

C-900 - ADDENDUM

Addendum No. 2

Date:	<u>March 27, 2019</u>
Issued To:	<u>Plan Holders</u>
From:	<u>Alan Plummer Associates</u>
Project:	<u>Wastewater Treatment Plant Expansion</u>

This Addendum forms a part of the Contract for the project above. The original Contract Documents and any prior Addenda remain in full force and effect except as modified by the following which shall take precedence over any contrary provisions in the prior documents.

Each Bidder shall acknowledge receipt of this Addendum by affixing his signature below, by noting this Addendum on his Bid Form and attaching this Addendum acknowledgment page to his Bid.

The undersigned acknowledges receipt of this Addendum and the Bid submitted is in accordance with information, instructions and stipulations set forth herein.

BIDDER

Firm's Name		
By:	<u>Signature</u>	<u>Date</u>
	<u>Print Name</u>	<u>Title</u>

GENERAL DESCRIPTION

- A. This addendum forms a part of the Bidding and Contract Documents and clarifies, corrects or modifies the Project Manual and Drawings as described below.
- B. This addendum consists of 6 page(s) and the following attachments:
 - 1. Pre-Bid Meeting Agenda
 - 2. Specification 15105 - Process Valves and Accessories
 - 3. Sheet No. IO-03: Drum Screen P&ID
 - 4. Sheet No. IO-04: Preanoxic Basin P&ID
 - 5. Sheet No. IO-05: Aeration Basin #1 P&ID
 - 6. Sheet No. IO-06: Aeration Pumping
 - 7. Sheet No. IO-07: Aeration Basin #2 P&ID
 - 8. Sheet No. IO-08: Aeration Basin #3 P&ID
 - 9. Sheet No. IO-11: Microblox Skid #1 P&ID
 - 10. Sheet No. IO-12: Microblox Skid #2 P&ID
 - 11. Sheet No. IO-13: Effluent Flow Measurement and NPW P&ID
 - 12. Sheet No. IO-14: Aeration Blower P&ID
 - 13. Sheet No. P1-02: Existing Treatment Building Upper Level Plan
 - 14. Sheet No. P1-04: Proposed Treatment Building Plan
 - 15. Sheet No. P3-01: Existing Treatment Building Sections

PROJECT QUESTIONS

- A. Sheet IO-06 and Sheet P3-01; these sheets both show the Aeration Pump Discharge assembly. IO-06 shows 3 EA Check Valves and 5 EA Plug Valves, while P3-01 shows only 2 EA Check Valves and 4 EA Plug Valves. No Valves are shown (P3-01) on the discharge for the middle Pump (P-050105) Please Clarify.
 - 1. Response: Refer to Sheet No. P3-01 and revised Sheet No. IO-06 included in this Addendum for the aeration pump discharge valve requirements.
- B. P sheets call for "Air Release Plug Valves" or "2" Plug Valve ARV", yet detail 9/P4-03 calls for a "Ball Valve w/ NPT Connections", furthermore Spec 15105, 2.11, D, 4 calls for Bronze Gate Valves as the Isolation Valves in the ARV Assembly. Please clarify what type of valve is to be used at these locations?
 - 1. Response: The Air Release Valves shall be supplied as 2" plug valves with Sch 80 PVC or copper drain line piped to the basin. Eliminate the air release valve Detail 9 on Sheet No. P4-03.
- C. P1-02 - what is spec of 500g NPW storage tank?
 - 1. Response: Refer to revisions to Sheet No. P1-02 included in this Addendum for the tank manufacturer/model.
- D. Are equipment pads required beneath the drum screen, screw press?
 - 1. Response: Equipment pads are not required under drum screen. Provide equipment pad under screen screw press; refer to revised drawing P1-02, included in this Addendum.

- E. Inst. Sheets I0-11 and I0-12: Within the dashed line indicating the Microblok Skid are valves that alternately have or do not have an * indicating that they are to be provided by MBR Supplier. Will ALL Valves etc. within the dashed line be by MBR supplier whether or not they have an *?
1. Response: Refer to revised Sheet No.'s I0-11 and I0-12 included in this Addendum.
- F. Plan Sheet P1-04 & P3-04: Both dwgs show an 8" Flow Meter on what becomes the 14" RAS Line. Does this Flow Element appear in the P&IDs? It appears that this Line is represented in the P&IDs on sht I0-11 and I0-12 and continued @ 18/I0-04 & 22/I0-04, and no meter is shown on this line.
1. Response: Refer to revised Sheet No. I0-4 included in this Addendum.
- G. Plan Sheet P1-04 & P3-04: Both dwgs show 4" Plug Valves (note #4) and 4" Elec. actuated Plug Valves (note #6). What are these Valve Tag #s on the P&IDs? Are these valves provided by the MBR Supplier?
1. Response: The 4" plug valves identified in this question are not provided by the MBR Supplier. Refer to revised Sheet No.'s I0-11 and I0-12 included in this Addendum.
- H. Plan Sheet P1-04 & P3-04: Both dwgs show 6" Butterfly Valves (note #1). What are these Valve Tag #s on the P&IDs? Are these valves provided by the MBR Supplier?
1. Response: The 6" Butterfly valves on Sheet No.'s P1-04 (Note 1) and P3-04 (Note 1) are not provided by the MBR Supplier. The Valve Tag #'s are V-130110, and V-130111 as shown on revised Sheet No. I0-13 included in this Addendum.
- I. Plan sheet P1-02: Where the 3" Micro-C Line leaves the building, should this pipe be insulated? Please detail.
1. Response: Refer to revised Sheet No. P1-02 included in this Addendum.
- J. Plan Sheet P1-02 and I0-13: Plan shows 2-EA NPW Pumps with BFV Valves on each side, while P&ID shows 1-EA Pump w/ Check Valve and Butterfly Valve. Please Clarify what will actually be installed.
1. Response: Provide a BFV on each side of each pump and a check valve on the discharge side of each pump. Refer to revised Sheet No.'s P1-02, P3-01, and I0-13 included in this Addendum.
- K. Sheet P1-02, Note #21: Note calls for 4" BFV w/ Long Stem Handwheel Operator, What is this Valves Tag #s on the P&IDs? Is this valve provided by the MBR Supplier?
1. Response: The valve will be provided by the Contractor. The Tag for valve as V-050113.
- L. Plan Sheet P3-01, Section C, Note #13: Note calls for Expansion Joint on Process Air Pipe, symbol appears to be a Dresser Coupling. Is this actually an Exp joint? If so what is this Exp Joint's Tag #s on the P&IDs? Is this Exp Jt. provided by the MBR Supplier? If not please provide a reference to correct specification.
1. Response: Expansion Joint EJ-090105 is not provided by the MBR Supplier. Refer to revised Sheet No.'s P3-01 (specified in Equipment Note 13) and I0-14 included in this Addendum.
- M. Sheet P3-02, Note #17: Note calls for 4" BFV, What is this Valves Tag # on the P&IDs? Is this valve provided by the MBR Supplier?

1. Response: 4" BFV is not provided by the MBR Supplier. The valve tag for Aeration Basin No.2 is V-050211 and Aeration basin No.3 is V-050311, as shown on revised Sheet No.'s IO-07 and IO-08 included in this Addendum
- N. Per Div 13470, please confirm that Ovivo will be supplying all integration as part of their contract and that no other I&C provider is required.
1. Response: Negative, an I&C contractor is required to furnish all instruments shown in Section 13400, on the instrument index on sheets 25-28 where the specification section column contains "13400".
 - a. In addition, an I&C contractor is required to furnish all items listed in Section 13470 including an Operator Interface Terminal, an Autodialer, VPN, network switches, and a new All-in one PC to be mounted in the Break room as detailed on sheet E4-01.
 - b. In addition, Contractor is to provide an upgraded Main PLC, to match Ovivo Vendor PLC, as specified in 16903.
 - c. In addition, I&C contractor is to provide all PLC programming for the new Main PLC per specification 16903 and 16905.
 - d. The only I&C labor items that would not be furnished by the I&C contractor is the supply of the SCADA software and the configuration of new HMI screens, these will be furnished by the owner's representative.
- O. Where is new SWB-1 switch gear located?
1. Refer to E1-01. The switchgear is SE of the transformer, near the transformer.
- P. Do existing MCC-1A and MCC-1B get demo as shown on E3-03?
1. Response: Confirmed, the MCCs get demoed.
- Q. One line on E1-03 shows 800amp feed to MCC-(main plant to remain?)
1. Response: The feeder to the MCC is to be demoed, the circuit breaker will remain
- R. Can we locate MCC sections feeding equipment in existing building, in existing building instead of running feeders between buildings?
1. Response: MCC sections feeding new motors in existing ops building will be fed from the new MCC in the new building because the membrane vendor is furnishing the MCC complete and the controls.
- S. What feed #1 aeration basin/ pre anoxic basin motors?
1. Response: New Aeration Basin motors are fed from the new MCC in the new building
- T. Will Kit Carson Electric bring underground primary to new pad mount transformer pad?
1. Response: Kit Carson will set transformer and provide primary conductors to the new transformer.
- U. Who will supply new generator?
1. Contractor is providing the new generator as specified in section 1662. The General contractor is responsible for coordinating the sub-contractors and their scope of work.

- V. Who will be doing PLC programming?
1. PLC programming for the new skid equipment is provided for by the membrane vendor as specified in section 16903. PLC programming for the upgraded Main PLC will be by contractor. The General contractor is responsible for coordinating the sub-contractors and their scope of work.
- W. Contact information for Kit Carson Electric
1. Kit Carson Electric: PO Box 578, 118 Cruz Road, Taos New Mexico. 87571. Telephone: (575)758-2258, (800) 688-6780
- X. P1-06 shows heat trace on sodium hydroxide line. Circuit #6 and voltage?
1. Response: Heat trace will be 1Phase, 120VAC. Utilize space circuits in Panel X, CKT 21 or 22.

PROJECT MANUAL

- A. DIVISION 15 - MECHANICAL
1. 15105: PROCESS VALVES AND ACCESSORIES
 - a. **Replace** existing SECTION 15105 in its entirety.
- B. DIVISION 16 - ELECTRICAL
1. 16620: PACKAGED ENGINE GENERATORS
 - a. 16620, Page3, 2.1 - Manufacturers – **Delete** entire subsection 2.1.

CONTRACT DRAWINGS

- A. REVISIONS TO DRAWINGS
1. Sheet No. C4-01: CIVIL DETAILS
 - a. Detail 4 Title – **Remove** "GRAVEL PAVEMENT" and **Replace** with "CONCRETE SIDEWALK"
 2. Sheet No. P1-04: PROPOSED TREATMENT BUILDING PLAN
 - a. **Add** Note 3 – "3. Process Piping Below Building Foundation/Slab Shall Be Constructed Using Concrete Encasement. See Structural Detail."
 3. Sheet No. P3-01: EXISTING TREATMENT BUILDING SECTIONS
 - a. Equipment Note 13 – **Add** "MFR: Proco Products; Model: Proco Style 231 EPDM."
 4. Sheet No. P3-02: EXISTING TREATMENT BUILDING SECTIONS
 - a. **Add** General Note 2. – Add "2. Reverse the order of isolation valves followed by check valves to match the order shown on the corresponding P&ID sheets"
 5. Sheet No. P3-03: EXISTING TREATMENT BUILDING SECTIONS
 - a. **Remove** the elevation callout "INV EL 52.98".
 6. Sheet No. P4-03: Process Details
 - a. **Remove** Detail 9 – Water or Wastewater Air Release Valve Detail
 7. Sheet No. P4-04: PROCESS DETAILS
 - a. Detail 3 Title – **Remove** "V-NOTCH" and **Replace** with "FRP"
 - b. Detail 3, **Add** Note 1. – "1. FRP Weir Box Internal Final Layout/Dimensions Require Coordination With Weir Box Fabricator During Development of Shop Drawings. Contractor to Coordinate Shop Drawings Development With Engineer."

- c. Detail 3, **Add** Note 2. – “2. Manufacturer: Tracom, Inc.; Model: Custom FRP Weir Box. Or Engineer-Approved Equal.”
- 8. Sheet No. E1-04: ELECTRICAL POWER DISTRIBUTION SYSTEM ONE-LINE
 - a. Generator Size – **Remove** “(400KW) GENSET” and **Replace** with “(600KW) GENSET”.
- 9. Sheet No. IO-03: Drum Screen P&ID
 - a. **Replace** Sheet No. IO-03 in its entirety.
- 10. Sheet No. IO-04: Preanoxic Basin P&ID
 - a. **Replace** Sheet No. IO-04 in its entirety.
- 11. Sheet No. IO-05: Aeration Basin #1 P&ID
 - a. **Replace** Sheet No. IO-05 in its entirety.
- 12. Sheet No. IO-06: Aeration Pumping
 - a. **Replace** Sheet No. IO-06 in its entirety.
- 13. Sheet No. IO-07: Aeration Basin #2 P&ID
 - a. **Replace** Sheet No. IO-07 in its entirety.
- 14. Sheet No. IO-08: Aeration Basin #3 P&ID
 - a. **Replace** Sheet No. IO-08 in its entirety.
- 15. Sheet No. IO-11: Microbiox Skid #1 P&ID
 - a. **Replace** Sheet No. IO-11 in its entirety.
- 16. Sheet No. IO-12: Microbiox Skid #2 P&ID
 - a. **Replace** Sheet No. IO-12 in its entirety.
- 17. Sheet No. IO-13: Effluent Flow Measurement and NPW P&ID
 - a. **Replace** Sheet No. IO-13 in its entirety.
- 18. Sheet No. IO-14: Aeration Blower P&ID
 - a. **Replace** Sheet No. IO-14 in its entirety.
- 19. Sheet No. P1-02: Existing Treatment Building Upper Level Plan
 - a. **Replace** Sheet No. P1-02 in its entirety.
- 20. Sheet No. P1-04: Proposed Treatment Building Plan
 - a. **Replace** Sheet No. P1-04 in its entirety.
- 21. Sheet No. P3-01: Existing Treatment Building Sections
 - a. **Replace** Sheet No. P3-01 in its entirety.

