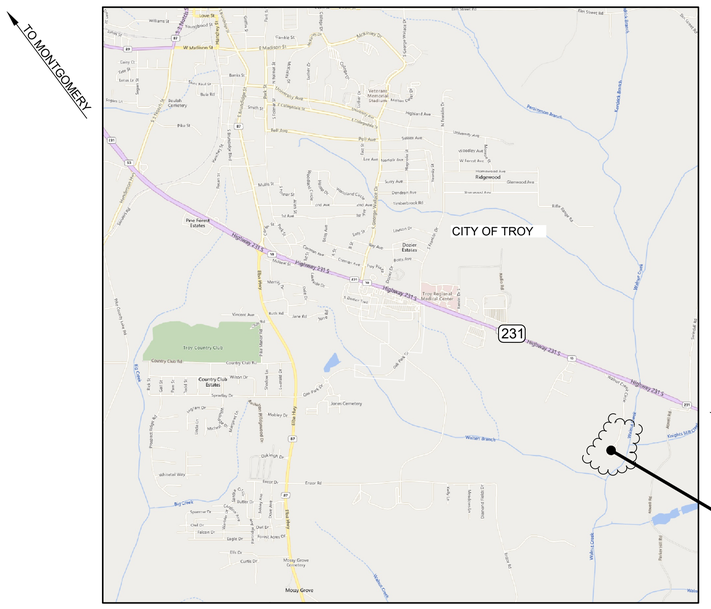
CONTRACT NO. 4 - WALNUT CREEK WASTEWATER TREATMENT PLANT IMPROVEMENTS

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AMERICAN RESCUE PLAN ACT (ARPA) WASTEWATER PROJECT
CWSRF PROJECT NO. CS010835-03

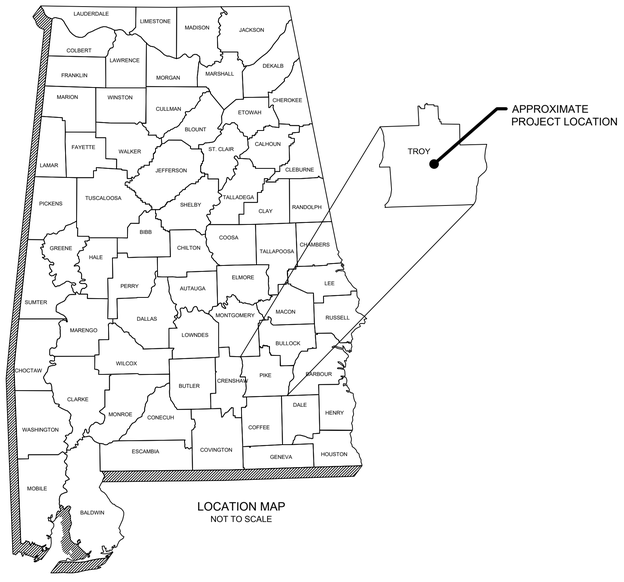
CITY OF TROY

PIKE COUNTY, ALABAMA

JULY 2025



VICINITY MAP
NTS



LOCATION MAP
NOT TO SCALE

MAYOR:	JASON A. REEVES
CITY COUNCIL MEMBERS:	
DISTRICT 1	SHARON McSWAIN-HOLLAND
DISTRICT 2	GREG MEEKS
DISTRICT 3	MAX DAVIS
DISTRICT 4	STEPHANIE BAKER
DISTRICT 5	WANDA HOWARD MOULTRY
CITY CLERK:	SHANNON BRYAN
GENERAL MANAGER OF UTILITIES	BRIAN CHANDLER
WATER & WASTERWATER ENGINEER	ETHAN MOUNT

Know what's **below.**
Call before you dig.

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSSE
07/25/2025

COA: ECA105

ADDRESS:
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(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2402102458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-000
DRAWING TITLE: TITLE SHEET

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DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

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WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0102102456
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-101

