



**DATE:** May 3, 2022

**TO:** Mayor and City Council

**FROM:** Director of Public Works

**SUBJECT:** Adopt a Resolution Approving the Plans and Specifications and Call for Bids for the Willimet Way and I-880 Sanitary Sewer Main Installation Project, Project No. 07717

**RECOMMENDATION**

That Council adopts a resolution (Attachment II) approving the plans and specifications for the Willimet Way and I-880 Sanitary Sewer Main Installation Project, Project No. 07717 (Project), and calling for construction bids to be received on May 24, 2022.

**SUMMARY**

The Utilities Division of the Public Works & Utilities Department replaces the City’s undersized or structurally damaged sewer mains through capital improvement projects. These projects reduce the risk of potential sanitary sewer overflows, which can cause untreated wastewater to flow into public waterways. The Project will install approximately 165 linear feet of 12-inch sanitary sewer main at a new location to increase pipeline capacity and replace a damaged sewer main between Willimet Way and the Highway 92W/Interstate 880N on-ramp. The new sanitary sewer main will be installed using a trenchless technology to minimize construction impacts on residential properties and by traditional open-cut method within California Department of Transportation (Caltrans) right-of-way. Design has been completed and bid documents have been prepared. Staff is requesting Council’s approval of the plans and specifications and call for bids to be received on May 24, 2022.

**BACKGROUND**

The existing sanitary sewer main located between two residential properties from Willimet Way to the Highway 92W/Interstate 880N on-ramp was selected for improvement based on staff analysis of the video inspection results. The existing sewer main is approximately 16 feet deep on the residential side and 8 feet deep within the Caltrans’ right-of-way. The video recording indicates an offset at a pipe joint causing a significant reduction in the pipeline’s design capacity and a risk of sewer overflow on Willimet Way. In addition, the existing defective 8-inch sanitary sewer main goes through a stormwater inlet, which puts the

stormwater system at risk of contamination. Due to the location of the offset and a casing around the sewer pipe in Caltrans' right-of-way, repair on the existing sewer main is not recommended. Therefore, a new sanitary sewer main is proposed to be installed at a new location between two residential properties. The new pipeline will be installed using trenchless technology to minimize construction impacts. Staff contacted the property owners, and they agreed to dedicate a sanitary sewer easement to the City. Two Sanitary Sewer Easement Agreements between the City and the property owners of 24985 Willimet Way and 24977 Willimet Way, were finalized and recorded.

On January 28, 2020<sup>1</sup>, Council approved Resolution No. 20-017, authorizing the City to enter into a Professional Services Agreement (PSA) with RSC Engineering, Inc., (RSC Engineering) for design services and technical support during construction.

This Project is statutorily exempt from environmental review under the California Environmental Quality Act (CEQA) Section 15282(k), which allows for the installation of new pipeline or maintenance, repair, restoration, removal, or demolition of an existing subsurface pipeline, provided the project does not exceed one mile in length.

## **DISCUSSION**

This Project consists of installing approximately 165 linear feet of new 12-inch polyvinyl chloride pipe in the City's sewer easement in residential properties and Caltrans' right-of-way between Willimet Way and the Highway 92W/Interstate 880N on-ramp as shown in Attachment III.

In February 2020, staff began to work with RSC Engineering to obtain an encroachment permit from Caltrans to conduct field investigations in the State Right of Way. Caltrans issued this permit to the City in March 2020. Field investigations verified that the retaining/sound wall separating Caltrans' highway on-ramp from the residential side in Willimet Way, has a deep foundation system. The record drawings indicated the foundation consists of approximately 23 feet in length cast-in-drilled-hole (CIDH) by 30 inches in diameter piles, with 48 inches spacing from center to center of the piles. The pile configuration would provide only 18 inches of spacing for the proposed 12-inch sewer pipe.

Further field investigations with precise survey work showed that the spacing is approximately 14 inches between the piles in a favorable location for the proposed 12-inch sewer pipe within the City's easement and connection to the existing sewer manhole on the side of the highway on-ramp. The limited space along with the clearance requirements around existing utilities made the design challenging.

