MONTE VISTA WATER DISTRICT
NOTICE TO PLANHOLDERS

ADDENDUM NO. 2

Owner: Monte Vista Water District
10575 Central Avenue
Montclair, California 91763

Project: Plant 30 Wellhead Treatment

To: All Planholders

From: Hazen and Sawyer

Bid Date: April 15, 2020 at 1:30 PM

Notice is hereby given to prospective bidders that the Plans and Specifications for Plant 30 Wellhead Treatment Project dated January 31, 2020, have been modified as hereinafter set forth. This Addendum No. 2 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 1 in the space below. This page AD 2-1 shall be attached to the Bid.

By: ________________________________
   Hazen and Sawyer

Date: 4/9/2020

ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 2 (pages AD 2-1 through AD 2-21, New Section 17050, GAC System 3D Model, and Electrical Riser Diagram Schematic).

Contractor: ________________________________

Signature: ________________________________

Printed Name: ________________________________

Title: ________________________________

Date: ________________________________

Plant 30 Wellhead Treatment
Project No. EN2018-05

AD 2-1

Addendum No. 2
**GENERAL**: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents. All other provisions remain the same.

Addendum 2, ITEM 1. GENERAL PROVISIONS, ARTICLE 10.5.1

DELETE in its entirety and REPLACE with the following:

“10.5.1 The Owner’s Representative shall, as soon as practical but no later than seven (7) days after receipt of each Application for Progress Payment, either approve payment of the Application, or return the Application to the Contractor indicating in writing reasons for refusing to approve payment. If the payment of the Application is approved, payment shall be due no later than thirty (30) days after receipt of the Application.”

Addendum 2, ITEM 2. SPECIFICATION DIVISION 9, SECTION 09900, PAINTING, Paragraph 3.09 B, Page 09900-13

DELETE Table 9-1 in its entirety and REPLACE with the following Table 9-1:

**TABLE 9-1**

**PAINTING SCHEDULE**

<table>
<thead>
<tr>
<th>SURFACE</th>
<th>APPLICATION</th>
<th>PAINTING SYSTEM &amp; NO. OF COATS</th>
<th>PRODUCT REFERENCE (TABLE 9.2)</th>
<th>TOTAL MIN. DRY FILM THICKNESS (MILS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete and Masonry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior masonry and concrete</td>
<td>All structures</td>
<td>1 coat sealer</td>
<td>101</td>
<td>75-85 sq.ft./gal.</td>
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<tr>
<td>walls and ceilings</td>
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<td>2 coats acrylic epoxy</td>
<td>116</td>
<td>4-6/coat</td>
</tr>
<tr>
<td>Secondary Containment</td>
<td>Sodium hypochlorite</td>
<td>1 coat epoxy primer</td>
<td>121</td>
<td>6-8</td>
</tr>
<tr>
<td>room see footnote below</td>
<td></td>
<td>2 coats</td>
<td>122</td>
<td>6-8/coat</td>
</tr>
<tr>
<td>for additional information</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Metals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior and exterior</td>
<td>All blowers, pumps,</td>
<td>1 coat epoxy polyamide primer</td>
<td>104</td>
<td>4-6</td>
</tr>
<tr>
<td>nonsubmerged (gloss)</td>
<td>motors and mechanical</td>
<td>1 coat epoxy polyamide</td>
<td>102</td>
<td>4-6</td>
</tr>
<tr>
<td></td>
<td>equipment, piping, etc.</td>
<td>1 coat aliphatic polyurethane</td>
<td>115</td>
<td>3-5</td>
</tr>
<tr>
<td>Submerged Wastewater</td>
<td>2 coats high solids epoxy</td>
<td>119</td>
<td>8-10/coat</td>
<td></td>
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<tr>
<td>Steel doors, windows and door</td>
<td>All buildings</td>
<td>1 coat epoxy polyamide</td>
<td>102</td>
<td>5-8</td>
</tr>
<tr>
<td>frames, steel stairs, monorails,</td>
<td></td>
<td>1 coat aliphatic polyurethane</td>
<td>115</td>
<td>3-4</td>
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<tr>
<td>misc. metals (steel)</td>
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</table>
Addendum 2, ITEM 3. **SPECIFICATION DIVISION 9, SECTION 09900, PAINTING, Paragraph 3.09 B, Page 09900-14**

ADD the following items to Table 9-2

<table>
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<tr>
<th>REF.</th>
<th>SYSTEM</th>
<th>PURPOSE</th>
<th>PRODUCT</th>
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<tr>
<td>121</td>
<td>Epoxy</td>
<td>Primer</td>
<td>Amerlock Sealer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Carboseal 720</td>
</tr>
<tr>
<td>122</td>
<td>Epoxy</td>
<td>Intermediate/Finish Coat</td>
<td>Novaguard 840 AFRC</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Sanitile 755FR</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Cor-Cote</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EN 7000</td>
</tr>
</tbody>
</table>

Addendum 2, ITEM 4. **SPECIFICATION DIVISION 17**

ADD new Section: “Section 17050 – Tools, Supplies and Spare Parts” (attached).

