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DATE: July 15, 2024

TO: Honorable Mayor and Members of the City Council through City Manager

FROM: George Howard, EIT – Assistant Engineer II, Public Works & Utilities (PW&U)  
Dan Herrera, PE – Deputy Director of Operations, PW&U  
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SUBJECT: Resolution Accepting Completion of the Payran-Madison Trenchless Sewer Main Replacement Project (C66402245) by K.J. Woods Construction, Inc.

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### **RECOMMENDATION**

It is recommended that the City Council adopt the attached Resolution accepting completion of the Payran-Madison Trenchless Sewer Main Replacement Project (C65402245) with K.J. Woods Construction, Inc.

### **BACKGROUND**

With the aim of preserving and enhancing the City's wastewater systems, the City undertakes the annual task of replacing or rehabilitating deteriorating or undersized sanitary sewer lines. Following a comprehensive assessment of the City's aging sewer main infrastructure, our team has identified critical sections of the sewer main that require immediate replacement.

Within the San Carlos Dr., Vallejo St., and Avery Way portions of the project, the City owns, operates, and maintains sewer mains located within the backyards and/or bordering the property line of multiple residences. To ensure minimal disruption to these residential areas, the less intrusive method known as pipe-bursting (a trenchless construction method) was used. This method significantly reduced the excavations necessary, as the new sewer pipe was pulled through the existing pipe system from sewer manhole to sewer manhole. This replacement work was required because the existing vitrified clay pipe (VCP) is beginning to fail as it ages, and maintenance in the area has ramped up, causing operations staff to be called out more frequently to assist with flushing and cleaning sewer lines in the project area. In addition, VCP is known to have issues with offset joints and is often a source of inflow and infiltration into the sewer. The new sewer pipes will also help reduce the amount of water infiltrating the sewer system.

This project was initially bid as a single-phased project on April 27, 2023, with the apparent low

bidder, W.R. Forde Associates, Inc.'s bid coming in at \$4,397,330. After staff reviewed W.R. Ford Associates' bid and determined that the bid was complete; however, the bid came in at approximately \$1 million over the engineer's estimate. City Council adopted the resolution to reject all bids on June 5, 2023, allowing City staff to rebid the Payran Madison Water and Sewer Main Replacement project as two projects, separated by the method of construction: trenchless sewer main replacement and typical trenching water and sewer main replacement. Phase I is the Payran Madison Trenchless Sewer Main Replacement Project, and Phase II is the Payran Madison Trenching Water and Sewer Main Replacement Project. See Attachment III for a breakdown of funding and phases.

This Phase I project was opened on July 6, 2023, and awarded to KJ Woods Construction Inc. on August 7, 2023, with a Base Bid of \$1,578,000.

## **DISCUSSION**

The project improvements included installation of 5,584 Linear Feet (LF) of new C900 sanitary sewer pipeline. This work also provided new connections to the sanitary sewer main increasing the reliability of services provided to over 175 residential properties in the Payran-Madison area. The work also included the installation of a new sanitary sewer manhole (between Payran St. and Rio Vista Way), and the rehabilitation of 12 sanitary sewer manholes.

The project's final construction cost is \$1,516,732.17, which includes three (3) change orders that were adjusted for quantity under and overruns. These three change orders totaled \$155,732.17.

Change Order No. 1 consisted of three distinct work items. The first work item involved modifying the original trenchless sewer main replacement design to include an alternative installation method, which was open trenching. The areas where open trench was used included various locations along Rio Vista Way and Woodson Way. The second work item involved Time and Materials (T&M) work to address issues with open trench work at 13 Payran Street, installation of an additional sewer connection, and removal of a concrete cap on Woodson Way. The third work item included modifying the trenchless sewer main replacement method to include a cured-in-place pipeline (CIPP) method.

Change Order No. 2 consisted of modifying the original sewer main replacement design. The original 8-inch-diameter pipe was changed to a smaller 6-inch-diameter High-density Polyethylene (HDPE) pipe and the City purchased the extra 8-inch-diameter HDPE pipe material that was already procured by the contractor.

Change Order No. 3 consisted of T&M work to repair a fence at 17 Avery Way.

