

CHANGE ORDER**Number 1**

Date: October 28, 2022
 To: Garver LLC
 From: City of Grand Junction
 Project: **Odor Control Improvements**
 P.O.: **2020-00000382**

It is agreed to modify the Contract for the Project as follows:

This change order extends the contract of the design consultant to include permitting, construction administration, inspection, and commissioning support throughout the construction phase of the project. A detailed breakdown of additional services is included in the proposal dated October 5, 2022.

Summary of Contract price adjustments - itemized on the attached sheet(s):

Original Contract Amount	\$	168,462.00
Approved Change Orders	\$	-
This Change Order	\$	118,831.31
Revised Contract Amount	\$	287,293.31

Summary of Contract time adjustments:

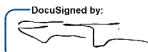
Original Contract Time	285.	Cal. Days
Approved Change Orders	0.	
This Change Order	730.	
Revised Contract Time	1,015.	Cal. Days

Contract Start Date: June 23, 2020
 Contract Completion Date: April 4, 2023

This modification constitutes compensation in full for all costs and mark-ups directly and/or indirectly attributable to the changes ordered herein, for all delays, impacts and disruptions related thereto and for performance of the changes within the Contract Time.

Owner: **City of Grand Junction**

Prepared by:

DocuSigned by:

 1F3FC71E304243C...

Toby Thieman, Project Engineer

Date: 11/1/2022

Approved by:

DocuSigned by:

 F3B7E9047868412...

Randi Kim, Utilities Director

Date: 11/1/2022

Approved by:

DocuSigned by:

 2F45C1D5575692C...

Greg Caton, City Manager

Date: 11/1/2022

Contractor: **Garver LLC**

Signature:

DocuSigned by:

 52B8B1D1028949D...

Jeff Sober, Regional Director - Garver LLC

Date: 10/31/2022

Name and Title:

Jeff Sober, Regional Director - Garver LLC Senior Vice President



One Denver Technology Center
5251 DTC Parkway, Suite 420
Greenwood Village, CO 80111

TEL 303.721.6932

www.GarverUSA.com

October 5, 2022

Mr. Toby Thieman
City of Grand Junction, Colorado
970.224.1559

Re: Proposal for Construction Administration and Inspection

Toby,

Thank you for the opportunity for Garver to support the City of Grand Junction (City) as designer for the 2021 Odor Control Project. With design being complete, please consider our proposal for permitting support, construction administration, and construction inspections to support the next phase of the project, construction. Garver us looking forward to continuing to support the City as this project is constructed and commissioned.

Scope of Basic Engineering Services

1. Bid Services:

- (a) Garver will answer inquiries and questions via addenda during the bid period. (Completed)
- (b) Upon selection of a contractor, Garver will prepare "for construction plans and specifications" (FCPS) for the project team that incorporate changes or clarifications resulting from issuance of addenda during bidding.
- (c) *Exclusions: The City will be responsible for all other typical bid services such as managing the bid process, completing the pre-bid meeting, coordinating RFI's, advertising for bids, selecting a contractor, contract negotiations and executing a construction contract, and issuing a notice to proceed. All bid services beyond items 1.a and 1.b above are excluded from this proposal.*

Deliverables

- (d) PDF file of FCPS formatted for printing at full- and half-sized. The City will print hardcopies of the FCPS to provide to City Staff and the Contractor, if needed.

2. Construction Administration: During the construction phase of work, Garver will accomplish the following:

- (a) Prepare agenda and materials to support construction milestone meetings at the City's request, and attend these meetings in-person with the City and Contractor (*The City will lead meetings*).
- (b) Meetings include the Preconstruction meeting, bypass pumping meeting, prestartup meeting, punchlist review, and final checkout meeting plus two additional milestone meetings (**5 milestone meetings total**).

- (c) Evaluate and respond to construction material submittals and shop drawings. Corrections or comments made by Garver on the shop drawings during this review will not relieve the Contractor from compliance with requirements of the drawings and specifications. Garver will review for general conformance with the design concept and intent of the project and general compliance with the information given in the contract documents. Garver's review shall not constitute approval of safety precautions or constitute approval of construction means, methods, techniques, sequences, procedures, or assembly of various components. When certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, either directly or implied for a complete and workable system, Garver shall be entitled to rely upon such submittal or implied certification to establish that the materials, systems or equipment will meet the performance criteria required by the Contract Documents. **The fee is based upon approximately 30 estimated submittals.**
- (d) Issue instructions to the Contractor on behalf of the City and issue necessary clarifications (respond to RFIs) regarding the construction contract documents. **The fee is based upon approximately 5 estimated RFIs.**
- (e) When authorized by the Owner, prepare change orders for changes in the work from that originally provided for in the construction contract documents. **The fee is based upon reviewing approximately 3 estimated contract modification requests and preparing up to 2 change orders.**
- (f) If redesign or substantial engineering is required in the preparation of these change order documents, the City will pay Garver an additional fee to be agreed upon by the City and Garver.
- (g) Project closeout activities to include, participate in final project inspections, prepare punch list, review final project closing documents, issue recommendation to City to process substantial completion and retainage payments. **This fee is based upon past biotrickling filter projects that Garver has provided construction administration services for.**
- (h) Provide record drawings incorporating any change orders, field changes, and Contractor revisions, providing that the City will provide the necessary survey for field checking quantities and contractor's layout. **This fee is based upon past biotrickling filter projects that Garver has provided record drawings for and assumes the City or Contractor will maintain working documents for the duration of the project and provide these to Garver at all monthly meetings and completion of the project.** Garver will assume all information provided is correct.
- (i) *Exclusions: The tasks described below will be completed by the City; as such they are not anticipated and are excluded from this contract.*
 - a. *City will process and approve monthly pay requests from the contractors.*
 - b. *Garver will prepare draft agenda and materials to support construction milestone meetings but the City will lead these meetings and provide meeting minutes.*
 - c. *Garver will attend and participate in monthly construction progress meetings but will not develop agenda or material unless it directly relates to RFIs, Submittals, or other activities listed in 2(b) through 2(d).*
 - d. *The City or another Consultant for the City is providing survey and setting control points.*

Deliverables

- (j) PDF file of all submittals, RFIs, O&M manuals with digital bookmarks, in digital form.
- (k) PDF of Record Drawings and Specifications, in digital form.

