COUNCIL COMMUNICATION				
CITY OF <b>DES MOINES</b> OFFICE OF THE CITY MANAGER	Number:	18-634	Meeting:	December 3, 2018
	Agenda Item:	10	Roll Call:	18-1975
	Submitted by:	Steven L. Naber, P.E., City Engineer		

#### **AGENDA HEADING:**

Approving Change Order No. 3 with Jasper Construction Services, Inc. for additional work on the Court Avenue, S.W. 1st Street, and Scott Avenue Bridge Rehabilitations, in the amount of \$225,592.50.

# **SYNOPSIS:**

Recommend approval of Change Order No. 3 in an amount not to exceed \$225,592.50 with Jasper Construction Services, Inc., Cliff Rhoads, 928 N. 19th Avenue East, Newton, IA, 50208, for additional work on the Court Avenue, S.W. 1st Street, and Scott Avenue Bridge Rehabilitations.

#### FISCAL IMPACT:

Amount: \$225,592.50

Funding Source: 2018-19 CIP, Page Bridge – 5, Court Avenue Bridge over the Des Moines River,

BR054

# ADDITIONAL INFORMATION:

- On March 19, 2018, under Roll Call No. 18-0517, the City Council approved plans and specifications and designated the lowest responsible bidder as Jasper Construction Services, Inc. for \$8,419,431.30. The project provides for the rehabilitation of three (3) deficient bridges as part of the City's TIGER Grant project.
- Change Order No. 3 includes the following additional work on the Court Avenue Bridge Rehabilitation.
  - o Increase quantities for Class A and Class B deck repairs. The existing concrete deck condition was significantly worse than expected and the exact limits of repairs could only be identified once the deck surface has been milled. The deck repairs are classified as Class A or Class B repairs; with Class A being concrete repairs less than half the deck thickness and Class B being concrete repairs greater than half of the deck thickness up to full-depth repairs. The repair area locations were identified and confirmed by the Engineering Department with the repair limits and depths confirmed by the City Survey Department. Many of the Class B repair areas ended up being full-depth repairs as illustrated by the photo below. In negotiation with the Contractor, due

to the large percentage increase in the Class B repair areas, City staff negotiated a lower unit price with the Contractor for any quantity of Class B repairs beyond the original plan quantity amount, which represents an approximate 19% savings over the original unit price.

With the increase in deck repair areas, large areas of existing reinforcing steel were exposed with most of the top mat experiencing significant corrosion. Some reinforcing had mild corrosion and some reinforcing was completely corroded away. As a result, new supplemental reinforcing steel needed to be added to restore the structural capacity of the bridge deck. The bars are field cut to fit each repair location and tied in-place to the compromised reinforcing steel. In addition, additional embedded galvanic anodes were installed to help protect the reinforcing steel. These embedded anodes are comprised of a "sacrificial" zinc core material that will corrode before the steel reinforcing, thus extending the life and durability of the concrete repairs.



Full-depth (Class B) and shallow-depth (Class A) repairs, west span (typical).

## PREVIOUS COUNCIL ACTION(S):

Date: July 9, 2018

Roll Call Number: 18-1141

<u>Action</u>: <u>Approving</u> Change Order No. 1 with Jasper Construction Services Inc. for additional work on the Court Avenue, SW 1<sup>st</sup> Street, and Scott Avenue Bridge Rehabilitations, \$227,777.22. (<u>Council Communication No. 18-359</u>) Moved by Gatto to adopt. Motion Carried 7-0.

# **BOARD/COMMISSION ACTION(S): NONE**

## ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

Unanticipated conditions found during rehabilitation of the three (3) older bridges may require additional work resulting in the need for a subsequent change order. Specifically, for the Court Avenue Bridge, the remaining deck overlay and deck repairs will be completed in 2019. It is expected that similar conditions will be uncovered, which will necessitate an additional change order to cover the needed repairs encountered at that time. Based upon conditions encountered, this could result in an estimated additional \$100,000-\$150,000 in deck repairs.

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