

Memorandum

Public Works Department



To: City Manager
Subject: 34th Avenue Water Main Replacement; West of Railroad Tracks
Date: April 14, 2014
Number: 2014-085

The water main under 34th Avenue froze up from the existing railroad tracks to its terminus this past winter. About 900 feet of water main was frozen leaving some City residents and businesses without water. City crews cleared the water main of ice and numerous water main breaks and leaks were discovered when we attempted to bring it back into service. The main was then taken back out of service. The City has been providing the affected properties with non-potable water via tanks and temporary piping.

The main froze this past winter because it was initially installed with only three to four feet of cover under the roadway. Current city standards call for installing new water mains with at least 5 feet of cover. Frost was encountered to depths of up to 5 feet under pavement areas. In addition, the main is also a dead-ended main. The lack of sufficient burial depth was the reason is the main reason why the main froze this past year.

Due to the high costs associated with repairing the numerous water main breaks and leaks, and to prevent the main from freezing in the future, Public Works would like to install approximately 900 feet of new water main. The new main would be relocated from under the roadway into the boulevard and installed at a greater depth below anticipated frost levels.

Our initial bidding estimate to replace the water main was about \$150,000. Public Works contacted Langman Construction, one of the affected properties, to see if they were willing to partner on the installation of a new water main. Langman partnered with the City on the sanitary sewer extension and reconstruction of 34th Avenue in 2012. Langman indicated that they would be willing to assist the City on this project by performing some of the work at reduced rates. Public Works and Langman created a revised scope of services whereby Langman would install the new water main and city crews would assume the responsibility of restoring the roadway and landscaped areas.

Langman has submitted the attached proposal for replacement of the water main in accordance with City standards for a cost of \$69,980. The remaining restoration work would be done by City crews. We estimate that city crews will be expending \$8,250 in construction materials (concrete, topsoil, seeding, etc.) and about \$33,750 in labor costs for its portion of this project. Funds for this project will come from City Water Funds.

Recommendation

The Public Works Department recommends that the City Council approve the proposal from Langman Construction to replace the 34th Avenue water main from the railroad tracks to its western terminus for a cost of \$69,980 and that City Crews be directed to perform the necessary pavement patching and landscaping work for a cost of \$42,000.

Submitted by: Randall D. Tweet, Public Works Director
Michael J. Kane, P.E., City Engineer

Approved by: Thomas Thomas, City Manager

Langman Construction, Inc.

General Contractors

Phone: (309)786-8944

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220-34th Ave

Rock Island, IL 61201

April 16, 2014

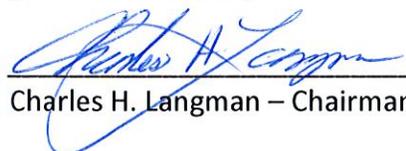
City of Rock Island
1309 Mill Street
Rock Island, IL 61201

Attn: Mr. Mike Kane, P.E. – City Engineer
Re: 34th Avenue Water Main Improvement

We hereby agree to place water main and accomplish miscellaneous work, as detailed below, at the following prices:

Pay Item	Est. Quantity	Unit	Unit Price	Total
Water Main, PVC, 6"	900	ft	\$60.00	\$54,000.00
Sleeve, Class 350,DIP, MJ, 6"	1	Each	\$180.00	180.00
Tee, Class 350, DIP, MJ, 6"x6"x6"	2	Each	\$350.00	700.00
Bend, Class 350, DIP, MJ 6" 45°	2	Each	\$200.00	400.00
Gate Valve and Box, 6"	3	Each	\$900.00	2,700.00
Fire Hydrant to be removed	2	Each	\$750.00	1,500.00
Fire Hydrant	2	Each	\$3,000.00	6,000.00
Trench Backfill	180	C.Y.	\$25.00	<u>4,500.00</u>
Total				\$69,980.00

Respectfully Submitted,
Langman Construction, Inc.

By: 
Charles H. Langman – Chairman

Approved by: _____
City of Rock Island