Department of Purchasing & Contract Compliance

Fulton County, GA

March 17, 2014

Re: ***#14ITB91556K-DB***
Construction Services for the Big Creek WRF Immediate Needs Rehabilitation Project S-134

Dear Vendors:

Attached is one (1) copy of Addendum 3, hereby made a part of the above referenced **#14ITB91556K-DB; Construction Services for the Big Creek WRF Immediate Needs Rehabilitation Project S-134**.

Except as provided herein, all terms and conditions in the ITB referenced above remain unchanged and in full force and effect.

Sincerely,

Darlene A. Banks

Darlene A. Banks, APA

This Addendum forms a part of the contract documents and **modifies** the original ITB documents as noted below:

NOTE: Response to Vol. 2 changes, item #3 attached as PDF
The County will not be accepting any more questions.

RESPONSE TO QUESTIONS:

QUESTION 1:
We request the inclusion of FLOWSERVE (Worthington) pumps to bid per Section 43-2149.
RESPONSE 1:
Yes, Revise Specification Section "Vertical, Centrifugal, Non-Clog Pumps" 43-2149 as follows:
Paragraph 2.1 E. Additional Approved Manufacturers:

1. Flowserve (Worthington) model 16MF18A FR7A
2. Engineer Approved Equal.

QUESTION 2:
Request for Schwing Bioset, Inc. to be included as an alternate supplier for the Sludge Dewatering Screw Press System, Section 46-7627
RESPONSE 2:
Sludge dewatering screw press equipment by Schwing Bioset, Inc. will not be considered as an alternate manufacturer for this project.

QUESTION 3:
Regarding Specification Section 46-4321 Circular Clarifier Equipment
Section 2.1.B—Will you clarify you desire a spiral blade clarifier (Type C4D) or a suction duct (Type C3D) clarifier from Ovivo? The specs and drawings describe a suction duct clarifier but the Ovivo Model Number (C4D) is for a spiral blade clarifier. Also, the Ovivo office is located in Salt Lake City.
RESPONSE 3:
Revise Paragraph 2.1 B. to be "Ovivo USA, LLC EWT type C3D Clarifier Mechanisms; Salt Lake City, UT(see attached PDF)

QUESTION 4:
Regarding Specification Section 46-4321 Circular Clarifier Equipment
Section 2.5.E—Will you clarify if spiral blades are wanted on the opposite side of the suction duct? The suction duct is designed to uniformly draw sludge from the bottom of the tank whereas spiral blades will move sludge to the center of the tank.
RESPONSE 4:
Due to the existing conditions where RAS and WAS are separated at the clarifier, the opposite arm from the suction duct shall be standard plows.

QUESTION 5:
Regarding Specification Section 46-4321 Circular Clarifier Equipment
Section 2.3.D—Ovivo also can provide a Model C40HT drive with a 40" ball race diameter with a ball bearing diameter of 1.5" that will meet the performance requirements in the spec. This drive provides 32,000 ft-lbs of AGMA torque @ 0.023 rpm and has a 100% rating of 70,000 ft-lbs. This is the drive that we recommend for 130 ft diameter clarifiers.
RESPONSE 5:
No changes will be made to the specification based on this information.

QUESTION 6:
Regarding Specification Section "Circular Clarifier Equipment" 46-4321:
Section 46 4321 paragraph 2.5.I.1 has a conflict regarding the number of skimmers. It states "one" but immediately after the word "one" it shows the number "(2)". The plans appear to only show one (1) skimmer. Please clarify whether one (1) or two (2) skimmers are required.
RESPONSE 6:
See Item 3 in "Changes to Volume 2: Technical Specifications"

QUESTION 7:
Regarding Specification Section "Circular Clarifier Equipment" 46-4321:
Section 46 4321 paragraph 2.7.A refers to Section 09 9905 for the shop prime paint requirements. There is no Section 09 9905 included in the specifications however there is a Section 09 9911. Please clarify which paint section applies and add Section 09 9905 to the specifications if applicable.
RESPONSE 7:
See Item 3 in "Changes to Volume 2: Technical Specifications"

