ADDENDUM NO. 2
FOR
WASTEWATER TREATMENT SYSTEM UPGRADE
AND DISCHARGE RELOCATION FOR
THE TOWN OF CROSSVILLE
CW ARPA PROJECT NO. CS0110326

JULY 30, 2025

TO: ALL PLAN HOLDERS AND INTERESTED PARTIES

SUBJECT: Plans, Specifications and Contract Documents are hereby amended, modified, and changed as follows:

I. Reference Part VI – Technical Specifications, Division No. 11 – Equipment, Section 11370 – Closed Channel Ultraviolet Wastewater Disinfection

A. Replace specification 11370 with the attached specification 11370.

II. Reference Part VI – Technical Specifications, Division No. 2 – Sitework, Section 02732 – Gravity Sanitary Sewerage System, Page 02732-4

A. Change to read as follows:

2.01.C. Plastic Service Pipe: ASTM 1785, Schedule 40, *Solid wall,* Poly (vinyl Chloride) (PVC) material; bell and spigot style solvent sealed joint end.

III. Reference Plans

A. Replace Plan Sheets 4 and 12 with attached sheets 4 and 12 marked as "Addendum No. 2".

B. Reference Plan Sheet 10, the SBR Plan View detail. Remove the Check Valve on the effluent piping of the Post- EQ Basin.

C. Reference Plan Sheet 14, Typical Fence Detail. Replace Note 1. To read *Wire Fabric 9 GA. X 2" as shown on the Site plans*. Remove Note 5.

D. Reference Plan Sheet 14, Typ. Flow Meter Detail. Change Detail numbering from D/14 to E/14.

IV. Reference Addendum No. 1

A. Replace the title on Addendum No. 1 to read ADDENDUM NO. 1 FOR WASTEWATER TREATMENT SYSTEM UPGRADE AND DISCHARGE RELOCATION FOR THE TOWN OF CROSSVILLE CW ARPA PROJECT NO. CS0110326

THIS ADDENDUM ISSUED THIS 30th DAY OF JULY, 2025.

LADD ENVIRONMENTAL CONSULTANTS, INC.

Adam Lea

Adam Lea, P.E.

ALABAMA LICENSED NO. 30411 PROFESSIONAL 07/30/25 ENGINEER ADAM JARED LEA

SECTION 11370

CLOSED CHANNEL ULTRAVIOLET WASTEWATER DISINFECTION

PART 1 GENERAL

1.01 Section Includes

A. UV Equipment.

1.02 Related Sections

A. Applicable to Work of this Section are the Drawings and General Provisions of the Contract, including: Part IV, General and Supplementary Conditions; Part V, Special Conditions; Part VI, Technical Specifications; Division No. 1, General Requirements.

1.03 Submittals

A. Submit under provisions of Section 01300.

B. Manufacturer's Product Data Including

1. Technical descriptive data and drawings for each equipment item in the system showing model number(s), sizes, capacities, weights, and voltage information, and similar type information. Catalog cuts are acceptable if they contain the necessary information.

2. Shop fabrication drawings of the UV vessel, including the details necessary for installation. The drawings shall be to scale.

3. System control panel schematic wiring diagram.

4. Control panel layout diagrams for the panel's interior and exterior.

5. Legend nameplate details for control panel switches, lights and panel mounted equipment.

6. Storage, handling and installation instructions.

7. List of spare parts and miscellaneous equipment to be provided under this Section.

8. Descriptive explanation of the UV dose applied.

C. Manufacturer's Installation Instructions: Indicate special installation requirements, configurations, elevations, dimensions, equipment and related items.

1.04 Operation and Maintenance Data

A. Submit under provisions of Section 01700.

B. Maintenance Data: Include all required start-up, operational, routine maintenance requirements, troubleshooting, including specific operational and maintenance instructions.

1.05 Spare Parts

A. Provide one complete set of spare parts as recommended by manufacturer for each installation. (See 2.19).

1.06 Delivery, Storage and Handling

A. Deliver Products to site under provisions of Section 01600.

B. Store and protect Products under provisions of Section 01600.

C. Equipment shall be packaged to prevent damage during shipment and shall be stored in a dry, temperature-controlled indoor environment.

1.07 Project Record Documents

A. Accurately record actual location of all equipment and concealed utilities in accordance with Section 01700.

1.08 Quality Assurance

A. In accordance with Section 01400.

1.09 Qualifications

A. Manufacturer

1. A single manufacturer qualified and experienced in the production of similar equipment shall provide the system. Manufacturer shall have at least 10 years of experience in manufacturing and delivering low pressure high intensity amalgam UV disinfection system.

2. The manufacturer shall have a minimum of 50 fully operation work using technology identical in all aspects (i.e. low pressure high intensity amalgam UV lamps) to that being proposed.

3. A minimum of five (5) satisfactory installations of the equipment shall be furnished including facility name and location, size, name of Owner, contact person and telephone number. See Section 01300.

B. Installer: Must have minimum five years documented experience in the installation of the equipment and facilities.

1.10 Regulatory Requirements

A. All components and the completed total assembly installation shall comply with all OSHA Requirements, National Electrical Code (Latest Edition), International Mechanical Code (Latest Edition), USEPA requirements, and all other applicable codes, regulations and guidelines.

1.11 Field Measurements

A. Verify that field measurements are as shown on Drawings and as instructed by manufacturer.

B. Verify that all concrete work, shape, configuration, piping, valves, fittings, elevations and dimensions meet equipment manufacturers' approval prior to installation of equipment.

1.12 Warranty

A. Provide minimum one year warranty in accordance with Section 01700 on all equipment furnished. Warranty period begins at date of plant acceptance by Owner. (See General Conditions).

PART 2 PRODUCTS

2.01 General

A. The Contractor shall furnish all labor, materials, equipment and services necessary to furnish and install a closed vessel, gravity flow, ultraviolet (UV) disinfection system. The system shall be complete with UV modules, power distribution, system control, UV detection system, and automatic wiping system as shown on the Contract Drawings and specified herein.

