DUFRESNE GROUP
CONSULTING ENGINEERS

INFRASTRUCTURE IMPROVEMENTS HASTINGS HILL PORTION OF WESTSIDE PROJECT ST. JOHNSBURY, VERMONT

The Hastings Hill Infrastructure Project was the first of three infrastructure improvement projects funded using 70% grant funds provided under the American Recovery and Reinvestment Act (ARRA) by Rural Development of USDA. The project combined sewer separation and combined sewer overflow (CSO) elimination work as ordered by the Environmental Protection Agency with recommended water main improvements in a curb to curb infrastructure improvement project. Pavement was cold planed and recycled as part of the project.

Final design activities were enhanced using Civil 3D® Design which allowed for integrated pipe design for water, sewer and stormwater using pipe networks. In addition, the stormwater treatment design analysis was easily performed in Civil 3D® using the storm and sanitary analysis extension. Existing combined sewer was evaluated for use as storm drain using TV inspection. Although adjoining customers could not comment to separation of sanitary sewer and stormwater, separate services were installed to the edge of the right-of-way to allow for separation activities in the future by private landowners.

PROJECT COMPONENTS

- TV inspection of existing sewers to refine design.
- Allowance for lining of existing sewers using trenchless technology.
- Construction completed on December 3, 2010.
- Change orders 1.4%.
- 1,110’ of 10” sewer.
- 1,500’ of 12” water main.
- 1,015’ of 18” storm sewer.
- Road closure and detour routes reduced time and cost.
- Coordination with private landowner for installation of large retaining wall.
- Installation of new stormwater service to edge of ROW.
- Installation of water service and curb stop at edge of ROW.

54 Main Street, P.O. Box B, Windsor, VT 05089 (t) 802.674.2904 (f) 802.674.2913 (e) info@dufresnegroup.com
297 South Main Street, Barre, VT 05641 (t) 802.479.3698 (f) 802.479.2261 (e) d_g_barre@dufresnegroup.com
459 Portland Street, Suite 102, St. Johnsbury, VT 05819 (t) 802.748.8605 (f) 802.748.4512 (e) d_g_stj@dufresnegroup.com
1996 Depot Street, Manchester Center, VT 05255 (t) 802.768.8291 (f) 802.768.8315 (e) dg_manchester@dufresnegroup.com