QUESTION 8:
Questions pertaining to Specification Section 43 3063:
Influent Gates and effluent
- The spec states slide gates or upward opening, drawing D-3.01 states " new influent weir gates" "new effluent weir gates" are these gates downward opening?
- Drawing also shows dual stems, are dual stems required? If dual stems are required, are they required for the influent gates only?
- Drawing D-3.04 does not show a true elevation, it also does not seem to work with the gate schedule
RESPONSE 8:
See Item 4 in "Changes to Volume 2: Technical Specifications"
• Dual stems are not a design requirement and are based on manufacturer's recommendations. Manufacturer should show that a single stem design can meet the specification requirements as noted in Paragraph 2.3 D.
• Drawing D-03.01 shall be revised to call out the effluent gates as "New Effluent Gates, 1 per Basin, 8 Total". The word "weir" from this call out shall be deleted.
• Drawing D-03.04 refers to the elevations shown on D-03.01 and D-03.02
Please be advised that the Contractors shall field verify dimensions, and elevations

QUESTION 9:
What is the approximate square footage of the roof?
RESPONSE 9:
The Administration building roof is approximately 8,170 square feet in area. Further details may be seen in the project drawings and specifications.

QUESTION 10:
Section 43 2623 Stainless Steel Slide Gates
Gates tagged as 22-IG-01 thru 22-IG-16 are shown in the gate schedule as 84x84; however, on plan drawing D-03.02 they are shown as 84x72. Please verify size of gates.
RESPONSE 10:
Please see response to Question 8.

QUESTION 11:
Section 43 2623 Stainless Steel Slide Gates
Gates tagged as 22-IG-01 thru 22-IG-16 are shown in the gate schedule to have 4.5 feet of Unseating Head Pressure; however, the distance from "Floor Elevation" to "Gate Invert Elevation" is 19.0 feet. Please verify head pressure.
RESPONSE 11:
Please see response to Question 8.

QUESTION 12:
Section 43 2623 Stainless Steel Slide Gates
Gates tagged as 22-IG-01 thru 22-IG-16 are shown on Plan Sheet D-03.03 as having "Dual Stems"; typically dual stems are used when the width-to-height ratio exceeds a 2:1 ratio. Please verify that a "single Stem" operator can be utilized for these gates.
RESPONSE 12:
Please see response to Question 8.

QUESTION 13:
Instructions To Bidders Section 00 0100, Part 2, states that "all blank spaces must be typed or hand written in blue ink on the "Original". Can this requirement be revised to allow black ink?
RESPONSE 13:
In order to determine the "Original" bid documents from the "Copies", please submit hand written bids in blue ink, unless you have a stamp which specifies "Original" and "Copy".

QUESTION 14:
We have received the inquiry to bid on the fiberglass portion of Big Creek Project. We would like to know if it would be possible for us to increase the size of the structural members in certain areas? The members shown on the drawings(S-03.05 & S-03.06) are inadequate to meet the load criteria listed on the drawing. Please let us know how to proceed.
RESPONSE 14:
FRP manufacturer shall size the framing and panels to meet the specified loads. Coordination of the new FRP framing and panels will be required with the existing equipment and structures not to be modified and also the new gates, equipment, products, and required structural modifications.

QUESTION 15:
The Clarifiers and the Aeration Basin work is only available between April and November of each year and the aeration basin work must occur after all clarifier work. If the project Notice to Proceed is issued within 60 days of the bid then the period of April thru November 2014 will be spent procuring equipment and possibly installing one clarifier. We request that the substantial completion date for the project be modified to November 30, 2016 to allow two April to November work periods for the installation of 3 to 4 Clarifiers and modification of 8 Aeration Basins. Please advise.
RESPONSE 15:
See item 1 in "CHANGES TO VOLUME 1: BIDDING INFORMATION"

QUESTION 16:
Drawing D-03.02 shows influent weir gates as 84"x72", but the gate schedule under Section 43 30 63 shows 84"x84" size for these gates (22-IG-01 thru 16). Please clarify which size should be used.
RESPONSE 16:
See response to Question 8.