3. Onsite Construction Meetings and Inspections:

- (a) Garver will attend monthly progress/coordination meetings, up to a **maximum of 8 assumed between November 2022 and June 2023**, with the Owner and Contractor to answer questions and support construction activities.
- (b) Garver will provide biweekly job-site observations to document construction progress and conformance with the contract documents.
 - a. Garver will prepare a field observation report and email it to the City within five (5) days of performing the field observations.
- (c) Garver's construction observation will be limited to the following:
 - b. Installation of important equipment
 - c. Electrical and controls
 - d. System startup and commissioning
 - e. Observations necessary to document and certify "constructed as approved" to CDPHE at the completion of the project.
 - f. General observations for all other aspects of the project meant to inform the City and assist in providing documentation of construction activities.
- (d) In performing construction observation services, Garver will endeavor to protect the City against defects and deficiencies in the work of the Contractor(s); but Garver cannot guarantee the performance of the Contractor(s), nor be responsible for the actual supervision of construction operations or for the safety measures that the Contractor(s) takes or should take. However, if at any time during construction Garver observes that the Contractor's work does not comply with the construction contract documents, Garver will notify the Contractor of such non-compliance. Garver will also record the observance, the discussion, and the actions taken. If the Contractor continues without satisfactory corrective action, Garver will notify the City immediately, so that appropriate action under the Owner's contract with the Contractor can be taken.
- (e) *Exclusions:*
 - g. *The City will provide all other relevant and material inspections, including*
 - i. *Earthwork and subgrade preparation (assumed to be provided by City and RockSol)*
 - ii. *Stormwater inspections (assumed by City)*
 - iii. *Concrete and rebar, including documenting concrete mix information (assumed by City)*
 - iv. *Coatings (Coatings inspections may be provided by Garver at City's request for an additional cost).*
 - v. *Materials testing (assumed to be provided by RockSol)*
 - vi. *Any and all additional inspections.*
- (f) *Garver will not provide a Resident Project Representative*
- (g) *The City and the Contractor will maintain a set of working drawings documenting any minor changes and deviations from the contract documents and provide these working drawings to Garver for incorporation into the record drawing set.*

Deliverables

- (h) PDF of observation reports and construction meeting minutes, in digital form, within five (5) days of completing observations.
- (i) Observation Reports will also be included in the PDF deliverable from 2(j).

Scope of Additional Value-Added Services to be Added Upon Request

- 4. Permitting Support:** During the Design phase Garver obtained approval from CDPHE for construction. It is important that, as engineer of record, Garver provides final certifications to CDPHE to close out the construction permit for the City.
- (a) Garver will coordinate with the CDPHE review engineer that the existing construction approval is still open. If a resubmittal is needed, this is not included in this scope of services but can be added by a written contract amendment.
 - (b) Garver will update the CDPHE review engineer at key points during construction and answer basic RFIs.
 - (c) Garver will certify to CDPHE that the project has been “constructed as approved” at the completion of the project and file the appropriate forms and certifications.
 - (d) *Exclusions:*
 - a. *The City will be responsible for paying CDPHE permitting and application fees.*

Deliverables

- (e) Certification to CDPHE that the permitted equipment was “constructed as approved” and provide the City with a PDF copy of this submittal.
- 5. System Commissioning and Startup**
- (a) Garver will provide up to 60 hours of on-site startup support. This effort will support operations staff and Contractor in startup of unit processes, optimizing control setpoints, and providing process operation guidance.
 - a. Garver will provide system commissioning and startup support by providing engineering staff to assist Contractor/City in bringing treatment processes online, integrating with the existing wastewater facility.
 - b. Garver will observe and document performance periods for important equipment and the odor control units themselves prior to substantial completion.
 - c. Garver will observe bypass pumping and review bypass pumping plans submitted by the contractor.
- 6. Warranty Support (Extra Work / Upon Request)**
- (a) If requested, after completion of the project Garver can continue to assist the City on an on-call/as-needed basis for addressing performance or warranty issues.
 - (b) Garver will participate in a site walk through approximately 30 days prior to the end of the Contractor's warranty period. Garver will draft a letter to the Contractor outlining observed warranty defects.
 - (c) If requested by the City, this work would be completed on a time-and-materials basis using Garver's hourly rates at the time the work is completed.

Extra Work

The following items are not included under this agreement and will be considered as extra work:

- (d) Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or approval.
- (e) Submittals or deliverables in addition to those listed herein.
- (f) Survey services.

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- (g) Geotechnical services.
- (h) Construction materials testing, beyond coordination.
- (i) CDPHE permitting beyond what is described in this proposal.
- (j) Services after construction.
- (k) City or local permitting of any kind beyond the CDPHE permitting described in this proposal.
- (l) Operations Training, outside the specification requirements for equipment provided by the Contractor.