END OF ADDENDUM

Village of Taos Ski Valley Wastewater Treatment Plant Expansion Pre-Bid Meeting Agenda March 18, 2019 – 1:00 PM

A. INTRODUCTIONS/ATTENDEES:

1. John Avila – VTSV
2. Patrick Nicholson – VTSV
3. Nancy Grabowski – VTSV
4. Anthony Martinez; Olaf Mingo - VTSV
5. Mark Dahm; Steve Omer – Alan Plummer Associates

B. SIGN-IN SHEET

1. Please sign in on form.

C. PROJECT DESCRIPTION & SUMMARY OF WORK

1. Summary of Work Overview
2. American Iron & Steel Compliance Statement:
 - a. "Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies an American Iron and Steel requirement to this project."
 - b. "All parties are required to comply with these requirements and to ensure that all iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials."
3. Contract to be assigned.
4. Federal Requirements.

D. BID FORM

1. Required Submittals for Bidding:
 - a. C-414 - Affidavit of Non-Collusions
 - b. C-430 - Bid Bond
 - c. C-435 – Compliance Statement
 - d. C-436 - Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
 - e. C-437 - RD Instruction 1940-Q, Exhibit A.1.
 - f. C-451 - Qualification Statement

- g. C-455 - Subconsultants and Suppliers Qualifications

E. REGULATORY REQUIREMENTS

- 1. Public Works Project Requirements – Refer to Bidding Documents

F. AGREEMENT & CONTRACT FORMS

- 1. Modified EJCDC 2013 Construction (Owner – Contractor).

G. OBTAINING PLANS AND SPECIFICATIONS

- 1. Bidding documents may be obtained from Alan Plummer Associates, Attn: Heather Harris. Bidding documents will be supplied in PDF format at no expense via email request to hharris@apaienv.com; however, the Bidder is responsible for scalability of the drawings. Hard copies of the one set of bidding documents may be obtained upon receipt of a non-refundable deposit of \$200.00.

H. QUESTIONS DURING BID PHASE

- 1. Only Written Format via email to hharris@apaienv.com will be accepted.
- 2. Email hharris@apaienv.com for placement on the Plan Holders log in order to get notification of Addendums.

I. BID ADDENDUM

- 1. None.

J. BID OPENING

- 1. April 5, 2019 at 1:00 pm.

K. COMPLETION TIME

- 1. Notice of Award – April 16, 2019.
- 2. Substantial Completion – To Be Finalized Via Addendum
- 3. Final Completion – To Be Finalized Via Addendum

L. STAGING, ACCESS, PARKING, USE OF FACILITIES

- 1. None.

M. QUESTIONS AND NOTES

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

SECTION 15105
PROCESS VALVES AND ACCESSORIES
(PER ADDENDUM 2)

PART 1 GENERAL

1.1 SUMMARY:

- A. This Section includes all valves and accessories for process systems.
- B. Valves provided in the packaged MBR MicroBlox units are not included in the valve schedule
- C. Related Work Specified Elsewhere:
 - 1. Pipe Installation: Section 02535.
 - 2. Protective Coatings: Section 09900
 - 3. Division 11: EQUIPMENT
 - 4. Process Piping: Section 15100
 - 5. Division 16: ELECTRICAL

1.2 DESCRIPTION

- A. American Iron & Steel Compliance Statement:
 - 1. "Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies an American Iron and Steel requirement to this project."
 - 2. "All parties are required to comply with these requirements and to ensure that all iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials."

1.3 REFERENCES:

- A. Applicable Standards:
 - 1. American National Standards Institute (ANSI):
 - a. B16.1 - Cast-Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250 and 800.
 - 2. American Society for Testing and Materials (ASTM):
 - a. A126 - Gray Iron Castings for Valves, Flanges and Pipe Fittings.
 - b. A276 - Stainless and Heat Resisting Steel Bars and Shapes.
 - c. A536 - Ductile Iron Castings.
 - d. A564 - Hot-Rolled and Cold-Finished Age-Hardening Stainless and Heat Resisting Steel Bars and Shapes.
 - 3. American Water Works Association (AWWA):
 - a. C111 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
 - b. C207 - Steel Pipe Flanges for Waterworks Service - Sizes 4 Inch Through 144 Inch (100 mm through 3600 mm).
 - c. C500 - Metal-Seated Gate Valves for Water Supply Service.
 - d. C504 - Rubber-Seated Butterfly Valves.

- e. C508 - Swing-Check Valves for Waterworks Service, 2 Inch (50 mm) Through 24 Inch (600 mm) NPS.
- f. C512 - Air-Release, Air / Vacuum, and Combination Air Valves for Waterworks Service.
- g. C540 - Power-Actuating Devices for Valves and Sluice Gates.
- h. C550 - Protective Epoxy Interior Coatings for Valves and Hydrants.
- i. C600 - Installation of Ductile-Iron Water Mains and Their Appurtenances.
- j. C606 - Grooved and Shouldered Joints.
- 4. National Fire Protection Association (NFPA):
 - a. 1963 - Screw Threads and Gaskets, Fire Hose Connections.
- 5. Manufacturers Standardization Society (MSS):
 - a. MSS SP-110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

1.4 SUBMITTALS:

- A. Submit as specified in DIVISION 1. Including, but not limited to, the following:
 - 1. Catalog data or illustrations showing principal dimensions, weights, sizes, parts, end connections, and materials.
 - 2. Spare parts list referenced to illustration of parts.
 - 3. Assembly and disassembly or repair instructions.
 - 4. Dimensions of the clearance required for butterfly valve discs.
- B. Certificates and Affidavits: Furnish prior to shipment. Include the following:
 - 1. Test certificates.
 - 2. Affidavit of compliance with applicable AWWA Standard.

1.5 QUALITY ASSURANCE:

- A. Manufacturers shall be experienced in the design and manufacture of specific valves and accessories for a minimum period of 5 years.

1.6 DELIVERY, STORAGE, AND HANDLING:

- A. Ship all valves with suitable end covers to prevent entrance of foreign material into valve body.
- B. Protect valve threads, flanges, stems, and operators from damage.
- C. Ship valves 2-1/2-inch and larger to the Project Site tagged with the valve number shown on the Drawings. Tag smaller valves to show the piping system in which it is to be used.

1.7 RESPONSIBILITY:

- A. Actuators, their controls, and accessories shall be the responsibility of the valve manufacturer for sizing, assembly, certification, field testing, and any adjustments necessary to operate the valve as specified.

PART 2 PRODUCTS

2.1 RESILIENT-SEATED GATE VALVES:

- A. Acceptable Manufacturers:
 - 1. American Cast Iron Pipe Company.

2. Chapman Division, Crane Company.
 3. Clow Corporation.
 4. Kennedy Valve, Division of McWayne, Inc.
 5. M&H Valves, Dresser Industries, Inc.
 6. Mueller Company.
 7. Smith Valve, U.S. Pipe & Foundry Company.
- B. Design:
1. Conform to AWWA C500 and as specified.
 2. All stem seals shall be double O-ring type.
- C. Actuators:
1. All valves shall open counterclockwise.
 2. Non-rising Stem.
- D. Interior Coating:
1. Conform to AWWA C550.
 2. Apply to all interior ferrous metal surfaces.
- E. Testing:
1. Testing shall be performed conforming to AWWA C500.
 2. Furnish affidavit of compliance.
- 2.2 LUG BUTTERFLY VALVES:
- A. Acceptable Manufacturers:
1. Bray.
 2. Keystone.
 3. No Substitutions.
- B. Design:
1. Guaranteed for 1,000,000 cycles with less than 5 percent failures for seals and valve seats.
 2. Conform to ANSI/AWWA C-504.
 3. Epoxy Coated Cast Iron body.
 4. Stainless steel disc and stem.
 5. EPDM seal.
 6. Lug Style Body sized for ANSI Class 125 flanges.
- C. Valve Operators
1. Lever Operated for manual operation in sizes up to and including 4 inch.
 2. Gear Operated for manual operation in sizes 6 inch and larger.
 3. Automated Valves to be supplied with electric actuators.
 - a. Provide factory-mounted electric motor actuators conforming to AWWA C540 for modulating service. Provide factory-mount actuators conforming to AWWA C540 for open-close service to operate on 120V, single phase power including the primary metered valve.

- b. Motor shall be as specified in DIVISION 16.
 - c. Actuator shall move disc from fully-open to fully-closed position, or reverse, in approximately 30 seconds. Provide indicator to show position of disc.
 - d. Furnish complete with motor starter. Motor, starter, and accessories shall conform to DIVISION 16.
 - e. Products of the following manufacturers shall be acceptable:
 - 1) Auma.
 - 2) Rotorque.
 - 3) Limitorque Corporation.
 - 4) No Substitutions.
 - f. Provide a positioner with a 4-20 mA input to control the valve setting. In addition, the valving with positioner shall be provided with a 4-20 mA output for valve position measurement.
 - g. Butterfly valves shall utilize the limit switches provided by the valve manufacturer. The settings of these limit switches shall be set in the field by the valve manufacturer's representative as per the Engineer.
4. An electronic card to provide limit switch functionality shall be provided.

2.3 PVC BALL VALVES:

A. Acceptable Manufacturers

- 1. Asahi, Type 21.
- 2. George-Fisher, 546 Series.
- 3. Spears, 2000 Series.
- 4. No Substitutions.

B. Design:

- 1. All PVC ball valves shall be schedule 80 full bore true union design.
- 2. All PVC ball valves will have o-rings compatible with the service, either EPDM or Viton.
- 3. All actuated PVC ball valves shall use the manufacturer's standard double acting actuator.

2.4 STAINLESS STEEL BALL VALVES:

A. Acceptable Manufacturers:

- 1. Tru-Line
- 2. Apollo.
- 3. Engineer approved equal.

B. Design:

- 1. All stainless steel ball valves shall be 316 stainless steel with NPT threads.
- 2. All ball valves will be lever operated.

2.5 PLUG VALVES:

A. Acceptable Manufacturers:

- 1. Dezurik.
- 2. Val-Matic.
- 3. No Substitutions.

B. Design:

1. Plug valve body shall be constructed of cast iron.
2. Port opening shall be 100% of pipe area.

C. Valve Operators:

1. Plug valve actuators shall fail closed.
2. Gear Operated for manual operation.
3. Automated Plug Valves to be supplied with electric actuators.
 - a. Provide factory-mounted electric motor actuators conforming to AWWA C540 for modulating service. Provide factory-mount actuators conforming to AWWA C540 for open-close service to operate on 120V, single phase power including the primary metered valve.
 - b. Motor shall be as specified in DIVISION 16.
 - c. Actuator shall move plug from fully-open to fully-closed position, or reverse, in approximately 30 seconds. Provide indicator to show position of plug.
 - d. Furnish complete with motor starter. Motor, starter, and accessories shall conform to DIVISION 16.
 - e. Products of the following manufacturers shall be acceptable:
 - 1) Auma.
 - 2) Rotorque.
 - 3) Limitorque Corporation.
 - 4) No Substitutions.
 - f. Provide a positioner with a 4-20 mA input to control the valve setting. In addition, the valving with positioner shall be provided with a 4-20 mA output for valve position measurement.
 - g. Plug valves shall utilize the limit switches provided by the valve manufacturer. The settings of these limit switches shall be set in the field by the valve manufacturer's representative as per the Engineer.
 - h. An electronic card to provide limit switch functionality shall be provided.

2.6 PINCH VALVES:

A. Acceptable Manufacturers:

1. Red Valve: Model 5200E with 6 x 4 Cone
2. Engineer approved equal.

B. Design:

1. Operational flow range from 0.02 MGD to 0.44 MGD.
2. Valves shall be 6" or smaller, of the full cast metal body, mechanical pinch type with flange joint ends. The valve length shall be as given in ISA S75.08. The flanges shall be drilled and tapped to mate with ANSI B16.1, Class 125 / ANSI B16.5, Class 150 flanges.
3. The sleeve trim shall be one piece construction with integral flanges drilled to be retained by the flange bolts. The sleeve trim shall be reinforced with calendared nylon or calendared polyester fabric to match service conditions. The sleeve trim shall be connected to the pinch bar by tabs imbedded in the sleeve trim reinforcing ply. All internal valve metal parts are to be completely isolated from the process fluid by the sleeve trim.

