

MEMORANDUM

TO: Programs, Projects and Operations Subcommittee

FROM: Martin Cleveland, Construction Engineer

SUBJECT: Amendment No. 2 to Professional Services Contract with FYRA Engineering for Big Papio Levee Culverts Project

DATE: January 29, 2016

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On March 12, 2015, the Board of Directors approved a contract with FYRA Engineering for the referenced project for \$208,773. This was followed by Contract Amendment No. 1 for \$15,095 on July 9, 2015, bringing the total maximum not-to-exceed amount of the amended contract to \$223,868. The Contract Amendment No. 1 added an additional levee culvert (P-R21) to the original contract culvert design services for twelve culverts. Culvert P-R21 is owned by City of Bellevue and they will be reimbursing the District for the professional services and rehabilitation construction costs of this culvert.

FYRA Engineering's cover letter, scope and cost estimate for Contract Amendment No. 2 is attached. Contract Amendment No. 2 is for additional services for project management and construction phases of the project. The construction project was bid in December 2015 and the two bids ranging from \$1,994,990.68 to 2,639,326.42 were rejected at the January 2016 Board meeting due to the bids being significantly higher than the Engineer's Opinion of Probable Construction Cost of \$1,144,822.35. It is thought that rebidding of the project could result in significantly lower bids. The rebidding of the project in February will require additional professional services estimated at a cost of \$5,190 for general project management activities.

During the bid evaluation process in January 2016, it was concluded that an extension of the project construction working period from 50 to 95 working days could help lead to lower bids. The original professional engineering contract scope assumed a construction period of 10 weeks (or 50 working days). As a result of adding 45 working days (9 weeks) to the construction project work period plus additional pre-bid meeting preparation, bid meeting attendance and preparation of bid results increases the construction phase services by an estimated cost of \$33,995. The total Contract Amendment No. 2 estimated cost is therefore \$39,185 for additional project management and construction phase services.

**Management recommends that the Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute Contract Amendment No. 2 to the Professional Services Contract with FYRA Engineering, Inc. for the Big Papio Levee Culverts Project in the amount of \$39,185, making the maximum not to exceed contract amount \$263,053, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.**



26 January 2016

Mr. Martin Cleveland, PE  
8901 S. 154th Street  
Omaha, NE 68138-3621

Re: Big Papio Levee Culverts Project Update

Dear Martin,

Please find our current January month ending invoice #001-087 for the Big Papio Levee Culverts Project. This invoice reflects all project management, preliminary design, permitting, final design, and bidding work (which is included in the construction phase of the invoice) that has been completed to date on this project.

The preliminary design, permitting, and final design phases of this project are complete. The total contract amount for these 3 phases was \$138,882. At this time, the total invoiced amount for these 3 phases is \$138,447.13, which is below the contract amount. Work outside of the original scope of services, which was completed in these phases, included preparation of a formal Technical Memorandum on the Fricke Farm culverts (BP-R22 and BP-R24) which was provided to the Fricke Farm owner and the USACE Omaha District. This additional work was completed within the original contract amount for these 3 phases.

This project went out for bid in December 2015 and the received bids were significantly higher than the Engineer's Opinion of Probable Construction Cost. On 14 January 2016, the P-MRNRD Board of Directors approved management's recommendation to reject the bids, to rebid this project in February, and to extend the working days from 50 to 95. This rebid and increase in working days will likely result in additional efforts by FYRA Engineering staff on both the project management and construction phases of this project. The projected additional effort includes the following:

1. Project management increases will likely occur due to the extended engineering services contract time from monitoring the contract and preparation of invoices. It is anticipated that these additional efforts could be \$5,190 above the contracted amount.
2. The construction phase increases will likely occur due to the additional project bid (coordination with contractors, pre-bid meeting preparation and attendance, bid meeting attendance, and preparation of bid results) and an increase in construction observation services due to the extension of the working days. It is anticipated that these additional efforts could be \$33,995 above the contracted amount.

You are involved in all correspondence related to the project, so you will be aware if any additional efforts arise. Enclosed with this letter is an exhibit for the contract amendment (Amendment 2) outlining these additional services and fees including Exhibit K-2, Attachment 1 to Exhibit K-2, and Attachment 2 to Exhibit K-2.