QUESTION 17:
Section 46 33 41, Part 1.4 states that a warranty of 2 years is required, while Part 3.4 states that 12 months is required. Please clarify the warranty period.
RESPONSE 17:
The warranty shall be per part 1.4.

QUESTION 18:
Drawing D-03.06 Detail B shows new silencers to be provided for the existing blowers.
a. Who is to provide these silencers?
b. Can you provide specifications and details?
RESPONSE 18:
Providing the silencers are part of the scope of work for this project. See Note 2 on D-3.06 for silencer information.

QUESTION 19:
Drawing X-04.01 Note 6 says to clean the clarifier drain piping. Please clarify how far the cleaning needs to extend down these drain lines (to the next tee, wye or manhole).
RESPONSE 19:
The drain piping is to be cleaned to the point of connection with the 16 inch drain at the aeration basins.

QUESTION 20:
Section 03 3000 Cast-In-Place Concrete, Paragraph 1.4, A, 1. says that concrete testing will be at the Contractor's expense. Can you clarify if the Testing Allowance (Bid Item B2) will be used to pay for this concrete testing?
RESPONSE 20:
Paragraph 1.4 A is for Contractor's Quality Assurance provisions and are Contractor's responsibility. Field testing of concrete per 3.7 will be paid for through the allowance item B2 as an Owner Responsibility, see Specification 014000. See item 5 in "Changes to Volume 2: Technical Specifications"

QUESTION 21:
Section 32 1313 Concrete Paving, Paragraph 3.13, A. says to engage an independent testing agency to perform testing. Can you clarify if the Testing Allowance (Bid Item B2) will be used to pay for this concrete testing?
RESPONSE 21:
Yes, Field Quality Control Testing will be paid for by Allowance item B2. Refer to Specification 014000. See item 6 in "Changes to Volume 2: Technical Specifications"

QUESTION 22:
Regarding Specification Section "Circular Clarifier Equipment" 46-4321:
The plans and specifications name NEFCO or "Engineer approved equal" for the fiberglass weir plates, scum baffles, and density current baffles on the clarifiers. [we] request that the Engineer list the other major manufacturers that they will approve for this equipment.
RESPONSE 22:
Other manufacturers that are acceptable include Warminster Fiberglass Company, or Molded Fiber Glass Water Treatment Products (MFG), or Approved Equal.

QUESTION 23:
Regarding Specification Section "Circular Clarifier Equipment" 46-4321:
The plans and specifications are vague regarding whether an energy dissipating inlet (EDI) well is required between the center column and the stilling well on the clarifiers. They show and mention a "flocculation wet well" but that description does not necessarily include an Edi well in our experience. If an EDI well is desired, the specification should be revised to clearly indicate such along with some wording regarding the "type" of EDI well desired as there are many varieties.
RESPONSE 23:
See item 3 in "Changes to Volume 2: Technical Specifications"

QUESTION 24:
In regards to the referenced project, in regards to the tank covers shown on drawing nos. S-0305 and S03.06, in order to keep all odorous gases contained, it is suggested that flashing be added to seal the ends of the panel...
RESPONSE 24:
Providing gaskets to minimize the release of odorous gases is acceptable. However, these gaskets shall be installed to the panels and framing as show in the connections on S-03.05 and S-3.06.

CHANGES TO VOLUME 2: TECHNICAL SPECIFICATIONS

1. **Revise Specification Section "Vertical, Centrifugal, Non-Clog Pumps" 43-2149 as follows:**

ADD: 2.1 B.1. to read: "Maximum Operation Boundary: The maximum acceptable operational point (run-out point) for a single pump running at maximum speed shall be equal to or greater than the system head curve boundary stated above. This boundary is established to prevent pump cavitation during low total dynamic head conditions."

REVISE: 2.1 E. to read: Additional Approved Manufacturers:

1. Flowserve (Worthington) model 16MF18A FR7A
2. Engineer Approved Equal.

REVISE: 2.3 C.13. to read: "The service factor shall be a minimum of 1.15 (sine wave power). A performance chart shall be provided in the submittal showing curves for torque, current, power factor, input/output kW, efficiency, and data on starting and no-load characteristics."