- a. For full port and reduced port sleeves the port areas shall be 100% of the full pipe area at the valve ends.
 - b. For Cone and Variable Orifice sleeves the port area at the inlet shall be 100% of the full pipe area, reducing to a smaller port size at the outlet.
 4. The solid steel pinch mechanism shall be single acting, closing the sleeve from the top only. The mechanism shall be supported in the valve body. There shall be no cast parts in the operating mechanism. The mechanism shall be connected to the electrically actuated actuator through an ACME threaded stem. The electric motor shall be as specified. The pinch mechanism shall be adjustable for stroke without removing the valve from the line.
- C. Valve Operators:
1. An electric motor rotates a threaded nut, pushing a threaded stem into the valve body, pinching the sleeve closed. Reversing the direction of the electric motor pulls the stem out of the valve body, opening the sleeve.
 2. Pinch valve actuators shall fail closed.
- D. Actuator:
1. Acceptable Manufacturers: AUMA, Limitorque, or Rotork
 2. Provide factory-mounted electric motor actuators for modulating service to operate on 208VAC, 60-Hertz.
 3. Motor shall be as specified in DIVISION 16.
 4. Actuator shall operate valve from fully-open to fully-closed position, or reverse, in approximately 30 seconds. Provide indicator to show position of disc.
 5. Furnish complete with motor starter. Motor, starter, and accessories shall conform to DIVISION 16.
 6. Products of the following manufacturers shall be acceptable:
 7. Provide a positioner with a 4-20 mA input to control the valve setting. In addition, the valving with positioner shall be provided with a 4-20 mA output for valve position measurement.

2.7 SWING FLEX CHECK VALVES:

- A. Acceptable Manufacturers:
1. American Cast Iron Pipe Company.
 2. Golden Anderson.
 3. Kennedy Valve, Division of McWayne Inc.
 4. M&H Valves, Dresser Industries, Inc.
 5. Mueller Company.
 6. Val-Matic Valve & Manufacturing Corp.
 7. No Substitutions.
- B. Design:
1. Conform to AWWA C508 and as specified.
 2. The Check Valve shall be of the full body flanged type, with a domed access cover and only one moving part, the flexible disc.
 3. The valve body shall have a full flow equal to nominal pipe diameter at all points through the valve.

4. The top access port shall be full size, allowing removal of the disc without removing the valve from the line.
 5. The disc shall be of one-piece construction, precision molded with an integral O-ring type sealing surface, and contain steel and nylon reinforcement in the hinge.
 6. The valve body shall be constructed of ASTM A126, Class B cast iron.
- C. Materials and Construction.
1. Body shall be cast iron. Flanges shall be ANSI B16.1, Class 125.
 2. Valve disc shall be rubber-faced cast iron precision-molded Buna-N (NBE), ASTM D2000-BG.
 3. Suitable for 150 psi operating pressure.
- 2.8 PVC BALL CHECK VALVES:
- A. Acceptable Manufacturers:
1. Chemtrol.
 2. +GF+.
 3. Asahi.
 4. Spears.
- B. Design:
1. Seats and seals shall be suitable for designated chemical solution.
 2. Suitable for working pressure of 150 psi at 75°F.
 3. Valves shall be Schedule 80 PVC, meeting ASTM D1784.
- 2.9 COMBINATION AIR VALVES:
- A. Acceptable Manufacturers:
1. Val-Matic Valve and Manufacturing Corporation.
 2. G.A. Industries.
- B. Design: Conform to AWWA C512 and as specified.
1. Valve shall be heavy-duty combination air release, water style.
 2. Body and cover shall be cast or ductile iron.
 3. Float shall be stainless steel.
 4. All internal parts shall be stainless steel or bronze with provisions to avoid galvanic reaction.
- C. Operation:
1. Release air when filling line.
 2. Admit air when emptying line.
 3. Release accumulated air while pipeline is full and operating under pressure.
- D. Connection:
1. Connect air valves 2 inches and smaller to pipeline through corporation stops.
 2. Connect air valves 3 inches and larger through tapped bosses or flanged outlets.
 3. Connecting fittings and pipe shall be bronze, brass, or copper rated for 150 psi service
 4. Isolation valves shall be provided for all air valves and shall be bronze gate valves, Crane

No. 424 or Engineer-approved equal for sizes 3 inches and smaller unless otherwise noted. Isolation valves 4 inches and larger shall be flanged AWWA C504 butterfly valves.

5. Couplings or unions indicated between pipeline and air valve piping shall be insulated style.

2.10 AIR / VACUUM VALVES FOR VERTICAL PUMPS:

A. Acceptable Manufacturers:

1. APCO, Valve and Primer Corporation.
2. Crispin Valves, Multiplex Manufacturing Company.
3. G.A. Industries.
4. Val-Matic Valve and Manufacturing Corporation.

B. Design: Conform to AWWA C512 and as specified.

1. Valve shall be heavy-duty air and vacuum valve, water style.
2. Body and cover shall be cast iron.
3. Float shall be stainless steel.
4. All internal parts shall be stainless steel.
5. Provide valves 3 inches and smaller with internal deflector and external adjustable discharge orifice to control leakage or blow-by of liquid.

C. Operation:

1. Exhaust air when pump column fills.
2. Admit air when pump column drains.
3. Remain closed when system is full and under pressure.

D. Connection:

1. Connect air valves 2 inches and smaller to pipeline through corporation stops.
2. Connect air valves 3 inches and larger through tapped bosses or flanged outlets.
3. Connecting fittings and pipe shall be bronze, brass, or copper rated for 150 psi service.
4. Isolation valves shall be provided for all pump air/vacuum valves and shall be bronze gate valve, Crane No. 424 or Engineer-approved equal-for sizes 3 inches and smaller unless otherwise noted. Couplings or unions indicated between pipeline and air valve piping shall be insulated style.

2.11 PVC PRESSURE RELIEF AND BACK-PRESSURE VALVES:

A. Acceptable Manufacturers:

1. Griffco
2. Milton Roy Company
3. Pulsafeeder

B. Pressure Relief and Back Pressure Valves shall be as follows:

1. Sized for maximum flow conditions: 5 gph, or the maximum flow capacity of the supplied chemical metering pump whichever is larger.
2. Manufacturer shall confirm maximum flow rate based upon supplied units.
3. Rated for a minimum of 150 psig at 140°F.
4. Furnished with inlet and outlet NPT type pipe connections.

5. Fabricated with the following materials of construction.
 - a. Lower body – PVC.
 - b. Diaphragm – Teflon.
 - c. Seal gasket – Teflon.
 - d. Seat – PVC.
6. Preset to metering pump manufacturers recommendations.

2.12 VALVE BOXES:

- A. Acceptable Manufacturers:
 1. Tyler Company.
 2. Approved Equal.
- B. Provide for all buried valves.
- C. Design:
 1. Boxes shall be two-piece cast-iron slip type with 5-1/4-inch shaft adjustable as required for the project.
 2. Boxes shall consist of a cast-iron cover, lid, and base castings with 6-inch ductile-iron pipe shaft. No slip type boxes will be allowed.
 3. Provide extension stem to bring operating nut within 2 feet of valve box top.
 4. Drop cover shall be appropriately marked for the service, "WATER" or "SEWER".

2.13 FIRE HYDRANTS:

- A. Acceptable Manufacturers:
 1. Mueller Company, model Super Centurion A-423.
- B. Design:
 1. Conform to AWWA C502 and as specified.
 2. Provide compression type main valve designed to open against pressure. Valve facings shall be of nontoxic materials suitable for potable water service.
 3. Provide internal main valve seat opening of not less than 5 inches diameter.
 4. Design to open counterclockwise.
 5. Provide dry-type bonnet with lubricant reservoir protected by O-or Quad-ring seals
 6. Provide mechanical joint bell on shoe.
 7. Furnish for minimum bury depth of 5 feet. Include extensions as required for blow-offs.
 8. Furnish with two 2½ inch hose nozzles and one 4 ½ inch pumper nozzle with NFPA 1963 standard threads. Nozzle caps shall be chained to hydrant.
 9. Provide traffic break-off joint located above and near ground surface designed to minimize accident repairs.
- C. Shop Painting:
 1. Shop paint exterior of hydrants per manufacturer's standard.
 2. Interior Coating:
 - a. Conform to AWWA C550.
 - b. Apply to exposed interior ferrous metal surfaces.

2.14 CORPORATION STOPS:

- A. Provide corporation stops as specified to isolate air valves or as manual air release or inlet valves.
- B. Mueller Company Style H-10003, H-10013, or H-10045 or Engineer-approved equal as applicable.

2.15 TAPPING SADDLES:

- A. Bronze saddles for pipe shall provide full support around the circumference of the pipe and have a bearing area of sufficient width along the axis of the pipe so that the pipe will not be distorted when the saddle is tightened.
- B. Acceptable Manufacturers:
 - 1. Mueller.
 - 2. Ford.
 - 3. J. Smith Blair, Inc.

2.16 DISMANTLING JOINTS:

- A. Acceptable Manufacturers:
 - 1. Smith Blair.
- B. Design:
 - 1. Conform to AWWA C219 for bolted coupling as specified.
 - 2. All dismantling joints shall be fully end load resistant.
 - 3. All dismantling joints shall have a pressure rating equal to that of the flange.
- C. Materials and Construction.
 - 1. Gaskets shall be fitted with grade E (EPDM) water quality gaskets.
 - 2. The flange adaptor and flange spigot components of a dismantling joint shall be coated with a thermoplastic polymer.
 - 3. All tie bars shall be zinc plated. Tie bars adjacent to wafer butterfly valves shall extend through the butterfly valve as indicated and shall be supplied by Viking Johnson.
 - 4. Contractor shall verify all dimensions of both the dismantling joint and all associated piping to ensure that a correct fit is possible. The Contractor shall be responsible for ensuring final fit of all piping.

PART 3 EXECUTION

3.1 INSTALLATION:

- A. Comply with provisions of AWWA C600 and as specified.
- B. Thoroughly clean and remove all shipping materials prior to setting. Operate all valves opened to totally closed.
- C. Equip with anchorage where indicated.
- D. Install valves with stems pointing up, and as close to vertical as possible.
- E. Install valves at each piece of equipment, fixture or appliance so that the supply and return services can be shut off to remove the item without draining the remainder of the piping system.

- F. Install valves where required for proper operation of piping and equipment, including valves in branch lines where necessary to isolate sections of piping.
 - 1. Locate valves so as to be accessible.
- G. Isolation valves shall not be used for balancing and balancing valves shall not be used for isolation.
- H. Provide drain valves at main shut-off valves, low points of piping and apparatus.
- I. Provide separate support where necessary.
- J. Do not allow meter connections of balancing valves to point downward.
- K. Install valves so bypass valves are accessible.
- L. Valves for isolating sections of piping systems shall not be removed. It should be possible to isolate separate floors, separate wings, toilet rooms, machinery rooms and other natural subdivisions of the buildings.
- M. Valves for isolating equipment and fixtures shall be provided. Valves shall be placed on both sides to permit component removal. Typical equipment includes pumps, coils or heat exchangers, temperature control valves, pressure reducing valves, steam traps, condensate receivers, etc.
- N. If equipment is close coupled with other equipment over a short distance, then isolation valves may be placed on the upstream and downstream sides of the components and the valves in between deleted.

3.2 FIELD PAINTING:

- A. Surface preparation and finish painting per manufacturer's requirements.

3.3 FIELD TESTING:

- A. Acceptance Tests for Pressure Pipelines:
 - 1. Perform hydrostatic pressure and leakage tests.
 - a. Conform to AWWA C600 procedures.
 - 1) Shall apply to all pipe materials specified.
- B. Disinfection:
 - 1. Disinfection of Water Mains:
 - a. Conform to AWWA C651 procedures.
 - 2. Disinfection of Water Storage Tanks:
 - a. Conform to AWWA C652 procedures.
 - 3. Disinfection of Water Treatment Plants:
 - a. Conform to AWWA C653 procedures.

