

# PROFESSIONAL ENGINEERING SERVICES CONTRACT



**Utility System Master Plan – Phase I  
City of Rapid City Project No. PW05-1447**



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

# PROFESSIONAL ENGINEERING SERVICES CONTRACT

August 29, 2005

Project: Utility System Master Plan – Phase I  
City of Rapid City Project No. PW05-1447

## **Owner Information:**

City of Rapid City  
300 Sixth Street  
Rapid City, South Dakota 57701-2724

Contact: Mr. Dan Coon, P.E.  
Phone: (605) 394-4154  
Fax: (605) 394-6636

## **Consultant:**

Burns & McDonnell Engineering Co., Inc.  
9785 Maroon Circle, Suite 400  
Centennial, Colorado 80112

Contact: Mr. Mark Lichtwardt, P.E.  
Phone: (303) 721-9292  
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## SCOPE OF SERVICES

The following is the Scope of Services to be provided by Burns & McDonnell Engineering Company, Inc., (hereinafter ENGINEER) for the City of Rapid City, located in Rapid City, South Dakota, (hereinafter OWNER).

### 1. Initial and Status Meetings

- 1.1. Project Kick-off meeting – The ENGINEER will conduct a project kick-off meeting at the OWNER's facilities to include the following agenda items:
  - A. Review goals and objectives
  - B. Identify key project issues/OWNER concerns
  - C. Review project schedule/budget
  - D. Discuss project team and roles (including subconsultants)
  - E. Outline communication protocol
  - F. Define project website needs
  - G. Define public website needs
- 1.2. Monthly Status meetings – Monthly status meeting will be held between the OWNER and ENGINEER. When possible, these meetings will be held by teleconference. The ENGINEER will provide a status report at each meeting and prepare meeting minutes for distribution to the Project Team.
- 1.3. Public Website – ENGINEER will setup and manage a website for access by the general public to include a project overview, Frequently Asked Questions regarding master planning, as well as a method for public input. Sample maps and documents will be added to the website as they become available.

- 1.4. Project Website – ENGINEER will setup and manage a project website for use by the project team. The website will include the following:
- A. File Transfer Protocol (FTP) capabilities
  - B. Project team directory
  - C. E-mail notification of uploaded files
  - D. Other functions to be determined

## 2. GIS/IT Needs Assessment

### 2.1. Needs Assessment

- 2.1.1. GIS/IT Needs Assessment Kickoff Meeting – ENGINEER will conduct a kick-off meeting at the OWNER'S facilities to discuss the GIS/IT Needs Assessment and obtain overall Rapid City and Public Works mission statements, values, organizational structure and departmental descriptions/responsibilities.
- 2.1.2. Educational Sessions – ENGINEER will provide two educational sessions on the same trip as the Kick-Off meeting that explain the overall needs assessment process and why this is important. The OWNER will assist in scheduling within the City Departments to ensure all necessary personnel are in attendance. Some information regarding future uses of this system will be included but the main point of the sessions is to lay out the process and inform participants as to what will be done in the upcoming phase of the project. These sessions shall occur in conjunction with the Kick-Off meeting trip to minimize travel expenses and maximize the ENGINEER'S time to get to know the city's staff. Additionally, these sessions will be useful for city staff to see the upcoming events and why interviews, questionnaires, etc... are necessary.
- City Staff to be Included in Educational Sessions:
    1. Project Team Members (*Exhibit A*)
    2. Internal Stakeholders (*Exhibit A*)
    3. Internal Interested Parties (*Exhibit A*)
- 2.1.3. Develop and Deploy Web Questionnaire – A web-based questionnaire will be developed and deployed by the ENGINEER to collect baseline information from the OWNER regarding GIS/IT data, applications and processes. This questionnaire will be available to city staff for approximately a two week period and it may be completed at any time.
- 2.1.4. Compile Questionnaire Data – ENGINEER will compile and carry out preliminary analyses on the data collected from the web questionnaire. This information will be used during the interview process with city staff
- 2.1.5. Interview OWNER Staff – ENGINEER will conduct interviews with the departments identified below to collect information about departmental responsibilities and activities, workflows, existing or legacy data, data usage, data maintenance procedures, software usage and staffing. Interviews shall be scheduled for 2 hours and should not exceed 2 – 3 individuals from the OWNER in each interview. The main goal of this effort is to define GIS/IT systems necessary to support the Utility System Master Planning process.

As such, the interviews will be broken into primary and secondary categories. The primary interviews include departments that are integral to the proper completion of the Utility System Master Plan, so a greater level of detail will be required from these departments and groups because of their influence on the Utility System Master Planning process. Departments involved in secondary interviews don't directly affect the Utility System Master Plan but need to be considered in order to facilitate the usage of the plan at a later date. Therefore, secondary interviews will not go into the level of detail of a primary interview. Instead, they will be used to mine information regarding usage and any interactions with the Utility System Master Planning data and processes. The combination of primary and secondary departments encompasses a city wide GIS/IT plan.

