

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

Date: August 28, 2007

Project Name & Number: Utility System Master Plan – Phase II  
Project Number PW05-1447

CIP #: 50617

**Project Description:** Development of a Utility (Water and Sewer) System Master Plan to assist in short and long term utility planning. The project will include, but not be limited to, development of water and sewer geodatabases, water and sewer modeling programs, a maintenance management system, water and sewer forecasting and planning and a Capital Improvement Plan.

**Consultant:** Burns & McDonnell Engineering Co, Inc.

**Original Contract Amount:** \$1,555,714.00

**Original Contract Date:** March 6, 2006

**Original Completion Date:** 500 Days from Notice to Proceed

**Amendment Number:** 1

**Amendment Description:** Extension of project schedule as a result of time required for Water Advocacy Task Force (WATF) recommendation, incorporation of WATF recommendations, attachment of additional as-built drawings to road centerline and elimination of purchase of scanner from Engineer's scope.

**Current Contract Amount:** \$1,555,714.00

**Current Completion Date:** 500 Days from NTP

**Change Requested:** \$60,538.00

**New Contract Amount:** \$1,616,252.00

**New Completion Date:** 750 days from NTP

**Funding Source This Request:**

Amount	Dept.	Line Item	Comments
\$15,134.50	833	4223	
\$15,134.50	834	4223	
\$15,134.50	933	4223	
\$15,134.50	934	4223	
\$60,538.00	Total		

## Agreement Review & Approvals

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

Division Manager \_\_\_\_\_ Date \_\_\_\_\_

Department Director \_\_\_\_\_ Date \_\_\_\_\_

City Attorney \_\_\_\_\_ 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			Y	N
Cash Flow			Y	N

AMENDMENT NO. 1  
To  
AGREEMENT For PROFESSIONAL ENGINEERING SERVICES  
Between  
BURNS & McDONNELL ENGINEERING COMPANY, INC.  
Centennial, Colorado  
And  
CITY OF RAPID CITY, SOUTH DAKOTA

This Contract amendment is made by and between Burns & McDonnell Engineering Company, Inc. a Missouri Corporation and City of Rapid City, South Dakota, this \_\_\_\_\_ day of \_\_\_\_\_, 2007, for the Utility System Master Plan – Phase II (PW05-1447)

Whereas, it is the mutual desire of the parties hereto to amend the AGREEMENT for PROFESSIONAL ENGINEERING SERVICES entered into on the 22<sup>nd</sup> day of March 2006, hereinafter called the Existing Agreement.

Therefore, it is hereby agreed that the Existing Agreement be amended as follows:

- A. **SCOPE OF SERVICES**, Article 6.7, add “*The ENGINEER shall incorporate modifications to the 2015 and 2030 water models as a result of the recommendations from the City of Rapid City’s Water Advocacy Task Force as documented at the City Council meeting held on August 6, 2007.*”
- B. **SCOPE OF SERVICES**, Articles 4.7 and 6.7, change all analyses referred to as ‘10 year’ to correspond to year ‘2015’, and all ‘25 year’ analyses to correspond to year ‘2030’.
- C. **SCOPE OF SERVICES**, Add the following after Task 14.4:  
     “14.5     *The ENGINEER shall utilize the City’s centerline geodatabase as of March 12, 2007, and link any remaining sets of plans that were not previously attached to road centerlines. This task is estimated at 208 sets of plans and shall be completed and delivered to the OWNER by March 30, 2007.*”
- D. **SCOPE OF SERVICES**, Article 14.3, delete the following “*The scanner will be purchased as part of this contract (cost will not exceed \$21,000) and provided to the City upon completion of the scanning activities.*” and replace with “*The OWNER will purchase a scanner and provide it to the ENGINEER for use through completion of this task.*”
- E. **TIME OF SERVICE**, delete in its entirety and replace with “*Engineer will proceed with providing the services set forth herein immediately upon execution of this Agreement. The Phase II services shall be completed within 750 calendar days of the Notice to Proceed (referred to as the Project Completion Date within this agreement), with the exception of the support services identified in Task 11.5 which shall be completed on July 30, 2008. Major milestones within the project are as follows:*