DESIGN DATA AND VALVE SCHEDULE TABLE

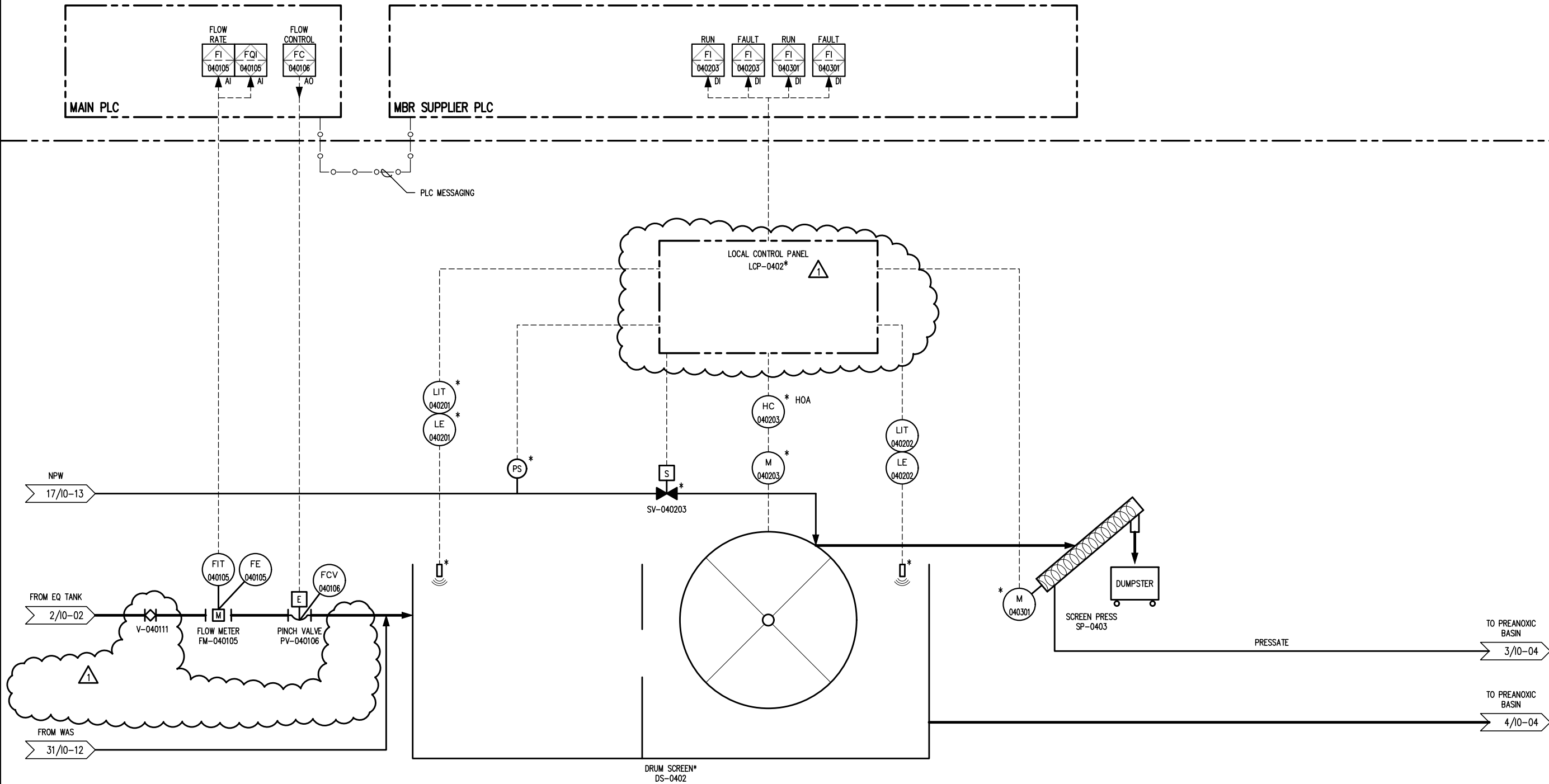
Tag	Service	Size (inch)	Type	Actuation	Operation / Comments (Function)	Supplier
SOLENOID VALVE						
Headworks						
SV-040203	Mechanical screen Non- potable water	1	Slow Close Solenoid Valve	Auto	Open/Close	Screen Vendor
BALL VALVE						
CIP Chemical Feed Panel						
V-070110	Chemical Cleaning MicroBlox No. 1	1.5	Ball Valve	Manual	Open/Close	MBR supplier
V-070210	Chemical Cleaning MicroBlox No. 1	1.5	Ball Valve	Manual	Open/Close	MBR supplier
CHECK VALVE						
Secondary Treatment						
CHV-050104	Aeration Pump P-050104 discharge	8	Swing Check	Mechanical	Check	MBR supplier
CHV-050106	Aeration Pump P-050106 discharge	8	Swing Check	Mechanical	Check	
CHV-050202	Feed Forward Pump P-050202 discharge	8	Swing Check	Mechanical	Check	
CHV-050203	Feed Forward Pump P-050203 discharge	8	Swing Check	Mechanical	Check	
CHV-050302	Feed Forward Pump P-050302 discharge	8	Swing Check	Mechanical	Check	
CHV-050303	Feed Forward Pump P-050303 discharge	8	Swing Check	Mechanical	Check	
NPW System						
CHV-130310	NPW Pump P-1303 discharge	2	Swing Check	Mechanical	Check	
CHV-130410	NPW Pump P-1304 discharge	2	Swing Check	Mechanical	Check	
BUTTERFLY VALVE						
Secondary Treatment						
V-050111	Aeration Basin NO. 1 air piping	4	Butterfly Valve	Manual	Isolation Valve	
V-050112	Aeration Basin NO. 1 air piping	4	Butterfly Valve	Manual	Isolation Valve	
V-050113	Aeration Basin NO. 1 air piping	4	Butterfly Valve	Manual	Isolation Valve	
V-050211	Aeration Basin NO. 2 air piping	4	Butterfly Valve	Manual	Isolation Valve	
V-050311	Aeration Basin NO. 3 air piping	4	Butterfly Valve	Manual	Isolation Valve	

Tag	Service	Size (inch)	Type	Actuation	Operation / Comments (Function)	Supplier
Disinfection						
V-130111	Downstream of MicroBlox No.1 UV	6	Butterfly Valve	Manual	Isolation Valve	
V-130110	Downstream of MicroBlox No.2 UV	6	Butterfly Valve	Manual	Isolation Valve	
V-130201	Isolation to NPW storage tank	2	Butterfly Valve	Automated	Open/Close	
NPW System						
V-130301	Upstream of NPW pump P-1303	2	Butterfly Valve	Manual	Isolation Valve	
V-130302	Discharge of NPW pump P-1303	2	Butterfly Valve	Manual	Isolation Valve	
V-130401	Upstream of NPW pump P-1304	2	Butterfly Valve	Manual	Isolation Valve	
V-130402	Discharge of NPW pump P-1304	2	Butterfly Valve	Manual	Isolation Valve	
Blowers						
V-090101	BLR- 090101 Discharge	6	Butterfly Valve	Manual	Open/Close	MBR Supplier
V-090102	BLR- 090102 Discharge	6	Butterfly Valve	Manual	Open/Close	
V-090103	BLR- 090103 Discharge	6	Butterfly Valve	Manual	Open/Close	
V-090104	BLR- 090104 Discharge	6	Butterfly Valve	Manual	Open/Close	
PLUG VALVE						
Influent EQ Tank						
V-040111	Upstream of influent flow meter	6	Plug Valve	Manual Handwheel	Isolation Valve	
Secondary Treatment						
V-050104	Aeration Pump P-050104 discharge	8	Plug Valve	Manual Handwheel	Isolation Valve	MBR Supplier
V-050107	Aeration Pump P-050105 Isolation	8	Plug Valve	Manual Handwheel	Isolation Valve	
V-050108	Aeration Pump P-050105 Isolation	8	Plug Valve	Manual Handwheel	Isolation Valve	
V-050106	Aeration Pump P-050106 discharge	8	Plug Valve	Manual Handwheel	Isolation Valve	
V-050202	Feed Forward Pump P-050202 discharge	8	Plug Valve	Manual Handwheel	Isolation Valve	MBR Supplier

Tag	Service	Size (inch)	Type	Actuation	Operation / Comments (Function)	Supplier
V-050203	Feed Forward Pump P-050203 discharge	8	Plug Valve	Manual Handwheel	Isolation Valve	
V-050302	Feed Forward Pump P-050302 discharge	8	Plug Valve	Manual Handwheel	Isolation Valve	
V-050303	Feed Forward Pump P-050303 discharge	8	Plug Valve	Manual Handwheel	Isolation Valve	
V-070102	WAS Pump P-070102 discharge	4	Plug Valve	Manual Handwheel	Isolation Valve	
V-070202	WAS Pump P-070202 discharge	4	Plug Valve	Manual Handwheel	Isolation Valve	
V-070210	Isolation to sludge holding	4	Plug Valve	Automated	Open/Close	
V-070211	Isolation to MLSS rescreening	4	Plug Valve	Automated	Open/Close	
V-070120	MicroBlox No. 1 RAS discharge	12	Plug Valve	Manual Handwheel	Isolation Valve	
V-0702020	MicroBlox No. 2 RAS discharge	12	Plug Valve	Manual Handwheel	Isolation Valve	
AIR RELEASE VALVE						
Secondary Treatment						
V-050114	Aeration Pump P-050104 discharge	2	Plug Valve		Manual Air Release	
V-050116	Aeration Pump P-050106 discharge	2	Plug Valve		Manual Air Release	
V-050213	Feed Forward Wetwell No.2 discharge	2	Plug Valve		Manual Air Release	
V-050313	Feed Forward Wetwell No.1 discharge	2	Plug Valve		Manual Air Release	
PINCH VALVE						
PV-040106	Upstream of drum screen	6	Pinch Valve	Automated	Flow Modulation	

END OF SECTION

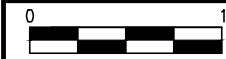
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NOTE:

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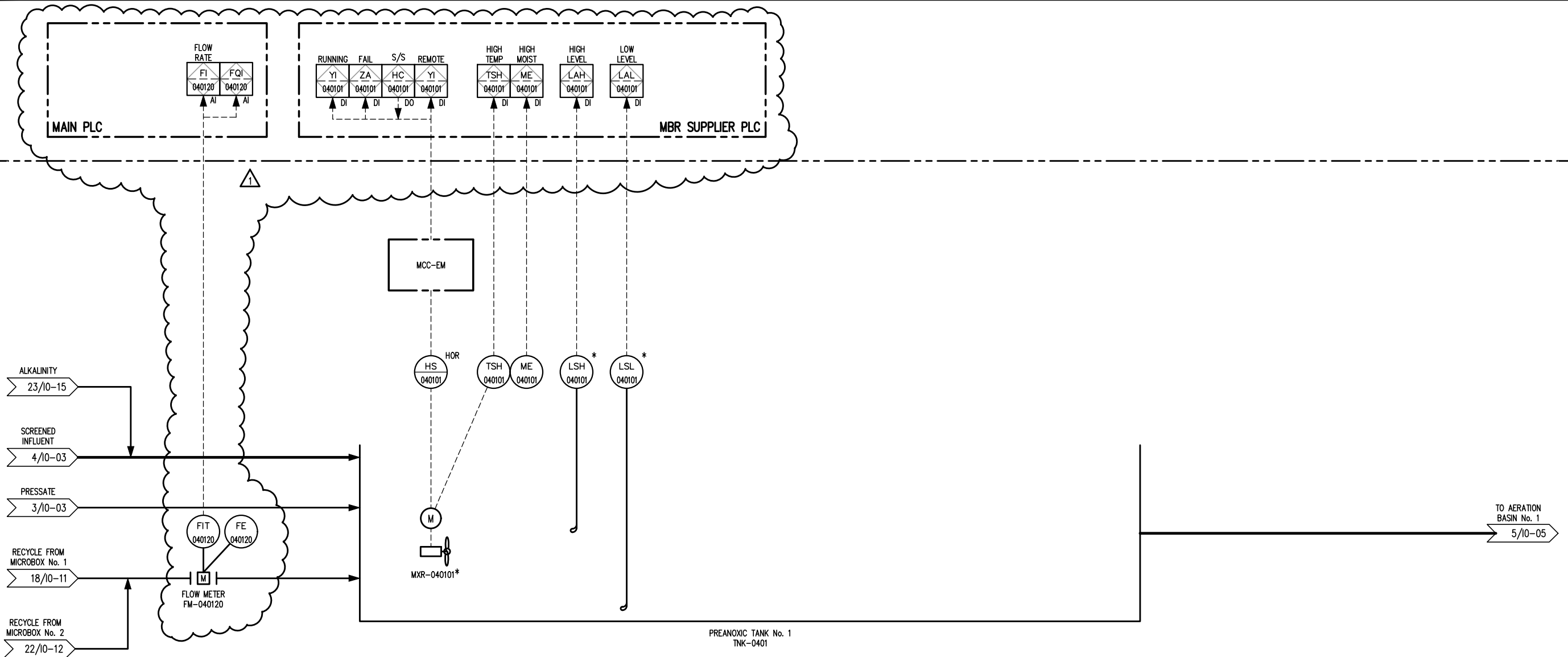
VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

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VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