Schedule

The City will serve as primary construction manager and will maintain the project schedule. Garver's fee estimate is based, in part, on an assumption of an active construction period lasting eight (8) months. Garver will support the timely completion of this project by:

- (a) Submitting field observation reports within five (5) days of the field visit.
- (b) Providing responses to RFIs, Submittals, and Change Order Requests within ten (10) working days of receipt.

Fee

Our fee estimate for this project is separated into two sections. The Basic Services Section includes basic bid services, construction administration, observations, and progress meetings necessary to complete the construction project. The Additional Services Section proposes value-added services that the City may choose to add to Garver's contract at any point during the project.

We recommend contracting Garver for both Basic and Additional Services as shown below. As a percentage of the total construction costs (estimated at \$6,000,000) this fee is 2.0% of the project cost.

City of Grand Junction, Colorado Odor Control Project - Construction Administration

FEE SUMMARY

Basic Services Section	Estimated Fees
TASK 1. Bid Services	\$ 1,835.68
TASK 2. Construction Administration	\$ 73,404.35
TASK 3. Construction Observations and Progress Meetings	\$ 17,064.72
Subtotal for Basic Services Section	\$ 92,304.74
Additional Services Section	Estimated Fees
TASK 4A. CDPHE Permitting Support	\$ 6,234.18
TASK 5A. Commissioning and Startup Support	\$ 20,292.38
TASK 6A. Warranty Support (Future Work)	\$ -
Subtotal for Additional Services Section	\$ 26,526.57
Total All Services	\$ 118,831.31

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Garver is grateful for the opportunity to continue to support the City of Grand Junction on this important project. Please call me (Rick) directly at 970-985-9902 if you have any questions.

Sincerely,

GARVER

Rick Huggins, PE, PhD
Sr. Project Manager
Palisade, CO

Mary Elizabeth Mach, PE.
West Region Director

Attachments: Labor Hour Estimate, Rate Schedule
\\garverinc.local\gdata\Projects\2022\22W23085 - Grand Junction Odor Control CA\Contracts\Client\Draft\Garver Construction Services Proposal Draft.docm

City of Grand Junction, Colorado
Odor Control Improvements Project - Construction Admin

All Tasks

WORK TASK DESCRIPTION	KAC	LS	KD	SS	AC	RGH	JA (M&H)	OP	JB
	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.
Basic Services Section									
1. TASK 1. Bid Services									
1. Answer RFIs during bidding (completed at no cost)									
2. Prepare and issue For Construction Plans and Specifications (FCPS)	2			1			1	8	1
Quality Control Review						1			
Subtotal - TASK 1. Bid Services	2	0	0	1	0	1	1	8	1
2. TASK 2. Construction Administration									
1. Prepare materials for 5 construction milestone meetings					10	2.5			
2. Attend 5 construction milestone meetings (RGH, JA 2)						10	20		
3. Evaluate and respond to submittals, shop drawings (assume 30 submittals @ 6 hours each)	60		15	15	60	15	15		
4. Evaluate and respond to contractor RFIs, issue clarifications	15		3.75	3.75	15	3.75	3.75		
5. Prepare change orders when authorized by Owner	8		1	1	4	1	1		
6. Participate in final project inspections and closeout (in addition to meeting attendance in 2.1)	8	8			16	8	20		
7. Provide record drawings	8		2	2	8			40	8
Quality Control Review						4			8
Subtotal - TASK 2. Construction Administration	99	8	21.75	21.75	113	44.25	59.75	40	16
3. TASK 3. Construction Observations and Progress Meetings									
1. Attend Monthly Construction Meetings (assume 1.5 hours per meeting)						12			
2. Biweekly Construction Observation Visits (Assume 3 hours per day, biweekly)	16					48			
Quality Control Review									
Subtotal - TASK 3. Construction Observations and Progress Meetings	16	0	0	0	0	60	0	0	0
Subtotal - Basic Services Section	117	8	21.75	22.75	113	105.25	60.75	48	17

Additional Services Section									
1. TASK 4A. CDPHE Permitting Support									
1. Coordination with CDPHE at start of construction	4					1			
2. Respond to RFIs from CDPHE	16						8		
3. Provide "Constructed as Approved" Certification to CDPHE	4					1			
Quality Control Review						2	2		
Subtotal - TASK 4A. CDPHE Permitting Support	24	0	0	0	0	4	10	0	0
2. TASK 5A. Commissioning and Startup Support									
1. Support during startup and system commissioning						20	20		
2. Observe and document performance periods					20	8			
3. Observe and assist with bypass pumping planning and implementation						16			
Quality Control Review									
Subtotal - TASK 5A. Commissioning and Startup Support	0	0	0	0	20	44	20	0	0
3. TASK 6A. Warranty Support (Future Work)									
1. As-needed assistance									
2. Complete Warranty Closeout Process 30 days prior to Warranty Expiration									
Quality Control Review									
Subtotal - TASK 6A. Warranty Support (Future Work)	0	0	0	0	0	0	0	0	0
Subtotal - Additional Services Section	24	0	0	0	20	48	30	0	0



Exhibit B
City of Grand Junction
Odor Control Project - Construction Phase
Garver Hourly Rate Schedule: July 2022 - June 2023

