

SECOND AMENDMENT TO THE TOWN OF CASTLE ROCK SERVICE AGREEMENT

(Castle Rock Reservoir No. 2 – Design and Permitting)

DATE: Nunc pro Tunc October 30, 2021

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

W.W. WHEELER & ASSOCIATES, INC., a Colorado corporation, 3700 South Inca Street, Englewood, Colorado 80110 ("Consultant").

RECITALS:

- A. The Town and Consultant are parties to the Town of Castle Rock Services Agreement (Castle Rock Reservoir No. 2 Design and Permitting), dated September 15, 2020 (the "Agreement"), and attached as *Exhibit A*, and the First Amendment to the Town of Castle Rock Services Agreement (Castle Rock Reservoir No. 2 Design and Permitting), dated April 9, 2021 ("First Amendment Agreement"), and attached as *Exhibit B*.
- B. The Town and Consultant seek to increase the project funds by \$102,100.00 for a total cumulative amount not to exceed \$713,370.00.
- C. The Town and Consultant seek to extend the completion date for the Agreement to March 31, 2023.
- D. The Town and Consultant wish to add additional services to the Agreement, as described in *Exhibit C*.
- E. The Town and Consultant wish to memorialize these changes in this Second Amendment to the Agreement ("Second Amendment Agreement").

TERMS:

- **Section 1. Amendment.** Section 1 of the Agreement is amended to read as follows:
 - Section 1. <u>Scope of Services.</u> Consultant shall provide design and permitting services in accordance with the scope of services attached as *Exhibit 1* to the Agreement, *Exhibit 1A* to the First Amendment Agreement, and *Exhibit C* to the Second Amendment Agreement ("Services").
- **Section 2.** Amendment. Section 2 of the Agreement is amended to read as follows:



Section 2. Payment. Consultant shall invoice Town on a monthly basis for the Services rendered in accordance with the rate and fee scheduled identified in *Exhibit 1* to the Agreement, *Exhibit 1A* to the First Amendment Agreement, and *Exhibit C* to the Second Amendment Agreement. The Town shall pay such invoices within 30 days receipt of such invoice. In no event shall the cumulative payment to Consultant exceed \$713,370.00, unless authorized in writing by Town.

Section 3. Amendment. Section 3 of the Agreement is amended to read as follows:

Section 3. <u>Completion.</u> Consultant shall commence the Services upon execution of this Agreement and complete the Services by March 31, 2023. Consultant shall devote adequate resources to assure 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.

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.

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 4. Certificate of Insurance. Consultant's Certification of Insurance for the year 2022 is attached as *Exhibit D*.

Section 5. Ratification. In all other respects, the Agreement shall remain in full force and effect.

ATTEST:	TOWN OF CASTLE ROCK
Lisa Anderson, Town Clerk	Jason Gray, Mayor
Approved as to form:	Approved as to content:
Michael J. Hyman, Town Attorney	Mark Marlowe, Director Castle Rock Water



W.W. V	VHEELER & ASSOCIATES, INC.	•
By:		
Its:		

TOWN OF CASTLE ROCK SERVICES AGREEMENT (CASTLE ROCK RESERVOIR NO.2 – DESIGN AND PERMITTING)

DATE:

September 15, 2020.

PARTIES:

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

W.W. WHEELER & ASSOCIATES, INC., a Colorado corporation, 3700 South Inca Street, Englewood, Colorado 80110-3405 ("Consultant").

RECITALS:

- A. The Town issued a Request for Proposals from qualified firms with expertise in owner representation services.
- B. Consultant timely submitted its proposal.
- C. 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 services related to the design and permitting of Castle Rock Reservoir No. 2 in accordance with the scope of work attached as *Exhibit 1* ("Services").
- Section 2. <u>Payment</u>. Consultant shall invoice Town on a monthly basis for the Services rendered in accordance with the rate and fee scheduled identified in *Exhibit 1*. Town shall pay such invoices within 30 days receipt of such invoice. In no event shall the cumulative payment to Consultant exceed \$555,700.00, unless authorized in writing by Town.
- Section 3. Completion. Consultant shall commence the Services upon execution of this Agreement and complete the Services by no later than October 31, 2021. Consultant shall devote adequate resources to assure 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.

Town shall have the right to terminate this Agreement at any time with 30 days written notice to Consultant. In addition, this Agreement shall terminate December 31, 2020 in the event funds to support payment under this Agreement are not appropriated for calendar year 2021. 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.

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- Section 4. <u>Subcontractors.</u> 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 5. Assignment. This Agreement shall not be assigned by Consultant without the written consent of the Town.
- Section 6. 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 7. Prohibition Against Employing Illegal Aliens. Consultant shall not knowingly employ or contract with an illegal alien to perform work under this contract. Consultant shall not enter into a contract with a subcontractor that fails to certify to the Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract.

Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under the public contract for services through participation in either the E-verify program or the Department program, as defined in C.R.S. §§ 8-17.5-101(3.3) and 8-17.5-101(3.7), respectively. Consultant is prohibited from using the E-verify program or Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed.

If Consultant obtains actual knowledge that a subcontractor performing work under this Agreement for services knowingly employs or contracts with an illegal alien, Consultant shall:

- A. Notify the subcontractor and the Town within three days that the Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
- B. Terminate the subcontract with the subcontractor if within three days of receiving notice required pursuant to this paragraph the subcontractor does not stop employee or contracting with the illegal alien; except that the Consultant shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

Consultant shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. §8-17.5-102(5).

If Consultant violates a provision of this Agreement required pursuant to C.R.S. §8-17.5-102, Town may terminate the Agreement for breach of contract. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the Town.

- Section 8. <u>Insurance.</u> 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 minimum insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers 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 minimum 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. Comprehensive General Liability insurance with minimum 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 (including for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.
 - 3. Comprehensive Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate with respect to each of Consultant's owned, hired and/or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision.
 - 4. Professional Liability insurance with minimum 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 be endorsed to include the Town, its officers and employees, as an additional insured. Every policy required above, except Workers' Compensation 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 Comprehensive General Liability insurance required

above shall not contain any exclusion for bodily injury or property damage arising from 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 as evidence that policies providing the required coverage, conditions and minimum 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, terminated or materially changed 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. The Town reserves the right to request and receive a certified copy of any policy and any endorsement thereto.
- D. Failure on the part of Consultant to procure or maintain policies providing the required coverage, conditions, and minimum 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.
- E. 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 \$387,000 per person, \$1,093,000 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 9. <u>Indemnification</u>. Consultant expressly agrees to indemnify and hold harmless Town or any of its officers or employees from any and all claims, damages, liability, or court awards including attorney's fees that are or may be awarded as a result of any loss, injury or damage sustained or claimed to have been sustained by anyone, 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 10. <u>Delays.</u> 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 11. <u>Additional Documents.</u> The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement.

- Section 12. 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 13. <u>Time of the Essence.</u> Time is of the essence. 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 14. <u>Default and Remedies</u>. 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.

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- Section 15. <u>Waiver.</u> 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 16. Governing Law. This Agreement shall be governed by the laws of the State of Colorado.
- Section 17. <u>Independent Contractor.</u> Consultant and Town hereby represent that Consultant is an independent contractor for all purposes hereunder. 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 18. 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.

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ATTEST:

Lisa Anderson, Town Clerk

Approved as to form:

Michael J. Hyman, Town Attorney

TOWN OF CASTLE ROCK

Click or tap here to enter text. Jason Bower, Mayor Pro Tem

Approved as to content:

Click or tap here to enter text.

MARK MARCONE, DIRECTOR CASTLE BUE WATER

CONSULTANT:

W.W. WHEELER & ASSOCIATES, INC.

By:

Principa Its:

SEAL



August 21, 2020

Shantanu Tiwari, PMP, CIP Project Manager Castle Rock Water 175 Kellogg Court Castle Rock, CO 80109

Subject: Castle Rock Reservoir No. 2 (CRR2) - Revised Scope of Work and Work

Breakdown Budget Spreadsheet

Engineering Services Design Proposal - RFP No. 2020-08

Water Division 1, Water District 8

Dear Mr. Tiwari

Per your request on August 18, W. W. Wheeler and Associates Inc. (Wheeler) is pleased to provide this updated Castle Rock Reservoir No. 2 (CRR2) scope of work and budget. We have included an updated Work Breakdown Structure and an Hourly Fee Estimate spreadsheet for your review, based on the additional work items requested in your e-mail. Added or modified Scope of Work items are shaded in green on the updated work breakdown structure and a description of additional or modified tasks is included below. We propose to complete the scope of work defined in the July 10, 2020 Request for Proposals and the additional scope of work items addressed below for a total fee of \$555,700. Please feel free to contact us with any questions regarding our revised fee estimate.

<u>Item 1 – Potential Failure Modes Analysis for CRR2</u>

Wheeler will organize and facilitate a one day Potential Failure Mode Analysis (PFMA) workshop and will prepare a PFMA report based on the Colorado Dam Safety Branch Comprehensive Dam Safety Evaluation (CDSE) tool. Steve Jamieson will facilitate the workshop because he is a FERC-approved PFMA facilitator and has facilitated many similar workshops. Key members of our design team, and representatives from Castle Rock Water and Colorado Dam safety will participate in the workshop. It is our experience that the PFMA workshop is best scheduled after the design is about 60 percent complete. At 60 percent complete, the key design analyses are generally complete and good design drawings have been developed for the discussion of PFMAs. Item 1 was added to the WBS as Tasks 13.1 and 13.2.