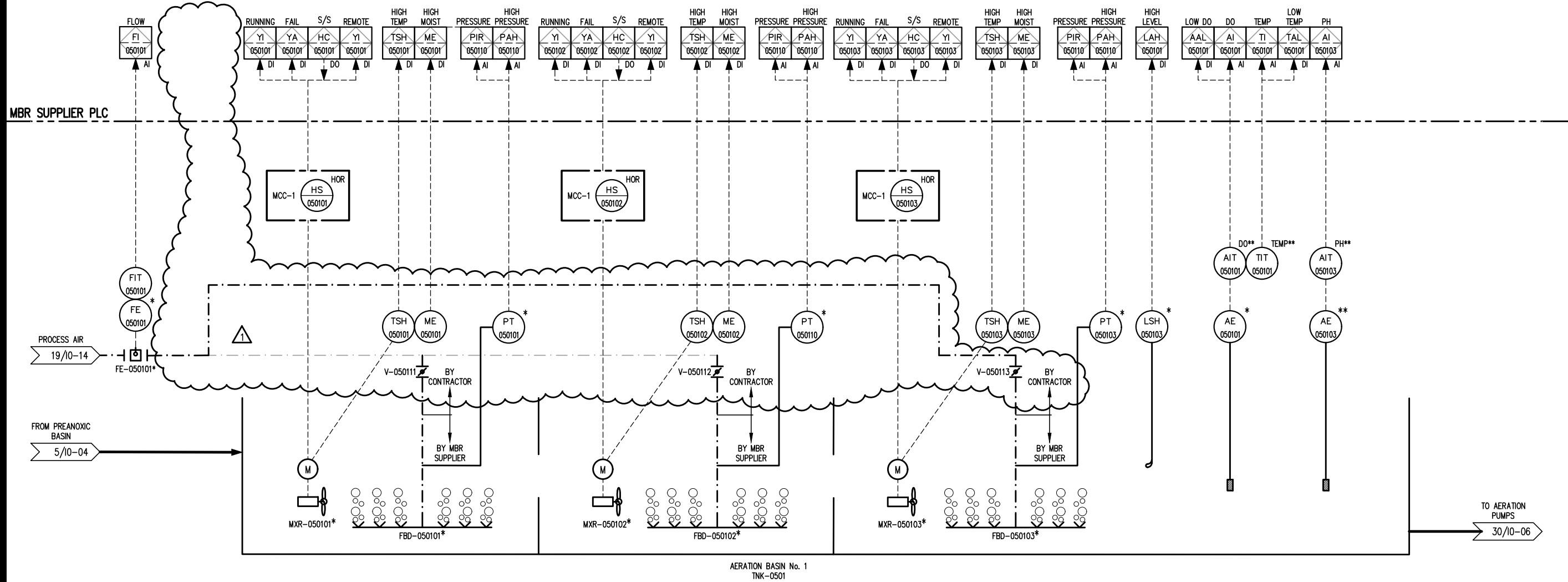
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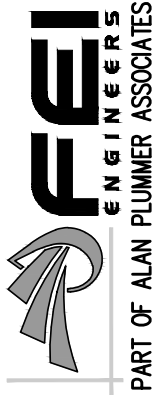
- GENERAL NOTES:**
- * DENOTES EQUIPMENT PROVIDED BY MBR SUPPLIER.
 - ** DENOTES OWNER SUPPLIED EQUIPMENT.

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

AERATION BASIN NO. 1 P&ID

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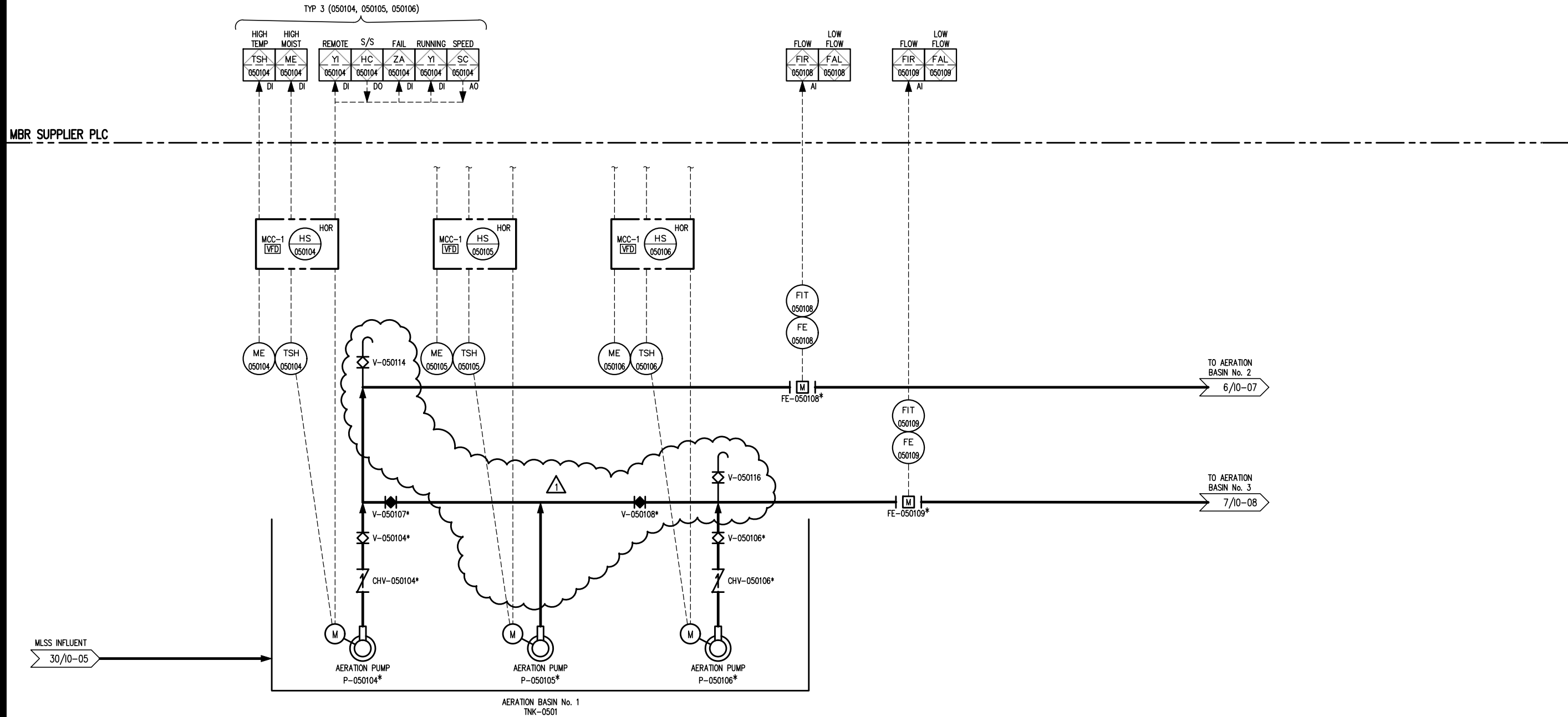
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VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

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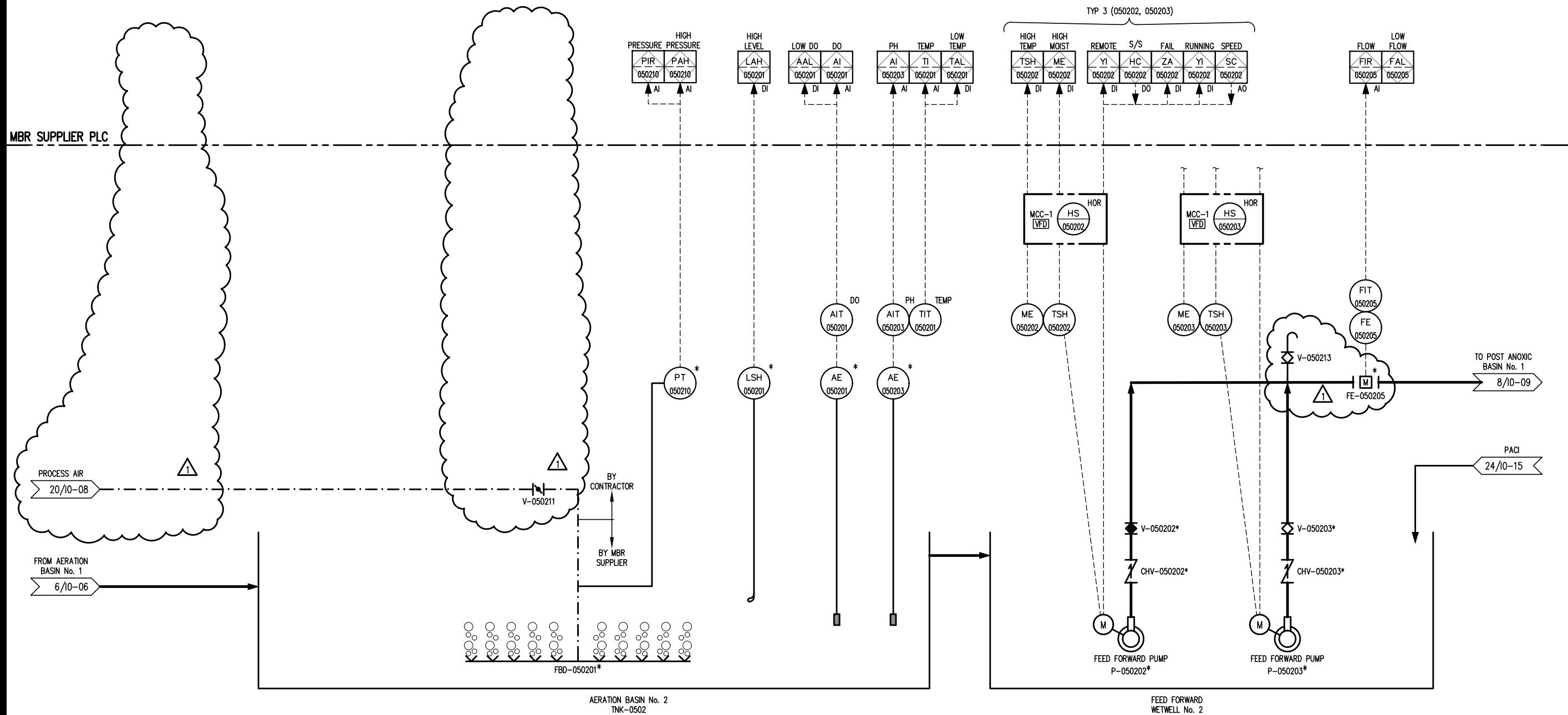
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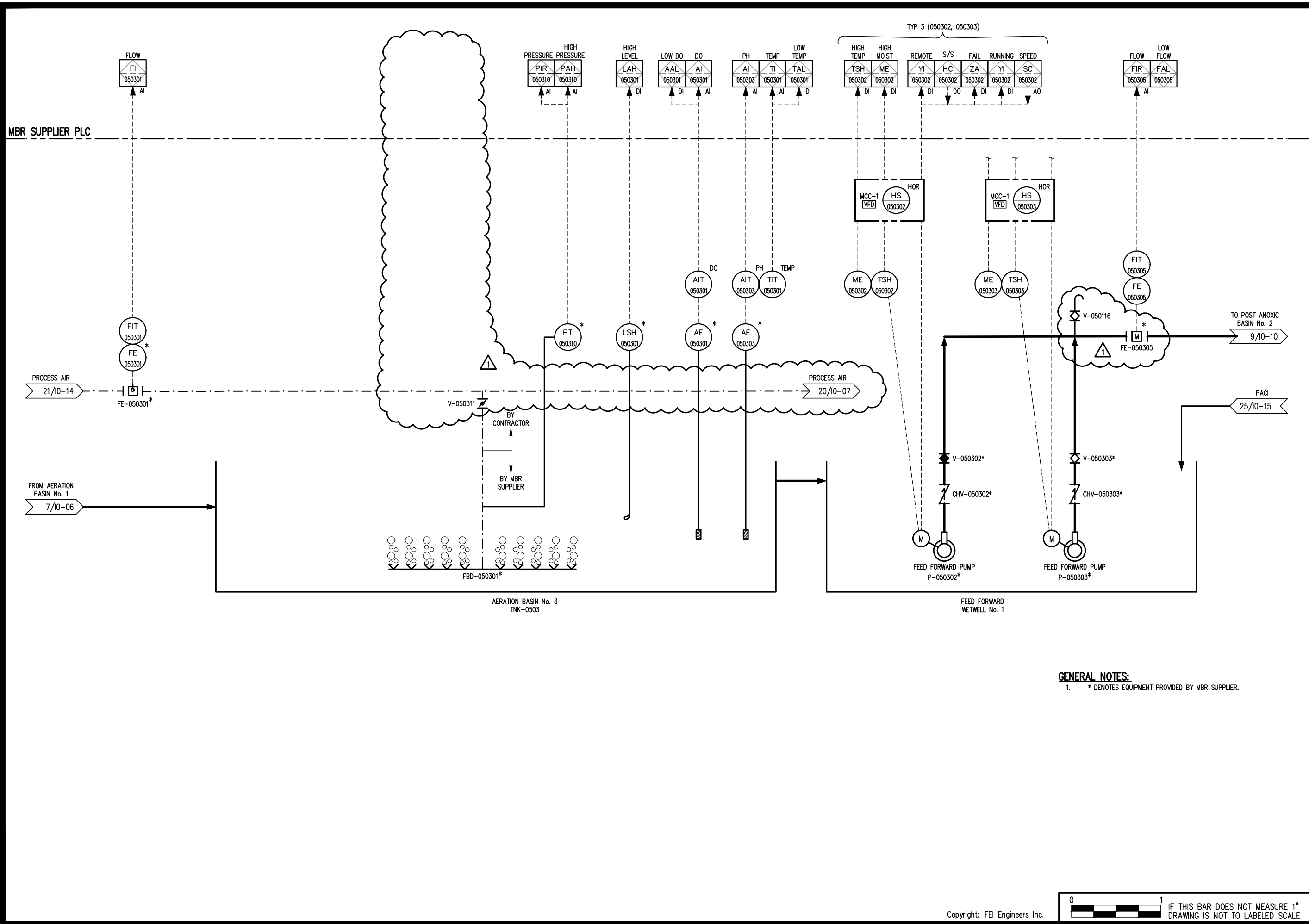
VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