B. The UV system shall be a "low pressure, high intensity, amalgam type lamps" with a new lamp rated output of 800 watts UV-C (254 nm) per lamp, measured with lamps having operated for 100 hours.

C. The system shall utilize active control based on the following dose parameters:

1. Lamp output intensity.

2. Water quality transmittance.

3. Water flow.

D. Based on the dose parameters, the system will automatically vary the UV lamp power proportionally to the dose requirement. Systems that take only flow and water transmittance into account are not acceptable.

E. The dose delivered by the UV system shall be linearly variable within a range of 50% to 100% of maximum power in both local and remote operating modes based on lamp intensity, flow rate, and/or UV transmittance.

F. The system shall be capable of continuous disinfection while automatically cleaning the UV lamp sleeves without reducing or shadowing the output of the lamps.

G. Lamp design shall be a water tight design NEMA 4 (IP68).

H. Manufacturer: The UV system shall be ETS – UV UVLW-6800-10 manufactured by Xylem, Inc. or approved equal.

2.02 Quality Assurance

A. The system shall be designed, furnished, and installed to achieve the performance design, and equipment requirements as specified herein in these specifications.

B. The UV manufacturer shall guarantee a minimum of 12,000 hours operating time for each lamp under the conditions specified herein and include on/off cycles max. 4 per 24 operating hours.

C. In case of premature lamp failure, the UV manufacturer shall provide the services summarized in 2.05.

2.03 Performance and Design Requirements

A. The manufacturer of the UV disinfection system shall be responsible for the proper design of their system, including but not limited to, UV Reactors/Chambers and Electrical Control Enclosures.

B. The system shall be capable of delivering a minimum UV dose of 30 mJ/cm2, after 12,000 hours of lamp operation, at the peak flow rate, and a minimum UV transmittance of 55% at 253.7 nm.

C. The UV disinfection unit shall deliver the minimum UV dose at maximum flow capacity, minimum operating temperature, and the minimum design UV transmittance, with lamp output adjusted to account for the combined lamp degradation factor to simulate the end of lamp life condition. The end of lamp life is based on a lamp aging factor either determined from independent testing following NWRI guidelines and guaranteed by the UV supplier or the minimum lamp aging factor of 80%. The minimum end of lamp life is of the nominal lamp output, which is defined as the full power amp output after 100 hour of lamp operation.

D. Dose calculation will be based on 2012 NWRI validation equation.

E. The headloss through UV reactor/chamber shall not exceed 12 inches at the design flow condition.

F. UV reactors shall be installed outdoors, under cover protected by direct weather and the power/control panels shall be installed in an environmentally controlled room.

G. The lamp array configuration shall be a uniform array with all lamps parallel to each other and to the flow.

H. The system shall be designed for complete immersion in the effluent of the UV lamps within their protective quartz sleeve. Both electrodes and the full arc length of the lamp shall be below the water surface. Both lamp electrodes shall operate at the same temperature and be cooled by the effluent. Systems designed whereby the lamps are inserted through a metallic bulkhead or which otherwise prevent uniform cooling of the lamp electrodes (e.g. vertical lamp systems) by the effluent shall not be permitted.

I. See Schedule for design flow, transmittance, number of lamps, number of modules, power consumption, and related design data and equipment.

2.04 Material's Corrosion and UV Protection

A. All metal components in contact with the effluent shall be at minimum Type 316 stainless steel. Aluminum wetted materials shall not be used.

B. All wiring exposed to UV light shall be Teflon coated or other suitable long term resistant materials.

C. All materials exposed to UV light shall be 316 stainless steel, quartz glass, Teflon, Viton, or other suitable long-term UV resistant materials.

2.05 UV Lamps

A. Lamps shall be low-pressure mercury amalgam, high intensity type.

B. Medium pressure or other lamp types with a polychromatic UV output, requiring a higher connected electrical load than that specified to deliver the specified total UV-C (254 nm) output wattage shall not be acceptable.

C. The quartz sleeve shall be fixed to the module frame using stainless steel clips onto the end plugs of the sleeve. The quartz sleeve shall not come in contact with the stainless steel of the module frame.

D. The UV lamp sleeve shall be a single piece of clear fused quartz circular tubing open at both ends. It shall be rated for a minimum UV transmittance (254 nm) of 92%, which shall not be subject to degradation over the life of the system.

E. All electrical connections to the lamp assembly shall be made at one end through a four pin machined watertight plug connector.

F. The electrical connection end of the quartz sleeve shall be sealed by means of a protective retainer plug designed with dual O-rings to seal and hold the sleeved in parallel alignment. The retainers shall remain in place to protect the quartz sleeve ends against accidental damage, without impeding the removal and replacement of the UV lamp.

G. The lamp socket shall be centered against the inside of the quartz sleeve and shall be retained by a cup nut with ribbed exterior surface providing a positive handgrip for tightening/loosening without the need for any tools. This connection includes a self-contained O-ring, sealing the lamp and socket assembly (independently form the quartz sleeve).

H. The lamp assembly design and UV module mounting shall allow all of the following to be easily achieved by an operator for maintenance purposes:

1. Disconnection of lamp power cable only, without removing the UV lamp or the lamp assembly from the module.

2. Disconnection of lamp power cable and removal of the UV lamp without removing the lamp assembly from the module.

3. Disconnection of the lamp power cable and removal of the entire lamp assembly without removing the lamp from the assembly.

2.07 Cleaning Mechanism

A. For periodic cleaning of the quartz thimbles and UV monitor probe, the chamber shall be fitted with an automatic/mechanical cleaning mechanism, which shall consist of a SS yoke and molded wiper rings, which fit over the quartz thimbles. Wiper rings shall be replaceable.

B. The cleaning, mechanism shall be electrical/mechanical and shall be operated by means of a fractional horsepower motor and a lead screw. Pneumatic or hydraulic cleaning mechanisms will not be acceptable.

C. Wiper power supply shall be 24 V DC for improved safety. Wipers that require voltage greater than 24V shall not be acceptable.

