

**AGREEMENT FOR PROFESSIONAL SERVICES FOR WATER PLANT AND WATER
RESOURCES ENGINEERING SERVICES RFQ2019070
WORK ORDER 4**

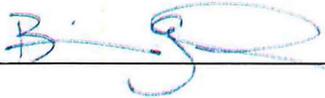
**Indian River County Utilities Department
Part A – Supervisory Control and Data Acquisition System Upgrades (SCADA) at
South Oslo Road Water Treatment Plant**

This Work Order Number 4 is entered into as of this 20 day of April, 2021, pursuant to that certain AGREEMENT FOR PROFESSIONAL SERVICES FOR WATER PLANT AND WATER RESOURCES ENGINEERING SERVICES RFQ2019070 entered into as of this 5th day of November, 2019 (collectively referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Kimley-Horn and Associates, Inc., ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:

By: 

Print Name: Brian Good, P.E.

Title: Senior Vice President

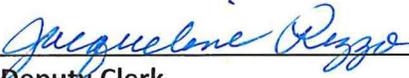
**BOARD OF COUNTY COMMISSIONERS
OF INDIAN RIVER COUNTY**

By: 
Joseph E. Flescher, Chairman

BCC Approved Date: April 20, 2021



Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: 
Deputy Clerk

Approved: 
Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: 
Dylan T. Reingold, County Attorney

EXHIBIT #1

Part A - Supervisory Control and Data Acquisition (SCADA) System Upgrades at South Oslo Road Water Treatment Plant

PROJECT UNDERSTANDING

In 2014, Kimley-Horn prepared a SCADA/PLC System Evaluation for the North and South water systems and provided recommendations for improvements. The study presented the phasing to be able to support each subsequent improvement while also maintaining operations of the WTP. Following the first task of remediation, the subsequent task included installation of a new main PLC. This recommendation has since evolved to improve upon the County's redundancy and resiliency approach through the addition of a new high service pump PLC, independent of the Main PLC. The intent of this work is to allow the Oslo facility the ability to pump water to customers should there be a failure in the main PLC, or a need for treatment to be down for maintenance.

The 2014 evaluation provided recommendations to replace the Main PLC as part of step 2. Given the time that has elapsed since and the failures that have occurred recently, it is IRCU's desire to implement these improvements immediately. The sequence of the proposed improvements to the WTP control system is provided to sustain operations and ensure reliability of treatment operations throughout upcoming improvements to the WTP. Accordingly, the County has requested Kimley-Horn prepare a scope of services to provide the design, bidding, construction, programming, and integration assistance to initiate these improvements.

IRCU had originally allocated \$355,000 for wellfield PLC replacements, but desires to utilize these funds to address the Main and HSP PLC improvements at the WTP in accordance with the recommendations of the original study. Conceptual cost estimate for this proposed work is \$350,000.

The following scope outlines the work necessary to prepare bid documents, assist the County with bidding/procurement, provide construction phase services for the proposed improvements, and the integration labor required to program each of the respective upgrades to the Main PLC and proposed High Service Panel.

SCOPE OF WORK

Consultant will utilize the services and provide coordination of Control Systems Design, Inc., and C&W Engineering for SCADA system integration and electrical engineering in the execution of these tasks.

TASK 1 - DESIGN PHASE SERVICES

Consultant will prepare bid documents consisting of site plan depicting improvements which are needed for present and future phasing, and panel drawings and specifications for replacement and installation of new Remote I/O and PLC panels. Drawings will consist of control panel details, subplate layout, dead front layout, wiring diagrams, and specified PLC and I/O equipment.

The drawings will depict modifications to the Main PLC and the proposed High Service Pump PLC.

Consultant will prepare design deliverables at 100% design interval. Design deliverables will consist of plans, specifications with bid item list, and opinion of probable construction costs (OPCC).

Consultant will perform one (1) site visit for data collection.

TASK 2 – BID PHASE

Consultant will provide coordination with IRCU purchasing department for bidding the proposed improvements.

Consultant will attend one (1) pre-bid meeting and respond to reasonable number of questions from potential bidders.

TASK 3 – CONSTRUCTION PHASE SERVICES

Consultant will attend one (1) pre-construction meeting with the Contractor, Owner, Electrical Engineer, and Integrator.

