

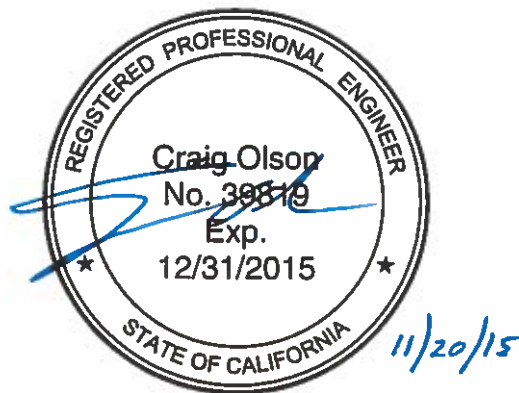
**City of Pinole
Pinole-Hercules Water Pollution Control Plant Upgrades
November 20, 2015**

DESIGNER

HDR Engineering, Inc.
2365 Iron Point Road, Suite 300
Folsom, CA 95630
(916) 817-4700

OWNER

City of Pinole
2131 Pear Street
Pinole, CA 94564



GENERAL

Scope

- A. This Addendum forms a part of the Bidding and Contract Documents and modifies the Project Specifications and Drawings described below.

- B. This Addendum consists of 11 pages and the following attachments:
 - 1. Section 11080 – Pumping Equipment: Submersible Grinder Pump (New) (5 pages)
 - 2. Section 13121 – Metal Buildings Systems (Public Works Building) (Reissued) (8 pages).
 - 3. Reissued Sheet 03D101 (11 x 17).
 - 4. Reissued Sheet 61D101 (11 x 17).
 - 5. Reissued Sheet 01A101 (11 x 17).
 - 6. Reissued Sheet 01S101 (11 x 17).
 - 7. Reissued Sheet 31P102 (11 x 17).
 - 8. Reissued Sheet 32P101 (11 x 17).
 - 9. Reissued Sheet 32P102 (11 x 17).

Acknowledgment

- A. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

REVISIONS TO SPECIFICATIONS

Part 1 – Contract Requirements

Section 004100 – Bid Forms

Article 6 Basis of Bid

TABLE

Explanation of Bid Items to be issued in Addendum No. 3 on November 25, 2015

Section 004360 – List of Equipment Manufacturers

Article 3.07

TABLE

Table will be completed in Addendum No.3 on November 25, 2015.

Section 08000 – Supplementary Conditions

Article 4 SC-4.01 A.

CHANGE

“A. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract.”

TO READ

“A. A notice to Proceed may be given at any time within 120 days after the Effective Date of the Contract.”

Part 2 – Technical Specifications

Section 01010 – Construction and Schedule Constraints

Article 1.4 C.10.

DELETE

In its entirety.

Section 01560 – Environmental Protection and Special Controls

Article 1.2 A.

ADD

“3. Stormwater Pollution Prevention Plan (SWPPP) including Stormwater Control Plan shall be developed and submitted, regardless of described in the Mitigation Measures table.

- a. The legally responsible person (LRP) shall be Al Petrie, Public Works Director for the City of Pinole.”

Article 3.2 B. MMRP Table, 3.6-3a, Comment Column

CHANGE TO READ

“The Contractor shall be responsible to comply with Mitigation Measure Number 3.6-3a., except the pipeline alignment portion of Option 1 which will not be constructed.”

Section 02200 – Earthwork

Article 3.6 E.1.

CHANGE TO READ

“1. Sitework:

LOCATION	COMPACTION DENSITY
Upper 12 IN of pavement subgrade (below aggregate base):	95 percent relative compaction per ASTM D1557
Aggregate base under pavement:	95 percent relative compaction per ASTM D1557
Embankment fill subgrades:	95 percent relative compaction per ASTM D1557 at moisture condition between 3 and 5 percent above optimum”

Article 3.6 E.2.

CHANGE TO READ

“2. Structures:

LOCATION	COMPACTION DENSITY
Structure subgrades (below granular fill)	95 percent relative compaction per ASTM D1557 at moisture condition between 3 and 5 percent above optimum
Structure backfill	95 percent per ASTM D1557
12 IN granular fill	95 percent relative compaction per ASTM D1557”

Article 3.7 C.3.

CHANGE TO READ

“3. Granular fill under concrete slabs: Place all concrete slabs on a minimum of 12 IN of granular fill unless otherwise indicated.”

Section 02513 – Asphaltic Concrete Vehicular Paving

Article 3.1 B.

CHANGE TO READ

“B. Install a 6 IN compacted layer of aggregate base course in accordance with the referenced State Specifications.”

Section 02515 – Precast Concrete Manhole Structures

Article 2.2 D.3.

CHANGE

“3. Vertical wall surfaces:”

TO READ

“3. Exterior vertical wall surfaces:”

Article 2.2 D.3.a.

CHANGE

“a. Emulsified fibrated asphalt compound meeting ASTM D1227 type I for all exterior and interior vertical wall surfaces.”

TO READ

“a. See Specification Section 07120.”

Section 07120 – Fluid Applied Waterproofing

Article 3.2 A.

ADD

“3. Apply to exterior vertical surfaces of all precast manholes and precast structures.”

Section 07412 – Metal Roofing

Article 2.4

ADD

“D. Roofing Membrane:

1. EPDM rubber sheet with non-woven polyester fleece backing.
2. 0.060 IN thick.
3. Color: White.
4. ASTM D4637.”

Article 2.6

ADD

“B. Repair Patch Kit.

1. Lap sealant.
2. Piece of roofing membrane 2 x 2 FT.
3. Adhesive and primer.”

Section 09201 – Metal Furring and Lathing

DELETE

Delete this specification section in its entirety.

Section 11322 – Grit Cyclones and Classifiers

Article 2.4

ADD

“2.4 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

1. Wemco.
2. Or approved equal.”

Section 15060 – Pipes and Pipe Fittings: Basic Requirements

Article 3.1 C.

CHANGE TO READ

“C. When entering or leaving structures with buried mechanical joint piping, except at precast manholes and drain inlets, install joint within 2 FT of point where pipe enters or leaves structure.”

Article 3.12 C.1.a.

ADD

“9) SC – Secondary Scum.
10) TSC – Thickened Scum.”

Article 3.12 G.2.a.2)a)

CHANGE TO READ

“a) PVC, Type 1, Grade 1, Schedule 80.”

Article 3.12 G.2.a.

ADD

“3) See Section 15065 for double contained piping.”

Article 3.12 H.2.a.

ADD

“3) See Section 15065 for double contained piping.”

Article 3.12 BB.

CHANGE TO READ

“BB. PIPING SPECIFICATION SCHEDULE – SYSTEM 28

1. General:
 - a. Piping symbol and service:
 - 1) FA – Foul Air.
 - b. Test requirements:
 - 1) Medium: Air.
 - 2) Pressure: 5 psig.
 - 3) Duration: 60 minutes.
 - c. Gaskets:
 - 1) Flange: Gylon gasketing, Garlock Style 3504.

- 2) Push-on or mechanical coupling: TFE.
2. System components:
 - a. All pipe sizes:
 - 1) Exposed service:
 - a) Material: Fire retardant, UV resistant fiberglass reinforced plastic (FRP).
 - b) Reference: Section 15890.
 - c) Coating: Paint. See Section 09905.
 - 2) Buried service:
 - a) Size 3 IN – 12 IN: ASTM 3034, SDR 35.
 - b) Sizes 14 IN – 36 IN: ASTM F679, SDR 35.”

Section 15065 – Double Containment Piping System

Article 2.2 A.

CHANGE TO READ

“A. Sodium Hypochlorite and Sodium Bisulfite Piping System:”

Article 2.2 B.

ADD

“B. Ferric Chloride Piping System:

1. Primary and secondary piping:
 - a. Piping:
 - 1) CPVC, ASTM F441.
 - 2) Schedule 80, ASTM F441.
 - b. Fittings:
 - 1) CPVC, ASTM F439.
 - 2) Schedule 80, ASTM F439.
2. Joints: Solvent welded, ASTM D2564 and ASTM D2855.”

Section 15101 – Gate Valves

Article 2.4

ADD

“C. Knife Gate Valves, 2 to 42 IN (Wastewater and Sludge Application):

1. Materials:
 - a. Body construction:
 - 1) 2 to 4 IN: Cast stainless steel.
 - 2) 6 to 24 IN: Cast iron body with stainless steel lining.
 - 3) 30 to 72 IN: Fabricated stainless steel body with carbon steel flanges.
 - b. Wetted parts: Stainless steel Type 304.
 - c. Packing: Flax, 150 DegF max.
 - d. Stem: Stainless steel, double pitch thread.
 - e. Resilient seat material (2 to 36 IN): Butadiene.
 - f. Rising stem.
2. Design requirements
 - a. Working pressure (WOG non-Shock):

- 1) 2 to 24 IN: 150 psi.
 - 2) 30 to 36 IN: 125 psi.
 - 3) 42 to 72 IN: 50 psi.
 - 4) Actuator: Geared actuator for valves 20 IN and larger.
3. Acceptable manufacturers:
- a. DeZurik.
 - b. Fabri-Valve.”

Section 15106 – Check Valves

Article 2.7

ADD

“2.7 DUCK-BILLED CHECK VALVE

- A. Acceptable Manufacturers:
1. Red Valve Company, Inc., Series 35, Tideflex check valve.
 2. Or equal.
- B. Materials:
1. Check Valve: One-piece rubber with nylon reinforcement. It shall be neoprene suitable for raw wastewater.
 2. Connection: Type 316 SST backup ring.
- C. Design Requirement:
1. Maximum backpressure: 1 FT.
 2. Normal backpressure: 0 FT.
 3. The port area shall contour down to a duckbill that shall allow passage of flow in one direction while preventing reverse flow.
 4. The flange drilling shall conform to ANSI B16.1 Class 125/ANSI B 16.5, Class 150 standards.
 5. Company name, plant location, valve size, and serial number shall be bonded to the check valve.”

Section 15114 – Miscellaneous Valves

Article Part 2

ADD

“2.8 HYDROSTATIC PRESSURE RELIEF VALVE

- A. Valves shall consist of cover, body, and grate.
- B. Materials:
1. Cover, body, grate: Cast iron, ASTM A126, Class B.
 2. Seats: Buna-N rubber, bonded to cover, mating with a machined bronze seat in the body.
- C. Valves shall open at a head of approximately 9 IN of water.
- D. Unit illustrated: M&H Valve, Style F-1493, or equal.”