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PART OF ALAN PLUMMER ASSOCIATES

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VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

AERATION BASIN NO. 3 P&ID

PROJECT No.: VTSV-0262

DATE: 3/25/2019

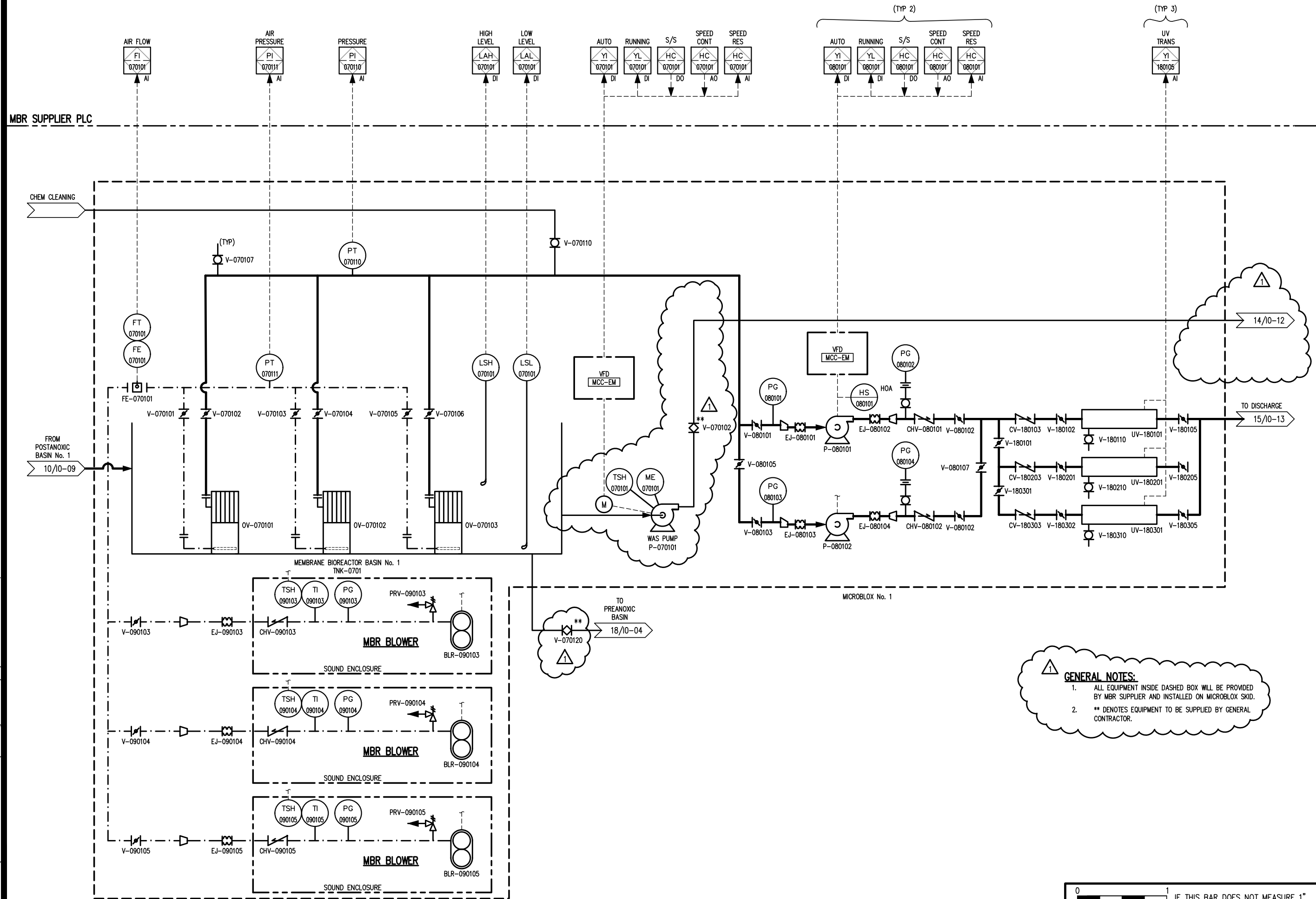
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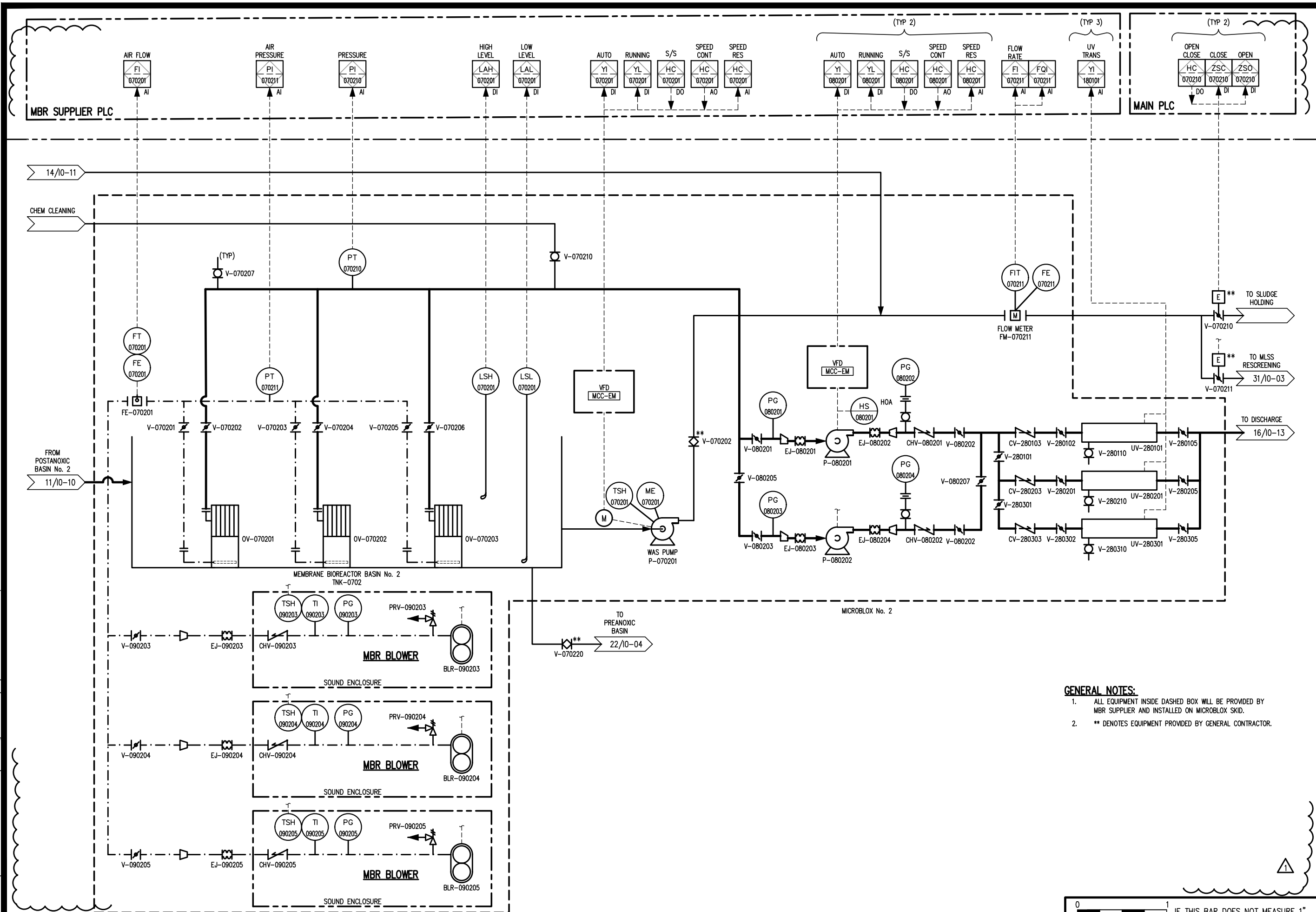
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VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

MICROBLOX SKID NO. 1 P&ID

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GENERAL NOTES:

1. ALL EQUIPMENT INSIDE DASHED BOX WILL BE PROVIDED BY MBR SUPPLIER AND INSTALLED ON MICROBLOX SKID.
2. ** DENOTES EQUIPMENT PROVIDED BY GENERAL CONTRACTOR.

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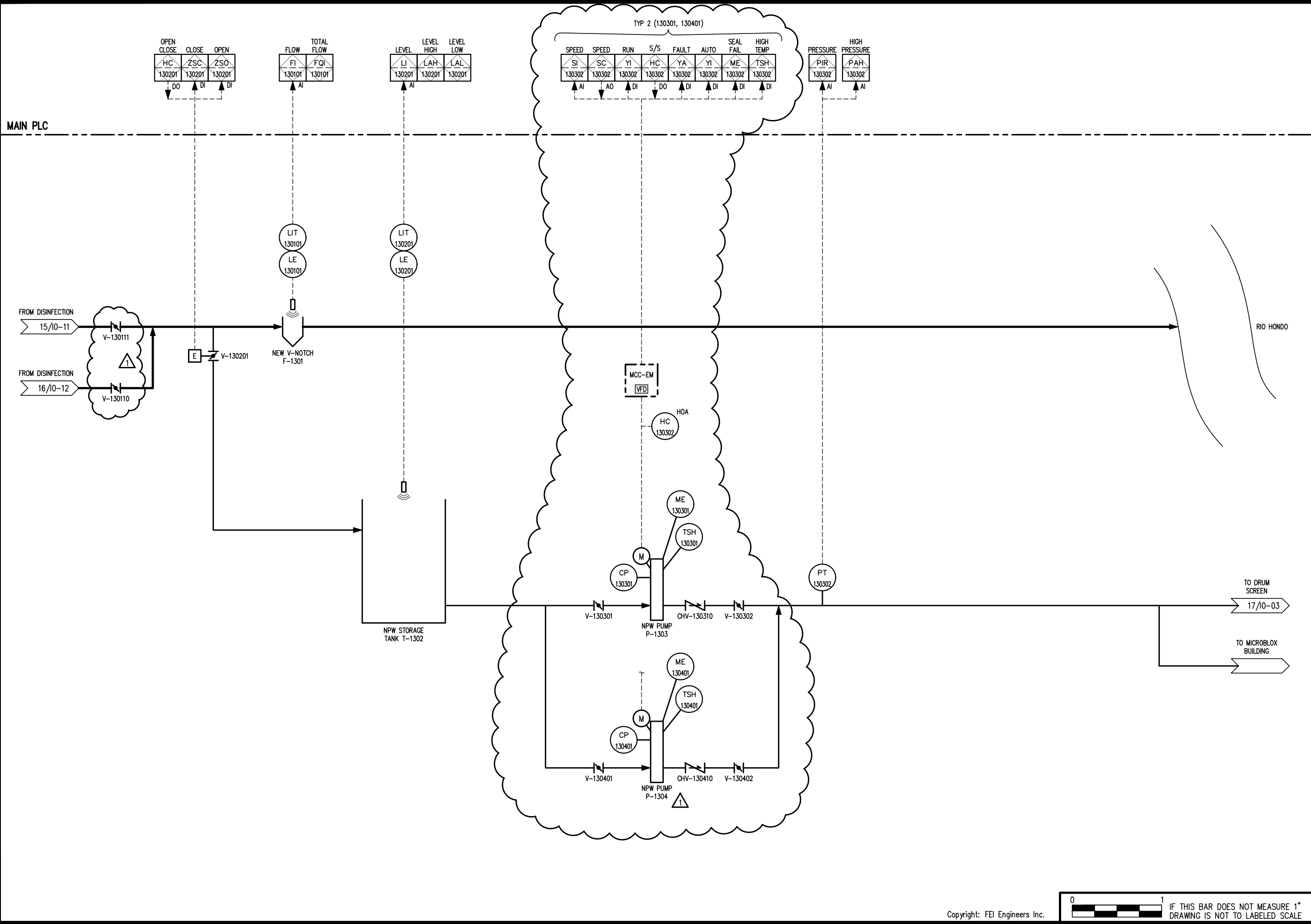
VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

MICROBLOX SKID NO. 2 P&ID

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10-12

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VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