Addendum 2, ITEM 5. **SPECIFICATION DIVISION 17, SECTION 17745, RADAR LEVEL MEASUREMENT SYSTEMS, Paragraph 2.01 G, Page 17745-2**

DELETE in its entirety and REPLACE with the following paragraph:

“G. Radar level measurement system shall be the VEGAPULS C21 with no substitutions accepted.”

Addendum 2, ITEM 6. **QUESTION: 11415, 2.3 states that pipe interior shall be lined per 15006. There is no specification section 15006 included in the project documents. Please provide or clarify the pipe lining requirements. Cement mortar lining is mentioned for steel piping in some other sections of the specification, but would a liquid epoxy lining, such as Interseal 670, or fusion bonded epoxy lining, such as Scotchkote 134, also be acceptable? These linings are a standard in the industry for GAC system piping and NSF 61 approved. Specification sheets are attached, please confirm acceptance.**

**ANSWER: Refer to Addendum No. 1, ITEM 37.**
Addendum 2, ITEM 7. **QUESTION:** Specification 11415 lists Carboline, Tnemec, Ameron, and Sherwin Williams as allowed paint system manufacturers. The carbon steel exterior coating is noted to be zinc primed and two-component, aliphatic acrylic polyurethane system. We suggest the following Carboline coating system: Carboguard 60 rust preventative epoxy primer (4-6 mils DFT) with Carbothane 134 aliphatic acrylic polyurethane top coat (2-3 mils DFT). The top coat can be applied twice if an intermediate coat is required. Specification sheets are attached, please confirm acceptance.

**ANSWER:** Yes, this is acceptable.

Addendum 2, ITEM 8. **QUESTION:** Please confirm that the coating on the connecting pipe/manifold between contactors, as well as back piping on the equipment pad for the GAC systems, should match the coating of the contactor vessels.

**ANSWER:** Yes, the coating should match.

Addendum 2, ITEM 9. **QUESTION:** Per Specification 11415, 2.3.F, the contactor effluent shall have a chemical feed connection that is constructed with the same material as the GAC contactor. Please clarify what equipment / connection type is required here.

**ANSWER:** Provide chemical injection connection similar to Detail 1513500 on Drawing MD-02 with compatible material of construction for the proposed chemicals use.

Addendum 2, ITEM 10. **QUESTION:** Gaskets – Section 15012 Steel Pipe, 2.01G states gaskets for flanged joints shall be Viton or silicone material; Section 15050 Piping, Valves and Accessories, 2.2A calls for flange gaskets made of EPDM. Please confirm which is acceptable for the piping in these systems.

**ANSWER:** All 3 specified gasket materials are acceptable.

Addendum 2, ITEM 11. **QUESTION:** Note 1 under the Room Finish Schedule on drawing A-04 calls for a Containment Liner in the Chemical Storage Room but no specification section is referenced. Please provide specifications for the Containment Liner in the Chemical Storage Room.

**ANSWER:** Refer to Addendum No. 2, ITEM 2 and ITEM 3 above.

Addendum 2, ITEM 12. **QUESTION:** General Provision 10.5.1 states that the Contractor shall be paid no later than 50 days after receipt of the progress payment application. This is in conflict with CA Public Contract Code section 20104.5 which states that the Owner must review within 7 seven day and pay within 30 days of receipt of payment application.
Addendum 2, ITEM 13.

**QUESTION:** Hardware – Spec Section 15012 Steel Pipe, 2.01F calls for ASTM A307, Grade B, hot-dip galvanized bolts; Spec Section 15050, 2.2B.1 calls for ASTM A307 Grade A zinc-plated bolts. In our experience, we haven’t found A307 bolts to be available with zinc plating. Hot-dip galvanizing (HDG) bolts and fasteners are more common and better suited for these systems. HDG is a process of applying a zinc coating to steel by dipping the steel in a bath of molten zinc. This process provides a much thicker zinc coating than a zinc plating process would (5-10x), and therefore provides superior corrosion resistance. It is recommended to use HDG nuts and bolts as specified in Section 15012, instead of zinc plated nuts and bolts specified in Section 15050. Please confirm this is acceptable.

**ANSWER:** Yes, it is acceptable to use HDG nuts and bolts as specified in Section 15012.

Addendum 2, ITEM 14.

**QUESTION:** Butterfly Valves on GAC System Piping – Specification Section 15101 Butterfly Valves calls for mechanical joint or flanged end valves. Typically, at least within the manifold piping on each GAC system, wafer style butterfly valves are used to reduce the piping footprint. Wafer valves are commonly used in the industry, meet or exceed the performance criteria of AWWA C504, and are NSF 61 compliant. These valves are seen at current treatment sites for the City of Tulare, the City of Reedley, California American Water, Lawrence Livermore National Laboratory, and Vandenberg AFB to name a few. Please confirm that wafer style valves are acceptable within the GAC system process piping.

**ANSWER:** Follow specification Section 15101 for the specified type of the butterfly valves.

Addendum 2, ITEM 15.

**QUESTION:** 15104 Ball Valves, 2.01D notes that each valve body shall be provided with flanged ends. Please confirm that valves with threaded ends are acceptable for valves sized 3” and smaller.

