

Agenda Item: 8.

MEMORANDUM

TO: Programs, Projects & Operations Subcommittee

FROM: Lori Ann Laster, Stormwater Management Engineer

SUBJECT: Review and Recommendation on Amendment 5 to Professional Services Contract with HDR for Papio Dam Site 15A

DATE: November 4, 2015 - REVISED November 9, 2015

---

In September 2015, the Board approved an amendment to the existing Interlocal Agreement with the City of Omaha for Papio Dam Site 15A (DS15A). This amendment allowed the City to request additional features be designed and/or constructed along with the project as originally planned.

The City of Omaha has requested the District consider constructing additional and larger sewer line on the east side of the DS15A project. The original project allowed for construction of a line through the dam embankment to ensure the dam was not disturbed. However, the City of Omaha opened the area surrounding DS15A to the Present Development Zone (PDZ) in August 2015. Installation of the additional sewer line will require additional design, permitting, and construction observation services.

In addition to the additional sewer work, the City is requesting that the District coordinate with the neighboring development to build HWS Cleveland Boulevard to its ultimate design rather than the access road designed for the original project. In addition to HWS Cleveland Boulevard, the neighboring development is proposing a publically-accessible pier in the lake. This pier would require additional analysis by HDR to ensure that it will not impact the operation and maintenance of the dam and reservoir.

HDR has provided an estimate of the time required to complete the additional services required as a result of the changes requested by the City. Their hourly not-to-exceed estimate is \$94,797. This cost also includes some additional material quality assurance testing of riprap to be placed on-site and proper abandonment of a well found during construction activities. Of the total amendment amount, \$84,166 would be paid by the City of Omaha. A summary of the proposed costs is shown below.

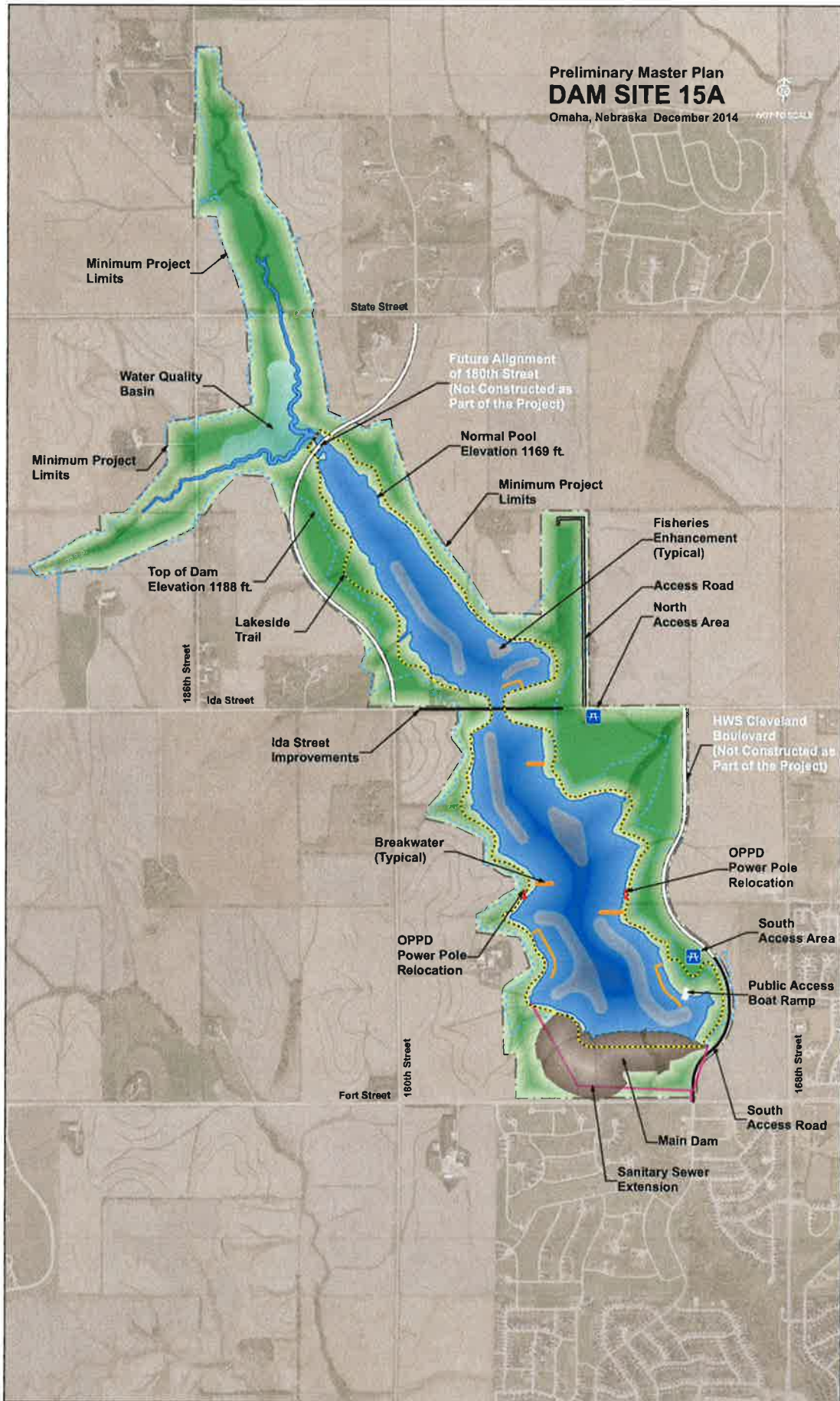
<b>TASK</b>	<b>COST</b>	<b>RESPONSIBLE PARTY</b>
Sanitary Sewer Extension	\$60,756	City of Omaha
HWS Cleveland Blvd.	\$16,402	City of Omaha
Lakeview Pointe Development	\$7,008	City of Omaha
HWS Cleveland Blvd Coordination/Additional QA Testing/Well Abandonment	\$10,631	P-MRNRD

