November 21, 2025

Fulton County Government
Department of Purchasing and Contract Compliance
130 Peachtree Street SW, Suite 1168
Atlanta, GA 30303

Attention: Mr. David Clark, P.E., Director of Public Works

Reference: Johns Creek Environmental Campus Membrane System Upgrade & Expansion, Phase2A

David,

Please find attached Phase 2A Scope of Work for review and consideration, including the replacement of the Ultraviolet Disinfection System. The scope follows the services as outlined in the RFP document and all other components of our contract remain in place.

The basis of this price for this **Amendment No. 2** is shown on the attached Compensation Schedule as **$2,214,768.75.**

The Schedule upon which this proposal is shown on **Attachment C.**

Our **Contract Compliance Subcontractor Utilization** is shown on the Exhibit B-2, at **39%** of the value. All other components of our approved Compliance Plan remain in place.

We at the Ruby-Collins/Brown and Caldwell Joint Venture look forward to the successful continuation of this very important project to the County. If you should have any questions, feel free to reach out to me directly.

Sincerely,

Jesse B Brown, Senior Project Manager
Ruby-Collins, Inc.

Kelly Comstock, Vice President
Brown and Caldwell

Attachment A

UV System Design and Engineering Services During Construction for

Progressive Design-Build Services for

Johns Creek Environmental Campus Membrane System Upgrade & Expansion

Fulton County Project Number 24RFP0808K-DB

Scope Summary

This Scope of Work describes services to be provided by the Ruby Collins/Brown and Caldwell Joint Venture associated with the progressive design-build of the FULTON COUNTY Johns Creek Environmental Campus (JCEC) membrane system upgrade and expansion project. This specific scope is for the design and engineering services during construction (ESDC) for the UV system implementation. It will involve generating design drawings for system implementation, coordinating with the selected UV supplier, reviewing the UV submittal, addressing questions during construction and providing inspection services, along with assisting with commissioning of the new system, and completing record drawings.

Planned engineering services to be performed under this Agreement comprise and are limited to those specifically set forth in this exhibit.

BROWN AND CALDWELL's Scope of Services is divided into the following tasks:

- Task 1: UV System Design
- Task 2: UV Submittal Review
- Task 3: Design Coordination During Construction
- Task 4: Testing and Commissioning
- Task 5: Record Drawings

Ruby Collins scope consists of Task 6, Remove and Replace the UV Equipment.

Task 1 – UV System Design

Design services will include development of structural, process, electrical and I&C drawings to support the installation of the new UV system. These will supplement the UV specification that has already been developed. In addition, ancillary specifications for electrical products needed for construction will also be provided.

To provide backgrounds in Revit format, laser scanning will be completed. This will include scanning of the UV area as well as the membrane gallery, outdoor area of membrane tanks, and the dewatering building truck bay. The exterior and interior 3D Laser Scanning in various locations within the site will be done with mobile mapping technology. Then a

NavVis VLX device will be utilized to perform point cloud registration and post-processing in NavVis IVION version 2025. The tolerance of point cloud data will be 1/4" to 1/8" in 30 feet – linear. These point cloud data will be utilized to generate existing condition Revit models in Level of Development (LOD) 300: These will then be utilized for design drawing development. The following drawings are anticipated to be developed:

Drawing Number	Content
G-1	Cover Sheet
G-2	Drawing Index
G-3	Hydraulic Profile - Liquid Process
S-1	UV Details
DD-1	Demolition Plan 1
D-1	UV System Plan
D-2	UV System Sections
ED-1	Electrical Demolition 1
E-1	LVMCC - UV/RP1 - Single Line Diagram
E-2	LVMCC - UV/RP2 - Single Line Diagram
E-3	LVMCC - UV/RP1, UV/RP2 - MCC Elevations
E-4	UV Power and Control Plan
E-5	UV Grounding Plan
E-6	UV Riser Diagram 1
E-7	UV Riser Diagram 2
I-1	UV System P&ID

Due to the fact that the scope is well defined and the desire for speed of implementation, the design will progress directly to 100% design. A draft 100% design set will be provided to the County for review prior to being issued for construction. Any comments will be addressed and incorporated into the construction documents.

Task 2 – UV Submittal Review

Submittals for the UV system as well as ancillary electrical components will be reviewed and approved by Brown and Caldwell and Our subcontractors. Multiple disciplines including process mechanical, electrical, I&C and structural will take part in the review process. A copy of the submittal will also be provided to the County for any comment. It is assumed that the County will provide any feedback in a timely fashion (within 7 days). CMMS data will be collected during the submittal process and provided to the County for their use in the current CMMS system.