REVISIONS TO DRAWINGS

Drawing 00G006

CHANGE

“AA – AERATION AIR”

TO READ

“LPA – LOW PRESSURE AIR”

Drawing 00G007

Keynote 26

CHANGE TO READ

“EXISTING FUEL DISPERSING STATION”

Drawing 03D101

REPLACE

With Reissued Sheet 03D101, Attached

Drawing 61D101

REPLACE

With Reissued Sheet 61D101, Attached

Drawing 66D101

CHANGE

“DEMOLISH AIR COMPRESSOR AND ASSOCIATED PIPING”

TO READ

“REMOVE AND RELOCATE AIR COMPRESSOR. REMOVE ASSOCIATED PIPING.”

Drawing 00C001

DELETE

Detail “CHAIN LINK FENCE & GATE”

Detail 4 Note 1:

CHANGE

“SECTION 03002”

TO READ

“SECTION 03348”

Detail 5

CHANGE

“SEE NOTE 3”

TO READ

“SEE NOTE”

Detail 10

DELETE

NOTE 2

CHANGE

“EMBEDMENT FOR FRP/PVC PPE”

TO READ

“EMBEDMENT FOR HDPE/FRP/PVC PIPE”

Drawing 00C003

Plant Drain Structure Table

DELETE

“STRUCTURE – (202)” and related information.

Drawing 02C101

ADD

“NOTE 3. SEE SHEET 32P101 FOR LOCATION OF BOLLARDS AND CONCRETE WALKWAY AT SAMPLER.”

Drawing 02C102

CHANGE

“3’ WIDE CONC VALLEY GUTTER PER DETAIL 6/00C001”

TO READ

“4’ WIDE CONC VALLEY GUTTER PER DETAIL 6/00C001”

Drawing 02C102, 02C103, 02C104, 02C105, 02C106

ADD

“NOTE 3. CHAIN LINK FENCE SHALL BE CONSTRUCTED OF NEW MATERIAL.”

Drawing 02C104

CHANGE

Detail Callout “3’ WIDE CONC VALLEY GUTTER PER DETAIL 7/00C005”

TO READ

“4’ WIDE CONC VALLEY GUTTER PER DETAIL 6/00C001”

Drawing 02C105

ADD

“NOTE 3. ALL BOLLARDS SHOWN SHALL BE FIXED TYPE PER DETAIL 4/00C002.”

Drawing 02C106

ADD

“NOTE 3. ALL BOLLARDS SHOWN SHALL BE FIXED TYPE PER DETAIL 4/00C002.”

Drawing 00L001

CHANGE

“PACKAGED PUBLIC RESTROOM SET INTO 16’ X 30’ CONC PAD, SEE SHT 00L03”

TO READ

“PACKAGED PUBLIC RESTROOM SET INTO COMPACTED AGGREGATE BASE. SEE SHT 00L03. PROVIDE 4’ WIDE SIDEWALK AROUND BUILDING, SEE DETAIL 9/00S05.”

Drawing 01A101

REPLACE

With Reissued Sheet 01A101, Attached

Drawing 66A101

Keynote 14

CHANGE TO READ

“RELOCATED AIR COMPRESSOR, SEE SHEET 66D01 FOR ORIGINAL LOCATION.”

Drawing 01S101

REPLACE

With Reissued Sheet 01S101, Attached

Drawing 21P111

ADD

“NOTE 3. WALKWAY OUTSIDE OF PERIMETER OF CLARIFIER SHALL BE DESIGNED BY CONTRACTOR PER SPECIFICATION SECTION 05505. SEE SHEET 00S01 FOR DESIGN CRITERIA.”

Drawing 21P121

ADD

“NOTE 3. WALKWAY OUTSIDE OF PERIMETER OF CLARIFIER SHALL BE DESIGNED BY CONTRACTOR PER SPECIFICATION SECTION 05505. SEE SHEET 00S01 FOR DESIGN CRITERIA.”

Drawing 31P102

REPLACE

With Reissued Sheet 31P102, Attached

Drawing 31P106

CHANGE

“CHECK VALVE

TO READ

“DUCK-BILLED CHECK VALVE”

Addendum No. 2

Drawing 32P101

REPLACE

With Reissued Sheet 32P101, Attached

Drawing 32P102

REPLACE

With Reissued Sheet 32P102, Attached

Drawing 61P101

ADD

“NOTE 2. GRATING, LADDERS, AND STAIRS SHALL BE DESIGNED BY CONTRACTOR PER SPECIFICATION SECTION 05505. SEE SHEET 00S01 FOR DESIGN CRITERIA.”

Drawing 14M101

ADD

“NOTE 1. SEE DETAIL 8/00S05 FOR HOUSEKEEPING PAD.”

Drawing 00E014

64PMP030

CHANGE

“5 HP”

TO READ

“7.5 HP”

Drawing 41E103

DELETE

Delete sheet in its entirety

End of Addendum

SECTION 11080
PUMPING EQUIPMENT: SUBMERSIBLE CHOPPER PUMPS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Chopper pumps for scum at Primary Clarifier No. 3 and Sludge Gravity Thickener.
 2. Submersible chopper pumps, rail system, and appurtenances.

1.2 QUALITY ASSURANCE

- A. Chopper pumps shall be:
1. Furnished complete and ready for installation.
 2. Manufacturer's standard unit.
 3. Underwriters Laboratory listed for intended service.
 4. Subject to factory testing in compliance with UL.
 5. Electrically rated for NEC Class I, Division 1 Group C or D installation.
- B. Referenced Standards:
1. American Institute of Steel Construction (AISC):
 - a. C1141.
 2. American National Standard Institute (ANSI):
 - a. B16.1, Cast-Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800.
 3. American Society for Testing and Materials (ASTM):
 - a. A36, Specification for Structural Steel.
 4. American Welding Society (AWS):
 - a. A5.1, Standard Specification for Mild Steel covered.
 - b. D1.1, Structural Welding Code - Steel.
 5. National Electrical Manufacturers Association (NEMA).
 6. National Fire Protection Association (NFPA):
 - a. 70, National Electrical Code (NEC).
 7. Occupational, Health and Safety Administration (OSHA).
- C. Qualifications:
1. Manufacturer shall be regularly engaged in the manufacture of heavy duty chopper pumps. The pump shall be specifically designed to pump waste solids at heavy consistencies without plugging or dewatering of the solids. Materials shall be chopped/macerated and conditioned by the pump as an integral part of the pumping action. The pump must have demonstrated the ability to chop through and pump high concentrations of solids such as plastics, heavy rags, grease and hair balls, wood, paper products and stringy materials without plugging, both in tests and field applications.

1.3 SUBMITTALS

- A. Shop Drawings and Product data:
1. See Section 11060 for Shop Drawings, Product Data, and Samples.
 2. Fabrication and/or layout drawings:
 - a. Fabrication.
 - b. Assembly.
 - c. Installation.
 - d. Wiring and control diagrams.
 - e. Equipment manufacturers.
 3. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.

- b. Manufacturer's installation instruction.
 - c. Material of construction.
 - d. Parts.
 - e. Devices.
 - f. Performance data and curves.
 - 4. Certifications:
 - a. Provide Owner with a written certification that manufacturer's equipment has been installed properly and started up and is ready for operation by Owner's personnel.
 - 5. Test reports.
- B. Operation and Maintenance Manuals:
- 1. O&M Manuals: See Section 01340.

1.4 WARRANTY

- A. Provide Owner with manufacturer's warranty guaranteeing the sewage chopper pumps, etc. to be free from defects for 1 year from date of acceptance.

1.5 ENVIRONMENTAL CONDITIONS

- A. Explosionproof NEC Class 1, Division 1 Group C or D.
- B. Ambient temperature range: 25 DegF to 110 DegF.
- C. Corrosive environment.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the Contract Documents, the following Manufacturers are acceptable:
 - 1. Grinder Scum Pumps.
 - a. Vaughan E Series.
 - b. Wemco CF.
 - c. Or approved equal.

2.2 PUMP STATION: GENERAL

- A. Chopper pumps.
 - 1. Submersible centrifugal chopper pump shall be capable of handling primary scum and scum at gravity thickener.
 - 2. Sliding rail system suitable for attaching to a concrete wetwell wall.

2.3 GRINDER PUMPS

- A. Provide complete submersible centrifugal chopper pumping units, including motor, guide rails, and couplings that will meet Operating Conditions, and comply with Section 11060.
- B. Operating Conditions:
 - 1. Primary Scum Pump 23PMP002.
 - a. Design condition: 150 gpm at 65 FT TDH.
 - b. Shutoff head: 75 FT.
 - c. Maximum pump speed: 1750 rpm.
 - d. Maximum driver horsepower: 10 HP.
 - e. Non-overloading at any point on pump curve.
 - 2. Gravity Thickener Scum Pump 61PMP030:
 - a. Design condition: 150 gpm at 40 FT TDH.
 - b. Shutoff head: 26 FT.
 - c. Maximum pump speed: 1750 rpm.