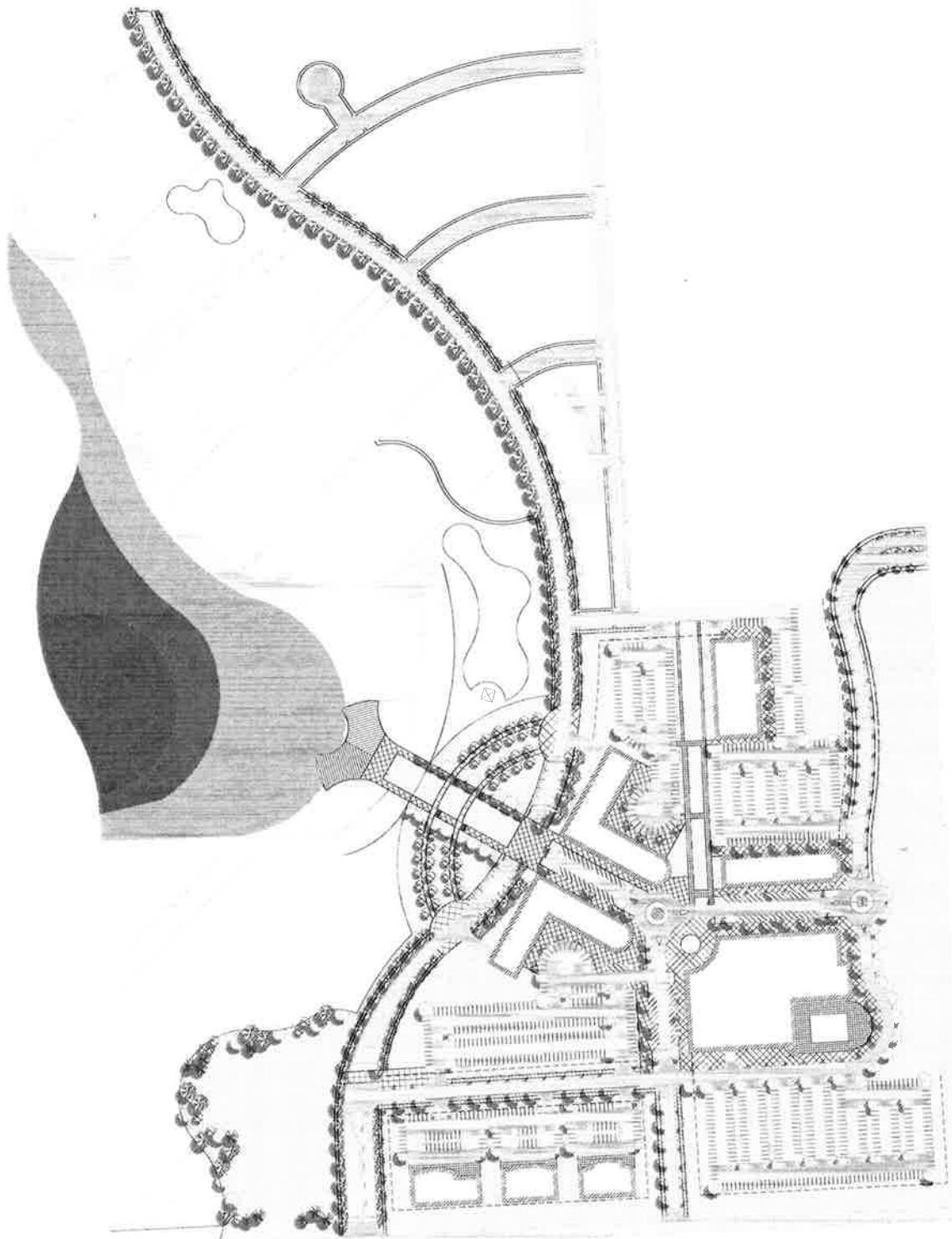
<b>Total</b>	<b>\$94,797</b>	
--------------	-----------------	--