Task 3 – Design Coordination During Construction

Brown and Caldwell will provide design coordination during construction that includes addressing any questions that arise during installation (vis RFC process), issuing any designer clarifications needed to address issues, and coordinating with phased

implementation to minimize system downtime. In addition, periodic inspection (assume 9 inspection events) during construction will take place.

Task 4 – Testing and Commissioning

BC will provide testing and commissioning services including I/O checkout, final inspection services and punch list generation, witnessing of performance testing of the system and coordination of training and start-up activities associated with the new system.

Task 5 – Record Drawings

BC will generate record drawings associated with the new system and incorporate any changes that were encountered during the construction process based on input including markups and/or model updates from RC. These will be turned over to the County in digital and hardcopy format (assume 4 hardcopy half size sets and 2 full size sets).

Task 6 –Remove & Replace the UV Equipment

Ruby Collins will coordinate continuously with JCEC Operations personnel to isolate process water flows to a single channel and selectively demolish the existing UV Equipment, once the equipment is de-energized and made safe. The new equipment will be installed in coordination with Player Electric, including new electrical infrastructure. All required Instrumentation and Controls for the new equipment will be integrated into the existing plant SCADA system. Once a completed channel is placed into service and tested for the required amount of time, the next channel will be upgraded in similar fashion. All services and appurtenances required for a complete and operable system are included such that the area is returned to service with a minimum amount of disturbance to the adjacent areas.

Key Assumptions and Limitations:

Shown below are key assumptions and limitations to the scope of services, in additional any that may be listed above) described herein:

- No additional O&M manual development is planned beyond the UV supplier O&M manual.
- It is assumed that the County will be able to either confirm or drain each UV channel to verify existing conditions inside the channels, such as channel drain location.
- It is assumed that the County will provide a CMMS template that can be provided to the UV system manufacturer to populate during the submittal review process.
- For the laser scanning the geo-referencing point cloud will require BIMNYC to locate up to forty (40) checkerboard targets within the site in various locations. These need to be surveyed to obtain Easting (X), Northing (Y), and Elevation (Z). BC has not included the cost of this survey and assumed that it will be done by RC.

- It is assumed that although this scope has been pulled out separately for early GMP approval, it will be managed (invoicing / reporting / etc.) as a task for the Phase 1B project. Additional PM time has not been included to send separate invoices / reports.
- UV design will go straight to 100% design with a draft set issued for review and comment.
- Laser scanning and Revit Background modeling are assumed to be completed only in the following areas of the facility.
    - Membrane Gallery
    - Membrane Tanks (above deck level)
    - UV Area
    - RDT Truck Bay Location
- Any delay to equipment delivery beyond the date shown on Attachment C will result in a commensurate extension of Substantial Completion.

Proj Nm:	**JCEC UV REPLACEMENT**
Locat'n:	**Fulton County, GA**
Date:	**21-Nov-25**

GMP Estimate Component Summary - Rev0			
General Conditions----------		$	172,181.05
Construction Cost----------		$	1,430,277.91
Construction Manager's Fee----------		$	200,307.37
Brown & Caldwell Design Engineering Service		$	295,559.36
Allowances----------			$50,000
Contingency----------	3%	$	66,443.06
Total----------		**$**	**2,214,768.75**

Construction Manager's Fee Calculation			
General Conditions, Construction Cost			$1,602,458.96
Construction Manager's Fee	12.50%	$	200,307.37

ITM	ITEM DESCRIPTION	QUANTITY	UM	UC MISC MAT	UC MAT	UC LAB	UC EQP	UC SUB	MISC MAT	MATERIAL	LABOR	EQUPMNT	SUBCONTR	UC TTL	TOTAL
01	**General Conditions**														
GCW	Project Duration	63	days	*Note											
GCW	Project Duration	9	wks	*Note											
									$0	$0	$0	$0	$0	$0.00	$0.00
01	***General Conditions - Total***								**$0**	**$70,963**	**$72,034**	**$29,184**	**$0**		**$172,181.05**
02	***UV Replacement***														
		1	ls						$0	$0	$0	$0	$0	$0.00	$0.00
Wkst #1	TROJAN UV Replacement	1	ls		$1,075,625.00	$66,429.43	$19,804.53	$185,058.00	$0	$1,075,625	$66,429	$19,805	$185,058	$1,346,916.97	$1,346,916.97
									$0	$0	$0	$0	$0	$0.00	$0.00
Tax	Taxes @ 7.75%	7.75%	tax		$1,075,625.00				$0	$83,361	$0	$0	$0	$1,075,625.00	$83,360.94
									$0	$0	$0	$0	$0	$0.00	$0.00
02	***UV Replacement - Total***								**$0**	**$1,158,986**	**$66,429**	**$19,805**	**$185,058**		**$1,430,277.91**
	Total (General Conditions + Construction Cost)								**$0**	**$1,158,986**	**$66,429**	**$19,805**	**$185,058**		**$1,602,458.96**
	$1,602,458.96														
	Allowances														
		1	ls						$0	$0	$0	$0	$0	$0.00	$0
	SCADA Allowance	1	ls					$50,000.00	$0	$0	$0	$0	$50,000	$50,000.00	$50,000
		1	ls						$0	$0	$0	$0	$0	$0.00	$0
	Allowances - Total								**$0**	**$0**	**$0**	**$0**	**$50,000**		**$50,000**

