

BATTENKILL LANE SAMPLE LINE

TOWN OF MANCHESTER, VERMONT



Sample Line Analyzer



The Battenkill Lane Sample Line project was required by the State of Vermont in 2009 in response to the Groundwater Rule Implementation. The Manchester Water Department was required to continuously sample the free chlorine residual entering the distribution system.

The initial concept provided by State officials consisted of 255 feet of 12-inch diameter pipe to be installed between the well pump discharge and the connection to the distribution system. This concept would have had a significant construction cost. DG met with State officials and the water system operator to discuss alternative, more cost effective, solutions.

DG proposed using the existing distribution system piping to achieve contact time and performed chlorine contact time calculations to show sufficient contact time prior to the first user. DG also proposed an off-site location for free chlorine sampling due to the difficulty of discharging the test water within Zone 1 of the Aquifer Protection Area.

The proposed sample point was located at the Manchester Wastewater Treatment Facility, which has an office and laboratory for the continuous Hach CL 17 chlorine analyzer sampling equipment. A 700 linear foot sample line was installed from the sample point to the analyzer.

The initial bid price for the project was just over \$56,000. Through discussions with the Village of Manchester Road Foreman, DG was able to reduce the extent of pavement replacement. The construction was completed at a cost of approximately \$30,500, almost half of the initial bid price.

KEY FEATURES:

- Coordinated with State officials to develop alternative cost effective solution.
- The new chlorine analyzer was installed in an existing building, significantly reducing construction costs.
- Reduced the construction cost by almost 50% by eliminating a significant portion of the paving requirements.