

SAUSALITO-MARIN CITY SANITARY DISTRICT

ADDENDUM NO. 1

TO

**Treatment and Wet Weather Flow Upgrade
(Project No. 0055-006)**

January 5, 2017

This addendum consists of twelve (12) pages, including this cover, plus seven (7) attachments amending the Contract Documents. All prospective bidders for the above-referenced project are to be aware that the following changes, additions and/or clarifications shall be included as an integral part of the Contract Documents for the above-referenced project, and that they are bound by all conditions set forth therein.

THIS ADDENDUM SHOULD BE ACKNOWLEDGED WHEN YOUR BID IS SUBMITTED. FAILURE TO ACKNOWLEDGE THE ADDENDUM MAY CONSTITUTE GROUNDS FOR REJECTION OF THE BID.

**THE BIDDER SHALL ACKNOWLEDGE RECEIPT OF THIS
ADDENDUM IN SECTION "BID"**

A handwritten signature in black ink, appearing to read 'shelly masuda', is written over a horizontal line.

SHELLY MASUDA
PROJECT ENGINEER – RMC, A WOODARD & CURRAN COMPANY
CE-82686

SAUSALITO-MARIN CITY SANITARY DISTRICT

TREATMENT AND WET WEATHER FLOW UPGRADE PROJECT

Addendum No. 1

The following shall modify the Contract Documents. The work shall be accomplished in accordance with such modifications. It is required that this addendum be attached to the Specifications. This addendum contains twelve (12) pages including the cover page, with seven (7) attachments.

IMPORTANT: Receipt of this Addendum must be acknowledged in the space provided on the Bid Form when your bid is submitted. Failure to acknowledge receipt of this addendum may constitute grounds for rejection of the bid.

SPECIFICATIONS:

- 1.01 Add:** In Table of Contents, on page TOC – Page 3 of 4, in Division 09 – Finishes, add “09970 Shop Painting of Hot-Dipped Galvanized Steel” and add Specification 09970 to the Contract Documents, See Attachment No. 1 for Section 09970.
- 1.02 Change:** In Notice Inviting Bids, on page 2, Paragraph 7, delete “five (5) working days” and replace with “ten (10) working days.”
- 1.03 Change:** In Instructions to Bidders, on page 2, Paragraph 2.2.5., delete “five (5) working days” and replace with “ten (10) working days.”
- 1.04 Change:** In Instructions to Bidders, on page 2, Paragraph 3.1., in sentences 1 and 3, delete “five (5) working days” and replace with “ten (10) working days.”
- 1.05 Change:** In Instructions to Bidders, on page 3, Paragraph 3.3, delete “five (5) working days” and replace with “ten (10) working days.”
- 1.06 Change:** Delete the section “Bid” in its entirety and replace with Attachment No. 2.
- 1.07 Change:** In General Conditions, on page 29, Paragraph 8.8.3.4. USL&H and Contractor Pollution Legal Liability Coverage, delete the paragraph in its entirety and replace with the following:

“8.8.3.5. Contractor Pollution Legal Liability Insurance. The Contractor shall obtain Contractors’s Pollution Legal Liability Insurance, which shall include but not be limited to, administrative actions and fines.”

- 1.08 Add:** In General Conditions, on page 29, Paragraph 8.8.3., add Paragraph 8.8.3.6. as follows:

“8.8.3.6. U.S. Longshoreman and Harbor Workers (USL&H). The Contractor shall obtain USL&H Insurance if the Work will be performed on or adjacent to a navigable water, as defined by the U.S. Department of Labor. If USL&H insurance applies, the Contractor shall be required to provide proof of insurance coverage in compliance with statutory requirements of the Longshoreman and Harbor Workers’ Compensation Act (administered by the US Department of Labor).”

- 1.09 Change:** In General Conditions, on page 29, Paragraph 8.8.5., delete and replace the paragraph in its entirety with:

“The limits of the insurance required above will be at least:

Comprehensive General Liability

Bodily Injury Liability	\$5,000,000 each occurrence \$10,000,000 in aggregate
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Property Damage Liability	\$5,000,000 each occurrence \$10,000,000 in aggregate
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Comprehensive Automobile Liability

Bodily Injury Liability	\$1,000,000 each person \$5,000,000 each occurrence
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Property Damage Liability	\$5,000,000 each occurrence
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Commercial Umbrella Policy	\$5,000,000
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Builder’s Risk issued for the value of the Contract Price

Pollution Legal Liability Coverage	\$5,000,000”
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- 1.10 Change:** Delete Specification 01025 Measurement and Payment in its entirety and replace with Attachment No. 3.
- 1.11 Add:** In Specification 01030, on page 01030-5, Paragraph 1.01.D., add Paragraph 1.01.D.15. as follows:
- “15. To minimize disruptions to normal plant operations, crane staging at the plant maintenance level shall be limited to one (1), five (5) day period for the purpose of setting rotating disc filter equipment. For any other work, staging at this location will require review and approval by the Owner a minimum of two weeks in advance.”
- 1.12 Change:** In Specification 01040, on page 01040-6, Paragraph 1.04.C.7.e., sentences 1 and 5, delete “Optional Bid Item 16, 17, and/or 18” and replace with “Optional Bid Item 18, 19, and/or 20.”
- 1.13 Change:** In Specification 01040, on page 01040-6, Paragraph 1.04.C.8.a., delete “Optional Bid Item 15” and replace with “Optional Bid Item 17.”
- 1.14 Change:** In Specification 01040, on page 01040-12, Paragraph 1.07.C.a., delete “Optional Bid Item 15” and replace with “Optional Bid Item 17.”
- 1.15 Add:** In Specification 01500, on page 01500-7, Paragraph 3.05.A., add Paragraph 3.05.A.1. as follows:
- “1. To minimize disruptions to normal plant operations, crane staging at the plant maintenance level shall be limited to one (1), five (5) day period for the purpose of setting rotating disc filter equipment. For any other work, staging at this location will require review and approval by the Owner a minimum of two weeks in advance.”
- 1.16 Change:** In Specification 01060, on page 01060-1, Paragraph 1.01.A., delete the paragraph in its entirety and replace with:
- “A. See General Conditions, Paragraph 8.14 for Safety and Protection requirements.”
- 1.17 Add:** In Specification 01310, on page 01310-2, Paragraph 1.03.A.3., add the following to the end of the paragraph:
- ““Normal District hours are Monday through Friday from 6:30 AM to 3:00 PM. Work outside of these hours requires pre-approval from the District and may be limited to non-critical facilities. No premium time may be charged for working off hours or on weekends unless directed by the Owner.”
- 1.18 Change:** In Specification 01740, on page 01740-1, Paragraph 1.02.A., delete the paragraph in its entirety.

1.19 Add: In Specification 02200, on page 02200-9, add Paragraph 3.1.A.1. as follows:

“1. Excavation shall be made to such widths as will give safe room for construction of structures and utilities including bracing, supporting, pumping, and draining. The bottom of the excavations shall be rendered firm and dry.”

1.20 Add: In Specification 02200, on page 02200-9, add Paragraph 3.1.A.2. as follows:

“2. Some portions of the structures or pipelines to be built under this Contract will be closely adjacent to existing foundations, structures, pipelines, and utilities. Therefore, when performing excavation, the Contractor shall take all reasonable care to protect free from damage any foundations, walls, projecting reinforcement, pipes, utilities, and any other items encountered. Contractor shall promptly draw to the notice of the Engineer any conditions that may prevent him/her from providing such protection.”

1.21 Change: In Specification 02200, on page 02200-12, Paragraph 3.6.B., delete the paragraph in its entirety and replace with:

“B. Hard rock shall be defined as rock excavation at a production rate of less than 1 cubic yard per hour using a large sized hydraulic excavator (net power of at least 180 hp and minimum operating weight of 80,000 lbs) operating at full power with carbide tipped rock teeth on $\frac{3}{4}$ -yard bucket. Any rock conditions encountered to be claimed as hard rock need to be observed and approved in the field by the Engineer prior to being accepted as hard rock. The unit rates established in the Schedule of Bid Items will be used for payment of all hard rock excavation, regardless of actual final excavation volume.”

1.22 Change: Delete in its entirety Specification 05510, titled “Concrete Reinforcement” and located sequentially between Specification 03150 and Specification 03300 in the Contract Documents and replace with Specification 03200 Concrete Reinforcement, provided as Attachment No. 4.

1.23 Change: In Specification 05120, on page 05120-1, Paragraph 1.2.E., delete the paragraph in its entirety and replace with:

“E. Section 09960, Protective Coating”

1.24 Change: In Specification 05120, on page 05120-6, Paragraph 2.2.I., delete “As specified in Section 09800” and replace with “As specified in Section 09960.”

1.25 Change: In Specification 05120, on page 05120-6, Paragraph 2.2.J., delete “Zinc with 0.5 percent (minimum) nickel added” and replace with “Per ASTM A123 and ASTM A153.”

1.26 Change: In Specification 05120, on page 05120-6, Paragraph 3.1.A., delete “Section 09800” and replace with “Section 09960.”

- 1.27 Add:** In Specification 05500, on page 05500-1, add Paragraph 1.2.H. as follows:
- “H. Section 09960, Protective Coatings”
- 1.28 Change:** In Specification 05500, on page 05500-7, Paragraph 2.1.C.5., delete “Section 09800 – Protective Coatings” and replace with “Section 09960 – Protective Coatings.”
- 1.29 Change:** In Specification 05500, on page 05500-7, Paragraph 2.1.E.4., delete “Section 09800 – Protective Coatings” and replace with “Section 09960 – Protective Coatings.”
- 1.30 Change:** In Specification 05500, on page 05500-8, Paragraph 2.1.H., delete “ASTM A123, Zn with 0.5 percent minimum Ni” and replace with “Per ASTM A123.”
- 1.31 Change:** In Specification 05500, on page 05500-8, Paragraph 2.1.I., delete “Hardware ASTM A153, Zn with 0.5 percent minimum Ni” and replace with “Per ASTM A153.”
- 1.32 Change:** In Specification 11320, on page 11320-2, Paragraph 1.4.A.3., delete the paragraph in its entirety.
- 1.33 Change:** In Specification 11320, on page 11320-2, Paragraph 1.4.A.6., delete: “List of suggested spare parts to maintain the equipment in service for a period of 5 years.”
- 1.34 Change:** In Specification 11320, on page 11320-4, Paragraph 2.4.A., delete the paragraph in its entirety.
- 1.35 Change:** In Specification 11320, on page 11320-5, Paragraph 3.3.B., delete the paragraph in its entirety.
- 1.36 Add:** In Specification 11320, add Attachment No. 5 as Part 4 – Scope of Supply and Vendor Quote.
- 1.37 Add:** In Specification 11325, on page 11325-6, Paragraph 2.4., add new Paragraph 2.4.K. as follows:
- “K. The Control Panel shall have the capability to communicate with the Plant SCADA system via a MODBUS TCP communication port. Any and all control and monitoring signals from the field to the Grit Washer Control Panel shall be available to the Plant SCADA system via this communication port. The control panel shall have internal Programmable Logic Controller capable of communication to the Plant SCADA PLC.”
- 1.38 Change:** In Specification 11325, on page 11325-10, Paragraph 3.3.D.2.b.2.b.1., delete “100%” and replace with “0%.”

- 1.39 Add:** In Specification 11330, on page 11330-10, Paragraph 2.4., add new Paragraph 2.4.H. as follows:

“H. The Control Panel shall have the capability to communicate with the Plant SCADA system via a MODBUS TCP communication port. Any and all control and monitoring signals from the field to the Screen Control Panel shall be available to the Plant SCADA system via this communication port. The control panel shall have internal Programmable Logic Controller capable of communication to the Plant SCADA PLC.”

- 1.40 Add:** In Specification 11800, on page 11800-10, Paragraph 2.4.A., add to the end of the Paragraph: “The Filter Control Panel shall have the capability to communicate with the Plant SCADA system via a MODBUS TCP communication port. Any and all analog or discrete signals connection to the Disk Filter Control Panels shall be available to the Plant SCADA system via these communication ports.”

- 1.41 Change:** In Specification 11800, on page 11800-12, Paragraph 2.5.E., delete the paragraph in its entirety and replace with:

“D. Motor Starters shall be furnished and provided in the respective Filter Control Panels.”

- 1.42 Add:** In Specification 13470, on page 13470-7, Paragraph 2.1, add new paragraph 2.1.D. as follows:

“D. Model number of each component in the PLC System shall be as required per the latest Standards Established by Calcon and the District.”

- 1.43 Change:** In Specification 13475, on page 13475-1, Paragraph 1.1.A., delete “third party hired by the Contractor” and replace with “third party hired by the District.”

- 1.44 Change:** In Specification 13475, in CS-130, delete all instances of “Primary Effluent Knife Gate Valve (EQ-KVLV10-01)” and replace with “Primary Effluent Gate 5 (EQ-GAT5)”.

- 1.45 Change:** In Specification 13475, in CS-130, delete all instances of “Primary Effluent Return Knife Gate Valve (EQ-KVLV10-02)” and replace with “Primary Effluent Return Gate 4 (EQ-GAT4)”.

- 1.46 Add:** In Specification 13475, in CS-130, on page 13475-11, Paragraph C.1., add new Paragraph C.1.y. as follows:

“y. EQ Primary Effluent Gate 5 position switch: EQ-GAT5-ZS-01”

- 1.47 Add:** In Specification 13475, in CS-130, on page 13475-11, Paragraph C.1., add new Paragraph C.1.z. as follows:

“z. EQ Primary Effluent Return Gate 4 position switch: EQ-GAT4-ZS-01”

- 1.48 Add:** In Specification 13475, in CS-130, on page 13475-13, Paragraph D., add new Paragraph D.hh. as follows:

“hh. EQ Primary Effluent Gate 5 position indicator – OPEN/CLOSE”

- 1.49 Add:** In Specification 13475, in CS-130, on page 13475-13, Paragraph D., add new Paragraph D.ii. as follows:

“ii. EQ Primary Effluent Return Gate 4 position indicator – OPEN/CLOSE”

- 1.50 Change:** In Specification 13480, on page 13480-1, delete page 13480-1 in its entirety and replace with version as provided in Attachment No. 6.

- 1.51 Add:** In Specification 15250, on page 15250-1, Paragraph 1.1, add new paragraph 1.1.D. as follows:

“D. Gate materials shall be provided as listed in the Gate Schedule. No other materials will be considered.”

- 1.52 Change:** In Specification 15250, on pages 15250-15 and 16, in the Gate Schedule, in the “Material” column, delete all instances of “Fiberglass” and replace with “Fiberglass or Stainless Steel.”

DRAWINGS:

1.01 Sheet 7, Dwg No. G-6 PIPE SCHEDULE AND LEGENDS

Change: On Process Fluid Pipe Schedule, delete the Digester Gas row and replace with the following:

FLUID ABBREV	PROCESS FLUID	PIPE TYPE		PIPE TESTING		SPECIAL REQUIREMENTS
		BURIED	EXPOSED	PRESSURE (PSI)	FLUID	
DG	DIGESTER GAS	91	91	25	AIR	

1.02 Sheet 7, Dwg No. G-6 PIPE SCHEDULE AND LEGENDS

Add: On Process Fluid Pipe Schedule, add the following rows:

FLUID ABBREV	PROCESS FLUID	PIPE TYPE		PIPE TESTING		SPECIAL REQUIREMENTS
		BURIED	EXPOSED	PRESSURE (PSI)	FLUID	
EQR	EQUALIZATION BASIN RETURN	91,96	11,27,91,96	50	WATER	

EQS	EQUALIZATION BASIN SUPPLY	91,96	11,27,91,96	50	WATER	
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- 1.03 Sheet 47, Dwg No. C110-4 GEOTECHNICAL SOIL NAIL WALL DETAILS**
Change: In Detail 15, replace wall finish Options 1, 2, and 3 as shown on Attachment No. 7.
- 1.04 Sheet 96, Dwg. No. S030-1, VIEWING AREA**
Change: Delete Sheet 96, Dwg. No. S030-1 in its entirety and replace with version as provided in Attachment No. 7.
- 1.05 Sheet 97, Dwg. No. S100-1, EQ BASIN FOUNDATION PLAN EL 4.17**
Change: Delete note pointing to lower soil nail wall “F.O. SOIL NAIL WALL NOT BY EOR (NOTE 3)” and replace with “FACE OF SOIL NAIL WALL NOT BY STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 3).”
- 1.06 Sheet 98, Dwg. No. S100-2, HEADWORKS FOUNDATION PLAN EL 29.50**
Change: Delete note pointing to lower soil nail wall “F.O. SOIL NAIL WALL NOT BY EOR (NOTE 3)” and replace with “FACE OF SOIL NAIL WALL NOT BY STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 3).”
- 1.07 Sheet 103, Dwg. No. S100-3, HEADWORKS/EQ BASIN INTERMEDIATE PLAN EL 42.50**
Change: Delete note pointing to lower soil nail wall “F.O. SOIL NAIL WALL NOT BY EOR (NOTE 6)” and replace with “FACE OF SOIL NAIL WALL NOT BY STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 6).”
- 1.08 Sheet 103, Dwg. No. S100-7, HEADWORKS/EQ BASIN SECTIONS C & D**
Change: On Sections C and D, delete note to the left of the lower soil nail wall “SOIL NAIL WALL NOT BY EOR (NOTE 6)” and replace with “SOIL NAIL WALL NOT BY STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 6).”
- 1.09 Sheet 104, Dwg. No. S100-8, HEADWORKS/EQ BASIN SECTIONS E & F**
Change: On Sections E and F, delete note to the left of the lower soil nail wall “SOIL NAIL WALL NOT BY EOR (NOTE 6)” and replace with “SOIL NAIL WALL NOT BY STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 6).”
- 1.10 Sheet 105, Dwg. No. S100-9, HEADWORKS/EQ BASIN SECTIONS G & H**
Change: On Sections G and H, delete note to the left of the lower soil nail wall “SOIL NAIL WALL NOT BY EOR (NOTE 6)” and replace with “SOIL NAIL WALL NOT BY

STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 6).”

- 1.11 Sheet 106, Dwg. No. S100-10, HEADWORKS/EQ BASIN SECTIONS J & K**
Change: On Sections J and K, delete note to the left of the lower soil nail wall “SOIL NAIL WALL NOT BY EOR (NOTE 7)” and replace with “SOIL NAIL WALL NOT BY STRUCTURAL ENGINEER OF RECORD; SEE SHEET C110-2 FOR ADDITIONAL INFORMATION (NOTE 7).”
- 1.12 Sheet 108, Dwg. No. S200-1, PRIMARY CLARIFIER NO. 2 FOUNDATION AND TOP PLANS**
Change: Delete Sheet 108, Dwg. No. S200-1 in its entirety and replace with version as provided in Attachment No. 7.
- 1.13 Sheet 109, Dwg. No. S200-2, PRIMARY CLARIFIER NO. 2 SECTIONS AND DETAIL**
Change: Delete Sheet 109, Dwg. No. S200-2 in its entirety and replace with version as provided in Attachment No. 7.
- 1.14 Sheet 112, Dwg. No. S400-3, MISCELLANEOUS STAIRS**
Change: Delete Sheet 112, Dwg. No. S400-3 in its entirety and replace with version as provided in Attachment No. 7.
- 1.15 Sheet 125, Dwg No. M100-2 HEADWORKS AND EQ BASIN FOUNDATION PLAN**
Change: Delete phantom staircase located on top of existing Primary Clarifier #1.
- 1.16 Sheet 126, Dwg No. M100-3 HEADWORKS AND EQ BASIN LOWER PLAN EL 25.00**
Change: Delete phantom staircase located on top of existing Primary Clarifier #1.
- 1.17 Sheet 126, No. M100-3 HEADWORKS AND EQ BASIN LOWER PLAN EL 25.00**
Change: Move the 1” 3W line connection from the three o’clock position (south) on the grit concentrator, to the nine o’clock position (north). Contractor shall be responsible for modifying connecting piping to accommodate change.
- 1.18 Sheet 126, No. M100-3 HEADWORKS AND EQ BASIN LOWER PLAN EL 25.00**
Change: Move the 4” G line connection from the six o’clock position (west) on the grit concentrator, to the twelve o’clock position (east). Contractor shall be responsible for modifying connecting piping to accommodate change.
- 1.19 Sheet 127, Dwg No. M100-4 HEADWORKS AND EQ BASIN PLAN AT EL 43.00**
Change: Delete phantom staircase located on top of existing Primary Clarifier #1.
- 1.20 Sheet 128, Dwg No. M100-5 HEADWORKS AND EQ BASIN TOP PLAN**

Change: Delete phantom staircase located on top of existing Primary Clarifier #1.