PROJ NM: JCEC UV REPLACEMENT ESTIMATE WORK SHEET
LOCAT'N: Fulton County, GA
BID DTE: 11/22/2025

ESTIMATOR: E LEDOUX
CHECKD BY: REVIEW

						UNIT COSTS					TOTAL COSTS				
SPEC NO	ITEM DESCRIPTION	PROD	CREW	QTY	UM	UC MAT	UC LAB	UC EQP	UC SUB	TTL UC	MATERIAL	LABOR	EQUPMNT	SUBCONTR	TOTALS
Wkst #1	**TROJAN UV Replacement**														
	MOBILIZATION & DEMOBILIZATION														
SITE	MOBILIZE TO SITE	0.5 DY	MISC	1	LS		$3,008.13	$760.96		$3,769.09		$3,008	$761		3,769.09
SITE	DEMOBILZE FROM SITE	0.5 DY	MISC	1	LS		$3,008.13	$760.96		$3,769.09		$3,008	$761		3,769.09
SITE	PURCHASE HOISTING AND JACKING EQUIPMENT			1	LS			$3,000.00		$3,000.00			$3,000		3,000.00
	UV WORK														
CHANNEL 1	DEMOLITION ON CHANNEL 1 EQUIPMENT	0.2 DY	MISC	1	EA	$200.00	$7,520.31	$1,902.40		$9,622.71	$200	$7,520	$1,902		9,622.71
CHANNEL 1	INSTALL 1/2" SS 316 CHANNEL REDUCTION PLATE	2 DY	MISC	3	EA	$50.00	$752.03	$190.24		$992.27	$150	$2,256	$571		2,976.81
CHANNEL 1	INSTALL TROJAN REDUCTION BAFFLES	2 DY	MISC	2	EA	$50.00	$752.03	$190.24		$992.27	$100	$1,504	$380		1,984.54
CHANNEL 1	INSTALL CUSTOM MODULE SUPPORT RACK FOR BANK 1A	2 DY	MISC	2	EA	$20.00	$752.03	$190.24		$962.27	$40	$1,504	$380		1,924.54
CHANNEL 1	INSTALL BANK 1A	1 DY	MISC	1	EA	$200.00	$1,504.06	$380.48		$2,084.54	$200	$1,504	$380		2,084.54
CHANNEL 1	INSTALL PDC 1A	2 DY	MISC	1	EA	$200.00	$752.03	$190.24		$1,142.27	$200	$752	$190		1,142.27
CHANNEL 1	INSTALL CUSTOM MODULE SUPPORT RACK FOR BANK 1B	2 DY	MISC	2	EA	$20.00	$752.03	$190.24		$962.27	$40	$1,504	$380		1,924.54
CHANNEL 1	INSTALL BANK 1B	1 DY	MISC	1	EA	$200.00	$1,504.06	$380.48		$2,084.54	$200	$1,504	$380		2,084.54
CHANNEL 1	INSTALL PDC 1B	2 DY	MISC	1	EA	$200.00	$752.03	$190.24		$1,142.27	$200	$752	$190		1,142.27
CHANNEL 1	INSTALL CUSTOM MODULE SUPPORT RACK FOR BANK 1C	2 DY	MISC	2	EA	$20.00	$752.03	$190.24		$962.27	$40	$1,504	$380		1,924.54
CHANNEL 1	INSTALL BANK 1C	1 DY	MISC	1	EA	$200.00	$1,504.06	$380.48		$2,084.54	$200	$1,504	$380		2,084.54
CHANNEL 1	INSTALL PDC 1C	2 DY	MISC	1	EA	$200.00	$752.03	$190.24		$1,142.27	$200	$752	$190		1,142.27
CHANNEL 1	INSTALL 60% POROSITY FLOW CONDITIONER PLATE	2 DY	MISC	1	EA	$20.00	$752.03	$190.24		$962.27	$20	$752	$190		962.27
CHANNEL 1	INSTALL HSC PLATFORM	3 DY	MISC	1	EA	$20.00	$501.35	$126.83		$648.18	$20	$501	$127		648.18
CHANNEL 1	INSTALL LOW LEVEL SENSOR	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1	INSTALL LEVEL SENSOR MONITOR	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1	REPLACE MODULATING WIER GATE ACTUATOR	1 DY	MISC	1	EA	$100.00	$1,504.06	$380.48		$1,984.54	$100	$1,504	$380		1,984.54
CHANNEL 1	INSTALL FLOW CONDITIONER	2 DY	MISC	1	EA	$10.00	$752.03	$190.24		$952.27	$10	$752	$190		952.27
CHANNEL 2	DEMOLITION ON CHANNEL 2 EQUIPMENT	0.2 DY	MISC	1	EA	$200.00	$7,520.31	$1,902.40		$9,622.71	$200	$7,520	$1,902		9,622.71