- d. Maximum driver horsepower: 7.5 HP.
 - e. Non-overloading at any point on pump curve.
- C. Each chopper pump motor shall be of totally submersible design, constructed with epoxy or poly-sealed encapsulated windings, with Class 13 insulation and rated for up to 15 minutes in an un-submerged condition duty operation. Motors shall three phase, 60 cycle, 460V, explosionproof design. Motors shall be sized so that under maximum continuous load, motor nameplate horsepower is a minimum of 15 percent greater than the driven load.
- D. Motor shall be equipped with tandem independently mounted mechanical seals in oil bath and with dual moisture sensing probes. The inner and outer seals shall be separated by an oil-filled chamber. Double-seal (back to back) configurations are not acceptable due to the potential for failure of both seals as a result of lodged solids. The oil chamber shall act as a barrier to trap moisture and provide sufficient time for a planned shutdown. The oil shall also provide lubrication to the internal seal. The inner seal shall be a standard UL listed John Crane type 21 or equal, with carbon rotating face and ceramic stationary face. The outer seal construction shall be designed for easy replacement. Outer mechanical seal shall be 316 stainless steel pusher type with silicon or tungsten carbide faces. Seal shall be positively driven by set screws. Elastomers shall be of Viton®. Motor shall include two normally closed automatic resetting thermostats connected in series and imbedded in adjoining phases. Motor frame shall be cast iron, and all hardware and shaft shall be stainless steel. Motor shall conform to Section 11005.
- E. Provide motor housing and pump volute of cast-iron material, ASTM A-48, Class 25. All external mating parts shall be machined and Buna-N rubber or nitrile rubber O-rings sealed on a beveled edge. All fasteners exposed to the pumped liquids shall be 304L series stainless steel.
- F. Shafting: Pump shafting shall be heat-treated alloy steel. The pump shaft shall directly couple to the motor shaft, with a bolt and keyway.
- G. The Impeller: Shall be semi-open type with pump out vanes to reduce seal area pressure. Chopping/maceration of materials shall be accomplished by the action of the cupped and sharpened leading edges of the impeller blades moving across the cutter bar at the intake openings, with a maximum set clearance between the impeller and cutter bar of 0.015-0.025 IN cold. Impeller shall be cast alloy steel heat treated to minimum Rockwell C 60 and dynamically balanced. The impeller shall be keyed to the shaft and shall have no axial adjustments and no set screws.
- H. Cutter Bar Plate: Shall be recessed into the pump bowl and shall contain at least 2 shear bars extending diametrically across the intake opening to within 0.010-0.020” of the rotating cutter nut tooth, for the purpose of preventing intake opening blockage and wrapping of debris at the shaft area. Chopper pumps utilizing individually mounted shear bars shall not be acceptable. Cutter bar shall be alloy steel heat-treated to minimum Rockwell C 60.
- I. Cutter Nut: The impeller shall be secured to the shaft using a cutter nut, designed to cut stringy materials and prevent binding using a raised, rotating cutter tooth. The cutter nut shall be cast steel heat treated to minimum Rockwell C 60 hardness.
- J. Upper Cutter: Shall be threaded into the back pull-out adapter plate behind the impeller, designed to cut against the pump-out vanes and the impeller hub, reducing and removing stringy materials from the mechanical seal area. Upper cutter shall be cast steel heat treated to minimum Rockwell C 60. The upper cutter teeth are positioned as closely as possible to the center of shaft rotation to minimize cutting torque and nuisance motor tripping. The ratio of upper cutter cutting diameter to shaft diameter in the upper cutter area of the pump shall be 3.0 or less.
- K. Pumps shall be provided with a guide rail(s) with the entire weight of the pumping unit being guided by the guide rail(s) and pressed tightly against the discharge connection elbow. Assembly shall allow for removal of pumps without entering the pump channel and without removal of bolts, nuts, or other fastenings. The guide rail(s) shall not support any portion of the weight of the pump. Provide corrosion resistant stainless steel. Schedule 40 guide rails and stainless steel lifting chains or cable. Chains or cable to be of sufficient strength to lift pumps from basin.

Furnish guiding rail assembly and the discharge flange assembly of non-sparking components. No portion of the pump shall bear directly on the floor of the vault.

- L. Shaft shall be sealed with a double mechanical type seal running in an oil filled chamber. The lower seal between the pump and oil chamber shall contain one stationary and one rotating tungsten-carbide ring or one silicon-carbide stationary ring and one rotating tungsten-carbide ring. The upper seal between the oil sump and motor housing shall contain one stationary ceramic or tungsten-carbide ring and one rotating carbon ring. All metal parts of seal to be stainless steel. Provide seals requiring neither routine maintenance nor adjustment, but capable of being easily inspected and replaced. Hold interface in contact by its own spring system. Provide seal leak detection system.
- M. Bearings shall support shaft on upper and lower permanently lubricated bearings with B-10 life of 50,000 hours.
- N. Provide power and control cables with pump(s) suitable for submersible applications in raw sewage and indicate same by a code or legend permanently embossed on cable. Size cable in accordance with applicable NEC specifications. Power and control cables shall be of sufficient length to be wired as shown on the Drawings. Provide each cable with a strain relief, cord grip, and explosionproof seal installed in accordance with NEC Article 500 to prevent entrance of gases.
- O. Attach a stainless steel data plate to pump. Include permanently stamped information on data plate consisting of manufacturer's name, pump size and type, serial number, speed, impeller diameter, capacity and head rating, and other pertinent information.
- P. Comply with Section 11060.

2.4 CONTROLS

- A. Provide a minimum of 1 normally closed, 120 Vac, 10A rated dry contacts for motor overtemperature embedded in the motor windings for remote alarming.
- B. Provide separate seal failure relay to detect moisture in the pump.
- C. Coordinate delivery of relay to the motor control center MCC supplier for installation in the MCC.

2.5 SOURCE QUALITY CONTROL

- A. Testing:
 - 1. Pumps shall first be checked for compliance with customer's purchase order for motor, motor rating, and electrical connections. Motor and cable insulation, tests for moisture content and insulation defects. Pumps shall be given an operational test at factory to check for excessive vibration and leaks. Correct excessive vibration and leaks, if any.

2.6 MAINTENANCE MATERIALS

- A. Spare Parts:
 - 1. Furnish with each chopper pump complete spare pump seal, shaft sleeves, spare volute gasket, and mechanical seal.
 - 2. Furnish 1 complete pump and power cable (as spare).
- B. Special tools:
 - 1. Provide any special tools required for maintenance and removal of pumps.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Installation shall be in strict conformance with manufacturer's published standards, instructions, and recommendations.
- B. In conformance will all local, state, and federal codes and requirements.
- C. Seal pumps cables ends with a high quality protective covering, to assure its impervious to moisture or water seepage prior to electrical installation.

3.2 FIELD QUALITY CONTROL

- A. Coordinate and pay for the services of a factory trained representative for a minimum period of 1 day to perform the initial startup of the chopper pump and instruct personnel who will be operating the pumps in the required maintenance and operational procedures.
- B. The pump tested at start-up shall include voltage, current, and other significant parameter measurement. The manufacturer shall provide a formal test procedure and forms for recording data.
- C. The Owner shall be able to videotape the maintenance and operating instructions given to plant personnel.
- D. See Section 11005.

END OF SECTION

SECTION 13121
METAL BUILDING SYSTEMS
(PUBLIC WORKS BUILDING)

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Complete metal building system including but not limited to:
 - a. Design.
 - b. Materials.
 - c. Fabrication.
 - d. Shipment.
 - e. Erection.
 - f. Components as specified.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
1. American Architectural Manufacturers Association (AAMA):
 - a. 621, Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
 2. American Institute of Steel Construction (AISC):
 - a. 303, Code of Standard Practice for Steel Buildings and Bridges (referred to herein as AISC Code of Standard Practice).
 3. ASTM International (ASTM):
 - a. A36/A36M, Standard Specification for Carbon Structural Steel.
 - b. A307, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
 - c. A325, Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
 - a. A490, Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength.
 - b. A792/A792M, Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
 - c. C991, Standard Specification for Flexible Fibrous Glass Insulation for Metal Buildings.
 - d. E84, Standard Test Method for Surface Burning Characteristics of Building Materials.
 4. American Welding Society (AWS):
 - a. D1.1/D1.1M, Structural Welding Code - Steel.
 5. FM Global (FM).
 6. International Accreditation Service (IAS):
 - a. AC472, Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems.
 7. Metal Building Manufacturer's Association (MBMA):
 - a. Low Rise Building Systems Manual.
 8. Research Council on Structural Connections (RCSC):
 - a. Specification for Structural Joints Using High-Strength Bolts.
 9. The Society for Protective Coatings/NACE International (SSPC/NACE).
 - a. SP 6/NACE No. 3, Commercial Blast Cleaning.
 10. Underwriters Laboratories, Inc. (UL):
 - a. Building Materials Directory.

11. Building code:
 - a. California building Code (2013) edition including all amendments, referred to herein as Building Code.
- B. Qualifications:
 1. Manufacturer's qualifications:
 - a. Manufacturer must be member in good standing of the MBMA.
 - b. Manufacturer must be currently approved by IAS Accreditation Committed under the Inspection Programs for Manufacturers of Metal Buildings Systems IAS AC472.
 2. Erector qualifications:
 - a. Erector (installer) must be approved in writing by metal building manufacturer.
 - b. Erector must have minimum of 10 years current experience in erection of similar structures.
 3. Manufacturer's Civil or Structural Engineer: Registered in the State of California.

1.3 DEFINITIONS

- A. Code: The word "code" refers to the Building Code.
- B. Installer, Erector or Applicator:
 1. Installer, erector or applicator is the person actually installing, erecting or applying the product in the field at the Project site.
 2. Installer, erector and applicator are synonymous.
- C. PVDF: Polyvinylidene fluoride.
 1. Nomenclature as listed in Bibliography of the MBMA Low Rise Building Systems Manual.

1.4 SYSTEM DESCRIPTION

- A. Building shall be non-insulated, clear span rigid frame type with vertical walls and gable type roof.
 1. Provide cross bracing in the side walls perpendicular to the rigid frame or portal frames as required.

1.5 SUBMITTALS

- A. Shop Drawings:
 1. See Specification Section 01340 for requirements for the mechanics and administration of the submittal process.
 2. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Manufacturer's technical reference manual containing all of the manufacturer's standard construction details and specifications.
 - 1) Manufacturer's erection manual containing all details and methods for installation of building frame, roof system, wall system, and accessories.
 - 2) Edit to mark out items not used for this installation.
 3. Design and fabrication drawings:
 - a. Erection drawings minimum scale: 1/8 IN = 1 FT-0 IN.
 - b. Details and sections minimum scale: 1-1/2 IN = 1 FT-0 IN.
 - c. List of all design loads and combination of loads.
 - d. Size and location of each component of the building.
 - 1) Include clearance under structural framing members, both horizontal and vertical.
 - 2) Include cross-section of components.
 - e. Fasteners and details of fasteners connecting each component of the building.
 - f. Size, location and details of anchor bolts, base plates, and all other components fastened to the foundation.
 - 1) Size anchor bolts and base plates assuming 4000 psi concrete.
 - g. Details of wall panels, roof panels, finishes, flashings, closures, closure strips, trim, gutters, downspouts, calking, and all other miscellaneous components.

- B. Samples:
 - 1. Metal color and finish samples of roof and wall panels, roof trim, wall trim, and interior liner panel colors for Engineer's selection.
 - 2. Color chart is not acceptable.
- C. Operation and Maintenance Manuals:
 - 1. See Specification Section 01342 for requirements for:
 - a. The mechanics and administration of the submittal process.
 - b. The content of Operation and Maintenance Manuals.
- D. Informational Submittals:
 - 1. Manufacturer's and Erector's Qualifications.
 - 2. Manufacturer's approval of erector.
 - 3. Manufacturer's Certificate of Accreditation per IAS AC472 or AISC Quality Certification.
 - 4. Structural calculations stamped and signed by a professional Civil or Structural Engineer licensed in the State of California.
 - a. Include list of design loads and loads transmitted to foundation through columns or walls and location where loads occur.
 - b. Submit calculations for information only.

1.6 WARRANTY

- A. Manufacturer's standard warranty.
- B. Manufacturer's standard warranty for factory applied PVDF coating system against blistering, chipping, cracking, peeling, or color fading of wall and roof panels.
- C. Manufacturer's 20 year weather tightness warranty of roof assembly.
- D. Provide written notice of any exceptions taken to warranties.
 - 1. Any exceptions may be grounds for not accepting the manufacturer, at the discretion of the Owner or Engineer.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
 - 1. Metal building systems:
 - a. Butler Manufacturing.
 - b. NCI Building Systems.
 - c. Nucor Building Systems.
- B. Submit request for substitution in accordance with Specification Section 01640.