EFFLUENT FLOW MEASUREMENT
& NPW P&ID

PROJECT No.: VTSV-0262

DATE: 3/26/2019

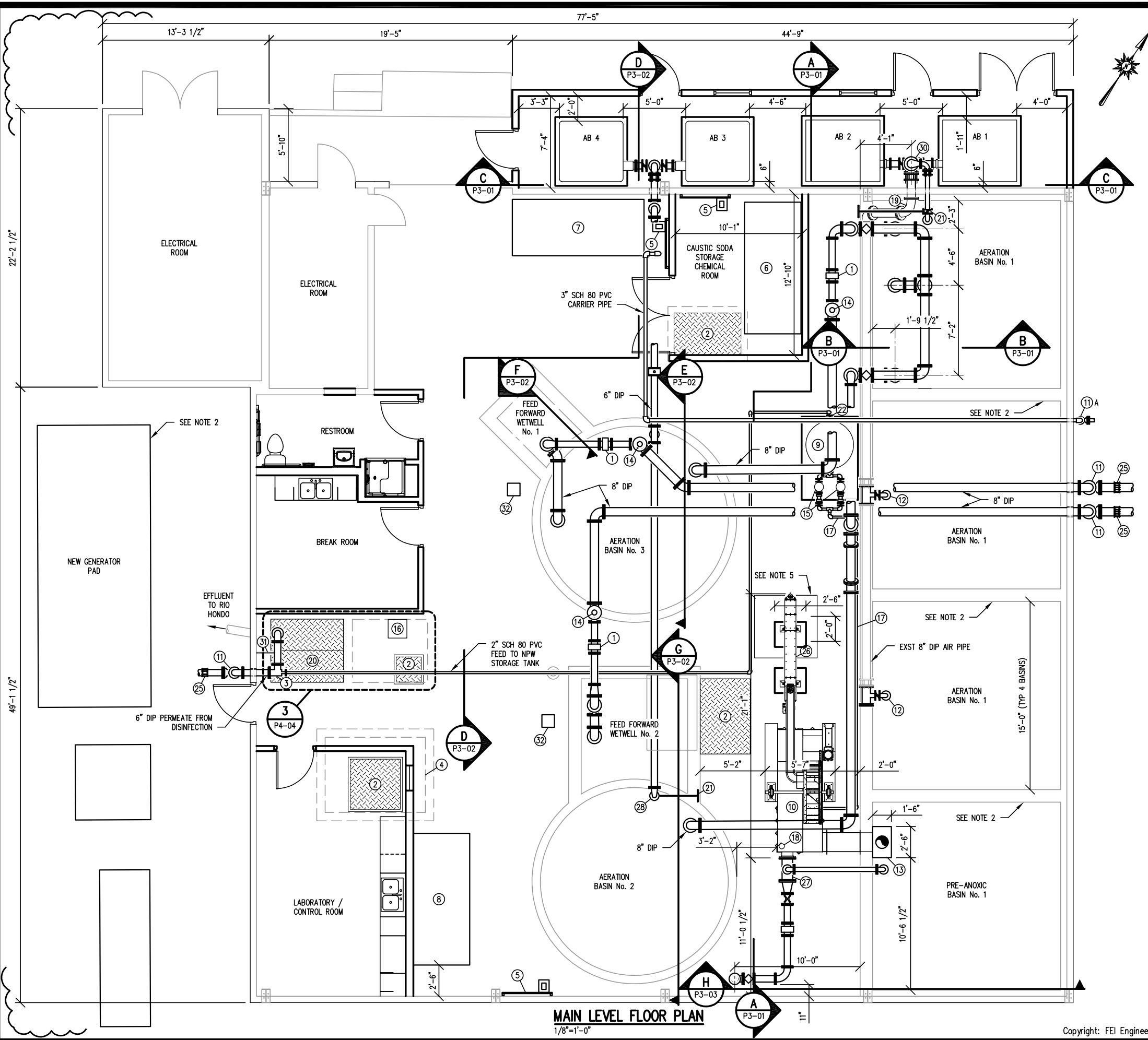
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EQUIPMENT NOTES:

- ① 6" FLOW METER
- ② AL CHECKER PLATE. REFER TO STRUCTURAL.
- ③ 6"x6"x2" TEE
- ④ NEW PACKAGED DUPLEX SANITARY LIFT STATION & LADDER TO BE CONSTRUCTED IN EXST CONCRETE VAULT. REFERENCE MECHANICAL FOR LIFT STATION.
- ⑤ CHEMICAL FEED PANEL
- ⑥ CAUSTIC SODA TOTE STORAGE RACK / CONTAINMENT. REFER TO NOTE 23.
- ⑦ MICRO-C TOTE STORAGE RACK / CONTAINMENT. REFER TO NOTE 23.
- ⑧ PACI TOTE STORAGE RACK / CONTAINMENT. REFER TO NOTE 23.
- ⑨ 4" 500 GALLON NPW STORAGE TANK
MFR: US PLASTICS CORPS MODEL: # 15109 OR ENGINEER APPROVED EQUAL.
- ⑩ DRUM SCREEN
- ⑪ INSULATED / JACKETED PIPE SYSTEM
MANUFACTURE: THERMACOR
MODEL: FERRO-THERMO DI
OR ENGINEER APPROVED EQUAL
- ⑪A MANUFACTURE: THERMACOR
MODEL: PVC POLYCOR
OR ENGINEER APPROVED EQUAL
- ⑫ REPLACE EXISTING AERATION VALVES, TEES, & 90° BEND
- ⑬ SCREEN EFFLUENT FRP TROUGH.
- ⑭ AIR RELEASE PLUG VALVE
- ⑮ NPW PUMP
MFR: GRUNDFOS
QUANTITY: TWO (2)
MODEL: CRIE10-4-98497386
DESIGN POINT: 40GPM @ 60 PSI
OR ENGINEER APPROVED EQUAL
- ⑯ NEW EFFLUENT AUTO SAMPLER
MFR: TELEDYNE ISCO
MODEL: OPTIMA, REFRIGERATED VACUUM SAMPLER 682321131
1. SAMPLE CONTAINER 682320025
2. SUCTION LINE 609004379 OR ENGINEER APPROVED EQUAL.
- ⑰ 2" NPW FEED TO DRUM SCREEN
- ⑱ 2" SCH 80 PVC FROM SANITARY PUMPS; REFER TO MECHANICAL SHEETS FOR SIZE AND ROUTING
- ⑲ RELOCATED 8" DIP AIR PIPE
- ⑳ PROVIDE ALUMINUM COVER PLATE WITH HANDLES FOR EASY ACCESS.
- ㉑ 4" BUTTERFLY VALVE W/ LONG STEM HANDWHEEL OPERATOR
- ㉒ 2" ACTUATED BUTTERFLY VALVE
- ㉓ 4 IBC TOTE STORAGE / CONTAINMENT UNIT DENIOS, INC LOUISVILLE KY. MODEL K17-1167-W OR ENGINEER APPROVED EQUAL
- ㉔ 6" MASS FLOW METER
- ㉕ DRESSER COUPLING
- ㉖ SCREEN SCREW PRESS. CONTRACTOR TO FIELD ROUTE PRESSATE FROM SCREW PRESS TO PRE-ANOXIC BASIN No. 1
- ㉗ 10"x10"x4" TEE
- ㉘ 6"x4" REDUCING 90° BEND
- ㉙ 6"x6"x4" REDUCING TEE
- ㉚ 8"x4" REDUCING 90° BEND
- ㉛ REFER TO P4-02 FOR PIPE SUPPORT DETAILS
- ㉜ DAVIT CRANE BASE. CONTRACTOR TO FIELD LOCATE BASE FOR OPTIMAL ACCESS TO EQUIPMENT; SUBMIT FOR ENGINEERS APPROVAL PRIOR TO INSTALLATION.

NOTES:

1. REFER TO ARCHITECTURAL FOR DETAILED FLOOR PLAN AND MECHANICAL FOR HVAC.
2. REFER TO STRUCTURAL SHEETS FOR BLOCKOUT OPENING DIMENSIONS AND GENERATOR PAD SIZE.
3. CONTRACTOR TO VERIFY LOCATION OF EFFLUENT PIPE EXITING EFFLUENT WETWELL.
4. FIELD ROUTE 2" PIPING FROM ARV PLUG VALVE TO BASINS.
5. REFER TO STRUCTURAL FOR SLAB LOCATION.





PART OF ALAN PLUMMER ASSOCIATES

REV. No.	DATE	DESCRIPTION
1	06/2018	30% REVIEW SET
	03/2019	ADDENDUM No. 2

ST. VRAN WATER & SANITATION DISTRICT
WATER TREATMENT PLANT IMPROVEMENTS

EXISTING TREATMENT BUILDING
UPPER LEVEL PLAN

PROJECT No.: LRE-0267

DATE: 3/26/2019

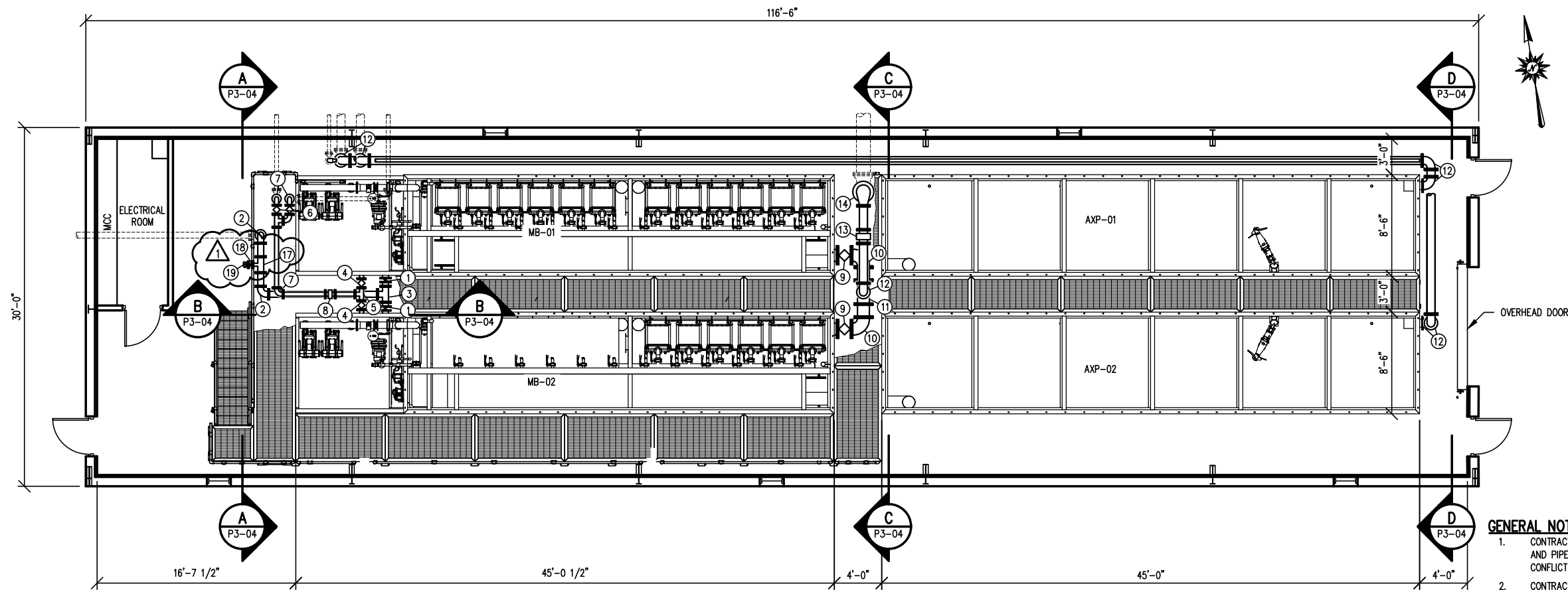
DESIGNED BY: KV / MAD

DRAWN BY: KPR

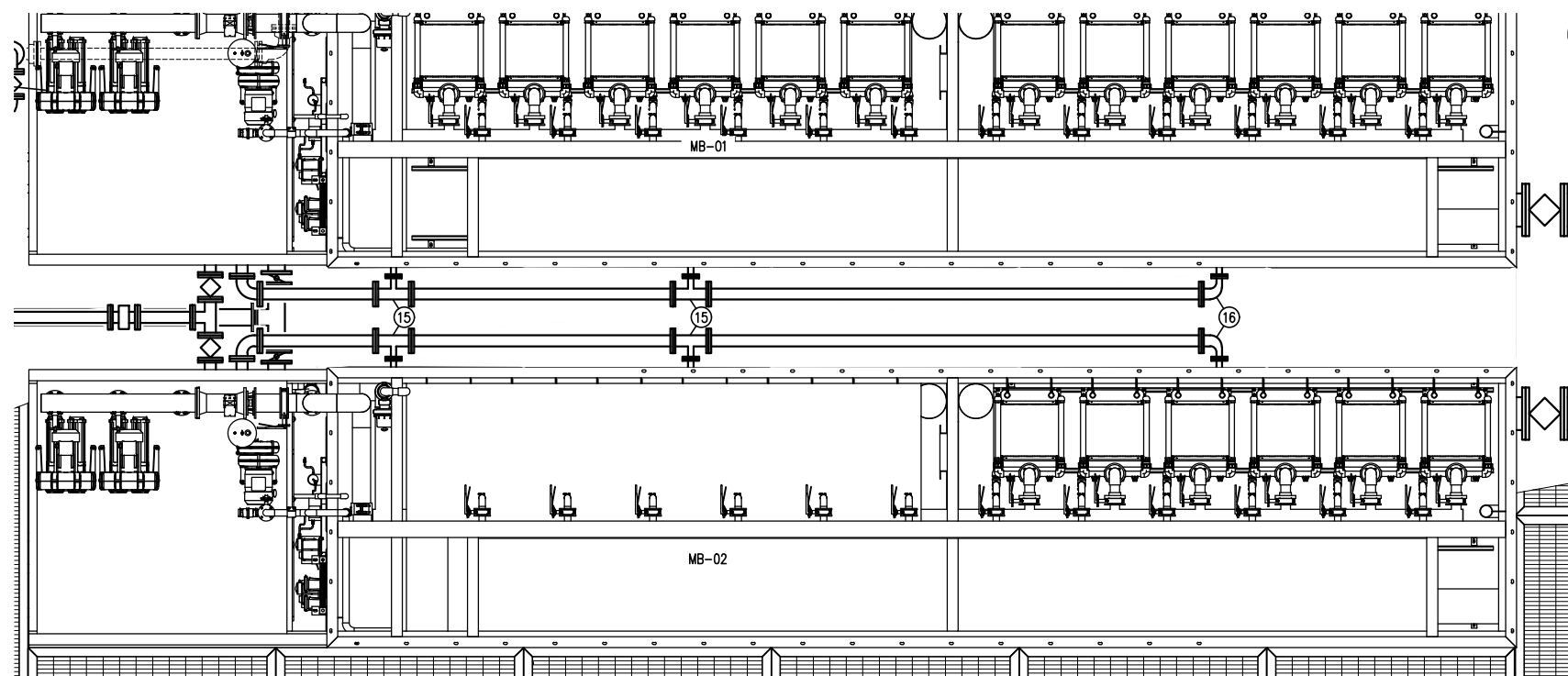
CHECKED BY: PJO

P1-02

LOCATION: W:\VTSV-0262 WWTP RE-DESIGN\PI-04.dwg PLOTTED: 3/26/2019 3:11 PM BY: Rndt,Keith



