



FAY, SPOFFORD &
THORNDIKE
5 Burlington Woods
Burlington, MA 01803
Toll Free: 800.835.8666
T: 781.221.1000
F: 781.229.1115
www.fstinc.com

July 14, 2008

Douglas Zoning Board of Appeals
c/o William J. Cundiff, P.E.
29 Depot Street
Douglas, MA 01516

Subject: Town of Douglas, Massachusetts
Proposal for Engineering Services
Review of the North Village Subdivision Water System

Gentlemen:

Fay, Spofford & Thorndike, LLC (the Engineer) is pleased to submit the attached proposal to furnish professional engineering services to review the proposed subdivision known as "North Village" located in the northern part of the Town of Douglas, bordering the Town of Sutton.

This review will be performed to evaluate the adequacy of the proposed water system for the "North Village" subdivision, determine if the Town's water system can supply water for domestic use and for fire protection in the "North Village" subdivision, and what further improvements may be needed to meet these water demands.

The scope of engineering services to be provided are as follows:

- Review the site plan, site locus map, and other available information for the proposed "North Village" subdivision.
- Review the 1995 Waterworks Facilities Master Plan, and the 2004 "Water Supply and Fire Protection Report" for the Douglas Industrial Area near Lackey Dam Road, both developed by FST for the Town of Douglas. Review what recommendations may have already been made to improve the water system in the northern area of town.
- Review the hydraulic computer model of the Town's water distribution system, to verify the existing water mains, the existing working pressures, and the available fire protection in the area. Incorporate any improvements that were implemented since the 1995 Waterworks Facilities Master Plan.
- Determine adequacy of the proposed 8-inch ductile iron water main throughout the proposed subdivision, by using the hydraulic model to simulate Average Daily and Maximum Daily Demand scenarios, as well as fire flows.
- Review the layout of the proposed 8-inch water main and appurtenances to verify that design has been completed in accordance with the Town of Douglas Water System Rules

and Regulations. Water main profile will be evaluated for clearance between sewer main, drainage, and other utilities.

- Based on adequacy of the 8-inch water main, investigate the need for larger water mains, as well as a water storage tank and booster pumping facilities.
- Perform computer analyses of the distribution system including recommended improvements to establish system adequacy under domestic and fire flow conditions.
- Investigate required water pressure and fire protection to new homes, based on house elevation, type of construction, number of stories, water fixtures, etc.
- Verify required fire protection with the Douglas Fire Chief.
- Prepare a review letter outlining our findings and recommendations.
- If requested, attend one meeting with the Town and developer to discuss our findings and recommendations.

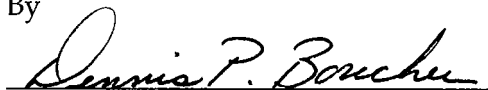
The fees to be paid by the Town of Douglas to the Engineer shall be in accordance with the attached billing rates. An initial amount of \$8,000 should be requested from the developer. The aforesaid amount will not be exceeded without prior written notification by the Engineer. If it appears that the amount of \$8,000 will be exceeded, the Town will be notified and advised of the estimated increase in fee. The Town shall be responsible for the actual labor (at prevailing billing rates) and expense costs incurred.

This Agreement shall be executed in duplicate by the parties. FST will commence work immediately upon receipt of authorization to proceed from the Town of Douglas. If you have any questions, do not hesitate to call.

Very truly yours,

Fay, Spofford & Thorndike, LLC

By



Dennis P. Boucher, P.E.
Vice President

Approved:
Town of Douglas
ZONING BOARD OF APPEALS
By

Chairman

FAY, SPOFFORD & THORNDIKE
BILLING RATES
Effective January 1, 2008

	<u>Per Hour</u>
Senior Principal.....	\$230.00
Associate	175.00
Senior Principal Engineer/Senior Principal Planner	145.00
Senior Principal Field Engineer	145.00
Senior Landscape Architect	125.00
Principal Engineer/Principal Planner/Principal Hydrogeologist.....	135.00
Principal Field Engineer.....	123.00
Senior Engineer/Senior Planner/Senior Field Engineer/Senior Technical Writer/ Senior Hydrogeologist/Senior Operations Specialist/Asset Management Specialist	125.00
Information Technology Specialist	120.00
Instrumentation/Programming Specialist.....	160.00
Engineer/Planner.....	115.00
Inspector.....	100.00
Assistant Engineer II/Assistant Planner II.....	80.00
Assistant Engineer I/Assistant Planner I.....	72.00
Landscape Architect.....	72.00
Junior Landscape Architect.....	62.00
Senior Drafting Supervisor	123.00
Senior Designer.....	103.00
Senior Graphics Designer	103.00
Graphics Designer.....	77.00
Senior Detailer/CADD Technician VI.....	89.00
Detailer/CADD Technician V.....	84.00
Senior Drafter/CADD Technician IV	74.00
Drafter III/Engineering Aide/CADD Technician III	66.00
Drafter II/CADD Technician II.....	52.00
Drafter I/CADD Technician I	50.00
Secretary (Technical)/Specification Coder/Data Entry Clerk/Word Processing Operator	66.00
Plotter (Deliverables)	12.00/plot
Specification Processing	7.00/page
Automobile Mileage	0.505/mile
Other Out-of-Pocket Expenses - Actual Cost Plus 10 Percent	