Classification	Rates
Engineers / Architects	
E-1	\$ 125.00
E-2	\$ 139.00
E-3	\$ 168.00
E-4	\$ 196.00
E-5	\$ 239.00
E-6	\$ 280.00
E-7	\$ 350.00
Planners	
P-1	\$ 125.00
P-2	\$ 139.00
P-3	\$ 168.00
P-4	\$ 196.00
P-5	\$ 239.00
Designers	
D-1	\$ 115.00
D-2	\$ 135.00
D-3	\$ 160.00
D-4	\$ 185.00
Technicians	
T-1	\$ 95.00
T-2	\$ 115.00
T-3	\$ 140.00
T-4	\$ 170.00
Management / Administration	
AM-1	\$ 69.00
AM-2	\$ 93.00
AM-3	\$ 130.00
AM-4	\$ 165.00



CITY OF GRAND JUNCTION, COLORADO

CONTRACT

This CONTRACT made and entered into this 26th day of June, 2020 by and between the **City of Grand Junction, Colorado**, a government entity in the County of Mesa, State of Colorado, hereinafter in the Contract Documents referred to as the "Owner" and **Garver, LLC** hereinafter in the Contract Documents referred to as the "Firm."

WITNESSETH:

WHEREAS, the Contractor shall furnish all labor, tools, supplies, equipment, materials, and everything necessary and required for the Project described by the Contract Documents and known as **Persigo Wastewater Treatment Plant- Phase 1 Odor Control Improvements (3 Biotrickling Filters) 4808-20-DH.**

WHEREAS, the Contract has been awarded to the above named Firm by the Owner, and said Firm is now ready, willing and able to perform the Services specified in accordance with the Contract Documents;

NOW, THEREFORE, in consideration of the compensation to be paid the Firm, the mutual covenants hereinafter set forth and subject to the terms hereinafter stated, it is mutually covenanted and agreed as follows:

ARTICLE 1

Contract Documents: It is agreed by the parties hereto that the following list of instruments, drawings, and documents which are attached hereto, bound herewith, or incorporated herein by reference constitute and shall be referred to either as the "Contract Documents" or the "Contract", and all of said instruments, drawings, and documents taken together as a whole constitute the Contract between the parties hereto, and they are fully a part of this agreement as if they were set out verbatim and in full herein:

The order of contract document governance shall be as follows:

- a. The body of this contract agreement
- b. Firms Proposal (Scope of Services and Appendix A Fee Estimate amount and detailed breakdown)
- c. Services Change Requests (directing that changed Services be performed);
- d. Change Orders.

ARTICLE 2

ARTICLE 3

Contract Services: The Firm agrees to furnish all labor, tools, supplies, equipment, materials, and all that is necessary and required to complete the tasks associated with the Services described, set forth, shown, and included in the Contract Documents as indicated in the Contract Document.

ARTICLE 4

Contract Time: Time is of the essence with respect to this Contract. The Firm hereby agrees to commence Services under the Contract upon execution of this contract, and to achieve Substantial Completion and Final Completion of the Services within the time or times specified in the Firm's Proposal.

ARTICLE 5

Contract Price and Payment Procedures: The Firm shall accept as full and complete compensation for the performance and completion of all of the Services specified in the Contract Documents, the Not to Exceed amount of **One Hundred Sixty Eight Thousand Four Hundred Sixty Two and 00/100 Dollars (\$168,462.00)**. If this Contract contains unit price pay items, the Contract Price shall be adjusted in accordance with the actual quantities of items completed and accepted by the Owner at the unit prices quoted in the Firm's Proposal. The amount of the Contract Price is and has heretofore been appropriated by the Grand Junction City Council for the use and benefit of this Project. The Contract Price shall not be modified except by Change Order or other written directive of the Owner. The Owner shall not issue a Change Order or other written directive which requires additional Services to be performed, which Services causes the aggregate amount payable under this Contract to exceed the amount appropriated for this Project, unless and until the Owner provides Firm written assurance that lawful appropriations to cover the costs of the additional Services have been made.

Unless otherwise provided in the Contract, monthly partial payments shall be made as the Services progresses. Applications for partial and Final Payment shall be prepared by the Firm and approved by the Owner in accordance with the Contract.

ARTICLE 6

Contract Binding: The Owner and the Firm each binds itself, its partners, successors, assigns and legal representatives to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contract Documents constitute the entire agreement between the Owner and Firm and may only be altered, amended or repealed by a duly executed written instrument. Neither the Owner nor the Firm shall, without the prior written consent of the other, assign or sublet in whole or in part its interest under any of the Contract Documents and specifically, the Firm shall not assign any moneys due or to become due without the prior written consent of the Owner.

ARTICLE 7

Severability: If any part, portion or provision of the Contract shall be found or declared null, void or unenforceable for any reason whatsoever by any court of competent jurisdiction or any governmental agency having the authority thereover, only such part, portion or provision shall be effected thereby and all other parts, portions and provisions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, City of Grand Junction, Colorado, has caused this Contract to be subscribed and sealed and attested in its behalf; and the Firm has signed this Contract the day and the year first mentioned herein.

The Contract is executed in two counterparts.