DRAWING TITLE: SHEET INDEX

PROJECT NOTES

GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE PURCHASE OF A CONTRACTOR'S LICENSE AND BUSINESS LICENSE FROM THE CITY AND / OR COUNTY AS APPLICABLE, AS WELL AS ALL OTHER LICENSES AND PERMITS REQUIRED FOR COMPLETION OF THE WORK.
2. EXCEPT FOR EMERGENCY WORK, WORK SHALL NOT BE PERFORMED ON SATURDAY, SUNDAY, OR ANY LEGAL HOLIDAY WITHOUT APPROVAL OF THE OWNER AND ENGINEER. WORK SHALL OCCUR DURING REASONABLE DAY-TIME HOURS. REQUESTS FOR DEVIATIONS FROM THIS SCHEDULE SHALL BE MADE TO THE ENGINEER ON A CASE-BY-CASE BASIS A MINIMUM OF 72 HOURS PRIOR, EXCEPT FOR EMERGENCIES, IN WHICH CASE NO SUCH APPROVAL IS REQUIRED.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND DEVELOPMENT OF CONSTRUCTION BEST MANAGEMENT PRACTICES PLANS (CBMPP) RELATED TO EROSION AND SEDIMENT CONTROL AS MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION AND REGULATORY AGENCIES, UNLESS SUCH PERMITS AND/OR CBMPPS ARE ATTACHED TO THE CONTRACT DOCUMENTS. IN ALL CIRCUMSTANCES, THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY INSTALLING AND MAINTAINING SUFFICIENT EROSION CONTROL MEASURES AS MAY BE REQUIRED TO PREVENT SEDIMENT FROM DISCHARGING FROM THE SITE, AND IN COMPLIANCE WITH ANY PERMITS AND CBMPP.
4. THE CONTRACTOR SHALL, AT A MINIMUM, COMPLETE SATISFACTORY ROUGH GRADING, ROCK REMOVAL (IF PRESENT), AND TEMPORARY SEEDING NO LATER THAN 13 DAYS FOLLOWING INITIAL GROUND DISTURBANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-GRADING, FERTILIZATION, WATERING, AND RE-SEEDING AS REQUIRED TO ESTABLISH AND MAINTAIN TEMPORARY GRASSING SUITABLE TO PROPERLY MITIGATE EROSION. PERFORMANCE OF INITIAL ROUGH GRADING AND ESTABLISHMENT OF TEMPORARY GRASSING SHALL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO PERFORM THE REQUIRED FINE GRADING, TOPSOIL PLACEMENT, ESTABLISHMENT OF PERMANENT GRASSING, AND OTHER RESTORATION AS REQUIRED BY THE CONTRACT.
5. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTATION OF PRE-EXISTING CONDITIONS PRESENT WITHIN AND ADJACENT TO THE CONSTRUCTION AREA. DOCUMENTATION OF EXISTING CONDITIONS SHALL CONSIST OF DATE-STAMPED VIDEO, PHOTOGRAPHS, AND WRITTEN RECORDS. COPIES OF ALL DOCUMENTATION SHALL BE DELIVERED TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. DOCUMENTATION OF PRE-EXISTING CONDITIONS IS REQUIRED TO AVOID CLAIMS FOR DAMAGE TO PROPERTY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY HIS ACTIVITIES IN THE PROJECT AREA, WHETHER ON PUBLIC OR PRIVATE PROPERTY. DAMAGE SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS OR BETTER, AND TO THE SATISFACTION OF THE ENGINEER AND LAND OWNER(S). REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITY IN THE PROJECT AREA WITH THE COUNTY, CITY, AND STATE, AS APPLICABLE.
8. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS AS TO NOT DISTURB PROPERTY CORNER/ROW MARKERS AND BENCHMARKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, INCLUDING ANY REQUIRED SURVEYING, TO REPLACE ANY DISTURBED MARKERS AND/OR MONUMENTS.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL IN ACCORDANCE WITH THE REQUIREMENTS OF PART 6 OF THE MUTCD, LATEST EDITION, AND IN ACCORDANCE WITH ANY ATTACHED TRAFFIC CONTROL PLAN.
10. UNLESS APPROVED IN ADVANCE BY THE ENGINEER, THE CONTRACTOR SHALL MAINTAIN ACCESS FOR THE TRAVELING PUBLIC, EMERGENCY, AND SCHOOL VEHICLES AT ALL TIMES ALONG ALL CITY, COUNTY, AND STATE RIGHTS OF WAY. IF A ROAD CLOSURE IS ALLOWED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING SUCH CLOSURES WITH CITY, COUNTY, AND OR STATE AGENCIES, AND EMERGENCY AGENCIES, IN ACCORDANCE WITH THOSE PARTIES' REQUIREMENTS.
11. DRIVEWAYS WHICH MAY HAVE BEEN CUT OR OTHERWISE DAMAGED DURING THE CONSTRUCTION ACTIVITIES SHALL BE MAINTAINED IN A USABLE CONDITION FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL MAKE A REASONABLE EFFORT TO RE-OPEN DRIVEWAYS AS SOON AS POSSIBLE. IN NO CASE SHALL DRIVEWAYS BE CLOSED OVERNIGHT.
12. ALL PAVED DRIVEWAYS AND PARKINGS AREAS THAT ARE CUT SHALL BE SAW CUT ONLY AND RESTORED TO PRE CONSTRUCTION EXISTING CONDITION OR BETTER. CONTRACTOR SHALL MATCH EXISTING BUILDING.
13. ALL EQUIPMENT SHALL BE PARKED AND ALL MATERIALS SHALL BE STORED AT A LOCATION OUTSIDE THE PUBLIC RIGHT OF WAY AT A LOCATION OF THE CONTRACTOR'S CHOOSING. PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE FROM THE OWNER OF SUCH PARKING AND STORAGE AREA(S), THAT THE AREA(S) HAVE BEEN RESTORED TO LAND OWNER'S SATISFACTION, AND THE TERMS ASSOCIATED WITH ANY SUCH ARRANGEMENTS HAVE BEEN SATISFIED.
14. EXISTING DRAINAGE SYSTEMS SHALL REMAIN FULLY OPEN THROUGHOUT THE PROJECT DURATION. ANY DISTURBANCE OR DAMAGE TO EXISTING DRAINAGE SYSTEMS AND STRUCTURES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AND THE CITY, COUNTY, AND/OR STATE AT NO ADDITIONAL COST TO THE OWNER.
15. EXCEPT FOR WHERE THE PLANS STATE OTHERWISE, OR THE PLANS REQUIRE TEMPORARY CONSTRUCTION FENCING TO BE INSTALLED, EXISTING FENCES SHALL NOT BE REMOVED, RELOCATED, OR OTHERWISE DAMAGED DURING THE CONSTRUCTION ACTIVITIES. REMOVED, RELOCATED, OR DAMAGED FENCES SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AND LAND OWNER AT NO ADDITIONAL COST TO THE OWNER.
16. RESIDENTS AND BUSINESSES SHALL NOT BE LEFT WITHOUT MAIL SERVICE. IF A MAILBOX MUST BE MOVED TO FACILITATE CONSTRUCTION, IT SHALL BE TEMPORARILY AND SATISFACTORILY RELOCATED AS CLOSE AS PRACTICABLE TO ITS ORIGINAL LOCATION, AND IN ACCORDANCE WITH UNITED STATES POST OFFICE GUIDELINES FOR MAILBOX PLACEMENT.
17. JOB SITE SHALL BE CLEANED ON A DAILY BASIS. THE CONTRACTOR SHALL RESTORE ALL AREAS, WHETHER PUBLIC OR PRIVATE, AS SOON AS PRACTICABLE FOLLOWING COMPLETION OF PARTICULAR CONSTRUCTION ACTIVITIES.
18. THE CONTRACTOR SHALL REPAIR ALL EXCAVATED AREAS, BACKFILLS, EMBANKMENTS, TRENCHES, AND DITCHES WHICH MAY HAVE SETTLED AT NO ADDITIONAL COST TO THE OWNER UNTIL FINAL ACCEPTANCE OF THE PROJECT AND THROUGHOUT THE WARRANTY PERIOD. ALL SUCH AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONTOURS.
19. UNLESS NOTED ELSEWHERE, NO ADDITIONAL PAYMENT SHALL BE MADE FOR ROCK EXCAVATION AND REMOVAL (IF PRESENT). BIDDERS MAY MAKE THEIR OWN INVESTIGATION AS TO THE AMOUNT AND CHARACTER OF ROCK WHICH MAY NEED TO BE REMOVED. ALL COSTS FOR ROCK EXCAVATION SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS IN THE PROPOSAL. ANY INFORMATION PROVIDED CONCERNING THE DEPTH TO AND/OR CHARACTER OF ROCK PRESENT IS PROVIDED FOR THE CONVENIENCE OF THE BIDDER AND CONTRACTOR AND SHALL NOT BE USED AS THE BASIS FOR CLAIMS FOR ADDITIONAL PAYMENT.
20. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL GRASSED AREAS AT ITS EXPENSE UNTIL FINAL ACCEPTANCE AND THROUGHOUT THE WARRANTY PERIOD. MAINTENANCE OF GRASSED AREAS SHALL INCLUDE RE-GRADING, RE-FERTILIZATION, RE-SEEDING, WATERING, AND ANY OTHER WORK AS REQUIRED, TO PRODUCE AND KEEP THE GRASS IN A CONDITION ACCEPTABLE TO THE ENGINEER AND LAND OWNER.