- 1.21 Sheet 144, Dwg. No. M110-3 ILLUSTRATIVE ISOMETRIC VIEWS – 3**
Change: On “Primary Sludge/Scum Area,” delete note “2”3W” on right pointing to primary influent pipe, and replace with “20” PI”
- 1.22 Sheet 174, Dwg. No. E-10 CONTROL ONE-LINE DIAGRAMS, SHEET 1 OF 2**
Change: Delete Sheet 174, Dwg. No. E-10 in its entirety and replace with version as provided in Attachment No. 7.
- 1.23 Sheet 177, Dwg. No. E-13 SCADA PLC WIRING DIAGRAMS, PLC-HW-SHEET 2 OF 4**
Change: Delete Sheet 177, Dwg. No. E-13 in its entirety and replace with version as provided in Attachment No. 7.
- 1.24 Sheet 184, Dwg. No. E-18 CABLE AND CONDUIT SCHEDULE, SHEET 2 OF 3**
Change: Delete Sheet 184, Dwg. No. E-18 in its entirety and replace with version as provided in Attachment No. 7.
- 1.25 Sheet 192, Dwg. No. E-26 ELECT. SEQUENCE OF WORK AND TEMP. POWER DURING CONSTRUCTION**
Add: Add Sheet Note No. 6: “Isolate utility power and lockout prior to connections to rental generator.”
- 1.26 Sheet 203, Dwg. No. E100-3 HEADWORKS/GRIT & EQ BASIN TOP PLAN, POWER AND SIGNAL**
Change: Delete Sheet 203, Dwg. No. E100 in its entirety and replace with version as provided in Attachment No. 7.
- 1.27 Sheet 205, Dwg. No. E100-5 HEADWORKS/GRIT & EQ BASIN BOTTOM PLAN- POWER AND SIGNAL**
Change: At northeast corner of EQ Basin, delete “C113” and replace with “CC113.”
- 1.28 Sheet 207, Dwg. No. E100-7 ELECTRICAL ENLARGED PLAN, MCC ROOM – POWER, LIGHTING AND SIGNAL**
Change: At lighting fixture call out “D,” delete “2/57” and replace with “2/25.”
- 1.29 Sheet 219, Dwg. No. I100-4 P&ID EQUALIZATION INSTRUMENTATION**
Change: Delete Sheet 219, Dwg. No. I100-4 in its entirety and replace with version as provided in Attachment No. 7.

ATTACHMENTS:

1. Attachment No. 1: Section 09970 Shop Painting of Hot-Dipped Galvanized Steel
2. Attachment No. 2: Revised Bid
3. Attachment No. 3: Revised Specification 01025
4. Attachment No. 4: Revised Specification 03200
5. Attachment No. 5: Eutek HeadCell Grit Removal Unit Scope of Supply
6. Attachment No. 6: Revised Specification 13480 – PLC-HW IO List
7. Attachment No. 7
 - Revised Sheet 47, Dwg. No. C110-4 GEOTECHNICAL SOIL NAIL WALL DETAILS
 - Revised Sheet 96, Dwg. No. S030-1, VIEWING AREA
 - Revised Sheet 108, Dwg. No. S200-1 PRIMARY CLARIFIER NO. 2 FOUNDATION AND TOP PLANS
 - Revised Sheet 109, Dwg. No. S200-2, PRIMARY CLARIFIER NO. 2 SECTIONS AND DETAIL
 - Revised Sheet 112, Dwg. No. S400-3, MISCELLANEOUS STAIRS
 - Revised Sheet 174, Dwg. No. E-10 CONTROL ONE-LINE DIAGRAMS, SHEET 1 OF 2
 - Revised Sheet 177, Dwg. No. E-13 SCADA PLC WIRING DIAGRAMS, PLC-HW-SHEET 2 OF 4
 - Revised Sheet 184, Dwg. No. E-18 CABLE AND CONDUIT SCHEDULE, SHEET 2 OF 3
 - Revised Sheet 203, Dwg. No. E100-3 HEADWORKS/GRIT & EQ BASIN TOP PLAN, POWER AND SIGNAL
 - Revised Sheet 219, Dwg. No. I100-4 P&ID EQUALIZATION INSTRUMENTATION

This Addendum No. 1 shall become part of the Contract and all provisions of the Contract shall apply thereto.

SECTION 09970 – SHOP PAINTING OF HOT-DIPPED GALVANIZED STEEL

PART 1 GENERAL

1.1 THE REQUIREMENT

- A. Furnish all labor, materials, equipment and incidentals required to apply shop-applied paint on structural steel, miscellaneous and ornamental metal which is exposed to view and is hot-dipped galvanized; including requirements for substrate surface preparation and related activities, as shown on the Drawings and as specified herein.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 05120, Structural Steel
- B. Section 05500, Miscellaneous Metals
- C. Section 09960, Protective Coatings

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. ASTM International (ASTM):
 - 1. ASTM A123 – Standard Specification for Zinc (Hot-Dipped Galvanized) Coatings on Iron and Steel Products.
 - 2. ASTM A153 – Standard Specification Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 3. ASTM A384 – Standard Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
 - 4. ASTM A780 – Standard Practice for Repair of Damage and Uncoated Areas of Hot-Dipped Galvanized Coatings.
 - 5. ASTM B201 – Standard Practice for Testing Chromate Coatings of Zinc and Cadmium Surfaces.
 - 6. ASTM D6386 – Standard Practice for Preparation of Zinc (Hot-Dipped Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting.
 - 7. ASTM E376 – Standard Practice for Measuring Coat Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Examination Methods.
- B. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.4 SUBMITTALS

- A. Submit to the ENGINEER, in accordance with Division 1, the following information:

1. Samples – Submit two sets of color samples of factory-applied coatings proposed for use for review prior to coating applications.
2. Certificates:
 - a. Provide certification listing materials used in coating systems and certify compliance with standards designated.
 - b. Provide certification stating materials provided comply with requirements of this section.

1.5 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies – Provide and apply materials complying with environmental requirements of the State of California and the authority having jurisdiction.
- B. Mock-up Surface Areas – Sample item may be designated as control for color, texture, and application for each paint system with the accepted item used as criteria for similar items, which shall match accepted mock-ups.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver paint materials to galvanizer with label or product data sheet affixed to the manufacturer's containers showing manufacturer's name, type of paint, stock number, batch number, label analysis of solids and vehicle, reducing instructions, thinning instructions, drying and recoat time, application instructions with recommended methods, environmental restrictions, Safety Data Sheets, and Paint System Number assigned in Contract Documents.
- B. Store paint materials in an accepted location reserved only for such materials and related equipment in compliance with applicable health and fire regulations of authorities having jurisdiction.
- C. Any containers showing damage to the extent that spillage content is visible shall be rejected and removed permanently from site.

1.7 APPLICATION CONDITION

- A. Apply primer hot-dipped galvanizing within 12-hours after galvanizing in the galvanizers facility in accordance with specified requirements and recommendations of the galvanizer.
- B. The primer and top coat shall be applied in the following conditions unless manufactures recommendations are more stringent:
 1. Minimum air temperature shall be 65 degrees-Fahrenheit. Surface temperature of steel shall be 60-90 degrees-Fahrenheit, an in any event, be 50 degrees-Fahrenheit higher than the dew point. Humidity shall be 85% maximum.
 2. Surface steel shall be dry and free from dust, dirt, oil, grease, or other contaminants. Coating and cure facility shall be maintained free of airborne dust

and dirt until coatings are completely cured.

3. The primer shall be applied by way of plural component airless spray over a consistent surface profile, 1.5-mil minimum. The profile shall be measured and permanently recorded, with Test-Ex tape.
 4. The use of iron or steel shot and sand and aluminum oxide grit as blast medium, and power wire brushes are not permitted.
- C. The galvanizer/galvanizing facility shall have a dedicated, on-premise painting and curing facility for the exclusive use of coating galvanized steel. Said facility shall utilize the following:
1. Recording hygrometer to measure air-temperature and humidity.
 2. A spray booth conforming to OSHA regulations with filtered exhaust.
 3. A convection hot air curing system with solvent vapor removal ability.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. The use of manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.

2.2 HOT-DIPPED GALVANIZING

- A. Provide coating for iron and steel fabrications applied by the hot-dip process. Comply with ASTM A123 for fabricated products and ASTM A153 for hardware. Provide thickness of galvanizing specified in referenced standards.

2.3 FACTORY APPLIED PRIMER OVER HOT-DIPPED GALVANIZING

- A. Provide factory-applied polyamide epoxy primer, 3.0 mils dry film thickness minimum. Apply primer within 12-hours after galvanizing at the galvanizer's facility in a controlled environment meeting applicable environmental regulations and as recommended by the coating manufacturer.
- B. Engage the services of a galvanizer who has demonstrated a minimum of five years experience in the successful performance of the process outlined in this Section in the facility where the work is to be done. And who will apply the galvanizing and coating within the same facility as outlined herein.

PART 3 EXECUTION

3.1 APPLICATION OF GALVANIZING AND METAL COATINGS

- A. Galvanize materials in accordance with referenced standards and this Section.
- B. Galvanizing shall provide an acceptable substrate for applied coatings.

- C. The dry kettle process shall be used to eliminate any flux inclusions on the surface of the galvanized materials. Prior to galvanizing, the steel shall be immersed in a pre-flux solution (zinc ammonium chloride). Use of the wet kettle process shall not be permitted.
- D. To provide the galvanizing surface required, the following procedures, at a minimum, shall be implemented:
 - 1. A monitoring recorder shall be utilized and inspected regularly to observe any variances in the galvanizing bath temperature.
 - 2. The pickling tanks shall contain hydrochloric acid with a constant range between 10-14%, iron content less than 8%, and zinc content less than 3%. Titrations shall be taken weekly at a minimum.
 - 3. Rinse tanks, for the removal of cleaning chemicals, shall contain water.
 - 4. Water quenching or chromate conversion coating of galvanized steel shall be prohibited.
- E. The primer and topcoat material shall be certified VOC compliant and conform to all environmental and EPA requirements.
 - 1. The primer shall be a high solid polyamide epoxy applied to a DFT of 3 mils minimum.
 - 2. The topcoat shall be a color pigmented, two-component high build aliphatic polyurethane applied to a DFT of 3 mils minimum.

3.2 QUALITY CONTROL

- A. Inspection:
 - 1. Measure representative areas for DFT.
 - 2. If thickness of coating does not comply with DFT requirements, apply additional applications of coating to attain specified DFT at no additional cost to DISTRICT.
 - 3. Where characteristics of coating prohibit recoating, remove and replace unacceptable coating(s) at no additional cost to the DISTRICT.
 - 4. Where application of coating exceeds DFT and is considered detrimental to quality of the Project, in the opinion of the ENGINEER, remove and recoat to specified DFT at no additional cost to the DISTRICT.
 - 5. Where measurement of DFT is impractical or impossible, determine the amount of coating necessary from manufacturer's published spreading rate calculate to specified DFT.
 - 6. The manufacturer's stock and batch number will be compared with the assigned Paint System Number with color sample submitted for finished surfaces, and with mock-up for finished surfaces in accordance with the requirements of this Section.

- B. Installation – Comply with fabricator’s and galvanizer’s requirements for installation of materials and fabrications, including use of nylon slings or padded cables for handling factory or factory-finished materials.
- C. Touch-up and Repair – For damaged and field welded metal coated surfaces, clean welds, bolted connections and abraded surfaces. The maximum area to be repaired shall be in accordance with ASTM A123.
 - 1. At galvanizing surfaces, apply organic zinc repair paint complying with requirements of ASTM A780. Galvanizing repair paint shall have 95 percent zinc by weight. Thickness of applied galvanizing repair paint shall be not less than coating thickness required by ASTM A123 or A153 as applicable. Touch-up galvanizing surfaces with aerosol spray, silver paint, bright paint, brite paint, or aluminum paints is prohibited.
 - 2. At factory-primed or factory-finished surfaces, touch-up finish in conformance with manufacturer’s recommendations. Provide touch-up such that repair is not visible from a distance of six-feet.
 - 3. The galvanizer/galvanizing facility shall have an ongoing touch-up and repair program acceptable to the ENGINEER, which has been in effect for a minimum of five years.
 - 4. A touch up repair kit shall be provided with each order.

END OF SECTION

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ATTACHMENT NO. 2

Sausalito-Marín City Sanitary District
Marin County, California

BID

For the Construction of the

TREATMENT AND WET WEATHER FLOW UPGRADE PROJECT

To the Honorable Board of Directors
Sausalito-Marín City Sanitary District
#1 East Road
Sausalito, CA 94965

Directors:

The undersigned, as bidder, declares that he/she has carefully examined the Notice Inviting Sealed Bids, Instructions to Bidders, Specifications and Plans, as well as the site and conditions affecting the work, and the bidder proposes and agrees that if this bid is accepted, he/she will contract with the Sausalito-Marín City Sanitary District to provide all necessary machinery, tools, labor and apparatus for construction and do all the work and furnish all the materials called for by the Contract Documents in the manner and time therein set forth required for the construction of the District project, complete and in operating condition.

Construction shall be in strict accordance with the Contract Documents, prepared therefore and adopted by the District Board, which Contract Documents are hereby made a part hereof.

The bidder proposes and agrees to contract with said District to furnish and perform all of the described work, including subsidiary obligations as defined in said Contract Documents, for the following prices, which include all applicable sales taxes, to-wit:

Item Number	Quantity	Unit	Description	Bid
1.	1	Lump Sum	Mobilization/Demobilization (maximum of 10% of total bid amount)	
2.	1	Lump Sum	Sheeting, Shoring, and Bracing for the Project including but not limited to that as required by Sections 6700-6708 of the Labor Code:	
3.	1	Lump Sum	12kV Service Relocation	
4.*	7,236	CY	Off-Haul of Unsuitable Material	

Sausalito-Marín City Sanitary District
Treatment and Wet Weather Flow Upgrade
Bid

5.*	804	CY	Off-Haul of Material for Reuse within the GGNRA	
6.	1	Lump Sum	Soil Nail Retaining Walls (Upper, Lower, and Admin)	
7.	1	Lump Sum	Lining of Headworks, Equalization, and Primary Structures	
8.	1	Lump Sum	Eutek HeadCell Grit Removal Unit (Equipment Only)	\$126,000
9.	1	Lump Sum	Complete the Work in accordance with the Contract Documents to install the Eutek HeadCell Grit Removal Unit	
10.	1	Lump Sum	Primary Clarifier	
11.	1	Lump Sum	Secondary Polishing Disk Filters	
12.	1	Lump Sum	Relocation of the 8-inch diameter Fort Baker Sewer	
13.*	1,000	Linear Feet	Allowance for demolition of unknown pipelines, 6-inch nominal diameter and smaller.	
14.*	3,705	CY	Excavation of hard rock	
15.*	3,705	CY	All other excavation not covered or included in Bid Item 14	
16.	1	Lump Sum	Complete the Work in accordance with the Contract Documents, except for the individual bid items listed above	
Optional Bid Items				
17.	1	Lump Sum	Temporary secondary effluent filtration	
18.	250	Linear Feet	Concrete crack repair on the interior of surface of both fixed film reactor structures.	
19.	1,200	Square Feet	Concrete surface repair on the interior of surface of both fixed film reactor structures.	
20.	1	Lump Sum	Coat the interior concrete surface of both fixed film reactors.	
TOTAL BASE BID		All work incidental thereto and connected therewith for Bid Items 1 through 20: \$ _____		

*** Because of insufficient information available at the time of final design, these bid items are not subject to any quantity guarantee as outlined in Section 9 of Instructions to Bidders.**

Contractor shall place his initials next to this statement to ensure bidder's understanding of this statement. (Initials Here)

Sausalito-Marin City Sanitary District
Treatment and Wet Weather Flow Upgrade
Bid

In submitting this bid, it is understood by the bidder that the right is reserved by the District to reject any and all bids and to waive any irregularities or informalities in any bid or in the bidding.

The undersigned acknowledges that bidder is skilled and experienced in the use and interpretation of plans and specifications and has carefully reviewed the plans and specifications for this project and has found them free of ambiguities and sufficient for bid purposes. Further, bidder has carefully examined the site of the work and, from his/her own observations, is satisfied as to the nature and location of the work, the character, quality and quantity of materials, and the difficulties likely to be encountered, and other items which may affect the performance of the work. The bid is based solely on these documents and observations and has not relied in any way on any explanation or interpretation, oral or written, from any other source.

The undersigned has checked carefully all the above figures and understands that the District will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

It is understood and agreed that the undersigned will complete the work of the contract within the time provided for in the Contract Documents and Specifications governing said work, and that liquidated damages shall apply as specified.

The undersigned bidder agrees that if notified of the acceptance of this bid within ninety (90) days of the time set for opening of bids, bidder will execute the contract for the above work and for the above-stated compensation, will furnish satisfactory bonds in the sum specified guaranteeing faithful performance and payment of bills, and will complete the work within the time provided for in the Contract Documents and Specifications covering the work.

The undersigned hereby certifies that this bid is genuine and not sham or collusive or made in the interest or in behalf of any persons not herein named and that the undersigned has not directly or indirectly induced or solicited any other bidder to put in a sham bid or any other person, firm, or corporation to refrain from bidding and that the undersigned has not in any manner sought by collusion to secure for himself/herself an advantage over any other bidder.

Accompanying this bid is cash, a bid bond, certified check or cashier's check, payable to or in favor of the Sausalito-Marín City Sanitary District, which it is agreed (pursuant to the Instructions to Bidders) shall be forfeited to the District if the undersigned fails to execute a contract for the performance of this work embraced by this bid and to furnish the necessary bonds specified within ten (10) days after notification of the award to the undersigned.

Sausalito-Marín City Sanitary District
Treatment and Wet Weather Flow Upgrade
Bid

In accordance with Section 7028.15 of the Business and Professions Code, it is a misdemeanor for any person to submit a bid to a public agency without having a Contractor's License. The Sausalito-Marín City Sanitary District will verify that the Contractor is properly licensed before awarding the contract.

The undersigned Contractor is aware of the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and will comply with such provisions before commencing performance of the work of this contract.

Addenda Acknowledged

I hereby acknowledge receipt of the following addenda:

Addendum No. 1 _____ Addendum No. 2 _____ Addendum No. 3 _____

SIGNATURES

PRIME CONTRACTING FIRM ORGANIZATION

Type of Organization:

Corporation

Partnership

Individual

Names of individual members of the firm:

Name of Corporation President:

Name of Corporation Secretary:

Corporation is organized under the laws of the State of

FIRM:

BY:

Signature

()

(Corporate
Seal)

()

ADDRESS:

CITY:

TELEPHONE:

FAX:

CONTRACTOR'S LICENSE NO:

EXPIRATION DATE:

Sausalito-Marín City Sanitary District
Treatment and Wet Weather Flow Upgrade
Bid

Note: If Bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If bidder is a co-partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnership; and if Bidder is an individual, his/her signature shall be placed above. If signature is an agent, other than an officer of a corporation or a member of a partnership, a Power of Attorney must be on file with the District prior to opening of Bids or submitted with the Bid; otherwise, the Bid will be disregarded as irregular and unauthorized.

SECTION 01025**MEASUREMENT AND PAYMENT****PART 1 GENERAL****1.01 ADMINISTRATIVE SUBMITTALS**

- A. Schedule of Values: Submit schedule on a form acceptable to the Construction Manager.
- B. Schedule of Estimated Progress Payments:
 - 1. Submit with initially acceptable schedule of values.
 - 2. Submit adjustments thereto upon request by the Construction Manager.
- C. Application for Payment: In accordance with Paragraph 9.2 of the General Conditions and as specified herein.
 - 1. Final Application for Payment: As specified in Paragraph 9.2.5 of the General Conditions and as specified herein.