- *Completion of Task 2 (Preparation of Geodatabases) – 270 calendar days from notice to proceed*
- *Completion of Task 4.3& 6.4 (Preparation of Hydraulic Models) – 360 days from notice to proceed*
- *Completion of Task 8 (Develop CIP) – 700 calendar days from notice to proceed*
- *Completion of Task 9 (Final Report) – 750 calendar days from notice to proceed”*

F. **COST REIMBURSEMENT NOT TO EXCEED**, article 2), delete first sentence and replace with *“Total payment for the Scope of Services described herein shall not exceed One Million Six Hundred Sixteen Thousand Two-Hundred Fifty-Two United States Dollars (US \$1,616,252) without written approval from the OWNER. Exhibit D (from the original contract) provides the original detailed Professional Engineering Services Fee Estimate; Attachment A provides supporting details for Amendment No. 1.; and Attachment B provides the updated Professional Engineering Services Fee Estimate for additional services under Amendment No. 1.”*

This amendment will be deemed a part of, and be subject to, all terms and conditions of the Existing Agreement. Except as modified above, the Existing Agreement will remain in full force and effect.

#### BURNS & MCDONNELL ENGINEERING CO.

##### ACCEPTED:

By \_\_\_\_\_

Title Vice President

Date \_\_\_\_\_

##### ATTEST:

By \_\_\_\_\_

Title Associate

Date \_\_\_\_\_

#### CITY OF RAPID CITY

##### ACCEPTED:

By \_\_\_\_\_

Title Mayor

Date \_\_\_\_\_

##### ATTEST:

By \_\_\_\_\_

Title Finance Officer

Date \_\_\_\_\_

END OF AMENDMENT NO. 1

**ATTACHMENT A**  
**Utility System Master Plan – Phase II (PW05-1447)**  
**Amendment No. 1 Supporting Details**

The ENGINEER has been requested to provide additional services as outlined in Amendment No. 1, and requests additional compensation and an extension in time of service.

In January 2007, the ENGINEER completed development of the Rapid City water and sanitary sewer hydraulic models for Rapid City's existing system as part of Rapid City Project No. PW05-1447. The next major project tasks required detailed knowledge of future plans related to source water and treatment for development of future hydraulic models. This was outlined in a memorandum from the Public Works Director to the Public Works Committee dated March 6, 2007.

In March 19, 2007, the ENGINEER was directed by the City to stop work on those tasks that could be affected by source water decisions, pending the recommendations of the Water Advocacy Task Force (WATF). On August 6, 2007, the City Council accepted the recommendation by the WATF, therefore, the work can begin on the affected tasks. The cost and schedule impacts of this delay are outlined below by task:

- Task 1: Project Coordination (Cost: \$50,702) – The remaining tasks will require an additional 7 months to complete from acceptance of Amendment No. 1 based on the schedule outlined at the initiation of the project. Costs associated with this task include 96 hours for six additional meetings (at least 3 by teleconference), 102 hours for project/public website maintenance, and 196 hours for project management.
- Task 3.4: Future water rights planning (Cost: \$0) – This task could not proceed without full knowledge of the City's long-term water supply plan (i.e. surface water vs. ground water). There is no additional cost to complete this task, however a time extension has been requested due to the delay in schedule.
- Task 6.7 – 6.10: Water distribution system analysis (Cost: \$6,116) – The hydraulic analysis of the future water distribution system (i.e. modeling of future scenarios) requires the ENGINEER to input each future source into the model. The additional cost for this task includes 42 hours for the ENGINEER to incorporate the WATF facility recommendations and rework portions of the model directly related to source water.
- Task 7: Water treatment plant evaluation (Cost: \$3,278) – This task involves determining the required treatment capacity and finalizing process evaluations for upgrades at the existing plant. The additional cost for this task includes 24 hours for the ENGINEER to incorporate the WATF recommendations and rework portions of the evaluation related to capacity of the future plant expansions. Note that this task does not include evaluations of retrofitting the existing facility versus building a new facility, nor does it include any additional evaluation or predesign work associated with the WATF recommendations. Note that the operational plans referred to in the WATF recommendations will be completed under a separate project and are not included as part of this Amendment.
- Task 8.1 – 8.3: Development of the CIP (Cost: \$9,127) – The project was initially structured to allow for concurrent development of the water and sewer CIP. This provides efficiencies in developing the master plan since water/sewer projects often coincide to minimize excavation and disruption to city streets. Due to the delay in water modeling, the work was not conducted concurrently and the draft wastewater CIP was completed in June 2007. The cost associated with this task includes 66 hours for the ENGINEER to rework portions of the

sewer model (to include waste from treatment facilities identified in WATF recommendation) and to review CIP project costs and coordinate CIP projects.