UTILITY NOTES:

1. EXISTING UTILITIES ARE DEPICTED BASED ON FOUR (4) "QUALITY LEVELS" DEFINED AS FOLLOWS: a.
   a. QUALITY LEVEL A - HORIZONTAL AND VERTICAL LOCATION OBTAINED BY ACTUAL EXPOSURE AND MEASUREMENT OF THE UTILITY AT A SPECIFIC POINT.
   b. b. QUALITY LEVEL B - APPROXIMATE LOCATION OBTAINED FROM SURFACE GEOPHYSICAL METHODS. NO DEPTH INFORMATION INCLUDED.
   c. c. QUALITY LEVEL C - APPROXIMATE LOCATION SURVEYED AND PLOTTED BASED ON VISIBLE ABOVE-GROUND UTILITY FEATURES.
   d. QUALITY LEVEL D - INFORMATION DERIVED FROM EXISTING RECORDS AND/OR ORAL RECOLLECTIONS.
2. ALL UTILITIES ARE DEPICTED AT "QUALITY LEVEL B" UNLESS INDICATED OTHERWISE AND LABELED AS "QL-C" OR "QL-D"
3. ANY "QUALITY LEVEL A" ELEVATIONS PROVIDED ARE FROM THE TOP OF THE UTILITY AT THE APPROXIMATE LOCATION SHOWN, UNLESS OTHERWISE NOTED.
4. NEITHER THE OWNER NOR THE ENGINEER MAKES ANY EXPRESSED OR IMPLIED GUARANTEE OF THE ACCURACY OF UTILITIES SHOWN OR ANY GUARANTEE THAT ALL UTILITIES LOCATED WITHIN THE CONSTRUCTION AREA ARE SHOWN HEREIN.
5. THE CONTRACTOR SHALL CALL ALABAMA 811 ONE CALL FOR UTILITY MARKING PRIOR TO COMMENCING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, DISTANCES AND SLOPES OF GRAVITY SEWER MAINS ARE FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.
7. THE CONTRACTOR SHALL COORDINATE ALL WORK ADJACENT TO EXISTING UTILITY POLES AND GUY WIRES WITH THE LOCAL POWER COMPANY. THE CONTRACTOR SHALL CONTACT THE LOCAL POWER COMPANY TO HOLD SAID UTILITY POLES/GUY WIRES DURING BORING OR OPEN CUT OPERATIONS. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
8. THE CONTRACTOR SHALL COORDINATE ALL TIE-INS, CONNECTIONS, OUTAGES, AND VALVE OPERATIONS WITH THE UTILITY OWNER. THE CONTRACTOR SHALL GIVE 72 HOURS NOTICE TO THE UTILITY OWNER OF WHEN SUCH OPERATIONS ARE TO TAKE PLACE.
9. THE CONTRACTOR SHALL COORDINATE WITH AND PROVIDE REASONABLE NOTICE TO RESIDENTS AND BUSINESSES OF UTILITY SERVICE OUTAGES PRIOR TO BEGINNING SUCH OPERATIONS. NO RESIDENT OR BUSINESS SHALL BE LEFT WITH OUT SERVICE OVERNIGHT.

PIPING NOTES

1. PROVIDE PIPE PLUGS AS REQUIRED WHEN ABANDONING AND REMOVING EXISTING PIPE SEGMENTS DETAILED.
2. PROVIDE PIPE SUPPORTS AT ALL LOCATIONS SHOWN ON DRAWINGS AND AS REQUIRED BY THE SPECIFICATIONS. NOT ALL REQUIRED PIPE SUPPORTS ARE DETAILED ON THESE DRAWINGS INSTALL CONCRETE BLOCKING AT ALL PLUGS UNDER PRESSURE. FORCE MAINS (i.e., PUMP FLOW) SHALL HAVE CONCRETE THRUST BLOCKING OR RESTRAINT JOINTS INSTALLED AT ALL UNDERGROUND FITTINGS UNLESS OTHERWISE DETAILED.
3. ALL BURIED VALVES SMALLER THAN 4" SHALL BE INSTALLED IN A CAST IRON METER BOX.

GRADING AND SITE WORK NOTES:

1. EXCESS SPOIL MATERIAL NOT SHOWN TO BE USED ON THE SITE SHALL BE STOCK PILED ON THE EXISTING SITE AS DIRECTED BY OWNER.

WASTEWATER NOTES:

1. FLOW OF WASTEWATER SHALL BE MAINTAINED AT ALL TIMES BY CONTRACTOR.

EQUIPMENT NOTES:

1. EQUIPMENT SHOWN ON THE PLANS IS BASIS OF DESIGN. FINAL EQUIPMENT CONFIGURATION AND LAYOUT TO BE BASED UPON EQUIPMENT SELECTED FROM APPROVED MANUFACTURERS. ANY DESIGN MODIFICATIONS REQUIRED TO ACCOMMODATE EQUIPMENT OTHER THAN BASIS OF DESIGN SHALL BE TAKEN IN TO CONSIDERATION BY THE CONTRACTOR DURING THE BID PROCESS AND INCLUDED IN THE FINAL BID PRICE.

