



**TOWN OF CASTLE ROCK
SERVICES AGREEMENT
(Pinery Water Pipeline Project)**

DATE: April 4, 2023

PARTIES: **TOWN OF CASTLE ROCK**, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (the "Town").

BURNS & MCDONNELL ENGINEERING COMPANY, INC., a Missouri corporation, 9785 Maroon Circle, Suite 400, Centennial, Colorado 80134 ("Consultant").

RECITALS:

- A. The Town wishes to engage Consultant to provide the services more fully described in the following Agreement and Exhibits.

TERMS:

Section 1. Scope of Services. Consultant shall provide design services in accordance with the scope of services attached as *Exhibit 1* ("Services").

Section 2. Payment. Consultant shall invoice Town upon completion of the Services rendered in accordance with the rate and fee scheduled identified in *Exhibit 1*. The Town shall pay such invoices within 30 days receipt of such invoice. In no event shall the cumulative payment to Consultant exceed **\$805,043.00, unless authorized in writing by the Town.**

Section 3. Term. Consultant shall commence the Services upon execution of this Agreement and complete the Services by **June 30, 2024**. Consultant shall devote adequate resources for timely completion of the Services. Consultant shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

The Town shall have the right to terminate this Agreement at any time with 30 days written notice to Consultant. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination. Consultant shall turn over all work product produced up to the date of termination.

Section 4. Annual Appropriation. The continuance of this Agreement is contingent upon the appropriation of funds to fulfill the requirements of the Agreement by the Town. If the Town fails to appropriate sufficient monies to provide for the continuance of the Agreement, the Agreement shall terminate on the final day preceding the date of the beginning of the first fiscal year for which funds are not appropriated. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination.



Section 5. Subcontractors. Consultant may utilize subcontractors to assist with specialized works as necessary to complete the Services. Consultant will submit any proposed subcontractor and the description of their services to the Town for approval.

Section 6. Assignment. This Agreement shall not be assigned by either party without the written consent of the other party.

Section 7. Notice. Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the first page of this Agreement, or at such other address as has been previously furnished in writing to the other party or parties. Such notice shall be deemed given when deposited in the United States mail.

Section 8. Insurance. Consultant agrees to procure and maintain, at his own cost, the following policy or policies of insurance. Consultant shall not be relieved of any liability, claims, demands or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

A. Consultant shall procure and maintain, and shall cause each subcontractor of the Consultant to procure and maintain a policy with the insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers reasonably acceptable to the Town. All coverage shall be continuously maintained from the date of commencement of services hereunder. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Workers Compensation insurance to cover obligations imposed by the Workers Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employer's Liability insurance with limits of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-policy limit, and FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-each employee.

2. Commercial General Liability insurance with combined single limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage, blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.

4. Professional Liability insurance with limits of ONE MILLION DOLLARS (\$1,000,000) per claim and ONE MILLION DOLLARS (\$1,000,000) aggregate.



B. The policies required above, except Workers' Compensation insurance, Employers' Liability insurance and Professional Liability insurance shall include the Town, its officers and employees, as an additional insured. Every policy required above, except Workers' Compensation, Employers Liability and Professional Liability insurance, if applicable, shall be primary insurance, and any insurance carried by the Town, its officers, or its employees, shall be excess and not contributory insurance to that provided by Consultant. The additional insured endorsement for the Commercial General Liability insurance required above shall not contain any exclusion for bodily injury or property damage caused by completed operations. The Consultant shall be solely responsible for any deductible losses under each of the policies required above.

C. Certificates of insurance shall be completed by Consultant's insurance agent and submitted at the time of execution of this Agreement as ***Exhibit 2*** as evidence that policies providing the required coverage, conditions and limits are in full force and effect, and shall be subject to review and approval by the Town. Each certificate shall identify the Project and shall provide that coverage afforded under the policies shall not be cancelled or terminated until at least 30 days prior written notice has been given to the Town. If the words "endeavor to" appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the certificate.

D. Failure on the part of Consultant to procure or maintain policies providing the required coverage, conditions, and limits shall constitute a material breach of contract upon which at the Town's discretion may procure or renew any such policy or any extended connection therewith, and all monies so paid by the Town shall be repaid by Consultant to the Town upon demand, or the Town may offset the cost of the premiums against any monies due to Consultant from the Town.

Section 9. Colorado Governmental Immunity Act. The parties understand and agree that the Town is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently \$424,000 per person, \$1,195,000 for two or more persons, per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, §24-10-101, *et seq.*, C.R.S., as from time to time amended, or otherwise available to Town, its officers, or its employees.

Section 10. Indemnification. Consultant expressly agrees to indemnify the Town or any of its officers or employees from any and all claims for bodily injury and property damage or claims resulting from Consultant's professional services which are the subject of this Agreement, including, but not limited to, any person, firm, partnership, or corporation, to the extent caused by the negligent acts, errors or omissions of Consultant or any of their employees or agents in performing work pursuant to this Agreement. In the event that any such suit or action is brought against Town, Town will give notice within ten (10) days thereof to Consultant.

Section 11. Delays. Any delays in or failure of performance by any party of his or its obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.



Section 12. Additional Documents. The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement.

Section 13. Entire Agreement. This Agreement represents the entire agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect.

Section 14. Time. Time is important. If any payment or any other condition, obligation, or duty is not timely made, tendered or performed by either party, then this Agreement, at the option of the party who is not in default, may be terminated by the non-defaulting party, in which case, the non-defaulting party may recover such damages as may be proper.

Section 15. Default and Remedies. In the event either party should default in performance of its obligations under this agreement, and such default shall remain uncured for more than 10 days after notice of default is given to the defaulting party, the non-defaulting party shall be entitled to pursue any and all legal remedies and recover its reasonable attorney's fees and costs in such legal action. In addition, no Party will be entitled to lost profits, economic damages, or actual, direct, incidental, consequential, punitive or exemplary damages in the event of a default.