**ANSWER:** Yes, it is acceptable for ball valves sized 3” and smaller.

Addendum 2, ITEM 16.

**QUESTION:** Plan Sheet M-01, Plan View – Can additional detail be provided on the effluent line in the location of the future GAC trains? The view of the effluent in this part is not seen in the section views and is covered by the influent pipe in the plan view. Would this be a straight pipe length with a cross in place for the
first 2 future GAC trains, then a blind flange before the last future train? Please clarify.

**ANSWER:** Refer to 3D rendering of the GAC system in the attachment for the GAC effluent pipe routing clarification.

**Addendum 2, ITEM 17.** **QUESTION:** Combination Air/Vacuum Release and Pressure Release on GAC Contactors – the valving for air/vacuum/pressure release on the contactor is conflicting. Is the intent to have a dual valve that provides both a combination air/vacuum release and pressure release valve capabilities, such as Crispin Model AL20/M5?

**ANSWER:** Yes.

**Addendum 2, ITEM 18.** **QUESTION:** Combination Air/Vacuum Release (ARV-100) on 20” Influent – Specification Section 15114 Miscellaneous Valves only provides information on pressure reducing valves and pressure air release valves, not combination air/vacuum release valves as specified in the schedule in Section 15390. Below are two suggestions for the Air/Vacuum Release based on what has been used for projects in the industry. Please approve or provide an alternative manufacturer and model to use: a) Val-Matic VMC-202C, b) APCO Single Body 145C.

**ANSWER:** Val-Matic VMC-202C and APCO Single Body 145C will be accepted as approved equals.

**Addendum 2, ITEM 19.** **QUESTION:** 15104, 2.01 Ball Valves (Water Service) – After further review of this specification section, it is clear that Part 2.01 of the specification is only for larger sized ball valves – Willamette Valve, Inc., the manufacturer specified, makes ball valves sized 6”-60”. For smaller ball valves in water service, 4” and smaller, please confirm that brass ball valves are acceptable unless otherwise specified elsewhere in the specification, with threaded ends for sizes 3” and smaller, flanged ends for 4” and larger.

**ANSWER:** Brass ball valves are acceptable for sizes 3” and smaller.

**Addendum 2, ITEM 20.** **QUESTION:** Section 17760, 2.02 Differential Pressure Indicating Transmitters, notes Model 3051S1CG by Rosemount. The “G” in that model number would make it a gage measurement type. Changing this to “D” makes it a differential measurement type. Please confirm the model should be 3051S1CD.

**ANSWER:** The model should be 3051S1CD.
Addendum 2, ITEM 21. QUESTION: Spec section 16000.2.04 calls for Rubber insulating matting – Is this required? Not provided for existing equipment please confirm if this is required by engineer or owner.

ANSWER: Yes, this is required for all new equipment.

Addendum 2, ITEM 22. QUESTION: Please confirm GRC is required for all instrument wire as specified in section 16111.3.03 including conduit concealed within underground direct-bury or concrete-encased ductbanks, concealed within non-elevated concrete slabs and concealed below concrete slabs. PVC conduit is recommended by most Owners when encased in concrete in lieu of GRC due to corrosion of the steel.

ANSWER: Yes, RGS is required for all instrumentation conduits in the locations listed. Instrumentation conduits shall be metallic for the entire raceway - see Drawing E-22, Note 1.

Addendum 2, ITEM 23. QUESTION: Spec 16721.3.01 states “fire alarm system shall be furnished and installed as shown on the drawings”. The only part of the fire alarm system is the FACP on drawing E-09. Is this the only part of the fire alarm that would be installed? Please confirm fire alarm contractor is to design system. (Question can be removed).

ANSWER: Yes, the FACP shown on E-09 is the only new part of the fire alarm system as also indicated in spec 16721-1.01-B. Note it should also be tied into SCADA as shown on Drawing E-16.

Addendum 2, ITEM 24. QUESTION: Fire alarm system needs to be compatible with existing system. What is the current system?

ANSWER: Contractor shall field verify the existing system manufacturer.
QUESTION: The manufacturer of existing switchgear, SquareD, needs pictures of the main breaker at the switchgear so they can determine the kirk key interlock components to furnish. Can you send additional pics of the main breaker?

ANSWER: See photos below.
Addendum 2, ITEM 26.  

**QUESTION:** What are the dimensions of EHH-2 and EHH-1 on drawing E-03?

**ANSWER:** Handholes shall be sized as required to suit the application but no smaller than 6” x 8” as indicated in Specification Section 16118-2.04-D.

Addendum 2, ITEM 27.  

**QUESTION:** Confirm polymer concrete is to be used for EHH-2 and EHH-1 on drawing E-03 as specified on detail 1611804 on drawing ED-02 and as specified in specification section 16118.2.04.A.?

**ANSWER:** That is correct.
Addendum 2, ITEM 28. **QUESTION:** Where are the expansion fittings per detail 1611811 on drawing ED-02 expected to be installed? South Side of existing Well #30 Wellhouse building? Please advise any other locations which theses fittings would be required, if any.

**ANSWER:** Yes, expansion fittings shall be installed on the south side of the wellhouse building as indicated in the standard detail. Other locations may be required. Refer to Specification Section 16111-3.04-D.