CITY OF GRAND JUNCTION, COLORADO

DocuSigned by:
Duane Hoff Jr., Senior Buyer - City of Grand Junction 7/9/2020 | 17:32 MDT
By: _____
Duane Hoff Jr., Senior Buyer Date

Garver, LLC

DocuSigned by:
Jeff Sober 7/9/2020 | 15:49 MDT
By: _____
Jeff Sober, Regional Director - Garver president Date

Appendix A

**City of Grand Junction
Phase 1 Odor Control Improvements - Persigo Wash and Persigo Biotrickling Filter**

3 Trickling Filters

Fee Estimate

WORK TASK DESCRIPTION	Kuosman	Mark Perkins	Huggins	Justin Angel	Chan	CAD	CAD	SPECS	- Select Category -	- Select Category -	- Select Category -	- Select Category -	- Select Category -	MANHOUR SUBTOTALS	FEE SUBTOTALS
	E-6		E-5		E-2		C-2	X-3							
	\$246.00	\$205.00	\$217.00	\$165.00	\$130.00	\$80.00	\$135.00	\$122.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr		
1 Project Management	6	4	16	24											
Subtotal - Project Management	6	4	16	24	0	0	0	0	0	0	0	0	0	50 \$	9,728
2 Data Review			8	16											
Subtotal - Task 2	0	0	8	16	0	0	0	0	0	0	0	0	0	24 \$	4,376
3 & 4 Survey and Geotech			18	16		2	2								
Subtotal - Tasks 3&4	0	0	18	16	0	2	2	0	0	0	0	0	0	38 \$	6,976
5 Process Design & Permitting															
Lease Alternatives	4	4	8	32	12			8							
Bid Lease			8	12	12										
Basis of Design			32	24	8	8	4								
Permitting	1		8	12											
Subtotal - Task 5	5	4	56	80	32	8	4	8	0	0	0	0	0	197 \$	33,718
6a 30%Design															
Design Sheets and Package Development		2	24	36	36	28	28								
Specification Development			12	24	24			8							
Subtotal - 30% Design	0	2	36	60	60	28	28	8	0	0	0	0	0	222 \$	32,918
6b 90%Design															
Design Sheets and Package Development		2	24	32	28	32	32								
Specification Development			6	12	12			8							
Subtotal - 90% Design	0	2	30	44	40	32	32	8	0	0	0	0	0	188 \$	27,236
7 100% Design															
Design Sheets and Package Development		2	16	24	16	12	8								
Specification Development			8	6	4			2							
Subtotal - Task 7	0	2	24	30	20	12	8	2	0	0	0	0	0	98 \$	15,452
Subtotal for base Agreement	11	14	188	270	152	82	74	26	0	0	0	0	0	817 \$	130,404
	\$2,706.00	\$2,870.00	\$40,796.00	\$44,550.00	\$19,760.00	\$6,560.00	\$9,990.00	\$3,172.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Optional Task: On Site Services During Construction															
On Site Services During Construction		12	24	48	120										
Subtotal - Services During Construction	0	12	32	48	120	0	0	0	0	0	0	0	0	212 \$	32,924
Hours	0	12	32	48	120	0	0	0	0	0	0	0	0	212	
Salary Costs	\$0.00	\$2,460.00	\$6,944.00	\$7,920.00	\$15,600.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32,924.00	

SUBTOTAL - SALARIES: \$130,404.00

DIRECT NON-LABOR EXPENSES

Document Printing/Reproduction/Assembly \$750.00
 Travel Costs \$3,384.00 \$1,000.00

Perkins Sub: \$57,364.00

SUBTOTAL - DIRECT NON-LABOR EXPENSES: \$5,134.00

TOTAL FEE: \$135,538.00
OPTIONAL TASKS: \$32,924.00

CITY OF GRAND JUNCTION, COLORADO
Persigo Wash and Persigo Wastewater Treatment Plant –
Phase 1 Odor Control Improvements (3 Biotrickling Filters)
SCOPE OF SERVICES

Project Overview

The City of Grand Junction (City) operates a nearly 600-mile-long collection system and Persigo Wastewater Treatment Plant (Persigo Plant). The Persigo Plant was commissioned in 1984 and typically operates between 8 and 10 MGD. The plant was designed to be expanded to a 25 MGD plant. Wastewater is transported through a 54-inch diameter interceptor sewer in River Road to the Persigo Plant, a distance of approximately 5 miles.

The City of Grand Junction continues to grow. This growth, coupled with very high ambient temperatures, significant elevation changes across the service area, and more than 30 lift stations, is creating challenges in how the City operates its nearly 600-mile-long collection system and Persigo Wastewater Treatment Plant. The Persigo Plant is located in the northwest reaches of Grand Junction between River Road and Interstate 70, a significant distance away from the growth regions of the City. Conveying the wastewater across the Colorado River has created several locations where air is not able to follow the flow of wastewater in the collection system, and the trapped air has created corrosion and odor issues.

Grand Junction retained Garver and Perkins Engineering to conduct a Wastewater System Odor Abatement Study, which was completed in 2019 and included the following key components:

- Reviewing past odor complaint records and interviewing City staff to identify the sites within the collection system and treatment plant which historically had the greatest odor issues
- Developing and implementing a rigorous field-testing program to further understand the root cause of the historic issues. The assessment included:
 - quantifying hydrogen sulfide (H₂S) gases, H₂S in the liquid phase, mercaptans, and other odor generating compounds
 - verifying air pressure gradients
 - testing for and quantifying other odor generation sources
- Recommending and prioritizing improvements to address root cause issues in consideration of both up- and downstream impacts

This scope of services includes developing bidding and construction documents (drawings and specifications) which will allow to the efficient and cost-effective construction, commissioning, and operation of the Phase 1 odor improvements located upstream of the Broadway Bridge Siphon, Upstream of the Southside Interceptor, at the Persigo Wash, and at the Persigo Plant.

