



Item: Change Order No. 2 and Final Payment: 30-Inch Water Main Replacement, Oddfellows Park to Broadwater Bay, O. F. 1396

From: Engineering Division

Initiated By: Public Works Department

Presented By: Jim Rearden, Public Works Director

Action Requested: Approve Change Order No. 2 and Final Pay Request

Suggested Motion:

1. Commissioner moves:

"I move the City Commission (approve/not approve) Change Order No. 2 and Final Payment for the 30-Inch Water Main Replacement – Oddfellows Park to Broadwater Bay, O. F. 1396, in the amount of \$188,169.88 to United Materials, and \$1,900.71 to the State Miscellaneous Tax Fund and authorize the City Manager to make the payments."

2. Mayor calls for a second, discussion, public comment, and calls for the vote.

Staff Recommendation: Approve Change Order No. 2 and Final Payment Request.

Background:

Original Bid Opening Date

Four bids were received and opened for this project on March 4, 2015.

Bid Amount

United Materials of Great Falls, Inc. submitted the low bid of \$1,375,325.00.

Commission Award Date

The City Commission awarded the contract to United Materials on March 17, 2015.

Change Order(s)

Change Order No. 1 was for an asphalt overlay on a portion of the existing River's Edge Trail in the amount of \$26,275.00.

Change Order No. 2, in the amount of \$68,842.95, is for additional work and materials

needed for unforeseen site conditions encountered during the 30-inch water main replacement project. The unforeseen conditions were encountered around and under the twin 72-inch storm mains located at Broadwater Bay. The issues were:

1. The existing storm mains were installed in the early 1900's and had developed holes along the length of the flow line inside the pipe, allowing both ground water and river water to flow back into the excavation.
2. The storm mains were cast in place. Because of this method of construction a number of wooden piers were used for support underneath the storm mains and were left in place. There were no as-built drawings for this construction project, making it impossible to know what was under the storm pipes.
3. There was a void underneath the storm mains which allowed water from the river to flow back into the excavation area of the water main installation. This void may have developed due to a water main break under the storm mains in July of 2003. To stop the flow of water into the excavation area additional effort was required:
 - The void allowed significant additional river water to enter the water main excavation site such that extra dewatering and pumping could not dewater the excavation.
 - A coffer dam was installed at the outfall location of the storm mains to stop the river water from entering the water main excavation. United Materials hired Tamietti Construction to install the piling needed to construct the coffer dam. This and the use of additional pumps to dewater where the 30-inch water main crossed under the storm mains was successful in stemming the inflow of water.

The City worked with United Materials, Stoke Concrete Cutting and Ajays Grout Pumping, while the coffer dam was in place, to plug the void under the storm mains. The process used was to core holes every twenty feet (in each storm main) for approximately 160 feet along the storm mains, beginning at the outfall, and pump concrete into each hole to fill the void. This filled the void and existing holes in the storm main and gave the storm mains additional support which will add service life to the storm mains. United Materials requested extra compensation for this additional work. City staff negotiated a much lower final price than initially requested by the Contractor.

Workload Impacts

City Engineering and Public Works Staff worked with United Materials to complete the project.

Purpose

The project replaced a portion of the existing 30-inch water main from Oddfellows Park to Broadwater Bay. The existing water main was located in an easement adjacent to local businesses, which in some cases were within ten (10) feet of the 30-inch water main. The new 30-inch water main has been relocated farther into the park area and away from any buildings. This 30-inch water main is the primary feed for the west side of the City and had been failing with increasing frequency causing disruptions and water restrictions to a significant number of residents and businesses, causing damage to private property, City Parks and resulting in lost revenue.

Final Payment

The final project cost is \$1,470,442.95, which is 7% over the original bid amount and \$33,689.05 less than the second lowest bid of \$1,504,132.00.

Project Work Scope

This project replaced 3,090 lineal feet of 30-inch; 80 lineal feet of 6-inch, 8-inch and 12-inch water main; two fire hydrants; 4,260 square yards of sod; 940 square yards of gravel; and 1,120 square yards of asphalt pavement.

Conclusion

United Materials has completed all work and items on the punch list. The City can accept the project and execute Final Payment. The project was completed within the contract time. The two year warranty period started at the time of substantial completion which was July 15, 2015. City Staff has been working with United Materials to resolve outstanding issues from the time of substantial completion until now.

Concurrences:

Not Applicable.

Fiscal Impact:

This project is being paid through the Water Capital Improvement fund. Change Order No. 1 was requested and paid for by River's Edge Trail Foundation.

Alternatives:

The City Commission could vote to deny approval of Change Order No. 2 and Final Pay. This could put the City at risk of litigation with United Materials.

Attachments/Exhibits:

Change Order No. 2 (Not available online; on file in City Clerk's Office.)