

## **ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201  
For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

### **ADDENDUM TABLE OF CONTENTS**

Addendum (Total – 12 pages)  
Addendum Instructions  
Changes to Specifications and Contract Documents  
Changes to Contract Drawings  
Questions by Contractors

## **ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
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### **ADDENDUM INSTRUCTIONS**

Contractors submitting Proposals for the above-named Project shall take note of the following changes, additions, deletions, clarifications, etc. in the Contract Documents, which shall become a part of and have precedence over anything contrarily shown or described in the Contract Documents, and all such shall be taken into consideration and be included in the Contractor's Bid Proposal. Where changes, additions, deletions, clarifications, etc. are made to portions of an article, paragraph, or subparagraph, the unaltered provisions of that article, paragraph, subparagraph, or clause shall remain in effect.

**RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED BY ENTRY OF THE ADDENDUM NUMBER IN THE REQUISITE SPACE ON THE BID FORM. FAILURE OF A BIDDER TO ACKNOWLEDGE THIS ADDENDUM MAY CAUSE THE BID TO BE REJECTED AS INCOMPLETE.**

### **CHANGES TO SPECIFICATIONS AND CONTRACT DOCUMENTS**

1. TABLE OF CONTENTS
  - A. Delete Section 07415 - Standing Seam Metal Roofing and Wall Panels.
2. SECTION 002113– INSTRUCTION TO BIDDERS
  - A. Article 15.01.G: Delete this paragraph and re-letter subsequent paragraphs.
3. SECTION 005200– AGREEMENT
  - A. Article 4.02.A: For Substantial Completion duration change “480” to “540” and for Final Completion duration change “540” to “600”.
4. SECTION 01461– TEMPORARY BYPASS PIPING
  - A. Paragraph 2.02.D: Delete third sentence and replace with the following: “The Owner may retain any temporary piping, discharge structure(s), and pipe supports purchased by the Contractor at their discretion (rental equipment is exempt).”
5. SECTION 01520 – MAINTENANCE OF UTILITY OPERATIONS DURING CONSTRUCTION
  - A. Paragraph 1.04.A.2.b. After “Excavation” add “that is adjacent to temporary shoring”.
  - B. Paragraph 1.04.A.2.d. In the last sentence, change “one time” to “two times (minimum 1 week apart)”.
  - C. Paragraph 1.04.A.3.b. After “Excavation” add “that is adjacent to temporary shoring”.
  - D. Paragraph 1.04.A.3.f. Change “two (2)” to “four (4)”.
  - E. Paragraph 1.04.A.3.g. Change “two (2)” to “four (4)”.

## **ADDENDUM NO. 8**

City of Chattanooga  
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- F. Paragraph 1.04.A.3.h. Change “two (2)” to “four (4)” in two locations.
6. SECTION 02831 – STEEL FENCING  
A. Delete Paragraph 2.09 in its entirety.
7. SECTION 07415 – STANDING SEAM METAL ROOFING AND WALL PANELS  
A. Delete this Section in its entirety.
8. SECTION 13207– POLYETHYLENE STORAGE TANKS  
A. Paragraph 1.02 CONDITIONS OF SERVICE/STORAGE TANK SCHEDULE:  
Change “Maximum Diameter (without insulation) from “11’-9”” to “12’-0””.
9. SECTION 15390 – SCHEDULES  
A. PIPING SYSTEM SCHEDULES, EXTERIOR PIPING SYSTEM SCHEDULE:  
Replace PE pipe designation row with the following:

PE	>42” CCFRPM	CONCRETE ENCASED PUSH-ON (BURIED) *****	PN25/SN-72	20 PSI	15 PSI
	<42” DIP	RESTRAINED (BURIED)	CLASS 53 (EPOXY LINED)***	50 PSI	25 PSI

10. SECTION 06610– GLASS FIBER AND RESIN FABRICATIONS  
A. Add the following paragraph:
- “2.13 FRP DECKING AND FLOOR PLATE
- A. Plate and bonding grating shall be ISOFR except for sodium hypochlorite applications where VEFR shall be used. Shapes shall be manufactured by Strongwell, Inc., or equal.
- B. Glass fiber decking shall consist of a solid flat plate bonded to square mesh type or pultruded type grating manufactured of continuous glass fibers completely wetted with polyester resin.
- C. Complete fabrication shall be capable of withstanding a uniform load of 100 pounds-force per square foot or a concentrated load of 300 pounds-force on an area of 4 square inches located in the center of the tread, whichever produces the greater stress.”
11. SECTION 17000– CONTROL AND INFORMATION SYSTEM SCOPE AND GENERAL REQUIREMENTS  
A. Paragraph 1.04.D.7: Delete this paragraph in its entirety.

