



City of Prince Albert

RPT 2025-145

TITLE: 2025 Water Main Relining Tender

DATE: March 20, 2025

TO: City Council

PUBLIC: X

INCAMERA:

RECOMMENDATION:

1. That the Water Main Relining Tender #12/23 awarded to Fer-Pal Construction Ltd., be extended for one year at the estimated bid price of \$344,939.84 including PST; and,
2. That the Mayor and City Clerk be authorized to execute the Agreement and any other necessary documents on behalf of the City, once prepared.

EXECUTIVE SUMMARY:

In 2023, the Water Main Relining Tender #12/23 was awarded to Fer-Pal Construction Ltd. This Tender was extended one additional year in 2024. Over these two years the City completed four Watermain Relining projects within this Tender, significantly reducing watermain rehabilitation project costs and project timelines. Additionally, use of Watermain Relining technology in strategic locations has saved dozens of mature street trees that would have been removed if conventional watermain replacement was utilized. The recommendation of administration is to award the extension of the Water Main Relining Tender #12/23 to Fer-Pal Construction Ltd. for 2025 with possible extension for up to one (1) additional year.

BACKGROUND:

In a typical year the city completes approximately 10 blocks of cast iron water main replacement. This includes deteriorated pipe sections identified through break history, and locations where road rehabilitation can be combined with replacement of heavily aged cast iron watermain. In recent years, the city has typically fallen short of spending the entire allocated budget due to time restraints experienced within the construction season and the larger scope of other duties expected of the construction crew. When reviewing areas that are good candidates, the existing water main size, the material of the service connections, complexity of the location and the condition of the existing paved and concrete surfaces are utilized to determine where relining should occur. The relining process only requires access pits at the ends and mid point saving nearly all of the surface infrastructure as well as mature trees in established neighborhoods.

With the relining program, the city is able to increase the total length of rehabilitated water mains and minimize the impact to rate payers in selected locations by relining the main. In 2023, the Water Main Relining Tender was awarded to Fer-Pal Construction for an estimated bid price of \$384,515 including PST with the ability to extend for a maximum of three (3) additional years. Tender #12/23 marked the first time that watermain relining was procured by the City of Prince Albert.

In 2024, the Water Main Relining Tender was awarded to Fer-Pal Construction for an estimated bid price of \$349,259 including PST with the ability to extend for a maximum of two (2) additional years.

PROPOSED APPROACH AND RATIONALE:

In 2025 City Council approved the Utility Budget item of \$1,500,000 for the replacement of water mains. Administration has established the 2025 water main replacement program and determined three blocks that are good candidates which meet the criteria for relining.

Water main relining, similar to sewer main relining, holds potential to significantly increase the City's ability to extend the water replacement budget by addressing water mains in areas that are very difficult to replace conventionally. The cost for water main relining has decreased in recent years, with various improvements in the technology.

In 2023, the water main on Riverside Drive 2-3 Avenue was relined successfully. This has allowed administration to compare the cost of a conventional excavation and roadway construction project compared to a re-lining and mill and pave project and have found it is approximately half the cost. In addition, the relining significantly reduces the impact to the neighbourhood by shortening the length of the project and reducing the need to remove mature trees.

In the same year, a water main reline was attempted in the back alley between 23 and 24 Street East, between 4 and 5 Avenue. This area was chosen due to the location of the water main in a narrow alley, which makes conventional replacement very challenging. In this case, the project ran into some significant challenges for the second stretch of the relining. In particular, what occurred was some of residences turned on their water valves while connected to temporary above ground water service, causing a failure in the liner curing process. Once the liner failed, it was not possible to pull out and required that City crews move in to replace the water main. This project resulted in the west half of the line being conventionally excavated and replaced and the east half of the line being relined. Administration worked with the contractor throughout 2024 to improve the process to ensure that residences are completely disconnected from the water main when the relining work takes place, negating the chance of recurrence.

In 2024, utilizing lessons learned from the 2023 construction season, 19th Street West (4-6 Ave) and 23rd Street East (Central-1 Ave) were successfully relined. The watermain along each of these projects was located on the north side of the right of way near mature trees, in established neighbourhoods. The relining significantly reduced the cost of each rehabilitation project, reduced project timelines and saved dozens of mature trees.

CONSULTATIONS:

The selection process to establish the capital utility and roadway replacement programs includes initial consultation between Public Works managers to select the underground / roadway candidates utilizing predefined criteria. Within the criteria selection, it is determined if the water main replacement should be done through conventional means or through relining.

COMMUNICATION AND/OR ANNOUNCEMENT PLAN:

Upon approval of the extension of the agreement with Fer-Pal Construction Ltd., the Department will forward the agreement to the Clerk's office to be signed and sealed.

All affected homeowners will be contacted prior to the set up of temporary above ground water to inform them of the proposed work and supply contact information to address potential concerns throughout the project.

Watermain relining updates and project scope will be posted on the City Capital Projects website, allowing residents to have the most up to date information regarding each project.

BUDGET/FINANCIAL IMPLICATIONS:

The 2025 Utility Budget includes \$1,500,000 for water main replacement. The total project cost including the tender bid form from Fer-Pal Construction Ltd. including PST is \$ 344,940.

Fer-Pal Construction Ltd.	\$ 325,415
PST	\$ 19,525
Total Estimated Cost	\$ 344,940
2025 Water Main Replacement Budget	\$1,500,000

OTHER CONSIDERATIONS/IMPLICATIONS:

There are no policy, privacy, legal, safety or environmental implications.

OPTIONS TO RECOMMENDATION:

There are no options to the Recommendation.

STRATEGIC PLAN:

Water, sanitary, and storm sewer infrastructure master plans-capacity improvements and upgrades to collection networks to maintain services at or above current levels.

OFFICIAL COMMUNITY PLAN:

There are no OCP Strategies or Plans to this report.

PUBLIC NOTICE:

Public Notice pursuant to the Public Notice Bylaw No. 24 of 2015 is not required.

Written by: Evan Hastings, Capital Projects Manager

Approved by: Engineering Services Manager, Director of Public Works & City Manager