D. The cleaning mechanism shall operate by pulse technology which will stop the wiping mechanism before it reaches the end of the chamber. No limit switches (external or internal) shall be used to monitor the position of the wiper mechanism.

E. The cleaning cycle shall be field adjustable. The cleaning cycle shall be activated from the control system or manually at the operator interface.

2.08 Temperature Sensor

A. A temperature sensor shall be fitted to the chamber for protection against heat buildup under low or no flow conditions. The UV system shall shut down and alarm in event of heat buildup in the chamber.

2.09 Access Hatch

A. A circular access hatch shall be provided on top of the chamber to allow easy simple access for visual lamp/thimble inspection and/or removal of foreign debris from the chamber without removing the lamps or quartz thimbles. The profile of the hatch shall be designed to eliminate flow disruptions and air pockets.

2.10 UV Intensity Monitor

A. One lamp in each chamber shall be equipped with a UV monitor, which measures the UV intensity of that lamp, providing continuous performance verification over the above specified water transmittance range.

B. The monitor shall be fitted with a filter, which allows measurement of UV energy between 220 and 290 nm wavelengths.

C. The monitor shall be unaffected by static, electromagnetic fields, or short wave radio emissions that comply with current FCC regulations.

D. The monitor shall be NIST-traceable with an uncertainty of 15% or less at 80% confidence level.

E. The monitor shall manipulate a 4-20mA signal and return it to the power/control module.

F. The monitor shall have an IP67 rating and shall be removable without draining the chamber (dry connection).

2.11 Ballasts

A. High frequency electronic ballasts shall provide power to the lamps. Systems utilizing constant wattage transformers (or similar) and high frequency capacitors will not be acceptable.

B. Ballasts shall operate between 50 and 100% in 1% increments. Systems that have step functions for power output greater than 1% will not be acceptable.

C. Each ballast shall power one lamp. Systems utilizing multiple lamps per ballast will not be acceptable.

D. Ballast shall have a design life of five (5) years.

2.12 Electrical/Instrumentation and Controls

A. General

1. The quantity and size of power/control cabinet(s) are designated on the drawings.

2. Cabinet(s) shall conform to NEMA 12, suitable for indoor installation in an environmentally controlled room.

3. Cabinet(s) shall be fan cooled and shall include louver covers with replaceable inlet filters.

4. Cabinet(s) shall be constructed of epoxy coated steel.

5. The door of each cabinet shall be electrically interlocked so that the module is de-energized when the door is opened.

6. All wiring within the cabinets shall be harnessed or enclosed in wire channel.

7. Incoming circuits shall be protected by circuit breakers.

B. Power Requirements (depending on number of lamps)

1. 480V, 3-phase, 4 wire + ground, 60 Hz.

C. Power/Control Cabinets

1. Each of the cabinet(s) shall power and control the required number of lamps to treat the water as specified in Section 2.03 Performance and Design Requirements.

2. The power/control cabinet(s) shall contain a 7" resistive touch HMI for operator interface mounted at eye level. The incorporation of a resistive touch HMI interface, allows the system to be controlled without having to remove gloves.

3. All information, warnings, and alarms shall be presented on the HMI for ease of operation and fault finding. The HMI shall display a minimum of the following:

   a. UV dose.

   b. UV intensity (% and mw/cm2).

   c. Lamp current.

   d. Flowrate.

   e. Chamber temperature.

   f. Operation hour meter.

   g. Lamp fault.

   h. Low UV alarm.

   i. High temperature alarm.

   j. Ground fault trip.

   k. Wiper fault.

2.13 Monitoring/Interfacing and Control Requirements

A. The control module shall contain the following system interface controls:

1. Local/Remote operation.

2. Process interrupt (from valves and/or flowmeter).

3. Low UV does (configurable to shut down or alarm only).
4. Flowmeter input.
5. Online transmittance monitor input.
6. Half to full power UV setting.
7. Variable power control.
8. Dose pacing interface.
9. Interface with SCADA through MODBUS or available hardwire IO.

2.14 Spare Parts

A. The following spare parts shall be supplied with the equipment:

1. UV lamps.
2. Quartz thimbles.
3. Sets of quartz thimbles seals.
4. Wiper rings.
5. Electronic ballasts.
6. Other.

2.15 Manufacturer On-Site Services

A. Manufacturer's representative shall as a minimum perform the following tasks during start-up/commissioning.

B. Instruct Owner's personnel in the proper operation and maintenance of the equipment.

C. Provide additional services at no cost to the Owner to correct any operational problems due to the design and/or fabrication of the UV equipment. Any problems with the UV associated with upstream process failures or incorrect use of the equipment will not be covered under this section.

2.16 Accessories

A. On-line Transmittance (UVT) Monitor

1. An on-line UVT monitor will automatically track the UVT of the wastewater. The monitoring shall be continuous. The UVT monitor will be measured from 0 to 100 percent with an accuracy of ±1 percent. Unit shall be of a type that allows field calibration by Owner.
2. An analog 4-20 mA input to the Plant PLC shall be provided for interfacing the UVT monitor.
3. Power feed to the sensor sampler shall be 120 V, sing-phase and will be powered from the field.
4. All components necessary for the UVT monitoring system will be provided in NEMA 4X enclosure.

5. UVT monitor shall be as manufactured by Real Tech, Inc.

6. Contractor shall supply all components necessary for mounting and calibrating the UVT monitor.

2.17 Anchor Bolts and Fasteners

A. Installation Contractor shall furnish stainless steel expansion anchor bolts as recommended by manufacturer. The number, size, and location to be as required by UV manufacturer.

B. All fasteners, bolts, nuts, washers, and related items shall be stainless steel.

C. All support braces and saddles shall be stainless steel meeting the requirements of the UV manufacturer.

PART 3 EXECUTION

3.01 Examination

A. Verify site conditions under provisions of Section 01039.

B. Verify that concrete, piping, anchor bolts and all related structural supports are ready to receive Work and dimensions are as shown on Drawings and meeting the approval of the manufacturer.