## **ADDENDUM NO. 8**

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B. Add the following Paragraph 1.04.E:

- “E. System Programmer shall be selected by the Owner as specified. System programming shall be part of the instrumentation work described herein, under the responsibility of the Contractor, and shall consist of:
1. Programming new PLCs provided under this project (PLC-RAS2 and PLC-DECHLOR).
  2. Programming of existing PLC (Sodium Hypo PLC-CFB).
  3. Programming of Owner’s existing PLC to execute logic required for the new equipment provided under this Project.
  4. Programming of new Operator Interface Terminals (OITs) associated with each PLC.
  5. Programming of Owner’s existing Human Machine Interface (HMI) to incorporate tagging and graphics associated with this Project.
  6. Configuration of new Ethernet switches in panels PLC-RAS2 and PLC-DECHLOR.
  7. Factory and field testing of programming.
  8. Those tasks during startup associated with programming.
  9. Training associated with programming.”

### **CHANGES TO THE CONTRACT DRAWINGS**

1. DRAWING C20

- A. Reference Grid D5: Delete “SECONDARY CLARIFIER CONC WALKWAY AND EXIST SUPPORT” and replace with “CHLORINE CONTACT BASIN WALKWAY AND WALL BRACING SYSTEM TO REMAIN IN PLACE THROUGHOUT CONSTRUCTION”.

2. DRAWING C30

- A. Add the following Note 14: “LOCATE VAULTS TO PROVIDE STRAIGHT PIPING RUNS (EXCEPT WHERE FITTINGS SHOWN). COORDINATE MAXIMUM DISTANCE BETWEEN VAULTS AS SPECIFIED IN SECTION 15008.”.

3. DRAWING M772

- A. Change all occurrences of “ACCESS HATCH” to “DECKING COVER”.

## **ADDENDUM NO. 8**

City of Chattanooga  
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Contract No. W-14-006-201  
For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

### 4. DRAWING S501

- A. Reference Grid F4: Change “6” PRESSURE RELIEF VALVE” to “4” PRESSURE RELIEF VALVE”.

## **QUESTIONS BY CONTRACTORS**

The following questions have been posed by potential bidders for this project. The clarifications are provided for information only and are not made part of the Contract Documents. Where necessary, modifications to the Contract Documents have been made by addenda.

1. Can a 60 day administrative period be added to the contract before NTP. If the Consent Decree date is critical, please consider shortening the 120 day award period to 60 days.

CLARIFICATION: A 60 day administrative period cannot be added before Notice to Proceed.

2. QUESTION: Can Section 01700 Paragraph 1.01.D.5 be revised to require the operational performance period before granting Final Completion rather than Substantial Completion? If Substantial Completion cannot be considered until after the operational performance period, can the performance period be reduced to something less than 30 days to help with the schedule?

CLARIFICATION: Operational testing shall be as specified.

3. QUESTION: Refer to Section 002113.15.01.G: Can item the “Contractor’s Identification” item be deleted?

CLARIFICATION: This question has been addressed by changes included in this Addendum.

4. QUESTION: Please reference Drawing C35 containing the plan for both the temporary bypass pumping system and the temporary bypass piping system. Note 3 calls for the contractor to “coordinate with Owner and Engineer for the location of concrete core for temporary bypass pumping system discharge. Please advise if there is in fact some type of access available into the Oxygenation Tanks. If not, please confirm that the cored concrete plug can fall into the tank for retrieval upon completion of the core.

CLARIFICATION: There is no access available to the interior of the Oxygenation Tanks. The cored concrete plug cannot fall into the tank. If it is not possible to prevent the circular core from falling into the tank, consider alternative methods for creating the opening.

