

**I. Project Segment Description**

- A. Location: This project segment is located on Penrose Avenue from Greenville Avenue to the alley south of Penrose Avenue to Matilda Street.

Location Information	
Description	Data
Water ID	697
MAPSCO	36K
DWU W/S Map	29-28
Council District	14

- B. Existing Conditions

Description	Water Main	Wastewater Main
DWU As-built	F.B. 384 p. 20 and 775 pp. 44-47	Q382 Sh. 1
Length (ft)	800	800
Diameter (in)	6"	8"
Year Built	Unknown	1986
Material	C.I.	PVC

**II. Field Observations**

- A. Easements and Right-of-Way

The water main being replaced is within the dedicated street R.O.W. No additional easements are required.

- B. Surface\Pavement

Penrose Avenue is an asphalt street with concrete curb and gutter and the alleys are both asphalt and concrete. The pavement is in fair condition within the project limit.

- C. Trees and Landscaping

There is some existing landscaping along the last 50 feet of the alley, but it should not be adversely affected because the line to be replaced is under the existing alley.

D. Adjacent Structures

There are existing storm inlets near the Greenville Avenue intersection and sanitary sewer and overhead electrical lines along the alley located within the street and alley R.O.W.

**III. Recommendation**

A. Water Main Improvement

It is recommended that the existing 6" water main be replaced with 8" PVC Class 200 water pipe.

B. Wastewater Improvement

The existing 8" wastewater main was built in 1986 with pressure rated PVC pipe. Therefore, it is recommended to be left in place.

C. Construction/Surface Improvement

Open cut method is recommended for the water line replacement due to the following factors: (1) The first 280 feet of Penrose Avenue and the connecting alley are both residential and light commercial roadways which are easily accessible with dedicated R.O.W. and flexible pavement, (2) The last 520 feet of alley is residential and apartment tenant parking and (3) The water main has numerous service connections that will require open cut to make the connection to the proposed main. The existing pavement should be sawcut and replaced with the same type of pavement removed, per City of Dallas standards.

D. Traffic Control

Penrose Avenue is a two-way, two-lane residential street with access to a convenience store and a small business and parallel parking on both sides of the roadway. Traffic will have to be limited to one lane only during construction. Greenville Avenue is a two-way, four-lane street with busy traffic. A short section of the right lane on the north bound of Greenville Avenue will need to be closed to facilitate the water line construction. The adjacent alleys are two-way one-lane with driveways for light commercial and residential access with a business parking lot and apartment parking. The alley will need to be completely shut down during the construction period.

IV. Opinion of Probable Cost

Opinion of Probable Cost				
Qty	Unit	Description	Unit Cost \$	Total \$
800	LF	8" PVC Class 200 Water Pipe	60.00	48,000.00
2	EA	8" Gate Valve	800.00	1,600.00
14	EA	Water Service Connection	600.00	8,400.00
800	LF	Trench Safety System	1.50	1,200.00
60	CY	Reinforced Concrete Pavement	165.00	9,900.00
14	TN	Asphalt Pavement	80.00	1,120.00
20	CY	Temp Paving Flex Base	30.00	600.00
40	TN	Temp Asphalt Paving	55.00	2,200.00
0.3	TN	Cast Iron Fittings	1,500.00	450.00
		<b>TOTAL</b>		<b>73,470.00</b>