Consultant will review shop drawings for conformance with the bid documents. It is assumed that up to three (3) shop drawings will be reviewed.

Consultant will respond to a reasonable number of requests for information (up to 4 assumed).

Consultant will review Contractor's monthly applications for payment.

Consultant will attend up to three (2) progress meetings on-site.

Consultant will assist the Owner with closeout documentation review prior to completion of the project.

TASK 4 - PROGRAMMING AND INTEGRATION

Consultant will review and completely vet the current HMI migration to VTScada, test and verify operations local and with all external systems. Checkout and update of all PLC to HMI interfaces including scaling and troubleshooting all points will be performed to establish a baseline completed migration.

Contractor will design/Install New HSP PLC Control panel, relocate all I/O from existing main PLC, test, verify and Consultant will program the new PLC and get working directly with VTScada HMI.

Consultant will modify Main PLC Panel to remove the right most PLC5, A/B switch interconnecting wiring to make PLC5A a stand-alone PLC and install a new ControlLogix PLC rack with two EN2T modules, CLX, and a network switch provided by the contractor.

SCHEDULE

In general, the following schedule is anticipated and consultant will work as expeditiously as possible to meet it:

Task 1:	2 weeks after NTP issuance
Task 2:	2 months (based on IRC procurement schedule)
Task 3:	5 months after Contractor awarded project
Task 4:	To occur concurrent to Task 3

ADDITIONAL SERVICES

The following services are not included in the Scope of Services for this project, but may be required depending on circumstances that may arise during the execution of this project. Additional services include, but may not be limited to the following:

- Purchase/installation of PLC hardware, panels, electrical components, etc.

ITEMS FURNISHED BY OWNER

The following items will be furnished by the Owner and are necessary for completion of the tasks described herein.

- Access to WTP site
- Panel record drawings
- Coordination during programming and integration

FEE SCHEDULE

We will provide these services in accordance with our Continuing Consulting Engineering Services Agreement for Professional Services dated April 17th, 2018, by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Kimley-Horn and Associates, Inc., ("Consultant").

The Consultant will provide professional services for a lump sum fee as follows:

Task No.	Task	Task Fee
Task 1	Design Phase	\$ 7,623
Task 2	Bid Phase	\$ 2,879
Task 3	Construction Phase	\$ 12,516
Task 4	Programming and Integration	\$110,866
	TOTAL LUMP SUM FEE	\$ 133,884

ESTIMATE FOR ENGINEERING SERVICES

PROJECT: Oslo WTP SCADA Part A Improvements	SHEET 1 OF 1
CLIENT: Indian River County Utilities	FILE NO.
ESTIMATOR: NB	DATE: 3/1/2021

DESCRIPTION:		DIRECT LABOR (MAN-HOURS)							Dir Exp	LINE TOTAL
		PRINC	SEN PROF	REG PROF	DES/ P2	CLK P1	EXP SUB	EXP SUB		
NO.	TASK									
Hobart SCADA System Improvements										
1	DESIGN PHASE									
	C&W							\$5,500	\$0	\$5,500
	Coordination	2		4		10			\$93	\$2,123
										\$7,623
2	BID PHASE									
	C&W							\$1,200	\$0	\$1,200
	Pre-bid meeting, questions	3		6					\$74	\$1,679
										\$2,879
3	CONSTRUCTION PHASE SERVICES									
	Kickoff Meeting	2		4					\$49	\$1,119
	Shop Drawings (3)	1		3					\$32	\$717
	RFIs (1)			2					\$14	\$314
	Pay App Review (4)	1		4					\$38	\$873
	Site Visits (2)	3		12					\$115	\$2,620
	Closeout Documentation	1		4					\$38	\$873
	C&W							\$6,000	\$0	\$6,000
										\$12,516
4	PROGRAMMING & INTEGRATION									
	CSD	2		6				\$108,000	\$63	\$109,433
	Coordination	2		6					\$63	\$1,433
										\$110,866
	TOTAL HOURS	17	0	51	0	10	0	120700	\$579	\$133,884
	LABOR (\$/HOUR)	235	225	150	105	96	25		\$0	\$0
	SUBTOTAL	3995	0	7650	0	960	0	120700	\$133,305	\$133,884