2.2 MATERIALS

- A. Structural Members: Manufacturers standard primer.
- B. Anchor Bolts:
 - 1. ASTM A307, ASTM A36/A36M, or equal, galvanized steel.
 - 2. Embedment details to be developed by Engineer upon receipt of anchor bolt and loading information for approved Shop Drawings from building manufacturer.
- C. Fasteners:
 - 1. Building frame, girts, and purlins: Galvanized ASTM A325, ASTM A490 or ASTM A307 bolts.
 - 2. Roof and wall panels: Manufacturers standard.
 - 3. Miscellaneous fasteners: Corrosion resistant.

- D. Roof and Wall Panels: Steel.
- E. Translucent Panels: Fiberglass or acrylic.
- F. Gutters and Downspouts: To match roof substrate. Color chosen from manufacturers standard color chart.
- G. Grout: See Division 03.
- H. Closures: Neoprene.
- I. Calking and Sealants: Manufacturer standard.
- J. Trim: Same material as wall or roof panel.

2.3 ACCESSORIES

- A. Overhead Doors: Manufacturers standard (aluminum).
- B. Metal Pedestrian Doors and Frames: Manufacturers standard (hollow metal).
- C. Framed Openings:
 - 1. Walls:
 - a. Provide all necessary subframing, including connections, to support wall openings for doors, windows, louvers, pipe or duct penetrations, etc.
 - 1) Material gage to be determined by metal building manufacturer for size of opening.
 - b. Size and location of opening as shown on the Drawings.
 - c. Jamb, lintel and girts:
 - 1) Steel:
 - a) Factory applied prime coat per Specification Section 09905.
 - 2) Metal building manufacturer responsible for providing correct size opening for penetration scheduled, shown or specified.
 - d. Provide trim to cover all exposed areas of opening frames to match with the wall panels.
 - 2. Roofs:
 - a. Provide all necessary roof subframing to support roof mounted equipment and to frame roof penetrations.
 - 1) Material gage to be determined by metal building manufacturer for size of equipment or opening.
 - b. Location of roof mounted equipment and/or roof or wall opening as shown on the Drawings.
 - c. Purlins, angles, clips:
 - 1) Steel:
 - a) Factory applied prime coat per Specification Section 09905.
 - 2) Metal building manufacturer responsible for providing correct size of opening for penetration scheduled, shown or specified.
- D. Roof Crickets:
 - 1. Provide roof crickets on all roof curbs to direct water to each side of the curb.
 - 2. Roof cricket material shall be same material as roof panels.
- E. Gutters and Downspouts:
 - 1. Size:
 - a. Provide minimum 4 x 4 IN gutter and minimum 3 x 5 IN downspout in manufacturer's standard profile best suited for project.
 - 2. Minimum 24 GA galvalume.
 - 3. Corrosion protection treatment and final finish same as roof panels.
 - 4. Expansion joints: 150 FT maximum spacing but not less than 1 per side of building requiring gutters.
 - 5. Locate/arrange downspouts to avoid drainage on sidewalks, landings, stoops, driveways, etc.

- F. Roof Penetration Flashing (Maximum 13 IN DIA):
 - 1. Flashing material: EPDM rubber with an aluminum sealing ring base.
 - 2. Minimum projection above the weather surface of the roof: 8 IN.
 - 3. Configuration of the flanges to match the roof panel.

2.4 BUILDING DESIGN CRITERIA

- A. Critical Dimensions:
 - 1. Roof slope: Manufacturer minimum.
 - 2. Provide minimum clear height of 12 FT at lowest interior structure line.
- B. Building Foundation:
 - 1. All footings, foundations, anchor bolts and piers have been designed based on assumed loadings and reactions.
 - a. Member sizes and geometry may vary depending on the building being supplied.
 - b. Do not construct these members until Engineer has verified design with approved Shop Drawings of metal building being supplied.
- C. Modifications:
 - 1. Buildings which vary dimensionally from those indicated may be bid providing:
 - a. Minimum interior horizontal dimensions and clear heights are maintained.
 - b. Door and window locations and sizes are maintained.
 - c. Foundation re-design and all construction costs are included in Bid.
 - 2. Building dimension changes in either horizontal or vertical direction resulting in either 21 percent change of envelope volume or lighting height or spacing shall be addressed by incorporating any necessary changes to mechanical or electrical systems or any other building component impacted, at no additional cost to Owner.
 - a. Design changes must be approved by Engineer prior to constructing changed item or system.
 - b. Does not apply to structural member sizes.
 - 3. Contractor is responsible for incorporating any necessary changes to foundations, mechanical, or electrical systems or to any other building component.
 - a. Design changes must be approved by Engineer prior to constructing changed item or system.
 - 4. Completed building to be free of excessive noise from wind induced vibrations under ordinary weather conditions to be encountered at location of erection, and meet all specified design requirements listed below.
- D. Roof Live Loads:
 - 1. Roof panels:
 - a. Per Building Code.
 - b. 20 psf uniformly distributed live load.
 - c. 200 LB concentrated (point) live load (over a 1 x 1 FT area) located at center of maximum roofing (panel) span.
 - d. The most severe condition governs.
 - 2. Roof framing members:
 - a. Per Building Code.
 - b. Roof framing members do not need to be designed for 20 psf uniform or 200 LB concentrated live loads.
 - 3. The above loads are in addition to other applicable equipment loads and shall be applied to the horizontal projection of the roof.
- E. Wind Loads:
 - 1. Design structure for wind loading as set forth in the Building Code.
 - a. Project site conditions are as follows:
 - 1) Basic wind speed: 115 mph.
 - 2) Site exposure: Class C.
 - 3) Risk Category: III.

4) Enclosure type: Enclosed.

F. Seismic (Earthquake) Loads:

1. Design structure for seismic forces as set forth in the Building Code.
 - a. Project site conditions are as follows:
 - 1) Importance factor: 125.
 - 2) Spectral response acceleration (Ss): 1.736.
 - 3) Spectral response acceleration (S1): 0.688.
 - 4) Site class: D.
 - 5) Spectral response coefficient (Sds): 1.15.
 - 6) Spectral response coefficient (Sd1): 0.688.
 - 7) Seismic design category: D.

G. Auxiliary Loads:

1. Consider other superimposed loads as part of the design requirements and combine with the normal design (dead, live, seismic and wind) loads as prescribed hereafter.
 - a. Static loads:
 - 1) 5 psf. MEP load.
2. Magnitude and location of auxiliary loads as shown on Drawings and as specified.
 - a. Contractor to coordinate and verify magnitude and location of auxiliary loads before fabrication.

H. Combination of Loads:

1. The combining of dead, live, wind, seismic and auxiliary loads for design purposes as set forth in the Building Code, unless otherwise specified.
2. Horizontal sway deflection of building due to combination of required design loads: Shall comply with the Building Code.
3. Deflection of purlins and secondary members not to exceed L/180 of its span when supporting applicable vertical live, dead, and auxiliary loads.
4. Wind beams supporting masonry walls: Do not deflect more than L/240 of its span when resisting applicable loads.
5. Lintel beams supporting brick/masonry: Do not deflect more than the lesser of L/600 of span or 0.3 IN.

2.5 FABRICATION

A. General:

1. Fabricate building structure, roof and wall panels, accessories and trim in accordance with requirements of AISC and MBMA.
2. Provide all necessary clips, flashing angles, caps, channels, closures, bases and any other miscellaneous trim required for complete water and airtight installation.
 - a. Provide an inside closure at the base of all corrugated panels and an outside closure at the top of all corrugated panels in addition to all other closure strips required.
 - 1) Form closure strips to fit the corrugation of the metal panels and securely support in place.
 - 2) Closure strips shall fit between corrugated panels and trim or flashing as required to completely separate the interior of the building from the exterior.
 - b. Provide flashing at all intersections of wall panels and roof panels, and above all openings in wall and roof panels, in addition to all other flashing required.
 - 1) Form flashing:
 - 2) To completely contain water on the outside of the building.
 - a) To be watertight and securely fastened in place.
 - c. Provide caulking at all edges where metal panel trim or flashing is adjacent to the foundation of the building in addition to all other caulking required.
 - 1) Securely adhere caulk material to the foundation and the metal panels trim or flashing.
3. At door and window and louver openings, provide additional framing and fasteners as required to structurally replace the wall panel and/or framing displaced.

4. Fabricate and prepare material for shipment knocked down.
5. Factory punch frame to receive all fasteners.
6. Finishes:
 - a. Clean ferrous surfaces of oil, grease, loose rust, loose mill scale, and other foreign substances.
 - 1) Clean all primary and secondary structural steel members, not noted as being galvanized, in accordance with SSPC SP 6/NACE No. 3.
 - b. All structural components shall have primer paint coats applied in the shop.
 - 1) Shop paint, prime coats, all surfaces which will be inaccessible after erection.
 - 2) Manufacturer's standard shop applied primer is acceptable as substitute for primer specified.
 - c. Wall and roof panels:
 - 1) Exterior surface:
 - a) Thermosetting fluoropolymer resin enamel.
 - (1) Minimum 70 percent "KYNAR" resin.
 - b) Meet requirements of AAMA 621.
 - c) FM Class 1 rated.
 - d) Exposed screw heads shall match color of panel.
 - 2) Interior surface:
 - a) Standard white wash polyester.

B. Roof Panels:

1. 24 GA minimum, galvalume per ASTM A792/A792M.
2. Manufacturer's standard R-panel.
3. Factory applied color coating.
4. Meet requirements of AAMA 621.
5. Length: Sufficient to cover entire length of any unbroken roof slope up to 40 FT.
6. Panel width: 36 IN.
7. Profile: 2 IN.
8. Panel depth: Standard.
9. Exposed fasteners.

C. Wall Panels:

1. 26 GA minimum, galvalume per ASTM A792/A792M.
 - a. Manufacturer's standard R-panel.
2. Factory applied color coating.
3. Meet requirements of AAMA 621.
4. Length sufficient to cover entire height of any unbroken wall up to 40 FT.
5. Panel width: 36 IN.
6. Profile: 1 IN.
7. Panel depth: Standard.
8. Exposed fasteners.

2.6 SOURCE QUALITY CONTROL

- A. See the QUALITY ASSURANCE Article, Qualifications Paragraph in PART 1 of this Specification Section for manufacturer's internal quality control requirements.
- B. Testing:
 1. Owner may employ and pay for the services of a qualified independent testing agency to inspect and test all structural steel work for compliance with Contract Documents.
 2. Independent testing agency shall have a minimum of five (5) years performing similar work and shall be subject to Owner's approval.