Sincerely,

A handwritten signature in black ink that reads "Lindy Rogers". The signature is written in a cursive, flowing style.

Lindy Rogers, PE

This is **EXHIBIT K-2**, consisting of 5 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated April 22, 2015.

**AMENDMENT 2 TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: April 22, 2015
- b. Owner: Papio-Missouri River Natural Resources District
- c. Engineer: FYRA Engineering, LLC
- d. Project: Big Papio Culvert Repairs

2. Nature of Amendment [Check those that are applicable and delete those that are inapplicable.]

- Additional Services to be performed by Engineer
- Modifications to Services of Engineer
- Modifications to Responsibilities of Owner
- Modifications to Payment to Engineer
- Modifications to Time(s) for rendering Services
- Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Attachment 1, "Additional Scope and Task Descriptions"  
Attachment 2, "Additional Tasks and Fees"

4. Agreement Summary

a. Original agreement amount:	\$ <u>208,773.00</u>
b. Net change for prior amendments:	\$ <u>15,095.00</u>
c. This amendment amount:	\$ <u>39,185.00</u>
d. Adjusted agreement amount:	\$ <u>263,053.00</u>

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is \_\_\_\_\_.

OWNER:

ENGINEER:

By: John Winkler

By: Michael K. Sotak, P.E.

Title: General Manager

Title: Owner/Principal Engineer

Date Signed: \_\_\_\_\_

Date Signed: \_\_\_\_\_

This is **Attachment 1**, consisting of 1 pages, to  
Amendment No. 2, dated \_\_\_\_\_, \_\_\_\_\_.

## **Modifications**

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[Include the following paragraphs that are appropriate and delete those not applicable to this amendment. Refer to paragraph numbers used in the Agreement or a previous amendment for clarity with respect to the modifications to be made. Use paragraph numbers in this document for ease of reference herein and in future correspondence or amendments.]

1. Engineer shall perform the following Additional Services:
  
2. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:
  
3. The responsibilities of Owner are modified as follows:
  
4. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:
  
5. The schedule for rendering services is modified as follows:
  
6. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

## **Attachment 1 to Exhibit K-2**

### **1 PROJECT MANAGEMENT**

#### **1.1 Client Meeting**

Preparation for and attendance of one (1) meeting, exclusive of other meetings specified in this Attachment 1 to Exhibit K-2, with the Papio-Missouri River Natural Resources District (P-MRNRD) for project review during the construction phase. Meeting minutes and project task lists will be prepared by FYRA and distributed after each meeting for approval by the P-MRNRD.

#### **1.2 Monthly Invoicing & Project/Schedule Updates**

Preparation of monthly project invoices for extended contract length. Invoices will be sent to the P-MRNRD prior to the first of the month and will include task item and invoice breakouts for work done specifically on the City of Omaha culverts. Updates will include budget and schedule tracking.

#### **1.6 Project Team QA/QC**

Internal review of additional construction reports required for extended contract length and modifications to the contract documents. All reviews will be completed by a professional engineer registered in the State of Nebraska.

### **5 CONSTRUCTION**

#### **5.1 Pre-Bid Coordination and Meeting**

Preparation for and attendance of one (1) pre-bid meeting with interested contractors. Meeting will occur at one of the representative project sites and include review of the plans and addressing any inquiries about the project. FYRA will prepare meeting minutes to be distributed to all interested parties.

#### **5.2 Project Bidding**

Preparation for and attendance of the bid opening, collection of bids, verification of bids and bonds and recommendation of contractor to the P-MRNRD. Upon award of the project by the P-MRNRD board, a Notice of Award will be prepared by FYRA Engineering and followed by a Notice to Proceed.

#### **5.4 Construction Observation**

On-site construction observation for an additional forty-five (45) days due to the additional forty-five (45) working

days added to the construction phase. Construction observation is included for all times that contractor is doing major work items and is anticipated for 85% of the construction items and may include shop drawing reviews.

### **5.5 Construction Reporting**

Preparation, review and distribution of additional construction reports required for extended contract length, which documents the work performed and include photos, photo descriptions, videos (if applicable) and items of interest. These reports will be sent to the P-MRNRD, the City of Omaha for BP-L20A&B, BP-L21 and BP-R41, and the City of Bellevue for P-R21.