Item 2 - Design Summary Report

Item 2 was previously included in Wheeler's WBS and fee estimate as Task 4.4. However, based on interview conversations and your request to include hours for the report, we have increased hours allocated to this task. Wheeler will prepare a comprehensive design summary report which will be submitted to the SEO with other design documents. The report will also incorporate the required geotechnical and hydrology reports and a design criteria memorandum into a single report.

Item 3 - Additional Hours for Douglas County PUD/SDP

Item 3 was previously included in Wheeler's WBS and fee estimate as Task 9. However, based on interview conversations, we may have underestimated the level of effort that will be required for this task. In anticipation of a high level of coordination with Douglas County, we have increased hours allocated towards updated the existing PUD and SDP.

<u>Item 4 – Intermountain Rural Electric Association (IREA) Coordination</u>

Wheeler will prepare legal exhibits for IREA to facilitate IREA power transmission line relocation. Item 4 was added to the WBS as Task 9.11.

Item 5 - Additional Subsurface Investigation

Wheeler will expand the scope of our proposed subsurface investigation to include drilled test borings along the proposed IREA power line relocation alignment and to better define conditions at Castle Rock Reservoir No. 1. We have assumed six additional soil borings to depths ranging from 25 to 55 feet will be include with the subsurface investigation. Item 5 was added to the WBS as Task 1.2. Additionally, hours and fees for Task 1.3 were increased to provide additional soils laboratory testing.

<u>Item 6 – Separate Pipeline Design Report</u>

Item 6 was previously included in Wheeler's WBS and fee estimate as Task 5.3. However; based on interview conversations, and your request to include hours for the report, we have increased hours allocated to this task.

Mr. Tiwari August 21, 2020 Page 3

We look forward to continuing our relationship with the Town of Castle Rock and our involvement in efforts to move to a renewable water supply. If you have any questions or concerns about the services offered in this proposal, please call us at 303-761-4130.

Sincerely,

W.W. Wheeler and Associates

Todd S. Street, P.E., CFM

cc: Steve Jamieson, P.E.

Encl: Fee Estimate and Work Breakdown Structure

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Notes

I) Task totals are rounded up to nearest \$100 for proposal purposes
2) Actual hours billed per task may vary