PROPOSED TREATMENT BUILDING PLAN
3/32"=1'-0"



ENLARGED PLAN
3/16"=1'-0"

GENERAL NOTES:

1. CONTRACTOR TO COORDINATE PLATFORM SUPPORT LOCATIONS AND PIPE ALIGNMENT. INFORM ENGINEER OF ANY NOTED CONFLICT BEFORE PROCEEDING.
2. CONTRACTOR TO FIELD ROUTE WAS PIPING FROM TANK TO WAS PUMP SUCTION FLANGE.

EQUIPMENT NOTES:

- 1 6" BUTTERFLY VALVE
- 2 6" 90° BEND
- 3 6" TEE
- 4 4" PLUG VALVE
- 5 4" TEE
- 6 4" ELECTRICAL ACTUATED PLUG VALVE
- 7 4" 90° BEND
- 8 4" FLOW METER
- 9 12" PLUG VALVE
- 10 12" 90° BEND
- 11 12"x12"x8" REDUCING TEE
- 12 8" 90° BEND
- 13 8" FLOW METER
- 14 14"x8" REDUCING 90° BEND
- 15 4"x2" TEE
- 16 4"x2" 90° BEND
- 17 6"x3" REDUCING TEE
- 18 3" BUTTERFLY VALVE
- 19 3" CAMLOCK

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

PROPOSED TREATMENT BUILDING PLAN

REV. No.

DATE

DESCRIPTION

BID SET

03/2019

ADDENDUM No. 2

PROJECT No.: VTSV-0262

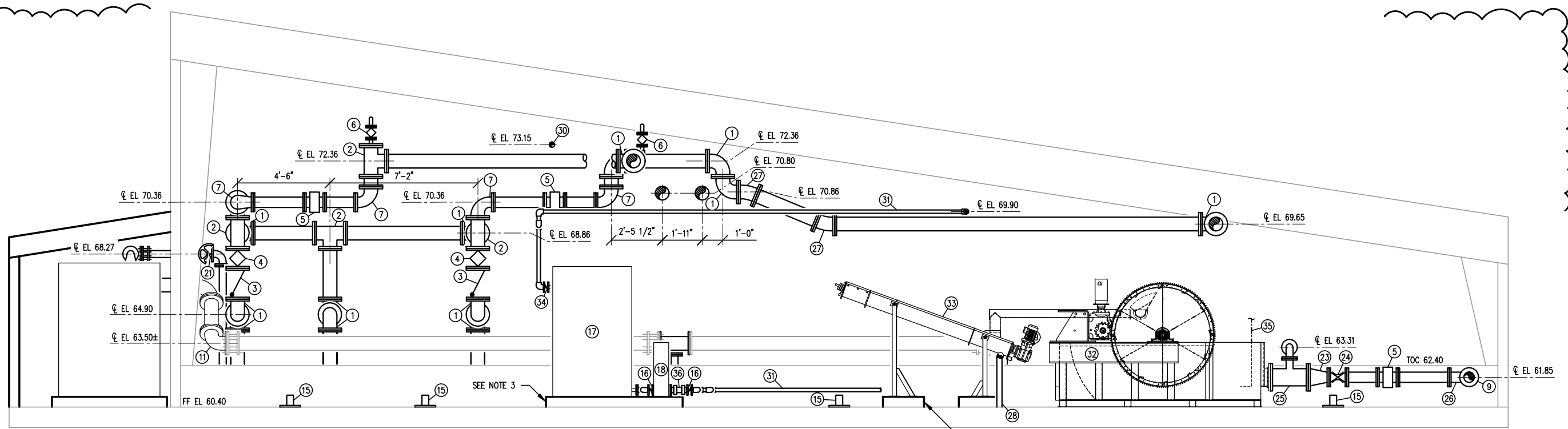
DATE: 3/26/2019

DESIGNED BY: MAD / KV

DRAWN BY: KPR

CHECKED BY: PJO

LOCATION: W:\VTSV-0262 WWTP RE-DESIGN\P3-01.dwg PLOTTED: 3/26/2019 3:21 PM BY: Rndt,Keith



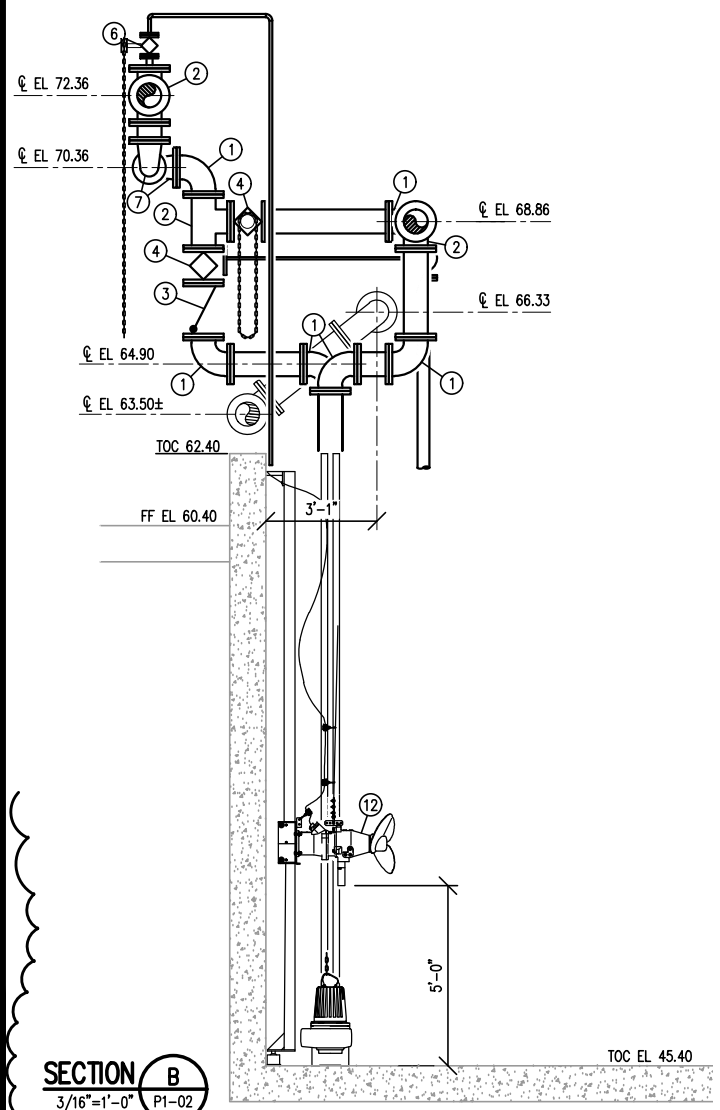
SECTION A
3/16"=1'-0" P1-02

GENERAL NOTES:

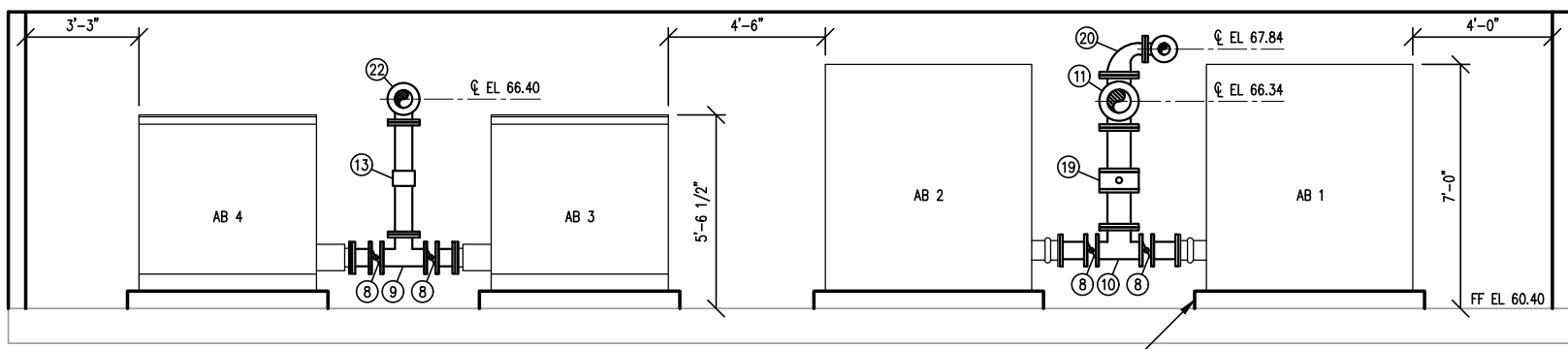
1. CONTRACTOR TO FIELD ROUTE 2" PIPING FROM ARV PLUG VALVE TO BASIN.
2. CONTRACTOR TO FIELD VERIFY BLOWER ROOM FINISHED FLOOR ELEVATION.
3. SEE STRUCTURE SHEETS FOR EQUIPMENT PAD DETAILS.

EQUIPMENT NOTES:

- | | |
|--|---|
| 1 8" 90° BEND | 19 8" MASS FLOW METER |
| 2 8" TEE | 20 8"x4" REDUCING TEE |
| 3 8" CHECK VALVE | 21 4" BUTTERFLY VALVE W/ LONG STEM HANDWHEEL OPERATOR |
| 4 8" PLUG VALVE | 22 6" 90° BEND |
| 5 6" MAGNETIC FLOW METER | 23 10"x6" REDUCER |
| 6 2" PLUG VALVE ARV | 24 6" PINCH VALVE |
| 7 8"x6" REDUCING 90° BEND | 25 10"x10"x4" REDUCER TEE |
| 8 6" BUTTERFLY VALVE | 26 6" LONG RADIUS 90° BEND |
| 9 6" TEE | 27 8" 22.5° BEND |
| 10 6"x6"x8" TEE | 28 SCREEN SCREW PRESS. CONTRACTOR TO FIELD ROUTE PRESSATE FROM SCREW PRESS TO PRE-ANOXIC BASIN No. 1 |
| 11 8" TEE | 29 8" BLIND FLANGE |
| 12 MIXER | 30 3" SCH 80 PVC |
| 13 EXPANSION JOINT | 31 2" SCH 80 PVC |
| 14 AIR FLOW METER INSTALLED ON FLOW CONDITIONING PIPE | 32 DRUM SCREEN |
| 15 DAVIT CRANE BASE. CONTRACTOR TO FIELD LOCATE BASE FOR OPTIMAL ACCESS TO EQUIPMENT. SUBMIT FOR ENGINEERS APPROVAL PRIOR TO INSTALLATION. | 33 SCREEN PRESS |
| 16 2" BUTTERFLY VALVE | 34 ELECTRICAL ACTUATED 2" BUTTERFLY VALVE |
| 17 NPW STORAGE TANK | 35 FROM SANITARY LIFT STATION. TERMINATE INSIDE THE INLET CHANNEL OF DRUM SCREEN. TERMINATE 18" FROM THE TOP OF INLET CHANNEL WITH A 90° BEND IN THE DIRECTION OF FLOW. |
| 18 NPW PUMP | 36 2" CHECK VALVE |



SECTION B
3/16"=1'-0" P1-02



SECTION C
3/16"=1'-0" P1-02

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0 1 IF THIS BAR DOES NOT MEASURE 1" DRAWING IS NOT TO LABELED SCALE



PART OF ALAN PLUMMER ASSOCIATES

REV. No.	DATE	DESCRIPTION
1	03/2019	BID SET
	03/2019	ADDENDUM No. 2

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

EXISTING TREATMENT BUILDING
SECTIONS

PROJECT No.: VTSV-0262

DATE: 3/26/2019

DESIGNED BY: MAD / KV

DRAWN BY: KPR

CHECKED BY: PJO

P3-01