

# FIRE FLOW ANALYSIS—WOODRIDGE

## Client: Village of Woodridge

The Village of Woodridge Staff identified several areas of the Village that were deficient in meeting required fire flows and were interested in identifying improvements that would increase fire flows in those areas.

### Rempe-Sharpe :

- ◆ Utilized the existing Bentley WaterCad V8i Computer Model of the Village's Water Distribution System.
- ◆ Reviewed the drawings and information provided by the Village.
- ◆ Confirmed operating parameters and set points for consideration in model runs.
- ◆ Conducted fire flow hydrant tests to calibrate model. Determine hydrant flow and pressure per ISO methods at a minimum of ten locations within the Village.
- ◆ Conducted final model runs of the existing system.
- ◆ Conducted model runs for alternative solutions and potential derivatives to achieve needed fire flows.
- ◆ Summarized data in spreadsheets.
- ◆ Developed cost estimate of each alternative. Compare increase in fire flow rate to cost of improvements. Select alternative improvements that cost-effectively meet required fire flows. Prepared spreadsheet of improvement and Engineer's opinion of construction cost.
- ◆ Drafted report, prepared map of proposed improvements, table of recommended improvements, demonstrated fire flow improvement and cost of improvement.



Model Alternatives Analysis to Correct Fire Flow Bottleneck

### REFERENCE:

Christopher Bethel  
Director of Public Work  
630.719.4767