PROJECT SPECIFIC NOTES:

1. ASPHALT SURFACES DAMAGED BY THE CONTRACTOR'S ACTIVITIES LYING OUTSIDE THE LIMITS OF PATCHING SHOWN SHALL BE REPLACED IN ACCORDANCE WITH THE REQUIREMENTS FOR PAVEMENT REPLACEMENT. NO ADDITIONAL PAYMENT SHALL BE MADE FOR REPLACEMENT OUTSIDE THE LIMITS INDICATED.
2. ALL PIPES SHALL BE KEPT CLEAN THROUGHOUT CONSTRUCTION AND THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE SUCH. CONTRACTOR SHALL EXCLUDE FOREIGN MATERIAL AND WATER FROM ENTERING ALL PIPING THROUGH THE USE OF MECHANICAL JOINT PLUGS OR CAPS.
3. MAINTAIN A MINIMUM 24" CLEARANCE BETWEEN ANY WATER MAINS AND UTILITIES.
4. THE CONTRACTOR SHALL SEQUENCE AND SCHEDULE CONSTRUCTION OF THE WORK TO ALLOW FOR CONTINUOUS OPERATION OF THE WASTEWATER TREATMENT PLANT THROUGHOUT THE CONSTRUCTION PERIOD. ANY TEMPORARY PLANT SHUTDOWNS SHALL BE MINIMIZED AND LIMITED TO NON-PEAK FLOW PERIODS APPROVED IN ADVANCE BY THE WASTEWATER TREATMENT PLANT SUPERINTENDENT. NO SHUT DOWNS SHALL BE LONGER THAN 4 HOURS.
5. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING EQUIPMENT, VALVES, ETC. WITHOUT AUTHORIZATION OF THE OWNER, UNLESS AN EMERGENCY SITUATION EXISTS. IN GENERAL, THE OPERATING STAFF OF THE OWNER WILL OPERATE ANY EXISTING EQUIPMENT AND VALVES WHICH THE CONTRACTOR MAY REQUIRE. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A MINIMUM OF 24 HOURS NOTICE PRIOR TO NEEDING THESE SERVICES.
6. ALL CONSTRUCTION AFFECTING THE OPERATION OF THE WASTEWATER TREATMENT PLANT SHALL BE COORDINATED WITH THE OWNER.
7. CONTRACTOR LAYOUT AREA(S) SHALL BE LOCATED ON SITE TO MINIMIZE IMPACT TO DAILY WASTEWATER TREATMENT PLANT OPERATIONS. FINAL LOCATIONS SHALL BE APPROVED BY THE OWNER PRIOR TO MOBILIZATION.
8. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLANT SECURITY THROUGH THE CONSTRUCTION ENTRANCE AT ALL TIMES IN ACCORDANCE WITH THE OWNER'S SECURITY REQUIREMENTS.
9. CONTRACTOR SHALL VISIT THE SITE OF THE WORK PRIOR TO SUBMITTING BID TO EXAMINE CAREFULLY LOCAL CONDITIONS AND DIFFICULTIES TO BE ENCOUNTERED. ANY DISCREPANCY BETWEEN PLANS AND EXITING CONDITIONS SHALL IMMEDIATELY BE CALLED TO THE ATTENTION OF THE ENGINEER.
10. ALL DIMENSIONS SHOWN ARE BASED UPON ORIGINAL DESIGN DOCUMENTATION. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND OTHER PERTINENT DATA PRIOR TO SUBMITTING EQUIPMENT BID.

NO.	REVISION/SUBMISSION	DATE:

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ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

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CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021002408
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-102
DRAWING TITLE: PROJECT NOTES

ABBREVIATIONS

AB	ABOVE
AFF	ABOVE FINISHED FLOOR
AFR	ABOVE FINISHED ROOF
AHU	AIR HANDLING UNIT
ASC	ABOVE SUSPENDED CEILING
AVG	AVERAGE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSE POWER
BL	BELOW
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BSMT	BASEMENT
BTM	BOTTOM
CA	COMPRESSED AIR
CAP	CAPACITY
CB	CATCH BASIN
CENT	CENTRIFUGAL
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CLG	CEILING
CLO	CLOSET
CO	CLEANOUT
CONC	CONCRETE
COND	CONDENSING UNIT
CONN	CONNECT
CONST	CONSTANT
CONTR	CONTRACTOR
COTG	CLEANOUT TO GRADE
CP	CIRCULATING PUMP
CW	COLD WATER
DCW	DOMESTIC COLD WATER
DEG	DEGREE
DF	DRINKING FOUNTAIN
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DIA	DIAMETER
DISCH	DISCHARGE
DN	DOWN
EEW	EMERGENCY EYEWASH
EF	EXHAUST FAN
EFF	EFFICIENCY
EFFL	EFFLUENT
EL	ELEVATION
ELECT	ELECTRICAL
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXIST/EXISTING
EXH	EXHAUST
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FIN	FINISHED
FLEX	FLEXIBLE
FLR	FLOOR
FL	FLOW LINE
FLH	FLUSH HYDRANT
FPWH	FROSTPROOF WALL HYDRANT
FPH	FROSTPROOF HYDRANT
FT	FEET
FTHD	FEET OF HEAD
FM	FORCE MAIN
FURN	FURNISH
G	NATURAL GAS
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERAL
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HB	HOSE BIBB
HORIZ	HORIZONTAL
HP	HORSE POWER
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HW	HOT WATER
INFLU	INFLUENT
INV	INVERT
IN	INCHES
IPF	IRON PIN FOUNT
LAT	LATITUDE
LS	LIFT STATION
LBS/LB	POUNDS OR POUND
LONG	LONGITUDE
MAX	MAXIMUM
MANUF	MANUFACTURE
MB	MAIL BOX
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MTD	MOUNTED
MTG	MOUNTING
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NUMBER OR NORMALLY OPEN
NTS	NOT TO SCALE
OWS	OIL WATER SEPARATOR
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PIV	POST INDICATING VALVE
PLBG	PLUMBING
PRESS	PRESSURE
REQD	REQUIRED
RPL	REPLACEMENT
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SAN	SANITARY
SF	SILL FAUCET
SH	SHOWER
SHT MTL	SHEET METAL
SP	STATIC PRESSURE
SPD	SUMP PUMP DISCHARGE
SQFT	SQUARE FEET
SS	STAINLESS STEEL
ST	STORAGE TANK
STAT	THERMOSTAT
STD	STANDARD
STM	STORM
STRUCT	STRUCTURAL
SUCT	SUCTION
SW	SINGLE WALL
SYST	SYSTEM
TCP	TEMPERATURE CONTROL PANEL
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
THERM	THERMOMETER
THRD	THREADED
THRU	THROUGH
TK	TANK
TYP	TYPICAL
UG	UNDER GROUND
UR	URINAL
UST	UNDERGROUND STORAGE TANK
V	VENT
VTR	VENT THRU ROOF
W/	WITH
WB	WASHER BOX
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WF	WASH FOUNTAIN
WH	WALL HYDRANT
WM	WATER MAIN
WT	WATER TANK
WTR	WATER