CHANNEL 2	INSTALL 1/2" SS 316 CHANNEL REDUCTION PLATE	2 DY	MISC	3	EA	$50.00	$752.03	$190.24		$992.27	$150	$2,256	$571		2,976.81
CHANNEL 2	INSTALL TROJAN REDUCTION BAFFLES	2 DY	MISC	2	EA	$50.00	$752.03	$190.24		$992.27	$100	$1,504	$380		1,984.54
CHANNEL 2	INSTALL CUSTOM MODULE SUPPORT RACK FOR BANK 2A	2 DY	MISC	2	EA	$20.00	$752.03	$190.24		$962.27	$40	$1,504	$380		1,924.54
CHANNEL 2	INSTALL BANK 2A	1 DY	MISC	1	EA	$200.00	$1,504.06	$380.48		$2,084.54	$200	$1,504	$380		2,084.54
CHANNEL 2	INSTALL PDC 2A	2 DY	MISC	1	EA	$200.00	$752.03	$190.24		$1,142.27	$200	$752	$190		1,142.27
CHANNEL 2	INSTALL CUSTOM MODULE SUPPORT RACK FOR BANK 2B	2 DY	MISC	2	EA	$20.00	$752.03	$190.24		$962.27	$40	$1,504	$380		1,924.54
CHANNEL 2	INSTALL BANK 2B	1 DY	MISC	1	EA	$200.00	$1,504.06	$380.48		$2,084.54	$200	$1,504	$380		2,084.54
CHANNEL 2	INSTALL PDC 2B	2 DY	MISC	1	EA	$200.00	$752.03	$190.24		$1,142.27	$200	$752	$190		1,142.27
CHANNEL 2	INSTALL CUSTOM MODULE SUPPORT RACK FOR BANK 2C	2 DY	MISC	2	EA	$20.00	$752.03	$190.24		$962.27	$40	$1,504	$380		1,924.54
CHANNEL 2	INSTALL BANK 2C	1 DY	MISC	1	EA	$200.00	$1,504.06	$380.48		$2,084.54	$200	$1,504	$380		2,084.54
CHANNEL 2	INSTALL PDC 2C	2 DY	MISC	1	EA	$200.00	$752.03	$190.24		$1,142.27	$200	$752	$190		1,142.27
CHANNEL 2	INSTALL 60% POROSITY FLOW CONDITIONER PLATE	2 DY	MISC	1	EA	$20.00	$752.03	$190.24		$962.27	$20	$752	$190		962.27
CHANNEL 2	INSTALL HSC PLATFORM	3 DY	MISC	1	EA	$20.00	$501.35	$126.83		$648.18	$20	$501	$127		648.18
CHANNEL 2	INSTALL LOW LEVEL SENSOR	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 2	INSTALL LEVEL SENSOR MONITOR	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 2	REPLACE MODULATING WIER GATE ACTUATOR	1 DY	MISC	1	EA	$100.00	$1,504.06	$380.48		$1,984.54	$100	$1,504	$380		1,984.54
CHANNEL 2	INSTALL FLOW CONDITIONER	2 DY	MISC	1	EA	$10.00	$752.03	$190.24		$952.27	$10	$752	$190		952.27
CHANNEL 1 & 2	INSTALL LEVEL CONTROL PANEL	2 DY	MISC	1	EA	$10.00	$752.03	$190.24		$952.27	$10	$752	$190		952.27
CHANNEL 1 & 2	INSTALL HSC	2 DY	MISC	1	EA	$20.00	$752.03	$190.24		$962.27	$20	$752	$190		962.27
CHANNEL 1 & 2	INSTALL UV TRANSMITTANCE CONTROLLER	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1 & 2	INSTALL UV TRANSMITTANCE SENSOR	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1 & 2	INSTALL SYSTEM CONTROL CENTER	1 DY	MISC	1	EA	$100.00	$1,504.06	$380.48		$1,984.54	$100	$1,504	$380		1,984.54
CHANNEL 1 & 2	INSTALL UV MODULE LIFTING SLING WITH FRAME	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1 & 2	INSTALL MAINTENANCE RACK	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1 & 2	INSTALL STORAGE RACK	3 DY	MISC	1	EA	$10.00	$501.35	$126.83		$638.18	$10	$501	$127		638.18
CHANNEL 1 & 2	HANDOVER SPARE PARTS	2 DY	MISC	1	EA		$752.03	$190.24		$942.27		$752	$190		942.27
CHANNEL 1 & 2	DUMPSTER FOR DISPOSAL			1	LS				$4,000.00	$4,000.00				$4,000	4,000.00