Section 16. Waiver. A waiver by any party to this Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

Section 17. Governing Law. This Agreement shall be governed by the laws of the State of Colorado in the Douglas County District Court.

Section 18. Independent Contractor. Consultant has completed the Affidavit of Independent Contractor Status, attached as ***Exhibit 3***, and submitted same at the time of execution of this Agreement. In addition to the Affidavit, Consultant and the Town hereby represent that Consultant is an independent contractor for all purposes hereunder. Consultant represents and warrants that they are free from the Town's direction and control in the performance of their work or services and that they have an independent business doing the specific type of work or services which are the subject of this Agreement. More specifically, Consultant represents and warrants that the Town does not control what work or services they will perform or the manner in which such work or services will be performed. As such, Consultant is not covered by any worker's compensation insurance or any other insurance maintained by Town except as would apply to members of the general public. Consultant shall not create any indebtedness on behalf of the Town.

Section 19. No Third Party Beneficiaries. It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Town and Consultant, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such



Agreement. It is the express intention of the parties that any person other than Town or Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

Section 20. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall be deemed to constitute one and the same instrument. Each of the Parties hereto shall be entitled to rely upon a counterpart of the instrument executed by the other Party and sent by electronic mail.

Section 21. Work with Third-Party Contractors. In the event Consultant works with a third-party contractor to complete the Services for the Town, this Section applies to the Agreement. Consultant shall not be responsible for the construction means, methods, techniques, sequences, or procedures, or safety precautions or programs for which the third-party contractor is responsible for. Nor will Consultant be responsible for a third-party contractor's failure to perform construction work in accordance with contract entered into between the Town and the third-party contractor, nor will Consultant be responsible for damage to the Project site attributable to a third-party contractor, and nothing in this Agreement is intended to create any such responsibility of Consultant. Consultant shall not have control over or charge of, and shall not be responsible for, acts or omissions of a third-party contractor or of any other persons or entities performing construction work pursuant to a construction contract between the Town and the third-party contractor.

ATTEST:

TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Lena McClelland, Assistant Town Attorney

Mark Marlowe, Director Castle Rock Water

CONSULTANT:

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

By: _____

Its: _____



EXHIBIT 1

SERVICES AND FEE SCHEDULE

2. RESPONSE TO SCOPE OF WORK

Project Understanding

Castle Rock Water (CRW) is working to expand their raw water sources as the town grows. Recently, CRW signed an intergovernmental agreement (IGA) with Pinery Water to purchase up to 1 MGD of treated water for use in CRW's system. The Pinery water is potable but does not meet CRW's water quality goals. Specifically, the Pinery water has constituents that exceed 50% of the secondary standard, which is the Town's water quality goal for all constituents except for total dissolved solids (TDS) and pH. To determine how the Pinery water can fit into CRW's system, Burns & McDonnell and CRW worked together to create alternatives for treatment. The selected option involves sending the Pinery water to Ray Waterman Regional Water Treatment Facility (RWRWTF) for treatment.

CRW is planning to construct a new Pinery pipeline to convey water to RWRWTF. During the study phase, CRW identified current and future wells in the area that they want to tie into their system. CRW is going to use the Pinery waterline to send Pinery water and well water to RWRWTF for treatment.

Water will flow from the Pinery interconnect or the well connection to a pump station. The pump station final location will be dependent on the system hydraulics. The study assumed the pump station will be an at-grade horizontal split case booster pump station. The pump station discharge will tie into an existing raw water line on the Castle Oaks lift station site through an existing tee.

At RWRWTF, the Pinery and well water will be treated and sent to distribution. RWRWTF was recently permitting to a higher capacity of 10 MGD which will create capacity for the additional raw water. Figure 2.1. summarizes the key project components.

