

REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT

Date: **March 14, 2017**

Project Name & Number: WRF Potable Water Improvements; Project No. 15-2266

CIP #: 51079

Project Description: Professional Engineering services for design and bidding of potable water improvements at the Water Reclamation Facility (WRF). Improvements will include a metering/backflow prevention facility, exterior loop piping improvements, additional fire hydrants, building service line improvements and required building metering and backflow prevention devices.

Consultant: Banner Associates, Inc.

Original Contract Amount: \$46,379.00.00	Original Contract Date: June 6, 2016	Original Completion Date: 20 Weeks after Notice to Proceed
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Addendum No: 1



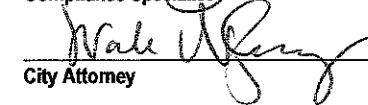
Amendment Description: Inclusion into the project scope of Professional Engineering services for design and bidding of a new boiler system, water heater, and fixtures in the WRF Shop Building.



Current Contract Amount: \$46,379.00	Current Completion Date: 20 weeks after NTP
Change Requested: \$7,400.00	
New Contract Amount: \$53,779.00	New Completion Date: 20 weeks after NTP

Funding Source This Request:

Amount	Dept.	Line Item	Fund	Comments
\$7,400.00	833	4223	604	
	Total			

Agreement Review & Approvals

	3-1-17	
Project Manager	Date	
	3-6-17	
Compliance Specialist	Date	
	3-7-17	
City Attorney	Date	

	3-7-17	
Division Manager	Date	
	3-7-17	
Department Director	Date	

ROUTING INSTRUCTIONS

Route **two** originals of the Agreement for review and signatures.
 Finance Office - Retain one original
 Project Manager - Retain second original for delivery to Consultant
 cc: Public Works
 Engineering
 Project Manager

FINANCE OFFICE USE ONLY

(Note to Finance: Please write date of Agreement in appropriate space in the Agreement document)

	Date	Initials	Approved	
Appropriation	3/8/17	JW	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Cash Flow			<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	

AMENDMENT NO. 1 TO AGREEMENT

Project: Design and Bidding Professional Services for Water Reclamation Facility (WRF) Potable Water Improvements, Project No. 15-2266

Background Data: Original Contract Date: June 6, 2016
Owner: City of Rapid City
Engineer: Banner Associates, Inc.

Nature of Amendment: Provide professional engineering services related to the design of a new boiler system including water heater and fixtures to replace the boiler in the Shop Building at the Water Reclamation Facility. See Exhibits A and B for full description.

Current Contract Amount: \$46,379.00

Change Requested: \$7,400.00

New Contract Amount: \$53,779.00

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:

March 20, 2017.

CITY OF RAPID CITY

By: _____
Mayor

Date: _____

ATTEST:

Finance Officer

REVIEWED BY:

Dan Coon
Dan Coon, PE – Operation Management Engineer

Date: Mar 1, 2017

ENGINEER

By: [Signature]
Banner Associates, Inc.

Date: Oct. 31, 2016

RAPID CITY WRF POTABLE WATER IMPROVEMENTS
Project No. 15-2266/CIP No. 51079

EXHIBIT A, *Boiler
Replacement*

BASIC SERVICES THAT WILL BE PROVIDED

Skyline Engineering, LLC, proposes to furnish engineering design and consulting services for the mechanical and electrical engineering disciplines of the following described project:

Project Description

WRF Potable Water Improvements; Project No. 15-2266/CIP No. 51079

The boiler located in the Shop building, which serves space heating needs for the Shop and the adjacent Pretreatment building, is in poor condition and beyond its expected operating life. The City desires replacement of this boiler and its accessories and appurtenances.

The proposed boiler system would include one condensing fire tube boiler, similar to Lochinvar “Crest”, Aerco “Benchmark”, Cleaver Brooks “Clear Fire”, or Viessmann “Vitocorossal.” The boiler will be natural gas fired. Boiler would be vented with UL-listed positive pressure stainless steel vent piping, and combustion air would be drawn from the exterior of the building via PVC piping. The boiler will have a boiler circulator pump, and the system will have two secondary circulators. Circulators would be inline, close-coupled, similar to Armstrong 4380 or Bell & Gossett Series 80. Pumps would be fitted with triple duty valves (check, shutoff, and balancing) and would be constant speed. Redundant system circulators would be applied, unless the City deems redundancy unnecessary (the existing system has only one pump.) A new tangential air separator and bladder-type expansion tank would be included in the design. New hydronic piping would be limited to that in close proximity to the boiler (likely only that within the boiler room). Hydronic piping would be steel with grooved, threaded, or welded fittings.