The Phase 1 improvements include:

- three new connections to interceptor system to collect odorous air for the biotrickling filters
- the construction of a biotrickling filter upstream of the Broadway Bridge Siphon, upstream of the Southside Interceptor, and at the Persigo Plant to scrub the odorous air from the interceptors
- an elevated air jumper from the existing siphon inlet structure to the existing siphon outlet structure at the Persigo Wash
- the construction of air curtains to reduce the air migration from the interceptor into the headworks facility

The scope of work is organized into the tasks as further described below:

Task 1 – Project Management and Scoping Workshop

(1) Project Management

- a. Garver will provide a biweekly project status update with City staff will be conducted, via conference call.
- b. Garver will provide financial updates through monthly invoices and budget updates.
- c. Garver will establish a document sharing platform (most likely Microsoft Teams) to allow for coordination and information with City staff.
- d. Garver will organize and manage the following:
 - i. Action item / decision tracking log
 - ii. Meeting agendas and minutes
 - iii. Project deliverables and presentations
 - iv. Submittals, Requests for Information (RFI), and any contract documents

(2) Scoping and Chartering Workshop

- a. Garver will conduct a scoping workshop to identify key project goals and vision, introduce key staff from both Garver and the City, define the decision-making processes for evaluations, discuss task schedules and City reviews, confirm the work breakdown structure via scope of work review, and initiate a data request from the City.
- b. These decisions will be documented in meeting minutes, and any changes to the tasks or scope of work will be updated as a part of this task.
- c. A formal data request will be created as a part of this task and will be updated throughout the project as data gaps are identified.

Task 2 – Review Historical Data and Gap Analysis

(1) Garver will review the historical drawings, specifications, and information provided by the City through the formal data request. The evaluation will be focused on the following data:

- A. As built drawings or surveys for all above-grade structures in the project scope
- B. As built drawings or surveys for the below-grade elements in the project scope
- C. Available geotechnical reports
- D. Structural Evaluation Reports for the elements in the project scope
- E. City standard front-end specifications
- F. City preferences for materials of construction and connection details
- G. City control system preferences and communication needs
- H. Collection system flow and water characterization records
- I. Persigo Plant influent flow and water characterization records
- J. Headworks air equipment sizing and output data
- K. Maintenance records for project focus areas
- L. Other relevant studies and reports and data

(2) Following receipt of this data, Garver will review and compile the collected data. A list of data gaps or outstanding data needs will be created and provided to the City for this task. This list will be managed throughout the project by Garver to denote missing data, assign action items to respective parties, and set data collection timelines and priorities.

(3) The completion of this task represents a formal gate for the project and both parties will acknowledge in writing that all data necessary to complete the design has been

transferred. This written acknowledgement will set the timeline for completing subsequent tasks.

Task 3 – Survey

- (1) Garver will coordinate with the City's surveyor to locate new facilities relative to an existing datum point near to project focus areas. To locate these two datum points, Garver will initiate an RFI with the City, requesting that the City work with the City Surveyor to provide available mapping and available survey documents from the City. Garver is not providing surveying services as part of this work.

Task 4 – Geotechnical

- (1) Garver will request and review available geotechnical documents from City's on-call Geotechnical Engineering consulting firm to characterize on-site conditions and to establish design requirements for all of the project focus areas. Garver is not providing geotechnical services as part of this work.

Task 5 – Develop Operating Lease Terms, Basis of Design Report, and Site Application Amendment

- (1) Garver will work with the City to define the City's desired parameters for an operating lease of the biotrickling filter bid solicitation. The bid solicitation will be set up to receive pricing for each of the three biotrickling filters individually and also a combined price for all three. The parameters to be defined will include:
 - a. Term of the lease agreement
 - b. Relative magnitude of initial payment versus annual payments
 - c. Equipment sizing and materials of supply
 - d. Scope of operation and maintenance activities and quantify operating costs (chemicals, media replacement, media disposal, water and chemical costs, labor requirements, etc.)
 - e. Emergency operating condition responsibilities and requirements
 - f. Options for the City to purchase and operate the equipment
 - g. Connection points and City supplied scope of services
 - h. Existing municipal contracting agreements and terms that the City can use as a contracting model
- (2) Garver will work with the City to solicit formal operating lease bids to compare the market terms against direct purchase options. The City will review the solicitation and make a decision as to whether they will be leasing or direct purchasing the biotrickling filter.
 - a. If the City chooses the lease option, Garver will help the City to assign or appropriately coordinate the lease bid to the contractor procurement documents.
 - b. If the City chooses the purchase option, Garver will development procurement documents for direct purchase of the trickling filter.
- (3) Based on the results of Task 5.2, Garver will provide comprehensive permitting support to comply with CDPHE requirements. This is anticipated to include support for a site application amendment and any chemical reporting requirements and incorporating any

applicable comments received from CDPHE.

- (4) The completion of this task represents a formal gate for the project. Garver will prepare a memorandum that documents a recommendation to lease or own the biotrickling filters and will host a workshop to discuss the memorandum. Following the workshop, both parties will acknowledge in writing that the basis of design has been established. This written acknowledgement will set the timeline for completing subsequent tasks.

Task 6 – Develop 30% and 90% Review Documents

- (1) This task will include production of 30% and 90% drawing sets which including P&IDs, process mechanical drawings, and standard details needed for this project. Work will also include site and civil work needed, electrical, any new road or sidewalk access to the bio trickling filter, and SCADA system interfaces.
- (2) Specifications and controls packages will be developed for each of the biotrickling filters, chemical storage and feed components, and sidestream management. A process control narrative will be included summarizing the updated control schemes and associated controls integration expected for these upgrades and will be developed to aid permitting with CDPHE.
- (3) The completion of this task represents a formal gate for the project and both parties will acknowledge in writing that the City has provided its review comments on the 30% and 90% design. This written acknowledgement will set the timeline for completing subsequent tasks.