REVISE: 2.3 C.14. to read: "The motor horsepower at 1.00 service factor shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out."

REVISE: 2.3 C.I.3. to read: "The volute shall be designed for front or rear impeller pullout without disturbing suction or discharge piping."

REVISE: 2.3 C.L. "L. to read: "Spare Parts: Provide the following spare parts:

1. Two sets of O-rings and gaskets.
2. Two shaft sleeves.
3. Two complete sets of packing and lantern rings.
4. Two complete set of bearings.
5. Two volute wear rings.
6. Two impeller wear rings.
7. One impeller."

ADD: 2.5 "SOURCE QUALITY CONTROL."

A. Pump: Before shipment, fully test three pumps at the manufacturer's works at its rated speed, capacity, and head under such other conditions of head and capacity as necessary to establish properly that it has met all guarantees on the characteristic curves submitted to the Engineer.
   1. Factory Performance Test:
      a. In accordance with HI 14.6, Grade 1E performance test for rotodynamic, vertical pumps.
      b. Include test data sheets and curve test results for flow, total head, power, and efficiency.
   2. Perform under actual or approved simulated operating conditions.
      a. Throttle discharge valve to obtain pump data points on the curve at 2/3, 1/3, and shutoff conditions.
      b. Perform test that also determines the pump's maximum acceptable operation point (run-out point).

ADD: 3.8 "FIELD QUALITY CONTROL

Functional Test: Conduct on each pump.

Alignment: Test complete assemblies for correct rotation, proper alignment and connection, and quiet operation.

Flow Output: Measured by plant instrumentation and storage volumes. Provide temporary flow meter where necessary.

Test for continuous 3-hour period.

Test Report Requirements: In accordance with ANSI/HI standards for rotodynamic, vertical pump tests.

Vibration Test:

Test with units installed and in normal operation and discharging to connected piping systems at rates between low discharge head and high discharge head conditions specified, shall not develop vibration exceeding limits specified in HI standards.

If units exhibit vibration in excess of limits, adjust or modify as necessary. Units that cannot be adjusted or modified to conform as specified shall be replaced.

Flow Output: Measured by plant instrumentation and storage volumes.

2. **Revise Specification Section "VARIABLE-FREQUENCY MOTOR CONTROLLERS", 26-2923 as follows:**
SUBSECTION 2.2.A.2 "*12-pulse output for motors 60 HP and larger*"

3. **Revise Specification Section "Circular Clarifier Equipment" 46-4321 as follows:**
Revise all references to 09 9905 Protective Coatings to be 09 9911 Protective Coatings.
Revise 2.5 I.1. to read: Provide two (2) full-radius skimmers consisting of scum blade, hinged wiper assembly, scum box and anti-rotation scum baffle.
Revise 2.5 E.1. to read: Provide segmented full radius rake that scrapes sludge from the tank floor to the existing waste sludge hopper at the near-center of the tank.
Add the following items to 2.5 D:

10. The center suction manifold diameter shall be limited such that it does not extend more than 12 inches into the existing WAS hopper. The cantilevered manifold shall be supported by modifying the WAS hopper with 3/8" epoxy-coated (See Section 09 9911 Protective Coatings) angled steel bracket. The void space within the angled bracket under the center suction manifold shall be grout-filled to create a smooth surface for the center suction manifold rotation.
11. Provide a center TEE connection to the existing RAS piping inside the center pier. Connection of new RAS piping through a separate hopper is not acceptable.

Add Sub section 2.4 J as follows:

J. Energy Dissipating Influent Well (EDI):

1. Design EDI to control and evenly distribute influent water into the flocculation wet well and prevent undesirable currents.
2. Fabricate from 3/16 inch minimum steel plate with welded connections.
3. Support EDI from the center cage:
4. Provide multiple tangential fixed diffuser ports:
    a. Ports shall induce a tangential flow
    b. Ports shall specifically preclude any vertical currents
    c. Ports shall have bottom plates to prevent vertical flow
    d. Bottom plats shall be welded to EDI and the diffuser port guide plate
5. Reinforcing rim angles, angle stiffeners and supporting brackets shall be structural steel members of minimum thickness 1/4 inch.
6. EDI shall project 6 inches minimum above the water surface.
7. Provide full bottom and seals at center column and center cage.
8. Design EDI to prevent accumulation of sludge at bottom.
9. Maximum headloss shall be 3 inches at maximum flow from center pier column to flocculation wet well.