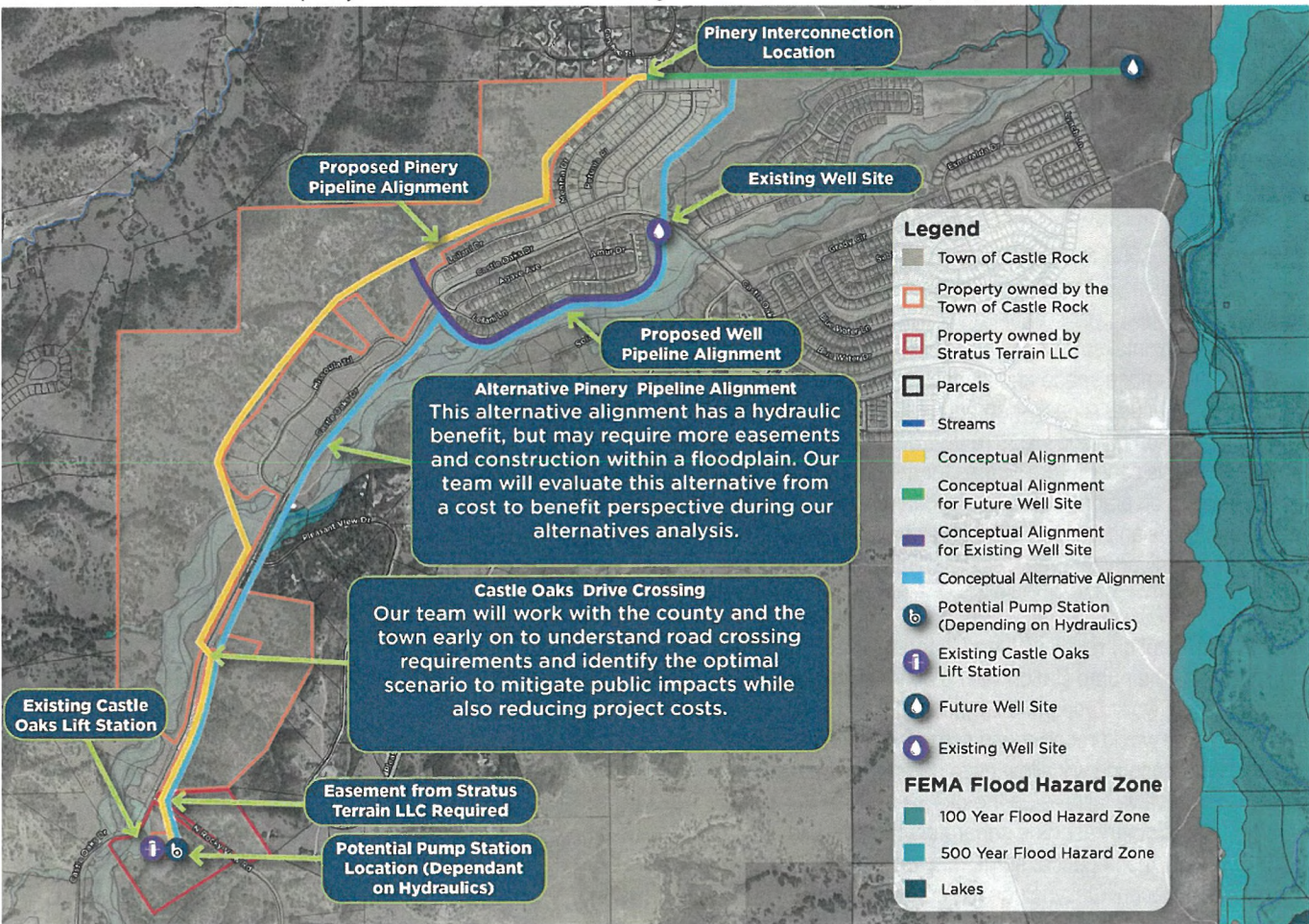


Figure 2.1. Key Project Components

Project Approach

We will start the project with an evaluation of the system hydraulics and alignment options. In the Pinery report, the pump station was located on the existing Castle Oaks lift station site since the Pinery water had enough pressure to make it to that location. With the addition of the wells to the pipeline, the pump station siting may shift due to the well site hydraulics. We will coordinate with the well study team to determine the well system hydraulic and connection requirements. Then, we will create two alternatives for the system and will evaluate the options with CRW from a monetary and non-monetary perspective.

Once we evaluate the hydraulics, alignments, and pump station location, we will consider pump station facility options. The original Pinery study included an at-grade horizontal split case pump station. The study discussed custom pump stations and packaged pump stations. We will work with CRW to evaluate both custom and packaged pump station options and work with them to determine which option will work the best for their system. While the pump station options are being evaluated, our pipeline team will create preliminary alignments for the Pinery pipeline and will determine the required easements, for procurement by CRW. The key project components are discussed in further detail below.

Key Project Components

Hydraulics

The Pinery and well facility hydraulics are going to drive the key decisions for this project. The Pinery and well facility hydraulics will set the pump station location, based on the available head in the system. To add complexity, the two sets of hydraulics will need to work together for water to be conveyed to RWRWTF. For example, if the well facility is at a lower hydraulic grade than the Pinery, the well facility will not be able to push water into the pipeline. Pressure-reducing valves may be required at the tie-in points between the two systems. We will complete a hydraulic evaluation and provide recommendations for the system.

Pump Station

We will work with CRW to determine the optimal type of pump and type of pump station. For this type of project, there are three commonly used pump types: canned vertical turbine, horizontal end suction, and horizontal split case. A custom pump station typically has more maintenance space and is more easily modified or expanded in the future. A packaged pump station is typically a more cost-effective option but does require up-front planning for future expansions. In this case, future pumps for the future well sites will need to be planned for and sized in the initial building. These pump types and pump station types have varying advantages and disadvantages, as summarized in Table 2.2.

Surge

One item that is not currently included in the scope is surge modeling. Since the pump station will be an in-line booster pump station, fed from two sources and connecting to a line fed by another pump station, we would recommend surge modeling for the system. Surge modeling will allow us to determine the impact of various pump or valve failures on the overall system. Without a balancing tank or other reservoir separating the flow into and out of the pump station, the impact of surge may be greater. Typical surge mitigation techniques include the addition of a surge anticipation valve or surge vessel, and/or implementing pump station control strategies to minimize surge events. If CRW would like to evaluate surge as part of this project, we can include it in our scope.

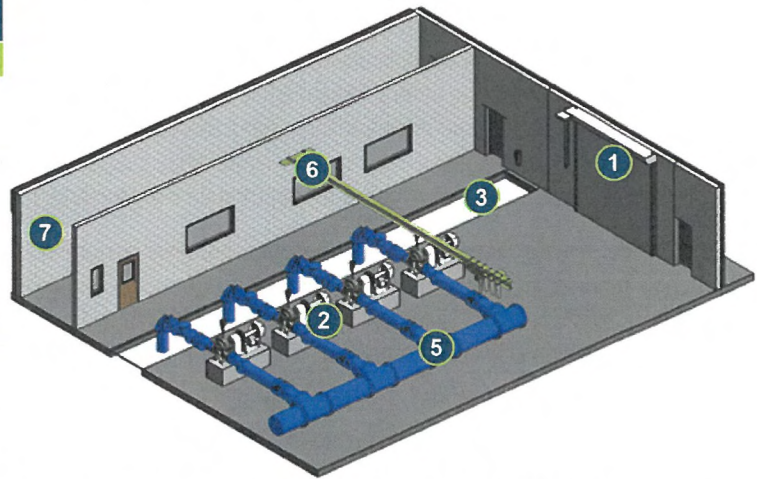
Table 2.2. Pump Station Considerations

Pump Type		
		
Canned Vertical Turbine Pumps	Horizontal Split-Case or End-Suction Pumps* <i>*Used in the Initial Study</i>	
Pros	• Small footprint • Motors and piping at or near grade • Pumps can be removed through a skylight; bridge crane not required • Good for high pressure requirements	• Easy to maintain • All pump components can be removed with a bridge crane or monorail
Cons	• Requires more excavation • More difficult to inspect and maintain • Intake header at low elevation (suction valve access) • Crane required for pump removal	• Larger footprint • Discharge pressure is limited
Pump Station Type		
		
Packaged Pump Station	Custom Pump Station	
Pros	• Cost-effective • Less contractor involvement • Compact footprint	• Easily expandable • Can accommodate CRW requirements • Can be designed with operation/maintenance in mind
Cons	• Expansions must be planned for with the initial design • Typically pre-engineered metal building • Less space for operation/maintenance	• Longer construction period • Specialty contractor required • General contractor will need more subs

Pump Station Components

Our team will work with CRW to determine the preferred configuration of the pump station. The following figures show some key design elements for consideration, assuming an at-grade, custom, horizontal split case pump station.