**Management recommends that the Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute for and on behalf of the District contract Amendment 5 to HDR’s Professional Service Contract for the Papio Dam Site 15A project in the amount of \$94,797 bringing the total not-to-exceed contract amount to \$3,805,549 in the form as presented to this meeting, subject to changes deemed necessary by the General Manager and approved as to form by District Legal Counsel.**

Preliminary Master Plan  
**DAM SITE 15A**

Omaha, Nebraska December 2014







Sent Electronically on November 4, 2015

November 4, 2015

John Winkler  
General Manager  
Papio-Missouri River Natural Resources District  
8901 S. 154th Street  
Omaha, NE 68138-3621

RE: Dam Site 15A  
Phase III - Construction Administration Services. Additional Design and Construction  
Coordination - Amendment No. 5

Dear John:

HDR Engineering, Inc. is pleased to submit the attached Amendment No. 5 to our Agreement to provide additional design and construction coordination and environmental permitting at the Dam Site 15A project. This includes the design and construction coordination on a sanitary sewer extension, HWS Cleveland Boulevard re-design, and an adjacent property owner's plan for development. The amended agreement is not to exceed the original Agreement (dated January 14, 2010) in the amount of \$94,797.

Please print two copies of the Agreement, sign both copies, retain one copy for your records and return the other signed copy for our files. Our receipt of your signed acceptance will constitute our Notice to Proceed.

We look forward to continue working with you on this very important project with the P-MRNRD. If you have any questions, please contact me at 402-399-1078 at your convenience.

Very truly yours,  
HDR ENGINEERING, INC.

Laurie Carrette Zook, P.E.  
Project Manager  
Enclosures

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT  
Amendment No. 5**

1. *Background Data:*

- a. Effective Date of Owner-Engineer Agreement: January 14, 2010
- b. Owner: Papio-Missouri River Natural Resources District (P-MRNRD)
- c. Engineer: HDR Engineering, Inc. (HDR)
- d. Project: Dam Site 15A and Associated Improvements

2. *Description of Modifications:*

- a. 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:
  - 1) Exhibit A, "Engineer's Services", shall be amended to include Exhibit A5, "Engineer's Services for Amendment No. 5" and Enclosure A, Subconsultant Proposals.
  - 2) Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses", Appendix 1, shall be amended to include Attachment C5, "Engineer's Fee Estimate".
- b. For the Engineer's Services set forth above, Owner shall pay Engineer the following additional compensation:
  - 1) An amount equal to Engineer's Direct Labor Costs times a factor of 3.15 for the services of Engineer's employees engaged on the Project, plus Reimbursable Expenses, provided however, and notwithstanding anything to the contrary contained in this Agreement, the total amount of money due to ENGINEER for such services and for Reimbursable Expenses and Engineer's Consultant's charges shall not exceed the amount of \$94,797 under this Amendment for Phase III services.

<b>3. Agreement Summary (Reference only)</b>	
a. Original Agreement amount: (Phase I)	\$ 620,300
b. Amendment No. 1 (Phase I)	\$ 102,579
c. Amendment No. 2 (Phase II)	\$ 1,274,762
d. Amendment No. 3 (No Cost Change)	\$ 0
e. Amendment No. 4 (Phase III)	\$ 1,713,111
f. This Amendment No. 5 (Phase III)	\$ <u>94,797</u>
 g. Adjusted Agreement amount:	 \$ 3,805,549

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

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:

Papio-Missouri River Natural Resources District

HDR Engineering, Inc.

