Gray & Osborne, Inc.
CONSULTING ENGINEERS

January 30, 2019

Mr. Jim Hodges
Engineering Project Manager
City of Camas
616 NE Fourth Avenue
Camas, Washington 98607

SUBJECT: PROPOSAL FOR ENGINEERING ASSISTANCE FOR CROWN ROAD BOOSTER PUMP INSTALLATION
CITY OF CAMAS, CLARK COUNTY, WASHINGTON
G&O #20194.42

Dear Mr. Hodges:

Gray & Osborne is pleased to provide a scope of work and fee schedule for assistance to the City for the installation of a pump at the Crown Road Booster. Our scope of work is attached as Exhibit A while our estimate of hours and fees is attached as Exhibit B.

If this scope of work is acceptable to you, please sign the signature lines below.

Please contact me if you have any questions or desire further information.

Sincerely,

GRAY & OSBORNE, INC.

Russell Porter, P.E.

RLP/hh
Encl.

1130 Rainier Avenue S., Suite 300 Seattle, Washington 98144 (206) 284-0860 Fax (206) 283-3206

CITY OF CAMAS – CROWN ROAD BOOSTER STATION EXPANSION

Gray & Osborne, Inc. is hereby authorized to proceed with the engineering services as noted herein and under the terms and conditions of our current On-Call Water and Wastewater Engineering Services Contract dated December 2, 2013, for a cost not to exceed $22,000 as noted herein without further written direction and authorization of the City.

Name (Print)	Title
Signature	Date

EXHIBIT A

SCOPE OF WORK

CITY OF CAMAS
CROWN ROAD BOOSTER STATION EXPANSION

This contract amendment is for professional engineering services to assist the City of Camas with the expansion of the Crown Road Booster. The booster station was constructed as a developer extension and the design included places for two additional pumps. The existing facility has two 75 hp pumps, each capable of 800 gpm. The two additional pumps were proposed at 1,600 gpm each with 150 hp motors. The pumps will be controlled with variable frequency drives (VFDs). This scope of work assumes the following:

> The City of Camas will contract directly with Mather and Sons, the pump supplier, and S & B Stead and Associates, the integrator. The project may be prepared for public bidding for the electrical and mechanical components.

SCOPE OF WORK

Task 1 – Project Management and Oversight

Provide overall project management and oversight of the project work as follows:

A. Ensure sufficient staff resources are dedicated to the project.

B. Manage project budget and schedule.

C. Prepare and provide monthly progress reports and invoices.

Task 2 – Review Predesign Report and Verify Pump Design Parameters

Ensure that the proposed pumps from the Predesign Report are correctly sized and appropriate for the application prior to the City purchasing them.

A. Review Design Information.

B. Compare proposed pump curve with system curve developed from on-site pump test data to verify the proposed pump is acceptable.

C. Document findings of analysis and make a pump recommendation.

D. Perform surge analysis.

Task 3 – Verify Electrical Capacity

Verify the existing electrical service and building electrical system are adequate for the proposed pump and the future proposed pump.

A. Review construction drawings for the Crown Road Booster.

B. Verify utility transformer capacity with the electrical utility.

C. Verify the building electrical system.

D. Provide electrical analysis to verify that the electrical system can provide power to the proposed pumps.

E. Document findings of the electrical analysis.

Task 4 – Provide Drawings

Provide drawings and limited specifications to allow the City to solicit bids for a mechanical contractor for the pump and piping installation and for the City to solicit bids from an electrician to install the necessary conductors in the existing conduit between the motor controls center (MCC) location and the pump location. The drawings will be suitable for procuring and installing the mechanical equipment and installing the necessary electrical equipment via a small works roster process.

A. Provide mechanical drawings for mechanical and electrical installation.

Task 5 – Provide Specifications

Provide technical specifications for piping and electrical equipment to allow the City to bid those portions of the project should the City choose to do so. The specifications will be provided in the standard 16-division CSI format. The City will provide its own front-end documents and assemble the bid package.

A. Provide specification sections for the pumps, piping, and electrical installation.

Task 6 – Coordinate with S & B Stead and Associates

Coordinate with S & B Stead and Associates on their design and provision of the motor controls and connections to the City's SCADA system.

A. Review S & B Stead and Associates design for the MCC modifications and the connections to the City's SCADA system.

Task 7 – Prepare WSDOH Submittal for Review and Approval

Prepare a submittal package for Washington State Department of Health (WSDOH) review and approval.

A. Prepare a submittal package including a letter report with a project summary and design parameters and any design drawings to submit to WSDOH for review.

B. Receive and address WSDOH comments to prepare a resubmittal, if necessary, for final approval.

Task 8 – Provide Office Support

Provide office support including answering RFIs and reviewing submittals.

A. Answer RFIs and construction questions as they arise and as directed by City staff.

B. Review submittals as directed by City staff. Provide documentation of the submittal review for City use.

Task 9 – Startup and Commissioning

Provide on-site attendance and support for startup and commissioning.

A. Provide City staff with a startup protocol including system startup checklists.

B. Attend startup and commissioning and provide on-site pressure, flow, and amperage testing to verify that each pump is operating correctly within the specifications and manufacturer's submittal information.

C. Provide documentation of the startup and pump test for the City's records.

Task 10 – Record Drawings

Prepare record drawings for City recordkeeping.

A. Prepare final record drawings from project drawings incorporating City inspection comments.

EXHIBIT B

ENGINEERING SERVICES
SCOPE AND ESTIMATED COST

City of Camas - Crown Road Booster Station Expansion

Tasks	Project Manager Hours	Civil Engineer Hours	Electrical Engineer Hours	AutoCAD/ GIS Tech./ Eng. Intern Hours
1 Project Management and Oversight	4			
2 Review Predesign Report and Verify Pump Design Parameters	2	20		
3 Verify Electrical Capacity			8	
4 Provide Drawings	2	8	8	16
5 Provide Specifications	4	12	12	
6 Coordinate with S & B Stead and Associates	2	2	6	
7 Prepare WSDOH Submittal for Review and Approval	2	4		
8 Provide Office Support	2	4	2	
9 Startup and Commissioning	8	8	8	
10 Record Drawings	1	4		4
Hour Estimate:	27	62	44	20
Fully Burdened Billing Rate Range:*	$119 to $190	$103 to $129	$113 to $190	$48 to $126
Estimated Fully Burdened Billing Rate:*	$177	$126	$160	$95
Fully Burdened Labor Cost:	$4,779	$7,812	$7,040	$1,900

Total Fully Burdened Labor Cost:	$	21,531
Direct Non-Salary Cost:		
Mileage & Expenses (mileage @ current IRS rate)	$	469
TOTAL ESTIMATED COST:	**$**	**22,000**

* Actual labor cost will be based on each employee's actual rate. Estimated rates are for determining total estimated cost only. Fully burdened billing rates include direct salary cost, overhead, and profit.