Table 2.3. Key Pump Station Design Considerations	
Interior Considerations	
1	Large Overhead Door: Provides access for equipment to be moved into and out of pump station & facilitates easy maintenance access.
2	Pump Type: Consider horizontal split case or vertical turbine. Capacity will meet criteria identified from the hydraulic model.
3	Flow Meter: Located in trench or above grade for accessibility while providing 5 and 2 pipe diameters upstream and downstream of the meter, respectively.
4	Surge Protection (Not pictured): Designed to mitigate surge events within the system and protect pump station equipment.
5	Accessible Piping: Pump suction & discharge headers located in trench or above grade to maintain accessibility and on the main floor of the pumps and associated valves/instruments. Pipe in trench is also accessible
6	Bridge Crane: Located overhead to provide an easy lifting mechanism for pump maintenance and to pull pumps into and out of the pump station as necessary.
7	Electrical Room: Electrical equipment located in separate room to reduce air conditioning energy requirements and for better safety. The main pump station can be ventilated but may not be air conditioned.



Pipeline

Alignment Selection

Our team will develop and evaluate alternative alignments to identify the optimal waterline alignment. We have successfully evaluated and recommended alternative alignments for Caste Rock Water on the WISE Water Infrastructure, Parker Midsection Pipeline, and the Chatfield Pump Back Pipeline Projects. We will utilize the same proven methodology for this project.

Our process for alignment selection considers both non-monetary (technical) and monetary factors separately, then combines these to develop a true cost-to-benefit ratio. Monetary factors are only considered after the non-monetary/technical factors are understood. This provides the opportunity for a true cost: benefit comparison.

Sizing & Materials

Our experienced pipeline team understands the importance of pipeline wetted diameter, length, and material on a project as it pertains to the up-front capital cost and long-term operation (pumping) and maintenance cost. The selection and subsequent purchase of the pipeline itself is a major component of a pipeline project. Our team has successful project experience with materials including steel, ductile iron, PVC, concrete pipe, and HDPE. In addition, our team has a strong understanding of the cost implications of material availability, construction installation, cathodic protection requirements, and long-term maintenance considerations.

Isolation Valves and System Appurtenances

Mainline isolation valves and other system appurtenances can become expensive and require more operation and maintenance than is necessary. Our team is prepared to initiate, facilitate, and attend workshops with the town to identify concepts, goals, and high-value solutions to make the project details meet your goals. We will listen to your operations staff to maximize the investment in valving and system appurtenances. The waterline will be designed as a grade-controlled waterline to maintain a smooth pipeline grade - minimizing the number of high points and low points along the line. As such, we eliminate the need for a large number of air valves and blowoffs.

Permitting

With multiple jurisdictions and regulatory agencies in proximity to the proposed project site, identifying and securing the permitting for this waterline will be critical to the project's success. We will develop, maintain, and consistently update a permitting matrix that keeps track of the agencies, permits, contacts, timing, and requirements for identified permits. This permitting matrix will be reviewed on a regular basis with the project team. Critical items will be highlighted and discussed at the design progress meetings.

Our matrix will also identify the group responsible for securing the permit whether it be CRW, Burns & McDonnell, or the future contractor. Our team has extensive experience obtaining County permits, ROW permits, etc.

Groundwater/Groundwater Quality

The regulatory framework for the management of fugitive groundwater on construction sites has become more complex to navigate in recent years, and a one-size fits all approach to permitting often taken by contractors, specifically in the Cherry Creek watershed, no longer works. The development of a practical plan to manage groundwater during the design phase of a project can alleviate "surprises" and ultimately unnecessary change orders and schedule delays during construction. Burns & McDonnell has extensive experience with construction dewatering, permitting, groundwater treatment, compliance sampling, and reporting. Burns & McDonnell is well respected by the regulators, and this invaluable relationship, coupled with our staff's deep experience, will allow us to develop a cost-effective permitting strategy that will allow for appropriate planning and accurate pricing from the contractor performing the work.

During geotechnical investigations, Kumar (our subconsultant) will perform subsurface explorations and laboratory testing for the open-cut and probable tunneled portions of the project to obtain soil and groundwater information to develop geotechnical engineering recommendations for the proposed interceptor construction. Understanding the groundwater conditions will be critical to construction and especially if the design includes a trenchless crossing of Castle Oaks Drive.

Utility Locating

Accurate vertical and horizontal identification and location of the existing lines will be key to verifying properly designed utility crossings and/or connections. We will have each waterline point of connection and crossing utility potholed prior to the final design. With the passing of Senate Bill (SB) 18-167, the emphasis on identifying, locating, and documenting existing utilities during the design phase has never been more important. We will use Kantex to perform the utility potholing services. We have worked very successfully with Kantex on projects across the Front Range of Colorado. Our proactive approach to setting the profile of the waterline can save time and money while helping to avoid redesign, change orders, and downtime during the construction of the project.

Existing Utility Management

To mitigate risk and better manage and track utilities, we have developed a Utility Tracking Tool to manage all available geospatial data from the beginning. Our tool is intended to triple-check the existence and location of existing utility lines. We have used this tool for many linear pipeline projects with tremendous success.

