



December 6, 2023

Mr. Andrew Bowen  
Town Planner & Zoning Administrator  
Town of Boonsboro  
21 North Main Street  
Boonsboro, Maryland 21713

Re: CO#3 Proposal - Design Engineering and Architectural Services for Control House / Valve Room

Dear Mr. Schumacher:

Whitman, Requardt and Associates, LLP (WRA) is pleased to present our Change Order proposal for additional Design Engineering and Architectural Services for designs related to the Control House at the new Potable Water Reservoir.

## **A. Background**

WRA is currently designing a new 1.0 MG divided potable water reservoir to replace the Town's existing 1.5 MG finished water reservoir located along the northeast side of the Town on Boonsboro Mountain Road. The original scope of work for the control valves and piping entering /leaving the facility was for a buried valve vault. However, following discussions with the Town it was determined that an above-ground facility is preferred to not only house the pipes and valves, but also electrical, controls and security equipment. In addition, additional equipment has been requested at the site, including dual HVAC systems and automatic gate / entry on the access road.

## **B. Additional Scope of Services**

As shown on our 60% design document, we have proceeded with the additional design tasks to include the precast pre-engineered control house. The additional scope of services as described below:

### **1. Civil Design**

- SWM design and permitting updates due to additional impervious area for runoff.
- Sidewalks, steps, concrete pads, etc. to accommodate access to the Control House.
- Floor drains, associated piping.
- Motorized access gate.

### **2. Architectural Design**

Architectural design for the Control House facility will include development of the following specification sections and details as necessary:

- 011000 Summary
- 034500 Precast Architectural Concrete
- 061000 Rough Carpentry
- 066400 Plastic Paneling
- 072100 Thermal Insulation
- 079200 Joint Sealant
- 081113 Hollow Metal Doors and Frames
- 087100 Door Hardware

- 089119 Fixed Louvers
- 099600 High-Performance Coatings
- Wall sections, gutters, and downspouts.

### 3. Mechanical Design

WRA's original scope assumed that the valves and piping associated with the reservoir were located in an underground vault. Now that the vault has been brought above-ground, several additional features are required, including:

- Heat pump/air conditioning unit.
- HVAC also includes intake and exhaust fans and unit heaters as backup to heat pump/AC unit per Town request.
- Accommodations for future chemical feed system (hypochlorite).

### 4. Electrical and Instrumentation Design

The additional items discussed above also require additional electrical and control system designs. The additional efforts will include the following:

- HVAC power and controls, electrical load.
- Additional lighting for Control House (interior and exterior).
- Motorized access gate.

### 5. Final Document QA/QC

## C. Assumptions

1. Architectural drawings are not included. Architectural efforts will consist of specifications, details and notes / schedules to be placed on Mechanical design drawings.
2. The precast pre-engineered control house structural / foundation design is by Dutchland. Inc.

## D. Compensation

We will perform the Scope of Services on a time and material basis. The estimated cost for the Scope of Services is included below. This fee will not be exceeded without your authorization.

Invoices will be rendered every four weeks for the actual services performed during the previous four-week period and are due within 30 days of receipt.

Scope Item	Cost
Civil Design	\$17,243
Architectural Design	\$13,916
Mechanical Design	\$9,702
Electrical and Instrumentation Design	\$15,768
Final QA/QC	\$9,900
Total	\$66,529

A detailed Manhour Estimate and Cost Breakdown by task is included as Attachment A.



**E. Schedule**

The proposal assumes that work will be completed by June 2024; however, WRA will not be liable for delays beyond its reasonable control.

**F. Terms and Conditions**

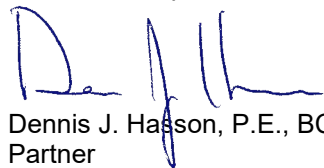
This work will be completed in accordance with our October 2018 Water System Contract as amended on September 27, 2021.

If this proposal is acceptable to you, please sign in the appropriate location below and return a copy for our files.

Thank you for the opportunity to present our Proposal. We look forward to working with you on this project.

Very truly yours,

Whitman, Requardt and Associates, LLP



Dennis J. Haason, P.E., BCEE  
Partner

Enclosures

cc: File  
Jared Schumacher / Town Manager  
P. Andrew Cooper, P.E., BCEE  
David Chung, P.E.

