

Project: **Pump Station 4 Replacement**

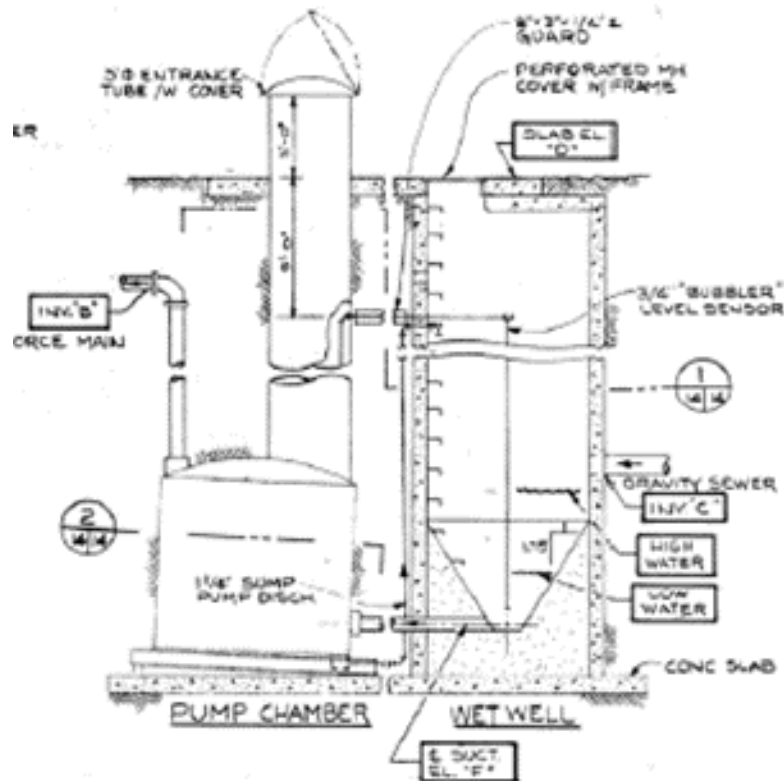
Department: Wastewater

Pump Station 4 is located at Hungry Point and receives all wastewater flow from downtown and points south. It is the second largest station in the collection system. It is a wet well/dry well configuration with three pumps that pump the flow to a high point in the gravity system about 1000 feet away from the station. The station is very deep with the dry well being about 20 feet underground. This station was built in the 1970's and upgraded in the 1980's.

The pumps are in the same condition as Pump Station 3, in that the manufacturer no longer stocks parts for the pumps. Replacement impellers are very expensive to manufacture, and it takes many months for them to be built and shipped. This is a poor situation for pumps that are extremely important to the overall wastewater collection system.

This project would have the same goals as PS3 and PS5, to replace the current setup with a submersible pump system and place all of the controls at ground level. The submersible pumps are highly efficient (saving energy costs), parts are readily available, and they are highly reliable in operation.

The estimated cost of this project is \$750,000. The depth of this station will make it a difficult project to reconfigure and replace. If this project is not completed, failures at this point will cause service interruptions and potential backflow on North Nordic Drive as well as a cascading effect of shutting down Pump Station 3 to stop flow to North Nordic, which causes service interruptions and backflow on Main Street. Overflows at PS4 will flow directly into yards, out of Nordic Drive manholes and into the Wrangell Narrows. The Borough needs to keep this station in good repair and in a highly reliable state and never let it get to a point of capacity or reliability problems.



Wet Well – Dry Well Configuration for Pump Stations 3 & 4