- Primary interviews will consist of the following departments:
  1. Fire (*1 Interview*)
  2. Growth Management (*3 Interviews*)
    - a. Community Planning
    - b. Annexation Planning
    - c. Future Land Use
    - d. Transportation Planning
  3. Public Works (*4 Interviews*)
    - a. Engineering Services
      - i. Facility Engineering
      - ii. Stormwater
      - iii. Utility Engineering
    - b. Water
      - i. Identify critical needs/issues
      - ii. Identify water rights
    - c. Water Reclamation
      - i. Identify critical needs/issues
    - d. Utility Maintenance
  4. Finance (*1 Interview*)
- Secondary interviews will consist of the following departments and groups. A single interview will be conducted with all three groups in attendance.
  1. Airport
  2. Parks and Recreation
  3. Police

2.1.6. Interview IT (Computer Center) and GIS Staff – In addition to the primary departments listed above, the GIS/IT staff at the City is within the primary group also. Input and cooperation from these departments will be fundamental in the completion of a successful Utility System Master Plan and the implementation of a centralized data model. The ENGINEER will conduct interviews to collect information regarding existing data and IT infrastructure from the GIS and Computer staff at the City. Information to be collected includes network diagrams, hardware and software specifications, existing databases and ER Diagrams, security and sharing of data and software. Interviews will be scheduled for 2 hours long and should not exceed 2 – 3 individuals from the City in each interview.

- Interviews will be held with the following departments and groups:
  1. Growth Management (1 Interview)
    - a. GIS
  2. Computer / IT Staff (1 Interview)

2.1.7. Source Data Assessment

- A. Review legacy data - Once City staff has identified data during the interview stage, the ENGINEER will review data to determine its quality, completeness and the ability to meet the OWNER'S goals. This data review effort shall not be a complete data collection process, rather shall be a collection of enough data to get a representative assessment of the data.
- B. Evaluate Data Conversion vs. Collection - Based on the findings of the legacy data review, the ENGINEER will define strategies and procedures for attaining or adapting data to meet the OWNER'S current and future needs. These processes may include data conversion from a less usable source or the collection of data from scratch in the field. Options will be analyzed to determine what options provide the best value to the OWNER based on cost, timeline, and staff.
- C. Evaluation of Alternative Data Sources - In some cases, there may be some alternative or outside data sources that could be used to supplement the OWNER'S existing data. If necessary, the ENGINEER will assess potential alternate data sources.

2.1.8. Engineering Model Selection Process – The ENGINEER will coordinate with the OWNER'S project team during selection of the water distribution and wastewater collection hydraulic models. It is important to carry out the model selection at this time because it will serve as one of the main clients or users of the data collected during the Utility System Master Plan. Therefore, the data structure and needs of the model need to be determined before it is possible to fully define the data model necessary to support the Utility System Master Plan. This evaluation shall consider the future use of billing software and a security module to evaluate vulnerability as it relates to water quality.

2.1.9. GAP Analysis – The ENGINEER will identify the gap between where the City currently is and where they would like to be at the completion of the Utility System Master Planning Project. This analysis will pull together all the assessment information to detail the existing IT/GIS baseline for the City. With the baseline defined, the goals and needs identified by the City during the assessment process will be combined to develop a set of overall goals and needs for the OWNER.

### 3. Collection of Water Rights Information

- 3.1. The ENGINEER will collect and tabulate water rights information provided by the OWNER as well as data collected from other potential sources including the ENGINEER'S subconsultants. Water rights information will be tabulated and included in the findings document. Any missing information will be identified for follow-up in Phase II.

#### 4. Ordinance/Rate/Policy Review

- 4.1. The ENGINEER will compile ordinances and policies related to the water and sewer systems and conduct a preliminary review to identify areas requiring further study in subsequent phases. The overall goal of the preliminary review will be to identify potential areas where changes in structure may be appropriate and to evaluate any areas where the existing policies or ordinances may need to be updated. Included in the preliminary review will be existing system development ordinances that pertain to system development fees and charges.

In completing this task, the ENGINEER will identify applicable state laws to determine if there are any specific requirements or steps necessary to make revisions to existing charges or to implement new charges. Of particular importance will be the identification of any requirements such as voter approval of any proposed changes. The results of this task will be summarized in the findings document. The document will provide an opinion on possible policy or ordinance changes or modifications designed to improve the City's ability to effectively manage the water/wastewater systems or generate adequate revenues.

#### 5. GIS/IT Implementation Plan

- 5.1. Conceptual scope, budget, and schedule for the implementation plan to achieve IT/GIS Needs. Implementation plan will include the scope, budget and schedule for the implementation of the following components:

- 5.1.1. Data Model Design – The ENGINEER will develop a data model design process that includes conceptual design, logical design and the physical design of the database will be carried out for the part of the data model that pertains directly to the Utility System Master Plan. As an example, the required database design for the water distribution and water reclamation systems will be completely designed and built during phase I of the Utility System Master Plan. In addition to the design and implementation of the data model that will support the Utility System Master Plan, a conceptual database design will be developed to manage the city wide IT/GIS needs. The conceptual design for the portions of the data model not directly related to the Utility System Master Plan will be finalized and built during Phase II of the project, if desired by the OWNER.
- 5.1.2. Data Collection/Conversion Procedures – The ENGINEER will establish data collection/conversion procedures for use during Phase II. This task will include a pilot of the data collection/conversion procedures to check the process validity and begin to get a handle on the rates that are to be expected during the implementation of these procedures. Upon completion of the pilot, the scope and budget required for the complete data collection and conversion effort in Phase II will be defined. The pilot study carried out in Phase I of the Utility System Master Plan will serve as a foundation for the development of CAD submittal standards during phase II. The submittal standards will be part of a mandatory step within Phase II of the Utility System Master Plan that develops the data maintenance protocols and methods for the Utility System Master Planning data.