C. Verify that electric power is available and of the correct characteristics.

3.02 Preparation

A. Verify all dimensions, elevations, piping and all related items.

B. Verify anchor bolt placement.

C. Verify all concrete work conforming to Drawings and meeting approval of the manufacturer.

D. Inspect all equipment for damage prior to installation. Damaged equipment shall not be installed.

3.03 Installation

A. Install in accordance with manufacturer's instructions, project Plans and Specifications.

B. Anchor equipment securely in place.

C. Sequence installation to insure piping and electrical connections are provided in a correct, orderly and expeditious manner.

D. Assembly all components as instructed by manufacturer.

E. Install electrical and control equipment as instructed by manufacturer and in accordance with Division No. 16, Electrical. Provide connection to electrical service. (See Electrical Drawings).

F. Exercise care when handling equipment to avoid damage to finished materials and components of the system.

3.04 Adjusting

A. Adjust Work under provisions of Section 01650.

B. Check all mechanical components for freedom of movement and rotation.

C. Check all anchors and supports. Tighten as required.

3.05 Field Quality Control

A. Perform field inspection and testing under provisions of Section 01400.

3.06 Testing

A. Prior to start-up, the manufacturer shall inspect the installed UV disinfection system for proper alignment, correct operation, proper connections, and satisfactory function of all components. This inspection will occur during start-up/commissioning visit.

B. After start-up and as part of the equipment certification process, the Owner shall submit to the Manufacturer one month of collected data as indicated below. This information will be used by the Manufacturer to provide feedback to the systems operation.

1. Monthly operator's reports for 30 days following start-up.

2. Daily values for:

   a. Plant flow (at time sample was collected)

   b. Number of units in operation

   c. Power level

   d. Time sample was collected

   e. Fecal/E. coli/100 ml (influent and effluent)

   f. Dose

   g. Transmittance

   h. TSS

   i. Sample collected by

C. All laboratory tests necessary to confirm the Guaranteed Performance Requirements testing for the UV Disinfection System shall be performed by Contractor/Owner in accordance with the applicable portions of the most recent edition of Standard Methods.

3.07 Start-Up

A. Provide start-up under provisions of Section 01650 as indicated herein.

B. The equipment manufacturer shall provide the services of certified, factory trained field service technicians for a minimum period of three days. The field service technicians shall check all installed

equipment, and facilities, electrical facilities, perform initial start-up, acceptance testing certification, and instruction of plant personnel in operational and maintenance procedure.

C. A written report covering the technician's findings and installation approval shall be submitted to the Engineer covering all inspections, start-up, acceptance tests and outlining in detail any deficiencies noted.

D. Provide three (3) sets of O & M Manuals. See Section 01700.

3.08 Schedule

A. Design Flow

1. Peak Design Flow: **0.5 MGD.**
2. Total Suspended Solids: **< 20 mg/l (maximum).**
3. Particle Size Distribution: **< 30 micron.**
4. 5-Day BOD: **< 20 mg/l.**
5. Ultraviolet Transmittance @ 253.7 nm: **55%.**
6. Water Temperature: **35˚F to 85˚F.**
7. Influent E.Coli Count: **<50,000/100mL.**
8. Effluent E.coli Count: **< 126/100 ml (30 day geometric mean)**
   < 250/100 ml (maximum)
9. Iron Concentration: **<0.1 mg/L.**
10. Manganese Concentration: **<0.05 mg/L.**

B. UV Reactors

1. Number of Reactors: **2.**
2. Number of Lamps per Reactor: **6.**
3. Total Number of Lamps: **12.**

C. Electrical

1. **480 V, 3 Phase, 60 Hz.**
2. Total Power Consumption (Lamps and Ballasts Only): **2.4 KW at 0.25 MGD (Avg. flow).**
3. Number of System Electrical Enclosures: **2.**
4. Location: **Under cover.**

D. SCADA: N/A.

3.09 Warranties

A. The Manufacturer shall provide a written warranty that provides for:

1. Full replacement of all defective lamps within the first 9,000 hours of operation provided that the system is operated continuously and the system is being operated and maintained per the directions of the Manufacturer.

2. Full replacement of components against defects in materials and workmanship for a period of one year from date of start-up not to exceed 18 months from date of shipment.

3. Performance warranty as outlined in Section 2.03 Performance and Design Requirements.

[2280]
[Rev. 11/10]

