



Salvador A. Pleitez, P.E.
Senior Project Manager
City of Fernley Engineering Dept.
595 Silver Lace Blvd.
Fernley, NV 89408

November 4, 2021

**Re: East Lift Station Grit Collector Rehabilitation Project
Engineering Services Proposal**

Dear Mr. Pleitez,

Shaw engineering is pleased to present this proposal for engineering services for the East Lift Station Grit Collector Rehabilitation Project. We understand the existing chain and bucket (C&B) grit collector/removal unit is in disrepair and needs to be replaced. The unit was originally supplied by SWG & Solutions and, as City staff has identified, the company is still manufacturing a similar C&B unit. In addition to the grit removal equipment (chain and bucket) replacement, additional minor concrete and electrical rehabilitation may also be required. Based on coordination with City staff and review of the existing equipment, the scope of work envisioned for this project is estimated as follows:

Task 1.0 System Inspection and Vendor Coordination

The scope of work for this task will include coordinating with the City for completely pumping down the grit chamber and inspecting the existing concrete and coating. Any deficient coating areas will be identified and repair requirements will be included on the plans. Any defects or damage to the existing concrete basin will also be identified for repair. As part of this task, Shaw will also coordinate with WSG & Solutions to review any changes in the C&B grit collector unit. In addition, preliminary shop drawings from the manufacturer will be reviewed and any adjustments to material specifications or other recommended options will be coordinated with the manufacturer.

Task 2.0 Grit Collector Design

In order to competitively bid the supply and installation of the C&B grit collector unit, Shaw will compile drawing sheets showing the plan view and section view of the grit collector basin. In addition, photographs showing the existing unit will be included on the plans to provide bidders with a clear understanding of the work involved in the replacement of the unit. Notes for concrete and coating repair will be included on the plans and technical specifications will be included in the project manual. Notes, callouts, etc. for demolition, repairs and installation will be shown, as required. References to electrical sheets will also be included for replacement of the grit collector starter and timer unit.

Task 2.1 Electrical Design

It is assumed the replacement grit collector unit will be approximately the same electrical load as the current unit. The existing unit is equipped with a motor starter mounted to a uni-strut

stand adjacent the grit chamber. There is also a timer controller for on/off control of the unit. Shaw will utilize Jensen Engineering to provide limited electrical design sheets for the project. Since the new unit will be a similar load, no improvements to the existing main panels feeding the grit collector are anticipated. The electrical design will cover a new motor starter for the new grit collector and a SCADA connection and programming for on/off set points and operator control, including reporting any alarms from the motor starter. New surface mounted conduit to the grit collector unit and a new convenience receptacle will also be included in the electrical design.

Task 3.0 Project Manual and Specifications

Shaw will compile a project manual for the grit collector replacement. The project manual will include all required bidding forms and applicable technical specifications for the work. Summary of work-bid item clarifications will be coordinated with the grit collector manufacturer standard supply list. A PDF set of the bid documents will be provided for review and approval by the City prior to bid. Tasks 3, 4 and 5 may be adjusted due to potentially combining the project bidding and construction with one or two other wastewater collection projects in the City.

Task 3.1 BWPC Coordination

Shaw will coordinate with NDEP Bureau of Water Pollution Control (BWPC) and provide their office a copy of the grit collector rehabilitation plans for review. Limited coordination with BWPC will be required.

Task 4.0 Bidding Services

Shaw will publicly bid the project, including newspaper advertisement and also post the project documents on our bidding website for ease of access for bidders and for maintaining a bidders list. Shaw will handle information requests during bidding and attend the pre-bid meeting and bid opening. After bid opening, we will review the bids and provide a bid summary with a recommendation of award.

Task 5.0 Construction Support

Shaw will attend a pre-construction meeting, provide periodic inspections for the demolition and equipment installation, and assist with review and recommendations regarding issues which may arise during construction such as damage or defects discovered through the demolition work. Shaw will also review material submittals and assist the City with review of concrete anchoring and other critical mechanical components. All electrical items will also be inspected for compliance with the plans (Jensen Engineering). Contractor pay requests will be reviewed and coordinated and prevailing wage reports will be processed per State requirements, if applicable. Upon completion, Shaw will coordinate with the contractor for system startup procedures. Up to 4-hours of system startup is envisioned and will be attended by the contractor, grit collector manufacturer representative and City operators. Contractor-provided operations and maintenance (O&M) manuals will also be reviewed for compliance and additional project asbuilts will be issued for inclusion in the updated O&M manuals.

The estimated fees for completing the scope of work outlined above is as follows:

Task 1.0 System Inspection and Vendor Coordination	\$6,400.00
Task 2.0 Grit Collector Design	\$7,300.00
Task 2.1 Electrical Design	\$3,450.00
Task 3.0 Project Manual and Specifications	\$1,800.00
Task 3.1 BWPC Coordination	\$0.00
Task 4.0 Bidding Services	\$1,000.00
Task 5.0 Construction Support	\$9,500.00
Total	\$29,450.00

Shaw's services will be invoiced monthly on a time and materials basis in accordance with our current fee schedule (copy attached). Actual costs may be adjusted between tasks, however, will not exceed \$29,450.00 without prior written authorization. Costs for advertisement are included with this proposal.

If you have any questions, please call.

Sincerely,

SHAW ENGINEERING



Cody Black, P.E.
Principal Engineer



2021 FEE SCHEDULE

PROFESSIONAL

Principal	\$160.00/hr
Project Manager	\$150.00/hr
Senior Engineer	\$140.00/hr
Professional Engineer II	\$130.00/hr
Professional Engineer I	\$115.00/hr
Staff Engineer II	\$100.00/hr
Staff Engineer I	\$ 90.00/hr
Expert Testimony	
Consultations	\$155.00/hr
Reports/Preparations	\$350.00/hr
Trial/Depositions	\$400.00/hr (4 hr.Min.)

TECHNICAL

Engineering Technician	\$ 90.00/hr
Planning Technician	\$ 80.00/hr
Drafting/Technician II	\$ 80.00/hr
Drafting/Technician I	\$ 70.00/hr
Construction Inspector II	\$ 95.00/hr
Construction Inspector I	\$ 85.00/hr

ADMINISTRATIVE

Office Administrator	\$ 70.00/hr
Administrative Assistant II	\$ 60.00/hr
Administrative Assistant I	\$ 50.00/hr

OTHER

Subconsultants	Cost + 15%
Mileage	\$0.70/mile
Per Diem	\$125.00/day
Expenses	At Cost

The cost for office equipment, office supplies, hardware and software utilized during a Project is included in the fee schedule. Per Diem applies to Construction Inspectors that are required to spend one night or more on the Project.