- 5.1.3. Evaluation of Resource Requirements – With input from the project team, the ENGINEER will make recommendations as to what staff will be required to manage and maintain the GIS/IT system. This will include an estimate of the level of effort (labor) as well as what skill sets and training will be required for the staff. This task is intended to identify the resources required for the OWNER to maintain the information and processes developed during the master plan. This will include staffing, software, data, and hardware requirements.
- 5.1.4. Growth/Planning Data Integration Plan – The ENGINEER will analyze all the data and procedures in place for the management of development within Rapid City that were obtained during interviews with the Growth Management Department. These procedures and the data that supports them will be compared to what will be necessary to support the ongoing usage of the Utility System Master Planning tool. Any process changes, data changes, or adjustments will be developed and presented in the implementation plan. The implementation of these process and data changes will then be carried out in Phase II of the project.

## 6. Institutional Data Gathering

- 6.1. Gathering of Additional Institutional Knowledge – The ENGINEER will meet with and interview their selected subconsultants to obtain additional institutional knowledge.
- 6.2. Review by city staff and team members – The OWNER and the ENGINEER's selected subconsultants will conduct additional reviews of compiled data as necessary to determine if additional data is available or required.

## 7. Interested Parties – Meetings/Workshops/Presentations

- 7.1. Meetings – The ENGINEER will conduct meetings or teleconferences with the following entities to present the purpose of the Utility System Master Planning Project and obtain input for consideration in Phase II.
1. DENR (by teleconference)
  2. Large Water Customers
    - a. Ellsworth AFB
    - b. Rapid Valley Sanitary District
    - c. Chapel Lane Water Company
- 7.2. Community (General Public) Open House – The ENGINEER will conduct one community open house to provide a information and a project overview to the general public. The ENGINEER shall prepare and present a presentation as necessary. The OWNER will assist with coordination and scheduling as needed.
- 7.3. Interested Party Open House – The ENGINEER will conduct one open house to provide a information and a project overview to the interested parties listed below. The ENGINEER shall prepare and present a presentation as necessary. The OWNER will assist with coordination and

scheduling as needed. This open house and the community open house shall be conducted on consecutive nights to minimize associated expenses and coordination efforts.

1. Development Community
  - a. Development Appeals Review Board
2. Pennington/Meade Counties
3. Rapid City Chamber of Commerce
4. Game, Fish and Parks
5. US Bureau of Reclamation
6. US Geological Survey
7. Rapid City Conservancy District (Irrigators)
8. Engineering Community

#### **8. Prepare Phase I findings documents**

- 8.1. Summary Document – The ENGINEER will prepare a document summarizing the state of the existing data, the GIS/IT Implementation Plan, and a detailed scope, deliverables and timeline for Phase II.

### **RESPONSIBILITIES OF OWNER**

The OWNER shall provide the following:

Assistance by placing at ENGINEER's disposal all available information pertinent to the assignment including land use plans, water use data, water rights documentation, water quality data, previous master plans, and physical data on tanks and pump stations that are required and requested by ENGINEER. ENGINEER shall rely on information made available by the OWNER as accurate without independent verification. In addition, the OWNER shall assist in schedule coordination of interviews with City to ensure the objectives can be completed in a timely manner.

### **DELIVERABLES**

The OWNER will be provided deliverables as outlined in Task 7 of the Scope of Services. Any draft copies for review by the OWNER will be provided in electronic (.pdf) format. One final electronic copy (on CD) and twenty-five final hard copies will be provided.

Reuse of Documents: All documents prepared or furnished by ENGINEER (and ENGINEER'S independent professional associates and consultants) pursuant to this Agreement are instruments of service in respect of the Project, and ENGINEER shall have the ownership and property interest therein whether or not the Project is completed. Any reuse without written verification or adaptation by ENGINEER for the specific purpose intended will be at OWNER'S sole risk and without liability or legal exposure to ENGINEER, or to ENGINEER'S independent professional associates or consultants, and OWNER shall indemnify and hold harmless ENGINEER and ENGINEER'S independent professional associates and consultants from and against all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom. Any such verification or adaptation will entitle ENGINEER to further compensation at rates to be agreed upon by OWNER and ENGINEER.



Electronic Media: Any electronic media (computer disks, tapes, and similar items) furnished with respect to ENGINEER'S services are for OWNER'S information and convenience only. Such media are not to be considered part of ENGINEER'S instruments of service. (Due to the potential that information contained in electronic media can be modified by OWNER or others, ENGINEER, at its option, may remove all indicia of ENGINEER'S ownership and involvement from each electronic display.) ENGINEER shall not be liable for loss or damage directly or indirectly, arising out of use of electronic media including, but not limited to, any loss of business or incidental or consequential damage. OWNER shall assume all risk and release, indemnify, and hold harmless ENGINEER, its officers, directors, employees, servants, agents, successors, and assigns, from and against each and every claim or cause of action that OWNER or others may have or which may arise in the future respecting use of the electronic media.

### **TIME OF SERVICE**

ENGINEER will proceed with providing the services set forth herein immediately upon execution of this Agreement. The design phase services will be completed within 180 calendar days of the Notice to Proceed.

