



# Waukesha Water Utility

SERVING WAUKESHA SINCE 1886

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## MEMORANDUM

DATE: June 6, 2017

TO: Dan Duchniak, P.E.

FROM: Chris Walter, P.E.

RE: Waukesha West Bypass (M00502) Northview to Rolling Ridge, Extra Water Main Work

On Tuesday, May 30, 2017, the City's contractor for the Waukesha West Bypass Project brought to our attention an issue with the existing 12-inch water main between Joanne Drive and Woodridge Lane. The existing main was exposed, but not damaged, during road grading operations for the project. It was discovered that our water main is considerably shallow in the area. We immediately performed further investigation work, including field survey work, hydro-excavation, and hand excavation, to determine the existing and proposed depths of the water main. It has since been determined that the existing water main has as little as 4 feet of cover (material over the pipe). Due to the grade adjustments and widening of the new roadway, the proposed cover after construction would be as little as 1.7 feet. Preferred cover over water main is usually about 6 feet of cover over the pipe, to provide protection from freezing as well as potential conflicts with other utilities. We also did further investigation work to determine the approximate north and south limits of the shallow main. If left as is, the proposed cover over the existing water main would range from 1.7 feet to 4.9 feet between Joanne Drive and Woodridge road, approximately 1,400 feet in length.

Utility staff determined it is in our best interest to replace and lower the existing water main. The work will also include re-connection 22 residential services and the replacement of 3 valves and 3 hydrants. Unfortunately, the age of the pipe in question is only from 1993 to 1999. It is solely due to lack of depth that we are recommending replacement of this water main.

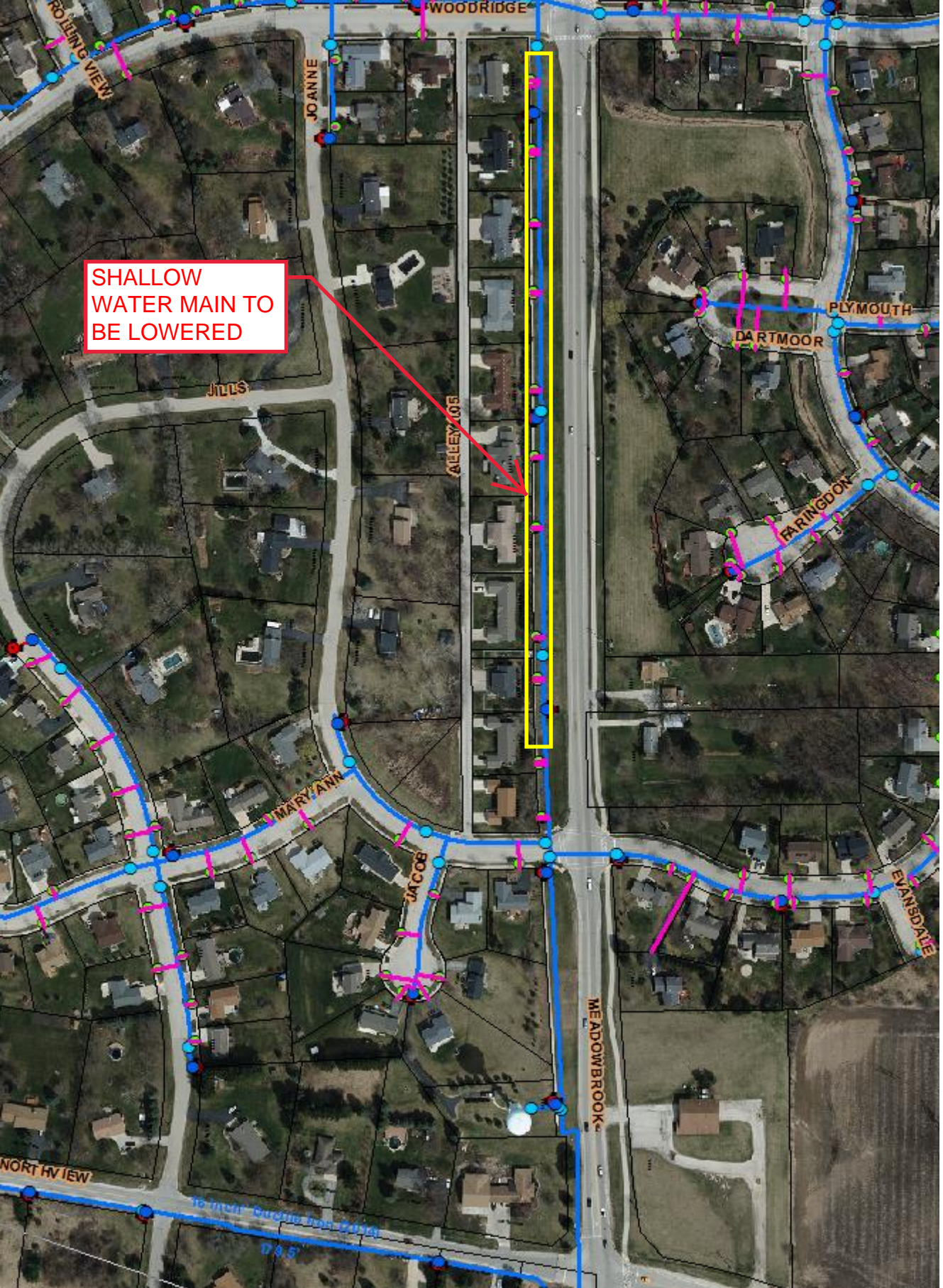
We reached out to 4 different contractors, who were able to provide us with a cost estimate to perform the work. The costs ranged from \$184,250 to \$277,824, and the lowest quote was provided by D.F. Tomasini. In addition, the City's contractor, Zignego Company Inc., has requested additional costs due to delays to their storm sewer and paving schedule, extra coordination and mobilization, as well as additional grading work to be done following the water main work.

Because the project is currently under construction, time is of the essence as we try to coordinate this work with ongoing construction activities. Thus, you are receiving this notification now, rather than as a surprise agenda item at the June 22<sup>nd</sup> commission meeting. Currently, we are working closely with City Engineering and Zignego to coordinate work schedules and minimize additional impacts to the site and their ongoing construction efforts. D.F. Tomasini can begin the work on Monday June 12<sup>th</sup>.

There is money remaining within account 3431 of the 2017 budget for this work.

If there is no objection, we plan to move forward with the replacement and will bring this item before the water commission on June 22, 2017 for ratification.

Thus, the recommended motion at the June 22, 2017 meeting will be: Move to approve and ratify the water main lowering work within the City's Waukesha West Bypass Project limits on Meadowbrook Road, in an amount not to exceed \$250,000.



SHALLOW  
WATER MAIN TO  
BE LOWERED