CHANGE ORDER 2

Sheet No. 1 of 4

To: Rosetta Construction, LLC
P.O. Box 14024
Springfield, MO 65814

Project: **Joplin Creek Interceptor Replacement**

You are hereby directed to make the following changes from the contract.

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(A) EST. LINE NO.	(B) CONTRACT ITEM NO.	(C) ITEM DESCRIPTION	(D) UNITS PREVIOUSLY PROVIDED FOR	(E) UNITS TO BE CONSTRUCTED	(F) UNITS OVERRUN, UNDERRUN, CONTINGENT	(G) CONTRACT OR AGREED UNIT PRICE	(H) AMOUNT OF OVERRUN OR PLUS CONTINGENT	(I) AMOUNT OF UNDERRUN OR MINUS CONTINGENT
46*	-	72" Diameter Doghouse Manhole	0 EA	4 EA	4 EA	$23,000.00	$92,000.00	-
						TOTALS	$181,500.00	$(43,000.00)

*Denotes new contract item

Original Contract Completion Date: 1 October 2022
Revised Contract Completion Date (Change Order No. 2): 1 April 2023

3. Cost Justification for items not bid in contract:

Item 43 – Additional Cutting and Welding to Remove Mid-Span Joint from Aerial Crossing: The lump sum price provided for the additional 48" diameter steel pipe cuts and welds can be justified on an hourly work and materials cost basis. It is estimated that each cut and beveling took two laborers approximately 5 hours for a total of 20 man-hours. Each weld took approximately 5 hours for a total of 10 man-hours. An operator with a machine was used for approximately 4 hours to move the pipe. Utilizing unit prices from the recently bid Rehabilitation Toolbox for hourly labor and machine costs ($155/HR for Laborer with Hand Tools and $255/HR for Operator and Machine) yields the following: 30 HR x $155/HR + 4 HR x $255/HR = $4,230. Welding rods, cutting blades, grinding wheels, and additional steel pipe coating application cost approximately $1,500. This total of $7,170 is within a reasonable range of the lump sum price of $7,500.

Item 44 – Removal of Existing Junction Box #2: In order to remove the junction box, it was necessary to install approximately 20' of 42" diameter closed profile PVC pipe and make two connections to the existing 42" diameter concrete pipe on the south/west parallel line. An additional 10 LF of 48" diameter pipe was required to span the width of the box on the north/east parallel line. The as-bid unit price for similar size and type pipe and trenching (48" diameter) is $416/LF x 30 LF = $12,480. The as-bid price for the demolition and removal of Junction Box #3 is $5,250, which can be applied to the demolition and removal of Junction Box #2. However, Junction Box #2 had to be cut up and removed in pieces to maintain flow. First, the top had to be removed. Then, the south half of the box was cut away and removed. The labor for this work was approximately $10,000. Associated with this work was diverting flow through the box which required building a temporary diversion wall in the box. At this point the south line could be cut in two places and tied together with new PVC. This work cost approximately $15,000. At the time the decision was made to remove the junction box the new precast top (Bid Item No. 25) had already been made and was delivered to the site shortly thereafter. While some of this cost is offset by the removal of Bid Item No. 25 from the contract, there is a cost of approximately $10,000 associated with the fabrication, delivery, and removal/disposal of this precast box top that the Contractor has incurred. Two 48" connection boots are also non-returnable at a cost of $1,746/EA. This total comes to $56,222 which is within 7% of the lump sum price of $60,000 and is considered reasonable.

Item 45 – 60" Diameter Doghouse Manhole: The $22,000 unit price provided for the installation of a 60" diameter doghouse manhole (6.5' deep) is generally comparable to Rosetta's as-bid lump sum price of $20,000 ($23,296 average price for 3 bidders) for Bid Item No. 21 which is a 72" diameter, approximately 10' deep manhole replacement. The slight price increase can be attributed to materials, delivery, and labor cost increases in the last year since this project was bid. When compared in price to other similar size manhole installations, consideration is given to the additional cost incurred by exposing this manhole. Typically, the price for a manhole is lower since a lot of the digging cost is included in the pipe trenching leading up to the manhole. Considering the man and machine hours involved in carefully exposing and removing the old manhole, replacing any damaged concrete pipe, and setting the new manhole, yields an approximate cost of $5,000. An additional cost factor is re-mobilization of crews and equipment as the original contract will be complete several months prior to the installation of the 60" diameter doghouse manhole. It is estimated the cost of re-mobilization is $5,000. One final factor is bypassing flows while installing this manhole. This 60" diameter manhole is located on the Crossroads Parallel Interceptor, east of

the Soccer Field Junction Box and the rest of the Joplin Creek project. The nearest pipe interconnection is approximately ¼ of a mile to the east, across railroad tracks, west of Main Street. Since this is a more difficult to access setup than the one currently being used to bypass flows, additional cost will be incurred by the Contractor. Accounting for all these factors, the $22,000 unit price is considered reasonable.

Item 46 – 72" Diameter Doghouse Manhole: The $23,000 unit price provided for the installation of a 72" diameter doghouse manhole (average 8.8' deep) is generally comparable to the as-bid lump sum price of $20,000 ($23,296 average price for 3 bidders) for Bid Item No. 21 which is a 72" diameter, approximately 10' deep manhole replacement. The slight price increase can be attributed to materials, delivery, and labor cost increases in the last year since this project was bid. When compared in price to other similar size manhole installations, consideration is given to the additional cost incurred by exposing these manholes. Typically, the price for a manhole is lower since a lot of the digging cost is included in the pipe trenching leading up to the manhole. Considering the man and machine hours involved in carefully exposing and removing the old manhole, replacing any damaged concrete pipe, and setting the new manhole, yields an approximate cost of $5,000. Accounting for all these factors, the $23,000 unit price is considered reasonable.

4. Other City Departments Consulted:

_____ Date_____
Name

_____
Department / Title

_____ Date_____
Name

_____
Department / Title

_____ Date_____
Name

_____
Department / Title

5. Settlement for Cost of the above Change to be made at Contract Unit Price Except as Noted:

1. CONTRACT AMOUNT	-	$2,011,734.60	The Terms of Settlement outlined above are hereby agreed to.
2. OVERRUN THIS ORDER	$138,500.00	-	**Rosetta Construction, LLC**
3. OVERRUN PREVIOUS	$(16,132.50)	-	
4. TOTAL OVERRUN TO DATE	$122,367.50	$122,367.50	By: _____
5. REVISED CONTRACT AMOUNT		**$2,134,102.10**	Date: _____
PERCENTAGE OF ORIGINAL CONTRACT	-	6.1%	

_____ _____
CONSULTING ENGINEER DATE

FOR CITY OF JOPLIN USE:

Emergency Provisions of Change Order Policy Used YES □ NO □ Date approved _____

Reason for Emergency and description of work approved (Check all that apply):

□ Protection of Public Health and Safety _____

□ Avoid Contractor and Project Delays _____

□ Impact to Other Improvement Projects _____

□ Other _____

_____ _____ _____ _____
APPROVAL PROJECT MANAGER DATE APPROVAL SUPERVISOR / ENGINEERING REVIEWER DATE

_____ _____
APPROVAL OF DEPARTMENT HEAD DATE

WHEN REQUIRED BY THE CITY'S CHANGE ORDER POLICY, THE FOLLOWING SIGNATURES ARE MANDATORY:

_____ _____ _____ _____
* DIRECTOR OF FINANCE DATE * CITY MANAGER DATE