END OF SECTION

CONNCET TO EX. 4" FM
8" TEE
BLIND FLANGE
EX. 4" FM
4" x 8" INCREASING FITTING
EX. MONITORING WELL (DO NOT DAMAGE)
2.5" CL. 200 PVC
EXISTING POND
EX. 10" PVC
CONNECT PROPOSED 8" PVC TO EX. 12" PVC WITH CUT-IN FITTINGS
EX. 12" PVC
EX. 12" PVC TO BE ABANDONED
EX. FENCE LINE (TYP.)
EX. IRRIGATION NOZZLE
EX. MONITORING WELL (DO NOT DAMAGE)
8" CL. 200 PVC INFLUENT FORCE MAIN
INFLUENT PUMP STATION 10.0' WETWELL. SEE DETAIL THIS SHEET
2.5" CL. 200 PVC
BLOWER BUILDING
8" INFLUENT F.M.
BLOWERS
8" CL. 350 D.I. AIR LINES
870.0 LF. OF 6.0 FT. CHAINLINK FENCE WITH (2) 10.0' SWING GATES AND (1) 4.0' WALK GATE
NON-POTABLE WATER SERVICE
3" CL. 200 PVC
4" CL. 200 PVC DRAIN
10' MIN
SBR BASIN
SBR BASIN
6" CL. 200 PVC OVERFLOW
4' X 6' X 6" CONC. PAD AND STAIRS BASE
36" ACCESS STAIRS TO BASIN WALKWAY
YARD HYDRANT SEE DETAIL A 16
2.5" CL. 200 PVC "6" MAG METER
4" PVC WITH CLEANOUT
DUAL UV UNITS
CONTROL BUILDING
15' X 5' CONCRETE GENERATOR PAD
10" X 20" METER BOX WITH 1" CURB STOP
(2) 10.0 FT. SWING GATES
(1) 4.0 FT. WALK GATE
EX. GRAVEL / CHERT DR.
EXISTING POND
GRAVEL AREA (GEOTEXTILE W/ 3" OF CRUSHED STONE)
NOTE: EXCAVATE TO ELEVATION - 1156.80' FOR SBR BASINS
3" CL. 200 PVC
10" CL. 200 PVC
EX. IRRIGATION NOZZLE
NOTES:
1. PRESSURE PIPING SHALL BE CL. 200 PVC BELOW GRADE AND CL. 350 D.I. ABOVE GRADE UNLESS OTHERWISE NOTED.
15 L.F. OPEN CUT AND CASE WITH 6" PVC WHERE WATER MAIN CROSSES 8" SEWER EFFLUENT MAIN (5' MIN. EACH SIDE SEPARATION)
3" WATER SERVICE LINE
FLOATING CURTAIN
EX. Cl_2 BUILDING
EX. CONCRETE PUMP STATION
SEWER VALVE (TYP.)
EX. CONCRETE VALVE PIT
MONITORING WELL (TYP.)
IRRIGATION BOX (TYP.)
EX. VALVE
NOTE:
CONTRACTOR TO COORDINATE WITH OPERATOR TO CLOSE VALVE / VALVES FOR EXISTING IRRIGATION SPRAY FIELD.
EX. 1/2" SQUARE IRON PIN EL. = 1155.45'
3" WATER SERVICE LINE
10" CL. 200 PVC
GRAVEL / CHERT DR.
CONNECT AT METER BOX
METER BOX BY CROSSVILLE WATER
CONNECTION TO EX. WATER MAIN TO BE PROVIDED BY WATER UTILITY. OWNER TO COORDINATE SERVICE CONNECTION AND PAY ASSOCIATED FEES (NOT IN CONTRACT).
EX. WATER MAIN
18" RCP
MONITORING WELL (TYP.)
DEKALB COUNTY RD. # 37
0' 40' 80'
N
MATCHLINE

8" CL. 200 INFLUENT FORCE MAIN
8" CL. 200 GRAVITY FROM EX. POND
8" GATE VALVE
8" GATE VALVE
6" MAG METER
10" X 20" METER BOX WITH 1" CURB STOP
8" CL. 200 PVC BYPASS LINE
1" PEX
2 1/2" CL. 200 PVC
3" CL. 200 NONPOTABLE WATER SERVICE
6" CL. 200 PVC OVERFLOW
1" SCH. 40 PVC
8" CL. 200 PVC EFFLUENT FROM SCREEN
YARD HYDRANT SEE DETAIL A 16
10" CL. 200 PVC GRAVITY
INFLUENT SCREEN
8" CL. 200 PVC BYPASS
3" DRAIN FROM COMPACTOR
COMPACTOR
45°-0'-0"
45°-0'-0"
44°-55'-16"
6" CL. 200 PVC INFLUENT
1" PEX
20.0 LF. OF 6" STEEL CASING
98°-24'-20"
INFLUENT PUMP STATION 10' WETWELL
CONC. PAD FOR SCREEN AND COMPACTOR
43°-16'-06"
79°-30'-46"
10" X 20" METER BOX WITH 1" CURB STOP
3" CL. 200 PVC
4" CL. 200 DRAIN
8" CL. 200 PVC OVERFLOW
3" CL. 200 PVC

INFLUENT PUMP STATION DETAIL

SCALE 1" = 10.0'

ADDENDUM NO. 2 SITE PLAN

BY	REVISIONS	DATE
KDH	PIPING CHANGES AT PUMP STATION	7/28/2025

ALABAMA LICENSED PROFESSIONAL ENGINEER NO. 34411 ADAM JARED

LADD ENVIRONMENTAL Providing Engineering Solutions

ALABAMA

WASTEWATER TREATMENT PLANT UPGRADE AND DISCHARGE RELOCATION
(CWSRF PROJECT NO. CS011036-02)
FOR
THE TOWN OF CROSSVILLE
CROSSVILLE