1.02 SCHEDULE OF VALUES

- A. Reference Section 01301, Schedule of Values.
- B. Format:
 - 1. Reflect schedule of values format included in original schedule of values, specified allowances, and alternates. Provide separate value for each item or task on the progress schedule. List each item of equipment separately.
 - 2. An unbalanced or front-end loaded schedule will not be acceptable.
 - 3. List separately such items as Bonds and insurance premiums, mobilization, demobilization and contract closeout, facility startup, and other appropriate Division 1 activities.
 - 4. Include proportional amount of Contractor's overhead and profit in each line item.
 - 5. List separately an item for monthly schedule update.

1.03 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times and aggregating initial Contract Price.
- B. Base estimated progress payments on initially acceptable progress schedule. Adjust to reflect subsequent adjustments in progress schedule and Contract Price as reflected by modifications to the Contract Documents.
- C. Submit adjusted payment schedule with each Application for Payment.

1.04 APPLICATION FOR PAYMENT

- A. Reference Paragraph 9 of the General Conditions.
- B. Transmittal Summary Form:
 - 1. Provided by Construction Manager.
 - 2. Attach one Summary Form with each detailed Application for Payment for each schedule.
 - 3. Include Request for Payment of Materials and Equipment on Hand as applicable.
 - 4. Execute certification by authorized officer of Contractor.
- C. Use detailed Application for Payment Form suitable to Construction Manager.
 - 1. Provide separate form for each schedule as applicable.
 - 2. Include accepted schedule of values for each schedule or portion of Work, the unit price breakdown for Work to be paid on unit price basis, a listing of Owner-selected equipment, if applicable, and allowances, as appropriate.
 - 3. Form(s) to conform to the examples furnished by Construction Manager for Lump Sum Work and materials on hand.
- D. Preparation:
 - 1. Round values to nearest dollar.
 - 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Summary Sheet for each schedule as applicable.
 - 3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form, a listing of materials on hand, and such supporting data as may be requested by Construction Manager.

1.05 MEASUREMENT-GENERAL

- A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.

1.06 PAYMENT

- A. General: See General Conditions, Paragraph 9.2.
- B. Payment for all Work shown or specified in the Contract Documents is included in the Contract Price. No measurement or payment will be made for individual items.

1.07 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
 - 1. Loading, hauling, and disposing of rejected material.
 - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.

3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
4. Material not unloaded from transporting vehicle.
5. *Defective* Work not accepted by Owner.
6. Material remaining on hand after completion of Work.

1.08 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: Reference Paragraph 9.2 of the General Conditions. No partial payments will be made for mechanical, electrical, or interface equipment delivered or stored unless acceptable draft operation and maintenance manuals are delivered to Construction Manager.
- B. Final Payment: Reference Paragraph 9.2.5 of the General Conditions. Final Payment will be made only for materials incorporated in Work; remaining materials, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

1.09 FINAL APPLICATION FOR PAYMENT

- A. Reference Paragraph 9.2.5 of the General Conditions, Section 01700, Contract Closeout, and as may otherwise be required in Contract Documents.
- B. Prior to submitting final application, make acceptable delivery of all required documents, including, but not limited to final O&M Manuals, warranty forms, manufacturer's certificates, etc.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. Treatment and Wet Weather Flow Upgrade Project:
 1. Measurement for payment of work. The work includes furnishing all labor, materials and equipment for the TREATMENT AND WET WEATHER FLOW UPGRADE including but not limited to; 1) demolition of select existing facilities; 2) civil/earthwork, including soil nail retaining walls, for a new access road and process structures; 3) yard and plant utility piping, including re-routing of the Main Street and Fort Baker influent sewers; 4) relocation of the existing 12kV electrical service and new switchgear 5) new equalization storage tank and headworks structure, including all associated equipment; 6) new primary clarifier; 7) rehabilitation of the fixed film reactors, including new feed pumps and media replacement; 8) new secondary polishing disk filters including filter feed pumps; and appurtenant work as needed to construct a complete and operational project as specified in these Contract Documents.

2. BID ITEM 1. Mobilization/Demobilization – Lump Sum: Includes preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site, for the establishment of all offices, buildings and other facilities necessary for work, on the project, and for all other work and operations which must be performed or cost incurred prior to beginning work on the (Pub Cont Code § 10104) and demobilization from the project site. Mobilization/Demobilization may not exceed 10% of the Contractor's total bid amount. Payment for mobilization and demobilization will be made at the bid price in the Bid Schedule under Bid Item 1, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
3. BID ITEM 2: Sheeting, Shoring, and Bracing- Lump Sum: Includes all payment for planning, design, engineering, furnishing, construction and the removal and disposal of all temporary sheeting, shoring, and bracing as required but not limited to the provisions of any permits, and in accordance with the requirements of OSHA and the Construction Safety Orders of the State of California, pursuant to the provisions of Section 6700 through 6708 of the California Labor Code. Payment for sheeting, shoring and bracing will be made at the bid price in the Bid Schedule under Bid Item 2, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
4. BID ITEM 3: 12kV Service Relocation – Lump Sum: Includes payment for all work to relocate the District's existing 12kV service feed from PG&E and the District's Main Service Panel based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Contractor shall provide all facilities require for the 12kV service relocation, except for pulling of the 12kV wires and final termination which will be performed by PG&E. Contractor shall include time required to coordinate with PG&E for final termination. Payment for 12kV service relocation will be made at the bid price in the Bid Schedule under Bid Item 3, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
5. BID ITEM 4: Off-Haul of Unsuitable Material – Unit Price: Includes payment for work associated with the off-haul of unsuitable material based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. The Construction Manager will establish in the field the unsuitable material, and such material may include but is not necessarily limited to bay mud, stripped top soil, stripped soil, or over-excavated soils. The unsuitable material for this bid item does not include demolition debris such as concrete, paving, pipe, wood, trees, bushes, and other materials identified in the Contact Documents for demolition. The unsuitable material for this bid item shall be off hauled to an appropriate disposal site. Payment for off-haul shall be by unit of measure cubic yard (CY) from the log at the disposal site, to the nearest cubic yard, which price named on the Bid Schedule under Item No. 4 shall constitute full compensation for completion of all such Work as required per the Contract Documents.

6. BID ITEM 5: Off-Haul of Material for Reuse within the GGNRA- Unit Price: Includes payment for work associated with the off-haul of material for reuse within the GGNRA based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. The Construction Manager will establish in the field the material for reuse, and such material may include but is not necessarily limited to chert and other earth materials. Off-haul of material for reuse shall be performed in accordance with the requirement of Section 01014 Protection of the Environment. Payment for off-haul shall be by unit of measure cubic yard (CY) from the log at the GGNRA storage site, to the nearest cubic yard, which price named on the Bid Schedule under Item No. 5 shall constitute full compensation for completion of all such Work as required per the Contract Documents.
7. BID ITEM 6: Soil Nail Retaining Walls (Upper, Lower, and Admin) – Lump Sum: Includes payment for work associated with the construction of the upper, lower, and Admin soil nail walls based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Work under this bid item does not include demolition, exaction or off-haul required prior to constructing the soil nail retaining walls. Payment for the soil nail retaining wall will be made at the bid price in the Bid Schedule under Bid Item 6, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
8. BID ITEM 7: Lining of Headworks, Equalization, and Primary Structures – Lump Sum: Includes payment for work associated with the lining of the headworks, equalization and primary structures based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Payment for the lining will be made at the bid price in the Bid Schedule under Bid Item 7, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
9. BID ITEM 8: Eutek HeadCell Grit Removal Unit (Equipment Only) – Lump Sum: Includes payment for one, 9-foot, 12-tray Eutek HeadCell Grit Removal unit, appurtenances, two-year warranty, and freight to jobsite including the preparation of submittals and manufacturer support and training in accordance with the requirements included in the Contract Documents. Payment for the Eutek HeadCell Grit Removal Unit will be made at the bid price in the Bid Schedule under Bid Item 8, which price shall constitute full compensation for supply of this item. See Specification 11320, Part 4 – Scope of Supply and Vendor Quote for further information.
10. BID ITEM 9: All Other Work to Install Eutek HeadCell Grit Removal Unit – Lump Sum: Includes payment for all work associated with the installation and commissioning of the Eutek HeadCell Grit Removal unit based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Work under this bid item does not include supply of Eutek HeadCell Grit Removal equipment. Payment for installation and commissioning of Eutek HeadCell Grit Removal unit will be

made at the bid price in the Bid Schedule under Bid Item 9, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.

11. BID ITEM 10: Primary Clarifier – Lump Sum: Includes payment for work associated with primary clarifier, including tank, mechanism, grating, handrails, cover, and sludge and scum pumps, based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Payment for the primary clarifier will be made at the bid price in the Bid Schedule under Bid Item 10, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
12. BID ITEM 11: Secondary Polishing Disk Filters – Lump Sum: Includes payment for work associated with secondary polishing disk filters, including filter feed pumps, filter equipment, tanks, grating, and handrails based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Payment for the disk filters will be made at the bid price in the Bid Schedule under Bid Item 11, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
13. BID ITEM 12: Relocation of the 8-inch diameter Fort Baker Sewer – Lump Sum: Includes payment for work associated with the relocation of the Fort Baker Sewer from the existing Fort Baker Sewer connection to, including rehabilitating the existing manhole on the west side of East Road and installation of the new manhole on the east side of East Road, based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Payment for the relocation of the Fort Baker Sewer will be made at the bid price in the Bid Schedule under Bid Item 12, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
14. BID ITEM 13: Bid allowance for to pay for demolition of unknown pipelines, 6-inch nominal diameter and smaller – Unit Price: Includes payment for work associated with the demolition of buried or exposed unknown pipelines based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. The Construction Manager will establish and determine in the field the identification of unknown pipelines as well as length of pipeline to be demolished. Payment for demolition of unknown pipelines shall be by unit of measure linear feet (LF), to the nearest linear foot, which price named on the Bid Schedule under Item No. 13 and shall be charged against the allowance shown in the Bid Schedule. At the completion of the work, and prior to final acceptance, any monies remaining unexpended in the allowance shall be deducted from the total Contract Price by change order and shall constitute full compensation for completion of all such Work as required per the Contract Documents.
15. BID ITEM 14: Excavation of hard rock- Unit Price: Includes payment for work associated with the excavation of hard rock based upon all labor, equipment and

materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Any rock conditions encountered to be claimed as hard rock need to be observed and approved in the field by the Engineer prior to being accepted as hard rock. Payment for excavation of hard rock shall be by unit of measure cubic yard (CY), to the nearest cubic yard, which price named on the Bid Schedule under Item No. 14 shall constitute full compensation for completion of all such Work as required per the Contract Documents. The unit rates established in the schedule of Bid Items will be used for payment of all hard rock excavation, regardless of actual final excavation volume.

16. BID ITEM 15: Other Excavation- Unit Price: Includes payment for work associated with all other excavation not covered or included in Bid Item 14 upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Payment for other excavation shall be by unit of measure cubic yard (CY), to the nearest cubic yard, which price named on the Bid Schedule under Item No. 15 shall constitute full compensation for completion of all such Work as required per the Contract Documents. The unit rates established in the schedule of Bid Items will be used for payment of all other excavation, regardless of actual final excavation volume.
17. BID ITEM 16: All Other Work- Lump Sum: Includes payment for all work required under the Contract except for work specifically being provided under Bid items 1 through 15. This item shall constitute full compensation for all such work as required per the Contract Documents. Payment for “all other work” will be made at the bid price in the Bid Schedule under Bid Item 16, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
18. OPTIONAL BID ITEM 17: Temporary Secondary Effluent Filtration – Lump Sum: As an optional work item and at the District’s sole discretion, includes payment for work associated with temporary secondary effluent filtration facilities based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Payment for the temporary secondary effluent filtration will be made at the bid price in the Bid Schedule under Bid Item 17, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.
19. OPTIONAL BID ITEM 18: Concrete crack repair on the interior of surface of the fixed film reactor structures – Unit Price: Includes payment for work associated with the concrete crack repair within the fixed film reactor structure based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Concrete crack repair shall be performed in accordance with Section 03740. As an optional work item and at the District’s sole discretion, the Construction Manager will establish in the field, the cracks to be repaired. The cost of such work shall be charged based on the unit price shown in the Bid Schedule. At the completion of the work, and prior to final acceptance, any monies remaining

unexpended in Bid Item 18 shall be deducted from the total Contract Price by change order.

20. OPTIONAL BID ITEM 19: Concrete surface repair on the interior of surface of both fixed film reactor structures – Unit Price: Includes payment for work associated with the concrete surface repair within the fixed film reactor structure based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. Concrete surface repair shall be performed in accordance with Section 09960. As an optional work item and at the District's sole discretion, the Construction Manager will establish in the field, the areas on the concrete surface to be repaired. The cost of such work shall be charged based on the unit price shown in the Bid Schedule. At the completion of the work, and prior to final acceptance, any monies remaining unexpended in Bid Item 19 shall be deducted from the total Contract Price by change order.
21. OPTIONAL BID ITEM 20: Coat the interior concrete surface of both fixed film reactors – Lump Sum: Includes payment for work associated with coating the concrete surface within the fixed film reactor structure including the center column and floor, based upon all labor, equipment and materials necessary to complete all the work in accordance with the requirements included in the Contract Documents. The total estimated combined interior area of the fixed film reactors is 12,000 square feet. Concrete coating shall be performed in accordance with Section 09960, Paragraph 2.2V. As an optional work item and at the District's sole discretion, the Construction Manager may direct the Contractor to coat interiors of the fixed film reactors. Payment for coating the fixed film reactors will be made at the bid price in the Bid Schedule under Optional Bid Item 20, which price shall constitute full compensation for completion of all such work as required per the Contract Documents.

3.02 ADJUSTMENT OF QUANTITY AND PAYMENT AMOUNT

- A. The quantities shown in the bid schedule are for bid purposes only. Additive or deductive quantities of the work will be adjusted by the Owner. For lump sum items, payment for quantity adjustments will be based on unit price breakdowns provided with the Schedule of Values. Final amount of payment will be adjusted based on actual quantity of work installed multiplied by the bid price for each bid item, or based on the unit price breakdowns provided with the Schedule of Values.

END OF SECTION 01025

* * * * *

SECTION 03200– CONCRETE REINFORCEMENT

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Furnish all labor, materials, equipment and incidentals required and install all concrete reinforcement complete as shown on the Drawings and as specified herein.

1.2 RELATED WORK

- A. Related Work Specified Elsewhere:
 - 1. Section 03100, Concrete Formwork.
 - 2. Section 03150, Concrete Joints and Joint Accessories.
 - 3. Section 03300, Cast-in-Place Concrete.
 - 4. Section 03600, Grout.
 - 5. Section 03740, Modifications and Repair to Concrete.

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Federal Specifications.
 - 1. QQ-W-461H - Wire, Steel, and Carbon (round, bare and coated).
- B. American Concrete Institute (ACI)
 - 1. ACI 301 - Specifications for Structural Concrete.
 - 2. ACI 315 - Details and Detailing of Concrete Reinforcement.
 - 3. ACI 318 - Building Code Requirements for Structural Concrete.
 - 4. ACI SP-66 - ACI Detailing Manual.
- C. ASTM International (ASTM)
 - 1. ASTM A82 – Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
 - 2. ASTM A185 - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
 - 3. ASTM A615 - Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement.

4. ASTM A706 - Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.

D. American Welding Society (AWS)

1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.

E. Concrete Reinforcing Steel Institute (CRSI)

1. CRSI - Manual of Standard Practice.

- F. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.4 SUBMITTALS

- A. Reinforcing Steel – Submit to the ENGINEER, in accordance with Division 1, placement drawings conforming to the recommendations of ACI 315. All reinforcement in a concrete placement shall be included in a single placement drawing or cross-referenced to the pertinent main placement drawing. The main drawing shall include the additional reinforcement (around openings, at corners, etc.) shown on the standard details sheets. Bars to have special coatings and/or to be of special steel or special yield strength are to be clearly identified.

- B. Bar Bending Details – The bars shall be referenced to the same identification marks shown on the placement drawings. Bars to have special coatings and/or to be of special steel or special yield strength shall be clearly identified.

- C. Mechanical Connectors – Submit two samples of each type of mechanical reinforcing steel connectors.

- D. Test Reports – Submit test reports for each of the following items:

1. Certified copy of mill test on each steel proposed for use showing the physical properties of the steel and the chemical analysis.
2. Certified copy of test reports for each foreign manufactured steel proposed for use in the fabrication of reinforcement. The tests shall be specifically made for this project at the expense of the CONTRACTOR by a domestic independent testing laboratory certified to perform the tests. The testing shall be for conformity to the applicable ASTM standard(s).
3. Certified copy of welding test reports for rebar cages fabricated using Schnell IDEA Machine.
4. Welder certification. The certification shall be in accordance with AWS D1.4 when welding of reinforcement is required.

1.5 QUALITY ASSURANCE

- A. In no case shall any reinforcing steel be covered with concrete until the installation of the reinforcement, including the size, spacing, and position of the reinforcement has

been observed by the ENGINEER and the ENGINEER's release to proceed with concreting has been obtained. The ENGINEER shall be given ample prior notice of the readiness of placed reinforcement for observation. The forms shall be kept open until the ENGINEER has completed their observations of the reinforcing steel.

1.6 DELIVERY, HANDLING AND STORAGE

- A. Reinforcing steel shall be substantially free from mill scale, rust, dirt, grease, or other foreign matter.
- B. Reinforcing steel shall be shipped and stored with bars of the same size and shape, fastened in bundles with durable tags, marked in a legible manner with waterproof markings showing the same "mark" designations as those shown on the submitted Placement Drawings.
- C. Reinforcing steel shall be stored off the ground, protected from moisture and kept free from dirt, oil, or other injurious contaminants.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. The use of a manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configurations desired.

2.2 MATERIALS

- A. Materials shall be new and shall comply with the following material specifications:
- B. Deformed Concrete Reinforcing Bars – ASTM A615, Grade 60 deformed bars.
- C. Concrete Reinforcing Bars required on the Drawings to be Field Bent or Welded – ASTM A706, Grade 60 deformed bars.
- D. The following alternative materials are allowed:
 - 1. ASTM A615, Grade 60 may be used for ASTM A706 provided the following requirements are satisfied:
 - a. The actual yield strength of the reinforcing steel based on mill tests shall not exceed the specified yield strength by more than 18,000 psi. Retests shall not exceed this value by more than an additional 3,000 psi.
 - b. The ratio of the actual ultimate tensile strength to the actual tensile yield strength of the reinforcement shall not be less than 1.25.
 - c. The carbon equivalency (CE) of the bars shall be 0.55 or less.
- E. Reinforcing Steel Accessories:
 - 1. Plastic Protected Bar Supports – CRSI Bar Support Specifications, Class 1 – Maximum Protection.

2. Stainless Steel Protected Bar Supports – CRSI Bar Support Specifications, Class 2 – Moderate Protection.
3. Precast Concrete Block Bar Supports (Dobies): CRSI Bar Support Specifications, Precast Block. Block shall have equal or greater compressive strength than the surrounding concrete.

F. Tie Wire:

1. Tie Wires for Reinforcement shall be 16-gauge or heavier, black annealed wire, conforming to Federal Specification QQ-W-461H.

G. Mechanical reinforcing steel butt splices shall be positive connecting taper threaded type employing a hexagonal coupler such as Lenton rebar splices as manufactured by Erico Products, Inc., Solon, OH or equal. They shall meet all ACI 318 Building Code requirements. Bar ends must be taper threaded with coupler manufacturer's bar threader to ensure proper taper and thread engagement. Bar couplers shall be torqued to manufacturer's recommended value.

1. Unless otherwise noted on the Drawings, mechanical tension splices shall be designed to produce splice strength in tension or compression of not less than 125 percent of the ASTM specified minimum yield strength of the rebar.
2. Compression type mechanical splices shall provide concentric bearing from one bar to the other and shall be capable of developing the ultimate strength of the rebar in compression.

H. Fibrous Reinforcement – The fibers shall be 100 percent virgin homopolymer polypropylene fibrillated fibers, containing no reprocessed olefin materials, manufactured in accordance with applicable building codes and ASTM C116, Type II. Fibrous concrete reinforcement shall be Fibermesh 300, as manufactured by Propex Concrete Systems Corporation, Chattanooga, TN; or approved equal.