- Task 9: Preparation of the final report (Cost: \$0) – There is no additional cost to complete this task, however a time extension has been requested due to the delay in schedule.
- Task 10.1: Hydraulic modeling workshops (Cost: \$0) – There is no additional cost to complete this task, however a time extension has been requested due to the delay in schedule.
- Task 14: As-Built Drawing Scanning (Cost: -\$21,000) – The credit for this task is a result of the City procuring the scanner directly.
- Task 14.5: As-Built Drawing Centerline Links (Cost: \$1,892) – Under the original contract, the ENGINEER was provided the City's centerline geodatabase as of October 2006 for linking as-built drawings to the road centerlines. Approximately 208 sets of plans could not be attached to road centerlines using the October 2006 database. The cost associated with this task is to link all remaining drawings to centerlines utilizing the City's centerline geodatabase as of March 12, 2007.
- Travel Expenses (Cost \$10,422) – Travel expenses necessary for additional project meetings and non-concurrent work including training.

**Attachment B**

# AMENDMENT NO. 1

## RAPID CITY, SOUTH DAKOTA

### UTILITY SYSTEM MASTER PLAN

TASK NO.	ACTIVITY NAME	Item Impacted		Total Labor		Direct Expenses	Subtotals	Total
		Schedule	Cost	Hrs	Cost	Cost	Costs	Costs
1	PROJECT INITIATION AND COORDINATION	X	X <sup>(2)</sup>	392	\$47,386	\$3,317	\$50,702	
3	DEVELOP FORECASTS	X <sup>(3)</sup>		0	\$0	\$0	\$0	
6	WATER DISTRIBUTION SYSTEM ANALYSIS	X	X <sup>(4,5)</sup>	42	\$5,716	\$400	\$6,116	
7	WTP EVALUATION	X	X	24	\$3,064	\$214	\$3,278	
8	DEVELOP CIP	X	X <sup>(6)</sup>	66	\$8,530	\$597	\$9,127	
9	PREPARE FINAL REPORT	X		0	\$0	\$0	\$0	
10	MODEL/GIS TRAINING	X		0	\$0	\$0	\$0	
14	AS-BUILT DRAWING SCANNING AND REFERENCING		X <sup>(8)</sup>	0	\$1,892	-\$21,000	-\$19,108	
	Travel Expenses:						\$10,422	
	Total Amendment No. 1							<b>\$60,538</b>

**Notes:** 1. Only tasks with delay or cost impacts from postponing concurrent work (at WATF direction) or integration of WATF recommendations are shown for clarity.  
 2. Task 1 costs include maintenance of the public website & project website, 6 additional project meetings (3 by teleconference), and overall coordination of the affected tasks for an additional 7 month period  
 3. Task 3 schedule impact is related to future water rights planning.  
 4. Task 6 assumes no resynchronization of the model is required due to the City's updates to the GIS water system geodatabase.  
 5. Costs assume water model is not delivered to the City prior to full completion. Therefore, no recalibration of the model is included.  
 6. Task 8 includes review of Committee recommendations and addition of any recommended projects into the current CIP (which has already been reviewed). No rework of the existing CIP review is included.  
 7. Costs do not include any additional source water evaluation, deliverables, or City reviews. If additional evaluation is required, costs can be provided on request.  
 8. Costs for Task 14.5 as requested by City staff. Credit of \$21,000 for purchase of scanner removed from scope.

Contract Summary		Total
Original Contract Value		\$1,555,714
Amendment No. 1		\$60,538
Total Master Planning and Modeling Effort		\$1,616,252