Project Management Approach

Our team has a proven history of completing projects for CRW on time and within budget. Flexibility, close coordination, responsiveness, and working as an extension of your staff have all been integral to the success of these past projects, just as they will also be for this project.

Budget Control & Quality Control

We use a well-developed accounting system, EcoSys, to track labor costs, expenses, and billing. Your project manager, Nikole, will be responsible for setting and controlling the budgets for your project. As part of the billing process, she will review billed hours, expenses, and costs monthly. She will also use additional tools to track progress and forecast expenditures through the end of the project. Burns & McDonnell has an established quality control program that is mandatory on all projects we undertake. Nikole will be responsible for organizing all aspects of your project's quality control activities, including scheduling the quality control review, assembling review teams, overseeing in-house quality reviews, and coordinating with CRW on your quality control requirements. Her number one priority as your project manager is to provide a high-quality work product that is in line with your expectations and project goals.

Reliable Cost Estimates

Our team is committed to providing you with opinions of probable cost you can rely on. Because most of our major water facilities design and construction experience is in Colorado, we have a library of recently constructed local projects and bid prices from similar projects. This approach results in reliable estimates CRW can trust.

Approach to Quality Control

- Q1 Peer Review of Preliminary Project Activities
- Q2 Peer Review of Intermediate Project Activities
- Q3 Check of Design and Construction Documents by Multidisciplinary Project Team
- Q4 Peer Review of Final Submittals
- Q5 Project Manager Review of Commercial Front ends for Procurement and Contract Packages
- Q5 Final Document Review

Our team does not rely on cost tools or models available on the market to estimate costs for water facilities; we use ground up estimates informed by local market data. Recent, local costs from other pump station projects will be used to check estimates.

3. ACTION PLAN & SCHEDULE

Scope of Services

Our team is proposing the following scope of services. Task series 700 includes an optional scope of services for CRW. Our team will work with CRW to adjust or modify the scope of services to meet their goals. Our team recommends the selected contractor complete traffic control plans rather than the design engineer, therefore the traffic control plans are not included in our scope. The request for proposal included an Engineer's Estimate of Probable Construction Cost at 90% and 100% Design. We would recommend including an EOPCC at 30% due to the current market conditions. A 30% EOPCC is not currently included in our scope but could be added.

Task Series 100 - Project Management

Task 101 – Project Kickoff Meeting - Engineer shall coordinate and lead a Project Kickoff meeting at the facility. During the Project Kickoff meeting the collective project team shall identify the project goals, coordinate activities, discuss project requirements, establish a project schedule, identify key project issues/concerns, identify key personnel who are to provide input on the project, and get initial input on design items.

Task 102 – Monthly Progress Meetings - Engineer shall host monthly in-person meetings throughout the project duration to keep Owner informed regarding progress and to receive input.

Task 103 – Project Management - Project management for the design phase includes project coordination between CRW and the team members. The project managers shall monitor project status, monitor project schedule, monitor project deliverables, and coordinate resources. This task includes internal meetings, as necessary.

Task 104 – 30% Design Review Meeting - After the Owner has had an opportunity to review the 30% design documents, Engineer shall conduct a 30% design review meeting. The purpose of this meeting is to provide the Owner and Engineer an opportunity to clarify Owner comments on the documents. Engineer shall provide meeting minutes with a decision log and a list of action items. Meeting minutes will be distributed via e-mail and document comments will be incorporated into the 60% design documents as appropriate.

Task 105 – 90% Design Review Meeting - After the Owner has had an opportunity to review the 90% design documents, Engineer shall conduct a 90% design review meeting. The purpose of this meeting is to provide the Owner and Engineer an opportunity to clarify Owner comments on the documents. Engineer shall provide meeting minutes with a decision log and a list of action items. Meeting minutes will be distributed via e-mail and comments will be incorporated into the Issued for Bid (100%) design documents as appropriate.

Task 106 – Quality Assurance and Quality Control Reviews - Engineer shall perform quality control for the reports, memorandums, and design documents. Burns & McDonnell has an established, formalized quality control program that is described herein and is mandatory on all projects. A copy of our corporate quality control manual is available upon request.

Task Series 200 - Surveying and Site Investigation

Task 201 – Geotechnical Investigation - Engineer shall subcontract with a licensed geotechnical firm to conduct soil borings and laboratory tests at key locations as needed to identify subsurface conditions. The geotechnical firm shall provide a geotechnical report with recommendations for the design of new buildings, foundations, and site paving as well as waterline installation and soil corrosivity.

Task 202 – Survey - Engineer shall subcontract with a licensed surveyor to conduct field surveys in sufficient detail to provide a topographic map suitable for detailed design. The survey shall show property boundaries and easements necessary for the project, as well as the location of utilities and surface features that are likely to affect the project.

Task 203 – Potholing - Engineer shall subcontract with a potholing subconsultant to perform locates of existing utilities that will be crossed or connected to by the proposed construction in order to identify their location, elevation, size, material, and alignment. For the purposes of this proposal, 10 potholes have been assumed. Generally, potholes outside of the pavement can be performed for \$1,000/each and potholes performed within a pavement section will be provided at \$2,000/each. If the alignment requires more utility potholing than the amount assumed at the time of the proposal, additional scope and fee should be included through amendment.

Task Series 300 - Alternatives Analysis

Task 301 – Alternatives Evaluation - Engineer shall evaluate two alternatives for the Pinery pipeline, including a conceptual level design, drawings, and easements. The alternatives shall be summarized in an Alternatives Technical Memorandum.

Task 302 – Engineer's Opinion of Probable Construction Cost for Alternatives - Engineer shall prepare the engineer's opinion of probable cost for the two identified alternatives. This cost opinion will be submitted along with the Alternatives Technical Memorandum for review and comment by the Owner. The cost opinion will be based on recent bid tabulation information, historical cost data, and discussions with local suppliers and contractors. Assumptions will be included for reference.