1. Acceptable polypropylene fibers shall possess the following characteristics:
 - a. Specific Gravity: 0.91
 - b. Tensile Strength: 80-100 ksi
 - c. Fiber Length: Grade per Manufacturer

2.3 FABRICATION

- A. Fabrication of reinforcement shall be in compliance with the CRSI Manual of Standard Practice.
- B. Bars shall be cold bent. Bars shall not be straightened or re-bent.
- C. Bars shall be bent around a revolving collar having a diameter of not less than that recommended by ACI 318.

- D. Bar ends that are to be butt-spliced, placed through diameter holes in metal, or threaded, shall have the applicable end(s) saw-cut. Such ends shall terminate in flat surfaces within 1½-degrees of a right angle to the axis of the bar.
- E. Schnell IDEA Machine- CONTRACTOR may fabricate rebar cage for beams using the Schnell IDEA Machine, with the following provisions:
 - 1. Fabrication of pre-assembled steel cages shall be in the shop of a fabricator licensed to use the Schnell IDEA Machine and with an in-house quality assurance program;
 - 2. Shipping of pre-assembled steel cages to the project site will include a copy of the rebar certificate from the mill and a copy of the welding test report from an approved third party test lab, engaged by and at the expense of the CONTRACTOR. The welding test is for the purpose of providing assurances that the rebar was not damaged during the welding operations; and
- F. Rebar to be welded shall comply with ASTM A706, Grade 60

PART 3 EXECUTION

3.1 INSTALLATION

- A. Surface condition, bending, spacing, and tolerances of placement of reinforcement shall comply with CRSI Manual of Standard Practice. The CONTRACTOR shall be solely responsible for providing an adequate number of bars and maintaining the spacing and clearances shown on the Drawings.
- B. Except as otherwise noted on the Drawings, the minimum concrete cover for reinforcement shall be as follows:
 - 1. Concrete cast against and permanently exposed to earth: 3-inches.
 - 2. Concrete exposed to soil, water, sewage, sludge and/or weather (including bottom cover of slabs over water or sewage): 2-inches.
 - 3. Concrete not exposed to soil, water, sewage, sludge and/or weather:
 - a. Slabs (top and bottom cover), walls, joists, shells and folded plate members – 1½-inch.
 - b. Beams: Primary reinforcement – 2-inch.
 - c. Ties, spirals and stirrups – 1-1/2-inch.
- C. Reinforcement, which will be exposed for a considerable length of time after being placed, shall be coated with a heavy coat of neat cement slurry.
- D. No reinforcing steel bars shall be welded either during fabrication or erection unless specifically shown on the Drawings or specified herein, or unless prior written approval has been obtained from the ENGINEER. All bars that have been welded, including tack

welds, without such approval shall be immediately removed from the work. If welding of reinforcement is approved or specifically called for, it shall comply with AWS D1.4.

- E. Reinforcing steel interfering with the location of other reinforcing steel, conduits or embedded items, may be moved within the specified tolerances or one bar diameter, whichever is greater. Greater displacements of bars to avoid interference shall only be made with the approval of the ENGINEER. Do not cut reinforcement to install inserts, conduits, mechanical openings or other items without the prior approval of the ENGINEER.
- F. Securely support and tie reinforcing steel to prevent movement during concrete placement. Secure dowels in place before placing concrete.
- G. Reinforcing steel bars shall not be field bent except where shown on the Drawings or specifically authorized in writing by the ENGINEER. If authorized, bars shall be cold-bent around a standard diameter spool as specified within CRSI. Do not heat bars. Closely inspect the reinforcing steel for breaks. If the reinforcing steel is damaged, replace, Cadweld, or otherwise repair as directed by the ENGINEER. Do not bend reinforcement after it is embedded in concrete unless specifically permitted on the Drawings.

3.2 REINFORCEMENT AROUND OPENINGS

- A. Unless specific additional reinforcement around openings is shown on the Drawings, provide additional reinforcing steel on each side of the opening equivalent to one-half of the cross-sectional area of the reinforcing steel interrupted by the opening. The bars shall have sufficient length to develop bond at each end beyond the opening or penetration.

3.3 SPLICING OF REINFORCEMENT

- A. Splices designated as compression splices on the Drawings shall be 30 bar diameters, but not less than 12-inches, unless otherwise noted.
- B. Tension lap splices shall be provided at all laps in compliance with ACI 318. The length of splices shall conform to the Contract Drawings. Splices in adjacent bars shall be staggered. Class A splices may be used when 50-percent or less of the bars are spliced within the required lap length. Class B splices shall be used at all other locations.
- C. Except as otherwise indicated on the Drawings, splices in circumferential reinforcement in circular walls shall be Class B tension splices and shall be staggered. Adjacent bars shall not be spliced within the required lap length.
- D. Mechanical reinforcing steel splicers shall be used only where shown on the Drawings. Splices in adjacent bars shall be offset by at least 30 bar diameters, but not less than 24-inches. Mechanical reinforcing splices are only to be used for special splice and dowel conditions approved by the ENGINEER.

3.4 ACCESSORIES

- A. Determine, provide and install accessories such as chairs, chair-bars, and the like in sufficient quantities and strength to adequately support the reinforcement and prevent its displacement during the erection of the reinforcement and the placement of concrete.
- B. Use precast concrete blocks (dobies) where the reinforcing steel is to be supported over soil. In no case shall such supports be continuous.
- C. Stainless steel bar supports or steel chairs with stainless steel tips shall be used where the chairs are set on forms for a concrete surface that will be exposed to weather, high humidity, or liquid (including bottom of slabs over liquid containing areas). Use of galvanized or plastic tipped metal chairs is permissible in all other locations unless otherwise noted on the Drawings or specified herein.
- D. Alternate methods of supporting top steel in slabs, such as steel channels supported on the bottom steel or vertical reinforcing steel fasteners to the bottom and top mats may be used if approved by the ENGINEER.

3.5 INSPECTION

- A. In no case shall any reinforcing steel be covered with concrete until the installation of the reinforcement, including the size, spacing, and position of the reinforcement has been observed by the ENGINEER and the ENGINEER's release to proceed with the concreting has been obtained. The ENGINEER shall be given a minimum of 24 hours prior notice of the readiness of placed reinforcement for observation. The forms shall be kept open until the ENGINEER has completed their observations of the reinforcing steel.

END OF SECTION

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ATTACHMENT NO. 5
PART 4 - SCOPE OF SUPPLY AND VENDOR QUOTE



Bid Pricing			
Project Name:	Sausalito-Marín City Sanitary District, CA	Date Prepared:	December 14, 2016
Project Number:	13-3139	Validity:	See Scope
Representative:	MISCOWater	Engineer:	RMC
Equipment		Quantity	Price
Primary Grit Removal 13.0 mgd/unit			
9 ft. 12 Tray 110 micron Eutek HeadCell® Grit Removal unit		1	
Eutek HeadCell® inlet flow distribution header, 316 Stainless Steel		1	
Grit slurry underflow collector, 316 Stainless Steel		1	
Extended Warranty		1	
Equipment Subtotal			<u>\$147,300.00</u>
Freight			
Freight to jobsite in Sausalito, CA		1	<u>\$7,500.00</u>
Start-up			
One (1) factory representative for three (3) trips for a total of four (4) days		1	<u>\$7,200.00</u>
Total Bid Price:			<u>\$162,000.00</u>

Terms & Conditions: As defined by Hydro International standard Terms & Conditions.



12/14/2016

To: RMC Water and Environment

**Re: Hydraulic Grit System – Section 11320
Sausalito-Marín City Sanitary District
Sausalito, CA
File #13-3139**

Hydro International is pleased to present our quote for a Eutek HeadCell® Grit Removal System. The system will meet the requirements described in Section 11320 with comments noted below.

Comments / Exceptions

1. 1.4.A.3. & 3.3.B. The HC will be inspected for alignment of components and correct orientation before being shipped, it will not be factory performance tested prior to shipping as each unit requires a specific concrete tank which is not feasible at our fabricators.
2. 1.4.A.6. & 2.4.A. No recommended spare parts for the HeadCell unit.
3. 3.3.D.1. Performance testing will be conducted by others.
4. M100-3. The HeadCell fluidizing line and underflow suction pipe must be in the same orientation as the influent of the unit (counterclockwise).
5. M100-5. If grating is not easily removable, please provide 3'x3' access hatches in grating for access to the HeadCell, one in the center of the tank, one above the inlet duct, and one in the opposite diagonal corner of the inlet duct.
6. I100-1. Hydro does not recommend a solenoid valve on the 1" fluidizing line as the fluidizing line should only be shut off when the HeadCell is taken out of service.
7. Velocity through the bar screen openings/slots/aperture should not exceed 4 ft/s at peak flow.
8. All piping connected to Hydro equipment must be supported by other means than the Hydro equipment.
9. The dumpster receiving the discharged grit shall have a drain.
10. Please see the exclusions detailed in the proposal below.

System Performance

The grit removal system shall be designed to remove 95% of all grit particles with specific gravity of 2.65 greater than or equal to 110 microns at a total peak design flow of 13.0 mgd.

System Components

1. One (1) 9' 12 tray Eutek HeadCell® Grit Concentrator unit shall be supplied. The Eutek HeadCell® shall consist of a stack of nested trays. The trays shall be fabricated from UV stabilized LDPE and shall be supported by a 316 SS frame integral to the unit. All flow passages shall be self-cleaning and free of sharp projections or fittings that may snag stringy or fibrous materials. The Eutek HeadCell® trays shall be constructed with a minimum ¼ inch material pans and sidewalls. The Tray Supports shall be fabricated to provide a means to independently support each tray and transfer the weight of each tray to the support structure frame. The Eutek HeadCell® will securely fit into a support structure frame containing the screened raw wastewater inlet connection, necessary hardware, and connections. The Eutek HeadCell® Concentrator shall be equipped with a settled solids underflow connection for collection and removal of settled solids. The settled solids are pumped to the grit washing unit from the Eutek HeadCell® unit.

The unit shall remove 95% of all grit (S.G. 2.65) 110 micron and larger at a peak flow of 13.0 mgd.
The unit shall have 12 inches of headloss at the peak flow.

Utility Requirements

Clarified NPW or Reuse Water:

The Eutek HeadCell® unit requires continuous 11 gpm @ 50 +/- 10 psig of clarified water for “fluidizing” to function properly.

Appurtenances Per Unit

Eutek HeadCell® Grit Concentrator

DESCRIPTION	QTY
Fluidizing Water Throttling Globe Valve 1" Ta Chen Globe Valve, Stainless Steel	1
Fluidizing Water Shut-off Valve 1" Apollo Ball Valve, Stainless Steel	1
Fluidizing Water Flow Meter 1" King Flow Meter, Stainless Steel	1

Spare Parts

No spare parts are included or recommend in this scope of supply.

Start-up

One (1) man, three (3) trips, for start-up and instruction services as required totaling four (4) days.

Exclusions

Any item(s) not specifically described above are excluded and are not to be supplied by Hydro International including but not limited to the following:

- Erection and installation
- Interconnecting piping and valving not expressly stated above
- Pipe connections and fittings not expressly stated above
- All pipe supports, hangers and braces
- Controls, switches, control panels and instrumentation of any kind not expressly stated above
- Wiring and conduit
- Field or touch-up paint, painting, blasting and touch-up of surface finish
- Spare parts not specifically stated above
- Unloading, hauling and storage charge
- Lubricating oil and greases
- Field performance testing, laboratory testing
- and sample collection and analysis
- All concrete and grouting work
- Insulation and heat tracing of any kind
- Seismic/Structural analysis
- Performance and/or Supply Bond(s)
- Dumpsters of any kind
- Grit pump(s)/pump motor starters/VFD, associated piping, guiderails and valving, gauges
- Access platforms, walkways, ladders, covers
- Anchor bolts
- Grit Study
- Metal or rubber extended discharge chutes
- Translation Services
- Asset Management Contract

Limitations

- General Liability is limited to \$5,000,000 per each occurrence

- Products Completed & Operations Liability is limited to \$5,000,000 per each occurrence
- Worker's Compensation is limited to \$5,000,000 per each accident

Warranty

Hydro International's 2-year Warranty shall apply per the attached Terms and Conditions of Sale.

Delivery

Please allow 4 to 6 weeks after receipt of purchase order for approval drawings. Shipment is typically a maximum of 16 weeks after receipt of "Approved" or "Approved As Noted, Resubmittal Not Required" submittal package. The grit removal system shall be delivered to site fully fabricated, subject to size, packaging and transportation constraints. The General Contractor must inspect equipment prior to unloading and notify Hydro International of any damage to equipment within 5 days to effect proper remedial action. Failure to notify Hydro International of damage to equipment prior to unloading will void all warranties pertaining to subject equipment.

Terms & Conditions

Hydro International payment terms are detailed in the attached terms and conditions. The pricing submitted herein is based on specification sections and drawings issued to Hydro on November 29, 2016 via MISCOwater. Any changes to the scope of supply required by changes to these specification sections or other sections and drawings not provided to Hydro International as listed above may require the price to change. Hydro International reserves the right to amend the price if changes are required due to changes to the provided specifications or to meet requirements for sections not made available at the time of this quote. Price includes truck freight to jobsite and does not include any state or local taxes if required. The prices quoted are firm based on a receipt of a purchase order by April 27, 2017 and shipment of the equipment prior to October 12, 2017.

Purchase Order

Please make purchase orders to:
Hydro International
2925 NW Aloclek Drive
Suite #140
Hillsboro, OR 97124

Local Representative

Mr. Mark Humberstone
MISCOwater
5976 W. Las Positas Blvd. Ste 226
Pleasanton, CA 94588
Phone: 925-785-1602
Fax: 925-225-9200
mhumberstone@miscowater.com

If you have any questions or concerns, do not hesitate to contact me.

Regards,

Hydro International



Kelly Rini
Applications Engineer

Standard Terms & Conditions of Sale

1. **DEFINITIONS.** "Hydro" is Hydro International with an address of 2925 NW Alcock Drive #140 in Hillsboro, Oregon. "Buyer" is the party purchasing the goods from Hydro.
2. **ENTIRE AGREEMENT.** Hydro's agreement is based on these terms and conditions of sale. This document, together with any additional writings signed by Hydro, represents a final, complete, and exclusive statement of the agreement between the parties and may not be modified, supplemented, explained, or waived by parol evidence, Buyer's purchase order, any course of dealing, Buyer's payment or acceptance, or in any other way except in writing signed by Hydro through its authorized representative. These terms and conditions are intended to cover all activity of Hydro and Buyer hereunder, including sales and use of products, parts, and work, and all related matters (references to products include parts and references to work include construction and installation). Hydro's obligations hereunder are expressly conditioned on Buyer's assent to these terms and conditions. Hydro objects to any terms that are different from, or additional to, these terms and conditions. Any applicable detail drawings and specifications are hereby incorporated and made a part of these Terms and Conditions of Sale insofar as they apply to the material supplied hereunder.
3. **SPECIFICATIONS.** Products are supplied in accordance with information received by Hydro, or its duly authorized agent, from Buyer. Hydro shall have no responsibility for products created or sold based upon inaccurate and/or incomplete information supplied to it. Buyer shall ensure that Hydro receives all relevant information in time to enable it to supply the appropriate products.
4. **INSTALLATION AND APPLICATION OF PRODUCTS.** Products supplied hereunder shall be installed and used only in the particular application for which they were specifically designed. Buyer should not presume that any products supplied by Hydro may be utilized for any applications other than those specified; nor shall Hydro's obligations, including, without limitation, any warranty obligations, survive Buyer's transfer of products supplied hereunder to third parties unless the products are transferred with Hydro's consent. In addition, Buyer shall not use any product supplied hereunder at any location other than at the location for which Hydro has previously received notice from Buyer. Any breach of any of the foregoing restrictions may amount to an infringement of the patent for the products in question and will in any event void all express or implied warranties relating to the products supplied hereunder.
5. **PURCHASE PRICE AND PAYMENT TERMS.** All prices are in U.S. dollars and all payments shall be made in U.S. dollars. Payment terms are as follows:

	Incremental Payment	Cumulative Payment
Upon Approval of Shop Drawings	10%	10%
Upon Delivery of Equipment to Site	80%	90%
Upon Final Acceptance or 45 days following completion of equipment start up	10%	100%

If payments are not made in conformance with the terms stated herein, any unpaid balance shall be subject to interest at a rate 1½% per month, but not to exceed the maximum amount permitted by law. If shipment is delayed by Buyer, the previously agreed date of readiness for shipment shall be deemed to be the date of shipment for payment purposes. If manufacture is delayed by Buyer, a payment shall be made based on purchase price and percentage of completion, with the balance payable in accordance with the terms as stated. If at any time in Hydro's judgment Buyer may be or may become unable or unwilling to meet the terms specified, Hydro may require satisfactory assurance or full or partial payment as a condition to commencing, or continuing manufacture, or in advance of shipment.

Until payment in full has been received by Hydro, this Standard Terms and Conditions of Sale shall constitute a security agreement and Buyer hereby grants Hydro a purchase money security interest in and to the products produced by Hydro hereunder, and any products or proceeds thereof. In particular:

- (i) Hydro will retain an express purchase money security interest in and to the products and all proceeds thereof.
 - (ii) Until full payment for the products is received by Hydro, Hydro reserves the right to retake possession of the products at any time and for this purpose Buyer authorizes Hydro or its duly authorized agent to enter upon land or premises where it believes the product may be.
 - (iii) Proceeds of any disposal of the products shall be held in trust for Hydro pursuant to the terms of the Maine Uniform Commercial Code.
 - (iv) Buyer grants Hydro a power of attorney for the purpose of filing a UCC-1 financing statement in the name of Buyer to evidence Hydro's security interest in the products.
6. **BACKCHARGES.** In the event that Buyer is required to make repairs, corrections or modifications to the goods supplied by Hydro, it shall only do so upon written approval from Hydro. Backcharges shall be limited to the costs directly associated in making the repairs, corrections or modifications to the goods supplied by Hydro. The costs of such backcharges shall be subject to approval by Hydro and shall be limited to: (1) directly related labor and material costs, (2) directly related equipment and tool rental at prevailing rates in the project location and (3) Buyer's overhead & supervision costs to make repairs, corrections or modifications to the goods supplied by Hydro. Buyer shall submit complete documentation to Hydro's satisfaction including but not limited to labor time sheets, material lists, and rental fees detailing the nature of the back charges. Backcharges shall be in the form of an adjustment to the

contract price or reduction in retained payments and not a direct payment. No incidental or consequential backcharges shall be allowed.

7. **DELIVERY.** The goods are sold F.O.B. manufacturing site, freight prepaid to Buyer at job site. Except as outlined in Paragraph 8 below, the risk of loss passes to Buyer after Hydro delivers the goods to the carrier. Hydro reserves the right to select the method of shipment and carrier. Delivery dates are approximate only and are not a guarantee of delivery on a particular day. Hydro is not liable for failure or delays in deliveries of any cause whatsoever beyond the control of Hydro.
8. **TITLE & INSURANCE:** Title to the product(s) and risk of loss or damage shall pass to Buyer upon delivery to a carrier as outlined in Paragraph 7 above, or, in the event Buyer delays shipment, by the previously agreed date of readiness for shipment, except that a security interest in the product(s) or any replacement shall remain in Hydro's name, regardless of the mode of attachment to realty or other property, until the full price has been paid in cash. Buyer agrees to protect Hydro's interest by adequately insuring the product(s) against loss or damage from any external cause with Hydro named as insured or co-insured.
9. **ERECTION:** Unless otherwise stated in writing, the goods provided hereunder shall be assembled and erected by and at the expense of Buyer.
10. **CANCELLATION & BREACH:** Orders placed cannot be canceled, nor shipments of goods made up, or in process, be deferred beyond the original shipment dates specified, except with Hydro's written consent and upon terms which shall indemnify Hydro against all loss. In the event of cancellation or the substantial breach of Buyer's obligations, as by failing to make any of the payments when due, the parties agree that Hydro will suffer a serious and substantial damage that will be difficult, if not impossible, to measure, both as of the time of entering into this purchase agreement and as of the time of such cancellation or breach. Therefore, the parties agree that, upon such cancellation or breach, Buyer shall pay to Hydro the sums set forth herein below, which sums the parties do hereby agree shall constitute agreed and liquidated damages in such event:
 - If cancellation or breach shall occur after the acceptance of the purchase order but prior to mailing of submittal documents by Hydro to Buyer, liquidated damages shall be 10% of the selling price.
 - If cancellation or breach shall occur within thirty (30) days from the mailing of submittal documents by Hydro to Buyer, the liquidated damages shall be 20% of the selling price.
 - If the cancellation or breach occurs after thirty (30) days from the mailing of submittal documents by Hydro to Buyer, but prior to notification that the order is ready for shipment, the liquidated damages shall be the total of 30% of the selling price plus the expenses incurred, cost of material, and reasonable value of the work expended to fill the order involved herein by Hydro's engineers and other employees, agents and representatives after the mailing of general arrangement drawings by Hydro to Buyer, said sums to be determined at the sole reasonable discretion of Hydro; provided, however, that the total liquidated damages under this provision shall not exceed the total selling price.
 - If cancellation or breach shall occur after Hydro has notified Buyer that the order is ready for shipment, then the liquidated damages shall be the total selling price, less costs associated with startup or field testing.
11. **MATERIALS OF CONSTRUCTION, PAINTS AND COATINGS:** Buyer is responsible for determining the suitability of, and for giving final approval of, the materials of construction, paints, coatings, etc. to be used by Hydro.
12. **WARRANTY:** Any product that proves defective in material, workmanship or design within twenty four (24) months after delivery (or entry into storage) will be, at the discretion of HYDRO, modified, repaired or replaced, or Buyer's payment for the products will be refunded. This shall be Buyer's sole remedy. HYDRO EXPRESSLY EXCLUDES AND DISCLAIMS ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTIES, EXPRESS OR IMPLIED.

