



**BUSINESS OF THE CITY COUNCIL
CITY OF MERCER ISLAND**

**AB 6191
December 6, 2022
Consent Agenda**

AGENDA BILL INFORMATION

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|----------------------------|---|---|
| TITLE: | AB 6191: Basin 40 Cured-In-Place (CIPP) Sewer Lining Project Phase 1 Bid Award | <input type="checkbox"/> Discussion Only <input checked="" type="checkbox"/> Action Needed: <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution |
| RECOMMENDED ACTION: | Award the Basin 40 Cured-In-Place (CIPP) Sewer Lining Project Phase 1 construction contract to Insta-Pipe, Inc. | |

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|-------------------------------|---|
| DEPARTMENT: | Public Works |
| STAFF: | Jason Kitner, Chief of Operations Clint Morris, Capital Division Manager George Fletcher, CIP Project Manager |
| COUNCIL LIAISON: | n/a |
| EXHIBITS: | 1. Project Location Map |
| CITY COUNCIL PRIORITY: | n/a |

| | |
|-------------------------------|--------------|
| AMOUNT OF EXPENDITURE | \$ 999,518 |
| AMOUNT BUDGETED | \$ 1,000,000 |
| APPROPRIATION REQUIRED | \$ n/a |

EXECUTIVE SUMMARY

The purpose of this agenda bill is to award a public works contract for the construction of the Basin 40 Cured-In-Place (CIPP) Sewer Lining Project Phase 1.

- This project will install over 4,000 linear feet of ultra-violet (UV) cured-in-place-pipe (CIPP) liner into existing 8-inch diameter sewer mains within Sewer Basin 40, location is shown in Exhibit 1.
- Five bids were received - the lowest bid is \$547,681.
- This work is included in the 2021-2022 Capital Budget and is funded through the Sewer Fund.
- Estimated project expenditures are within the current available budget and no appropriation is needed.
- Construction will begin in Q1 in 2023.

BACKGROUND

Construction of most of Mercer Island’s sanitary sewer system occurred in the 1950s and 1960s. The sewer collection system takes advantage of the island’s topography by relying heavily on gravity flow as it meanders from the top of the Island down to the shoreline, where it enters the City’s “Lake Line”, before being transported to King County’s treatment facility in Renton. The City’s sewer collection system is separate and distinct from the City’s stormwater collection system.

Given the sewer system’s age, groundwater seepage (infiltration) and stormwater runoff (inflow) – known collectively as infiltration and inflow (I/I) – are prevalent in the sanitary sewer. Infiltration is caused from cracks, joint failures, or other openings within the pipeline. Inflow comes from a direct connection into the sewer system, such as roof drain downspout connections into side sewers, leaky manhole covers, or unknown storm drain cross-connections. Once I/I enters the sewer, this water must be transported and treated. Reducing I/I improves the capacity of the City’s sewer system and reduces sewage treatment costs.

Sewer Basin 40 is one of the oldest portions of Mercer Island’s sewer collection system, with construction occurring in the 1950’s. Pipes in this area were inspected in 2018 using closed circuit television (CCTV) equipment and were identified as having a high presence of I/I as well as some minor structural pipe defects.

The trenchless technology of cured-in-place-pipe lining is an efficient and cost-effective way to reduce I&I from aging pipes as well as restore their structural integrity. This construction process has minimal disturbance to properties and roads, since very little excavation is required. The primary access for the lining occurs through existing sewer manholes. Refer to this [video](#) to learn more about CIPP, the process, benefits, and applications. The useful life of this method can be up to 50 years.

The project has two phases: Phase 1 lines sewer pipes west of (above) East Mercer Way and Phase 2 lines pipes east of (below) East Mercer Way, near the shoreline of Lake Washington. Dividing the project into two parts allows the easier Phase 1 work to proceed to construction while the Phase 2 work goes through the environmental permitting process due to its proximity to Lake Washington. The design cost includes Phase 1 to 100% and Phase 2 up to 90%. Completion of Phase 2’s design and construction are currently proposed 2023-2024 Capital Budget.

