



**Union Street Boosted Zone Service Area**

Dufresne Group (DG) developed a water system computer model for the Town of Windsor using information obtained from the Town including record drawings, water system basemaps, and recorded system pressures. The model was calibrated using fire flow tests conducted by DG. The model was field verified to accurately depict system characteristics and served as a powerful tool to determine deficiencies.

Prior to the development of the water model, it was believed that a low pressure area near the extremity of the system warranted the construction of a new water storage tank. However, using the water model Dufresne Group determined that these system deficiencies could be resolved by replacing undersized water main, which would result in lower project costs and prove more beneficial in delivering adequate fire flows to this area.

### KEY FEATURES

- Model calibration process identified a closed valve on a major distribution line.
- Extended period simulations instrumental to assessing a control valve to isolate the North zone during nighttime hours, to reactivate the North Tank.
- GIS based mapping supplements Town goals for future planning and evaluation of proposed development.
- Evaluation of elevated water storage tank adjacent to Interstate 91 as an alternative to an existing booster pump station.