

VILLAGE OF WELLINGTON

UTILITY ENGINEERING SERVICES WORK AUTHORIZATION

Booster Station No. 1 – Phase 2: Water Quality Improvements

Distribution System Storage Tank Water Quality Improvements

This Work Authorization authorizes Kimley-Horn and Associates, Inc. to perform services set forth herein and is issued pursuant to the Agreement for Consulting Services, between Wellington (“Client” or “Village”) and Kimley-Horn and Associates, Inc. (“Kimley-Horn” or “Consultant”), dated February 9, 2016 (“Agreement”). All terms and conditions of said Agreement are hereby incorporated and made part of this Work Authorization.

BACKGROUND

The Village of Wellington operates a 2.0 million-gallon (MG) ground storage tank (GST) and Booster Pump Station No. 1 located on Ousley Farms Road. Higher than desired water age (i.e. distribution system detention time) has been noted in the vicinity of the Village’s GST and Booster Pump Station No. 1. High system water age is a major factor in water quality deterioration within the distribution system. Therefore, it is good practice to minimize water age in the storage tanks and distribution system. This can be accomplished by operating the system to allow the tank levels to fluctuate, by adding internal tank mixing systems, or both.

The Village requested Kimley-Horn prepare construction and FDEP/FDOH permitting documents for the implementation of water age improvements at the Village’s GST and Booster Pump Station No. 1

This project will consist of the following:

- Analysis of the existing GST performance and water quality data;
- Evaluate water age improvement technologies including passive mixing and active mixing;
- In coordination with Village staff, determine the GST water age improvements required;
- Prepare construction drawings for the selected water age improvements with the assumption Village staff will furnish, install, and construct all improvements;
- Submit FDEP/FDOH permit application for the proposed improvements.

The following is a list of the tasks that will be performed and a description of the scope of work involved for each task.

SCOPE

The services authorized herein include the components, as follows:

Task 1 – GST Water Age Improvement Construction and Permitting Documents

- A. Kimley-Horn will prepare for and attend a project kick-off meeting with Village staff to discuss the project schedule and objectives, including water age targets.
- B. The Village will provide Kimley-Horn the following:
 1. *GST and Booster Pump Station No. 1 Physical Data:* This includes existing as-built/design drawings and specifications, pump performance data, tank configuration,

and operational records for all equipment.

2. *GST and Booster Pump Station No. 1 Operating Data*: The Village will provide Kimley-Horn the last 3 years of daily flow, typical diurnal flow, chemical usage, compliance sampling data, additional sampling data, and tank level data in electronic format (PDF or Excel).
- C. Kimley-Horn will evaluate water age improvement alternatives for discussion with Village staff:
1. The alternatives will consider active and passive mixing systems. The evaluation will include the potential impacts to existing permits, environmental sensitivity (noise), future expansion impacts, and the ability to meet current water age goals.
 2. Kimley-Horn will conduct site observations and review record drawings to verify the mechanical and electrical requirements, current and future operating conditions, operating and control logic, and average day, maximum day, and peak hour water demands for the GST water age improvements.
 3. Kimley-Horn will meet with Village staff to present findings on tasks C.1. and C.2. to reach a consensus as to the most beneficial alternatives to implement.
- D. Based on the selected water age improvements, Kimley-Horn will prepare construction plans and a cost opinion for Village staff to review and comment. The construction plans will be generated with the assumption that Village staff will furnish, install, and construct all water age improvements including mechanical, electrical, and SCADA systems. The construction documents will not be bid ready documents.
- E. Kimley-Horn will prepare and submit the FDEP/FDOH permit application for the GST water age improvements.
- F. Kimley-Horn will coordinate with an electrical engineering sub consultant to provide design and permitting for the GST water age electrical improvements. The electrical engineering sub consultant will contract directly with Kimley-Horn.
- G. Kimley-Horn will provide professional construction phase services as specifically stated below and based on the following assumptions:
- The project is anticipated to have a 14-calendar day (2 weeks) construction duration.
 - Kimley-Horn will provide limited site observations to supplement the Village's inspector. Site observation time consists of plans interpretations / clarifications, test observations, and completion reviews. We will visit the site up to six (6) times to perform this work. Such visits and observations by Kimley-Horn are not intended to be exhaustive or to extend to every aspect of the work in progress. Observations are to be limited to spot checking, selective measurement, and similar methods of general observation of the Work based on our exercise of professional judgment. Based on information obtained during such visits and such observations, we will evaluate whether the work is proceeding in accordance with the Construction Documents, and we will keep the Village informed of the progress of the Work.

ADDITIONAL SERVICES

Any services not specifically provided for in the above scope, as well as any changes in the scope requested by the Village, will be considered additional services to this Work Authorization and will be performed based on subsequent Work Authorizations approved prior to performance of the additional services.

INFORMATION AND SERVICES PROVIDED BY THE VILLAGE

Kimley-Horn assumes that the completeness and accuracy of all information provided by the Village, including plans and specifications prepared by others, can be relied upon in the performance of professional services.

ASSUMPTIONS

The Village and Consultant agree that the Consultant has based the project work effort and compensation upon the following assumptions:

1. Village staff will furnish, install, and construct all water age improvements including mechanical, electrical, and SCADA systems. The construction documents will not be bid documents.

SCHEDULE

Services provided under this agreement will begin within 7 days of receipt of a signed agreement. Kimley-Horn will perform these services according to the schedule below:

- Draft construction plans and cost opinion delivered for Village review within 6 weeks from completion of Task C.3.
- Final construction plans, specifications, and cost opinion submitted to the Village within 2 weeks of receipt of the Village's review comments.

COMPENSATION


Kimley-Horn will perform the services described in the Scope of Services on a lump sum basis for \$19,000.

Accepted by:

Village of Wellington

Kimley-Horn and Associates, Inc.

Anne Gerwig, Mayor



Kevin Schanen, P.E., Sr. Vice
President

Date: _____

Date: 1/22/19

ESTIMATE FOR ENGINEERING SERVICES

PROJECT:	Village of Wellington GST Water Age Improvements					SHEET 1 of 1			
CLIENT:	Wellington					FILE NO.			
ESTIMATOR:	Matt Tebow/John Potts					DATE:	01/04/19		
DESCRIPTION: See Scope of Services	DIRECT LABOR (MAN-HOURS)								
								SUB	EXP
	Principal		Engineer (PE)		Engineer (EI)				LINE
									TOTAL
	JP		MT						
Task 1 - GST Water Age Improvements									
Project Coordination	2.0		4.0		4.0				\$1,470
GST and PS data review and analysis	4.0		4.0						\$1,500
Alternative evaluation	4.0		10.0		6.0				\$3,000
Meeting to review alternatives	2.0		3.0						\$890
Plans	6.0		8.0		24.0				\$5,170
OPC	1.0		2.0		2.0				\$735
Services during construction	3.0		8.0		8.0				\$2,705
Electrical Engineer - Subconsultant	2.0		4.0				\$2,500		\$3,530
Total Hours	24		43		44				
Hourly Rate	\$235		\$140		\$110				
Total	\$5,640		\$6,020		\$4,840		\$2,500		\$19,000