### **COST REIMBURSIBLE NOT TO EXCEED**

#### **A. Amount of Payment:**

1. For services performed, OWNER shall pay ENGINEER the sum of amounts determined as follows:
  - a. For time spent by personnel, payment at the hourly rates indicated on the attached fee schedule. Such rates include overhead and profit. The schedule is effective for the length of this contract.
  - b. For expenses incurred by ENGINEER, such as authorized travel and subsistence including airfare, food, lodging, automobile rental, commercial services, and incidental expenses, the cost to ENGINEER plus 10 percent.
  - c. For reproduction, printing, long-distance telephone calls, facsimile transmissions, company vehicle usage, testing apparatus, computer services and computer-assisted drafting (CAD), amounts will be charged according to the ENGINEER's standard rates as identified in this contract.
  - d. For professional services rendered by others as subcontractor(s) to ENGINEER will be billed at the cost to ENGINEER plus 10 percent.
2. Total payment for the Scope of Services described herein shall not exceed One Hundred Fifty-Three Thousand Three Hundred Fifty-Five dollars (\$153,355) without written approval of OWNER. Exhibit A presents a detailed Professional Engineering Services Fee Estimate.

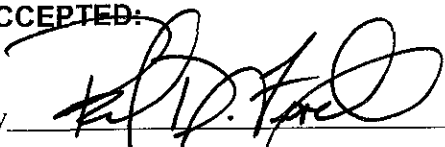
3. ENGINEER shall not begin work on any phase of the project without written authorization by the OWNER.

### TERMS AND CONDITIONS

The attached Terms and Conditions for Professional Services is incorporated and made a part of this Agreement.

BURNS & MCDONNELL ENGINEERING CO.

**ACCEPTED:**

By 

Title Vice President

Date 9/2/05

**ATTEST:**

By 

Title Associate

Date 9/2/05

CITY OF RAPID CITY

**ACCEPTED:**

By \_\_\_\_\_

Title Mayor

Date \_\_\_\_\_

**ATTEST:**

By \_\_\_\_\_

Title Finance Officer

Date \_\_\_\_\_

## EXHIBIT A: PROJECT TEAM MEMBERS, STAKEHOLDERS, AND INTERESTED PARTIES

### City of Rapid City – Utility System Master Plan (Phase 1)

#### *Project Team Members*

- Project Manager (Dan Coon)
- Public Works Director (Dirk Jablonski)
- Project Engineer – Engineering Services (Stacey Titus)
- Water Division Superintendent (John Wagner)
- Water Reclamation Superintendent (Dave Van Cleave)
- Growth Management (Bob Dominicak)
- Citizen Representative (George Dunham)
- Citizen Representative (Jim Bell)

#### *Stakeholders*

- IT (Computer Center)
- Fire
- Growth Management
- Public Works
  - Engineering Services
  - Water
  - Water Reclamation
  - Utility Maintenance
- Finance
- City Council

#### *Interested Parties*

##### Internal

- City Attorney
- Parks & Recreation
- Police
- Airport

##### External

- DENR
- Development Community
  - Development Appeals Review Board
- Pennington/Meade Counties
- Large Water Customers
  - Ellsworth AFB
  - Rapid Valley Sanitary District
  - Chapel Lane Water Company
- RC Chamber of Commerce
- Game, Fish and Parks
- US Bureau of Reclamation
- US Geological Survey
- Rapid City Conservancy District (Irrigators)
- General Public

**EXHIBIT B: SCHEDULE OF HOURLY PROFESSIONAL SERVICE BILLING RATES**

<b>Position Classification</b>	<b>Classification level</b>	<b>Hourly Billing Rate</b>
General Office*	5	\$49.00
Technician*	6	\$51.00
Assistant'	7	\$58.00
	8	\$79.00
	9	\$87.00
Staff*	10	\$96.00
	11	\$105.00
Senior	12	\$113.00
	13	\$124.00
Associate	14	\$138.00
	15	\$143.00
Principal	16	\$151.00
	17	\$155.00

**Notes:**

1. Position classifications listed above refer to the firm's internal classification system for employee compensation. For example, "Associate", "Senior", etc., refer to such positions as "Associate Engineer", "Senior Architect", etc.
2. The hourly rates shown above are effective for services through completion of this contract, and are subject to revision thereafter.
3. For outside expenses incurred by Burns & McDonnell, such as authorized travel and subsistence, and for services rendered by others such as subcontractors, the client shall pay the cost to Burns & McDonnell plus 10%.
5. Monthly invoices will be submitted for payment covering services and expenses during the preceding month. Invoices are due upon receipt.

**EXHIBIT C - SCHEDULE OF REIMBURSABLE EXPENSES**

Schedule of Reimbursable Expenses		
Description	Unit Cost	
Personal Mileage:	\$0.4050	
Reproduction/Printing:	8.5"x 11" Copies White	\$0.09/sheet
	24" x 34" Drawings White Bond	\$0.48/sheet
	24" x 34" Drawings Mylar	\$9.90/sheet
	8.5"x 11" Copies Color	\$1.00/sheet
Long Distance Telephone:	Cost + 10%	
Postage:	Cost + 10%	
Courier:	2 hour	\$22
	1 hour	\$35
Travel Expenses:		
Airfare:	Cost + 10%	
Lodging:	Cost + 10%	
Meals:	Cost + 10%	
Rental Car:	Cost + 10%	
Vehicle Expense:		
Sedan (4-door)	\$58/day + \$0.21/mile	
SUV - 4WD	\$65/day + \$0.25/mile	

Total of billable hours plus reimbursable expenses shall not exceed the maximum Cost Reimbursable Not to Exceed Amount allowed under the contract, without a written amendment executed by the parties.

