



October 6, 2021

Salvador Pleitez, P.E., M.B.A.
Senior Project Manger
City of Fernley – Public Works Dept.
595 Silver Lace Blvd
Fernley, NV 89408

Re: **Proposal for Engineering Services**
West Lift Station Rehabilitation Project

Dear Mr. Plietez,

At your request Shaw Engineering (Shaw) is pleased to submit an engineering services proposal for analysis, design, and construction administration for the West Lift Station Rehabilitation Project. Based on issues identified during a site investigation and other operator concerns, we understand that the City would like to move forward reconstruction of the lift station and the surrounding collection system. The work under this proposal will address and repair the concerns identified and enhance the safety and reliability of the lift station, more specifically described below:

Scope of Work

Task 1 Project Overview and Planning

Shaw will meet with the City and review the current performance of the lift station and confirm the layout, design capacity, and tributary land use and area for the lift station. The final scope of all electrical, mechanical, and civil improvements will be confirmed with the city.

Task 2 Topographic Survey

This task will collect topographic survey information to be utilized for the collection system and surface improvements. All collection system information in the lift station surrounding area will be surveyed. Available easement information and property ownership will also be compiled into the final project base mapping. Shaw will utilize Battle Born Ventures for all survey related tasks.

Task 3 Hydraulic Analysis

Shaw will complete the hydraulic analysis of the lift station, including review of inlet elevations, force main, required total dynamic head (TDH), current lift station flow rates and planned future design flow rates. This task will also confirm pump size, selection, and horsepower requirements for the lift station. A preliminary site plan will be included with the hydraulic analysis.

Upon completion of the hydraulic analysis Shaw will meet with the City to review and confirm pump station configuration and operational characteristics. The preliminary layout of the new lift station configuration will also be reviewed with the city.

Task 4 Project Design and Specification

Shaw will prepare complete design plans and coordinate review with the city at preliminary and final design stages for the lift station rehabilitation and associated collection system work. This task also covers record drawings following project completion. The planned design work will cover:

- Abandonment of existing wet well, dry pit, bar screen and all appurtenances.
- Reconfiguration of existing gravity and force main pipelines for the new site configuration.
- Final site improvements.
- Final pump sizing/selection to match buildout conditions.
- SCADA integration of new pumps, meter, and level control.
- Odor analysis and recommendations.
- Electrical system analysis, modification, and rehabilitation
- Wet Well design.
- Review of available emergency storage and recommendations for other redundant system, if storage is limited.
- Bypass pump operation including bypass connection to existing force main during construction.
- Valve, Meter, Bypass Vault Design.
- Exhaust system for existing building for ambient cooling of electrical equipment.

Task 5 Bidding and Construction Administration

Shaw will assist the City in advertisement, bidding documents, pre-bid meeting and bid opening for the project. Shaw will respond to the bidder RFI's, review alternative materials proposed by bidders, attend the pre-bid meeting, and provide review of all bids and provide a recommendation of award.

Shaw will coordinate with the contractor for a preconstruction meeting and work with the bypass pumping subcontractor to ensure sufficient backup systems and alarms are in place to allow the lift station to be properly bypassed.

During construction Shaw will provide intermittent inspections and field support to the City. Shaw personnel will review bypass pump operations, inspect force main connections, review concrete precast components, inspect coating system application, review material submittals, inspect electrical improvements, review excavations, including pipeline installation and ensure all project items are in place prior to the lift station being placed back online. Shaw will coordinate start-up procedures with the contractor and the City and ensure all operating parameters are met and all SCADA and electrical components are performing as planned. Jensen Engineering will assist with electrical and SCADA startup review and substantial and final inspections.

Our estimated engineering fee to complete this work is as follows:

Task 1: Project Review and Permitting	\$2,800
Task 2: Topographic Survey	\$4,100
Task 3: Hydraulic Analysis	\$3,000
Task 4A: Project Design and Specification	\$25,600
Task 4B: Electrical Engineering	\$14,500
<u>Task 5: Bidding, Inspections and Construction Administration</u>	<u>\$25,600</u>
Estimated Total Fee:	\$75,600

Our fee to provide these services will not exceed \$75,600 and will be billed monthly based on time and materials at our current fee schedule attached.

If you have any questions, please feel free to contact me at (775) 329-3962 or cody@shawengineering.com.

Sincerely,
SHAW ENGINEERING



Cody R. 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.