Addendum 2, ITEM 29. **QUESTION:** Are any areas within the limits of work designated as classified requiring explosion-proof type installations? i.e. Class 1 Division 1, Class 1 Division 2? If so, which areas?

**ANSWER:** No.

Addendum 2, ITEM 30. **QUESTION:** Spec Section 16721 2.02.A.9.n states that the control panel is to have “…voice annunciation capabilities…” and “…two (2) pre-recorded messages…”, however, Spec Section 16721 2.02.C.1 states the alarm indicating devices shall be “Fire Alarm Horns”. We can provide the voice capability and the messages but to use them the audible will need to be a speaker. Please clarify which audible we are to use.

**ANSWER:** Section 2.02-A is for the fire alarm control panel itself. Section 2.02-C-1 is for fire alarm horns. They are separate devices. Note that this is a performance specification - See 1.01-B.

Addendum 2, ITEM 31. **QUESTION:** Please confirm it is the Engineers intent that every single process instrument requiring 120V power will require a local disconnect switch. This is mentioned in note 10 on drawing E-01 and in specification section 16141.2.05.A. Please note the drawings do not show disconnects for these instruments that require 120V power.

**ANSWER:** That is correct.

Addendum 2, ITEM 32. **QUESTION:** Please define quantity and location of Chemical Sump Pumps required. It is not designated in the specification or on the drawings. Is a 1.25” hose to be provided with pump? Is pump to be hard pipe installed?

**ANSWER:** There is no chemical sump pump required for the chemical building.
Addendum 2, ITEM 33.  **QUESTION:** Please confirm that there are no floor drains and associated pipe routing and cleanout requirements as there are none shown on the GAC / IX / Brine Tank and Water Recovery Tank mechanical drawings nor in the yard piping drawings.

**ANSWER:** That is correct.

Addendum 2, ITEM 34.  **QUESTION:** Spec 15000 Par 3.12.B calls out for all pipe to be painted except “1. Copper pipe and 2. Stainless steel pipe. Flanges and supports or hangers shall be painted.” Are galvanized steel pipe supports required to be painted?

**ANSWER:** No, galvanized steel pipe supports are not required to be painted.

Addendum 2, ITEM 35.  **QUESTION:** What is the invert elevation of the 6” Potable Water line where it ties in to an existing 12” MVWD water line. Please note that an existing 12” MVWD water line is shown in the profile drawing C-06 but appears to be lined up to where the new 12” plant effluent ties into at INV EL 1074.5’ +/- . Is it acceptable to assume the same tie-in Elevation for the 6” Potable Water line?

**ANSWER:** Assume typical depths for water distribution pipe - 3 ft to 5 ft cover.

Addendum 2, ITEM 36.  **QUESTION:** Please provide material, type of joint, and class for the 6” Potable Water line shown in Dwg C-04.

**ANSWER:** Ductile iron pipe, restrained joints, CL 350.

Addendum 2, ITEM 37.  **QUESTION:** Installation of the Plant Effluent and Potable Water piping requires demolition and replacement of the existing sidewalk. Please provide City and/or District Standard drawings.

**ANSWER:** City of Montclair Standard Drawings are available on the City’s website. However, exact requirements are per the conditions of the encroachment permit which the contractor must obtain.

Addendum 2, ITEM 38.  **QUESTION:** Will the district isolate and drain the existing 12” MVWD lines before tie-in work is performed for both the 12” Plant Effluent and 6” Potable Water connections?

**ANSWER:** Contractor shall be responsible for draining the lines for the work and the District, upon a two-full work days advanced notice by the contractor, will close valves in order for the contractor to do its work.
Addendum 2, ITEM 39. QUESTION: Note 5 states that the existing buried conduits are not shown on the drawings but will be coordinated. Are there any known existing buried electrical conduit and grounding grids that will obstruct during construction of the catch basins and associated piping adjacent to the Existing transformers? Will relocation of existing utilities be required?

ANSWER: Known utilities are plotted on the plans based on best available information from Dig Alert responses. The contractor shall conduct existing utility relocations as required to implement the improvements.

Addendum 2, ITEM 40. QUESTION: Drawing M-03 and I-05 shows a future 2” caustic connection to the 20” Plant Effluent line terminated with a ball valve. Yard piping drawing C-04 shows a buried 2” caustic containment pipe from Well #30 Well House and terminated at the Ion Exchange pad. Is the 2” buried pipe required in this contract? If it is, will a 2” sch 80 PVC pipe with no carrier pipe, capped at both ends and buried with a 3'-6” cover be acceptable?

ANSWER: Yes, the 2” buried carrier pipe is required as part of this contract. Schedule 80 PVC pipe is acceptable with 3'-5’ of cover. Terminate the pipe at the location shown on Drawing C-04 with a ball valve.

Addendum 2, ITEM 41. QUESTION: Section 7.9 identifies liquidated damages for the Work but does not provide a cap to the amount of liquidated damages that can be assessed. Please add a cap of $180,000 (100 days @ $1,800/day) that may be assessed as liquidated damages.

ANSWER: No change.