Task 303 – Preliminary Easements - Engineer shall research the property ownership, ROW, and available existing easement information along the selected pipeline alignment and at the pump station site. Engineer shall develop a property ownership map. The property ownership map will help evaluate the route selection for permanent and temporary easement requirements.

Task Series 400 - Preliminary Design

Task 401 – 30% Design Documents - Plans and specifications shall be provided by Engineer at the 30% design level. The 30% Documents shall include the following:

- ▶ Specification Table of Contents
- ▶ Civil Drawings
- ▶ Landscaping Drawings
- ▶ Pipeline Plan Drawings
- ▶ Architectural Drawings
- ▶ Structural Drawings
- ▶ Plumbing Drawings (as applicable)
- ▶ Mechanical Drawings
- ▶ Process Drawings
- ▶ Electrical Drawings
- ▶ Instrumentation and Controls Drawings

The Owner shall be given at least one week to review the plans and outline specifications prior to holding the 30% Design Review Meeting. PDF documents of the plans along with the specifications will be provided to the Owner for review.

The design fee estimate is based on the following scope items, should any of the scope items change this will be considered supplemental services and require an amendment:

- ▶ Pinery Waterline from Pinery Interconnect to Castle Oaks Lift Station Raw Water Line
- ▶ Connections to existing wells: Piping, valves, and associated electrical support infrastructure (depending on the results of the ongoing study) to connect to the new Pinery Waterline
- ▶ Pinery Pump Station, sized for 1 MGD from Pinery, 0.72 MGD from existing wells, and 0.72 MGD from future wells.

Task Series 500 - Final Design

Task 501 – 90% Design Documents - Plans and specifications shall be provided by Engineer at the 90% design level. The 90% Plans shall include the following:

- ▶ Refined Technical Specifications
- ▶ Drawings indicated in 30% review drawings brought to 90% completion, including Pipeline Profile Drawings.
- ▶ Additional Detail drawings that are needed for final design.

The Owner will be given at least one week to review the plans and specifications prior to holding the 90% Design Review Meeting. PDF documents of the plans will be provided to the Owner for review.

Task 502 – Easement Descriptions and Exhibits (additional @ \$1000/ea.) - Burns & McDonnell's survey subconsultant, Encompass, will complete up to one (1) legal descriptions for permanent easements and up to one (1) legal descriptions for temporary easements identified in Task 303. Legal descriptions will include the written description and be supported by an exhibit. Additional legal descriptions/exhibits can be provided at \$1000 for each.

Task 503 - GESC Plan and Report - Engineer shall prepare a grading, erosion, and sediment control (GESC) plan and report, in accordance with the Town of Castle Rock's requirements. The GESC submittal shall include a water control plan. The GESC package shall be included with the 90% and 100% submittals.

Task 504 – 90% Engineer's Opinion of Probable Construction Cost - Based on the 90% design documents, Engineer shall prepare the engineer's opinion of probable cost for the project. This cost opinion will be submitted along with the design documents for review and comment by the Owner. The cost opinion will be based on recent bid tabulation information, historical cost data, and discussions with local suppliers and contractors. Assumptions will be included for reference.

Task 505 – Issued for Bid (100%) Design Documents - Engineer shall prepare and submit Issue for Bid plans and specifications for bidding purposes. The plans and specifications will incorporate final Owner comments prior to bidding.

Task 506 – Issued for Bid (100%) Engineer's Opinion of Probable Construction Cost - Based on the 100% design documents, Engineer shall prepare the engineer's opinion of probable cost for the project. This cost opinion will be submitted along with the design documents for review and comment by the Owner. The cost opinion will be based on recent bid tabulation information, historical cost data, and discussions with local suppliers and contractors. Assumptions will be included for reference.

Task Series 600 - Permitting

Task 601 – Permitting Support and Develop Permit Decision Matrix - Burns & McDonnell will conduct a regulatory analysis and prepare a matrix that identifies known permits, licenses, agreements, and similar approvals required for design and construction of the Project. Burns & McDonnell shall assist with necessary permitting as required by this work. Such permitting may consist of working with local, state, and federal agencies. Necessary permits for this work may include permits through the Colorado Department of Health and Environment, Douglas County, Town GESC Department, and/or street and traffic control permits by the Town of Castle Rock, and others. Permits required to be obtained by the Contractor will be referenced in the specifications. Permit applications and necessary documents will be prepared and provided to the Owner for signature and submittal as required. Permit costs are assumed to be paid by the Owner.