ISSUE/DISCUSSION

PROJECT DESCRIPTION

The Basin 40 CIPP Sewer Lining Project Phase 1 consists of installing 4,310 feet of CIPP into existing 8-inch diameter sewer mains. Access will be from the network of existing sewer manholes and one access pit over a sewer main. In addition, 59 service seal connections will be installed to seal the joint that connects the sewer mainline to side sewer laterals serving the adjacent homes. These laterals are very common locations for I/I.

BID RESULTS

Five construction bids were received and opened on October 27, 2022. The lowest bid was received from Insta-Pipe, Inc in the amount of \$547,681, approximately 25% below the engineer’s construction cost estimate. The following table shows the bid results.

| COMPANY NAME | Bid amount + 10.1% sales tax |
|---|------------------------------|
| Insta-Pipe, Inc. | \$547,681 |
| Insituform Technologies, LLC | \$604,776 |
| Iron Horse, LLC | \$611,231 |
| Michels Trenchless, Inc. | \$659,696 |
| Allied Plumbing & Pumps LLC DBA Allied Trenchless | \$741,909 |
| Engineers Estimate | \$731,449 |

The apparent low bidder, Insta-Pipe, Inc from Tumwater, Washington, has completed numerous CIPP lining projects for public agencies across the Pacific Northwest including a \$108,000 stormwater lining project for the City of Mercer Island in the summer of 2022, a \$90,000 sewer lining project for Whatcom County in 2022, and a \$1M lining project in 2020 for the City of Bellevue. Review of the Labor and Industries (L&I) website confirms Insta-Pipe is a contractor in good standing with no license violations, outstanding lawsuits, or L&I tax debt.

Based on the review of the Insta-Pipe bid submittal and reference checks, staff has determined that Insta-Pipe is the lowest responsive bidder for this project. Staff recommends awarding the project to Insta-Pipe, Inc.

PROJECT BUDGET

Adding amounts for design, construction contingency, construction support services/inspection, and project management brings the total estimated cost of the project to \$999,518. Historically, staff applies a 20% construction contingency to utility construction due to the unknowns associated with underground work. Project costs are summarized in the following table.

| BASIN 40 CIPP SEWER LINING PROJECT PHASE 1 PROJECT BUDGET | |
|--|--------------------|
| Construction Contract | \$547,681 |
| Project Design (2021-2022) | \$234,100 |
| Construction Contingency - 20% | \$109,536 |
| Construction Support Services | \$23,000 |
| Project Management/Utility Team | \$33,000 |
| Inspection Services | \$52,200 |
| Total Project Cost | \$999,518 |
| Approved Budget (2021-2022) | \$1,000,000 |
| Total Budget Allocated for Project | \$1,000,000 |
| Budget Remaining | \$482 |

The budget for this project is included in the 2021-2022 Capital Budget for \$1M from the Sewer Fund. With the low bid of \$547,681 this project can be constructed within that budget and does not need an appropriation.

NEXT STEPS

Staff recommends authorizing the City Manager to execute a contract with Insta-Pipe Inc for the construction of the Basin 40 CIPP Lining Project Phase 1 and set the total project budget at \$999,518.

The City and contractors continue to experience supply chain issues in the form of long lead times on critical items. This has been considered during the development and advertisement of this project. Staff will work closely with the contractor to manage the project timeline and work schedule.

A limited Notice to Proceed will be given to Insta-Pipe soon after award of the project, to get the long lead time items into production, which consists of the CIPP liners and resins. Notice to proceed with construction will occur once the delivery dates of these items are known. Construction is tentatively scheduled to start in Q1 of 2023 and should take 3 months to complete. Some minor impacts to residents during construction are reduced, no flushing, or no usage of water during liner installation, construction noise and traffic impacts. These small impacts will be mitigated through constant communication with the contractor, project manager and notifications prior to construction areas with the residents.

RECOMMENDED ACTION

Award the Basin 40 CIPP Lining Project Phase 1 to Insta-Pipe, Inc in the amount of \$547,681, set the total project budget at \$999,518, and authorize the City Manager to execute the construction contract.