PROJ NM: JCEC UV REPLACEMENT
LOCAT'N: Fulton County, GA
BID DTE: 11/22/2025

ESTIMATE WORK SHEET

ESTIMATOR: E LEDOUX
CHECKD BY: REVIEW

						UNIT COSTS					TOTAL COSTS				
SPEC NO	ITEM DESCRIPTION	PROD	CREW	QTY	UM	UC MAT	UC LAB	UC EQP	UC SUB	TTL UC	MATERIAL	LABOR	EQUPMNT	SUBCONTR	TOTALS
	MATERIALS & SUBCONTRACTORS														
QUOTE	PURCHASE TROJAN UV SYSTEM			1	LS	**$1,033,400.00**				$1,033,400.00	$1,033,400				1,033,400.00
QUOTE	NEW GRATINGS AND ALUMINUM PLANK GRATING			1	LS	**$38,165.00**				$38,165.00	$38,165				38,165.00
QUOTE	ELECTRICAL SUBCONTRACTOR			1	LS				**$162,308.00**	$162,308.00				$162,308	162,308.00
	OTHER														
SCOPE	REPAIR OF EXISTING EPOXY FLOORING			1,250	SF				$15.00	$15.00				$18,750	18,750.00
Wkst #1	TROJAN UV Replacement - SUBTOTAL			44.2	DAYS						$1,075,625	$66,429	$19,805	$185,058	1,346,916.97

EXHIBIT B2 FORM

SUB-CONTRACTORS (INCLUDING SUPPLIERS) TO BE UTILIZED IN THE PERFORMANCE OF THE SCOPE OF WORK/SERVICES(S), IF AWARDED ARE LISTED BELOW

Certification Designation: AABE – African American Business Enterprise, HBE – Hispanic American Business Enterprise, NABE – Native American Business Enterprise, ABE – Asian American Business Enterprise, FBE – Female Business Enterprise, MBE – Minority Business Enterprise, SDVBE – Service Disabled Veteran Business Enterprise, SBE – Small Business Enterprise, DBE – Disadvantage Business Enterprise

Subcontractor Name	Email Address	City, State, Phone	Ethnic Group	Certification Agency	Certification Designation	Scope of Work	Dollar Amount	Percentage
Player and Company, LLC	brischar@playerco.com	Atlanta, GA, (404) 351-3481	AA	COA	AABE, SBE	Electrical	$162,308	15%
SL King & Associates	acarter@slking.com	Atlanta, GA , 404.524.5800	AA	FC	AABE, SBE	Design and Commissioning	$170,000	16%
VLW Group	valister@vlwgroupllc.com	Decatur, GA, 678.922.2480	AA	FC	AABE, SBE	Scheduling	$12,000	1%
Llamas Coatings	smoky@llamascoatings.com	Atlanta, GA, (404) 799-0384	H	FC	HBE	Painting/Coatings	$18,750	2%
Global Controls Systems	Rakesh@globalcontrolsystems.com	Smyrna, GA, (770) 402-5359	A	FC	FBE	Instramentation	$50,000	5%

* In accordance with Fulton County Compliance policy, the Percentage figures above are calculated on the project total exclusive of the process equipment acquisition cost.

Attachment C
Project Schedule

Activity	Duration (Weeks)	Date
Notice To Proceed		15-Jan-26
Equipment Shop Drawings	10	26-Mar-26
Site Mobilization		15-Oct-26
Equipment Delivery	30	22-Oct-26
Installation	8	14-Dec-26
Startup & Testing (Each Channel)	5	
Substantial Completion		31-Dec-26