



February 5, 2015

Mr. Steve Wall, P.E.
Public Works Director
City of Camas
616 NE Fourth Avenue
Camas, Washington 98607

SUBJECT: ENGINEERING SERVICES PROPOSAL FOR DISTRIBUTION
SYSTEM MODELING
CITY OF CAMAS, CLARK COUNTY, WASHINGTON
G&O #12476.00

Dear Mr. Wall:

This letter is a scope of work designed to provide additional information regarding distribution system improvements and system operational changes required for when the new slow sand filter plant (SSFP) is constructed and brought online. The product of this scope of work will be a predesign technical memorandum outlining all of the distribution system improvements required including length, size, and estimated cost. The memorandum will also describe operational changes required for winter operation with the SSFP operational and summer operation when the SSFP is not producing.

We understand that the City would like to use water from the SSFP to the fullest extent possible while minimizing other capital improvements to the distribution system. This scope of work is intended to build upon previous memoranda including the memorandum dated December 19, 2012. Since that memorandum was prepared, the City has considered delaying construction of the West Prune Hill Reservoir, has reconsidered the timeline for eventually joining the 542 and 544 Zones into a single zone, and has expressed a desire to review possible development in the Green Mountain area. This scope of work will include updated information on the existing distribution system from City staff, reflect the current anticipated timeline for improvements, and include the recent distribution/transmission upgrades installed by the City. The discussion of improvements included in this scope of work will also include greater detail for each recommended improvement.

SCOPE OF WORK

Update Hydraulic Model

Gray & Osborne will update the existing hydraulic model including incorporating the recent distribution system improvements as well as information from City staff on the



Mr. Steve Wall, P.E.
February 5, 2015
Page 2

current distribution system configuration. Gray & Osborne personnel will also work with City staff to perform on-site hydrant testing to calibrate the model to ensure an accurate representation of existing conditions, especially in the area around the existing treatment plant.

Analyze System

Gray & Osborne will perform an analysis of system operation for both summer and winter at current and 2035 demands to identify system deficiencies. The analysis will identify immediate distribution system improvements required to fully use the anticipated production from the SSFP. The analysis will also identify future improvements required to fully realize the full water right flow from the SSFP and meet future system demands. In addition, anticipated development projects in the Green Mountain area will be compared with future distribution system operation.

Present Projects

The technical memorandum will identify the required distribution system piping projects and will include size and length information. Each project will be shown on an aerial photographic map of the distribution system. A cost estimate including estimated valving, hydrants, and residential pressure reducing valves will be included for each project. The cost estimate will include estimated engineering and administration as well as a contingency appropriate for the level of design.

The not-to-exceed cost for the proposed scope of work is \$11,750. A detailed list of tasks and hours is attached.

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

Sincerely,

GRAY & OSBORNE, INC.



Russell Porter, P.E.

RLP/hhj
Encl.



Mr. Steve Wall, P.E.
February 5, 2015
Page 3

**CITY OF CAMAS – DISTRIBUTION PROJECTS PREDESIGN
MEMORANDUM**

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 \$11,750 as noted herein without further written direction and authorization of the City.

Name (Print) Scott Higgins

Signature Scott Higgins

Title Mayor

Date 3-2-15