In addition to the above listed revisions, a sketch is attached to this addendum to clarify the modifications necessary to the WAS hopper to support a center suction manifold.

4. Revise Specification Section "Stainless Steel Slide Gates" 43-3063 as follows

Revise 2.6 C.1.c. to read:: "WG – Downward Opening Weir Gate"

Revise Table starting on page 9 of 14 as follows: All Basin Influent Gates (22-IG-01, 22-IG-02, 22-IG-03, 22-IG-04, 22-IG-05, 22-IG-06, 22-IG-07, 22-IG-08, 22-IG-09, 22-IG-10, 22-IG-11, 22-IG-12, 22-IG-13, 22-IG-14, 22-IG-15, 22-IG-16) should be of the type WG with an opening size of 7 ft. x 6 ft. Floor elevation shall be revised to be 888.5 (elevation represents the top of structural wall flare). All Basin Effluent gates floor elevation shall be revised to be 888.5 ft. (elevation represents the floor of the weir trough and is the same as the INV of the gate).

5. **Revise Specification Section "Cast-In-Place Concrete" 03-3000 as follows**

Revise 3.7 A to read: Testing for concrete field quality control is an Owner's Testing Responsibility and shall be performed by the selected Testing Agency per 014000. The Engineer will direct the number of slump tests and cylinders required. The Testing Agency shall make standard compression test cylinders and entrained air tests as specified below, under the direct inspection by the Engineer or Owner. The Testing Agency shall furnish all necessary assistance required by the Engineer or Owner. The Testing Agency shall also furnish all labor, material and equipment required including cones, rods, molds, air tester, thermometer, curing in an insulated storage box that is heated if necessary and all other incidentals required. Above will be subject to approval by the Engineer or Owner. The Testing Agency shall furnish all necessary storage, curing, and transportation required by the testing. The Contractor shall provide concrete for testing and onsite storage as necessary, and coordinate and schedule testing activities.

6. **Revise Specification Section "Concrete Paving" 32-1313 as follows**

Add 3.13 F: Testing for concrete field quality control is an Owner's Testing Responsibility and shall be performed by the selected Testing Agency per 014000. The Testing Agency shall make tests as specified, under the direct inspection by the Engineer or Owner. The Testing Agency shall furnish all necessary assistance required by the Engineer or Owner. The Testing Agency shall also furnish all labor, material and equipment required including cones, rods, molds, air tester, thermometer, curing in an insulated storage box that is heated if necessary and all other incidentals required. Above will be subject to approval by the Engineer or Owner. The Testing Agency shall furnish all necessary storage, curing, and transportation required by the testing. The Contractor shall provide concrete for testing and onsite storage as necessary, and coordinate and schedule testing activities.