2.7 MAINTENANCE MATERIALS

- A. Provide 8 OZ of touch up paint for each color provided on the building.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
 - 1. Install tolerances in accordance with AISC 303, Code of Standard Practice.
 - a. Install products straight without bowing, sagging, or warping.
 - 2. Install all fasteners.
 - 3. Install base plates on grout bed.
 - a. Grout bed to be 1 IN thick unless noted otherwise on the Drawings.
- B. Fasten roof panels to purlins or secondary support members in accordance with manufacturer's recommendations.
- C. Install wall panels to supporting structure with exposed fasteners.
 - 1. Finish of fasteners to match panel finish.
- D. Install door frames, window frames, louvers, trim and other miscellaneous items in accordance with manufacturer's instructions and details.

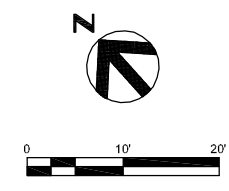
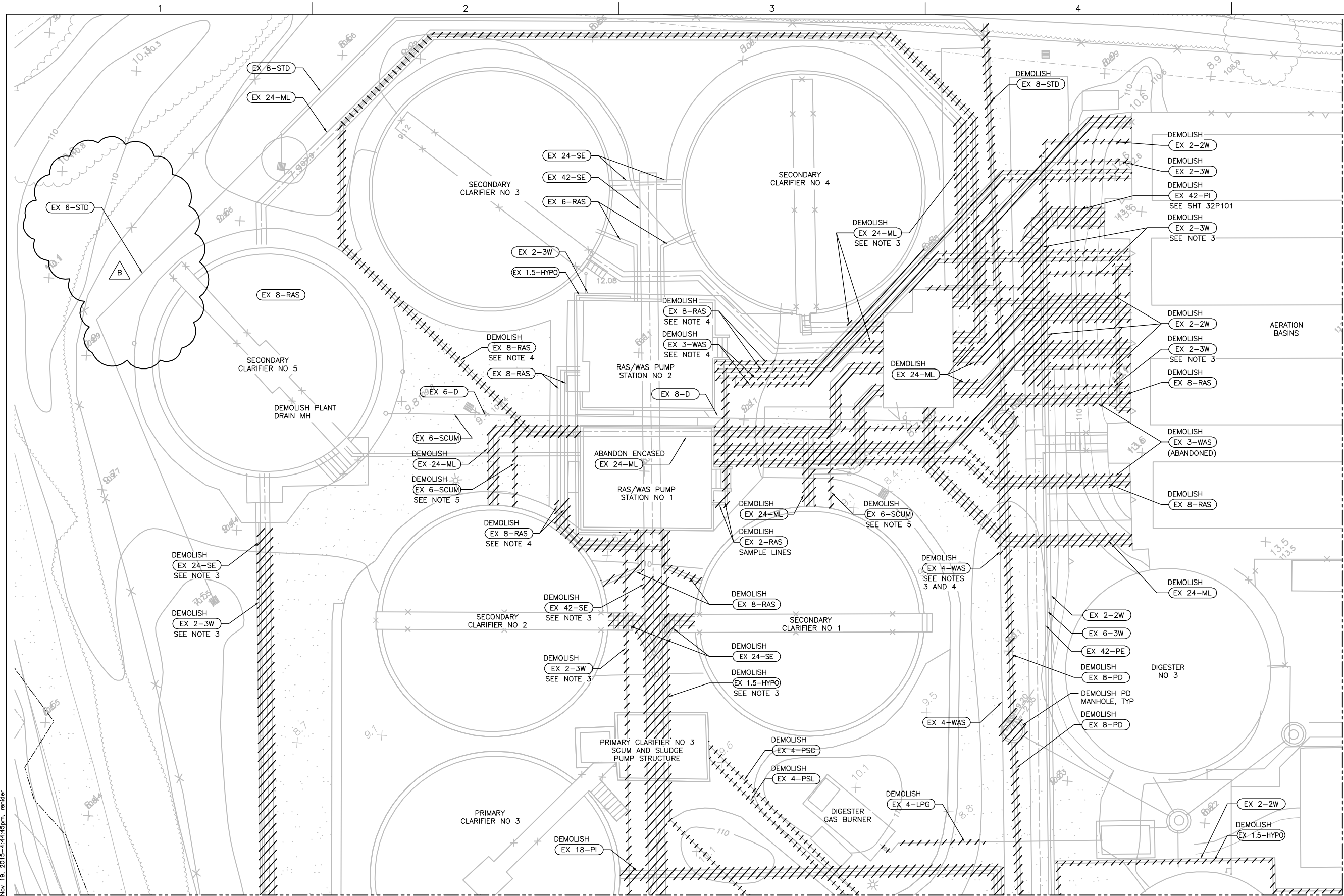
3.2 FIELD QUALITY CONTROL

- A. All inspections and tests are to be performed at the Project site by a third party independent testing agency.
- B. Inspect field welding in accordance with AWS D1.1/D1.1M, Section 6 including the following non-destructive testing:
 - 1. Visually inspect all welds.
 - 2. Test 50 percent of full penetration welds and 10 percent of fillet welds with liquid dye penetrant.
 - 3. Test 20 percent of full penetration welds with ultrasonic or radiographic testing.
- C. Inspect high-strength bolting in accordance with the RCSC Specification for Structural Joints, Section 9.
 - 1. Inspect while work is in progress.
- D. Inspect structural steel which has been erected.
- E. Prepare and submit test reports to Engineer.

3.3 ADJUSTING AND CLEANING

- A. Touch up paint any scratched factory finished surfaces or remove and replace as directed by Engineer.
- B. Remove and replace any damaged wall or roof panels, frames, etc., as directed by Engineer.

END OF SECTION



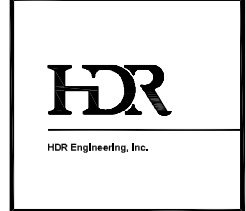
MATCHLINE BB - FOR CONTINUATION SEE DWG 03D102

- GENERAL NOTES:**
- EXISTING SITE CONDITION MAY DIFFER FROM RECORD DRAWINGS. CONTRACTOR TO FIELD VERIFY EXISTING PIPE SIZE, ELEVATION, AND MATERIAL.
 - DEMOLITION OF STRUCTURES ARE NOT SHOWN. REFER TO SHEETS 02D101 AND 02D102 FOR STRUCTURE DEMOLITION.
 - DEMOLISH PIPELINE UP TO LIMITS INDICATED. RE-CONNECT PIPELINE AS SHOWN ON CIVIL YARD PIPING PLANS.
 - DEMOLISH PIPELINE AND RE-CONNECT OR PLUG PIPELINE AS SHOWN ON SERIES 42 SHEETS.
 - PLUG DRAIN LATERAL AFTER DEMOLITION OF SCUM LINES.

AREA 1	AREA 2
AREA 3	AREA 4

MATCHLINE AA - FOR CONTINUATION SEE DWG 03D103

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ISSUE	DATE	DESCRIPTION
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A	JUNE 2015	ISSUED FOR BID

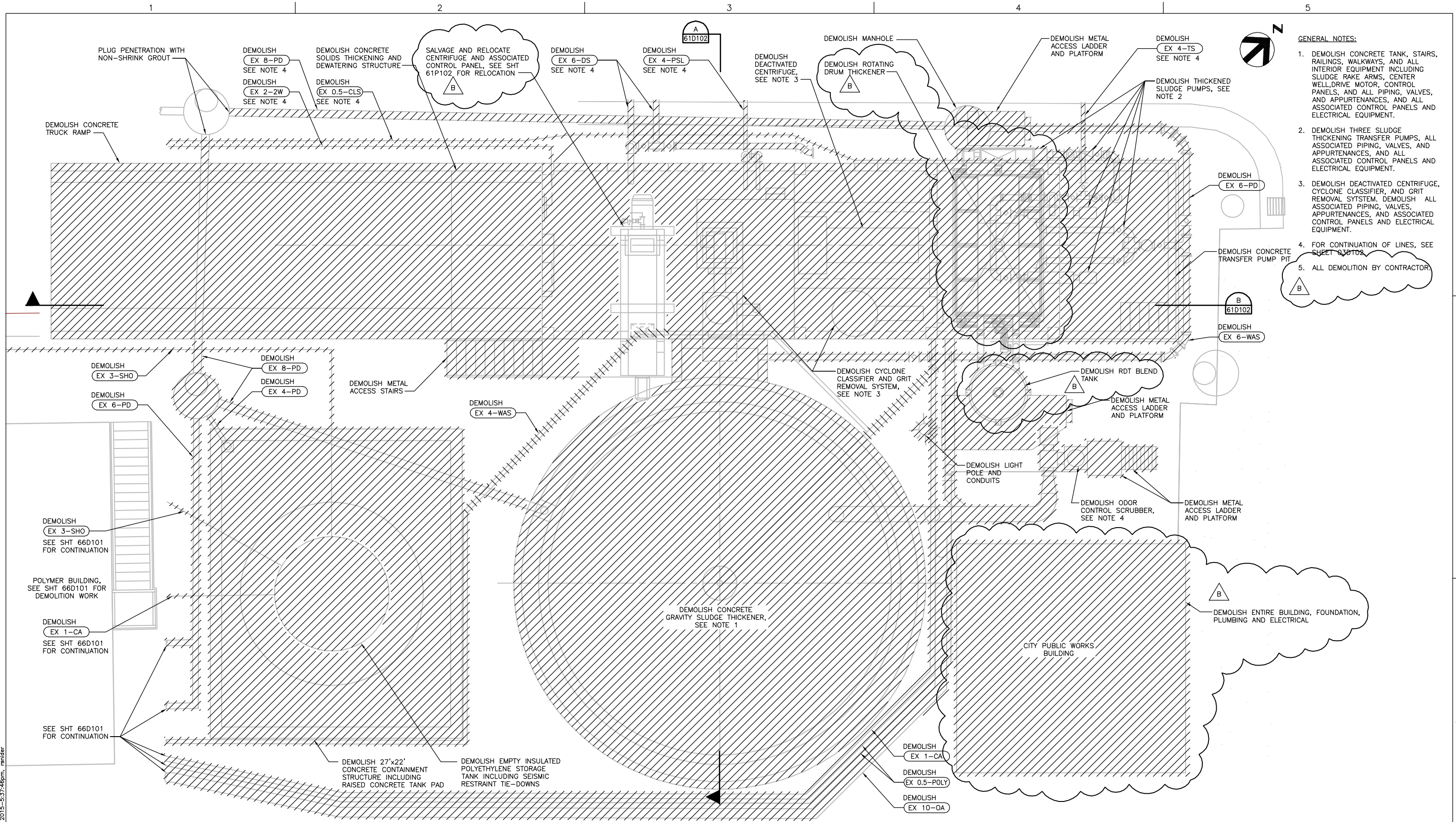
PROJECT MANAGER	C. OLSON
DESIGNED	M. PERINPANAYAGAM
CHECKED	C. OLSON
DRAWN	M. FOYLE
DATE	JUNE 30, 2015
PROJECT NUMBER	215786