APPROVAL:

---

Signature

Date



PROJECT NAME: TOWN OF BOONSBORO - CO#3 Valve / Control House Design																								REVISION	0						
MANHOOR ESTIMATE AND PROPOSAL																								DATE BY	11/30/2023 PAC						
TASK	CLIENT: TOWN OF BOONSBORO																							WRA EXPENSES	Subcontractor hours	Subcontractor Payroll	Subcontractor Expenses	Line Item Totals			
PROJECT DESCRIPTION: Change Order #3 - additional designs related to Control House																								WRA EXPENSES	Subcontractor hours	Subcontractor Payroll	Subcontractor Expenses	Line Item Totals			
Phase A - Engineering Design Services	Use Labor Cost Rates for year: 2023																							T, R, E S, or L (See Legend)	T, R, E S, or L (See Legend)						
	\$80	\$66	\$40	\$45	\$80	\$60	\$33	\$80	\$60	\$40	\$80	\$50	\$35	\$80	\$60	\$35	\$80	\$55	\$38	\$80	\$50	\$32	WRA TOTAL HOURS	WRA TOTAL PAYROLL							
B1 Civil Design	16	16	40																				72	\$9,643	T \$100	DMW	\$7,500	-	\$	\$17,243	
B2 Architectural Design	8							4	60	16								8					96	\$13,916	- \$		\$	-	\$	\$13,916	
B3 Mechanical Design	8													8	40	8							64	\$9,702	- \$		\$	-	\$	\$9,702	
B4 Electrical and Instrumentation Design	8																	24	36		8	20	8	104	\$15,768	- \$		\$	-	\$	\$15,768
B5 Final QA/QC	12				8						8			8	8						4			52	\$9,800	T \$100		\$	-	\$	\$9,900
																							0	\$0	- \$		\$	-	\$	\$0	
																							0	\$0	- \$		\$	-	\$	\$0	
																							0	\$0	- \$		\$	-	\$	\$0	
<b>PHASE A SUBTOTALS =</b>	<b>52</b>	<b>16</b>	<b>40</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>60</b>	<b>16</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>56</b>	<b>8</b>	<b>28</b>	<b>36</b>	<b>0</b>	<b>12</b>	<b>20</b>	<b>8</b>	<b>388</b>	<b>\$58,829</b>	<b>\$200</b>	<b>Subcontractor Total \$7,500</b>			\$66,529		
<b>PHASE A SUB-TOTAL DOLLARS =</b>	<b>\$10,192</b>	<b>\$2,587</b>	<b>\$3,920</b>	<b>\$0</b>	<b>\$1,568</b>	<b>\$0</b>	<b>\$0</b>	<b>\$784</b>	<b>\$8,820</b>	<b>\$1,568</b>	<b>\$1,568</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,136</b>	<b>\$8,232</b>	<b>\$686</b>	<b>\$5,488</b>	<b>\$4,851</b>	<b>\$0</b>	<b>\$2,352</b>	<b>\$2,450</b>	<b>\$627</b>	<b>\$58,829</b>			<b>Profit on Sub 0.0%</b>					
		56	Civil	\$6,507	8	Geotech	\$1,568	80	Architect	\$11,172	8	Structural	\$1,568	80	Mech.	\$12,054	64	Electrical	\$10,339	40	SCADA	\$5,429					<b>WRA Total \$59,029</b>				
																											<b>PHASE A TOTAL \$66,529</b>				

	Project Manager	Senior Civil Engineer	Civil Engineer	Civil Designer / CADD	Senior Geotech. Engineer	Geotech Engineer	Geotech. Designer / CADD	Senior Architect	Architect	Arch. Des/CADD	Senior Structural Engineer	Struct. Engineer	Struct. Designer / CADD	Senior Mechanical Engineer	Mech. Engineer	Mech. Designer / CADD	Senior Electrical Engineer	Elect. Engineer	Elect. Designer / CADD	Senior I&C Engineer	I&C Engineer	I&C Designer / CADD	
Bare Labor Cost rates for year	2022																						
Contract Rates - LOADED LABOR AT A FACTOR OF:	2.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Bare Labor Cost rates for year	2023	\$80.00	\$66.00	\$40.00	\$45.00	\$80.00	\$60.00	\$33.00	\$80.00	\$60.00	\$40.00	\$80.00	\$50.00	\$35.00	\$80.00	\$60.00	\$35.00	\$80.00	\$55.00	\$38.00	\$80.00	\$50.00	\$32.00
Contract Rates - LOADED LABOR AT A FACTOR OF:	2.45	\$196.00	\$161.70	\$98.00	\$110.25	\$196.00	\$147.00	\$80.85	\$196.00	\$147.00	\$98.00	\$122.50	\$85.75	\$196.00	\$147.00	\$85.75	\$196.00	\$134.75	\$93.10	\$196.00	\$122.50	\$78.40	
Bare Labor Cost rates for year	2024																						
Contract Rates - LOADED LABOR AT A FACTOR OF:	2.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

**WRA EXPENSES**  
 T = Travel  
 R = Reproduction  
 E = Equipment Rental  
 S = Subcontractor  
 L = Laboratory Cost

\$66,529