LEGEND

DESCRIPTION	EXISTING	REQUIRED
WATER LINE	W	W
BURIED ELECTRIC	BE	BE
BURIED FIBER OPTIC	BFO	BFO
BURIED TELECOM CABLE	BTC	BTC
FORCE MAIN	FM	FM
GAS LINE	G	G
OVERHEAD ELECTRIC	OE	OE
OVERHEAD TELECOM CABLE	OTC	OTC
SEWER LINE	S	S
PROPERTY LINE	℄	℄
RIGHT-OF-WAY		
STORM WATER	STM	STM
CHAIN LINK FENCE	O	O
WOOD FENCE	[]	[]
BARBED WIRE FENCE	X	X
HOG WIRE FENCE	(X)	(X)
FLOW LINE	<<	<<
EROSION CONTROL		L
SILT FENCE		
TO BE REMOVED		
WOOD LINE		
TEMPORARY CONSTRUCTION EASEMENT		TCE
PERMANENT EASEMENT	EAS	EAS
CONTOURS MAJOR	100'	100'
CONTOURS INTERMEDIATE		

	EXISTING	REQUIRED		EXISTING	REQUIRED
ASPHALT			RIP-RAP		
CONCRETE			WATER		
GRAVEL			MARSH		

Know what's **below.** **Call** before you dig.

LEGEND

DESCRIPTION	EXISTING	REQUIRED
POWER POLE		
LIGHT POLE		
ANCHOR		
FIBER OPTIC MARKER	FO	FO
TELEPHONE PEDESTAL	T	T
TELEPHONE MANHOLE	T	T
ELECTRIC METER	EM	EM
A/C UNIT	A	A
ELECTRIC TRANSFORMER		
SEWER MANHOLE	STM	S
SEWER CLEANOUT	C	C
SEPTIC TANK	ST	
SEWER VALVE	S	S
GAS VALVE	G	G
GAS REGULATOR		
GAS METER	G	G
IRON PIN FOUND		
BENCH MARK		
CONCRETE MARKER		
STORM MANHOLE	D	D
AIR/ VACUUM VALVE	A.V.	A.V.
WATER VALVE	W	W
FIRE HYDRANT		
WATER METER		
SIGN		
MAILBOX	MB	MB
TREES		
SPOT ELEVATION		
PERMANENT SEEDING		PS
WATTLE		

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL 07/25/2025 ENGINEER CARMEN D. CHOSIE

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

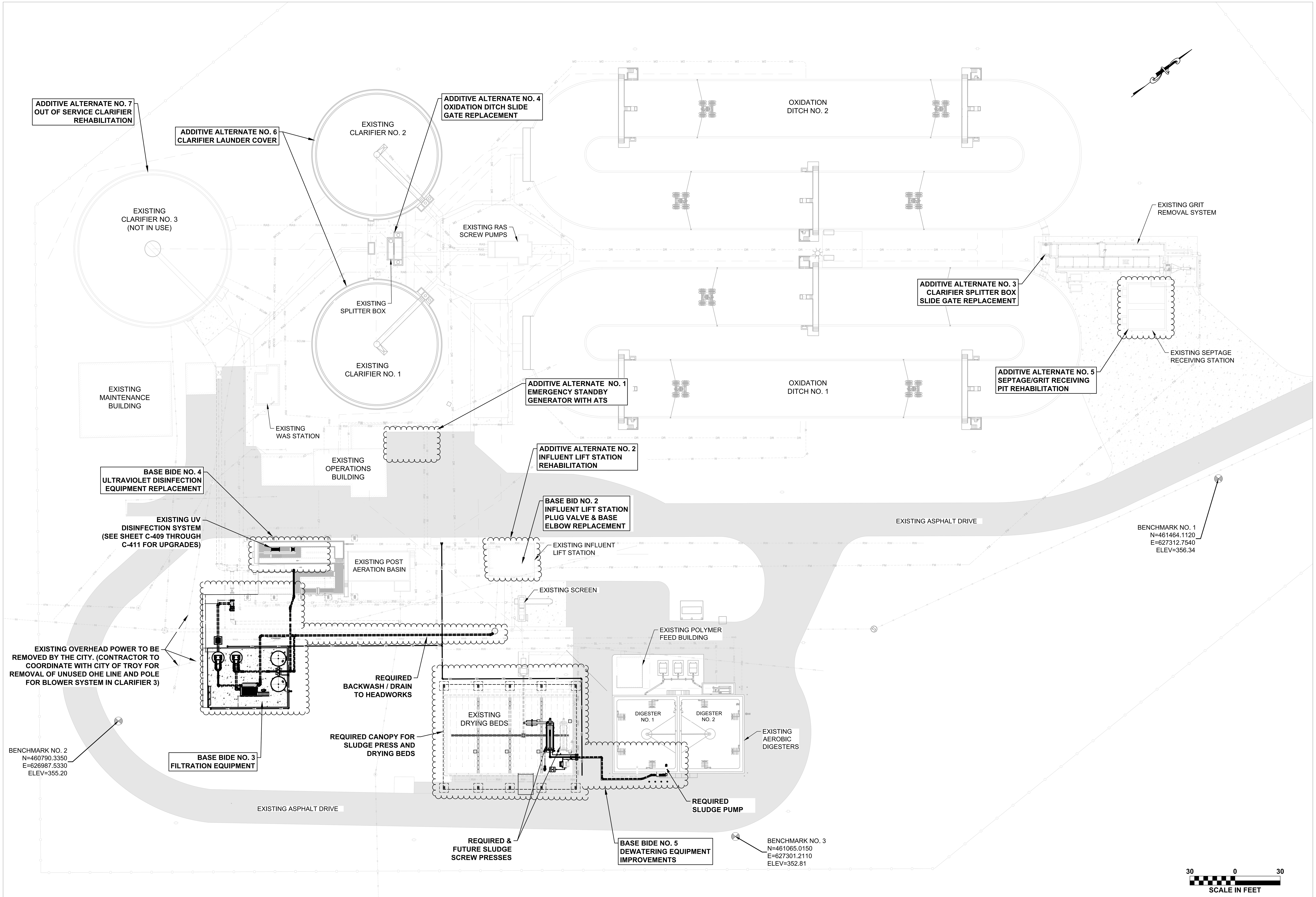
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0521002458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-103