## **ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201

For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

5. QUESTION: Please reference Plan Sheet C36. The portion of 36" PE that is to be replaced on each individual Oxygenation Tank is to be CCFRPM Pipe per the Piping System Schedules in Specification Section 15390. As-built record drawings (Dwg No. 592728C-124 stamped 4/30/84) indicate the existing wall pipes are ductile iron. Please confirm that new 36" PE pipe is to be ductile iron.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

6. QUESTION: Please reference Plan Sheet M772 and note that the access hatches at the chemical valve vaults are called out to be FRP. Within Specification Sections 06610 – Glass Fiber and Resin Fabrications as well as 05531 – Gratings, Access Hatches, and Access Doors, no mention of FRP hatches is made.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

7. QUESTION: Specification Sections 07415 - Standing Seam Metal Roofing and 13121 - Metal Buildings appear to apply to the same scope of work, which is the metal canopy located at the Dechlorination Facility Bulk Storage Tank area. It appears that this canopy is intended to be a "pre-engineered metal building" type structure; therefore, we will assume that Section 13121 applies to this workscope and Section 07415 does not, unless we are specifically advised otherwise.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

8. QUESTION: Please refer to Plan Sheet C20. There is a callout located approximately in the center of this plan sheet that reads as follows: "SECONDARY CLARIFIER CONC WALKWAY AND EXIST WALL SUPPORT" and an arrow is pointing to what was initially interpreted to be a sidewalk located on the west side of existing Chlorine Contact Tank No. 5. Being uncertain exactly what was meant by "Exist Wall Support", the Record Drawings for Contract 28G were reviewed, specifically, Plan Sheets S706 & S707. S706 is a plan view of the existing Chlorine Contact Tank No. 5, which includes several cut sections indicated to be shown on S709. We have been unable to locate S709 in the Contract 28G As-Built Drawings provided. Therefore, since this information is critical to being aware of the details of this "existing wall support" and could impact the excavation support plan proposed for this area, please provide missing Plan Sheet S709.

CLARIFICATION: Contract No. 28G Plan Sheet S709 is not available. It is believed that the concrete walkway just west of Chlorine Contact Tank No. 5 on Sheet C20 acts as part of

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City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201

For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

a bracing system for the east and west walls of CCT No. 5. Per Contract No. 28G, Drawing S706, the "NEW SLAB EL 658'-0"" is a wide beam oriented horizontally and spanning north-south parallel to the tank along the west wall. Four struts run east-west across the tank and connect to a 2-foot square beam along the east wall. The system of beams and struts reinforces the east and west walls of Tank No. 7 and must remain in-place throughout construction. The excavation support system should be designed and installed accordingly.

9. QUESTION: Please confirm that the table provided for the Electrical/Control Requirements of the Cranes/Hoists, in Specification Section 14600, 2.05, G applies to both the Crane/Hoist in the RAS Pump Station Pump Room and the RAS Pump Station Pump Access Room, or advise otherwise.

CLARIFICATION: Yes, the Electrical/Control Requirements apply to both hoists in the RAS Pump Station.

10. QUESTION: Section 15390: This project requires Class 53 for all buried DIP (except CL 350 for 60") per the Piping System Schedule in the specifications. Could you please verify this requirement?

CLARIFICATION: Confirmed.

11. QUESTION: Can restrained mechanical joint fittings be used for 24-inch and smaller pipe?

CLARIFICATION: Refer to Section 15006, Paragraph 2.01.K.

12. QUESTION: Paragraph 2.02.C of Section 01461 says: Materials for temporary piping system can be rented or purchased by Contractor. Please confirm that Item 7 of Addendum #5 gives the Owner the right to retain any components of the temporary piping system, even if they are rented by the Contractor. In such case, will the Owner assume the rental agreement, or is the contractor required to purchase any materials that the Owner elects to retain?

CLARIFICATION: This question has been addressed by changes included in this Addendum.

13. QUESTION: Note 4 on Drawing C35 says that roadway access shall be maintained at all times. Drawing C35 shows a 72" line crossing the roadway. Can the roadway be blocked in this one area where the 72" line crosses or must the 72" line be elevated above the roadway? What portions of the WWTP roads must remain open at all times?

CLARIFICATION: This roadway will already be blocked during this period by the construction of the 84-inch PE pipe. The intent of the access requirements is to ensure that

## **ADDENDUM NO. 8**

City of Chattanooga  
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Contract No. W-14-006-201

For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

the Owner's ability to conduct operations are not affected by construction and traffic. It is understood that part of the road between the Equalization Basins and the Oxygenation Tanks will be blocked for a short period of time while the temporary bypass pumping or piping system is operating. Other roadways must remain open as necessary to provide access to specific locations as noted on the Drawings. See Section 01520 and the Civil Drawings for additional detail.

14. QUESTION: Can the EQ Pump Station overcome and additional 32' of head to its operating point.

CLARIFICATION: No.