ACKNOWLEDGEMENT OF ADDENDUM NO. 3

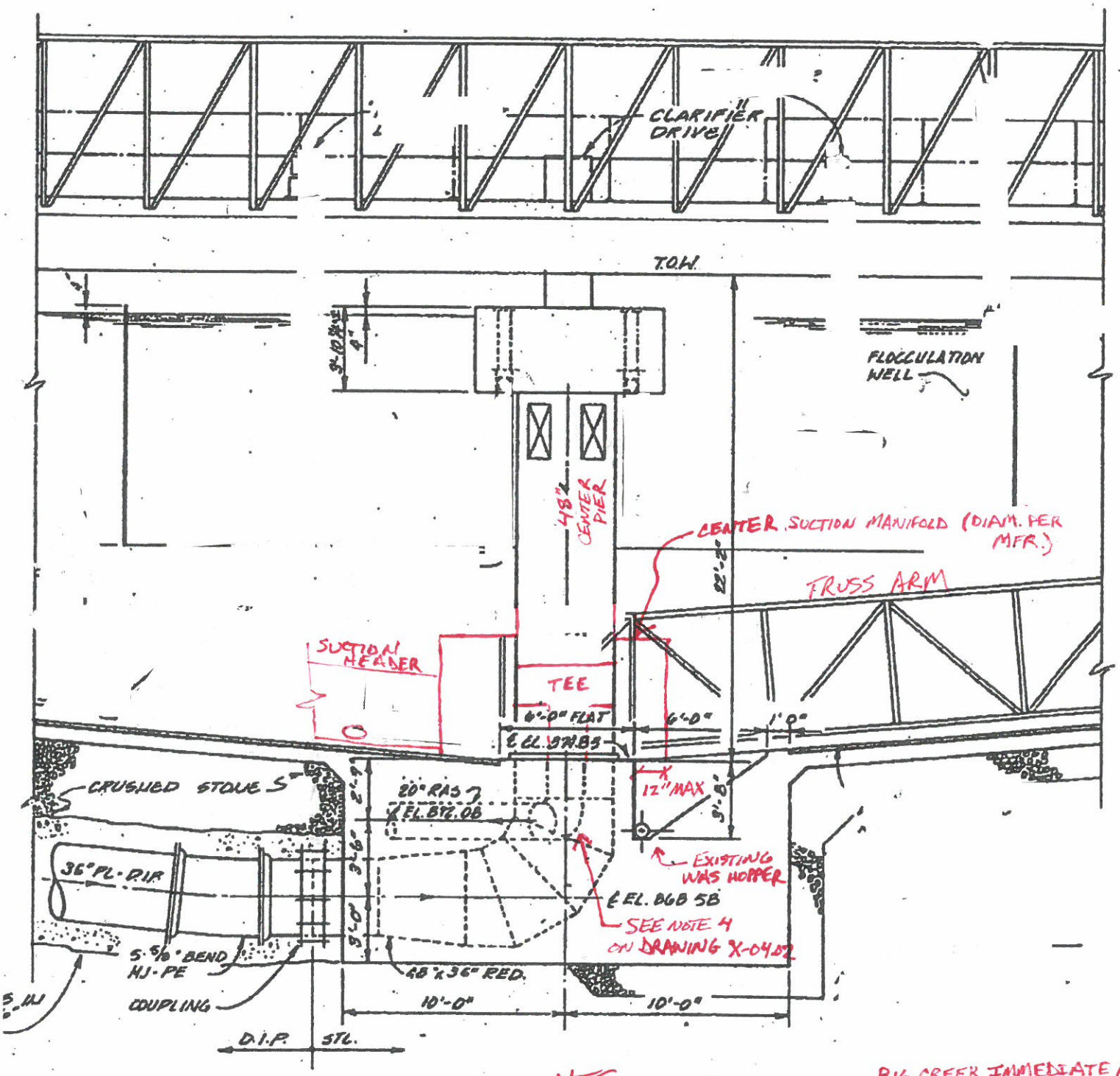
The undersigned bidder acknowledges receipt of this addendum by returning one (1) copy of this form with the proposal package to the Department of Purchasing & Contract Compliance, Fulton County Public Safety Building, 130 Peachtree Street, Suite 1168, Atlanta, Georgia 30303 by the ITB due date and time ***Monday, March 24, 2014*, @ 11:00 A.M.**

This is to acknowledge receipt of Addendum No. 3, _____ day of _____, 20__.