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<sup>1</sup> <https://hayward.legistar.com/LegislationDetail.aspx?ID=4315592&GUID=5360838C-E260-45D2-911A-33ACF814A87E>

In February 2022, after several rounds of plan submittals and addressing Caltrans' comments, staff obtained approval and an encroachment permit from Caltrans for the proposed design of the new sewer pipe.

Approximately 125 linear feet of sewer main will be installed by a trenchless pipe technique using pilot tube guided auger boring (PTGAB) to cross under obstructions that prohibit open-cut installation. PTGAB is a cost-effective trenchless method that accurately installs steel casing for underground sanitary sewers. This method combines the pinpoint accuracy of the pilot tube installation to control line and grade with the excavation process of horizontal auger boring. By using this precise method, the construction can be done with a high degree of accuracy, considering the complexity of the project and the 14 inches of opening that the proposed 12-inch sewer main would have to pass through.

The remaining 40 linear feet at the highway on-ramp will be installed by traditional open-cut method. When the installation is complete, the opened trench is backfilled, compacted, and paved to match the original pavement section.

This project also includes installation of new sewer pipe and manholes and reversing the flow to drain to the new pipe location in Willimet Way. In addition, staff will work with the property owner of 24986 Willimet Way to obtain a temporary right of entry for construction as the PTGAB setup will encroach onto their property.

## **ECONOMIC IMPACT**

The community will enjoy the benefits of the project, including the continued operability and serviceability of the sewer collection system. Furthermore, robust and reliable sewer infrastructure can help foster economic development and viability in the City.

## **FISCAL IMPACT**

The estimated costs for the Willimet Way & I-880 Sanitary Sewer Main Installation Project are as follows:

Construction Contract with Contingency	\$1,150,000
Professional Engineering Services – Consultant	\$154,300
Inspection & Testing & Permitting	\$50,000
Construction Administration – City Staff	<u>\$50,000</u>
Total	\$1,404,300

In the adopted FY22 Capital Improvement Project, the Willimet Way & I-880 Sanitary Sewer Main Installation Project, Project No. 07717, has an adopted budget of \$604,994 in Sewer Improvement Fund 612. In 2020, the City entered into a PSA with RSC Engineering, of which \$154,300 is for sewer design services and technical support during construction. Due to the rising cost of construction labor and materials, the City needs to go through the bidding process to determine the most current project budget. At that time staff would return to

Council to request whether additional funds need to be appropriated to cover the total cost of the project.

Replacing the sewer main and appurtenances are part of an effort to, pursuant to Council direction, modernize and upgrade existing infrastructure. The project will reduce operations and maintenance costs associated with servicing the undersized and structurally defective sewer mains. In addition, staff time attending to issues related to high frequency maintenance and sanitary sewer overflows will be reduced.

**STRATEGIC ROADMAP**

This agenda item supports the Strategic Roadmap, which includes Improve Infrastructure as one of the strategic priorities. Specifically, this item relates to the implementation of the following project:

Project 15: Upgrade sewer collection system by replacing 3-4 miles of sewer lines annually.

**SUSTAINABILITY FEATURES**

The repair and replacement of deteriorating sewer lines reduces the risk of sewer overflows, which can cause untreated wastewater to flow into public waterways.

**PUBLIC CONTACT**

Staff has been in contact with the two property owners on Willimet Way that would be directly affected by the project. During construction, notices will be provided to other affected residents and property owners to inform them of the nature and purpose of the work, potential impacts, work schedule and City contact for additional information.

**NEXT STEPS**

The estimated schedule for this project is summarized as follows:

Receive Bids	May 24, 2022
Award Construction Contract	June 21, 2022
Notice to Proceed	July 29, 2022
Construction Completion	December 2022

*Prepared by:* Saeed Saebi, Associate Civil Engineer

*Reviewed by:* Tay Nguyen, Senior Utilities Engineer

*Recommended by:* Alex Ameri, Director of Public Works

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written over a horizontal line.

Kelly McAdoo, City Manager