NORTH ROAD CROSS COUNTRY / DAVEY GLEN ROAD IMPROVEMENTS

PROJECT BACKGROUND
The water mains along Davey Glen Road were installed in 1961 and comprise of 600 LF of 6" cast iron pipe (CIP) and 800 LF of 8" CIP. Water is supplied to Davey Glen from Middle Road and a 6" CIP cross country (CC) water main, installed in 1962, extending down from North Road to where the 6" CIP on Davey Glen transitions to the 8" CIP. The CC water main runs beneath a 4 FT wide sidewalk along a dedicated easement. Beyond the edge of walk the terrain drops fairly steeply where at its base is an apartment complex pool and common area. Any breaks along this alignment could result in significant damage to both the hillside and the apartment complex below. This project abandons the CC water main and replaces 1,400 LF of CIP water main along Davey Glen Road with 8" DIP to correct fire flow deficiencies upon the CC abandonment. Hydraulic analysis indicates a fire flow decrease of up to 38% from approximately 2,400 gpm to 1,500 gpm with these improvements. However, combining this project with the South Road Improvements (DSA 045) brings the majority of the fire flows to above 2,000 gpm with a select few around 1,800 gpm. Distribution System Analysis No. 044.

PROPOSED IMPROVEMENTS
Abandon 400 LF of 6" CC CIP
Replace 1,400 LF of 6" & 8" CIP w/ 8" DIP
Replace 5 fire hydrant assemblies
Replace 17 service connections

PROJECT BENEFITS
The North Road Cross Country / Davey Glen Road Improvements abandons a CC water main, reduces District maintenance, and replaces an aging water main along Davey Glen Road.

EXPENDITURE SCHEDULE (2015 DOLLARS)

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FRANCIS AVENUE / COURT IMPROVEMENTS

PROJECT BACKGROUND
Francis Avenue is located between Fairway Drive and Notre Dame Avenue and has a 640 LF 4" polyvinylchloride (PVC) water main installed in 1975. Francis Court is located directly off Francis Avenue and also has 190 LF of 4" PVC installed in 1976. Fire flows along these streets are well below the recommended 1,500 gpm at 20 psi with flows as low as 925 gpm and 590 gpm on Francis Avenue and Francis Court respectively. In addition, no hydrant currently exists at the end of Francis Court. This project replaces a total 830 LF of 4" PVC with 8" ductile iron pipe (DIP) and adds an additional hydrant in the area. Hydraulic analysis indicates fire flow increases as much as 300% to over 2,350 gpm upon completion of this project. Distribution System Analysis No. 055

PROPOSED IMPROVEMENTS
Replace 630 LF of 4" PVC with 8" DIP
Install 1 new fire hydrant assembly
Replace 1 fire hydrant assembly
Replace 23 service connections

PROJECT BENEFITS
The Francis Avenue/Court Improvements replaces undersized 4" PVC water main with 8" DIP, improves fire protection with the addition of a hydrant, and improves fire flows in the area as much as 300%.

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ACADEMY AVENUE / BELBURN DRIVE IMPROVEMENTS

PROJECT BACKGROUND
Academy Avenue between Ralston Avenue and Belburn Drive has two parallel water mains: a 600 LF 4" polyvinylchloride (PVC) water main installed in the 1970 and a 6" cast iron (CIP) water main installed in 1977. Hydraulic analysis indicates the existing 4" PVC provides little hydraulic benefit to the system. It is assumed the existing services are located on the 4" PVC. In addition, Belburn Drive between Academy Avenue and Villa Avenue also has a 300 LF 4" PVC water main incapable of achieving the minimum recommended fire flow of 1,500 gpm at 20 psi with fire flows at 1,080 gpm. The two 4" PVC water mains aforementioned connect to each other at Academy Avenue. This project abandons the existing 4" PVC on Academy Avenue, relocates 22 service connections to the existing 6" CIP, and replaces 150 LF of PVC on Belburn Drive with 8" ductile iron pipe (DIP) connecting it to the existing 6" CIP on Academy Avenue. Hydraulic analysis indicates a 132% increase in fire flows on Belburn Drive to 2,500 gpm. Distribution System Analysis Nos. 057 and 058

PROPOSED IMPROVEMENTS
Abandon 600 LF of 4" PVC
Replace 300 LF of 4" PVC with 8" DIP
Replace 25 service connections (22 on Academy, 3 on Belburn)

PROJECT BENEFITS
The Academy Avenue / Belburn Drive Improvements abandons a 4" PVC water main providing little benefit to the system, replaces old and aging 4" PVC with new 8" DIP, reduces District maintenance, and improves fire flows in the area as much as 132%

**EXPENDITURE SCHEDULE (2015 DOLLARS)**

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SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM - 2015 UPDATE
ACADEMY AVENUE / BELBURN DRIVE IMPROVEMENTS
PROJECT 15-53

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