Addendum 2, ITEM 42. QUESTION: Should bidders base their price on the assumption that labor or supply chain disruptions due to the COVID-19 pandemic will be minimal, and government-imposed limitations on commerce will be lifted by the time of the notice to proceed? How will increased costs that are beyond the control of the contractor be addressed?

ANSWER: The contractors are entitled to time extension if needed due to COVID-19 pandemic.

Addendum 2, ITEM 43. QUESTION: In the third paragraph of Section 8.15, if the Owner invites another contractor to the Site and that interferes with Contractor’s performance, then the Contractor should be entitled to schedule relief and/or additional cost.
Addendum 2, ITEM 44.  
QUESTION: General Provision Section 8.23, 11 and 12.7. Suggest that each party should bear their own attorneys’ fees.

ANSWER: No Change.

Addendum 2, ITEM 45.  
QUESTION: Section 10.3.3 states that payment for material shall not be construed as acceptance. Please confirm that the Contractor will receive partial payments for materials delivered to the site e.g. lpgac vessels, IX vessels, pumps.

ANSWER: Refer to Addendum No. 2, ITEM 47 below.

Addendum 2, ITEM 46.  
QUESTION: General Provision 10.5.1 states that the Contractor shall be paid no later than 50 days after receipt of the progress payment application. This is in conflict with CA Public Contract Code section 20104.5 which states that the Owner must review within 7 seven days and pay within 30 days of receipt of payment application.

ANSWER: Refer to Addendum No. 2, ITEM 1 above.

Addendum 2, ITEM 47.  
QUESTION: Will the Owner approve partial payments for the larger fabricated equipment for: release of fabrication, material procurement, raw material delivery and delivery to the jobsite based upon a mutually acceptable payment schedule?

ANSWER: Agree with mutually acceptable payment schedule.

Addendum 2, ITEM 48.  
QUESTION: Table 01010-1 lists a Building and Grading permit. Is this permit required through the City of Montclair? Water Districts are generally exempt from building permits for projects within their own property.

ANSWER: Yes.

Addendum 2, ITEM 49.  
QUESTION: Section 1.03.A requires the control system (SCADA) to be operational for not less than 99.8% during the 30-day availability test. This equates to a down time of approximately 3 min per day. How does this test relate to the process equipment (pumps, IX)? No such 30-day requirement is included in the contract. Is this 30-day test after Substantial Completion? Will the facility be operated by MVWD operators?

ANSWER: This specification covers the control system. Issues associated with process equipment will not be counted against the control system uptime.
Addendum 2, ITEM 50.  
**QUESTION:** Section 02080 does not specify compaction testing of the AC pavement. What are the compaction requirements and who is responsible for the testing?

**ANSWER:** Compaction requirements are included in the geotechnical report and standard drawings for trench sections. Compaction testing shall be conducted by the contractor and approved by the City's representative.

Addendum 2, ITEM 51.  
**QUESTION:** In Detail '5' the Yard Inlet is called out as 8" Concrete block or brick. Could a cast-in-place concrete structure be used in lieu of the prescribed concrete block or brick?

**ANSWER:** Yes.

Addendum 2, ITEM 52.  
**QUESTION:** In the detail for Typical Construction Joints, there's a waterstop and keyway shown with a note stating "Waterstop where required". Please confirm whether waterstop and keyway will be required at the Construction Joints for the GAC and Ion Exchange Slabs.

**ANSWER:** Waterstop is only required in construction joints for cast-in-place concrete where the structure is below grade or for water retaining structures. For the GAC and Ion Exchange slabs waterstop is not required at the construction joints.

Addendum 2, ITEM 53.  
**QUESTION:** The Structural Drawings show all structures bearing on 24" of structural fill which is supported by the Geotech report in Appendix 'A' of the Specifications. However, Spec. 02200-5: part 3.02.F calls for all structures to be placed on aggregate base, crushed stone, or screened gravel bedding to the thickness shown on the drawings (24"), in the specifications or 6" min. Please clarify which of these will be required.

**ANSWER:** All the structures shall bear on engineered fill to the minimum thickness shown on the drawings, which shall be crushed aggregate base material with a gradation as recommended by the geotechnical report, referenced in Appendix A.

Addendum 2, ITEM 54.  
**QUESTION:** Pipe System Schedule table in Spec 15390, footnote 2 states that if piping is exposed to direct sunlight, CPVC will be used. Drawing I-05 (Ion Exchange), I-06 (Brine Maker), I-07 (water softener) show PVC piping. The Ion Exchange, Brine Maker and Water Softener equipment are not in a building. Please verify if CPVC piping will be used in these areas in lieu of what was specified in the P&ID drawings.

**ANSWER:** All PVC piping exposed to direct sunlight shall be UV rated.
Addendum 2, ITEM 55.  

**QUESTION:** Please verify PVC/CPVC piping systems do not require paint.  

**ANSWER:** That is correct.

Addendum 2, ITEM 56.  

**QUESTION:** Spec 15012 2.01.K.3 reads "The interior of all steel pipe shall have a cement mortar lining per AWWA C205". Will the Owner accept Scotchkote 134 (16 mils) in lieu of cement mortar lining?  