Task 7 – Develop 100% Procurement Documents

- (1) This task will provide for-construction set of drawings, specifications, and process control narratives as outlined in Basis of Design Report.
- (2) Confirm design complies with State of Colorado Regulation 22 Design Criteria
- (3) Support the City in soliciting and reviewing construction bids for the project

Schedule

Garver shall begin work under this Agreement within ten (10) days of contract amendment signature by both parties and shall complete the work in accordance with the schedule below:

<i>Phase Description</i>	<i>Calendar Days</i>
Task 1	With 10 days of Amendment Signature
Task 2	Within 10 days of data receipt from City
Tasks 3 & 4	Within 60 days of data receipt from City
Task 5	Within 100 days of completion of Task 2 Gate
Task 6	30% Design Package within 45 days of completion of Task 5 Gate 90% Design Package within 45 days of 30% Review Gate
Task 7	Within 30 days of receipt of the City's 90% Review comments

Assuming the agreement is signed by June 19, 2020, this schedule targets completion of work in March 2021.

Cost of Work

The amount to be paid under this agreement is a not-to-exceed of \$135,538. The Owner will pay GARVER on a monthly basis, based upon statements submitted by GARVER to the Owner indicating the estimated proportion of the work accomplished.

Optional task for Construction Administration services during construction

Garver will provide "on-call" construction administration service to augment the City's construction inspectors. It is envisioned that these services could include Garver's help to self-certify that improvements were built and operating according to CDPHE requirements. Services could also include on-site assistance during construction activities, reviewing and approving O&M manuals, completing record drawings, reviewing performance in accordance with performance specifications, and training requirements in the specifications. Garver will provide a labor rate table for completing services on a time and materials basis upon request from the City.

Roles and Responsibilities Descriptions

John Kuosman – John will ensure necessary resources from both Garver and Perkins are available to the City for the efficient and quality delivery of this project. John will work with Grand Junction to solicit feedback and then work with the consultant project management staff to ensure that feedback will be incorporated into the design process. John will provide as requested mentoring to City project management staff throughout the delivery of the project.

Rick Huggins – Rick will serve as the project manager and design manager for the project. Rick will manage the project schedule, invoicing, orchestrate meetings, and be the principal point of communication with the City. Rick will manage the Perkins subcontract. Rick will coordinate and align the entire design team including process design, process mechanical design, electrical and controls, site civil, structural, and ancillary system design.

Mark Perkins – Mark will provide QA/QC on the project and ensure necessary resources from Perkins are available to the City for the efficient and quality delivery of this project.

Justin Angel – Justin will serve as the process design lead for the project. Justin will be determining process sizing requirements for the biological, chemical, and air management systems and will be overseeing the technical content in CAD and Specifications.

Kevin Chan – Kevin will serve as the non process design lead for the project. Kevin will provide directly or coordinate the design of the process mechanical design, electrical and controls, site civil, structural, and ancillary system design.

CAD and Specification – Multiple resources are available and will be assigned and coordinated as resource needs require.

Contract Terms and Conditions

5.1 Instruments of Service

GARVER's instruments of service provided by this agreement consist of the printed hard copy reports, drawings, and specifications issued for the Assignment or Project; whereas electronic media, including CADD files, are tools for their preparation. GARVER will furnish to the Owner both printed hard copies and electronic media. In the event of a conflict in their content, however, the printed hard copies shall take precedence over the electronic media.

GARVER's electronic media are furnished without guarantee of compatibility with the Owner's software or hardware.

Owner shall have ownership of the printed hard copy drawings and specifications and the electronic media delivered to Owner by GARVER for the sole purposes of using the same for the Project for which they were provided. Notwithstanding the foregoing, the Owner shall only have an irrevocable, royalty free, and non-exclusive license for the use of the underlying intellectual property, but only in the operation and maintenance of the Project or Assignment for which they were provided. Use of these materials for modification, extension, or expansion of this Project or on any other project, unless under the direction of GARVER, shall be without liability to GARVER and GARVER's consultants.

Because data stored in electronic media form can be altered, either intentionally or unintentionally, by transcription, machine error, environmental factors, or by operators, it is agreed that the Owner shall indemnify, defend, save harmless GARVER, GARVER's consultants, and the officers and employees of any of them from and against any and all claims, liabilities, damages, losses, and costs, including but not limited to costs of defense, arising out of changes or modifications to the data in electronic media form in the Owner's possession or released to others by the Owner and for any use of the electronic media and printed hard copy drawings and specifications outside the license granted by this provision.

5.2 Opinions of Cost

Since GARVER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, GARVER's Estimates of Project Costs and Construction Costs provided for herein are to be made on the basis of GARVER's experience and qualifications and represent GARVER's best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but GARVER cannot and does not guarantee that proposals, bids or actual Total Project or Construction Costs will not vary from estimates prepared by GARVER.

The Owner understands that the construction cost estimates developed by GARVER do not establish a limit for the construction contract amount. If the actual amount of the low construction bid exceeds the construction budget established by the Owner, GARVER will not be required to re-design the project without additional compensation.

5.3 Underground Utilities

GARVER will not provide research regarding utilities and survey utilities located and marked by their owners as provided for in this agreement.