**PERSONNEL EFFORT SUMMARY**  
**CITY OF RAPID CITY**  
**UTILITY SYSTEM MASTER PLAN - PHASE 1**

ACTIVITY NAME	Total Labor		Direct Expenses	Subtotals
	Hrs	Cost	Cost	Costs
<b>1 - INITIAL &amp; STATUS MEETINGS</b>	<b>192</b>	<b>\$21,385</b>	<b>\$2,138</b>	<b>\$23,523</b>
1.1 - Project Kick-Off Meeting	40	\$4,939	\$494	\$5,433
1.2 - Status Meetings	48	\$5,720	\$572	\$6,292
1.3 - Public Website	38	\$3,850	\$385	\$4,235
1.4 - Project Website	66	\$6,876	\$688	\$7,564
<b>2 - GIS/IT NEEDS ASSESSMENT</b>	<b>469</b>	<b>\$52,375</b>	<b>\$5,238</b>	<b>\$57,613</b>
2.1 - Needs Assessment				
A. Needs Assessment Kick-Off Meeting	18	\$2,202	\$220	\$2,422
B. Education Sessions (2)	24	\$2,848	\$285	\$3,133
C. Develop & Deploy Web Questionnaire	14	\$1,480	\$148	\$1,628
D. Compile Questionnaire Data	12	\$1,288	\$129	\$1,417
E. Interview City Staff				
1. Primary Interviews (9)	130	\$14,998	\$1,500	\$16,498
2. Secondary Interviews (1)	30	\$3,198	\$320	\$3,518
F. Interview IT/GIS Staff	25	\$2,681	\$268	\$2,949
G. Source Data Assessment	114	\$11,698	\$1,170	\$12,868
H. Engineering Model Selection Process	34	\$4,426	\$443	\$4,869
I. Gap Analysis	68	\$7,556	\$756	\$8,312
<b>3 - COLLECTION OF WATER RIGHTS INFORMATION</b>	<b>24</b>	<b>\$2,898</b>	<b>\$290</b>	<b>\$3,188</b>
3.1 - Collection/Review of existing water rights information	24	\$2,898	\$290	\$3,188
<b>4 - ORDINANCE/RATES/POLICY REVIEW</b>	<b>54</b>	<b>\$6,486</b>	<b>\$649</b>	<b>\$7,135</b>
4.1 - Collection/review	54	\$6,486	\$649	\$7,135
<b>5 - GIS/IT IMPLEMENTATION PLAN</b>	<b>160</b>	<b>\$18,008</b>	<b>\$1,801</b>	<b>\$19,809</b>
5.1.1 - Data Model Design	46	\$5,038	\$504	\$5,542
5.1.2 - Data Collection/Conversion Procedures	48	\$5,432	\$543	\$5,975
5.1.3 - Evaluation of Resource Requirements	22	\$2,622	\$262	\$2,884
5.1.4 - Growth/Planning Data Integration Plan	44	\$4,916	\$492	\$5,408
<b>6 - INSTITUTIONAL DATA GATHERING</b>	<b>120</b>	<b>\$13,158</b>	<b>\$1,316</b>	<b>\$14,474</b>
6.1 - Gather of Additional Institutional Data	100	\$10,926	\$1,093	\$12,019
6.2 - Review by City Staff/Team Members	20	\$2,232	\$223	\$2,455
<b>7 - INTERESTED PARTIES MTGS/WORKSHOPS</b>	<b>88</b>	<b>\$6,802</b>	<b>\$680</b>	<b>\$7,482</b>
7.1 - Meetings	26	\$2,978	\$298	\$3,276
7.2 - Community (General Public) Open House	16	\$1,912	\$191	\$2,103
7.3 - Interested Party Open House	16	\$1,912	\$191	\$2,103
<b>8 - PREPARE PHASE I FINDINGS DOCUMENTS</b>	<b>66</b>	<b>\$8,556</b>	<b>\$856</b>	<b>\$9,412</b>
8.1 - Summary of existing data	14	\$1,932	\$193	\$2,125
8.2 - GIS/IT Implementation Plan	20	\$2,514	\$251	\$2,765
8.3 - Detailed scope, deliverables, and timeline for Phase II	32	\$4,110	\$411	\$4,521
<b>SUBTOTALS</b>	<b>1143</b>	<b>\$129,668</b>	<b>\$12,967</b>	<b>\$142,635</b>
Travel Expenses <sup>(1)</sup> =				\$10,720
<b>TOTAL ENGINEERING FEE (PHASE 1)</b>				<b>\$153,355</b>

Notes: 1 Travel costs have been estimated as follows:

- Rental Car - 20 days at \$50/day
- Airfare - 9 Round Trips at \$700/Ticket
- Lodging/Meals - 36 days at \$95/day