**ANSWER:** No.

Addendum 2, ITEM 57.  

**QUESTION:** Spec 15101 2.01.B reads "Butterfly valves shall be Class 150B, unless otherwise indicated in the valve schedules, and of the short body design with mechanical joint or flanged ends, as shown on the Drawings". Are wafer ends acceptable?  

**ANSWER:** No.

Addendum 2, ITEM 58.  

**QUESTION:** Ref: SECTION 13202 – Welded Steel Tank- Part 2- paragraph 1.06-I - calls for the roof to be designed with a 3-foot radius knuckle at the shell. Drawings M-10 shows the tank with a cone roof rather than as a knuckle design. Which is correct?  

**ANSWER:** Knuckle design.

Addendum 2, ITEM 59.  

**QUESTION:** In the lower left-hand corner of I-03 there is a 4" "Alternative BWS from the distribution system" with a 4" BFV tying into the 8" GA BWW feeding FCV-101. Looking at section Bon M-02 the 4" BFV is drawn as a Ball Valve, in neither drawing does the valve have a tag number. However, the butterfly valve schedule on spec page 15390-7 would indicate it is BFV-101. Is the specification correct? In addition, the 4" "Alternative BWS from the distribution system" appears to stop just left of the valve and in looking at the yard piping plan on C-04 there doesn't appear to be a 4" line coming to this location from the distribution system. Please clarify where this line is coming from.  

**ANSWER:** Yes, the specification is correct. It is a plug for a temporary connection as an alternative backwash water supply. There is no permanent line meant to connect at this location.

Addendum 2, ITEM 60.  

**QUESTION:** Note 1 under the Room Finish Schedule on drawing A-04 calls for a Containment Liner in the Chemical Storage Room but no specification section is referenced. Please provide specifications for the Containment Liner in the Chemical Storage Room.  

**ANSWER:** Refer to Addendum No. 2, ITEM 2 and ITEM 3 above.
Addendum 2, ITEM 61. QUESTION: On drawing sheet number S-04 detail Pipe Encasements 033160611 state that all piping and conduits below slabs on earth are to be encased using method Type I or Type II. Please clarify the intention of the term 11 slabs11 • Is this referencing the concrete structural slabs only or does this include the AC Pavement section as well?

ANSWER: The term slabs is referencing structural concrete slab foundation and not AC pavement. However, pipe encasement is still required for shallow soil cover conditions where there is the potential for vehicle live loads.

Addendum 2, ITEM 62. QUESTION: Does the equipment support pedestals detail 0331605 need to be constructed in the areas where future equipment is to be located? If so, the contractor is concerned that these pedestals will create a high potential tripping hazard?

ANSWER: Concrete equipment support pedestals for future equipment do not need to be constructed until the future equipment is ready to be installed. The detail allows for installation of pedestal post-construction of the structural slab.

Addendum 2, ITEM 63. QUESTION: Change Orders - the General Provisions state that the ENTIRE markup for overhead and profit cannot exceed 15% to include that of the Prime and subcontractor. This 15% is inadequate to cover the overhead and profit of the prime and subcontractors. It is requested that this be modified to 15% for the contractor performing the work, with the customary additional 5% for the prime on a subcontractor if involved in the change.

ANSWER: No change.

Addendum 2, ITEM 64. QUESTION: Please provide a mounting detail for the process instruments disconnecting means. That will be located throughout the site in various types of locations. Are these disconnecting means required for Motor Operated valves and Flow Control Valves? Enclosure type? This series “NSSC” is not available in the material specified below.

ANSWER: See riser in the attachment. Process instrument disconnects are not required for valves. Process instruments are primarily located outside, and the enclosures shall be NEMA 4X SST or equal.
Addendum 2, ITEM 65.  QUESTION: Please specify the size and rating of EHH1 & EHH2 on sheet E-03.

ANSWER: Handholes shall be sized as required to suit the application but no smaller than 6” x 8” as indicated in Specification Section 16118-2.04-D. Rating shall be Tier 15 as specified in Section 16118-2.04-B.

Addendum 2, ITEM 66.  QUESTION: 36 conduits are in DB1. There are also 4 penetrations from the generator connection cabinet. You want 40 wall penetrations into the existing building?

ANSWER: Yes, the conduits are terminating in 4 different boxes and most conduits are small - 1” and 2”.

Addendum 2, ITEM 67.  QUESTION: Is the existing building roof structure capable of supporting all the rigid galvanized steel conduits and conductors listed to be installed?

ANSWER: The conduit and wire added in the project can be routed using supports on the wall or the ceiling, as required. The load is expected to be minimal. Contractor shall submit general conduit routing approach prior to construction as indicated in Note 3 on Drawing E-11.

Addendum 2, ITEM 68.  QUESTION: Specification 16111, 3.03 Conduit uses and applications, A. Rigid Conduit. “Concealed within underground direct bury or concrete encased ductbanks Schedule 40 rigid non-metallic PVC conduit for Power and Control. Rigid galvanized steel conduit for instrumentation”. Do you want galvanized rigid steel or PVC coated rigid encased in concrete?