This warranty does not cover any defects or costs caused by: (1) normal wear and tear of equipment from designed operation. (2) modification, alteration, repair or service of the goods by anyone other than Hydro; (3) physical abuse to, or misuse of, the goods, or operation thereof in a manner contrary to Hydro's instructions; (4) any use of the goods other than that for which they were intended; (5) chemicals or components which were not disclosed to Hydro; (6) storage contrary to Hydro's instructions; or (7) failure to maintain the goods in accordance with Hydro's instructions.

This warranty does not apply to component parts of the goods that were not both originally designed and manufactured by Hydro, including, but not limited to, valves and controls. These component parts do not carry any warranties by Hydro, and only carry the warranties, if any, of their manufacturers.

In order for Buyer to make a claim under this warranty, Buyer must promptly, and within the warranty period, notify Hydro in writing of any defect(s) in the goods covered by this warranty. If any defect(s) in the goods covered by this warranty are visible at the time of delivery, Buyer must notify Hydro of the defect(s) in writing within five working days. To make any claim under this warranty, Buyer must also fully comply with written authorization and return instructions from Hydro.
13. **FIELD SERVICE:** Startup/Field Service will only be scheduled upon written request. Buyer shall notify Hydro of schedule requirements at least ten (10) working days in advance, or additional charges may be added to cover late-scheduled travel costs. Additional costs will be limited to those arising out of late-scheduled costs. Should Buyer have outstanding balances due Hydro, no startup / field service will be scheduled until such payments are received by Hydro. Hydro will send documents to Buyer defining the service or startup requirements. Buyer assumes all responsibility for the readiness of the system when it requests startup service. Should Hydro's Field Service Engineer arrive at the jobsite and determine that the system cannot be started up within a reasonable time, Hydro shall have the option to bring the Field Service Engineer home and bill Buyer for time, travel and living expenses. Additional field service is available from Hydro at the prevailing per-diem rate at the time of the request for service plus all travel and living expenses, portal-to-portal. A purchase order or change order will be required prior to scheduling this additional service.

- 14. LIMITATION OF HYDRO'S LIABILITY.** Hydro assumes no liability or responsibility for the misuse of its products by Buyer, Buyer's employees, agents or assigns, or other use inconsistent with the use appropriate to the performance specification requirements submitted to Hydro, and Buyer agrees to indemnify and hold harmless Hydro for any loss, costs, expense or liability that it may incur or be put to as a result of misuse or inconsistent use of the products. In addition, Hydro shall have no liability to Buyer for any consequential or incidental damages incurred by Buyer in connection with the contract documents or the products purchased by Buyer. Hydro shall not be liable for any loss which results from delay in delivery caused by any reason beyond its control, including, but not limited to, acts of God, casualty, civil disturbance, labor disputes, strikes, transportation or inability to obtain materials or services, any interruption of its facilities, or act of any governmental authority. The time for delivery shall be extended during the continuance of such conditions. The total liability of Hydro to Buyer in the form of liquidated damages for any loss, indemnity, damage or delay of any kind will not under any circumstances exceed 25% of the Contract Sum.
- 15. INTELLECTUAL PROPERTY.** Hydro shall retain sole ownership of all of its intellectual property used or produced in connection with the Project, including but not limited to all drawings, specifications, software, written materials, manuals, marks, business methods, and all other property that is capable of protection by a patent, copyright or trademark (whether or not such protection has actually been sought). Buyer shall not use such intellectual property except for the purpose of confirming the quality of design and/or manufacturing of the products and services set forth in the Proposal. Buyer shall not photocopy, duplicate or in any way copy such intellectual property except for the Buyer's internal purposes only (but not for rendering services or selling products to third persons). Buyer shall not sell, license, assign or transfer the intellectual property protected by this paragraph to anyone. Buyer shall ensure that Owner is in possession of valid licenses for all third-party software (not provided by Hydro) used for the Project, and shall indemnify and hold harmless Hydro against all claims by licensors of such software. Hydro makes no warranty regarding the effect of such third-party software on the performance of the software to be developed by Hydro for the Project and Hydro shall be released from any warranties given to Buyer to the extent that such software causes or contributes to problems. Following acceptance and final payment to Hydro, Hydro will grant to the Owner a non-transferable, non-exclusive license to use the software for the Owner's internal purposes only in the form of the license agreement attached as Exhibit A.
- 16. TAXES.** Prices stated herein do not include any tax, excise, duty or levy now or hereafter enacted or imposed, by any governmental authority on the manufacture, sale, delivery and/or use of any item delivered. An additional charge will be made therefore and paid by Buyer unless Hydro is furnished with a proper exemption certificate relieving Hydro of paying or collecting the tax, excise, duty or levy in question.
- 17. INTERPRETATION OF CONTRACT.** This contract shall be construed according to the laws of the State of Maine.
- 18. CHOICE OF FORUM.** Buyer and Hydro hereby consent and agree that the United States District Court for the District of Maine or the District Court or Superior Court located in the City of Portland, County of Cumberland, Maine will have exclusive jurisdiction over any legal action or proceeding arising out of or relating to the contract documents, and each party consents to the personal jurisdiction of such Courts for the purpose of any such action or proceeding. Buyer and Hydro further hereby consent and agree that the exclusive venue for any legal action or proceeding arising out of or relating to the contract documents will be in the County of Cumberland, Maine. Each party hereby waives all rights it has or which may hereafter arise to contest such exclusive jurisdiction and venue.
- 19. ATTORNEYS' FEES.** If any judicial or non-judicial proceeding is initiated for the purpose of enforcing a provision of this contract, the prevailing party shall be awarded reasonable attorneys' fees in addition to all other costs associated with the proceeding, whether or not the proceeding advances to judgment.
- 20. SEVERABILITY.** If any provisions of this contract are held invalid by a court of competent jurisdiction, the remainder of this contract shall not be rendered invalid, and such invalid provisions shall be modified, in keeping with the letter and spirit of this contract, to the extent permitted by applicable law so as to be rendered valid.
- 21. ANTI-BRIBERY.** Hydro International will not engage in any form of bribery or corruption. The offering, giving or receiving of bribes is contrary to Hydro International's values and can play no part in the way in which it carries out its business. Hydro requires you to support our approach and implement provisions consistent with our policy through your own organization and your supply chain. Please find a copy of our Anti-Bribery and Corruption Policy on our website at <http://plc.hydro-intl.com/content/view/296/247/>

SMCSD HEADWORKS
Primary and Secondary Treatment Project

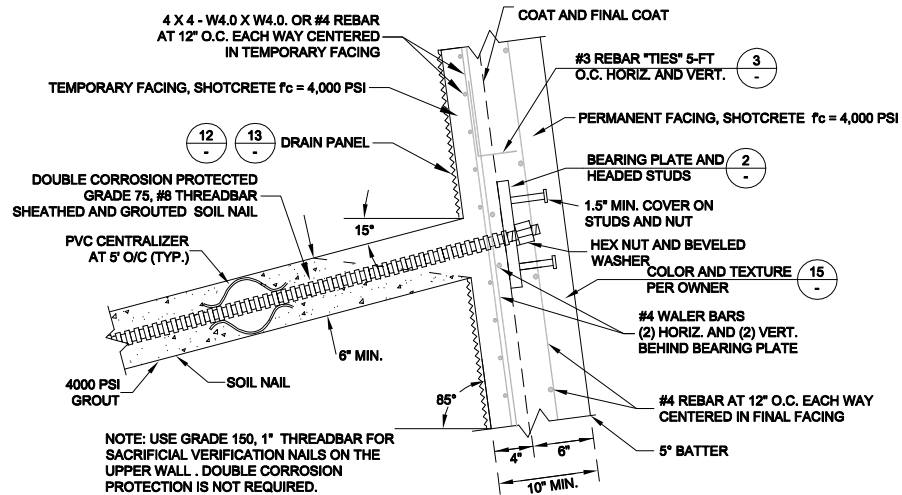
Prepare by: DTN Engineers,
 Inc.

Date: November 2016

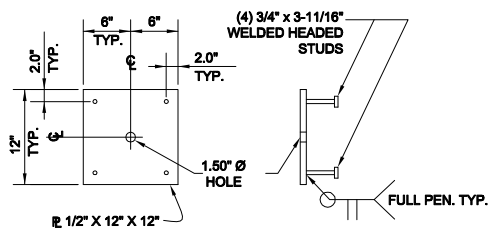
DTN Project #: 286F

I/O LIST

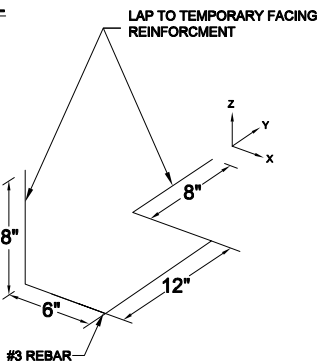
ITEM No.	EQUIPMENT DESCRIPTION	EQUIP. No.	LOOP No.	SIGNAL FUNCTION	TYPE	DWG No.	COMMENTS
PLC-HW							
	SPIRAL SCREEN CONTROL PANEL	SC-EQP1/2-LCP-01	SC-EQP1-UI				See Packaged Equipment I/O List
	Spiral Screen Gate No. 3	SC-GAT3	SC-GAT3-HS-02	In Remote Mode	DI	E-12	
	Spiral Screen Gate No. 3	SC-GAT3	SC-GAT3-YA-01	Fail	DI	E-12	
	Spiral Screen Gate No. 3	SC-GAT3	SC-GAT3-ZI-01	Position Indication	AI	E-15	
	Spiral Screen Gate No. 3	SC-GAT3	SC-GAT3-ZIC-01	Position Cmd	AO	E-15	
	Spiral Screen Gate No. 6	SC-GAT6	SC-GAT6-HS-02	In Remote Mode	DI	E-12	
	Spiral Screen Gate No. 6	SC-GAT6	SC-GAT6-HS-01	Open	DI	E-12	
	Spiral Screen Gate No. 6	SC-GAT6	SC-GAT6-HS-01	Closed	DI	E-12	
	Spiral Screen Gate No. 6	SC-GAT6	SC-GAT6-YA-01	Overload	DI	E-12	
	Spiral Screen Gate No. 6	SC-GAT6	SC-GAT6-ZSH-01	Open Cmd	DO	E-14	
	Spiral Screen Gate No. 6	SC-GAT6	SC-GAT6-ZSL-01	Close Cmd	DO	E-14	
	Equalization Gate No. 1	EQ-GAT1	EQ-GAT1-ZS-01	Open Ind	DI	E-12	
	Equalization Gate No. 1	EQ-GAT1	EQ-GAT1-ZS-01	Close Ind	DI	E-12	
	Equalization Gate No. 2	EQ-GAT2	EQ-GAT2-ZS-01	Open Ind	DI	E-12	
	Equalization Gate No. 2	EQ-GAT2	EQ-GAT2-ZS-01	Close Ind	DI	E-12	
	Equalization Gate No. 3	EQ-GAT3	EQ-GAT3-HS-02	In Remote Mode	DI	E-12	
	Equalization Gate No. 3	EQ-GAT3	EQ-GAT3-YA-02	Fail	DI	E-12	
	Equalization Gate No. 3	EQ-GAT3	EQ-GAT3-ZL-01	Position Indication	AI	E-15	
	Equalization Gate No. 3	EQ-GAT3	EQ-GAT3-ZIC-01	Position Cmd	AO	E-15	
	Equalization Gate No. 4	EQ-GAT4	EQ-GAT4-ZS-01	Open Ind	DI	E-13	
	Equalization Gate No. 4	EQ-GAT4	EQ-GAT4-ZS-01	Close Ind	DI	E-13	
	Equalization Gate No. 5	EQ-GAT5	EQ-GAT5-ZS-01	Open Ind	DI	E-13	
	Equalization Gate No. 5	EQ-GAT5	EQ-GAT5-ZS-01	Close Ind	DI	E-13	



1 NAIL DETAIL
(NOT TO SCALE)



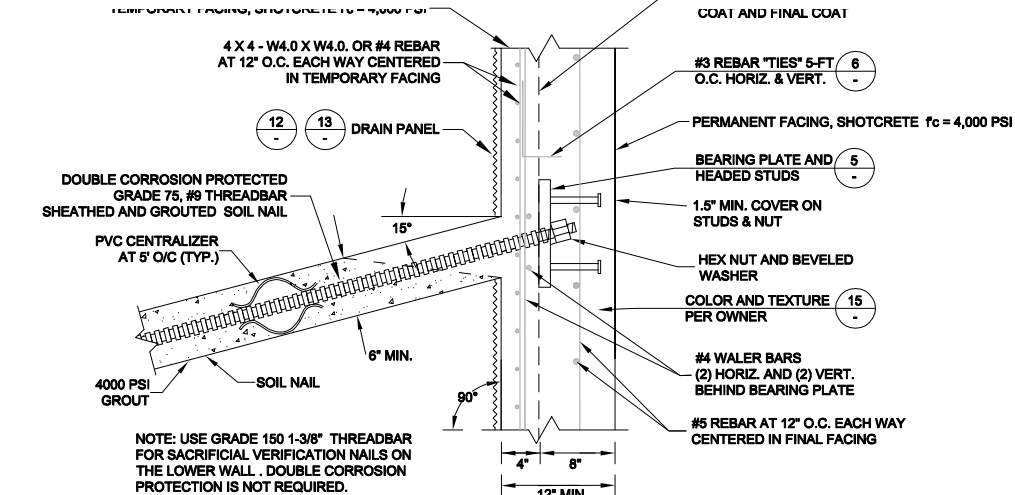
2 BEARING PLATE DETAIL
(NOT TO SCALE)



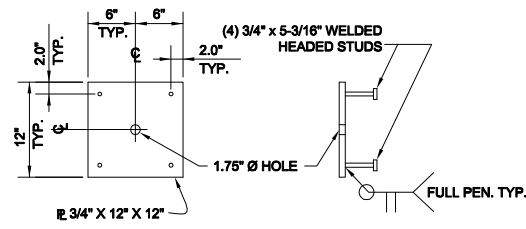
3 REBAR HOOK "TIES"
(NOT TO SCALE)

UPPER SOIL NAIL WALL

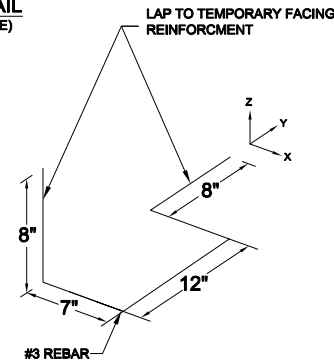
SHEET C110-1



4 NAIL DETAIL
(NOT TO SCALE)



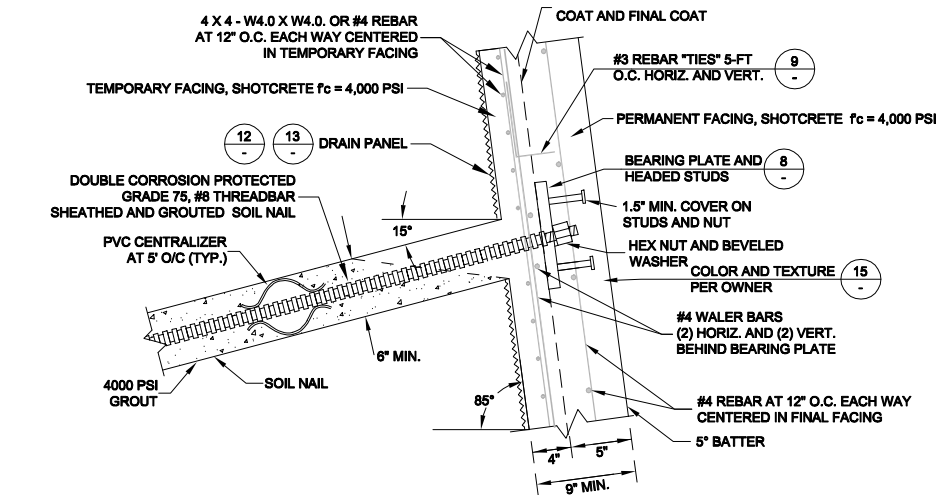
5 BEARING PLATE DETAIL
(NOT TO SCALE)



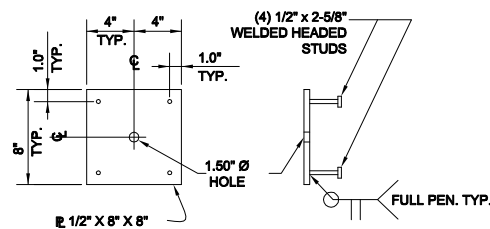
6 REBAR HOOK "TIES"
(NOT TO SCALE)

LOWER SOIL NAIL WALL

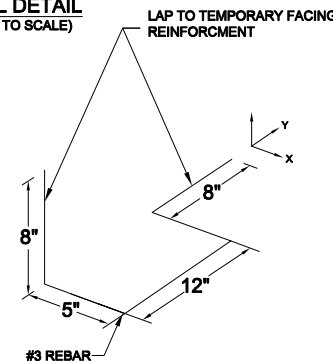
SHEET C110-2



7 NAIL DETAIL
(NOT TO SCALE)



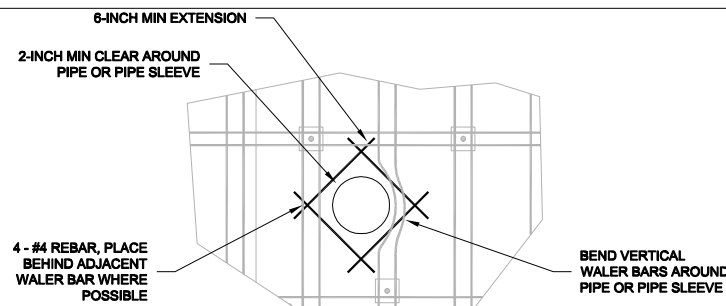
8 BEARING PLATE DETAIL
(NOT TO SCALE)



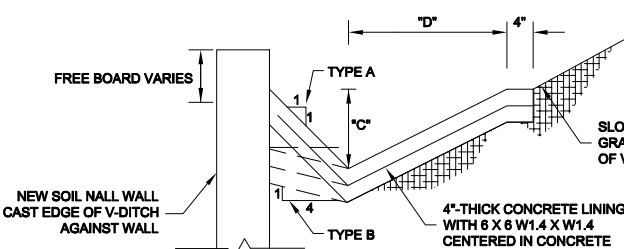
9 REBAR HOOK "TIES"
(NOT TO SCALE)