ACTIVITY NAME	Project Director		Project Mgr (& Water Supp)		Banner		Total Labor		Direct Expenses	Subtotals
	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Cost	Costs
<b>1 - INITIAL &amp; STATUS MEETINGS</b>	8	\$1,208	32	\$4	2	\$207	192	\$21,385	\$2,138	\$23,523
1.1 - Project Kick-Off Meeting	4	\$604	8	\$1	2	\$207	40	\$4,939	\$494	\$5,433
1.2 - Status Meetings	4	\$604	8	\$1		\$0	48	\$5,720	\$572	\$6,292
1.3 - Public Website		\$0	4	\$1		\$0	38	\$3,850	\$385	\$4,235
1.4 - Project Website		\$0	12	\$1		\$0	66	\$6,876	\$688	\$7,564
<b>2 - GIS/IT NEEDS ASSESSMENT</b>	0	\$0	32	\$4	0	\$0	469	\$52,375	\$5,238	\$57,613
2.1 - Needs Assessment										
A - Needs Assessment Kick-Off Meeting		\$0	4	\$1		\$0	18	\$2,202	\$220	\$2,422
B - Education Sessions (2)		\$0	4	\$1		\$0	24	\$2,948	\$285	\$3,133
C - Develop & Deploy Web Questionnaire		\$0				\$0	14	\$1,480	\$148	\$1,628
D - Compile Questionnaire Data		\$0				\$0	12	\$1,288	\$129	\$1,417
E - Interview City Staff		\$0	20	\$2		\$0	130	\$14,998	\$1,500	\$16,498
1 - Primary Interviews (9)		\$0				\$0	30	\$3,198	\$320	\$3,518
2 - Secondary Interviews (1)		\$0				\$0	25	\$2,681	\$268	\$2,949
F - Interview IT/GIS Staff		\$0				\$0	114	\$11,698	\$1,170	\$12,868
G - Source Data Assessment		\$0	4	\$1		\$0	34	\$4,426	\$443	\$4,869
H - Engineering Model Selection Process		\$0				\$0	68	\$7,556	\$756	\$8,312
I - Gap Analysis		\$0				\$0				
<b>3 - COLLECTION OF WATER RIGHTS INFORMATION</b>	0	\$0	8	\$1	0	\$0	24	\$2,898	\$290	\$3,188
3.1 - Collection/Review of existing water rights information		\$0	8	\$1		\$0	24	\$2,898	\$290	\$3,188
<b>4 - ORDINANCE/RATES/POLICY REVIEW</b>	0	\$0	4	\$1	0	\$0	54	\$6,486	\$649	\$7,135
4.1 - Collection/review		\$0	4	\$1		\$0	54	\$6,486	\$649	\$7,135
<b>5 - GIS/IT IMPLEMENTATION PLAN</b>	0	\$0	12	\$1	0	\$0	160	\$18,098	\$1,801	\$19,899
5.1.1 - Data Model Design		\$0				\$0	46	\$5,036	\$504	\$5,542
5.1.2 - Data Collection/Conversion Procedures		\$0	4	\$1		\$0	48	\$5,432	\$543	\$5,975
5.1.3 - Evaluation of Resource Requirements		\$0	4	\$1		\$0	22	\$2,622	\$262	\$2,884
5.1.4 - Growth/Planning Data Integration Plan		\$0	4	\$1		\$0	44	\$4,916	\$492	\$5,408
<b>6 - INSTITUTIONAL DATA GATHERING</b>	0	\$0	8	\$1	16	\$1,654	120	\$13,158	\$1,316	\$14,474
6.1 - Gather of Additional Institutional Data		\$0	4	\$1	16	\$1,654	100	\$10,926	\$1,093	\$12,019
6.2 - Review by City Staff/Team Members		\$0	4	\$1		\$0	20	\$2,232	\$223	\$2,455
<b>7 - INTERESTED PARTIES - MTGS/WORKSHOPS</b>	0	\$0	16	\$2	0	\$0	58	\$6,602	\$680	\$7,282
7.1 - Meetings		\$0	8	\$1		\$0	26	\$2,978	\$298	\$3,276
7.2 - Community (General Public) Open House		\$0	4	\$1		\$0	16	\$1,912	\$191	\$2,103
7.3 - Interested Party Open House		\$0	4	\$1		\$0	16	\$1,912	\$191	\$2,103
<b>8 - PREPARE PHASE I FINDINGS DOCUMENTS</b>	8	\$1,208	36	\$4	0	\$0	66	\$8,556	\$856	\$9,412
8.1 - Summary of existing data		\$0	12	\$1		\$0	14	\$1,932	\$193	\$2,125
8.2 - GIS/IT Implementation Plan		\$0	12	\$1		\$0	20	\$2,514	\$251	\$2,765
8.3 - Detailed scope, deliverables, and timeline for Phase II	8	\$1,208	12	\$1		\$0	32	\$4,110	\$411	\$4,521
<b>SUBTOTALS</b>							<b>1143</b>	<b>\$129,668</b>	<b>\$12,967</b>	<b>\$142,635</b>
								Travel Expenses <sup>(1)</sup> =		\$10,720
<b>TOTAL ENGINEERING FEE (PHASE I)</b>										<b>\$153,355</b>

Notes 1 Travel costs have been estimated as follows

Rental Car - 20 days at \$50/  
 Airfare - 9 Round Trips at  
 Lodging/Meals - 36 days at \$1

**BURNS & MCDONNELL ENGINEERING COMPANY, INC.**  
TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

Project: UTILITY SYSTEM MASTER PLAN - PHASE I

Date of Letter, Proposal or Agreement: AUG 29, 2005

Client: CITY OF RAPID CITY

Client Signature: \_\_\_\_\_

**1. SCOPE OF SERVICES**

For the above-referenced Project, Burns & McDonnell Engineering Company, Inc ("BMCD") will perform the services set forth in the above-referenced Letter, Proposal or Agreement, in accordance with these Terms and Conditions. BMCD has relied upon the information provided by Client in the preparation of the Proposal, and shall rely on the information provided by or through Client during the execution of this Project as complete and accurate without independent verification.