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LEVEL 1		LEVEL 2	Engineer	CAD Designer	Project Principal	Geoscientist B (Hejegist B	Geneciance or Eliabetical	Editor	Administrative State	Controls Engineer	Sub Consultant Expenses	Sub Consultant Sub Total	Sub Total (From Sheet 1)	Fee Estimate Sub total \$30,814 \$30,907 \$33,251 \$10,845 \$10,845 \$10,845 \$10,845 \$10,845 \$1,86	Rounde
			\$115.00	\$70.00	3100.00	GIS Specialist \$109.66	Technician 988.80	\$84.00	\$78,00	\$140,00					0.00
Data Collection - Geotechnical investigation-	1.1	Subsurface Investigation - CRR2 Subsurface Investigation - Powerfine and CRR1			-							50	\$20,814	\$20,814	-
perform geotechnical investigation of the following minimum requirements and in accordance with the	1.3	Solo Laboratory Tayling							-			N.	\$13,231	\$13,231	
State Engineer's Office (SEO) requirements	1.4	Surveying										90		\$18,948	-
	1.5	Review design details of existing facilities Tauk F	444	-							90	- 50			
instronmental leases - Evaluate environmental	2.1	Burrowing Only survey and religation plan		-	2	18	12	- 1	177	1	\$3,347	\$6,625	\$131	\$6,760	-
ouse and mitigation strategies associated with the	2.2	Preble's Mondoor Jumping Mouse impact			2	4		1	1		\$1,075	\$2,919			
roject	23	Weste Material removal and self-testing report Wellands identification and impact analysis	-	+	1	10	4	- 2	1		\$4,676 \$2,666	\$7,817			
	2.5	[Raptor risoling cludy			1	9		1	1		\$1,407	\$2.010	\$131		
	3.1	Took T	tale (6	66	- 10	-	- 5	-	\$11,967	\$22,27	\$2,662	\$24,333	
	3.2	Contractor Pre-Qualification Package Preparation and Review Send 80 percent completion Specifications to Contractors	-	-	-			-	+	1	-		\$128	\$32%	in .
contractors to specialist ore provises	3.3	Request and Compile Comments for 90 Percent Submitted										80	\$320	\$128	ner .
	41	Analysis (Totals from tasks below)	tale 0		0	0	0	-	0	E4	90	\$20.30	84,961	\$4,958	
	1 413	Reserved Collection	114	-	0	-	9		1	34		929,399	\$17,140	9114,000	-
	412	Geotechnical Analysis										-	-	-	
	41,3		90						-	-		-	-	-	
	4.1,5	Flood Hydrology	8	1	<u> </u>	1							-	-	-
	41.6	Hydraulic Analysis							1			-	_	-	-
	41.7		-		-					52				-	
	4.2	Design Drawings	186	176	24.	10		2	3	74	\$5,726	\$45,163	\$40,656	\$94,818	-
	4,3	Design Specifications	32									\$3.680			-
	4.4	Creage Survivary Report (Includes Hardrology report and Geotech Report) Task T	tale 347	176	24	16			-	52	35.726	\$800			an .
palines and Coordination - Coordination with	.5.1	ntegrate sestem and ensure easily maintainable system - Coordinate with TCR	Kale Ser	110			-	-	-	JE	80,100	90	\$944	\$344	-
epervoir No. 1 and Pump Station	5,2	Obtain SEO approved of pipeline location										\$2			
nvoir No. 1 and Pursp Station	5.4	Preliminary Pipeline Design Report Water Quality-Analysis	-	+	-				+	-	-	- 8			
	5.5	George Drawings									\$1,850, \$50 \$5,038, \$60 \$50 \$12,160 \$400; \$6,108	\$9,088	-		
	81	Taok T	tale 6		0	-		- 6		100					
	6.2	Updated engineering construction cost entitles Prepare a final estimate of construction cost for projects	1									540			
		Took T	tale II	- 6	0			-	- 1	-	- 80	(82)	\$7,574	\$1,400	
	7.1	Asset TCH in creating good of proquelified bidders Compile the issued for flid Documents	-						-			100		\$1,030	
I City in conductor blooming precess	7.3	Assist TCH with RFI Response	4									\$460	Soon feeled # Section Such tests		
	7,4	Review proposeds and provide contractor award recommendation	tulo å								40	\$40	\$4,380	\$4,380	
Public Process - Prepare analysis and assist the	8.1	Tank T- [Two small group statishedder recedings	Capo 4	-	-			_	-	1 -		- 1	\$4,640	\$4,640	-
own of Casille Rock staff in propering for following	8.2	Two public meetings													
contractor Pre-Gualification - Pre-Gualify contractor Pre-Gualification - Pre-Gualify contractor to absenting bid process Reservoir Design - Analyza conditions and develop feeding of reservoir Pipellines and Coordination - Coordination with Reservoir No. 1 and Pursp Station Estillanded Project Court - Provide engineering soot and schodding estimates Bid Analystence - Asolist Terms of Caetile Rook (TCR) in contractor bidding process Public Process - Propare graphics and assist the from of Caetile Rook staff in preparing for following meetings Public Process - Propare graphics and assist the from of Caetile Rook staff in preparing for following meetings Public Process - Propare graphics and assist the from of Caetile Rook staff in preparing for following meetings Public Process - Stafe Policy Staff in preparing for following meetings Project Management Staff or Staff Staff Staff Emergency Action Pless Froject Management	8.1 8.4	One Town Council study session Town Council approval	+	_	-				_	-					
		Task T	tols 0		0				0		\$0	50		\$19,320	
	8.1	Survey Concept Review										10	\$1.180	\$10,0497 \$10,4407 \$10,440 \$10,440 \$10,240 \$10,440 \$10,	-
eeded to amend the existing PAD and amend the	53	Cover Steel			44,00							- 50	\$1,180	\$1,160	-
on the second of the second of the second	9,4											50	\$1,180		**
	9.5	Site Plan Grading Plan		+								100			-
	9.7	(Building Architectum)										y.	\$1,160	\$1,180	-
	9.9	Landscape Plan Address Plan	-	+								52			
	9,10	First Plat	1									u u	\$1,180	\$1,180	_
	9,11	REA suspert										y.	\$4,408	544, 515, 246 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	**
	10.1	CLBC drawings for grading/ drainage permit from Douglas County	tule 0			- 0		-			- 10	- BC	\$16,206		_
	10.3	Burowing Onl survey									1 1 1 1 1 1 1	\$0	\$262	\$262	-
	10.4	Preble's Meadow Jumping Mouse		-	24	14	4	2	1		\$2,884 \$6,982	\$5,872 \$13,810	\$262		
	10.5	Rapter neeting Other state, local and federal permits as required (SEO Submitted trickeded Here		+			•	-	1			\$0	\$2,648	\$51,245 \$51,246 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,460 \$51,660 \$51,560 \$51,66	-
		Took To			36	2	4		4		\$3,000	\$16,460	\$8,926	\$28,310	
mergancy Action Plan	11.1	Frequent emergency action plan in Economics and 250 regularisation (and)	esta 0		-				-			- 1			-
relect Management	12.1	Etualized and schedule management and monitoring	24				- 3		1 "	-		\$2,768	\$5,240	\$8,000	-
	12.2	Preparation of Invoices Meetings/Conferences with TCR biswelly during design approval from SEO										14	\$1,572		-
	12.3 12.4	Meetings Conferences with TCR beweely during design approved from SEO	1	-	8				+	4	-	\$1,866 \$2,806	\$19,777		_
	IL,4	Took T	tele 12	0	16	0	1			1	\$1	\$7,456	\$40,357	0.0607 \$90,007 1 \$00,007 1	
elimeted Project Cost - Provide engineering cost	(1	Updated ungineering construction cost estimate Prepare a final estimate of construction cost for projects	of March 1811						-	0.000		\$826		\$10,736	-
nd scheduling estimates	5,2	Prepare a final estimate of construction cost for projects Test 7	tels 1	0				0		8	- 0	1000	\$15.844	\$10,764	
		Total H	NEP -	176	78	108	22	13	12		-	-	-	100	-
															\$55