ADMIN SOIL NAIL WALL

SHEET C110-3

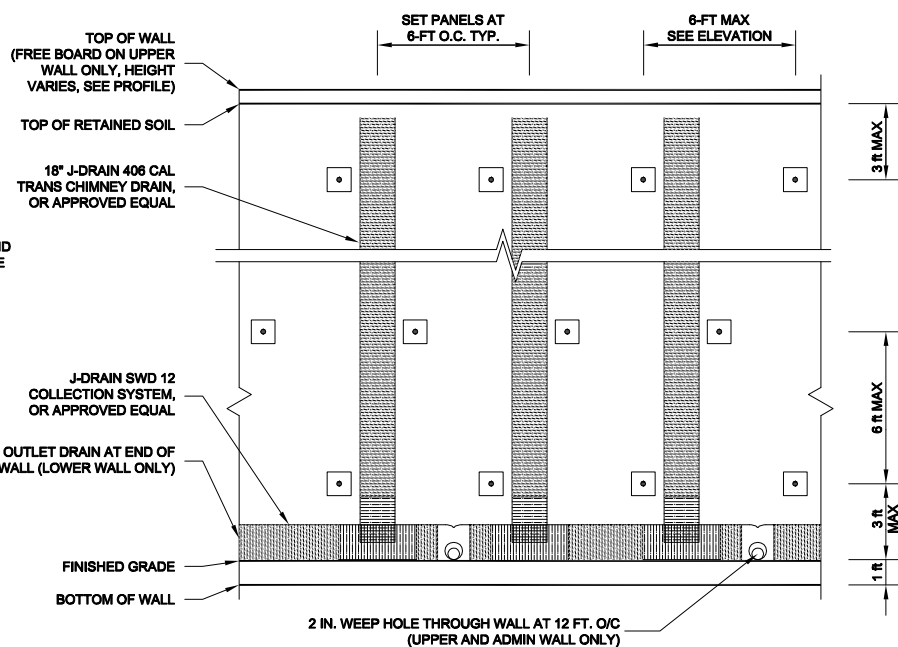


10 PIPE / PIPE SLEEVE REINFORCEMENT
(NOT TO SCALE)

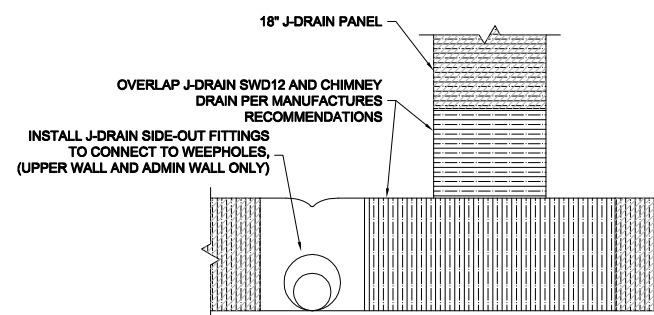


TYPE A	20"-WIDE X 10"-DEEP	C	D
TYPE B	40"-WIDE X 20"-DEEP	12"	12" MIN
		24"	24" MIN

11 CONCRETE V-DITCH DETAIL
(NOT TO SCALE)



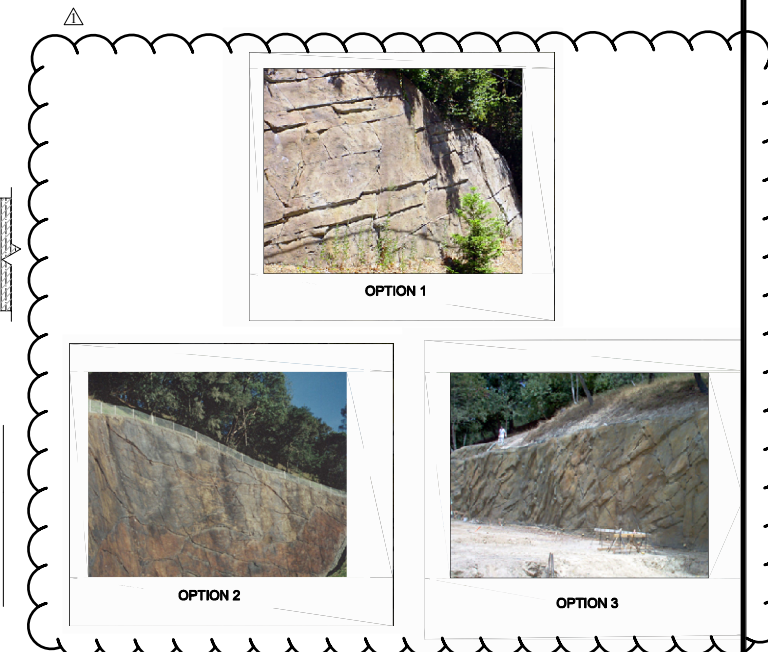
12 PARTIAL ELEVATION
(NOT TO SCALE)



13 DRAINAGE DETAIL
(NOT TO SCALE)

MINIMUM BAR LAPS FOR REINFORCING STEEL (STAGGER SPLICES A MINIMUM OF 24 INCHES)		
SIZE	$f_c = 4,000$ psi	$f_c = 5,000$ psi
#3	19"	17"
#4	25"	23"
#5	31"	28"

14 LAP LENGTHS DETAIL
(NOT TO SCALE)



15 WALL COLOR AND FINISH
(NOT TO SCALE)



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD	DESCRIPTION
1	12/23/16	RA	SC	Addendum 1

DESIGNED R. AREND
DRAWN R. AREND
CHECKED S. STEPHENS

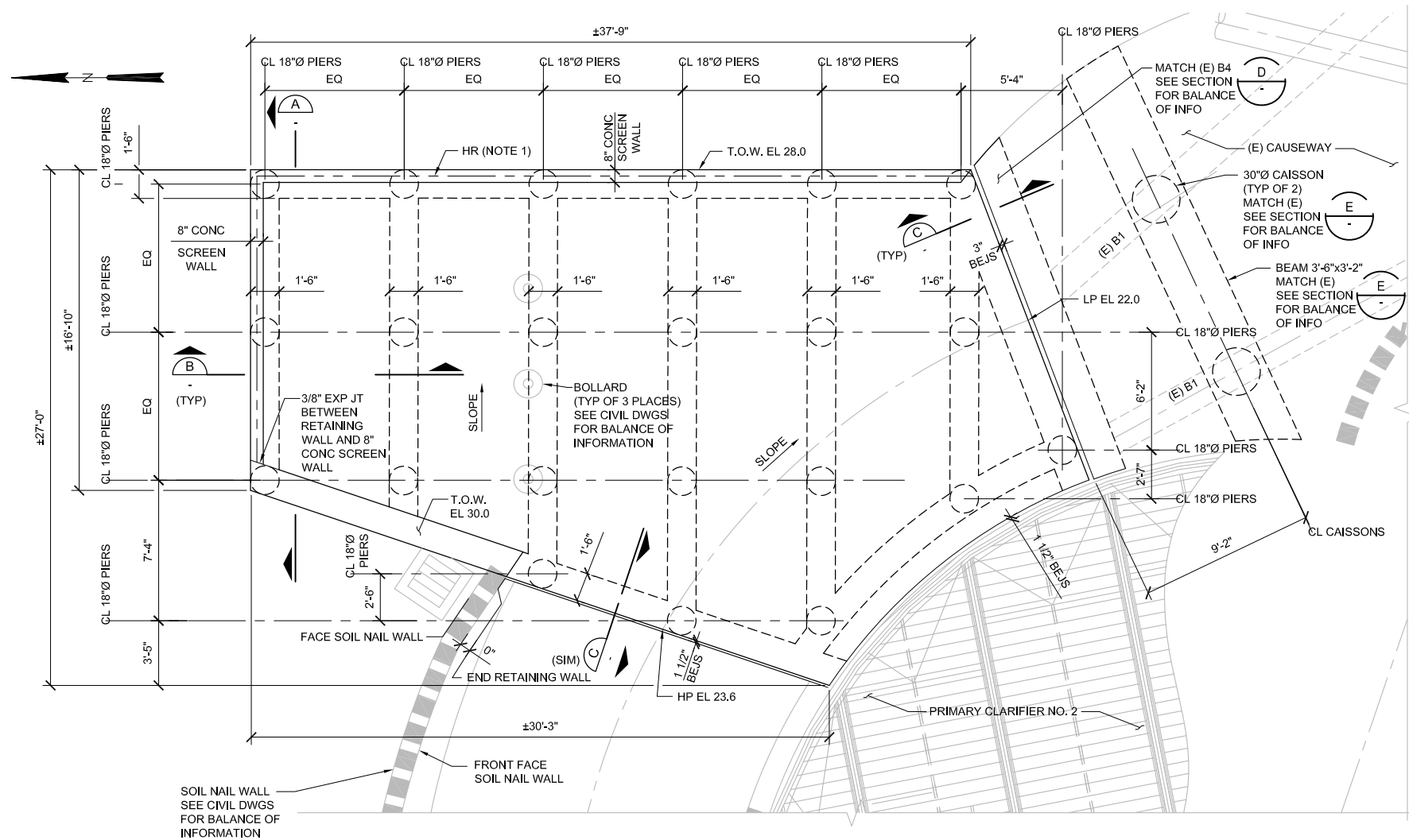
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
GEOTECHNICAL
SOIL NAIL WALL DETAILS

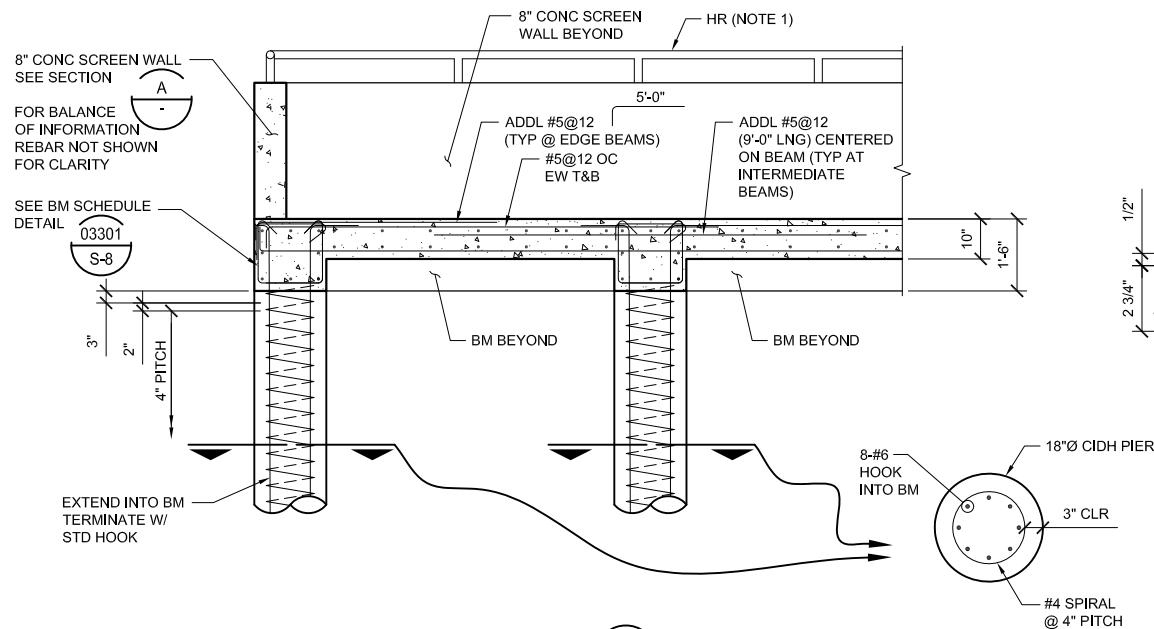
DWG NO C110-4
SHEET NO 47 OF 226
PROJ NO 055-006
DATE NOVEMBER 2016

FILENAME: 0055-006-S030-01 1-03-17 04:31pm bee || XREFS: S-VIEW_AREA-PLAN-SECT | X-Site | X-SMCSO-TBLK | RKT California | RKT_SIG | CC--



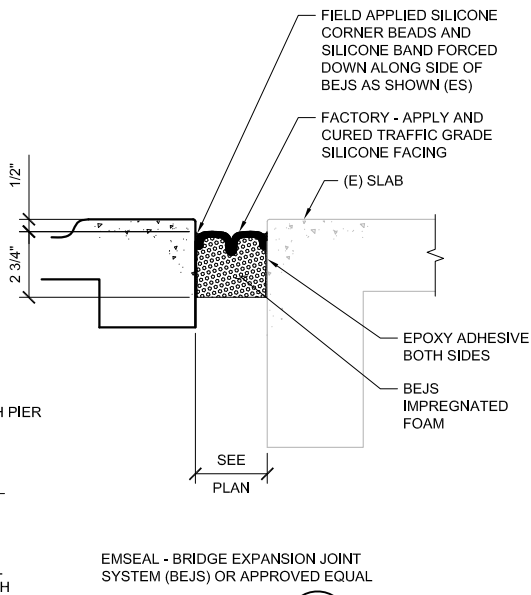
VIEWING AREA PLAN

SCALE: 1/4"=1'-0"



SECTION B

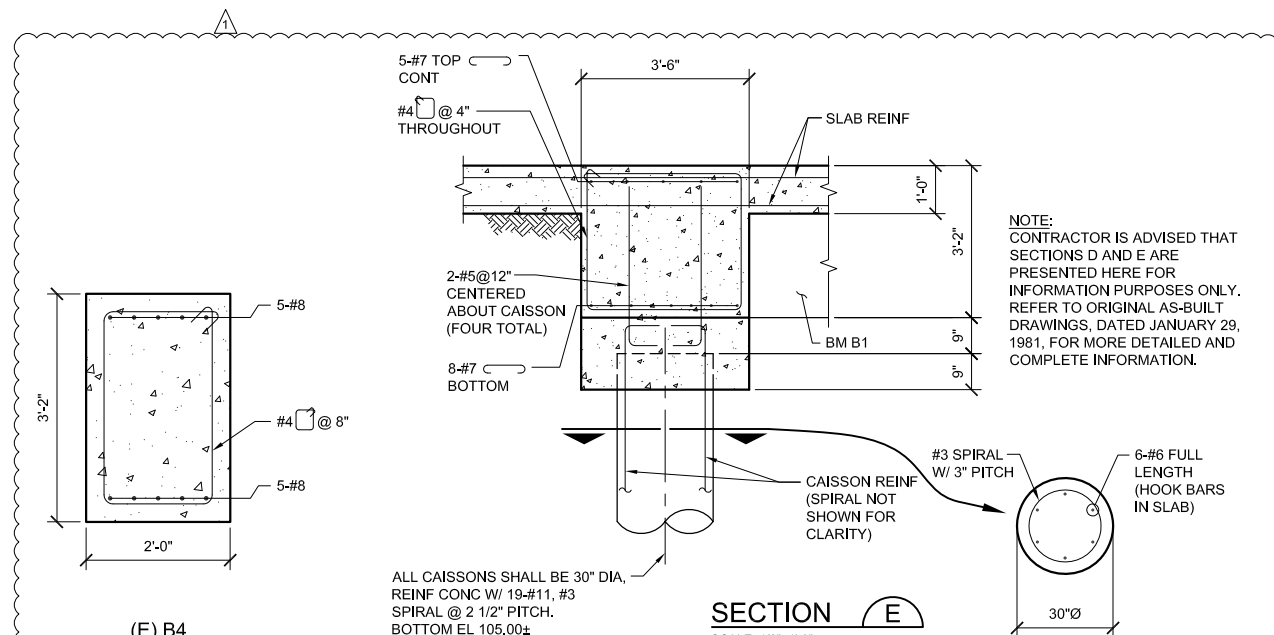
SCALE: 1/2"=1'-0"



EMSEAL - BRIDGE EXPANSION JOINT SYSTEM (BEJS) OR APPROVED EQUAL

SECTION C

SCALE: NTS



(E) B4

SECTION D

SCALE: 3/4"=1'-0"

SECTION E

SCALE: 1/2"=1'-0"

NOTES:

- HANDRAIL IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.



11/17/16

0" 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



RMC
Water and Environment

REV	DATE	BY	APVD	DESCRIPTION
12/16	ADP	RKT		ADDENDUM NO. 1

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY
APPROVED	STEVE CLARY RMC ENGR

SUBMITTED	MARK TAKEMOTO RMC PROJ ENGR
APPROVED	STEVE CLARY RMC ENGR

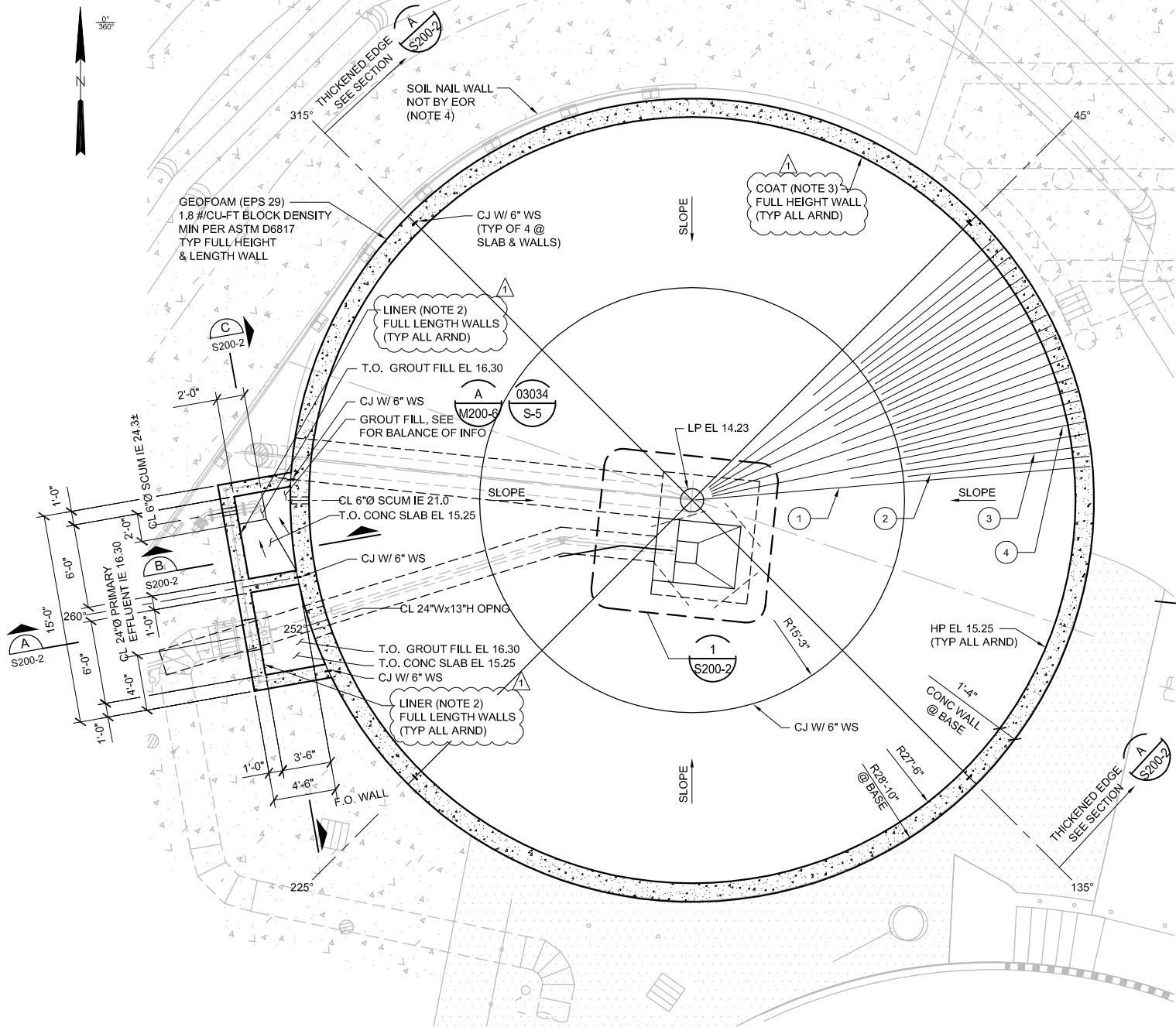


TREATMENT AND WET WEATHER FLOW UPGRADE

VIEWING AREA

DWG NO	S030-1
SHEET NO	96 OF 226
PROJ NO	055-006
DATE	NOVEMBER 2016

FILENAME: 0055-006-S200-01 12-28-16 02:09pm andria || XREFS: | S-TANK-PLAN | X-SMCSO-TBLK | X-SitePlan | X-Treatment Plant site plan | X-Topo Survey new | X-Site | RKT California | RKT-SIG | CC--



