

Construction Type:

Horizontal Directional Drilling

Pipe Ramming

Project: WWPS043 Emergency Force Main Replacement

Location: Seattle, Washington

Project Scope:

- ❖ Turn Key Design and Permitting Services
- ❖ Fast Paced Emergency Project
- ❖ HDD Risk Evaluation and Mitigation
- ❖ Pipe Ramming Conductor Casing Install
- ❖ Submittal Review and RFI Response
- ❖ Specialty Construction Inspection



USACE Pile Supported Guide Pier



Pipe Ramming Installation of Conductor Casing



Project Description:

In 2017, Seattle Public Utilities discovered a severe leak in a sewer line beneath Salmon Bay near the Ballard Locks. Following extensive vac truck bypassing and investigation, a temporary bypass was established and SPU declared the project an emergency and Staheli Trenchless was selected as the Prime Consultant to develop a solution to restore flow beneath the waterway.

There are severe restrictions governing work in this area from many organizations including: US Army Corps, NMFS, USFWS, DAHP, DNR, WDFW, and other local organizations.

The project also involved a sensitive community near the construction site and the very popular biking and walking path, the Burke Gilman Trail. Further, the design had to balance coordination with an active rail line and surrounding construction projects.

The Staheli design team completed a permit level design for an HDD installation beneath the waterway in just 1 month after notice to proceed on the project!

The typical permit timelines for this area are on the order of 14 months or longer following submittal, and thanks to the innovative design approach, the permit expertise of the permitting subconsultant, ESA, and the commitment of the entire project team to high quality production on a tight timeline, all permits were received within 5 months of the start of design.

The contractor was able to break ground just 6 months after the beginning of the design, due to an innovative multi-phased design approach, beginning work on the HDD while the Tie-In design was being finalized.

STC is provided specialty construction inspection services, working with the SPU and the contractor to ensure the project comes in on time and on budget at the required alignment to satisfy the requirements of the ACOE.

Staheli Trenchless Consultants

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