EXHIBIT B to Second Amendment Agreement

FIRST AMENDMENT TOWN OF CASTLE ROCK SERVICES AGREEMENT

(Castle Rock Reservoir No. 2 – Design and Permitting)

4/9/2021 | 1:50 PM MDT

DATE:

PARTIES:

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

W.W. WHEELER & ASSOCIATES, INC., a Colorado corporation, 3700 South Inca Street, Englewood, Colorado 80110 ("Consultant").

RECITALS:

- A. The Town and the Consultant are parties to the Town of Castle Rock Services Agreement (Castle Rock Reservoir No. 2 Design and Permitting) dated September 15, 2020 ("Agreement").
- B. The parties wish to extend the scope of services of the Agreement to include liquefaction mitigation alternatives analysis and supplementary geotechnical field investigation to support the analysis.
- C. The cost of the extended scope of services is within the approved contingency funds approved by the Town Council in Resolution No. 2020-092.

TERMS:

Section 1. Amendment. The Agreement is amended to revise **Scope of Services** as follows:

Consultant shall provide services related to the design and permitting of Castle Rock Reservoir No. 2 in accordance with the scope of work attached as **Exhibit 1** and to perform a liquefaction mitigation alternatives analysis and supplementary geotechnical field investigation to support the analysis in accordance with the scope of work attached as **Exhibit 1A**.

Section 2. Ratification. In all other respects, the Contract shall remain in full force and effect.

(Signatures on next page)

ATTEST: DocuSigned by:	DS CAST	TOWN OF CASTLE ROCK DocuSigned by:
Egisar Arnsterson, Town Clerk	SEAL O	David L. Corliss David L. Corliss, Town Manager
Approved as to form:		Approved as to content:
DocuSigned by:		DocuSigned by:
Michael J. Hyman		Mark Marlowe
Wiffeliae 19. Hyman, Town Attorney		Mark Marlowe, Director Castle Rock Water

CONSULTANT:

W.W. WHEELER & ASSOCIATES, INC.

a Color	rado corporation July Spice
By:	- Jam /five
Its:	Project Manager

EXHIBIT 1



WWW.WWWHEELER.COM

August 21, 2020

Shantanu Tiwari, PMP, CIP Project Manager Castle Rock Water 175 Kellogg Court Castle Rock, CO 80109

Subject: Castle Rock Reservoir No. 2 (CRR2) - Revised Scope of Work and Work

Breakdown Budget Spreadsheet

Engineering Services Design Proposal - RFP No. 2020-08

Water Division 1, Water District 8

Dear Mr. Tiwari

Per your request on August 18, W. W. Wheeler and Associates Inc. (Wheeler) is pleased to provide this updated Castle Rock Reservoir No. 2 (CRR2) scope of work and budget. We have included an updated Work Breakdown Structure and an Hourly Fee Estimate spreadsheet for your review, based on the additional work items requested in your e-mail. Added or modified Scope of Work items are shaded in green on the updated work breakdown structure and a description of additional or modified tasks is included below. We propose to complete the scope of work defined in the July 10, 2020 Request for Proposals and the additional scope of work items addressed below for a total fee of \$555,700. Please feel free to contact us with any questions regarding our revised fee estimate.

<u>Item 1 – Potential Failure Modes Analysis for CRR2</u>

Wheeler will organize and facilitate a one day Potential Failure Mode Analysis (PFMA) workshop and will prepare a PFMA report based on the Colorado Dam Safety Branch Comprehensive Dam Safety Evaluation (CDSE) tool. Steve Jamieson will facilitate the workshop because he is a FERC-approved PFMA facilitator and has facilitated many similar workshops. Key members of our design team, and representatives from Castle Rock Water and Colorado Dam safety will participate in the workshop. It is our experience that the PFMA workshop is best scheduled after the design is about 60 percent complete. At 60 percent complete, the key design analyses are generally complete and good design drawings have been developed for the discussion of PFMAs. Item 1 was added to the WBS as Tasks 13.1 and 13.2.