By: \_\_\_\_\_

By: 

Print

Print

name: John Winkler

name: Timothy Crockett, P.E.

Title: General Manager

Title: Senior Vice President

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

Date Signed: 11/09/15

This is **EXHIBIT A**, consisting of 6 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

**Engineer's Services**

---

**AMENDMENT NO. 5**

**Dam Site 15A  
for Papio-Missouri River Natural Resources District  
Douglas County, NE**



**ENGINEERING PROPOSAL – PHASE III CONSTRUCTION CONTRACT  
ADMINISTRATION SERVICES, ADDITIONAL DESIGN AND  
CONSTRUCTION COORDINATION**

**BACKGROUND AND BASIS OF PROPOSAL**

HDR Engineering, Inc. was requested to additional design and construction coordination for the Dam Site 15A Project. This includes the construction coordination on a sanitary sewer extension, HWS Cleveland Boulevard re-design, and an adjacent property owner's plan for development.

In support of the extension of the City of Omaha (City) sanitary sewer line within the construction limits of Damsite 15A, HDR was requested to assess the impacts on the sewer line on Waters of the U.S. and document its findings. This documentation would be used to support a Section 404 Nationwide Permit.

**SCOPE OF SERVICES – ADDITIONAL DESIGN AND CONSTRUCTION COORDINATION**

HDR will perform design and construction coordination into the following three (3) task series:

- Task Series 100 – Design and Construction Coordination
- Task Series 200 – Environmental Permitting
- Task Series 300 – Well Abandonment and Material QA Testing

**TASK SERIES 100 DESIGN AND CONSTRUCTION COORDINATION**

**Task Objectives:** Coordinate with P-MRNRD and City of Omaha on development issues.

**HDR Activities:** Task 110 Sanitary Sewer Coordination. The City desires to have the sanitary sewer extended to serve future developments.  
Task 110.1 Coordination Completed. During the development of the sanitary sewer extension, HDR met with the City, City's Engineer, and P-MRNRD to discuss the alignment and coordinate the construction. HDR coordinated with McArde to obtain a cost estimate to construction the sanitary sewer with several different material types. A total of \$23,094 has been expended as of October 17, 2015.



**Task 110.2 Design Coordination.** Coordinate with City's Engineer on the impacts of the sanitary sewer to the trail and Ida Street roadway. Drawing to be modified to construct the pavements. Amend the existing SWPPP permit to include the BMPs designed by the City's Engineer.

**Task 110.3 Construction Coordination.** HDR to coordinate with the City's Engineer on the documentation of the sanitary sewer in Project Tracker Coordination System (PTCS) including submittals, change requests (request for information (RFI), change proposal requests (CPRs), change orders (CO), field orders (FO)), and payment applications. HDR to conduct the SWPPP monitoring inspections.

**Task 120 HWS Cleveland Blvd Coordination.** HWS was designed as the access road to the South Access area as a two-lane rural road section. As part of the adjacent development, HWS will be designed by the developer's engineer as a two-lane urban boulevard section with storm sewer, curb and gutter.

**Task 120.1 Coordination Completed.** During the development of the redesign of HWS, HDR met with the developer's engineer and P-MRNRD to discuss the alignment. A total of \$2,851 has been expended as of October 17, 2015.

**Task 120.2 Design Coordination.** Coordinate with developers' engineer on the impacts of the new roadway on the entrance road to the South Access Area and trail. Re-design access road and trail to accommodate HWS realignment.

**Task 120.3 Construction Coordination.** HDR to coordinate with the developer's designer on the documentation of the HWS construction in PTCS including submittals, change requests and payment applications. HDR to conduct the SWPPP monitoring inspections.

**Task 130 Lakeview Pointe Development Coordination.** HDR to attend meetings and provide comments on development features that will impact the Main Dam and reservoir. This effort is limited to 40 hours of engineering time.

**Task Deliverables:**

- Email of Review Comments

**Key Understandings:**

- E&A Consulting Group, under contract with the City of Omaha, will design, permit(NDEQ and design SWPPP BMPs), and provide construction contract support for the sanitary sewer extension including: maintaining field records, submittal reviews, contract document clarifications, design changes, change order negotiations, construction observation, survey verification, material QA testing and as-built drawing preparation.
- HDR will provide environmental permitting support for the sanitary sewer extension. Permitting is described in Task Series 200.
- It is assumed that the construction for the sanitary sewer extension will be 8 weeks and construction administration coordination is limited to 10 hours/week.
- LRA, under contract with Lakeview Pointe, is working with the developer in creating a mix-use development and designing HWS Cleveland Blvd. LRA to provide construction contract support for redesign of HWS Cleveland

including: maintaining field records, submittal reviews, contract document clarifications, design changes, change order negotiations, construction observation, survey verification, material QA testing and as-built drawing preparation.