**2. PAYMENTS TO BMCD**

A. Compensation will be as stated in the above-referenced Letter, Proposal or Agreement. Statements will be in BMCD's standard format and are payable upon receipt. Time is of the essence in payment of statements, and timely payment is a material part of the consideration of this Agreement. A late payment charge will be added to all amounts not paid within 30 days of statement date and shall be calculated at 1.5 percent per month from statement date. Client shall reimburse any costs incurred by BMCD in collecting any delinquent amount, including reasonable attorney's fees. If a portion of BMCD's statement is disputed, Client shall pay the undisputed portion by the due date. Client shall advise BMCD in writing of the basis for any disputed portion of any statement.

B. Taxes as may be imposed on professional consulting services by state or local authorities shall be in addition to the payment stated in the above-referenced Letter, Proposal or Agreement

**3. INSURANCE**

A. During the course of performance of its services, BMCD will maintain Worker's Compensation insurance with limits as required by statute, Employer's Liability insurance with limits of \$1,000,000 and Commercial General Liability and Automobile Liability insurance each with combined single limits of \$1,000,000.

B. If the Project involves on-site construction, construction contractors shall be required to provide (or Client may provide) Owner's Protective Liability Insurance naming Client as a Named Insured and BMCD as an Additional Insured or to endorse Client and BMCD using ISO form CG 20 10 11 85 endorsement or its equivalent as Additional Insureds on all construction contractor's liability insurance policies covering claims for personal injuries and property damage in at least the amounts required of BMCD in 3 A above. Construction contractors shall be required to provide certificates evidencing such insurance to Client and BMCD. Contractor's compensation shall include the cost of such insurance including coverage for contractual and indemnification obligations herein.

C. Client and BMCD release each other and waive all rights of subrogation against each other and their officers, directors, agents, or employees for damage covered by property insurance during and after the completion of BMCD's services. A provision similar to this shall be incorporated into all construction contracts entered into by Client, and all construction contractors shall be required to provide waivers of subrogation in favor of Client and BMCD for damage covered by any construction contractor's property insurance.

**4. INDEMNIFICATION**

A. To the extent allowed by law, Client will require all construction contractors to indemnify, defend and hold harmless Client and BMCD from any and all loss where loss is caused or alleged to be caused in whole or in part by the construction contractors, their employees, agents, subcontractors or suppliers.

B. If this Project involves construction and BMCD does not provide consulting services during construction including, but not limited to, on-site monitoring, site visits, site observation, shop drawing review and/or design clarifications, Client agrees to indemnify and hold harmless BMCD from any liability arising from this Project or Agreement, except to the extent caused by BMCD's negligence.

**5. PROFESSIONAL RESPONSIBILITY - LIMITATION OF REMEDIES**

A. BMCD will exercise reasonable skill, care and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted professional practices. If BMCD fails to meet the foregoing standard, BMCD will perform at its own cost, the professional services necessary to correct errors and omissions reported to BMCD in writing within one year from the completion of BMCD's services for the Project. No warranty, express or implied, is included in this Agreement or regarding any drawing, specification, or other work product or instrument of service.

~~B. In no event will BMCD be liable for any special indirect or consequential damages including, without limitation, damages or losses in the nature of increased Project costs, loss of revenue or profit, lost production, claims by customers of Client or for governmental fines or penalties.~~ PDF

C. BMCD's aggregate liability for all damages connected with its services for the Project not excluded by the preceding subparagraph, whether or not covered by BMCD's insurance, will not exceed the ~~greater of \$100,000 or the compensation paid for BMCD's services~~ <sup>\$1,000,000.</sup> PDF

D. These mutually negotiated obligations and remedies stated in this Paragraph 5, Professional Responsibility - Limitation of Remedies, are the sole and exclusive obligations of BMCD and remedies of Client, whether liability of BMCD is based on contract, warranty, strict liability, tort (including negligence), indemnity or otherwise.

**6. PERIOD OF SERVICE AND SCHEDULE**

The provisions of this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion of the services stated in the Proposal. BMCD's obligation to render services hereunder will extend for a period, which may reasonably be required for the completion of said services. BMCD shall make reasonable efforts to comply with deliverable schedules (if any) and consistent with BMCD's professional responsibility.

**7. COMPUTER PROGRAMS OR MODELS**

Any use, development, modification, or integration by BMCD of computer models or programs does not constitute ownership or a license to Client to use or modify such computer models or programs.

**8. ELECTRONIC MEDIA AND DATA TRANSMISSIONS**

A. Any electronic media (computer disks, tapes, etc.) or data transmissions furnished (including Project Web Sites or CAD file transmissions) are for Client information and convenience only. Such media or transmissions are not to be considered part of BMCD's instruments of service. BMCD, at its option, may remove all indicia of its ownership and involvement from each electronic display.

B. BMCD shall not be liable for loss or damage directly or indirectly, arising out of Client's use of electronic media or data transmissions.

**9. DOCUMENTS**

A. All documents prepared by BMCD pursuant to this Agreement are instruments of service in respect of the Project specified herein. They are not intended or represented to be suitable for reuse by Client or others in extensions of the Project beyond that now contemplated or on any other Project. Any reuse, extension, or completion by Client or others without written verification, adaptation, and permission by BMCD for the specific purpose intended will be at Client's sole risk and without liability or legal exposure to BMCD.

B. In the event that BMCD is to reuse, copy or adapt all or portions of reports, plans or specifications prepared by others, Client represents that Client either possesses or will obtain permission and necessary rights in copyright, patents or other proprietary rights and will be responsible for any infringement claims by others. Client warrants the completeness, accuracy and efficacy of the information, data, and design provided by or through Client (including prepared for Client by others), for which BMCD shall rely on to perform and complete its services.