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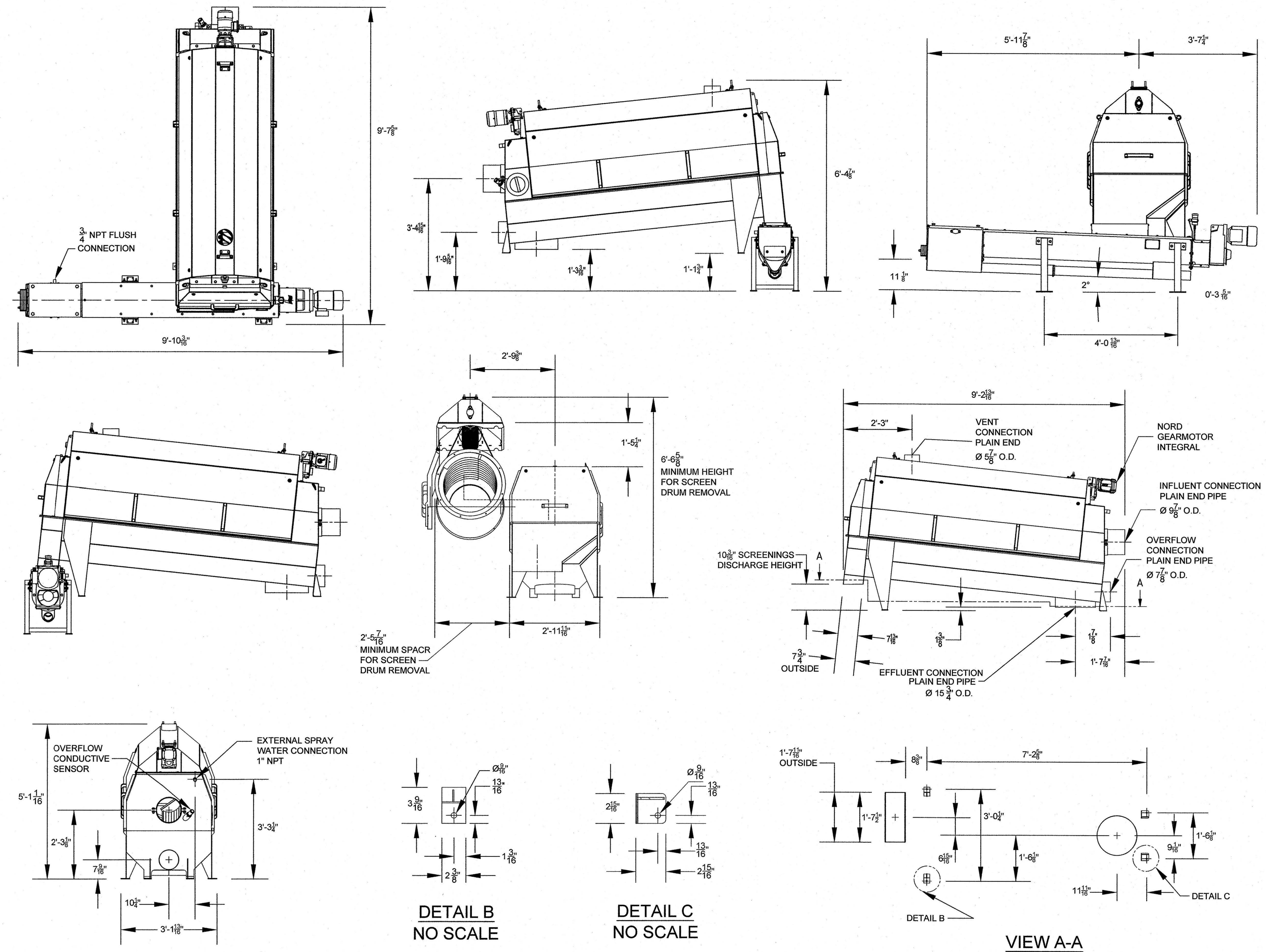
JOB NO: 2280	DRAWN BY: CB/KDH	SCALE: NOTED	
FILE: S.P. \2280\crossville	CHECKED BY:	DATE: JULY, 2025	