- It is assumed that the construction of HWS Cleveland will be 8 weeks and construction administration coordination is limited to 5 hours/week.

### **TASK SERIES 200 ENVIRONMENTAL PERMITTING**

This task would include the delineation of wetlands and other waters of the U.S. to comply with Section 404 permitting requirements. The delineations performed for Damsite 15A were performed in July of 2010 and expired after 5 years.

**Task Objectives:** Comply with Section 404 permitting requirements and Migratory Bird Treaty Act.

**HDR Activities:** **Task 210. Waters of the US Identification.** Identify, delineate and prepare a delineation report summarizing the project's impact to waters of the US.

210.1 **Data Collection.** Assemble existing data related to the potential location of waters of the U.S. Use of geographic information systems (GIS) will be the primary method of desktop preliminary investigation. GIS data will include NWI, NHD, and hydric soils, and other ancillary data.

210.2 **Wetland Delineation.** Wetland areas will be delineated in accordance with the Corps' 1987 wetland delineation manual and Midwest Regional Supplement. The location of other waters of the U.S. (non-wetland areas such as creeks, streams, rivers, and lakes) will also be identified. Each waters of the U.S. will be photo documented. The amount of delineated waters of the U.S. will be quantified (wetland area will be reported in acres, non-wetland areas in linear feet).

210.3 **Wetland Delineation Report.** The delineation report will consist of applicable narrative, tables, figures, and photos. Narrative discussing applied methods and findings will be included. Waters of the U.S. will be located on aerial photographs and described in narrative. Photo documentation shall include photo, photo orientation, photo date, and a brief descriptive caption. Wetland and Waters of the U.S. data forms will be provided as an attachment to the delineation report.

**Task 220. Section 404 Nationwide Permit Documentation.** Prepare a technical memorandum summarizing the results of the wetland delineation and its applicability to the Nationwide permit.

**Task 230. Migratory Bird Survey.** Perform pre-construction nest survey for active migratory bird nests in the Project Area requiring tree removal. If an active nest is identified, return nest surveys would be required to determine when the nest becomes inactive. Daily field report will be provided after each survey.

**Task Deliverables:**

- Draft and Final Waters of the US Identification
- Daily field report on migratory bird nest survey

**Key Understandings:**

- The Project Area is limited to the location of the extension of the sanitary sewer line.
- It is assumed that Papio-Missouri River NRD will provide access to the Project Study Area.
- The City shall provide design information for the Project.
- The CWA Section 404 authorization for this Project is assumed to qualify for a Nationwide Permit #12, Utility Line Crossings. Based on the preliminary location of the sanitary sewer line, it is assumed that USACE pre-construction notification would not be required.
- It is assumed that the Project will not impact forested wetlands. Location of the Project in emergent wetlands area assumed to involve temporary impacts only, thus not necessitating the need for emergent wetland mitigation.
- It is assumed that no field surveys for threatened and endangered species habitat will be required.
- Up to three (3) bird nest field surveys are assumed.

**TASK SERIES 300 WELL ABANDONMENT AND MATERIAL QA TESTING**

**Task Objectives:** To decommission domestic water well, conduct miscellaneous earthwork testing, and conduct riprap testing.

**HDR Activities:** Task 310 Supplemental Material QA Testing. During construction, an inactive domestic water well was found, requiring proper decommissioning in accordance with state requirements. Qualified HDR field representatives are able to conduct earthwork QA testing, but when they are unavailable, a qualified testing laboratory performs the required tests. QA testing on riprap was not included in Amendment 4, but during construction it was required to verify that the material met the specifications. See Enclosure A for description of the material testing work and well decommissioning.

**Task Deliverables:**

- NDEQ well decommissioning documentation
- Material testing reports

**Key Understandings:**

- Thiele Geotech, as a subconsultant to HDR, will perform the well decommissioning and the QA testing.