## **PUBLIC OUTREACH**

This agenda item appeared on the City's tentative agenda document on July 1, 2024, which was a publicly noticed meeting. As a result of this project impacting residential properties, City staff applied a high-level outreach plan. This included the following: (1) direct mailers and door notices to all stakeholders within the project area prior to construction; (2) door-to-door direct outreach by

city staff; (3) publicly noticed community Zoom meetings; (4) meetings with residents upon request; and (5) updates posted to the city’s website for current project information.

### **COUNCIL GOAL ALIGNMENT**

The proposed action supports City Council goals and the following workplan item: • #55 “Make the City’s water distribution system more resilient, by repairing and replacing leaking water pipes, and implementing the water/sewer masterplan.”

### **CLIMATE ACTION/SUSTAINABILITY EFFORTS**

The maintenance of the City’s sewer collection system is critical for decreasing inflow and infiltration to the system, reducing energy and materials consumption as part of treatment at the City’s Ellis Creek Water Recycling Facility. This also reduces the amount of flushing that operations crew do, reducing maintenance trips which helps to save on fuel.

### **ENVIRONMENTAL REVIEW**

The project is limited to replacing existing sanitary sewer utility infrastructure with new sanitary sewer infrastructure that will continue to support existing development. The project represents a negligible expansion of existing capacity and will serve the same purpose as the existing sewer main. Construction will consist of trenching pipeline installation within the public right-of-way where existing facilities are located. The area of disturbance is not environmentally sensitive, nor are there any unusual circumstances or cumulative impacts that would preclude the project from using an exemption. The project is exempt under Section 15301(b) existing facilities, which includes projects that result in negligible or no expansion of publicly-owned utilities. The project is also exempt under Section 15302(c), which includes providing for the replacement or reconstruction of existing utilities, resulting in negligible capacity expansion. A Notice of Exemption (NOE) was filed in May 2024 with the County of Sonoma for the project following Council approval of the contract award.

### **FINANCIAL IMPACTS**

The Payran-Madison Sewer Main Replacement Project has a total project budget of \$3,045,000, approved in 2023 for Phases I and II of the work. Phases I and II of the work consist of trenchless and trenched sewer main replacements. The construction costs related to the Phase I project are included in the overall Payran Madison Sewer Main Replacement Project (C66402245) FY 23/24 project budget. The Phase I project portion of the work is within the project budget; however, it utilized a large portion of the overall sewer (C66402245) project budget, and therefore, additional funding totaling \$180,000 is needed to complete Phase II of the work. A budget adjustment will be required in FY 24/25, and this adjustment will be brought to Council with the first quarter budget adjustment ordinance. The current Phase II project will utilize funding from both the Payran Madison Sewer Main Replacement and Payran Madison Water Main Replacement projects (C66402245 and C67502225, respectively). The revised project budget for the project is as follows:

**Sewer (C66402245)**

<b>Phase</b>	<b>C66402245 FY 23/24 Budget</b>	<b>Phase I Sewer</b>	<b>Phase II Sewer</b>	<b>Phase I and II Sewer</b>
Planning/Environmental	\$ 10,000	\$ 1,000	\$ 1,000	\$ 2,000
Land & Easements	-	\$ 0	\$ 0	\$ 0
Design	\$ 25,000	\$ 13,000	\$ 13,000	\$ 26,000
Legal Services	\$ 5,000	\$ 1,000	\$ 1,000	\$ 2,000
Administration	\$ 10,000	\$ 1,000	\$ 2,000	\$ 3,000
Construction Contract	\$2,400,000	\$1,517,000	\$1,388,000	\$2,905,000
Construction Management	\$ 210,000	\$ 70,000	\$ 70,000	\$ 140,000
Contingency	\$ 360,000	\$ 0	\$ 138,000	\$ 138,000
CIP Overhead	\$ 25,000	\$ 4,600	\$ 4,400	\$ 9,000
<b>TOTAL:</b>	<b>\$3,045,000</b>	<b>\$1,607,600</b>	<b>\$1,617,400</b>	<b>\$3,225,000</b>
<b>Funding Sources</b>				
Waste Water	\$3,045,000	\$1,607,600.00	\$1,617,400	\$3,225,000

**ATTACHMENTS**

1. Resolution
2. Location Map
3. Project Phases