ANSWER: RGS is required for instrumentation conduits in concrete. Instrumentation conduits shall be metallic for the entire raceway - see Drawing E-22, Note 1. Power and control conduits can be PVC within concrete.

Addendum 2, ITEM 69.  QUESTION: Is there a specific spacing requirement for power, control and instrumentation conduits in the duct banks? We only see a spacing requirement on page 16111-12, I. where non-metallic instrumentation conduits are installed exposed.

ANSWER: Refer to Standard Detail 1611801 on Drawing ED-01 and Note 1 on Drawing E-22.
Addendum 2, ITEM 70.  QUESTION: Specification 16000, 1.05, C. Certification. Please clarify what you are asking for Certificates of inspection and approval for what?

ANSWER: 16000 is the general electrical specification. It applies to the various Division 16 specifications such as the certified field tests required in 16170 and the manufacturers installation certification in 16495.

Addendum 2, ITEM 71. QUESTION: Section 16000, 1.10 Protective device settings and testing A. Requires the field services organization performing the adjustments of the protective devices to be a subsidiary of or have a franchise service agreement with the electrical equipment manufacturer. Section 16055, Part 3- Execution, 3.01, A. states the contractor shall adjust all relay and protective device settings. Section 16426, 3.05 field adjustments, states a representative of the manufacturer can also set the circuit breakers. Who is to set the protective device settings?

ANSWER: All of those parties can modify the settings, but the power systems study is done at the end and will ultimately indicate what the settings should be. The contractor shall set those.

Addendum 2, ITEM 72. QUESTION: Section 16111, F. 1. Requires all conduit hubs for rigid galvanized conduit to be made of stainless steel. Where does this apply?

ANSWER: That applies to Section 16111-2.02 - Rigid Galvanized Steel Conduit.

Addendum 2, ITEM 73. QUESTION: Sheets E-05, E-06, E-07, E-08, Note 2 and Sheet E09 note 7 states conduit shall be installed in the slab. Can the conduits be installed below the slab instead of in it?

ANSWER: Yes.

Addendum 2, ITEM 74. QUESTION: There are many references to specification section 17050 specifically as it relates to “Tools, Supplies, and Spare parts”. There is no Specification section 17050 in the documents. Please advise.

ANSWER: Refer to Addendum No. 2, ITEM 4 above.

Addendum 2, ITEM 75. QUESTION: Specification Section 17700-2 (page 1081) paragraph 1.03B states: In addition to the above requirements, the instrumentation subcontractor shall provide one remote handheld configuration device for communication with all “smart” instruments furnished under this Contract. The devices shall be capable of performing configuration, test, and format functions from anywhere on the 4-20 mA signal loop for a particular
transmitter or by direct connection. The configuration device shall be Fischer & Porter Model 50HC1000, Rosemount Model 375, or equal. Are you asking for 1 communication device for each instrument being provided, or just 1 communication device for the project?

ANSWER: Just one (1) for the project.

Addendum 2, ITEM 76. QUESTION: Specification Section 17745 for the Radar Level Measurement Systems paragraph 2.01G calls out “VEGAPULS WL 61 with no substitution expected”. The VEGAPULS WL 61 has a plastic horn “antenna” that contradicts the requirements of Specification 17745 Paragraph 2.01C which states “316L Stainless Steel” antenna. Does the District want the “VEGAPULS WL 61 with a plastic antenna” or a different Radar Transmitter with a 316L Stainless Steel antenna? Please provide the corrected specifications to clarify.

ANSWER: The Contractor should furnish and install the VEGAPLUS instrument with plastic horn if no stainless steel option is available through the manufacturer. In addition, refer to Addendum No. 2, ITEM 5 above.

Addendum 2, ITEM 77. QUESTION: Specification Section 17745 for the Radar Level Measurement Systems paragraph 2.01F requires “The unit shall have a NEMA 4X aluminum alloy with polyester-epoxy coated enclosure…” Is the VEGAPULS provided ISO Housing P/N: ISO-GEH.AXX and acceptable alternative to the NEMA 4X aluminum alloy with polyester-epoxy coated enclosure?

ANSWER: Yes. In addition, Refer to Addendum No. 2, ITEM 5 above.

Addendum 2, ITEM 78. QUESTION: Is it the district intent to use the pull boxes on the vessel pads as a transition (pass through) from duct bank to device, or do they want back panels with terminal blocks to terminate the conductors?

ANSWER: Pull boxes are to be used as a transition and shall not have terminations as indicated by Section 16130-2.02-B-2.
**Addendum 2, ITEM 79.**  
**QUESTION:** Sheet E-13 note 6 states “provide any and all lugs and ancillary equipment required” to connect the generator cabinet conductors to the load side of the main circuit breaker. Please provide information on the existing circuit breaker load side connection, is it conductors, how many and what size? Is it buss, if yes, will be able to cable connect from the circuit breaker to the remaining buss after it is removed?

**ANSWER:** Contact the manufacturer Square D for as built drawings using the catalog numbers on Drawing E-13. They were consulted during the design.

**Addendum 2, ITEM 80.**  
**QUESTION:** Sheet E-13 note 7 states “contractor shall obtain the services of UL to re-list and re-label the switchboard at the end of construction” Is this requirement for the KIRK-Key installation and main circuit breaker load side modifications?