PINOLE/HERCULES
WATER POLLUTION
CONTROL PLANT UPGRADE
CLIENT PN

**DEMOLITION
YARD PIPING PLAN
AREA 1**

FILENAME	215786-03D101	SHEET	03D101
SCALE	1" = 10'		



- GENERAL NOTES:**
1. DEMOLISH CONCRETE TANK, STAIRS, RAILINGS, WALKWAYS, AND ALL INTERIOR EQUIPMENT INCLUDING SLUDGE RAKE ARMS, CENTER WELL, DRIVE MOTOR, CONTROL PANELS, AND ALL PIPING, VALVES, AND APPURTENANCES, AND ALL ASSOCIATED CONTROL PANELS AND ELECTRICAL EQUIPMENT.
 2. DEMOLISH THREE SLUDGE THICKENING TRANSFER PUMPS, ALL ASSOCIATED PIPING, VALVES, AND APPURTENANCES, AND ALL ASSOCIATED CONTROL PANELS AND ELECTRICAL EQUIPMENT.
 3. DEMOLISH DEACTIVATED CENTRIFUGE, CYCLONE CLASSIFIER, AND GRIT REMOVAL SYSTEM. DEMOLISH ALL ASSOCIATED PIPING, VALVES, APPURTENANCES, AND ASSOCIATED CONTROL PANELS AND ELECTRICAL EQUIPMENT.
 4. FOR CONTINUATION OF LINES, SEE SHEET 66D102.
 5. ALL DEMOLITION BY CONTRACTOR.

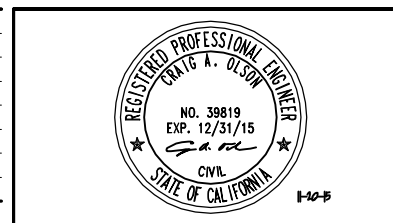
PLAN
1/4" = 1'-0"

FILE: 215786-61D101.dwg
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ISSUE	DATE	DESCRIPTION
B	11-20-15	ADDENDUM #2
A	JUNE 2015	ISSUED FOR BID

PROJECT MANAGER	C. OLSON
DESIGNED	T. KONTONICKAS
CHECKED	C. OLSON
DRAWN	P. VAN MEURS
DATE	JUNE 30, 2015
PROJECT NUMBER	215786



**PINOLE/HERCULES
WATER POLLUTION
CONTROL PLANT UPGRADE
CLIENT PN**

DEMOLITION SOLIDS HANDLING AREA PLAN		FILENAME	215786-61D101	SHEET	61D101
		SCALE	AS NOTED		

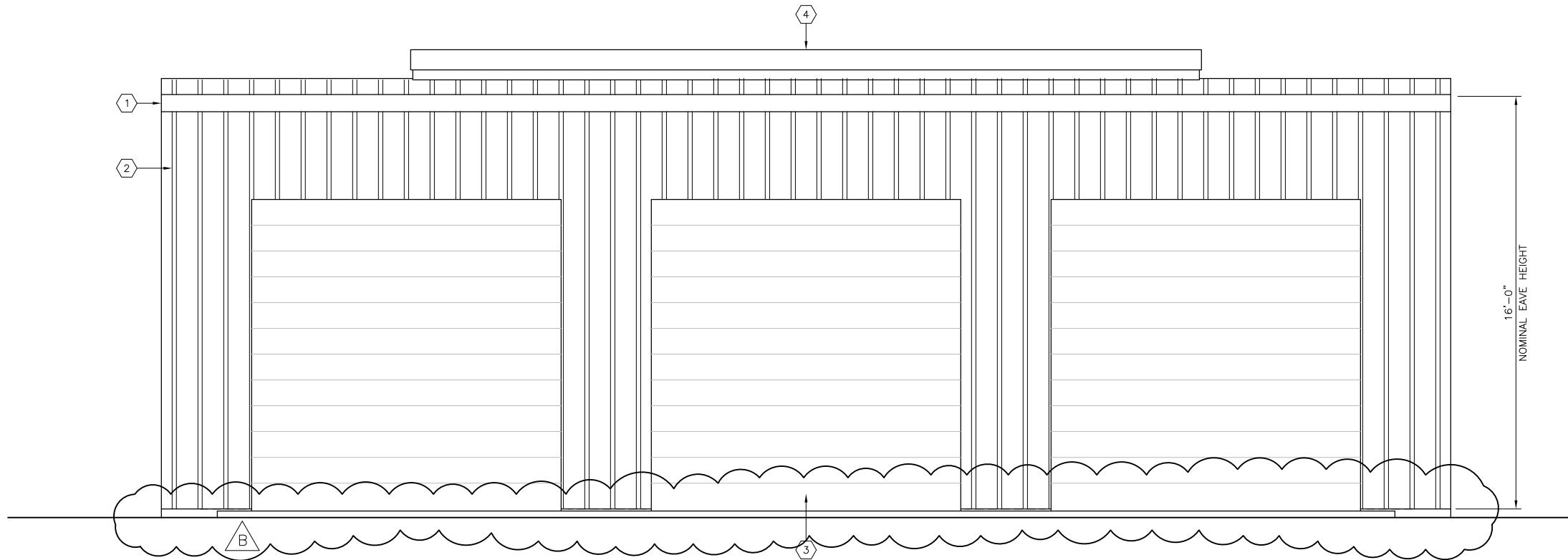
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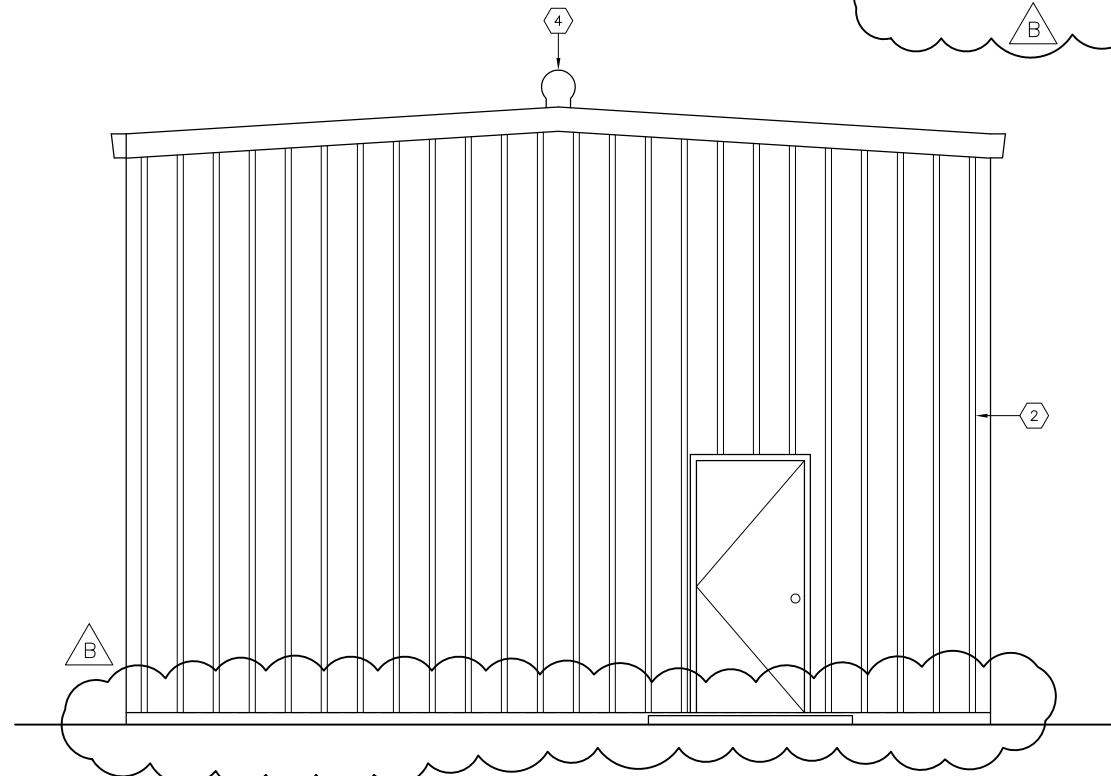


NORTH BUILDING ELEVATION

3/8" = 1'-0" (SOUTH ELEVATION SIMILAR, NO DOORS)

KEY NOTES:

- ① FASCIA STYLE RAIN GUTTER ALONG EAVE LINE, TYP.
- ② CORRUGATED SIDING WITH FACTORY FINISH.
- ③ ROLL-UP DOOR 12' x 12', TYP OF 3.
- ④ RIDGE VENT.
- ⑤ 36" MAN DOOR.



EAST BUILDING ELEVATION

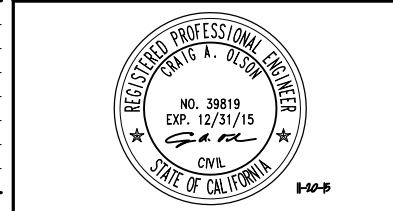
3/8" = 1'-0" (WEST ELEVATION SIMILAR, BUT MIRRORED)

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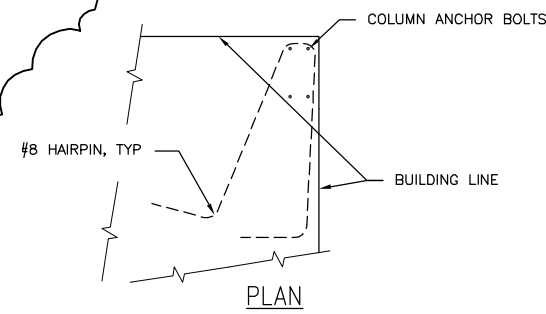
ISSUE	DATE	DESCRIPTION
B	11-20-15	ADDENDUM #2
A	JUNE 2015	ISSUED FOR BID

