

City of Cartersville
Agreement for General Engineering and Consulting Services
WPCP Expansion to 25 mgd
Amendment No. 1

The scope of work described in the letter proposal dated November 7, 2023 (referred to as "PROPOSAL"), from Hazen and Sawyer (referred to as "ENGINEER") to the City of Cartersville (referred to as "OWNER") for the Cartersville Water Pollution Control Plant (WPCP) Expansion to 25 mgd (referred to as "PROJECT") is amended as described below.

Amendment No. 1 includes changes to the original PROPOSAL for the ENGINEER to advance the design to produce Guaranteed Maximum Price (GMP) ready documents for Construction Manager at Risk (CMAR) Contractor's use in its development of GMPs for the following work packages (WPs) associated with the PROJECT.

Work Package	General Description	Guaranteed Maximum Price
WP-0	Long Lead Time Procurement Items and Early Works Package including Site Preparation and Demolition Work	GMP-1
WP-1	Influent PS, Influent PS Electrical Building, Headworks Facility, Headworks Electrical Building, Headworks Odor Control, Equalization Tanks and flow control structures, associated demolition, site civil, electrical, and I&C improvements	GMP-2
WP-2	Clarifier Splitter Box, Final Clarifiers 4 and 5, RAS Flume Structure, RAS PS Upgrades, Filter Addition, UV Disinfection Facility with NPW PS, Outfall Improvements, associated demolition, site civil, electrical, and I&C improvements	GMP-3
WP-3	Bioreactor Splitter Box, Bioreactors 4, 5, and 6, Blower Building 2, Alum Storage and Feed Modifications, Dewatering Building improvements, associated demolition, site civil, electrical, and I&C improvements	
WP-4	Septage Receiving Station, remaining site demolition, associated site civil, electrical, and I&C improvements	

ARTICLE 1. BACKGROUND

The Scope of Work of the original PROPOSAL included preliminary engineering services to support the OWNER through 30% design of the PROJECT and through selection of the CMAR Contractor. The original PROPOSAL included the following tasks:

- Task 1 – Project Management for Preliminary Engineering Services
- Task 2 – Assistance with CMAR RFP Development and Selection of CMAR Contractor
- Task 3 – Preliminary Engineering
- Task 4 – 30% Design
- Task 5 – Permitting Assistance
- Task 6 – Field Services
- Task 7 – Industrial Support

As the PROJECT transitions from preliminary engineering to detailed design for the GMP development phase of the PROJECT, the following new tasks will be performed to advance the design to GMP-Ready Documents:

Task 8 – Design Phase Services to Produce GMP-Ready Documents

Task 9 – GMP Development Support and CMAR Contract Management

Note that detailed design services to advance the design from GMP-ready documents to 100% complete, construction-ready documents and engineering services during construction are not included in Amendment No. 1, as it is anticipated that these services will be authorized under future amendment(s).

The detailed design will be based on the Technical Memoranda and the 30% Design Submittal prepared during preliminary engineering, and includes the following new and modified structures:

- New Main Electrical Building and standby generators
- New Influent PS
- New Influent PS Electrical Building
- New Headworks Facility
- New Headworks Electrical Building
- New Headworks Odor Control
- New Equalization Tanks and associated flow control vaults
- New Bioreactor Splitter Box
- New Bioreactors 4, 5, and 6
- New Blower Building 2
- Modifications to Existing RAS Splitter Box
- New Final Clarifier Splitter Box
- New Final Clarifiers 4 and 5
- New Final Clarifiers 4 and 5 RAS Flume Structure
- RAS PS Upgrades
- Additions to Existing Filter Structure
- New UV Disinfection Facility with NPW PS
- Outfall Improvements
- New Septage Receiving Facility
- Chemical Feed Modifications
- Dewatering Building Improvements
- Temporary Sludge Dryer (not part of CMAR Contractor's Scope of Work, but part of the PROJECT)
- Demolition of the following existing facilities: Laboratory Building, Maintenance Shed, Old Final Clarifiers, Digester 5, Sludge Holding Tanks 1&2, Sludge Thickener, Primary and Secondary Lift Stations, Existing Headworks, Emergency Storage Tank, Pre-mix Influent Channel, Chlorine Contact Basins, Sodium Hypochlorite Storage and Feed, and Sodium Bisulfite Storage and Feed
- Associated site civil, electrical, and instrumentation and controls improvements