DRAWING TITLE: ABBREVIATIONS AND LEGEND SHEET


ADDITIVE ALTERNATE NO. 7
OUT OF SERVICE CLARIFIER
REHABILITATION
ADDITIVE ALTERNATE NO. 6
CLARIFIER LAUNDER COVER
EXISTING
CLARIFIER NO. 2
ADDITIVE ALTERNATE NO. 4
OXIDATION DITCH SLIDE
GATE REPLACEMENT
OXIDATION
DITCH NO. 2
EXISTING
CLARIFIER NO. 3
(NOT IN USE)
EXISTING RAS
SCREW PUMPS
EXISTING GRIT
REMOVAL SYSTEM
EXISTING
SPLITTER BOX
ADDITIVE ALTERNATE NO. 3
CLARIFIER SPLITTER BOX
SLIDE GATE REPLACEMENT
EXISTING
CLARIFIER NO. 1
EXISTING SEPTAGE
RECEIVING STATION
EXISTING
MAINTENANCE
BUILDING
ADDITIVE ALTERNATE NO. 1
EMERGENCY STANDBY
GENERATOR WITH ATS
OXIDATION
DITCH NO. 1
ADDITIVE ALTERNATE NO. 5
SEPTAGE/GRIT RECEIVING
PIT REHABILITATION
EXISTING
WAS STATION
EXISTING
OPERATIONS
BUILDING
ADDITIVE ALTERNATE NO. 2
INFLUENT LIFT STATION
REHABILITATION
BASE BIDE NO. 4
ULTRAVIOLET DISINFECTION
EQUIPMENT REPLACEMENT
BASE BID NO. 2
INFLUENT LIFT STATION
PLUG VALVE & BASE
ELBOW REPLACEMENT
EXISTING UV
DISINFECTION SYSTEM
(SEE SHEET C-409 THROUGH
C-411 FOR UPGRADES)
EXISTING ASPHALT DRIVE
BENCHMARK NO. 1
N=461464.1120
E=627312.7540
ELEV=356.34
EXISTING INFLUENT
LIFT STATION
EXISTING POST
AERATION BASIN
EXISTING SCREEN
EXISTING POLYMER
FEED BUILDING
EXISTING OVERHEAD POWER TO BE
REMOVED BY THE CITY. (CONTRACTOR TO
COORDINATE WITH CITY OF TROY FOR
REMOVAL OF UNUSED OHE LINE AND POLE
FOR BLOWER SYSTEM IN CLARIFIER 3)
REQUIRED
BACKWASH / DRAIN
TO HEADWORKS
EXISTING
DRYING BEDS
DIGESTER
NO. 1
DIGESTER
NO. 2
EXISTING
AEROBIC
DIGESTERS
REQUIRED CANOPY FOR
SLUDGE PRESS AND
DRYING BEDS
BENCHMARK NO. 2
N=460790.3350
E=626987.5330
ELEV=355.20
BASE BIDE NO. 3
FILTRATION EQUIPMENT
REQUIRED
SLUDGE PUMP
EXISTING ASPHALT DRIVE
REQUIRED &
FUTURE SLUDGE
SCREW PRESSES
BASE BIDE NO. 5
DEWATERING EQUIPMENT
IMPROVEMENTS
BENCHMARK NO. 3
N=461065.0150
E=627301.2110
ELEV=352.81
30 0 30
SCALE IN FEET

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R021022458
DATE: 2025/07/24
SCALE: AS SHOWN

SHEET NO: C-301

DRAWING TITLE: WWTP OVERALL SITE LAYOUT

EXISTING SPLITTER BOX

EXISTING CLARIFIER NO. 1

EXISTING MAINTENANCE BUILDING

EXISTING RAS/WAS STATION

EXISTING OPERATIONS BUILDING

OXIDATION DITCH NO. 1

EXIST. 3" POTABLE WATER

EXIST. 3" RAW WATER

EXISTING UV DISINFECTION SYSTEM (SEE PLAN SHEETS C-409 THRU C-411 FOR UPGRADES)

EX UV BASIN

EX 42" INFLUENT TO UV

EX 24" BY PASS

REQD CONNECTION FOR LEAD FILTER INFLUENT

REQD 12" INFLUENT TO LIFT STATION

REQUIRED FILTRATION INFLUENT ACTUATED CONTROL VALVE (SEE PLAN SHEET C-403 & C-404)

REQUIRED TERTIARY CLOTH MEDIA FILTER EQUIPMENT LIFT STATION (SEE PLAN SHEET C-403 & C-404)

REQUIRED PACKAGED GRANULAR MEDIA AND RESIN FILTER SYSTEM LIFT STATION (SEE PLAN SHEET C-403 & C-404)

REQUIRED CLOTH MEDIA DISC FILTRATION EQUIPMENT (SEE PLAN SHEET C-405)

REQUIRED FILTRATION EFFLUENT

REQD 10" EFFLUENT TO UV

REQUIRED BACKWASH TO HEADWORKS

REQUIRED 3" SDR 21 PVC WATER SUPPLY

REQUIRED PACKAGED GRANULAR MEDIA AND RISEN FILTER SYSTEM (SEE PLAN SHEET C-408)

3" WATER CONNECTION ASSEMBLY TO EXIST. 6" WATER SUPPLY (TAPPING SADDLE, CURB STOP, BACKFLOW PREVENTOR, WATER METER & CONC. VALVE BOX)

EXIST. VALVE BOX

EXIST. 6" POTABLE WATER

EXIST. 4" RAW WATER

EXIST. 2" RAW WATER

EXISTING INFLUENT LIFT STATION

REQUIRED 3" SDR 21 PVC WATER SUPPLY

EXISTING SCREEN

3" PVC TEE

REQUIRED CONNECTION TO EXIST. MANHOLE

EXISTING LIFT STATION

REQUIRED 3" SDR 21 PVC WATER SUPPLY

3" PVC 90° BEND

3" PVC 90° BEND

EXISTING POLYMER FEED BULDING

EXISTING ASPHALT DRIVE

REQD. SLUDGE PRESS & PIPING (SEE PLAN SHEET C-412)

EXISTING DRYING BEDS

DIGESTER NO. 1

DIGESTER NO. 2

REQUIRED CANOPY FOR SLUDGE PRESS AND DRYING BEDS

YARD HYDRANT

REQD. SLUDGE PUMP & PIPING (SEE PLAN SHEET C-412)

EXISTING ASPHALT DRIVE

20 0 20

SCALE IN FEET

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 36280
07/25/2025
CARMEN D. CHOSE