PROJECT MANAGER	C. OLSON
DESIGNED	M. EVERETT
CHECKED	
DRAWN	P. VAN MEURS
DATE	JUNE 30, 2015
PROJECT NUMBER	215786

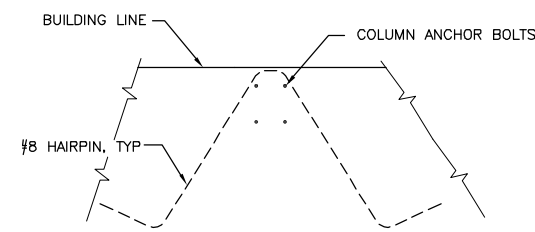


**ARCHITECTURAL
PUBLIC WORKS BUILDING
ELEVATIONS**

	FILENAME	215786-01A101	SHEET
	SCALE	NTS	01A101

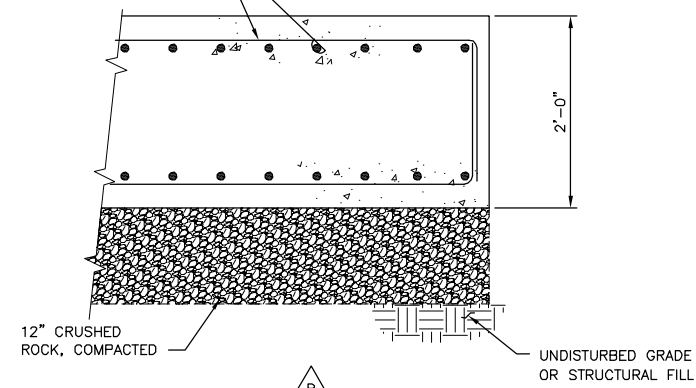


DETAIL 1
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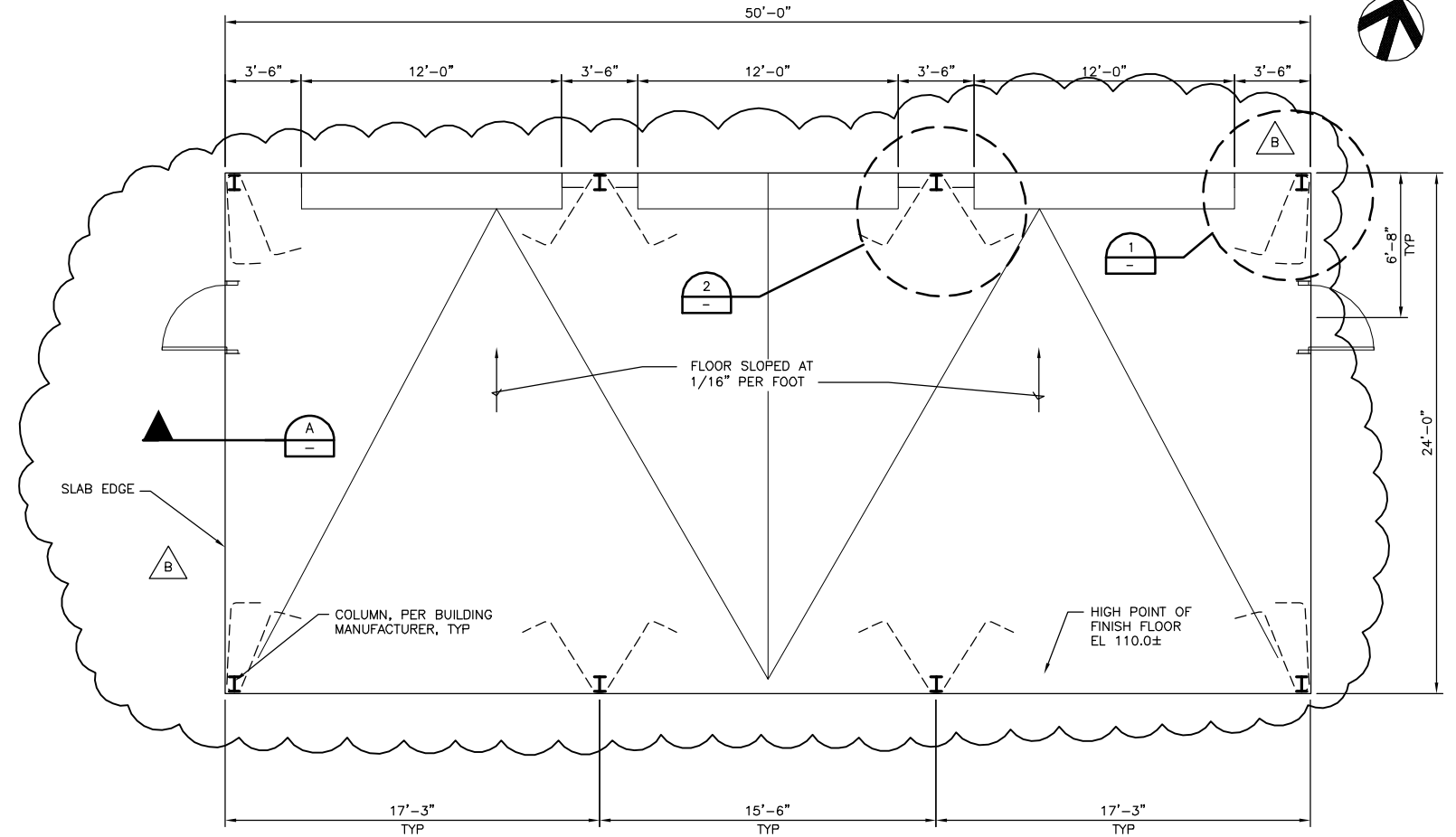


DETAIL 2
1/2" = 1'-0"

24" THK CONC SLAB
W/ #5@12 EW T&B, TYP

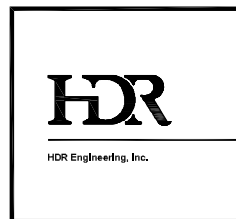


SECTION
1" = 1'-0"



FLOOR PLAN
1/4" = 1'-0"

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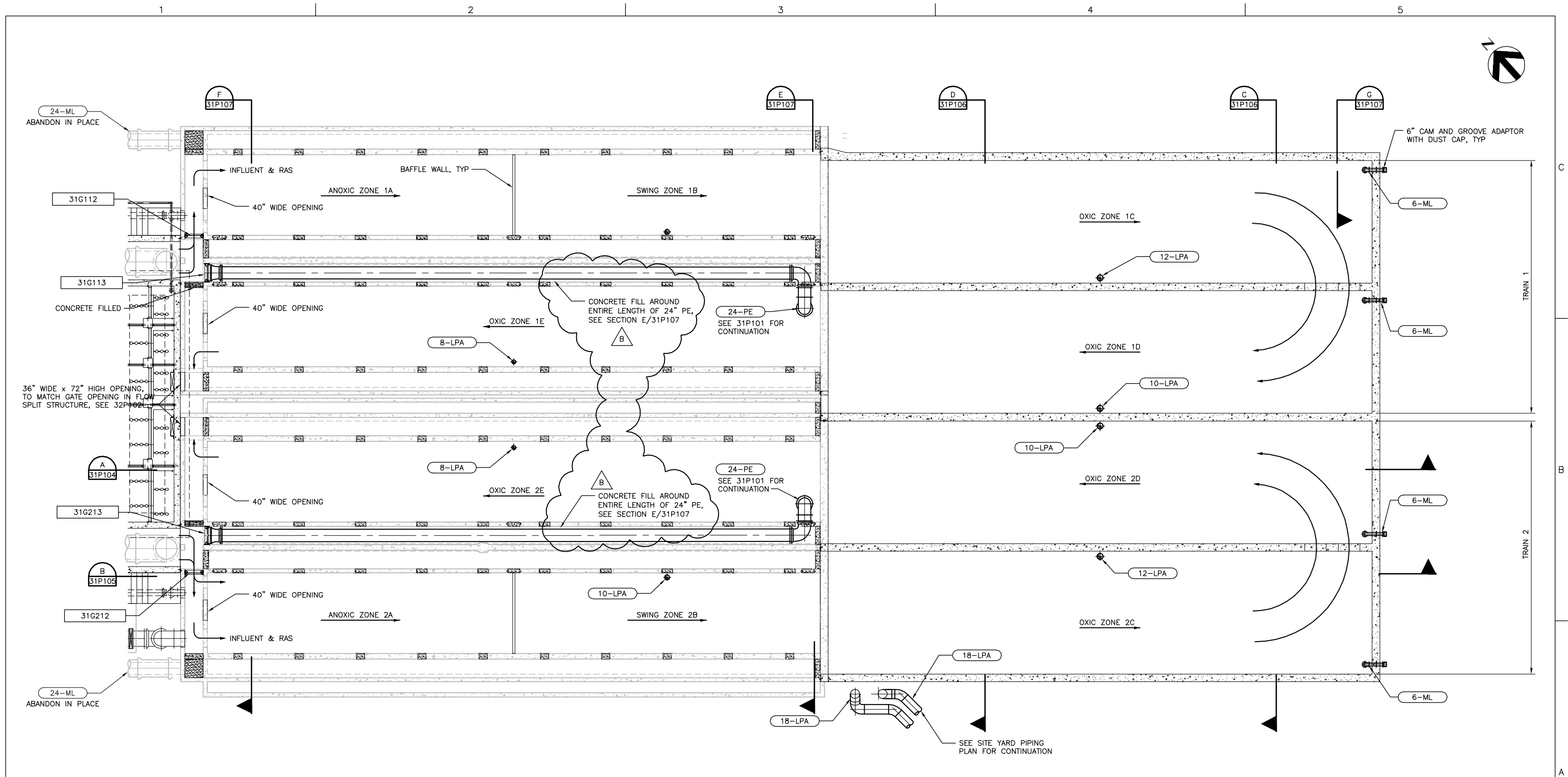
ISSUE	DATE	DESCRIPTION
B	11-20-15	ADDENDUM #2
A	JUNE 2015	ISSUED FOR BID