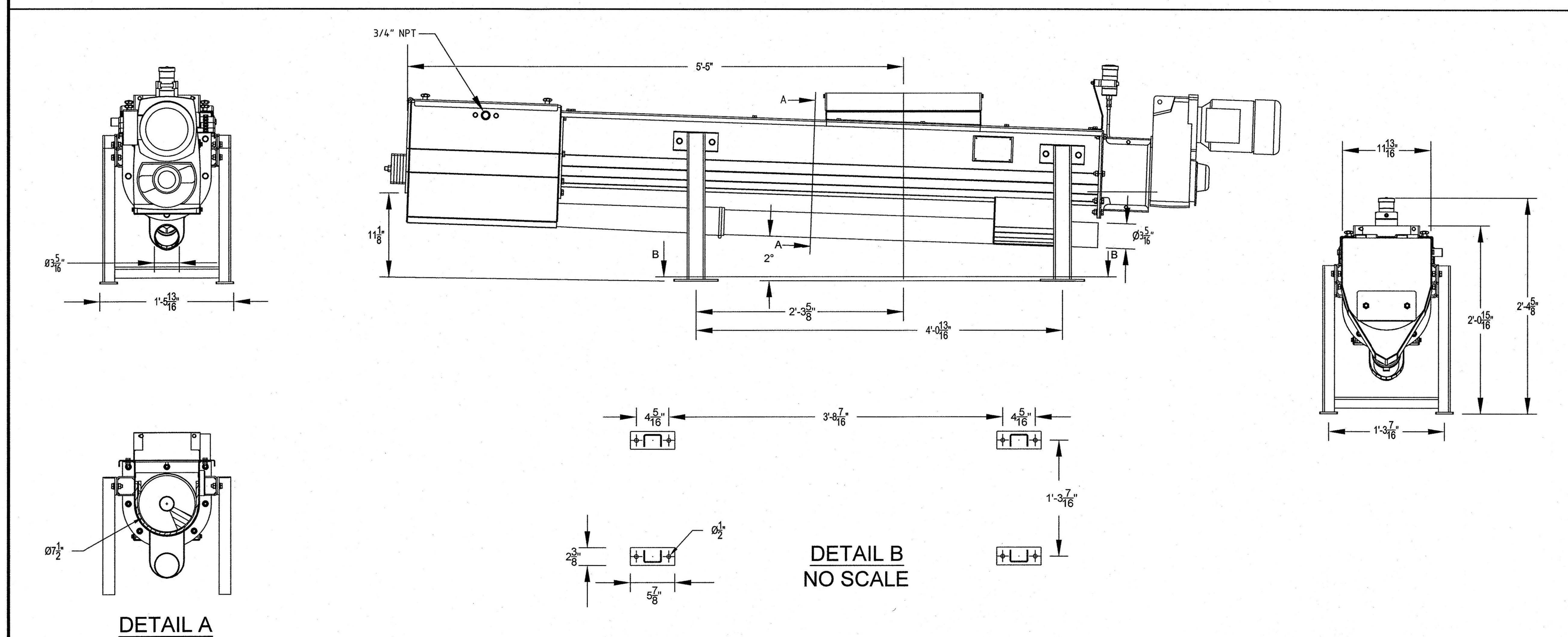
SHEET 4

2280\SURVEY\2280CROSSVILLE.DWG



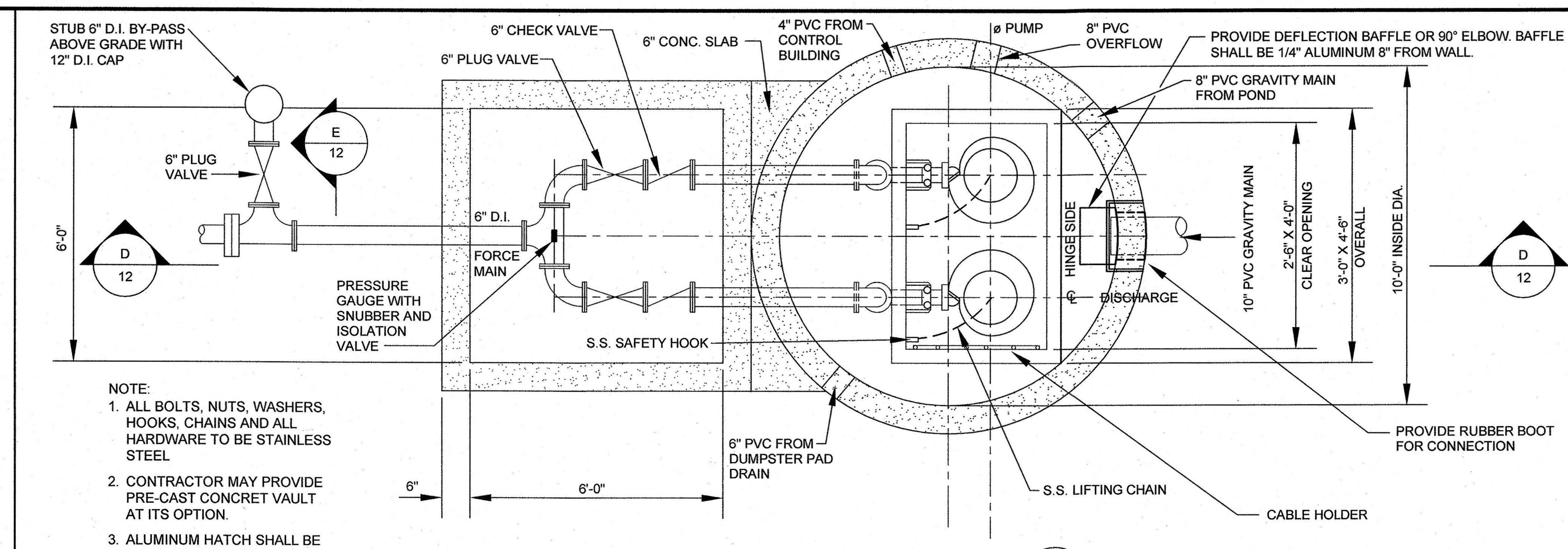
INFLUENT SCREEN DETAIL (A/12)

NO SCALE



SCREW CONVEYOR PRESS (B/12)

NO SCALE

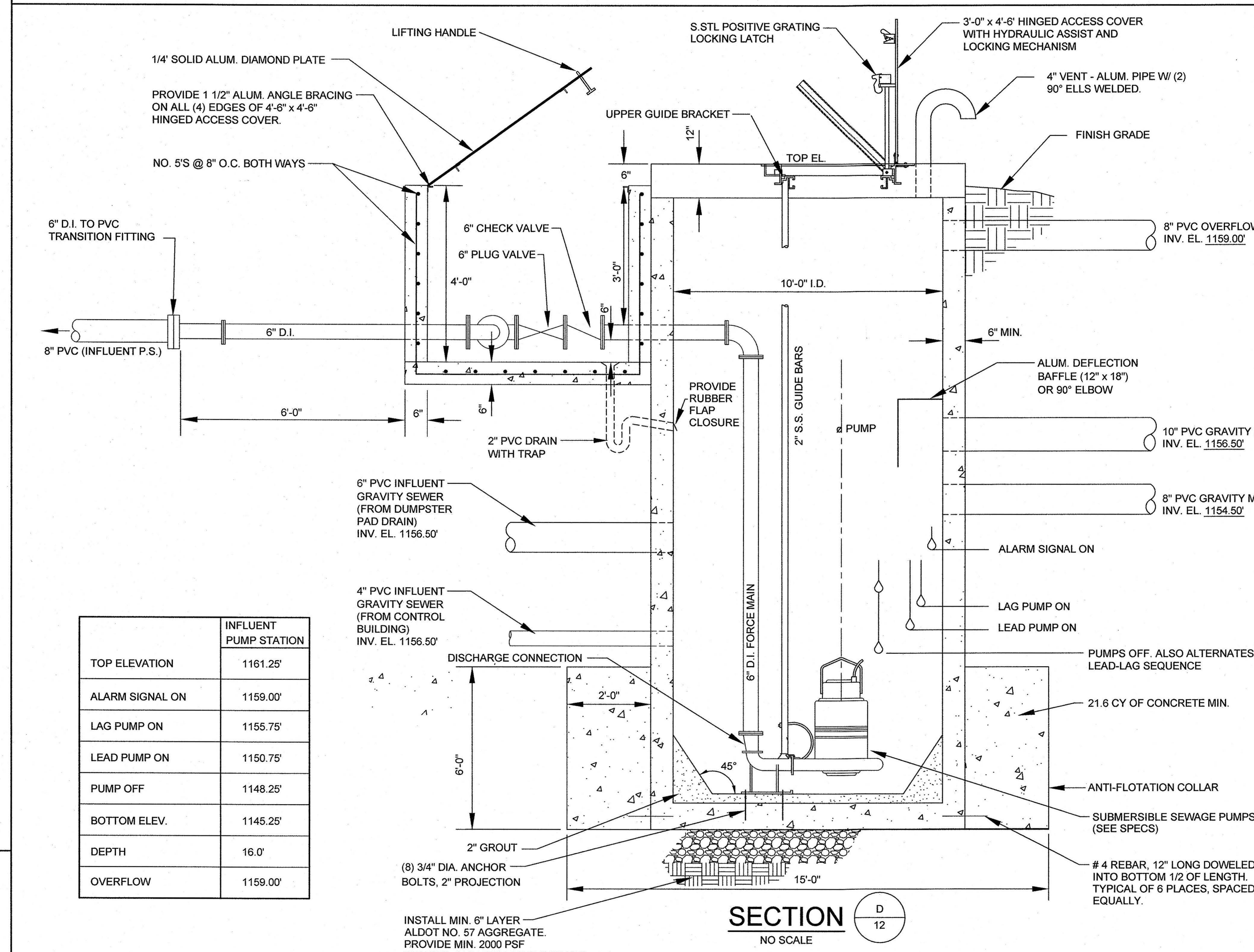


NOTE:

1. ALL BOLTS, NUTS, WASHERS, HOOKS, CHAINS AND ALL HARDWARE TO BE STAINLESS STEEL.
2. CONTRACTOR MAY PROVIDE PRE-CAST CONCRET VAULT AT ITS OPTION.
3. ALUMINUM HATCH SHALL BE EQUIPPED WITH HINGED SAFETY GRATE FOR FALL PROTECTION, UNDER THE ACCESS COVER.

