

SUMMARY REPORT

Agenda Date: 9/10/2024

To: Sonoma County Board of Supervisors Department or Agency Name(s): Public Infrastructure Staff Name and Phone Number: Johannes J. Hoevertsz, 707-565-2550 Vote Requirement: Majority Supervisorial District(s): Fourth

Title:

CMP High-Efficiency Boiler Replacement Project Award

Recommended Action:

A) Award the construction contract for the CMP High-Efficiency Boiler project, to low bidder Matrix HG, Inc., in the amount of \$164,788; authorize a 10% contingency, in the amount of \$16,479; and authorize the Director of Public Infrastructure to execute said construction contract and any related, required contract instruments, in form approved by County Counsel.

B) Adopt and approve plans and specifications for the proposed project. (Fourth District)

Executive Summary:

Sonoma County Public Infrastructure is seeking Board award of a construction contract in the amount of \$164,788, to Matrix HG, Inc., for removal and replacement of high-efficiency boilers within the Central Mechanical Plan located at the County of Sonoma County complex. If approved, the replacement of the high-efficiency boiler at the Central Mechanical Plant will reduce operational costs and improve heating efficiencies across the county complex. The existing equipment is offline and decommissioned.

Discussion:

The Central Mechanical Plant (CMP) is located within the Sonoma County Administration campus. It plays an important role in providing conditioned water to forced air units across the central complex. The CMP utilizes a combination of chillers and boilers to generate conditioned water for temperature regulation within the central complex. While the chillers efficiently cool water, the boiler system is responsible for heating water when necessary.

However, the efficiency of the boiler system is compromised due to a defunct boiler that provides heating during moderately cool days. The unit operates at the lower end of the heat-demand curve, preserving the larger boilers for days when the demand is more significant. The replacement unit operates within a range of 6,000 to 6,000,000 Btu per hour. The other larger units operate at 30,000 to 10,000,000 Btu per hour. Efficiency is paramount in HVAC systems like those in the CMP, as it directly impacts operating costs and environmental sustainability. High-efficient boilers consume less fuel to produce the same amount of heat, leading to lower operational expenses and decreased carbon emissions. Therefore, replacing the defective unit and upgrading to a more efficient boiler will yield significant cost savings and environmental benefits.

Benefits of Replacing the High-Efficiency Boiler:

- 1. Reduced Fuel Costs: High-efficiency boilers utilize advanced technologies such as condensing heat exchangers and modulating burners to maximize fuel utilization. By replacing the broken boiler with a more efficient unit, fuel consumption can be significantly reduced, leading to substantial cost savings over time.
- 2. Improved System Efficiency: A more efficient boiler not only reduces fuel consumption but also enhances the overall efficiency of the CMP's heating system. By delivering consistent and precise heat output, the upgraded boiler ensures optimal performance of forced air units, thereby improving occupant comfort and system reliability.
- 3. Environmental Impact: Reducing fuel consumption through boiler upgrades results in lower greenhouse gas emissions, contributing to Sonoma County's sustainability goals. By embracing energy-efficient technologies, the County can mitigate its carbon footprint and promote environmental stewardship.

A procurement solicitation was issued on June 17, 2024, and proposals were publicly opened on July 23, 2024. Three (3) bids were received and deemed responsive: from Stephens Construction, Inc, Peterson Mechanical, Inc., and Matrix HG, Inc., in the amount of \$329,750, \$231,800, \$164,788 respectively. MatrixHG was determined to be the lowest responsive and responsible bidder and accordingly is recommended for award of this important project.

Strategic Plan:

N/A

Racial Equity:

Was this item identified as an opportunity to apply the Racial Equity Toolkit? No

Prior Board Actions:

None

FISCAL SUMMARY

Expenditures	FY 24-25 Adopted	FY 25-26 Projected	FY 26-27 Projected
Budgeted Expenses	\$181,267		
Additional Appropriation Requested			
Total Expenditures	\$181,267		
Funding Sources			
General Fund/WA GF			

State/Federal		
Fees/Other		
Use of Fund Balance	\$181,267	
Contingencies		
Total Sou	irces \$181,267	

Narrative Explanation of Fiscal Impacts:

There are sufficient appropriations in the FY2024-25 Adopted Budget for the cost of the contract, \$164,788, and 10% contingency, \$16,479, totaling at \$181,267. The CMP High-Efficiency Boiler Project (21149-40105800) has received \$547,066 of General Fund contributions since the project was approved by the Board in FY 2022-23. Since project inception, \$82,500 has been expended on staff labor and consulting, \$32,000 for Engineering Consultant fee for establishing design requirements, \$129,464 for procurement of the boiler and pumps, with the rest for admin, permitting and project contingency.

Narrative Explanation of Staffing Impacts (If Required):

None

Attachments:

1-Construction Contract2-Project Plans and Specifications3-Project Manual

Related Items "On File" with the Clerk of the Board:

None