PROJECT MANAGER	C. OLSON
DESIGNED	
CHECKED	O. TAVANGAR
DRAWN	D. ELDRIDGE
DATE	JUNE 30, 2015
PROJECT NUMBER	215786



PINOLE/HERCULES
WATER POLLUTION
CONTROL PLANT UPGRADE
CLIENT PN

STRUCTURAL			
PUBLIC WORKS BUILDING FOUNDATION PLAN AND DETAILS			
0	1"	2"	SCALE NTS
FILENAME	215786-01S101	SHEET	01S101



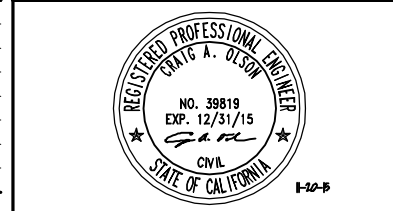
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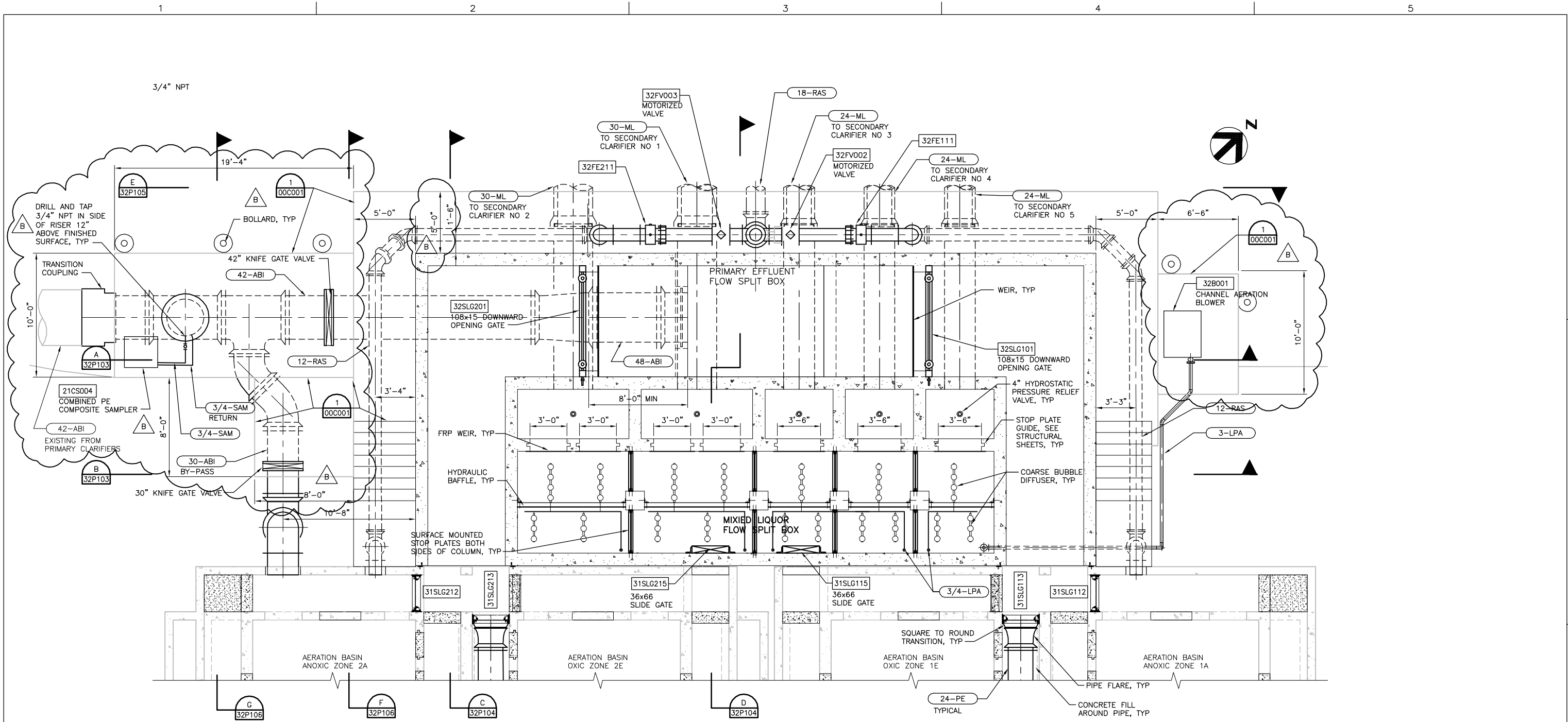


ISSUE	DATE	DESCRIPTION
B	11-20-15	ADDENDUM #2
A	JUNE 2015	ISSUED FOR BID

PROJECT MANAGER	C. OLSON
DESIGNED	T. KONTONICKAS
CHECKED	C. OLSON
DRAWN	B. DOWN
DATE	JUNE 30, 2015
PROJECT NUMBER	215786

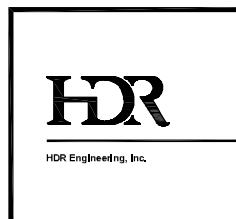


PROCESS	
EXISTING AERATION BASINS CHANNEL LEVEL EXPANSION PLAN	
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SHEET 31P102	



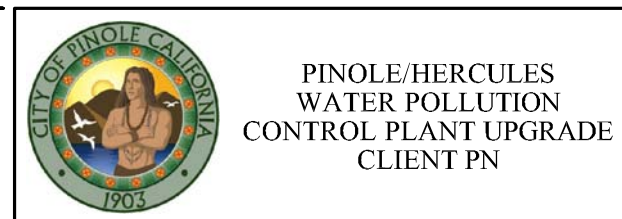
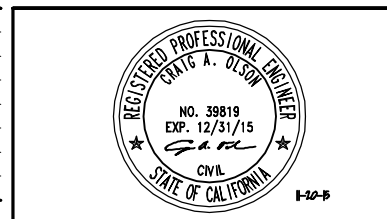
SECTIONAL PLAN AT EL 112.0
1/4" = 1'-0"

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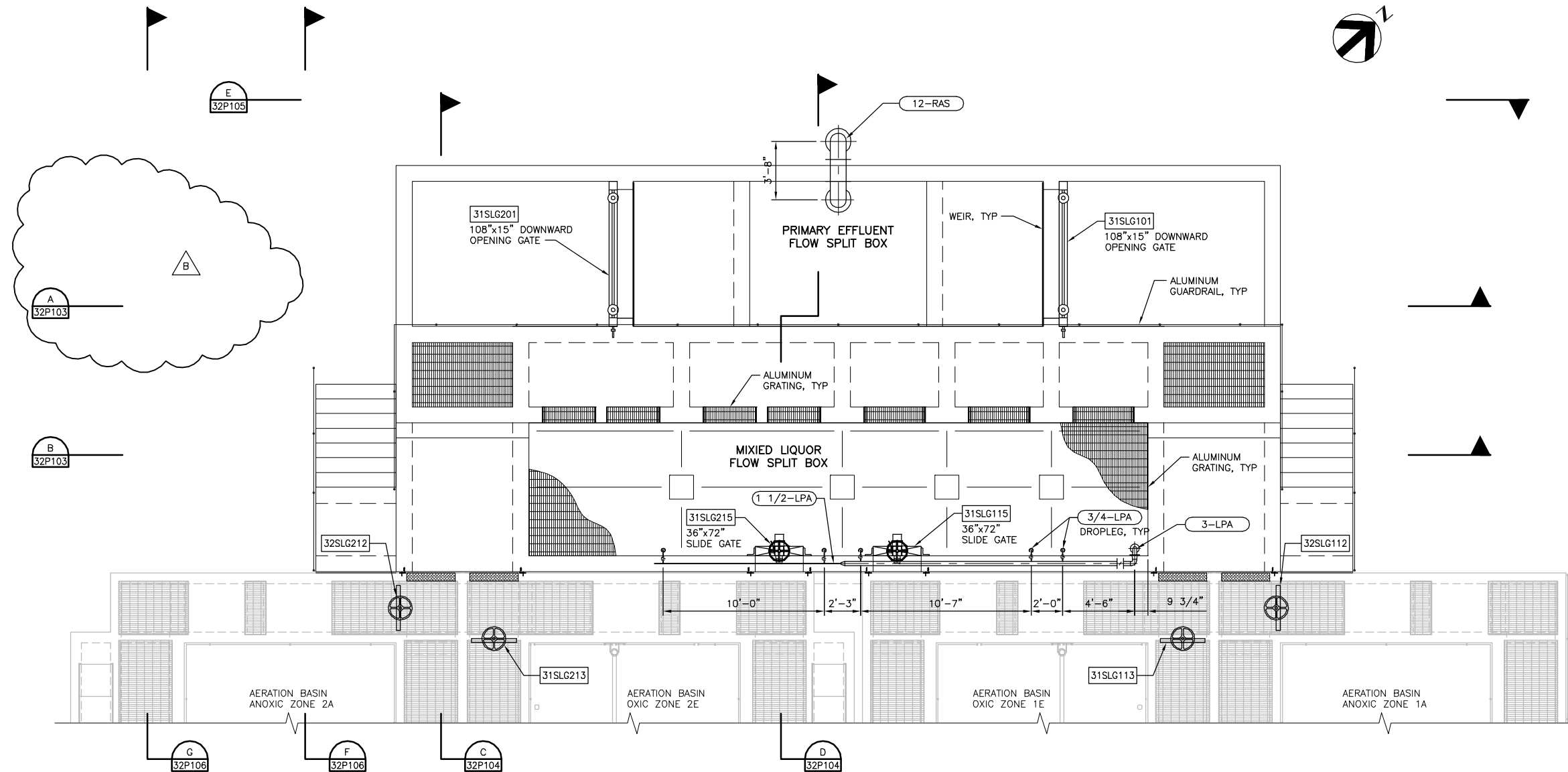


ISSUE	DATE	DESCRIPTION
B	11-20-15	ADDEMDUM #2
A	JUNE 2015	ISSUED FOR BID

PROJECT MANAGER	C. OLSON
DESIGNED	T. KONTONICKAS
CHECKED	C. OLSON
DRAWN	B. DOWN
DATE	JUNE 30, 2015
PROJECT NUMBER	215786



PROCESS PRIMARY EFFLUENT AND MIXED LIQUOR FLOW SPLIT BOX SECTIONAL PLAN AT EL 112.0	
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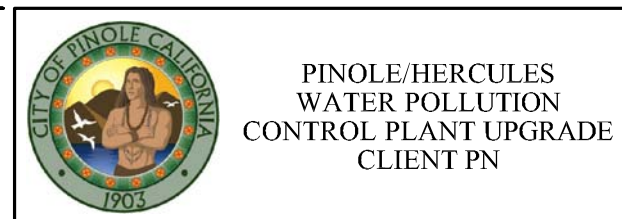
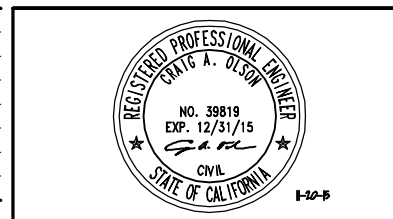
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FILE: 215786_32P102.dwg
DATE: Nov 19, 2015 4:55:53pm, rander



ISSUE	DATE	DESCRIPTION
B	11-20-15	ADDENDUM #2
A	JUNE 2015	ISSUED FOR BID

PROJECT MANAGER	C. OLSON
DESIGNED	T. KONTONICKAS
DESIGNED	----
CHECKED	C. OLSON
DRAWN	B. DOWN
DATE	JUNE 30, 2015
PROJECT NUMBER	215786



PROCESS PRIMARY EFFLUENT AND MIXED LIQUOR FLOW SPLIT BOX DECK PLAN	
	FILENAME 215786-32P102 SCALE AS NOTED
SHEET 32P102	