The fixtures located in the Shop Building, including a toilet and lavatory in the toilet room and a wash fountain in the shop area, are in poor condition. The City desires replacement of these fixtures.

The proposed toilet fixtures would be standard commercial-grade china fixtures: Floor mounted, flush tank toilet and wall mounted lavatory. The wash fountain would be a semi-circular stainless steel fixture, similar to Bradley 2703. Reuse of the existing fixture is an option. An electric water heater shall be used to serve the space.

Domestic water piping would be Type L copper with solder fittings. This would include cold and hot water piping. Recirculating domestic hot water system (pump, flow control, and piping) is not anticipated due to the proximity between the water heater and the fixtures. Note that the minimal amount of piping remaining in the building after the new service is installed may make it reasonable to simply replace all the domestic water piping in the building.

EXHIBIT "B"

Agreement for Design and Bidding Phase Services

Rapid City WRF Potable Water Improvements
Project No. 15-2266 / CIP No. 51079

Basic Services - Design Phase		
Design Report		
1	Design Meetings	\$1,970
2	Meter/Backflow Prevention Building	\$9,454
3	Exterior Loop Piping - Hydrants	\$2,365
4	Disinfection Requirements	\$611
5	Building Service Line Shut Off Valves	\$898
6	Administration Building	\$386
7	Metal Fabrication Shop	\$300
8	UV Building	\$229
9	Blower Building	\$298
10	Operations Building	\$228
11	Shop	\$137
12	Digester Building	\$316
13	Solids Handling Building	\$158
14	Preparation of Technical Specification supporting the Drawings	\$3,860
15	Design Review 50 %	\$2,380
16	Design Review 95%	\$2,380
17	Prepare Final Changes to the Bidding Documents	\$1,120
18	Bidding Services	\$1,789
	Amendment No. 1 Services	\$650

Subtotal \$29,529

Subconsultants (not included in above totals)		At Cost
1	Skyline Engineering	\$15,500
	Amendment No. 1 - Skyline	\$6,750
2	Geotechnical Engineering Services	\$1,500
		\$23,750

Task 1 Total	\$53,279
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Total Fee, Including Sub-Consultants 2016	\$53,279
BANNER REIMBURSABLES - ESTIMATED	\$500
Total Fee w/Reimbursables and Subconsultants	\$53,779



EXHIBIT B	BY	DATE	SHT 1 of 1
	MDB	10/24/2016	
FEE ESTIMATE	CHK'D BY	DATE	
	CAP		
PROJECT	DESIGN PHASE		
Rapid City WRF Potable Water Improvements; Project No. 15-2266/CIP No. 51079			

RATES	Princ.	PM	Engr III	Engr II	Engr I	Dsgnr III	Dsgnr II	Dsgnr I	Tech II	Tech I	Intern	Support
	\$150	\$130	\$125	\$115	\$105	\$115	\$105	\$95	\$85	\$65	\$55	\$55

TASK	Princ.	PM	Engr III	Engr II	Engr I	Dsgnr III	Dsgnr II	Dsgnr I	Tech II	Tech I	Intern	Support	Expense
Design													
Design Meetings (3) (addn'l time)			1.5										
Building as-built (walls and major features)			0.5				4						
Mech as-built (piping, venting, comb air, etc)			0.5				2						
Demo drawings (owner use)			1				2						
Water heater selection and schedule			1.5				0.5						
Boiler selection and schedule			1.5				0.5						
Pump selection and schedule			1				0.5						
AS and ET selection and schedule			1				0.5						
Boiler room layout			6			1	4						
Plumbing fixture selection and schedule						2	2						
Water distribution layout						2	2						
Mech Specs (addn'l time)			6									2.5	
Electrical On-site (addn'l time)	1						1						
Electrical Specs (addn'l time)	1						2					1	
Electrical Design	1						4		1				
Document Production	0.5		0.5				0.5		0.5			0.5	\$ -
TOTALS	3.5	0	21	0	0	5	25.5	0	1.5	0	0	4	\$ -

FEE	HOURS	RATE	AMT
Principals	3.5	\$150	\$ 525
PM's	0	\$130	\$ -
Engr III	21	\$125	\$ 2,625
Engr II	0	\$115	\$ -
Engr I	0	\$105	\$ -
Dsgnr III	5	\$115	\$ 575
Dsgnr II	25.5	\$105	\$ 2,678
Dsgnr I	0	\$95	\$ -
Tech II	1.5	\$85	\$ 128
Tech I	0	\$65	\$ -
Intern	0	\$55	\$ -
Support	4	\$55	\$ 220
Expense			\$ -
Total	60.5		\$ 6,750