Total Contract Fees  
 Amendment 2 Proposed Changes  
 Big Papio Levee Culverts Project  
 Papio-Missouri River Natural Resources District  
 Sarpy and Douglas County, NE  
 FYRA Project No. 001-14-04

Attachment 2 to Exhibit K-2  
 Additional Tasks and Fees

Tasks	FYRA Engineering								LakeTech	E&A Consulting Group					Expenses	Total
	Pr. Manager	Sr. Engineer	Pt. Engineer	Pt. Engineer	ET	Dr.	Intern	Classical	Science	Struct.	RPLS	CADD	Survey	Title		
	Pogers	Solak	Gibgalinas	M. Crowley	Jones	Dayton	Kelley	Brinkley	Muhr	Piccinetti	Headley	Tech	Chew	Scarsches		
<b>Project Management</b>																
Client Meeting (4 meetings)	11	7														\$120
Client Meeting (1 meetings)**	4	3														\$20
Monthly Invoicing & Project/Schedule Update (8 months)* <sup>1</sup>	11							21								
Monthly Invoicing & Project/Schedule Update (3 months)**	6	3						9								
USACE Levee Safety Coordination Meetings (2 meetings)	7	5														\$40
USACE Regulatory Coordination Meetings (2 meetings)	5							18								\$40
City of Omaha Coordination Meeting (1 meeting)	2	2														\$20
City of Bellevue Coordination Meeting (1 meeting)	2	1														
Landowner Coordination and Review (Up to 5 meetings)	10		3													\$20
Project Team QA/QC		20	30													
Project Team QA/QC	4	5	6													
<b>Amendment 2 Project Management Task Total</b>	<b>\$1,890</b>	<b>\$2,035</b>	<b>\$660</b>					<b>\$585</b>							<b>\$20</b>	<b>\$5,190</b>
<b>Current Project Management Task Total</b>	<b>\$6,480</b>	<b>\$7,030</b>	<b>\$3,630</b>					<b>\$1,365</b>	<b>\$1,620</b>						<b>\$240</b>	<b>\$20,385</b>
<b>Project Management Task Total Including Amendment 2</b>	<b>\$8,370</b>	<b>\$9,065</b>	<b>\$4,290</b>					<b>\$1,950</b>	<b>\$1,620</b>						<b>\$260</b>	<b>\$25,555</b>
<b>Preliminary Design</b>																
Penetration, Utilities, Site Investigation and Survey**	14				18		5			6	18	36				\$400
Alternatives Constructability Review (For spliced culverts)	16	6														
Boundary Survey (Includes 4 culvert locations)	2															\$5,500
Fricke Farm H&H Analysis	6		30		12	8				12	32	28				
Hydraulic Analysis (10 culvert locations)	21		4		44	24	4									\$50
Preliminary Plan and Profiles	20	5			35	30	10									\$85
Preliminary Cost Estimate	9	4			6	4										
<b>Preliminary Design Task Total</b>	<b>\$11,745</b>	<b>\$2,775</b>	<b>\$3,740</b>		<b>\$9,350</b>	<b>\$5,610</b>	<b>\$1,235</b>			<b>\$2,754</b>	<b>\$4,400</b>	<b>\$8,344</b>	<b>\$5,500</b>	<b>\$535</b>		<b>\$56,988</b>
<b>Permitting</b>																
Wetland Delineation/Ordinary High Water Mark Field Work and Reporting						8				101						
408 Permitting/PL 84-99 Approvals	43	6								4						
Regulatory Permitting (Up to 11 404 permit applications)	9									148						
City of Omaha/NPDES/Stormwater Permits	7	2			22											
<b>Permitting Task Total</b>	<b>\$7,965</b>	<b>\$1,480</b>			<b>\$1,870</b>	<b>\$680</b>				<b>\$22,410</b>	<b>\$632</b>					<b>\$35,037</b>
<b>Final Design</b>																
Final Hydraulic Analysis	16	2	10		22											
Final Opinion of Probable Costs	5	2			11	10										