**ANSWER:** Yes.

**Addendum 2, ITEM 81.**  
**QUESTION:** Please reference Addendum 1, Item 10 which lists MOV valves that are butterfly type and response to Addendum 1, Item 12 which infers that the MOV valves are to be per Spec 15107. Spec 15107 par. 2.02.A calls out for a globe valve. Please verify that Spec 15107 does not apply to the valves listed in Addendum 1, Item 10 as MOV valves.

**ANSWER:** That is correct. Specification Section 15107 applies to all listed globe valves in Addendum No. 1, ITEM 10. Specification Section 15100 applies to the remaining MOV valves listed in Addendum No. 1 ITEM 10.

**Addendum 2, ITEM 82.**  
**QUESTION:** Please reference Addendum 1, Item 10. 8" FCV-101, 12" FCV-200, 4" FCV-201, 4" FCV-371, and 4" FCV-372 are Globe Valves. Specification Section 15114 part 2.01.A reads "Globe valves (service) shall be bronze body and bonnet with brass stem and stainless steel regrindable disc plug. Is carbon steel, cast iron or ductile iron body acceptable in lieu of bronze body? Further, please verify that specification section 15107 does not apply to these globe valves.

**ANSWER:** Cast iron or ductile iron body is acceptable. Refer to Addendum 2, ITEM 81 above.

**Addendum 2, ITEM 83.**  
**QUESTION:** At this time, is the project considered "essential" and exempt from COVID work restrictions?

**ANSWER:** Yes.
Addendum 2, ITEM 84.  QUESTION: Design Drawing P&ID drawing I-02, Network Architecture does not show PLC-01 as part of the network infrastructure. Is this PLC required to be provided by Vendor Package System?

ANSWER: PLC-01 shall be replaced with nomenclature stating PLC-30A. I-02 correctly shows the network diagram.


ANSWER: The hardness analyzer (AIT-370) shall be provided as part of water softener system.

Addendum 2, ITEM 86.  QUESTION: Drawing FP-1, Note 7 states that water supply for the sprinkler system is to be provided by potable water pressurized by plant pumps. Drawing C-04 shows a 6” potable water line routed to the Chemical Building. Drawing M-4 show a 1-1/4” PW pipe tapped from the Fire Sprinkler Supply. None of these drawings show plant pumps. Are specifications and drawings for this pump forthcoming in an addendum?

ANSWER: Depending on the results of 1) hydrant flow test and 2) fire protection system hydraulic calcs, contractor might need to design and install booster pumps on the fire sprinkler supply system to provide adequate pressure to the building sprinkler system.

Addendum 2, ITEM 87.  QUESTION: Drawing FP-1, Note 5 states that two hydrant flow test to hydraulically design the sprinkler system within the building is required. Will this be provided in an addendum?

ANSWER: Contractor to perform hydrant flow test to hydraulically design the sprinkler system.
SECTION 17050
TOOLS, SUPPLIES AND SPARE PARTS - GENERAL

PART 1 -- GENERAL

1.01 THE REQUIREMENT
A. The Contractor shall provide tools, supplies, and spare parts as specified herein for the operation and maintenance of the Control and Information System.

1.02 RELATED WORK SPECIFIED ELSEWHERE
A. Section 01300 – Submittals
B. Section 17000 – Control and Information System Scope and General Requirements

PART 2 -- PRODUCTS

2.01 TOOLS
A. Provide special tools, other than those normally found in an electronic technician's tool box, required to test, diagnose, calibrate, install, wire, connect, disconnect, assemble and disassemble any digital equipment, instrument, panel, rack, cabinet or console mounted equipment for service and maintenance. This shall include, but not be limited to, the following: connector pin insertion and removal tools, wire crimping tools, special wrenches, special instrument calibrators, indicator lamp insertion and removal tools, etc.

B. Provide tools and test equipment together with items such as instruction manuals, carrying/storage cases, unit battery charger where applicable, special tools, calibration fixtures, cord extenders, patch cords and test leads, which are not specified but are necessary for checking field operation of equipment supplied under this Division.

2.02 SUPPLIES
A. The Contractor shall provide supplies as specifically required in other Sections of Division 17

2.03 SPARE PARTS
A. Provide spare parts for items of control and instrumentation equipment as recommended by the manufacturer and in accordance with the Contract Documents.

B. Furnish all spares in moisture-proof boxes designed to provide ample protection for their contents. Label all boxes to clearly identify contents and purpose.

C. The Contractor shall replace all spare parts consumed during installation, testing, start-up, the system availability demonstration, and the guarantee period.
D. Refer to individual digital hardware and instrument sections for additional requirements specific to those devices.

PART 3 -- EXECUTION

(NOT USED)

- END OF SECTION -
FROM SCADA

FROM LP/MPZ

CONDUIT AND WIRE AS REQUIRED

PROCESS INSTRUMENT DISCONNECT AS SPECIFIED BY 16141

INSTRUMENT

CONDUIT AND WIRE AS REQUIRED

120VAC INSTRUMENT
RISER DIAGRAM