15. QUESTION: D3754 "Piping System Schedules" PE CCFRPM PN200/72. Hobas does not offer 84" PN200 PSI Pipe. Please provide updated specifications.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

16. QUESTION: Reference 01460-2.01.C.8, 2.01.H.1, & 3.02.C regarding fuel usage for the temporary bypass pumping system. Is it the intent that the Owner pay for fuel up to the "maximum" rates and that the "bypass pumping supplier" (the GC) pay for usage above these rates? Please clarify.

CLARIFICATION: No – refer to Section 01025.1.09.B regarding payment for Temporary Bypass Pumping.

17. QUESTION: Refer to Section 11120 – Are there VFD's associated with the three small pumps – if so, are they to be supplied by pump manufacturer.

CLARIFICATION: Yes, refer to Section 11120.2.01. It is not required that these drives be supplied by the pump manufacturer, however, they are to be provided per Section 16495.

18. QUESTION: Section 13207-1: Specifications indicate tank can be no larger than 11'9" and 17'-1" in height without insulation. Is 12'-0" diameter and 17'-1" height acceptable?

CLARIFICATION: This question has been addressed by changes included in this Addendum.

19. QUESTION: Is SBS tank manufacturer to include ultrasonic level detectors?

CLARIFICATION: It is not required that the ultrasonic level detectors be supplied by the SBS tank manufacturer, however they are to be provided per Section 17740.



## **ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201  
For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

20. QUESTION: Reference Section 01460. Can the system fuel consumption requirements be changed?

CLARIFICATION: The system fuel consumption requirements cannot be changed.

21. QUESTION: Reference Section 01460.2.01.H.2. - Fuel Storage: - Can these requirements be changed?

CLARIFICATION: Fuel storage requirements cannot be changed.

22. QUESTION: Reference Section 01460.3.02.D.g - Magnetic Flow Meters states “Ensure HDPE welds are trimmed to the inside diameter within the upstream and downstream straight pipe diameters recommended by manufacturer to ensure accuracy” Can this section be removed?

CLARIFICATION: This requirement cannot be removed.

23. QUESTION: Reference Section 01460.2.02.E Radar Level Sensors – Level transducers are more common in our applications. Will a level transducer be acceptable?

CLARIFICATION: Level transducers are not acceptable.

24. QUESTION: Reference Section 01460.3.01.E. – Can the 7 day trial pumping test be removed from the specifications or reduced to 3 days.

CLARIFICATION: The 7 day trial pumping period is required.

25. QUESTION: While it is understood that the temporary bypass pumping system must be able to achieve the specified maximum pumping capacity, it is very unlikely that the actual flow will be 140 MGD, indefinitely. Therefore, please provide historical flow data for the MBWWTP so we will be better able to estimate what the power and fuel consumption might be over the course of the bypass pumping operation.

CLARIFICATION: Historical flow data for the EQ Pump Station is not available. Refer to Section 01460 for additional information regarding flow rates.

26. QUESTION: Can the timeframe for award of the Project be shortened from 120 days to 60 days?

CLARIFICATION: No bid may be withdrawn within 120 calendar days after the receipt of bids as specified. Actual time for award is not known at this time.

## **ADDENDUM NO. 8**

City of Chattanooga  
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Contract No. W-14-006-201  
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27. QUESTION: The Prebid Meeting Minutes, provided with Addendum No. 3, Discussion Topic No. 7, indicated, in part, “City Building Department review is in progress (Contractor to obtain and pay for permits during construction).” What is the magnitude of the Building Permit Budget for this project. Please review and confirm.

CLARIFICATION: Initial estimate of City Building Department permit fees is approximately \$700.

28. QUESTION: There appears to be no schedule for Electrical Manholes and Handholes provided within the Electrical Drawings. Please advise if a schedule for these structures can be provided.

CLARIFICATION: A schedule of electrical manholes/handholes is not currently available.

29. QUESTION: Specification Section 02831-2.09 provides specifications for a single and double sliding gate, gate operators with listed manufacturer, card readers, and appurtenances. Detail Drawing 0244400 provides further details for a double roadway gate and a personnel gate “where shown on the site plans.” We have found no indication of these items being shown or called out on the site plans; therefore, we must assume that these items are not required unless we are specifically advised otherwise. Please review and advise.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

30. QUESTION: Please reference Specification Section 01025-Allowances, paragraph 1.03, D.7, which states “SCADA Integration: Allow the amount provided in the Bid for SCADA integration and programming by an independent firm, selected by the Owner, as specified.” It is unclear in reviewing the Division 17- Control and Information Systems specification sections what the intended interface between the “System Programmer” responsibilities are as provided in the Allowance and the responsibilities of the Contractor as outlined in Specification Section 17000, paragraph 1.01, G., subparagraphs 1 thru 16 which defines the overall scope of work to be performed under this Division. Please provide a more definitive description of the scope of work the System Programmer (Engineered Software Products, Inc.) is providing as a part of the \$95,000 Allowance for SCADA Integration and what if any Programming/HMI Graphics will be the responsibility of the Contractor.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