Structural Analysis										72		20				
Construction Documents and Specifications	57	17	5		80	20	4	15								\$400
Easement Legal Descriptions	2										12	20				
<b>Final Design Task Total</b>	<b>\$10,800</b>	<b>\$3,885</b>	<b>\$1,650</b>		<b>\$9,605</b>	<b>\$2,550</b>	<b>\$260</b>	<b>\$975</b>		<b>\$11,376</b>	<b>\$1,836</b>	<b>\$3,520</b>		<b>\$400</b>		<b>\$46,857</b>
<b>Construction</b>																
Pre-Bid Coordination and Meeting	3	3		3												
2nd Pre-Bid Coordination and Meeting	3	3			3											
Project Bidding	3			3												
2nd Project Bidding	2	1			3											
Pre-Construction Meeting	3	2		6												
Construction Observation <sup>3</sup>	26	2		352	30					12						\$450
Construction Observation <sup>4</sup>	2	6			340											\$400
Construction Reporting <sup>5</sup>	10			34												
Construction Reporting <sup>6</sup>	4				10											
Final Walkthrough	3	3			4											
As-Built Data					10	10										\$900
As-Built Drawings	2			6	10		2									
O&M Modifications and Submittal	29	4		12	26											
<b>Amendment 2 Construction Task Total</b>	<b>\$1,485</b>	<b>\$1,850</b>			<b>\$30,260</b>										<b>\$400</b>	<b>\$33,995</b>
<b>Current Construction Task Total</b>	<b>\$10,665</b>	<b>\$2,590</b>		<b>\$40,850</b>	<b>\$6,460</b>	<b>\$680</b>	<b>\$130</b>			<b>\$1,896</b>					<b>\$1,350</b>	<b>\$64,621</b>
<b>Construction Task Total including Amendment 2</b>	<b>\$12,150</b>	<b>\$4,440</b>		<b>\$40,850</b>	<b>\$16,720</b>	<b>\$680</b>	<b>\$130</b>			<b>\$1,896</b>					<b>\$1,750</b>	<b>\$69,638</b>
<b>Amendment 2 Subtotal Hours</b>	<b>25</b>	<b>21</b>	<b>6</b>		<b>156</b>		<b>9</b>									<b>\$420</b>
<b>Amendment 2 Subtotal Costs</b>	<b>\$3,375</b>	<b>\$3,885</b>	<b>\$660</b>		<b>\$30,260</b>			<b>\$585</b>								<b>\$420</b>
<b>Current Subtotal Hours</b>	<b>353</b>	<b>96</b>	<b>82</b>	<b>430</b>	<b>321</b>	<b>112</b>	<b>25</b>	<b>36</b>	<b>267</b>	<b>88</b>	<b>30</b>	<b>90</b>	<b>64</b>	<b>\$5,500</b>		<b>\$2,525</b>
<b>Current Subtotal Costs</b>	<b>\$47,655</b>	<b>\$17,760</b>	<b>\$9,020</b>	<b>\$40,850</b>	<b>\$27,285</b>	<b>\$9,520</b>	<b>\$1,625</b>	<b>\$2,340</b>	<b>\$24,030</b>	<b>\$13,904</b>	<b>\$4,590</b>	<b>\$7,920</b>	<b>\$9,344</b>	<b>\$5,500</b>		<b>\$229,868</b>
<b>Subtotal Hours including Amendment 2</b>	<b>378</b>	<b>117</b>	<b>88</b>	<b>430</b>	<b>677</b>	<b>112</b>	<b>25</b>	<b>45</b>	<b>267</b>	<b>88</b>	<b>30</b>	<b>90</b>	<b>64</b>	<b>\$5,000.00</b>		<b>2,945.00</b>
<b>Subtotal Costs including Amendment 2</b>	<b>\$51,030</b>	<b>\$21,645</b>	<b>\$9,680</b>	<b>\$40,850</b>	<b>\$57,545</b>	<b>\$9,520</b>	<b>\$1,625</b>	<b>\$2,925</b>	<b>\$24,030</b>	<b>\$13,904</b>	<b>\$4,590</b>	<b>\$7,920</b>	<b>\$9,344</b>	<b>\$5,000.00</b>		<b>\$263,053</b>

<sup>1</sup> Assumes that project bidding occurs in February 2016 and that client updates will occur at the end  
<sup>2</sup> Assumes an additional 9 weeks added to the construction schedule  
<sup>3</sup> Assumes a 10 week construction schedule  
<sup>4</sup> Site survey is focused on Fricke Farm culvert locations