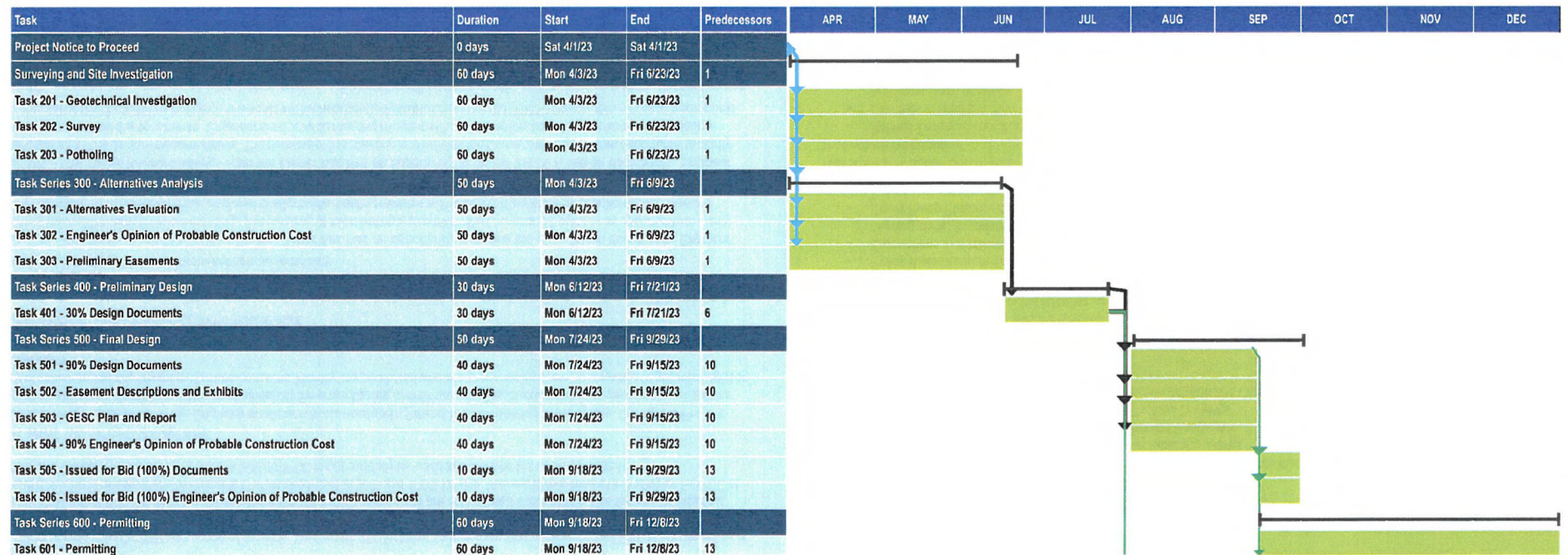
Task Series 700 - Optional Services

Task 701 – Groundwater Quality - Engineer shall coordinate with the geotechnical subcontractor to perform groundwater sampling at select geotechnical boring locations, work with the Town and CDPHE, and develop a dewatering plan, including viable alternative approaches, such as land application in an effort to minimize unanticipated treatment costs and/or impacts to the construction schedule.

Task 702 – Surge Modeling - Burns & McDonnell will subcontract with a surge modeling consultant to perform the surge analysis to identify recommended surge control/mitigation devices for the new pump station. The analysis will focus on pump station operations under varying operational conditions and include recommendations for surge anticipation valve operations. Of primary interest will be the pressure transients created by a loss of power and startup of the pumps. This task also includes hours for the Burns & McDonnell project team to coordinate with NHC, review the Surge Modeling Analysis report, and incorporate recommendations into the design after the surge modeling is complete.

Task 703 – Cathodic Protection - Burns and McDonnell's cathodic protection subconsultant can assess the proposed pump station, project alignment, and anticipated material types to be used. The Subconsultant can evaluate the effectiveness and anticipated design life of these materials to identify if each buried pipeline, fitting, and appurtenance is protected from corrosion. The cathodic protection subconsultant can then develop 90% and 100% corrosion control and cathodic protection (CP) design submittal packages for this Project. A National Association of Corrosion Engineers (NACE) Certified Cathodic Protection Specialist (CP4) and Colorado licensed Professional Engineer will oversee the work. Burns & McDonnell's drawings and specifications will include the required installations (drawings, details, and specifications) to cathodically protect the new waterline.

Schedule



Castle Rock Water
Pinery Waterline Project
Work Breakdown Structure and Fee Schedule

Activity	Project Manager		Technical Advisor		Pipeline		Pump Station		Structural		Electrical		Civil		Mechanical		Environmental		Architectural		Designers		Quality Control		BMCD Total Labor				Expenses		Sub-Consultants		Total Cost																															
	Hours		Hours		Hours		Hours		Hours		Hours		Hours		Hours		Hours		Hours		Hours		Hours		Hours		Cost		Direct		Cost																																	
	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person	Hours	Person																																
TASK SERIES 100 - Meetings and Project Management																																																																
Task 101 - Project Kickoff Meeting																																	4		2		4		4																	14		\$3,027		\$120		\$	\$3,147	
Task 102 - Monthly Progress Meetings (x7) (1)																																	14				21		14																49		\$10,361		\$410		\$	\$10,771		
Task 103 - Project Management																																	6				6		4																0		\$0		\$0		\$	-		
Task 104 - 30% Design Review Meeting																																	6				6		4																16		\$3,512		\$140		\$	\$3,652		
Task 105 - 90% Design Review Meeting																																	16		4		8		6		4		4		4		2		0		2				92		\$22,866		\$910		\$	\$23,776		
Task 106 - Quality Assurance and Quality Control Reviews																																	46		6		45		34		4		4		4		2		0		2				187		\$43,278		\$1,720		\$0	\$44,998		
Sub-Total Series 100																																																																
TASK SERIES 200 - Surveying & Site Investigation																																																																
Task 201 - Geotechnical Investigation																																	2				2		2		16				8											18		\$3,907		\$160		\$	\$3,167	
Task 202 - Survey																																	2				4		4		4														14		\$2,907		\$120		\$	\$3,027		
Task 203 - Photoblog (2)																																	2				4		4		4														10		\$2,035		\$80		\$	\$1,715		
Sub-Total Series 200																																	6		0		6		6		16		0		8		0		0		0		0		0	42		\$8,849		\$360		\$	\$94,609	
Sub-Total Series 200																																																																
TASK SERIES 300 - Alternatives Analysis																																																																
Task 301 - Alternatives Evaluation																																	20		4		64		32									40								196		\$39,638		\$1,590		\$	\$41,228	
Task 302 - Engineer's Opinion of Probable Construction Cost for Two Alternatives																																	4				12		12		6		6		6		2			2					50		\$10,114		\$400		\$	\$10,514		
Task 303 - Preliminary Assessments																																	4				36																		36		\$6,721		\$270		\$	\$6,991		
Sub-Total Series 300																																	24		4		112		44		6		6		6		2		40		2		36		0	282		\$56,473		\$2,260		\$	\$58,733	
Sub-Total Series 300																																																																
TASK SERIES 400 - Preliminary Design																																																																
Task 401 - 30% Design Documents																																	48		16		144		128		80		104		80		40		0		24		228		8	900		\$179,246		\$7,170		\$	\$186,416	
Sub-Total Series 400																																	48		16		144		128		80		104		80		40		0		24		228		8	900		\$179,246		\$7,170		\$	\$186,416	
Sub-Total Series 400																																																																
TASK SERIES 500 - Final Design																																																																
Task 501 - 90% Design Documents																																	64		24		176		160		112		184		104		40			32		336		12	1,244		\$245,882		\$9,840		\$	\$255,722		
Task 502 - Exemption Descriptions and Exhibits (x1)																																	2				20								40							4			24		\$4,467		\$180		\$	\$4,647		
Task 503 - GEESC Plan and Report																																	4				4		4		4		4		40		2			2					42		\$8,622		\$340		\$	\$8,962		
Task 504 - 90% Engineer's Opinion of Probable Construction Cost																																	24		2		64		64		40		64		24		12		-	12				4	28		\$5,972		\$240		\$	\$6,212		
Task 505 - Issued for Bid (100%) Design Documents																																	4				4		4		2		2		2		1			1					20		\$4,279		\$170		\$	\$4,449		
Task 506 - Issued for Bid (100%) Engineer's Opinion of Probable Construction Co																																	4				4								2																			
Sub-Total Series 500																																	96		26		288		232		158		254		174		55		0	47		508		16	1,836		\$382,675		\$14,510		\$	\$397,185		
Sub-Total Series 500																																																																
TASK SERIES 600 - Permitting																																																																
Task 601 - Permitting Support / Develop Permitting Matrix																																	24				40		40		0		0		24		0		60		4		0		0	192		\$40,482		\$1,620		\$	\$42,102	
Sub-Total Series 600																																	24		0		40		40		0		0		24		0		60		4		0		0	192		\$40,482		\$1,620		\$	\$42,102	
Sub-Total Series 600																																																																
TASK SERIES 700 - Additional Services (3)																																																																
Task 701 - Groundwater Quality Sampling																																																							0		\$0		\$0		\$	-		
Task 702 - Surge Modeling																																																							0		\$0		\$0		\$	-		
Task 703 - Cathodic Protection																																																							0		\$0		\$0		\$	-		
Sub-Total Series 700																																	0		0		0		0		0		0		0		0		0		0		0		0	0		\$0		\$0		\$	\$0	
Sub-Total Series 700																																																																
Project Subtotals																																	246		52		615		484		264		368		296		99		100		79		772		64	3,439		\$691,003		\$27,640		\$86,400		\$805,043
Project Subtotals																																																																
Project Total																																																																