5.4 Insurance

GARVER currently has in force, and agrees to maintain in force for the life of this Contract, the following minimum schedule of insurance:

Worker's Compensation	Statutory Limit
Automobile Liability	
(Combined Property Damage and Bodily Injury)	\$500,000.00
General Liability	
(Combined Property Damage and Bodily Injury)	\$1,000,000.00
Professional Liability	\$2,000,000.00

5.5 Indemnity Provision

Subject to the limitation on liability set forth in Section 5.7, GARVER agrees to indemnify the Owner for damages, liabilities, or costs (including reasonable attorneys' fees recoverable under applicable law) to the extent the damages and costs are found to be caused by the negligent acts, errors, or omissions of GARVER, its subconsultants, or any other party for whom GARVER is legally liable, in the performance of their professional services under this contract.

The Owner agrees to indemnify GARVER for damages, liabilities, or costs (including reasonable attorneys' fees recoverable under applicable law) to the extent the damages and costs are found to be caused by the negligent acts, errors, or omissions of the Owner, its agents, or any other party for whom the Owner is legally liable, in the performance of their professional services under this contract.

In the event claims, losses, damages, or expenses are found to be caused by the joint or concurrent negligence of GARVER and the Owner, they shall be borne by each party in proportion to its own negligence.

Owner agrees that any claim or suit for damages made or filed against GARVER by Owner will be made or filed solely against GARVER or its successors or assigns and that no member or employee of GARVER shall be personally liable to Owner for damages under any circumstances.

5.6 Design without Construction Phase Services

It is understood and agreed that GARVER's Scope of Services under this Agreement does not include project observation or review of the Contractor's performance or any other construction phase services, and that such services will be provided by the Owner. (OR - In the event GARVER's Scope of Services under this agreement is not amended to include project observation or review of the Contractor's performance or any other construction phase services,) The Owner assumes all responsibility for

interpretation of the Construction Contract Documents and for construction observation and supervision and waives any claims against GARVER that may be in any way connected thereto.

In addition, the Owner agrees, to the fullest extent permitted by law, to indemnify and hold GARVER harmless from any loss, claim or cost, including reasonable attorneys' fees and costs of defense, arising or resulting from the performance of such services by other persons or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments or changes made to the Construction Contract Documents to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct of GARVER.

If the Owner requests in writing that GARVER provide any specific construction phase services and if GARVER agrees in writing to provide such services, then they shall be compensated for the work as Additional Services.

5.7 Limitation of Liability

In recognition of the relative risks and benefits of the project to both the Owner and GARVER, the risks have been allocated such that the Owner agrees, to the fullest extent permitted by law, to limit the liability of GARVER and its subconsultants to the Owner and to all construction contractors and subcontractors on the project for any and all claims, losses, costs, damages of any nature whatsoever or claims for expenses from any cause or causes, so that the total aggregate liability of GARVER and its subconsultants to all those named shall not exceed GARVER's the greater of the total fee for services rendered on this project or professional liability insurance proceeds received up to the limit set forth above. Such claims and causes include, but are not limited to negligence, professional errors or omissions, strict liability, breach of contractor warranty, and indemnity obligations.

Notwithstanding any other provision to the contrary in this Agreement or a Work Authorization and to the fullest extent permitted by law, neither Owner nor Garver shall be liable, whether based on contract, tort, negligence, strict liability, warranty, indemnity, error and omission, or any other cause whatsoever, for any consequential, special, incidental, indirect, punitive, or exemplary damages, or damages arising from or in connection with loss of power, loss of use, loss of revenue or profit (actual or anticipated), loss by reason of shutdown or non-operation, increased cost of construction, cost of capital, cost of replacement power or customer claims, and Owner hereby releases Garver, and Garver releases Owner, from any such liability.

5.7.1 Hazardous Materials

Nothing in this agreement shall be construed or interpreted as requiring GARVER to assume any role in the identification, evaluation, treatment, storage, disposal, or transportation of any hazardous substance or waste. Notwithstanding any other provision to the contrary in this Agreement or a Work Authorization and to the fullest extent permitted by law, Owner shall indemnify, defend and save GARVER and its affiliates, subconsultants, agents, suppliers, and any and all employees, officers, directors of any of the foregoing, if any, from and against any and all losses which arise out of the performance of the Services and relating to the regulation and/or protection of the environment, including, without limitation, losses incurred in connection with characterization, handling, transportation, storage, removal, remediation, disturbance, or disposal of hazardous material, whether above or below ground.

5.8 Mediation

The Owner and GARVER agree that any and all discussions resulting from this clause are confidential. As they may apply to the presiding rules of evidence, negotiations pursuant to this clause shall not imply admission of responsibility or guilt for the aggravating action, but shall be regarded as compromise, resolution attempts, and settlement negotiations.

The Owner and GARVER agree to, through good faith efforts, first attempt to resolve all conflicts that arise out of or related to this Agreement, through direct discussions involving senior and/or executive management representatives from their respective organizations. It is a requirement of this clause for this condition be attempted prior to the use of other dispute resolution processes. If the respective representatives are unable to develop a compromise resolving the dispute, such that it is satisfactory to both parties within thirty (30) calendar days after a party delivers a written notice of such dispute, then further mediation processes shall begin, as described herein.

If direct discussions fail to resolve the dispute, the Owner and Garver further agree to pursue non-binding mediation unless the parties mutually agree otherwise.

The Owner and GARVER further agree to use their reasonable best efforts to include a similar mediation provision in all agreements with independent contractors and consultants retained for the project and to require all independent contractors and consultants and in all agreements with subcontractors, subconsultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.