



# CASE STUDY

## Trenchless Manhole Rehabilitation

**LOCATION:** Fort Erie, Ontario

**PROJECT TYPE:** Product Installation

**PRODUCT USED:** Trenchless Manhole Lining System



### ▼ CHALLENGE:

A client in Fort Erie, Ontario needed to rehabilitate a concrete manhole chamber that had suffered corrosion and infiltration affecting its service life.

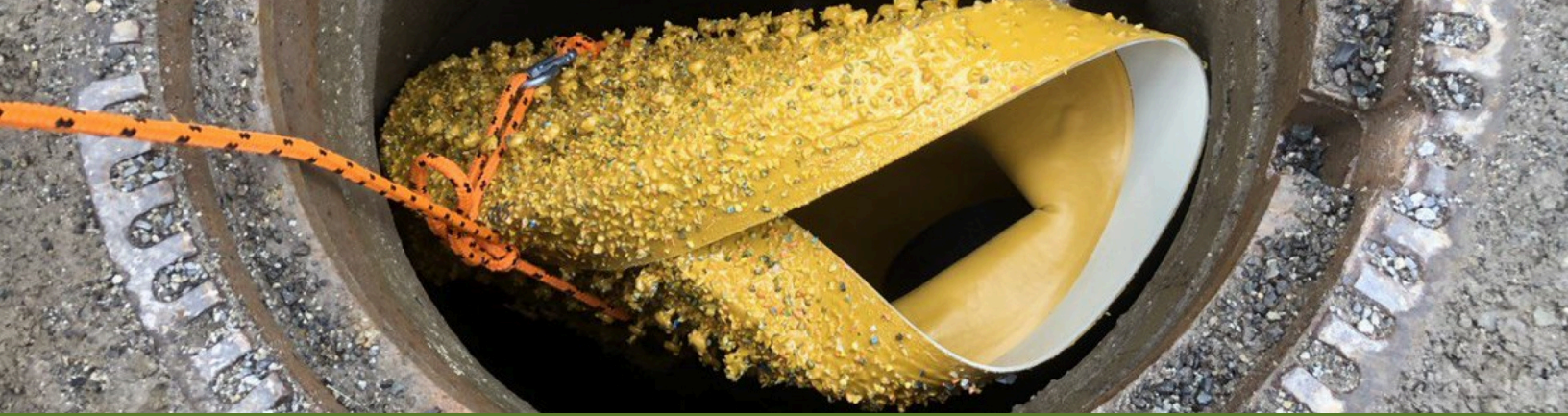
The upstream manhole was situated on one side of the river, while the manhole requiring repair was located in the wetlands on the opposite bank. The presence of overhead power lines at the site posed safety risks and logistical challenges for employing a conventional dig-and-replace approach, which would necessitate heavy equipment for excavation. Additionally, attempting a bypass across the river would present its own set of complexities and challenges.

The need for numerous dewatering pumps would cause significant noise for this quiet residential neighborhood. The need for sheet piles to stabilize the soil in the manhole would also cause significant noise disruption along with disturbances to the natural environment. Lastly, an open trench would pose public safety risks.



### ▼ CONVENTIONAL VS TITAN SOLUTION:

Given the factors outlined above, the traditional method of dig-and-replace for manhole rehabilitation proved impractical due to its high expenses, prolonged project duration, and the additional challenges posed by environmental restoration mandates and the disposal of contaminated concrete surrounding the manhole.



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### CONVENTIONAL VS TITAN SOLUTION CONT'D:

Aiming to eliminate these collective challenges and risks, the PREDL Flexliner System was proposed, offering a much more versatile and logistically simple manhole rehabilitation solution.

One of the key advantages of this system is its trenchless design, which allows for no disruption to the surrounding environment and wetlands. This means that it can be installed quickly and efficiently, without the need for extensive excavation or demolition which typically drives up project costs.

Spray liners were considered, but they were deemed unsuitable due to past failures and the imperative to establish a long-lasting solution that would minimize the risk of additional harm to the delicate environment. Other rehabilitation options known for this project were, to some extent, detrimental or disruptive to the environment.



Manhole chamber before rehabilitation



Flexliner being placed in manhole



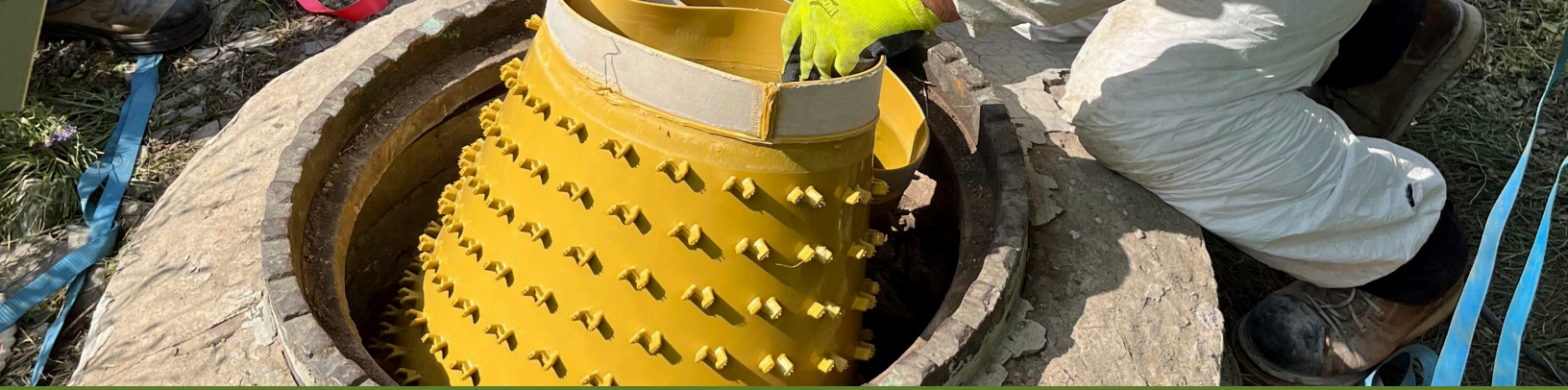
Flexliner fully installed in manhole

### ACHIEVEMENT

PREDL and Link Utility Technologies partnered with Titan Environmental to complete the manhole rehabilitation and introduce this advanced technology, the first installation of its kind in North America.

This project was executed within two days to customer satisfaction with no disruption to the surrounding neighborhood. Furthermore, the system downtime was significantly reduced by plugging the flow and pumping upstream.

The PREDL Flexliner solution quickly restored the life and hydraulics of this deteriorating manhole chamber. It was installed with speed and professionalism. The success of this project is a testament to the expertise and commitment of our team.



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### PRODUCT DESCRIPTION

The PREDL Flexliner system is a trenchless, flexible, cutting-edge solution for concrete sewer manhole rehabilitation, providing unmatched performance, reliability, and cost-effectiveness. Allowing for quick and easy installation, this system eliminates the challenges associated with conventional rehabilitation methods, making it a smart choice for any manhole rehabilitation project.

### EXPERIENCE THE TRANSFORMATION FIRSTHAND

Witness the groundbreaking installation of the PREDL Flexliner System as it revolutionizes trenchless No Dig Manhole rehabilitation in Fort Erie, Ontario.

PREDL-FLEXLINER  
Trenchless Manhole Rehab  
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Watch Installation Video