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

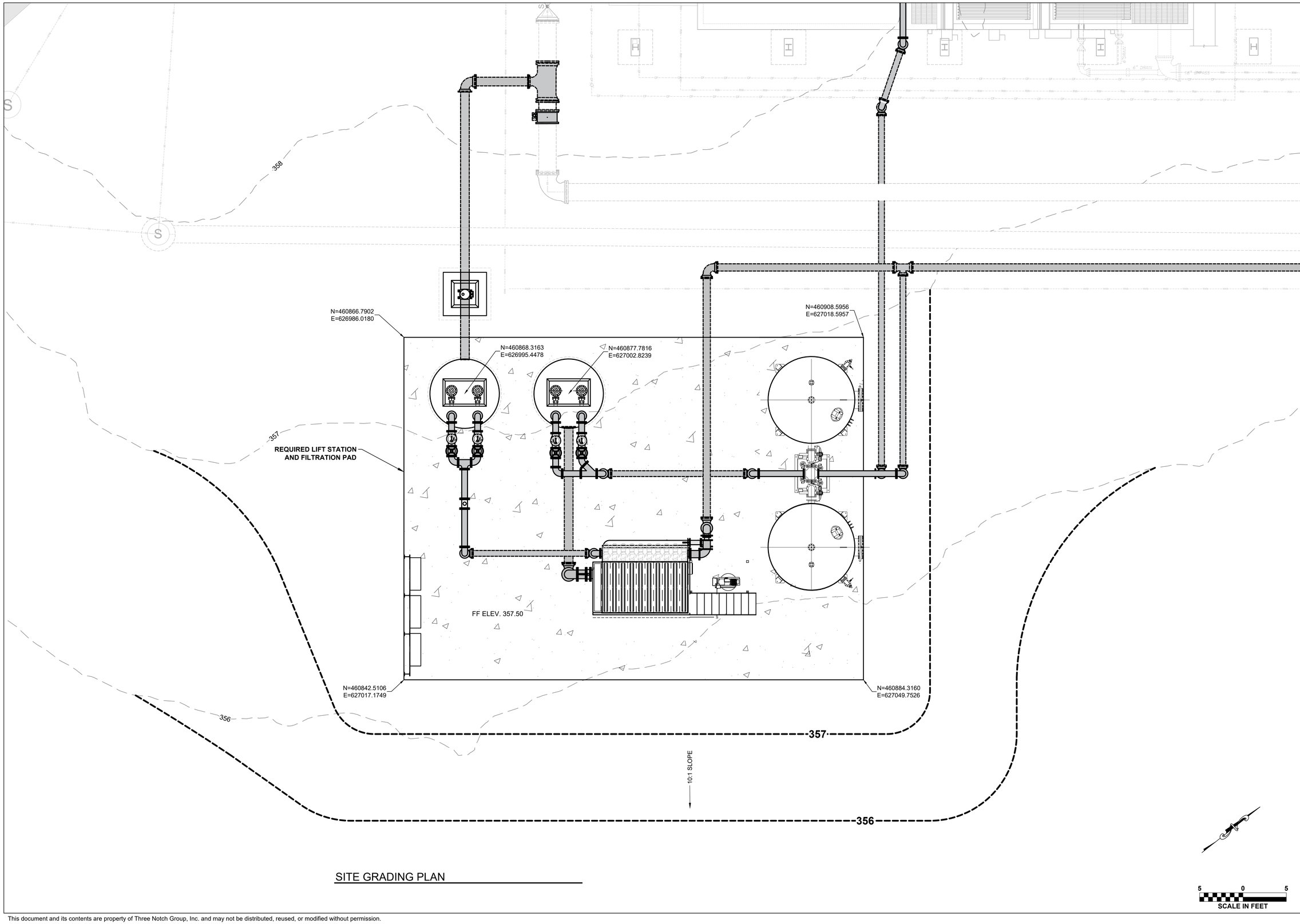
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2022102458
DATE: 2025/07/24
SCALE: AS SHOWN

SHEET NO: C-302

DRAWING TITLE: SITE PLAN - FILTRATION AND SLUDGE PRESS



SITE GRADING PLAN

SCALE IN FEET: 5 0 5

DATE:

NO. | REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 36280
07/25/2025
CARMEN D. CHOSE

COA: ECA105

ADDRESS:

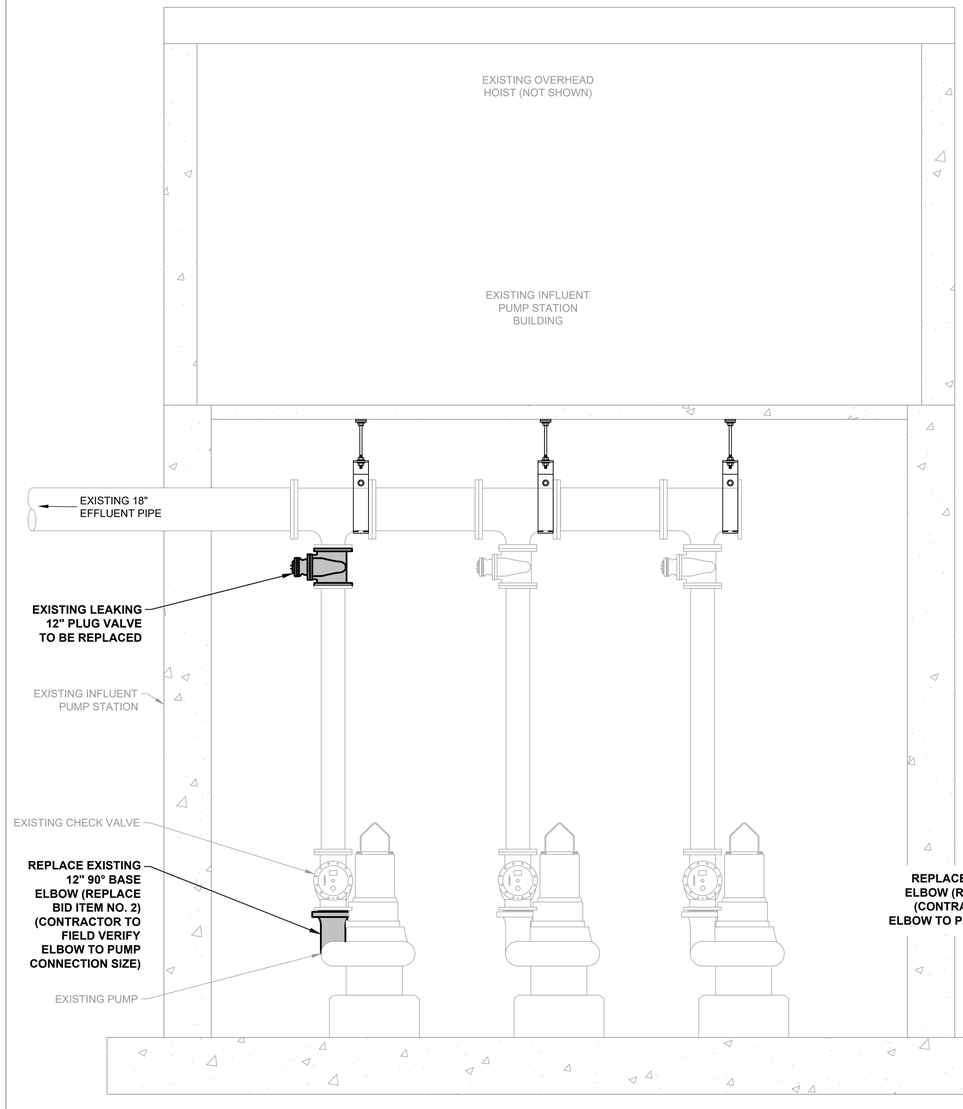
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