Mr. Tiwari August 21, 2020 Page 2

Item 2 - Design Summary Report

Item 2 was previously included in Wheeler's WBS and fee estimate as Task 4.4. However, based on interview conversations and your request to include hours for the report, we have increased hours allocated to this task. Wheeler will prepare a comprehensive design summary report which will be submitted to the SEO with other design documents. The report will also incorporate the required geotechnical and hydrology reports and a design criteria memorandum into a single report.

Item 3 - Additional Hours for Douglas County PUD/SDP

Item 3 was previously included in Wheeler's WBS and fee estimate as Task 9. However, based on interview conversations, we may have underestimated the level of effort that will be required for this task. In anticipation of a high level of coordination with Douglas County, we have increased hours allocated towards updated the existing PUD and SDP.

Item 4 – Intermountain Rural Electric Association (IREA) Coordination

Wheeler will prepare legal exhibits for IREA to facilitate IREA power transmission line relocation. Item 4 was added to the WBS as Task 9.11.

Item 5 - Additional Subsurface Investigation

Wheeler will expand the scope of our proposed subsurface investigation to include drilled test borings along the proposed IREA power line relocation alignment and to better define conditions at Castle Rock Reservoir No. 1. We have assumed six additional soil borings to depths ranging from 25 to 55 feet will be include with the subsurface investigation. Item 5 was added to the WBS as Task 1.2. Additionally, hours and fees for Task 1.3 were increased to provide additional soils laboratory testing.

<u>Item 6 – Separate Pipeline Design Report</u>

Item 6 was previously included in Wheeler's WBS and fee estimate as Task 5.3. However; based on interview conversations, and your request to include hours for the report, we have increased hours allocated to this task.

EXHIBIT 1A

Task 1 – Field Exploration

Task 1.1 CPT Investigation

Wheeler will subcontract ConeTec to conduct a CPT program. The purpose of proposed CPT locations is to identify the extent of liquefiable soils and better understand their material properties. The CPT field program will include:

- CPT along the eastern side of the site and the northeastern corner of the site where liquefiable soils exist beneath the proposed embankment dam footprint.
- Measurement of shear wave velocities in two CPT soundings.
- Pore pressure dissipation tests at select depths to determine water levels and permeability.
- All CPT soundings will be advanced to the top of sandstone bedrock or to refusal. Wheeler estimates the CPT program will include 20 to 25 soundings and be completed in three 8-hour days on site. Wheeler's effort for this task includes retaining a CPT subcontractor and full-time onsite oversight by Wheeler personnel during the CPT field program.

Task 1.2 Geophysical Survey

Wheeler will subcontract Collier Geophysics to perform a geophysical survey using Multichannel Analysis of Surface Waves (MASW). The results of the geophysical survey will be used to better characterize the bedrock, measure the shear wave velocity of upper 30 meters (Vs30) and determine the site class in support of the screening-level liquefaction triggering assessment and future stability models. The geophysical survey will be conducted at five locations and the output of the survey will be a one-dimensional shear wave velocity profile of the ground to the depth of 100 feet for each location.

Task 1.3 Geotechnical Data Report

Wheeler will prepare a geotechnical data memo that includes the following items:

- CPT data report from ConeTec (electronic CPT data file will be provided)
- Geophysical survey report from Collier Geophysics
- Findings on depths to bedrock and groundwater and a summary of the subsurface conditions encountered in reference to the previous Geotechnical Data Report (Wheeler, 2021).

Deliverable: Geotechnical Data Memorandum

Fee Estimate: \$34,000

Task 2 – CPT-based Liquefaction Triggering Assessment

Cone penetration testing (CPT) is an excellent tool for determining stratigraphy and quantifying engineering behavior (strength, stiffness, permeability, liquefaction susceptibility, etc.) of the subsurface stratigraphic layers. CPT data is complemented well by traditional drilling and laboratory testing data. Wheeler will use the CPT data along with the previous results from the exploratory borings to develop engineering properties for the material on site. These material properties will be used in subsequent modeling and analysis efforts.

Interpretation of the CPT data will be made considering the laboratory results and observations from the 2020 drilling program by Wheeler. Processing of the CPT data will provide information

on the soil behavior type, strength, density, stiffness, and other engineering properties. Processing of the CPT dissipation test data will provide information on permeability and the elevation of the phreatic surface. The output of the CPT analysis and interpretation will be properties required for slope stability and deformation modelling and an understanding of the insitu state of the sand stratum. This will provide insight into the liquefaction susceptibility and post-liquefaction strength.

Following the CPT data processing, Wheeler will complete the liquefaction analysis using conventional methods (Idriss and Boulanger, 2014; Been and Jefferies, 2016). Postliquefaction slope stability analyses will be performed for two cross-sections using the limitequilibrium SLOPE/W software. The potential liquefiable zones will be estimated base on the results of the CPT evaluation and liquefaction analysis noted above.