BAR SCHEDULE BOTTOM MAT

MARK	SIZE	COUNT	LENGTH	COMMENT
1	#6	16	30'-7"	NOTES 1 & 2
2	#8	174	15'-2"	NOTES 1 & 2
3	#6	87	19'-4"	NOTES 1 & 2
4	#6	71	29'-4"	NOTES 1 & 2

BAR SCHEDULE TOP MAT

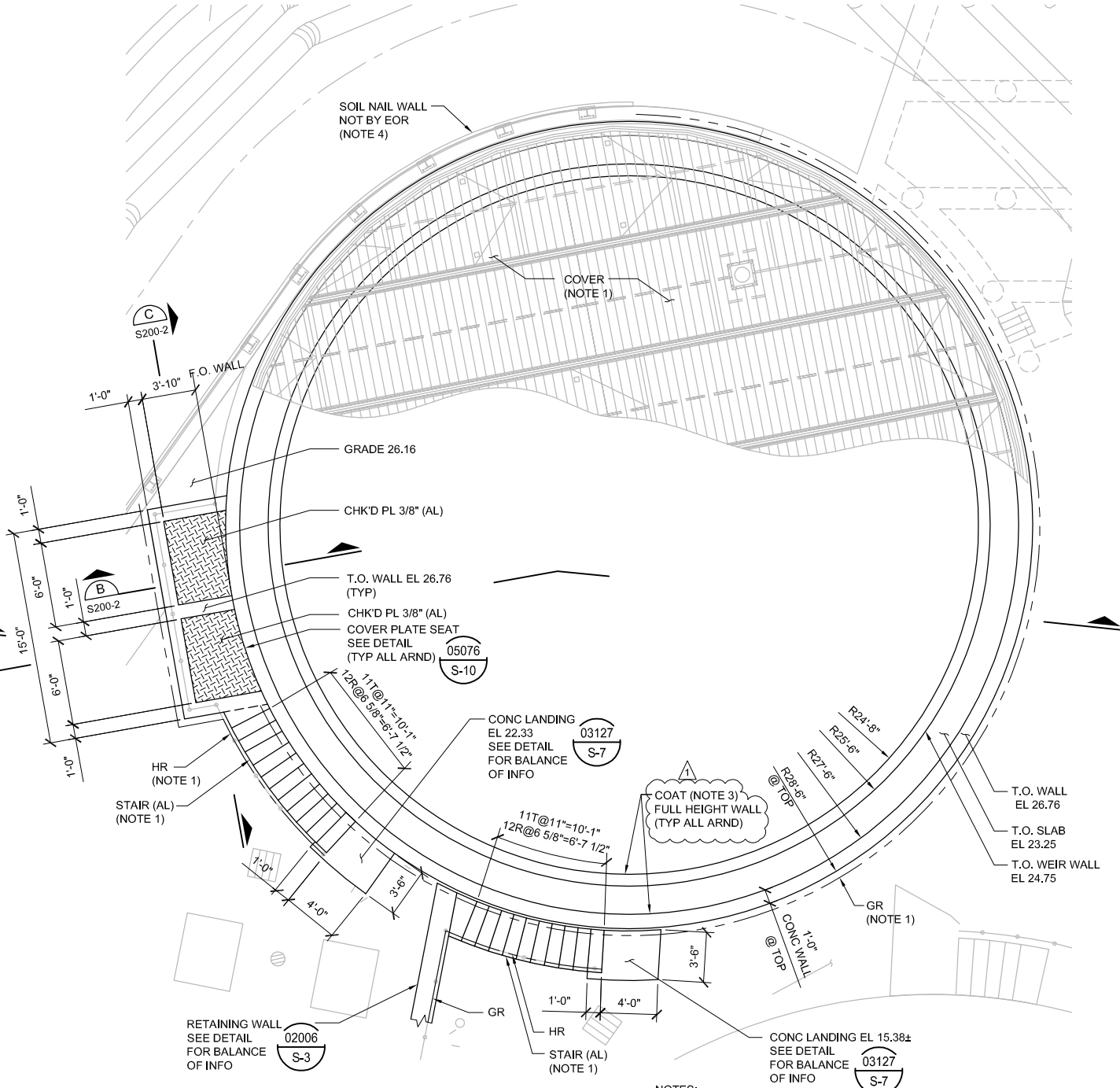
MARK	SIZE	COUNT	LENGTH	COMMENT
1	#6	16	30'-7"	NOTES 1 & 2
2	#6	174	15'-2"	NOTES 1 & 2
3	#6	87	19'-4"	NOTES 1 & 2
4	#6	71	29'-4"	NOTES 1 & 2

BAR SCHEDULE NOTES:

- LENGTHS SHOWN ARE APPROXIMATE, CONTRACTOR IS RESPONSIBLE FOR VERIFYING BAR LENGTHS PRIOR TO FABRICATION AND DELIVERY TO PROJECT SITE.
- BARS SHALL BE EQUALLY SPACED AROUND PERIMETER OF THE TANK IN THE PATTERN DETAILED ON THE PLAN.
- REFER TO STANDARD DETAIL 03003 S-4 FOR REQUIREMENTS AT CONSTRUCTION JOINT.
- TRIM BARS, AS REQUIRED, AT SLUDGE HOPPER AND PRIMARY INFLUENT PIPE PENETRATION.

PRIMARY CLARIFIER NO.2 FOUNDATION PLAN

SCALE: 3/16"=1'-0"



NOTES:

- CLARIFIER COVER, METAL STAIR, HANDRAIL AND GUARD RAIL ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
- APPLY PVC LINING SYSTEM TO OUTER WALL OF EFFLUENT TROUGH, EFFLUENT AND SCUM BOX, AND ANY EXPOSED CONCRETE ABOVE WATER LINE. REFER TO TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- APPLY COATING SYSTEM (P100 OR APPROVED EQUAL) AS INDICATED. REFER TO TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ANCHOR DOWELS/ANCHORAGE DEVICE SHALL NOT BE EMBEDDED WITHIN THE CONCRETE STRUCTURE.

PRIMARY CLARIFIER NO.2 TOP PLAN

SCALE: 3/16"=1'-0"



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD	DESCRIPTION
1	12/16	ADP	RKT	ADDENDUM NO. 1

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

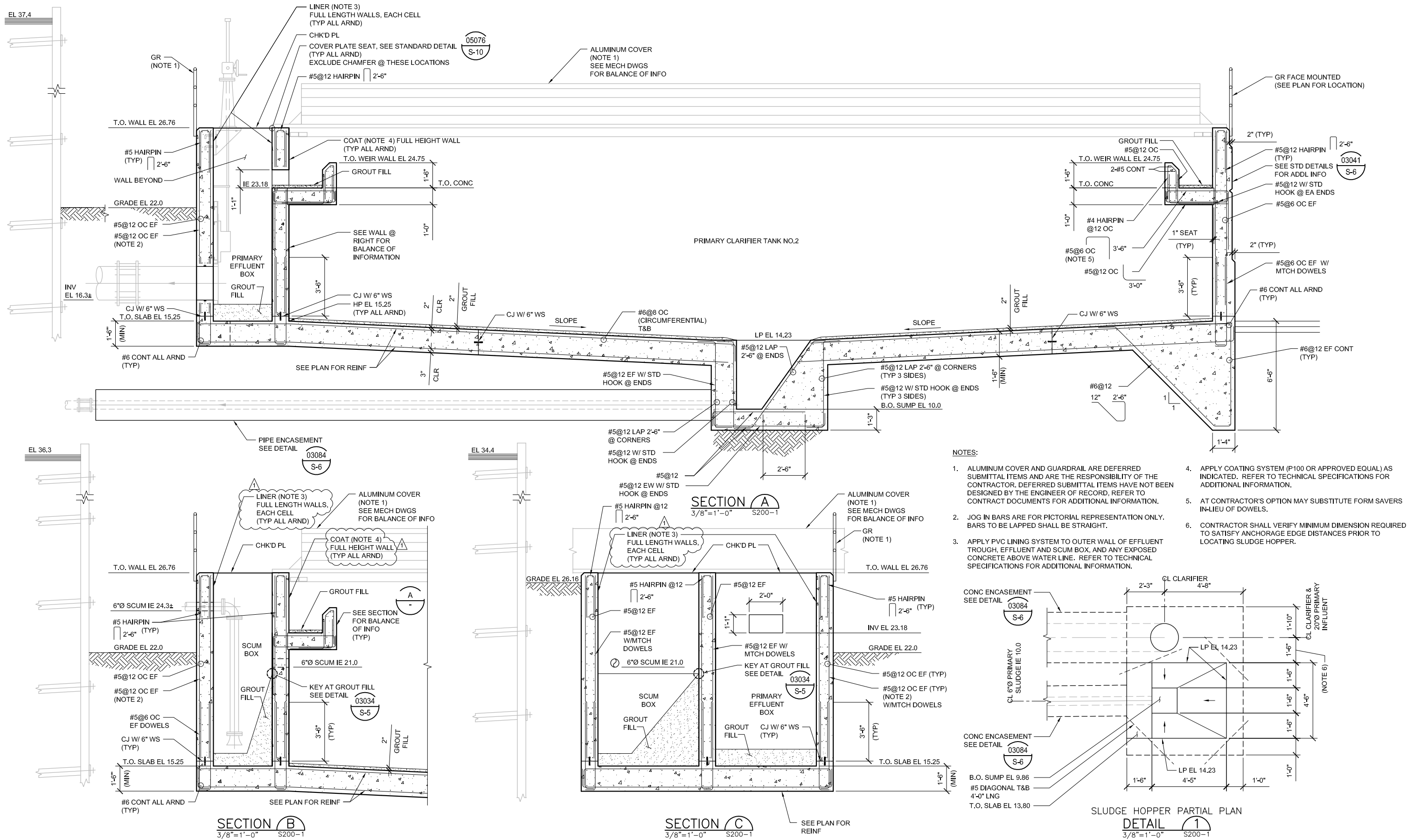
SUBMITTED:	MARK TAKEMOTO	CE-64369
APPROVED:	STEVE CLARY	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
**PRIMARY CLARIFIER NO.2
FOUNDATION AND TOP PLANS**

DWG NO	S200-1
SHEET NO	108 OF 226
PROJ NO	055-006
DATE	NOVEMBER 2016

FILENAME: 0055-006-S200-02 12-28-16 01:49pm andria XREFS: X-SWCSO-TB&K S-TANK-SECT S-TANK-PLAN RKT California RKT_SG KC--



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



RMC
Water and Environment

REV	DATE	BY	APVD	DESCRIPTION
1	12/16	ADP	RKT	ADDENDUM NO. 1

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED:	MARK TAKEMOTO	RMC PROJ ENGR	CE-64369
APPROVED:	STEVE CLARY	RMC ENGR	CE-30318



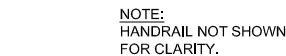
TREATMENT AND WET WEATHER FLOW UPGRADE
PRIMARY CLARIFIER NO. 2
SECTIONS AND DETAIL

DWG NO	S200-2
SHEET NO	109 OF 226
PROJ NO	055-006
DATE	NOVEMBER 2016



1. ALL MEMBER SIZES SHOWN ON SHEETS ARE MINIMUM SIZES. ACTUAL SIZES SHALL BE DETERMINED BY THE CONTRACTOR.
2. THE DESIGN OF STAIRS IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DEFERRED SUBMITTAL DESIGN SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW FOR GENERAL CONFORMANCE TO THE STRUCTURAL DESIGN CRITERIA. INSTALLATION OF THE STAIRS SHALL NOT BEGIN UNTIL THE SUBMITTAL HAS BEEN REVIEWED BY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE PROJECT AND THE SUBMITTAL HAS BEEN DEEMED ACCEPTABLE BY THE OWNER.
3. ALL MATERIALS FOR STAIRS SHALL BE ALUMINUM UON.
4. WIDTH OF STAIR SHOWN ON DRAWINGS IS THE DISTANCE BETWEEN STRINGERS.

SCALE: 3/8"=1'-0"



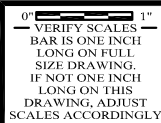
SCALE: 3/8"=1'-0"



SCALE: 1 1/2"=1'-0"



SCALE: 3/8"=1'-0"



△			
△			
△			
△			
△	12/16	ADP	RKT
REV	DATE	BY	APVD

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED: MARK TAKEMOTO
RMC PROJ ENGR CE-64369

APPROVED: STEVE CLARY
RMC ENGR CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

MISCELLANEOUS STAIRS

DWG NO	S400-3
--------	--------

SHEET NO 112 OF 226

PROJ NO	055-006
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DATE NOVEMBER 2016

FILENAME: 286F-E10 12-19-16 08:29am tp || XREFS: X-SMGSD-TBLK | MTakemoto-PE-stamp |cc---



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY

ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA



REV	DATE	BY	APVD	DESCRIPTION
▲				
▲				
▲				
▲	12/19/16	DN	SC	ADDENDUM 1

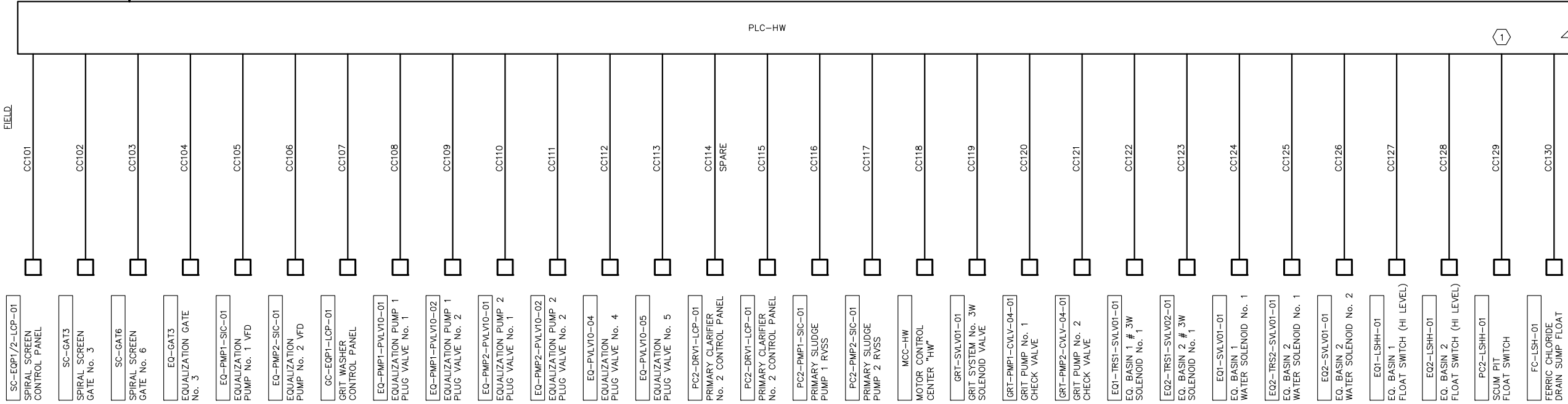
DESIGNED	TP
DRAWN	LD
CHECKED	DN

SUBMITTED:	MARK TAKEMOTO	
	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	
	RMC ENGINEER	CE-30318

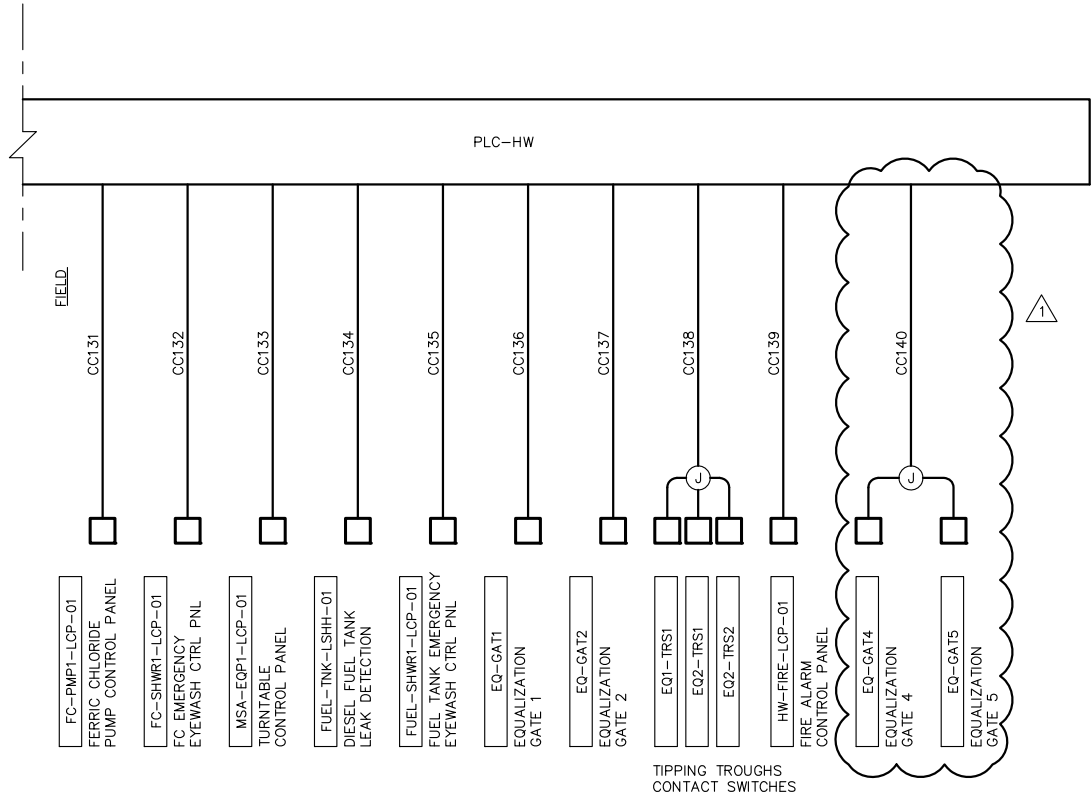


TREATMENT AND WET WEATHER FLOW UPGRADE
CONTROL ONE-LINE DIAGRAMS
SHEET 1 OF 2

DWG NO	E-10
SHEET NO	174 OF 226
PROJ NO	055-006
DATE	NOVEMBER 2016



PLC-HW-CONTROL SYSTEM ONE-LINE DIAGRAM (A)
SCALE: NTS



PLC-HW-CONTROL SYSTEM ONE-LINE DIAGRAM (CONTINUED)
SCALE: NTS

SHEET NOTES:

- SCUM PIT IS A HAZARDOUS LOCATION. FURNISH AND INSTALL AN INTRINSICALLY SAFE RELAY FOR CONNECTION TO THE FLOAT SWITCH.
- THIS CONTROL ONE-LINE DIAGRAM IS SUPPLEMENTARY TO THE CABLE AND CONDUIT SCHEDULE AND DOES NOT COVER ALL REQUIRED SIGNALS AND CONDUITS SHOWN ON THE PLANS.