_____
Legal Name of Bidder

_____
Signature of Authorized Representative

_____
Title



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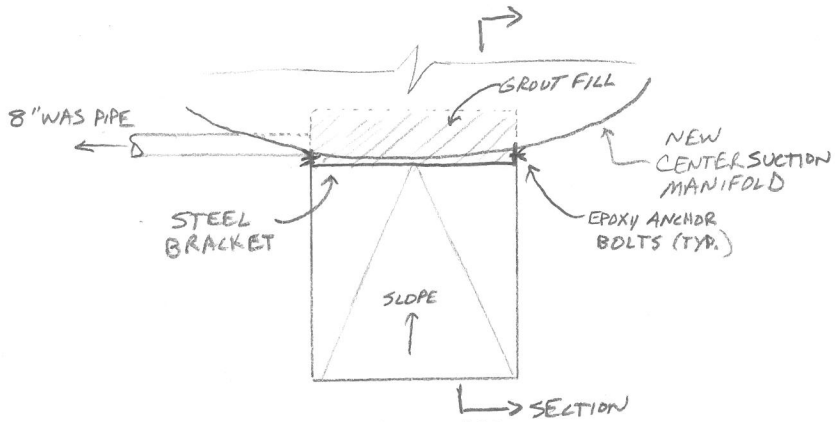
BIG CREEK IMMEDIATE NEEDS REHABILITATION PROJECT
S-134 3/12/14



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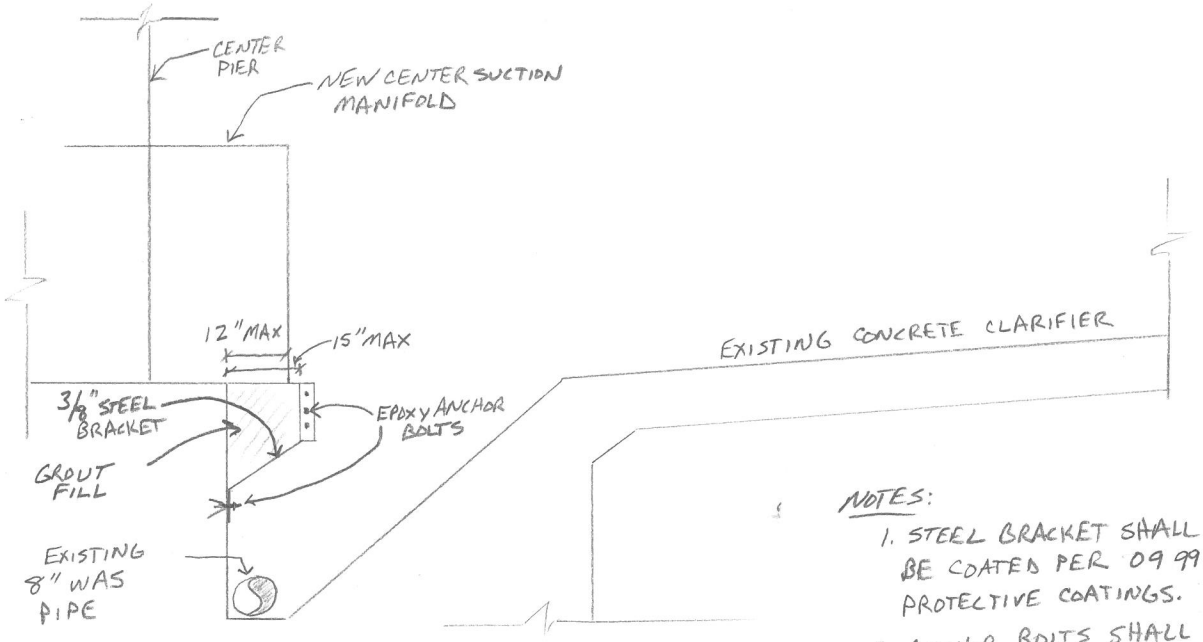

SECTION
N.T.S.

WAS HOPPER BRACKET
FOR SUPPORT OF CLARIFIER
CENTER MANIFOLD

NOTES:

1. STEEL BRACKET SHALL BE COATED PER 09 9911 PROTECTIVE COATINGS.
2. ANCHOR BOLTS SHALL BE 316 SS.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
4. STEEL BRACKET SHALL SPAN THE ENTIRE WIDTH OF WAS HOPPER.
5. QUANTITY, SPACING AND SIZE OF ANCHOR BOLTS SHALL BE DETERMINED BY CLARIFIER MANUFACTURER.

BIG CREEK IMMEDIATE NEEDS
REHABILITATION PROJECT
S-134 3/12/14