ENCLOSURE A5

Material Testing Proposal

October 20, 2015

Exhibit A

COST ESTIMATE

Dam Site 15A

Description	Estimated Quantity	Unit Rate	Estimated Cost
<b><u>Well Decommissioning</u></b>			
Domestic Water Well Decommissioning (ea.)	1.0	1,500.00	1,500.00
		Subtotal	1,500.00
<b><u>Miscellaneous Material Testing</u></b>			
Trip Charge - Zone 1 (/trip)	30.0	55.00	1,650.00
Compaction Test (ea.)	30.0	31.00	930.00
Project Engineer (/hr.)	2.0	107.00	214.00
		Subtotal	2,794.00
<b><u>Rip Rap</u></b>			
<b>ASTM C127 (Modified) Bulk Specific Gravity &amp; Absorption</b>			
Absorption and Specific Gravity of Aggregate (ea.)	2.0	80.00	160.00
Sample Preparation/Reduction from Bulk Sample (ea.)	2.0	44.00	88.00
<b>ASTM C88 (Modified) Soundness Loss by Magnesium Sulfate</b>			
Particle Size Reduction by Crushing (/test)	2.0	85.00	170.00
Sample Preparation/Reduction from Bulk Sample (ea.)	2.0	44.00	88.00
Soundness - Sodium or Mag. Sulfate (5 cycles) (ea.)	2.0	220.00	440.00
<b>AASHTO T103 (Modified) Freeze Thaw Loss</b>			
Particle Size Reduction by Crushing (/test)	2.0	85.00	170.00
Sample Preparation/Reduction from Bulk Sample (ea.)	2.0	44.00	88.00
Soundness - Freeze-Thaw (16 cycles) (ea.)	2.0	200.00	400.00
<b>Professional Review &amp; Reporting</b>			
Project Engineer (/hr.)	5.0	107.00	535.00
		Subtotal	2,139.00
		Total	6,433.00

**Other Services**

Any item or category not listed will be billed at our normal Fee Schedule rate in effect at the time of service.

T h i e l e G e o t e c h I n c

**AMENDMENT 5 - ATTACHMENT C5  
 PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT  
 ADDITIONAL DESIGN COORDINATION AND CONSTRUCTION CONTRACT ADMINISTRATION SERVICES  
 FEE ESTIMATE - NOVEMBER 4, 2016**

TASKS	HDR Engineering, Inc. Estimated Hours/Costs										Expenses					HDR		Est. Total Cost			
	Project Manager	Specialist	Senior Staff	Resource Specialist	Resource Support	Resident Project Rep.	Tech Support	Clerical	Total Hours	Total Labor Cost	Tech. Fee	Printing	Travel	Misc.	Total Expenses (1)	Totals	E&A	Thiele Geotech	Total Sub-Consult		
<b>TASK SERIES 100 DESIGN AND CONSTRUCTION COORDINATION</b>																					
<b>Task 110 Sanitary Sewer Coordination</b>																					
Subtask 110.1 Coordination Completed (as of October 17, 2015)	2		4	24																	
Subtask 110.2 Design Coordination			8	60	8																
Subtask 110.3 Construction Coordination																					
<b>Task 130 HWS Cleveland Blvd Coordination</b>																					
Subtask 120.1 Coordination Completed (as of October 17, 2015)	2		4	40																	
Subtask 120.2 Design Coordination			8	26																	
Subtask 120.3 Construction Coordination			8	32																	
Task 130 Lakerview Pointe Development Coordination	4	0	32	164	0	8	16	8													
Estimated Task Hours Subtotal	820	0	56,563	530,010	0	6685	17,482	5688													
Estimated Task Cost Subtotal																					
<b>TASK SERIES 200 ENVIRONMENTAL PERMITTING</b>																					
<b>Task 210 Waters of the US Identification</b>																					
Subtask 210.1 Data Collection																					
Subtask 210.2 Wetland Delineation																					
Subtask 210.3 Wetland Delineation Report																					
Task 220 Shelton 404 Nationwide Permit Documentation																					
Task 230 Migratory Bird Survey																					
Estimated Task Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Estimated Task Cost Subtotal																					
<b>TASK SERIES 300 WELL ABANDONMENT AND MATERIAL QA TESTING</b>																					
<b>Task 310 Supplemental Material QA Testing</b>																					
Estimated Task Hours Subtotal	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Estimated Task Cost Subtotal	820	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>TOTAL HOURS</b>	824	0	32	192	10	8	88	10	525												
<b>TOTAL COST</b>	\$1,641	\$0	\$6,463	\$51,315	\$1,343	\$685	\$7,964	\$860													
<b>TOTAL COST</b>																					

(1) Includes administrative fee for expenses (except techn. fee) @ 10%