Deliverable: CPT-based Liquefaction Triggering Assessment Memorandum

Fee Estimate: \$13,900

Task 5 – Coordination and Meetings

This task includes efforts for update meetings with the Town and communications to facilitate the project.

Deliverables: Meeting Summary

Fee Estimate: \$1,000



EXHIBIT C to Second Amendment Agreement

SERVICES AND FEE SCHEDULE

Consultant shall provide the following additional Services for the Town:

Out of Scope Items

Item 1 - Reservoir Grading Alternatives

Out of Scope Task 1 was to complete an alternatives analysis to determine if the proposed CRR2 footprint could be reduced and the existing CRR1 reservoir expanded to provide a total approximately 1,200 acre-feet of storage. The analysis was completed at the request of Castle Rock and results were provide in the June 18, 2021 Wheeler memorandum with subject "Castle Rock Reservoir No. 1 and Reservoir No. 2 Alternate Grading Evaluation". The initial Project RFP indicated that the design presented in the Civil Resources feasibility study would be advanced to the final design. Due to complications with relocating the IREA transmission power lines, the original plan was modified to include expansion of CRR1 and modification of the proposed CRR2 design to a ring dike configuration. This resulted in significant changes to the project's on-site storage, earthwork volumes, and project cost. Time spent on preparation of the Alternatives Memorandum was tracked separately within Wheeler's invoicing system.

<u>Time and Materials Fee:</u> \$11,900

Item 2 - Conditional Letter of Map Revision Request

Wheeler's initial proposal assumed a single hydraulic evaluation would be required to complete the project floodplain permitting. Available floodplain mapping indicated that the project would be located entirely within the flood fringe and outside of the regulatory floodway. Thus, the project should not require a Conditional Letter of Map Revision (CLOMR). Wheeler included enough budget to compete a simple CLOMR request if required. Upon discussions with Douglas County and the Mile High Flood District (MHFD), Wheeler and the Town were notified that the Plum Creek Floodplain Mapping is in the process of an update. Douglas County and MHFD required that both hydraulic models be updated to include the project and quantify impacts. As a result, Wheeler prepared two separate floodplain studies and reports. The Change Order fee noted below is based on actual hours spent on the CLOMR reports plus anticipated time required to address FEMA review comments, less the budgeted time from the original proposal. Additionally, Wheeler removed 80 hours of engineering time from the requested change order fee.

Time and Materials Fee - Beyond Original Estimate: \$21,800

Item 3 - Design Modifications

The footprint modification which resulted from the Alternatives Analysis discussed in Task 1 introduced a significant level of complication to the design and design documents. Most notably, and due to the shortage of available borrow material on the site, CRR2 will now be constructed in two phases and borrow generated from the CRR1 expansion will be used to complete the second phase. The initial design balanced cut and fill within the CRR2 footprint and would be constructed in a single phase. This change required Wheeler to design a fully functional interim embankment and reservoir in addition to the final reservoir. This added a significant level of complexity to the design drawings, project specifications, and bid documents. Additionally, the original feasibility design used a simple open channel spillway. Because the embankment was modified to a ring dike configuration, an outlet tower was incorporated into the design. The outlet tower required a structural engineering design effort which was not anticipated in the original scope. Additionally, the new configuration required design of a stormwater conveyance system to address drainage issues created by the ring dike configuration. The fee for Task 3 is based on the additional level of complexity, requiring phased drawing set and additional bid documents.

Fee Estimate - Based on Increased Complexity:

\$34,300



Item 4 - Southwest Borrow Area Investigation

Due to the lack of accessible borrow material on site, the Town requested that Wheeler complete an additional borrow investigation on a newly available, adjacent parcel located at the southwest side of the site. Wheeler provided the Town with a detailed scope and fee estimate for the additional investigation at that time. The Borrow Investigation scope was presented to the Town in the Wheeler letter with subject "Castle Rock Reservoir No. 2 Southwest Borrow Investigation" and dated November 16, 2021. The scope of work was preliminarily approved by the Town via email correspondence. The borrow investigation was completed in January 2022.

Fee Estimate: \$17,400

Item 5 - Piping System Modifications

A utility workshop and 30 percent drawing review was completed with the Town on July 12, 2021. During the workshop, the Town concluded that a single bidirectional pipeline should be used to both fill and discharge from the reservoir. Following preparation of the 60 percent design package, the Town elected to modify the bidirectional pipeline design to two separate dedicated fill and discharge pipelines. The value associated with this item was determined as the time spent completing design of the single bidirectional pipeline, prior to the separate fill and discharge pipeline concept.

Additionally, Wheeler has prepared a design for replacement of the existing 16-inch-diameter Ravenna fiberglass pipeline, located on the east and north sides of the site and a future tie in for an anticipated 30-inch diameter fill pipeline from Roxborough. Fees to develop the replacement pipeline design and the additional fill connection, and include that design in the drawing set and specifications are included in Item 5.