ARTICLE 2. SCOPE OF WORK, SCHEDULE, AND PROJECT TEAM

Scope of Work

The scope of work for new Tasks 8 and 9 is described below. The scope of work for Tasks 1 - 7, as described in the original PROPOSAL, remains unchanged.

Task 8 – Design Phase Services to Produce GMP-Ready Documents (New)

This task includes project management and detailed design activities required to produce GMP-Ready Documents that provide a clear definition of the work to be included in the CMAR Contractor's GMP construction cost estimate for each work package, including sequencing and construction scheduling constraints to maintain plant operation and construction contract conditions. To accomplish, the ENGINEER will advance the design to produce approximately 75% complete plans and specifications that are of sufficient detail for the CMAR Contractor to develop a GMP for each work package. The GMP-Ready Documents will include plans and specifications that are approximately 75% complete with respect to process mechanical, structural, site civil work, architectural, building mechanical, electrical systems, instrumentation and controls, demolition, and utility relocations for the proposed new and modified facilities.

Throughout the process, ENGINEER will collaborate and meet with the OWNER and CMAR Contractor to discuss the in-progress design-related work, solicit input and value engineering ideas, and support the CMAR Contractor's project understanding and eventual development of a GMP for each work package.

It is assumed that the durations to advance the design from 30% complete to GMP-ready will be approximately 4 months for WP-0, 8 months for WP-1, and 12 months for WP-2, WP-3, and WP-4.

This task includes the following major deliverables:

- Design Development Report (DDR) – The ENGINEER will develop a DDR for OWNER's review and approval to document design parameters and planned approach for the PROJECT. The ENGINEER will utilize the corresponding effluent permit and target limits as the basis of design for the expanded WPCP. The DDR will provide the level of detail required by Georgia EPD.
- 60% Design Documents – The ENGINEER will develop the design of each work package to an approximate 60% complete level, perform internal QA/QC, and submit in-progress drawings and technical specifications to OWNER for review and comment. The ENGINEER will conduct a design review meeting with OWNER and the CMAR Contractor to review and discuss the 60% design documents.
- GMP-Ready Documents – The ENGINEER will develop the design of each work package to the GMP-ready level (approximately 75% design), perform internal QA/QC, and submit in-progress drawings and specifications to OWNER for review and comment. The ENGINEER will conduct a design review meeting with OWNER and the CMAR Contractor to review and discuss the GMP-ready documents. The GMP-ready documents will be utilized by the CMAR Contractor to provide GMP pricing on the project.
- Temporary Dryer System (currently not a part of CMAR Contractor's Scope of Work, but a part of the overall PROJECT) – The ENGINEER will develop 100% bid-ready documents for the installation of a temporary sludge dryer system. The sludge dryer system design will include civil, mechanical, structural, electrical, and instrumentation and controls design to allow the sludge dryer system to be installed. Two deliverables are planned: 75% and 100% (Bid Set) which include Drawings and Specifications for procurement of the items required for installation of the temporary sludge dryer. The ENGINEER will

assist OWNER with reviewing and negotiating contract terms with the temporary sludge dryer system manufacturer and assist with bidding of the dryer's installation.

The ENGINEER will perform quality assurance reviews as the work progresses to verify the accuracy and completeness of the drawings and other documents.