Notes:
1. Meetings are assumed to be in person and include the preparation of meeting agendas and meeting minutes. Meeting documents will include a decision log and an action item log.
2. All personnel are assumed to be full-time employees of the City of Castle Rock.
3. Additional services can be negotiated upon award as scope of work is finalized.



EXHIBIT 2

CERTIFICATE OF INSURANCE



EXHIBIT 3

TOWN OF CASTLE ROCK AFFIDAVIT OF INDEPENDENT CONTRACTOR STATUS

I, _____, an authorized representative of **BURNS & MCDONNELL ENGINEERING COMPANY, INC. ("Burns & McDonnell")**, holding legal authority to sign this Affidavit declare under oath that I am 18 years or older and have the capacity to sign this Affidavit.

In accordance with Section 8-70-115, C.R.S., I certify the following:

- With respect to the Agreement, **Burns & McDonnell** represents and warrants that it is its express intention to be employed as an independent contractor of the Town of Castle Rock (the "Town") for purposes of performing the work or services, which are the subject of the Agreement. **Burns & McDonnell** understands and confirms that the Town reasonably relied on this intention in entering into the Agreement.
- The Town does not require **Burns & McDonnell** work exclusively for the Town, except that **Burns & McDonnell** may choose to work exclusively for the Town for a finite period of _____ time _____ specified _____ in _____ the _____ document.
- The Town does not establish a quality standard for the work or services performed pursuant to the Agreement, except that the Town may provide plans and specifications regarding the work but cannot oversee the actual work or provide instruction as to how the work is performed.
- The Town does not pay a salary or hourly rate but rather a fixed or contract rate, as noted in the terms and conditions of the Agreement, and any Exhibits made part of the Agreement.
- The Town cannot terminate the work or services performed during the contract period unless otherwise agreed to in the terms and conditions of the Agreement.
- **Burns & McDonnell** is not provided with anything, if at all, more than minimal training from the Town.
- The Town does not provide **Burns & McDonnell** with tools or benefits for the performance of the work or services which are the subject of the Agreement, except materials and equipment may be supplied.
- The Town does not dictate the time of performance, except that a completion schedule and a range of mutually agreeable work hours may be established in the Agreement.
- The Town issues checks payable to **Burns & McDonnell**, a party to the Agreement; and the Town does not combine their business operations in any way with **Burns & McDonnell's** business, but instead maintains such operations as separate and distinct.



- **Burns & McDonnell** understands that if a professional license to practice a particular occupation under the laws of the State of Colorado requires the exercise of a supervisory function with regard to the work of services performed under this Agreement, such supervisory role shall not affect the independent contractor relationship with the Town.
- **BURNS & MCDONNELL UNDERSTANDS THAT NEITHER BURNS & MCDONNELL NOR ITS EMPLOYEES ARE ENTITLED TO UNEMPLOYMENT INSURANCE BENEFITS OF THE TOWN.**
- **BURNS & MCDONNELL UNDERSTANDS THAT IT IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON MONEYS PAID PURSUANT TO THE AGREEMENT.**

CONSULTANT

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

By: _____

Name

STATE OF COLORADO)

) ss.

COUNTY OF _____)

The foregoing instrument as acknowledged before me this __ day of _____,
20__ by _____ as _____ of the above mentioned Consultant.

Witness my official hand and seal.

My commission expires:

Notary Public