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Belmont WATER a Municipal Service

WATER MAIN REPLACEMENT PROGRAM
PROGRESS REPORT FOR FISCAL YEARS 2001 and 2002

History: The Board of Water Commissioners, after an extensive competitive process, selected Weston & Sampson Engineers, Inc. to perform a complex and comprehensive evaluation of the water distribution system which serves the Town and several other peripheral water issues. The primary focus of the study was the water distribution system and its: age, condition, chronic water main break events and persistent water quality concerns. The study concluded that: although the system was not in an imminent peril of collapse, considerable work was necessary to correct problems and deficiencies and to insure a continued supply of clean water to our customers, now and in the future. To achieve these goals, Weston & and Sampson recommended that all unlined cast iron water main be replaced with a new, larger diameter, ductile iron pipe. Unlined cast iron pipe comprises approximately 40% of the system which serves about 60% of the population of Belmont.

Considering system wide pipe age and condition, and economic factors, it was recommended that this work should be done in increments with a completion date 30 years after commencement. This plan was approved and funded by the 1995 Town Meeting. Belmont Water has given this plan a name: The 30 Year Water Main Replacement Program (with component projects titled by key street name).

Belmont Water is pleased to present this progress report covering work done in fiscal year 2001 and 2002 and work scheduled for fiscal year 2003.

Fiscal Year 2001:

"Oak Ave. Pine St. Area" Project

Status: New water main installation complete.
Extent: The area we refer to as the "Oak Ave. Pine St. Area" Project: Payson Rd.. from Common St. to Oakley Rd.., Pine St. from Payson Rd.. to Trapelo Rd.., Oak Ave. from Payson Rd.. to Trapelo Rd.. Belmont St., Cushing Ave. from Pine St. to # 72 Cushing Ave. A total of 4,970 feet of old 6 inch unlined cast iron water main was replaced with new ductile iron pipe. In addition, 10 new fire hydrants were installed replacing obsolete hydrants. Water Main Construction contract cost: $342,490 "Oak Ave. Pine St. Area" Project. Engineering, design, and construction office services costs: $41,200, Traffic safety control costs: $17,239.

Fiscal Year 2002:

"North Pleasant St." Project

Status: New water main installation complete.

Extent: This project replaced the water main on Pleasant St. from Concord Ave. to Brighton St. in anticipation of the eventual reconstruction of Pleasant St. A total of 4,875 feet of 6 inch old unlined cast iron water main was replaced with new 8 inch ductile iron pipe. In addition, 11 new fire hydrants were installed replacing obsolete hydrants. Water Main Construction contract cost: $475,216, Engineering, design, construction office services and part-time site representation services: $72,600, Traffic safety control costs: $68,039. This particular project posed several challenges including the design complexity due to the array of existing underground utilities, the actual construction process and the control of substantial traffic volumes.

FY 2003 Project:

"Fairview Ave. Unity Ave." Area Project

This project is currently in the design stage with construction to take place in the 2002 construction season. As currently configured, the project will replace unlined cast iron water main on the following streets:

Street	From	To
Fairview Ave.	Oxford Ave.	Grove St.
Grove St.	Fairview Ave.	Belmont St.
Berwick St.	Fairview Ave.	Unity Ave.
Dartmouth St.	Fairview Ave.	Unity Ave.
Marlboro St.	Fairview Ave.	Belmont St.
Unity Ave.	Oxford Ave.	Grove St.
Belmont St.	Grove St.	Exeter St.
Oxford Ave.	Belmont St.	Unity Ave.

Since the inception of the Water Main Replacement Program in 1995, approximately 12 miles of old cast iron water main has been replaced by larger diameter lined ductile iron pipe with a service life expectancy of about 125 years.