(continued on reverse side)



#### 10. ESTIMATES, SCHEDULES, FORECASTS, AND PROJECTIONS

Estimates, schedules, forecasts, and projections prepared by BMCD relating to loads, interest rates and other financial analysis parameters, construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are opinions based on BMCD's experience, qualifications and judgment as a professional. Since BMCD has no control over weather, cost and availability of labor, material and equipment, cost of fuel or other utilities, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions and other factors affecting such estimates or projections, BMCD does not guarantee that actual rates, costs, quantities, performance, schedules, etc., will not vary significantly from estimates and projections prepared by BMCD.

#### 11. POLLUTION

In view of the uncertainty involved in investigating and recommending solutions to environmental problems and the abnormal degree of risk of claims imposed upon BMCD in performing such services, notwithstanding the responsibility of BMCD set forth in Paragraph 5.A; to the maximum extent allowed by law, Client agrees to release, defend, indemnify and hold harmless BMCD and its officers, directors, employees, agents, consultants and subcontractors from all liability, claims, demands, damages, losses, and expenses, including, but not limited to, claims of Client and other persons and organizations, reasonable fees and expenses of attorneys and consultants, and court costs, except where there has been a final adjudication that the damages were caused by BMCD's willful disregard of its obligations under this Agreement. Such indemnification includes claims arising out of or in any way relating to the actual, alleged, or threatened dispersal, escape, or release of, or failure to detect or contain, chemicals, wastes, liquids, gases or any other material, irritant, contaminant or pollutant.

#### 12. ON-SITE SERVICES

A Project site visits by BMCD during investigation, observation, construction or equipment installation, or the furnishing of Project representatives shall not make BMCD responsible for construction means, methods, techniques, sequences or procedures; for construction safety precautions or programs; or for any construction contractor(s)' failure to perform its work in accordance with the contract documents.

B Client shall disclose to BMCD the location and types of any known or suspected toxic, hazardous or chemical materials or wastes existing on or near the premises upon which work is to be performed by BMCD's employees or subcontractors. If any hazardous wastes not identified by Client are discovered after a Project is undertaken, Client and BMCD agree that the scope of services, schedule and compensation may be adjusted accordingly. Client agrees to release BMCD from all damages related to any pre-existing pollutant, contaminant, toxic, or hazardous substance at the site.

#### 13. CHANGES

Client shall have the right to make changes within the general scope of BMCD's services, with an appropriate change in compensation and schedule, upon execution of a mutually acceptable amendment or change order signed by authorized representatives of Client and BMCD.

#### 14. TERMINATION

Services may be terminated by Client or BMCD by seven (7) days' written notice in the event of substantial failure to perform in accordance with the terms hereof by the other party through no fault of the terminating party. If so terminated, Client shall pay BMCD all amounts due BMCD for all services properly rendered and expenses incurred to the date of receipt of notice of termination, plus reasonable costs incurred by BMCD in terminating the services. In addition, Client may terminate the services for Client's convenience upon payment of twenty percent of the yet unearned and unpaid estimated, lump sum, or not-to-exceed fee, as applicable.

#### 15. DISPUTES, NEGOTIATIONS, MEDIATION

~~A. If a dispute arises relating to the performance of the services to be provided and should that dispute result in litigation, it is agreed that the substantially prevailing party (as determined in equity by the court) shall be entitled to recover all reasonable costs of litigation, including staff time, court costs, attorney's fees and other related expenses.~~ PDF

~~B. The parties shall participate in good faith negotiations to resolve any and all disputes. Should negotiations fail, the parties agree to submit to and participate in a third party facilitated mediation as a condition precedent to resolution by litigation. Unless otherwise agreed to, mediation shall be conducted under the rules of the American Arbitration Association.~~ PDF

C. Causes of action between the parties shall accrue, and applicable statutes of limitation shall commence to run the date BMCD's services are substantially complete.

#### 16. WITNESS FEES

A. BMCD's employees shall not be retained as expert witnesses, except by separate written agreement.

B. Client agrees to pay BMCD pursuant to BMCD's then current schedule of hourly labor billing rates for time spent by any employee of BMCD responding to any subpoena by any party in any dispute as an occurrence witness or to assemble and produce documents resulting from BMCD's services under this Agreement.

#### 17. CONTROLLING LAW AND VENUE

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of Colorado, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the ~~18<sup>th</sup> Judicial District in the County of Douglas, State of Colorado, or the United States District Court for the District of Colorado.~~ STATE OF SOUTH DAKOTA, 7<sup>TH</sup> JUDICIAL CIRCUIT, PENNINGTON COUNTY. PDF

#### 18. RIGHTS AND BENEFITS - NO ASSIGNMENT

BMCD's services will be performed solely for the benefit of Client and not for the benefit of any other persons or entities. Neither Client nor BMCD shall assign or transfer interest in this Agreement without the written consent of the other.

#### 19. ENTIRE CONTRACT

These Terms and Conditions and the above-referenced Letter, Proposal or Agreement contain the entire agreement between BMCD and Client relative to BMCD's services for the Project herein. All previous or contemporaneous agreements, representations, promises and conditions relating to BMCD's services for the Project are superseded. Since terms contained in purchase orders do not generally apply to professional services, in the event Client issues to BMCD a purchase order, no preprinted terms thereon shall become part of this Agreement. Said purchase order documents, whether or not signed by BMCD, shall be considered only as an internal document of Client to facilitate administrative requirements of Client's operations.

#### 20. SEVERABILITY

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and affect.

- END -