FILENAME: 286F-E13 12-19-16 08:29am tp XREFS: X-SMGSD-TBLK 1 M Takemoto-PE-stamp kcc--

EQ-PMP1-PVLV10-01
EQ PMP1 PLUG VALVE 1
REMOTE STATUS

EQ-PMP1-PVLV10-01
EQ PMP1 PLUG VALVE 1
OPEN

EQ-PMP1-PVLV10-01
EQ PMP1 PLUG VALVE 1
CLOSED

EQ-PMP1-PVLV10-01
EQ PMP1 PLUG VALVE 1
OVERLOAD ALARM

EQ-PMP1-PVLV10-02
EQ PMP1 PLUG VALVE 2
REMOTE STATUS

EQ-PMP1-PVLV10-02
EQ PMP1 PLUG VALVE 2
OPEN

EQ-PMP1-PVLV10-02
EQ PMP1 PLUG VALVE 2
CLOSED

EQ-PMP1-PVLV10-02
EQ PMP1 PLUG VALVE 2
OVERLOAD ALARM

EQ-PMP2-PVLV10-01
EQ PMP2 PLUG VALVE 1
REMOTE STATUS

EQ-PMP2-PVLV10-01
EQ PMP2 PLUG VALVE 1
OPEN

EQ-PMP2-PVLV10-01
EQ PMP2 PLUG VALVE 1
CLOSED

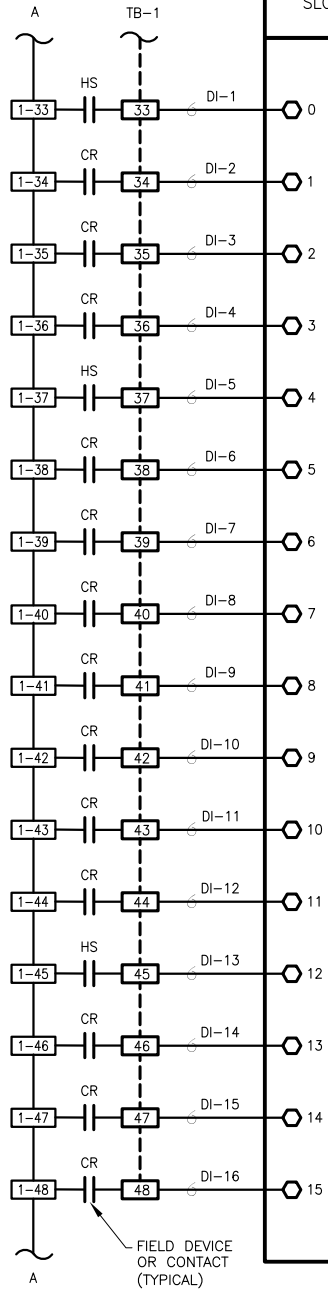
EQ-PMP2-PVLV10-01
EQ PMP2 PLUG VALVE 1
OVERLOAD ALARM

EQ-PMP2-PVLV10-02
EQ PMP2 PLUG VALVE 2
REMOTE STATUS

EQ-PMP2-PVLV10-02
EQ PMP2 PLUG VALVE 2
OPEN

EQ-PMP2-PVLV10-02
EQ PMP2 PLUG VALVE 2
CLOSED

EQ-PMP2-PVLV10-02
EQ PMP2 PLUG VALVE 2
OVERLOAD ALARM



EQ-PVLV10-04
EQ PLUG VALVE 4
REMOTE STATUS

EQ-PVLV10-04
EQ PLUG VALVE 4
OPEN

EQ-PVLV10-04
EQ PLUG VALVE 4
CLOSED

EQ-PVLV10-04
EQ PLUG VALVE 4
OVERLOAD

EQ-PVLV10-05
EQ PLUG VALVE 5
REMOTE STATUS

EQ-PVLV10-05
EQ PLUG VALVE 5
OPEN

EQ-PVLV10-05
EQ PLUG VALVE 5
CLOSED

EQ-PVLV10-05
EQ PLUG VALVE 5
OVERLOAD

MHA-EQP1
TURNTABLE
RUN STATUS

MHA-EQP1
TURNTABLE
FAIL ALARM

HW-EXF1
VENTILATION UNIT
IN AUTO

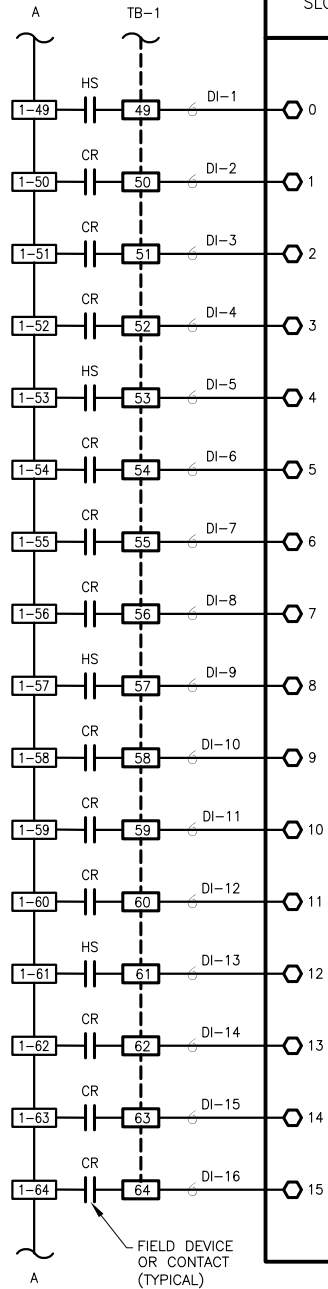
HW-EXF1
VENTILATION UNIT
RUN STATUS

HW-EXF1
VENTILATION UNIT
OVERLOAD

HW-EQP1
AUTOMATIC
REFRIGERATED SAMPLER
FAIL

EQ-GAT4
EQUALIZATION GATE 4
OPEN

EQ-GAT4
EQUALIZATION GATE 4
CLOSE



PC2-DRV1
PRIMARY CLARIFIER 2
IN AUTO MODE

PC2-DRV1
PRIMARY CLARIFIER 2
RUN

PC2-DRV1
PRIMARY CLARIFIER 2
OVERLOAD

PC2-DRV1
PRIMARY CLARIFIER 2
HI TORQUE ALARM

PC2-DRV1
PRIMARY CLARIFIER 2
HIHI TORQUE SHUTDOWN

PC2-PMP1
PRIMARY SLUDGE PMP 1 RVSS
IN AUTO

PC2-PMP1
PRIMARY SLUDGE PMP 1 RVSS
RUN STATUS

PC2-PMP1
PRIMARY SLUDGE PMP 1 RVSS
FAIL ALARM

PC2-PMP1
PRIMARY SLUDGE PMP 1 RVSS
HI PRESSURE ALARM

PC2-PMP1
PRIMARY SLUDGE PMP 1 RVSS
LOW PRESSURE ALARM

PC2-PMP2
PRIMARY SLUDGE PMP 2 RVSS
IN AUTO

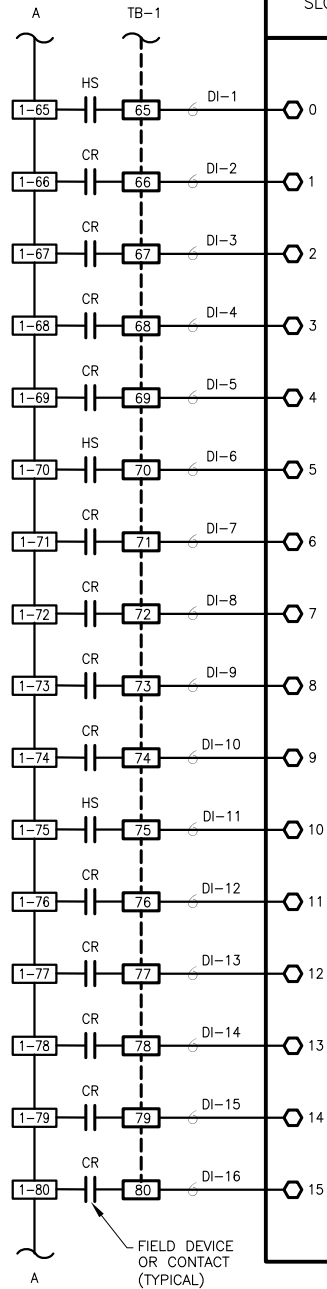
PC2-PMP2
PRIMARY SLUDGE PMP 2 RVSS
RUN STATUS

PC2-PMP2
PRIMARY SLUDGE PMP 2 RVSS
FAIL ALARM

PC2-PMP2
PRIMARY SLUDGE PMP 2 RVSS
HI PRESSURE ALARM

PC2-PMP2
PRIMARY SLUDGE PMP 2 RVSS
LOW PRESSURE ALARM

PC2-LSLL-01
SCUM PIT
LOW LEVEL ALARM



FC-PMP1
FERRIC CHLORIDE PUMP 1
IN AUTO MODE

FC-PMP1
FERRIC CHLORIDE PUMP 1
RUN

FC-PMP1
FERRIC CHLORIDE PUMP 1
FAIL

FC-PMP1
FERRIC CHLORIDE PUMP 1
LEAK ALARM

FC-SHWR1-FSH-01
FERRIC CHLORIDE EMERGENCY
EYEWASH ACTIVATE

FUEL-TNK-LSHH-01
DIESEL FUEL TANK
LEAK ALARM

FUEL-SHWR1-FSH-01
FUEL TANK EMERGENCY
EYEWASH ACTIVATE

EQ-GAT5
EQUALIZATION GATE 5
OPEN

EQ-GAT5
EQUALIZATION GATE 5
CLOSE

EQ1-LSHH
EQ. BASIN 1
HI LEVEL ALARM

EQ1-TRS1
EQ. BASIN 1
TROUGH TIPPED

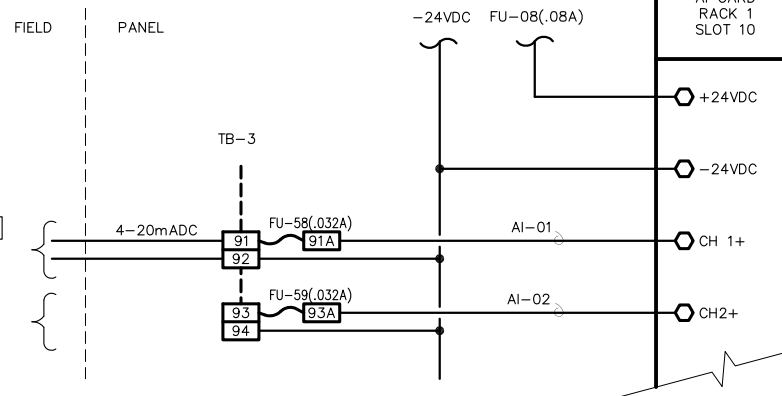
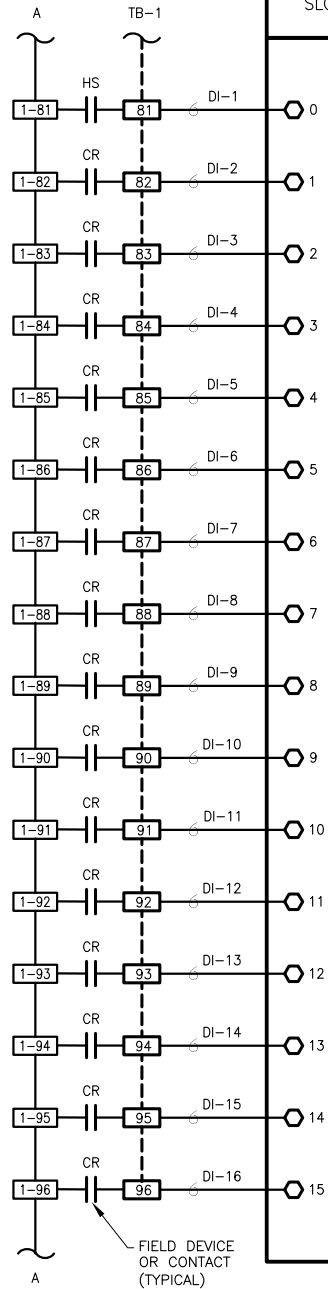
EQ2-TRS1
EQ. BASIN 2
TROUGH 1 TIPPED

EQ2-TRS2
EQ. BASIN 2
TROUGH 2 TIPPED

EQ2-LSHH
EQ. BASIN 2
HI LEVEL ALARM

HW-FIRE-LCP-01
FIRE ALARM
TROUBLE

HW-FIRE-LCP-01
FIRE ALARM
ACTIVATION



PLC-HW WIRING DIAGRAMS A

SCALE: NTS



0" = 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY

ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA



REV	DATE	BY	APVD	DESCRIPTION
1	12/19/16	DN	SC	ADDENDUM 1

DESIGNED	TP
DRAWN	LD
CHECKED	DN

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

SCADA PLC WIRING DIAGRAMS
PLC - HW - SHEET 2 OF 4

DWG NO E-13
SHEET NO 177 OF 226
PROJ NO 055-006
DATE NOVEMBER 2016

FILENAME: 286F-E18 12-19-16 08:29am tp || XREFS: X-SMCSB-TBLK | M Takemoto-PE-stamp | CC--

CONDUIT SCHEDULE 12						
CONDUIT No.	CONDUIT SIZE	TYPE	FROM	TO	CABLES	NOTES
CC101	1"	PVC & PVC-COATED RGS	SPIRAL SCREEN CONTROL PANEL	PLC-HW	-	SPARE CONDUIT
CC102	1"	PVC & PVC-COATED RGS	SPIRAL SCREEN GATE No. 3	PLC-HW	4#14 AND 2#14 SPARES	
CC103	1"	PVC & PVC-COATED RGS	SPIRAL SCREEN GATE No. 6	PLC-HW	14#14 AND 2#14 SPARES	
CC104	1"	PVC & PVC-COATED RGS	EQUALIZATION GATE No. 3	PLC-HW	4#14 AND 2#14 SPARES	
CC105	1"	PVC & PVC-COATED RGS	EQUALIZATION PUMP No. 1 VFD	PLC-HW	14#14 AND 4#14 SPARES	
CC106	1"	PVC & PVC-COATED RGS	EQUALIZATION PUMP No. 2 VFD	PLC-HW	14#14 AND 4#14 SPARES	
CC107	1"	PVC & PVC-COATED RGS	GRIT WASHER CONTROL PANEL	PLC-HW	-	SPARE CONDUIT
CC108	1"	PVC & PVC-COATED RGS	EQUALIZATION PUMP 1 PLUG VALVE No. 1	PLC-HW	12#14 AND 2#14 SPARES	
CC109	1"	PVC & PVC-COATED RGS	EQUALIZATION PUMP 1 PLUG VALVE No. 2	PLC-HW	12#14 AND 2#14 SPARES	
CC110	1"	PVC & PVC-COATED RGS	EQUALIZATION PUMP 2 PLUG VALVE No. 1	PLC-HW	12#14 AND 2#14 SPARES	
CC111	1"	PVC & PVC-COATED RGS	EQUALIZATION PUMP 2 PLUG VALVE No. 2	PLC-HW	12#14 AND 2#14 SPARES	
CC112	1"	PVC & PVC-COATED RGS	EQUALIZATION PLUG VALVE No. 4	PLC-HW	12#14 AND 2#14 SPARES	
CC113	1"	PVC & PVC-COATED RGS	EQUALIZATION PLUG VALVE No. 5	PLC-HW	12#14 AND 2#14 SPARES	
CC114	1"	PVC & PVC-COATED RGS	PRIMARY CLARIFIER No. 2 CONTROL PANEL	PLC-HW	-	SPARE CONDUIT
CC115	1"	PVC & PVC-COATED RGS	PRIMARY CLARIFIER No. 2 CONTROL PANEL	PLC-HW	12#14 AND 2#14 SPARES	
CC116	1"	PVC & PVC-COATED RGS	PRIMARY SLUDGE PUMP 1 RVSS	PLC-HW	12#14	
CC117	1"	PVC & PVC-COATED RGS	PRIMARY SLUDGE PUMP 2 RVSS	PLC-HW	12#14	
CC118	1"	PVC & PVC-COATED RGS	MOTOR CONTROL CENTER "HW"	PLC-HW		
CC119	1"	PVC & PVC-COATED RGS	GRIT SYSTEM #3W SOLENOID VALVE	PLC-HW	2#12, #12 GND	
CC120	1"	PVC & PVC-COATED RGS	GRIT PUMP No. 1 CHECK VALVE	PLC-HW	12#14	
CC121	1"	PVC & PVC-COATED RGS	GRIT PUMP No. 2 CHECK VALVE	PLC-HW	12#14	
CC122	1"	PVC & PVC-COATED RGS	EQ. BASIN 1 #3W SOLENOID VALVE	PLC-HW	2#12, #12 GND	
CC123	1"	PVC & PVC-COATED RGS	EQ. BASIN 2 #3W SOLENOID VALVE	PLC-HW	2#12, #12 GND	
CC124	1"	PVC & PVC-COATED RGS	EQ. BASIN 1 WATER SOLENOID VALVE	PLC-HW	2#12, #12 GND	
CC125	1"	PVC & PVC-COATED RGS	EQ. BASIN 2 WATER SOLENOID VALVE 1	PLC-HW	2#12, #12 GND	
CC126	1"	PVC & PVC-COATED RGS	EQ. BASIN 2 WATER SOLENOID VALVE 2	PLC-HW	2#12, #12 GND	
CC127	1"	PVC & PVC-COATED RGS	EQ. BASIN 1 FLOAT SWITCH	PLC-HW	2#14	
CC128	1"	PVC & PVC-COATED RGS	EQ. BASIN 2 FLOAT SWITCH	PLC-HW	2#14	
CC129	1"	PVC & PVC-COATED RGS	SCUM PIT FLOAT SWITCH	PLC-HW	2#14	
CC130	1"	PVC & PVC-COATED RGS	FERRIC CHLORIDE DRAIN SUMP FLOAT	PLC-HW	2#14	
CC131	1"	PVC & PVC-COATED RGS	FERRIC CHLORIDE PUMP CONTROL PANEL	PLC-HW	10#14 AND 4#14 SPARES	
CC132	1"	PVC & PVC-COATED RGS	FERRIC CHLORIDE EMERGENCY EYEWASH ALARM PANEL	PLC-HW	4#14 AND 4#14 SPARES	
CC133	1"	PVC & PVC-COATED RGS	TURNTABLE CONTROL PANEL	PLC-HW	4#14	
CC134	1"	PVC & PVC-COATED RGS	DIESEL FUEL TANK LEAK DETECTION	PLC-HW	2#14 AND 4#14 SPARES	
CC135	1"	PVC & PVC-COATED RGS	FUEL TANK EMERGENCY EYEWASH ALARM PANEL	PLC-HW	2#14 AND 4#14 SPARES	
CC136	1"	PVC & PVC-COATED RGS	EQUALIZATION GATE 1	PLC-HW	4#14 AND 2#14 SPARES	
CC137	1"	PVC & PVC-COATED RGS	EQUALIZATION GATE 2	PLC-HW	4#14 AND 2#14 SPARES	
CC138	1"	PVC & PVC-COATED RGS	EQ. BASIN 2 TIPPING TROUGHS CONTACT SWITCHES	PLC-HW	6#14 AND 4#14 SPARES	
CC139	3/4"	PVC-COATED RGS	FIRE ALARM CONTROL PANEL	PLC-HW	4#14	
CC140	3/4"	PVC-COATED RGS	EQ. GATES 4 & 5 VIA J-BOX	PLC-HW	8#14 AND 2#14 SPARES	
CC201	1.5"	PVC-COATED RGS	FILTER FEED PUMP CONTROL PANEL	PLC-GEN	30#14 AND 6#14 SPARES	
CC202	3/4"	PVC-COATED RGS	FILTER FEED LOW LOW LEVEL FLOAT SWITCH	PLC-GEN	4#14	
CC203	3/4"	PVC-COATED RGS	FILTER FEED HIGH HIGH LEVEL FLOAT SWITCH	PLC-GEN	4#14	
CC204A	3/4"	PVC-COATED RGS	FILTER 1 CONTROL PANEL	PLC-GEN	-	SPARE CONDUIT
CC204B	3/4"	PVC-COATED RGS	FILTER 2 CONTROL PANEL	PLC-GEN	-	SPARE CONDUIT
CC205	3/4"	PVC-COATED RGS	FILTER INFLUENT MOTORIZED WEIR GATE	PLC-GEN	4#14	
CC206	3/4"	PVC-COATED RGS	FILTER FEED PUMP HEADER MOV	PLC-GEN	4#14	
CC301	3/4"	RGS	RECYCLE WATER PUMP 1 VFD	PLC-6	14#14 (4 SPARES)	
CC302	3/4"	RGS	RECYCLE WATER PUMP 2 VFD	PLC-6	14#14 (4 SPARES)	
CC401	1 1/2"	PVC-COATED RGS	UTILITY WATER PUMP CONTROL PANEL	MAIN PLANT PLC	30#14 AND 6#14 SPARES	

- SHEET NOTES:**
- 1
- 2

CONTROL-CONDUIT AND CABLE SCHEDULE A 12

SCALE: NTS



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY

ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA



△					
△					
△					
△					
△	12/19/16	DN	SC	ADDENDUM 1	

REV DATE BY APVD DESCRIPTION

DESIGNED	TP
DRAWN	LD
CHECKED	DN

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

CABLE AND CONDUIT SCHEDULE
SHEET 2 OF 3

DWG NO E-18
SHEET NO 184 OF 226
PROJ NO 055-006
DATE NOVEMBER 2016