Time and Materials Fee: \$11,700

Item 6 - Electrical and Controls Modifications

The original RFP provided by the Town indicated that the electrical and controls scope would be limited to incorporating reservoir levels into the Town's SCADA system. As the design progressed, however, the Town requested that Wheeler incorporate power distribution and modulating valves to the vaults and control houses. The fee associated with the additional electrical scope is based on costs provided by LSI, the project electrical engineering consultant.

Subconsultant Fee: \$5,600

II. Tasks Not Required

The initial proposal assumed the CRR2 dam would be classified as a High Hazard dam. The CO Division of Water Resources (DWR) requires that High Hazard dams complete a Comprehensive Dam Safety Evaluation (CDSE) and prepare an Emergency Action Plan. During completion of the breach and inundation modeling, Wheeler was able to establish CRR2 as a Low Hazard dam under Dam Safety rules. Wheeler included these two items as individual tasks in our original proposal. Because the tasks were not required, we have considered the value of those tasks as credits in the total value of our Change Order Request.

Emergency Action Plan Fee Estimate: (\$5,800)

Comprehensive Dam Safety Evaluation Fee Estimate: (\$19,800)

III. Additional Tasks and Fees

In addition to the change orders listed above, Wheeler is requesting an additional project contingency of \$25,000. The purpose is to reestablish a project contingency to address unforeseen design and permitting conditions that may occur. The initial project fee estimate included a contingency that has been exhausted to date with current design effort. Wheeler will make an effort to preserve the contingency unless it is required.

Contingency Fee Estimate: \$25,000



IV. Summary of Request

A summary of the change order values and fees is presented below.

Table 1 -Request Summary

	Change Order Item	Fee						
1	1 Reservoir Grading Alternatives							
2	CLOMR Request	\$21,800						
3	Design Modifications	\$34,300						
4	4 Southwest Borrow Investigation							
5	Piping System Modifications	\$11,700						
6	Electrical and Controls	\$5,600						
Credit	Original Tasks Not Required	(\$25,600)						
Addl.	Additional Fee Request (contingency)	\$25,000						
	Total	\$102,100						

Note: red costs refer to items that were credited because they were tasks included in the initial fee estimate but were not required.



CH	HANGE ORDER REQUEST - DESIGN OF	CASTLE ROCK RESERVOIR #2 - W. W. WHEELER HOURS												
						;	Staff / Position / Ra	ite						
		Wheeler1	Wheeler3	Wheeler2	Wheeler2	Wheeler6	Wheeler4	Wheeler5	Wheeler7	Wheeler9	Wheeler		1	
			SLJ (Review)	TSS (PM)	GM (Review)	AG (Geotech)	AF (Hydrology)	TML (Review)	STM (PE)	JR or JC	SAA (Draft)	Expenses (Structural,		Rounded Fee
LEVEL 1	LEVEL 2	Senior Project Engineer	Project Engineer	Senior Project Engineer	Project Engineer		Staff Engineer Associate Engineer		Junior Engineer	Cadd/Draftsman	Electrical Engineering, Drilling Rig)	Fee Estimate	Estimate	
			\$171.00	\$144.00	\$171.00	\$144.00	\$118.00	\$131.00	\$118.00	\$97.00	\$83.00	Drilling Kig)		
1	Reservoir Grading Alternatives	Task Totals	0	56	0	0	0	0	0	0	44	\$0	\$11,834	\$11,900
2	CLOMR	Task Totals	0	0.5	0	0	184	0	0	0	0	\$0	\$21,784	\$21,800
3	Design Modifications	Task Totals	0	80	0	0	24	0	0	16	40	\$15,000	\$34,224	\$34,300
4	Southwest Borrow Area Investigation	Task Totals	0	44		4	0	0	0	20	32	\$4,800	\$17,400	\$17,400
5	Piping System Modifications	Task Totals	0	14	0	0	0	0	66	0	22	\$0	\$11,630	
6	Electrical Modifications	Task Totals	0	0	0	0	0	0	0	0	0	\$5,600	\$5,600	\$5,600
7	Tasks Not Required	Task Totals	0	0	0	0	0	0	0	0	0	\$0	(\$25,600)	(\$25,600)
8	Additional Contingency	Task Totals	0	100	0	0	0	0	60	0	42	\$0	\$24,966	\$25,000
	•	Total Hours	0	280.5	0	4	208	0	60	36	158			
		Total Fees	\$0.00	\$40,392.00	\$0.00	\$576.00	\$24,544.00	\$0.00	\$7,080.00	\$3,492.00	\$13,114.00	\$25,400	\$90,842	\$102,100

1) Task totals are rounded up to nearest \$100 for proposal purposes 2) Actual hours billed per task may vary





EXHIBIT D to Second Amendment Agreement

CERTIFICATE OF INSURANCE