

Construction Method: Horizontal Directional Drilling

Project: Cabinet Gorge Hydroelectric
Development Plant Pressure
Sewer Pipeline



Location: Cabinet Gorge Dam, ID

Job Scope:

- ❖ Contractor Submittals
- ❖ Pullback and Stress Calculations
- ❖ Hydrofracture Analysis
- ❖ Engineering Support During Construction

Project Description:

Avista Utilities required a 4-inch diameter pressure sewer pipeline installation as part of a new sewage disposal system at their Cabinet Gorge Hydroelectric Development located approximately six miles east of Clark Fork, Idaho. The new pipeline was designed as a 500-foot horizontal directional drill through soil and rock beginning at an upper parking lot area and terminating through the oil room wall of the dam's power plant.

STC was hired as the HDD Contractor's Engineer to provide submittals and engineering support during construction. The HDD bore posed unique challenges that required engineering support complimentary to the contractor's equipment and capabilities. Every aspect of the HDD construction was addressed by the engineering submittals, including tight borehole tracking required to hit the small target window of the oil room wall, containment and disposal of over 3,000 gallons of drilling fluid under 175 feet of pressure head due to the entry and exit elevation difference, and poor near-surface soils requiring a temporary steel casing to advance the borehole.



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