31. QUESTION: Please reference Specification Section 01520 – Maintenance of Utility Operations During Construction, paragraph 1.04, A., 3., subparagraphs f., g., and h. Each of

## **ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201

For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

these state the allowed shutdown period for various pipe tie-ins to occur and each are limited to no more than (2) two hours. No matter the amount of preparedness a time limit of (2) two hours is not feasible from the time the line is taken out of service until it is restored to service. Please review and confirm that this timeline can be adjusted to (4) four hours for each.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

32. QUESTION: Refer to Drawing M702 for the work in the existing Secondary Clarifier effluent channel including the new gate and 60" SE connection. This work will require isolation of this area of the channel. a.) How long can this channel be shut down for this work? b.) If temporary bulkhead/bypass pumping is required, please advise of the pumping system capacity needed.

CLARIFICATION: Refer to Section 01520.1.04.A.2.d. for additional information

33. QUESTION: Please reference specification 01520-1.04.A.3. Paragraph "a" states that temporary shoring can't be installed until the overhead electrical and communications lines have been relocated. Paragraph "b" then states that excavation can't start until temporary shoring is installed. It appears there is some quantity of earthwork in the area of the new secondary clarifiers that can be done with (a) no interference with the overhead electrical/communications line and (b) no required temporary shoring of existing utilities and/or roadways. It is understood that eventually the overhead electrical/communication lines must be moved and the temporary shoring will need to be installed to complete the required work. Please consider allowing earthwork in this area prior to the required moving of the overhead electrical/communication lines and required temporary shoring.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

34. QUESTION: Is it necessary to run four 36" gravity bypass discharge lines since it appears that only three of the EQPS pumps are operable?

CLARIFICATION: Yes – all four lines are required.

35. QUESTION: Is there a specification for the new 36" PE described in Note 1 on drawing C36? The corrugated pipe reference in Note 12 on C35 makes it sound like N-12 pipe is acceptable, but we want to be sure since it will be permanent.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

## **ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201  
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36. QUESTION: Is it required for the 36" temporary gravity bypass piping to be tied back to the Isolation Valve Vault during the bypass?

CLARIFICATION: It is not required that the 36" temporary gravity bypass piping to be tied back to the Isolation Valve Vault during the bypass

37. QUESTION: If steel pipe is used for the gravity bypass, do the minimum wall thicknesses called out in 15012, 2.01.E apply or can thickness be governed by the engineer that designs the temporary piping?

CLARIFICATION: Minimum wall thicknesses are determined by the Professional Engineer sealing the temporary bypass piping design in accordance with Section 01461.1.02 and do not necessarily need to meet the minimum wall thicknesses specified in Section 15012.

38. QUESTION: Note 12 on drawing C35 calls for the gravity bypass to be designed to withstand 15 psi test pressure. Is this an air test or hydrostatic test?

CLARIFICATION: This test is a hydrostatic test as specified.

39. QUESTION: Reference 01010-1.07.A, B, & C regarding "additional engineering or inspection charges incurred by the Owner" "In the event the Work of this Contract is not completed within the time set forth in the Contract". Do liquidated damages (LD's) as defined in 00 52 00-4.03 for late contract completion include/reflect these "additional engineering or inspection charges" or are these charges in addition to the LD's defined in the Contract for late contract completion? Please advise.

CLARIFICATION: Liquidated damages are defined in Section 007200 and Section 007300. Section 01010 Paragraph 1.07.B. refers to additional Owner's expenses resulting from work outside the timeframes specified in this paragraph.

40. QUESTION: Please reference drawing S501. Bottom plan shows that the wall pressure relief valves are to be 6" diameter valves. The referenced note 1 calls for the valves to be 4" diameter. Please clarify.

CLARIFICATION: This question has been addressed by changes included in this Addendum.

**ADDENDUM NO. 8**

City of Chattanooga  
Moccasin Bend WWTP Secondary Clarifier Upgrades  
Contract No. W-14-006-201  
For Bids Due: September 29, 2016, 2:00 pm (changed by Addendum No. 7)

**++ END OF ADDENDUM ++**

ISSUED: September 9, 2016