Task 9 – GMP Development Support and CMAR Contract Management (New)

This task includes project management and ENGINEER's anticipated activities to support the CMAR Contractor's efforts to develop GMPs for the PROJECT. It is assumed that the PROJECT will include development of three separate GMPs as described above and that the development and approval of each GMP will occur over period of two to three months. Anticipated activities include:

- Respond to CMAR Contractor's and bidder's questions as required
- Prepare addenda and clarifications as required
- Review CMAR preliminary cost proposal
- Review CMAR detailed GMP cost proposals
- Review of any clarifications, assumptions, and exclusions and disposition of acceptability
- Review proposals received from bidders and suppliers and recommended by CMAR Contractor to be included in the GMP(s) and note deviations from GMP ready documents
- Review the GMP in detail with the OWNER to verify offering is acceptable and is in general conformance with the design requirements

The ENGINEER will also assist OWNER in the administration of the CMAR Contract by reviewing payment applications, coordinating and reviewing CMAR's required submittals, and ensuring the CMAR complies with the contractual terms of its agreement with the OWNER.

Future Anticipated Tasks

The following tasks are anticipated to be authorized as part of a future amendment(s) after OWNER's acceptance of the CMAR Contractor's GMPs:

- Design Phase Services to 100% Construction Ready Documents for each Work Package/GMP package
- Engineering Services during Construction
- Resident Inspection Services during Construction
- Warranty Services Post Construction

Schedule

ENGINEER will execute the work described in this amendment and will provide deliverables on a schedule that supports the PROJECT. Mutually agreeable dates for the work outlined under this amendment will be made between the OWNER, CMAR Contractor, and ENGINEER. Anticipated milestone dates are as follows:

- Task 8 – Design Phase Services to Produce GMP-Ready Documents

- GMP-1, WP-0: October 2024 – February 2025; WP-0 GMP-Ready Submittal to CMAR Contractor by February 5, 2025
- GMP-2: WP-1: October 2024 – May 2025; WP-1 GMP-Ready Submittal to CMAR Contractor by May 5, 2025
- GMP-3: WP-2, 3, and 4: October 2024 – October 2025; WP-2, 3, and 4 Ready Submittal to CMAR Contractor by October 1, 2025
- Task 9 – GMP Development Support Services
 - GMP-1: WP-0: February 2025 – April 2025
 - GMP-2: WP-1: May 2025 – July 2025
 - GMP-3: WP-2, 3, and 4: October 2025 – December 2025

Project Team

The proposed team members will be the same engineering staff currently working on the PROJECT.

ARTICLE 3. COMPENSATION

ENGINEER will deliver the new work described in Amendment No. 1 for the additional not-to-exceed fee shown below. Compensation for the Scope of Services as amended above will be based on ENGINEER's hourly rates by job classification with a maximum not to exceed amount of \$8,950,000 (Tasks 1-9).

Task	Original Budget	Amendment No. 1	Revised Budget
Task 1: Project Management	\$1,500,000	No Change	\$1,500,000
Task 2: CMAR RFP Development and Selection			
Task 3: Preliminary Engineering			
Task 4: 30% Design			
Task 5: Permitting Assistance			
Task 6: Field Services	\$200,000	No Change	\$200,000
Task 7: Industrial Support	\$150,000	No Change	\$150,000
Task 8: Design Phase Services to Produce GMP-Ready Documents (New)	n/a	\$6,600,000	\$6,600,000
Task 9: GMP Development Support and CMAR Management (New)	n/a	\$500,000	\$500,000
Total Contract Amount	\$1,850,000	\$7,100,000	\$8,950,000

ENGINEER reserves the right to reallocate the associated budget among the tasks as necessary to achieve the most efficient project delivery. The overall Total Contract Amount will not be exceeded without an Amendment and proper Authorization by the OWNER.

ACCEPTED BY:

For the OWNER, **City of Cartersville**, Dated this _____ day of _____, 2024.

By: _____

Matt Santini
Mayor

By: _____

Julia Drake
City Clerk

For the ENGINEER, **Hazen and Sawyer**,

Dated this 23rd day of October, 2024.

By: Bryant K. Rogers

Name: Bryant K. Rogers
Title: Vice President