LIFT STATION PLAN (C/12)

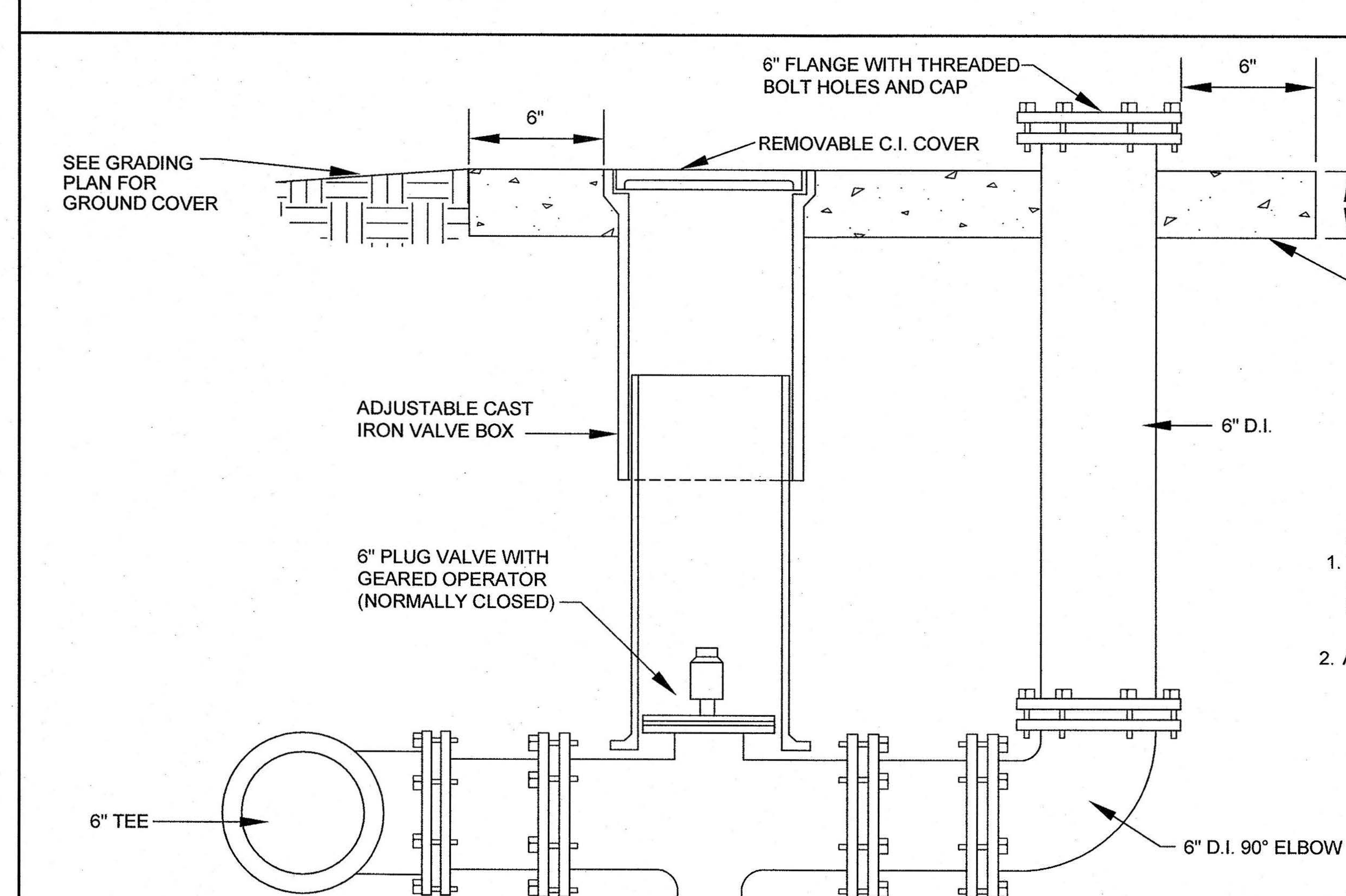
NO SCALE



	INFLUENT PUMP STATION
TOP ELEVATION	1161.25'
ALARM SIGNAL ON	1159.00'
LAG PUMP ON	1155.75'
LEAD PUMP ON	1150.75'
PUMP OFF	1148.25'
BOTTOM ELEV.	1145.25'
DEPTH	16.0'
OVERFLOW	1159.00'

SECTION (D/12)

NO SCALE



NOTES:

1. THE BY-PASS PUMPING CONNECTION IS FOR CONNECTING A PORTABLE PUMP TO THE FORCE MAIN.
2. ALL BURIED FITTINGS ARE TO BE RESTRAINT JOINT M.J..

BY-PASS PUMPING CONNECTION (E/12)

SECTION

NO SCALE

ADDENDUM N0. 2

INFLUENT LIFT STATION AND INFLUENT SCREEN DETAIL

DATE	REVISIONS	BY
07/28/2025	P.S. ELEVATIONS AND COMPACTOR LENGTH	T.S.

ADAM JARED LEA, NO. 30411, LICENSED PROFESSIONAL ENGINEER, ALABAMA

WASTEWATER TREATMENT PLANT UPGRADE AND DISCHARGE RELOCATION
(CWSRF PROJECT NO. CS011036-02)
FOR
THE TOWN OF CROSSVILLE
ALABAMA

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CROSSVILLE

JOB NO: 2280	FILE: S.P. \2280\LIFTSTA
DRAWN BY: TS	CHECKED BY:
SCALE: AS NOTED	DATE: JULY, 2025

SHEET 12