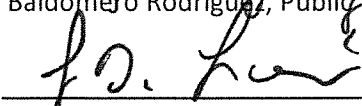
Date



1/16/15

Baldomero Rodriguez, Public Works Director

Date



01/15/15

John D. Lollis, City Manager

Date