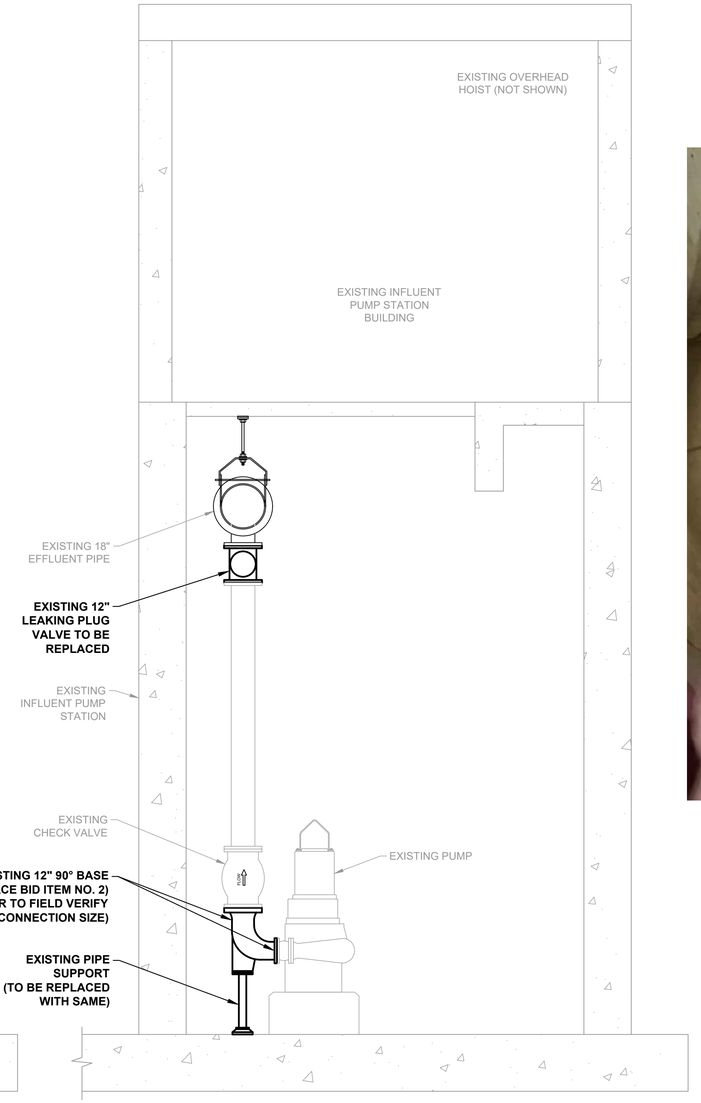
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0621022456
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-303
DRAWING TITLE: SITE PLAN - GRADING



PUMP ROOM
ELEVATION VIEW



PUMP ROOM
SECTION VIEW

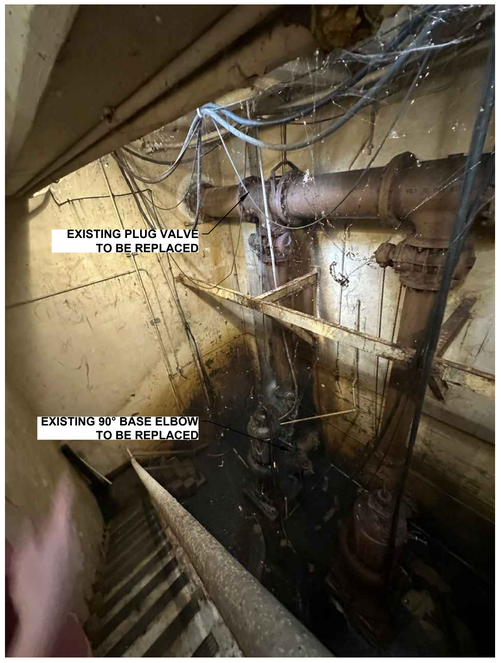


PHOTO VIEW
NTS

0' 1' 2' 4'
SCALE: 3/8" = 1'-0"

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0622102458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-401
DRAWING TITLE: INFLUENT LIFT STATION IMPROVEMENTS

CONTRACTOR SHALL VERIFY DEPTH OF EXIST. 24" BYPASS LINE CONNECTION PRIOR TO ORDERING WET WELLS. IF DEPTH OF LINE IS GREATER THAN SHOWN, CONTRACTOR SHALL COORDINATE WITH THE ENGINEER.

REQD 1 - 8" D.I. 90° BEND

REQD. 8" D.I. CL 350 PIPE (USE PIPE STRAPS TO SECURE TO BASIN)

EXIST. UV BASIN

REQD 2 - 8" D.I. 90° BENDS

REQD 8" D.I. CL 350 PIPE

ABANDONED 2" CHLORINE FEED LINE

EXIST. 1 1/2" RAW WATER

ABANDONED 2" CHLORINE FEED LINE

REQD 12" D.I. CL 350 PIPE @ 0.22% SLOPE

REQD 12" D.I. 90° BEND

6'

9.5'

EXIST. 8" WAS LINE (VERIFY DEPTH & RELOCATE VERTICALLY AS REQD. TO INSTALL NEW LINES)

REQD 1 - 24"x12" D.I. TEE (FL = 353.13±) 1 - 24" D.I. PLUG VALVE (TO REMAIN CLOSED FOR FILTRATION SYSTEM) (CUT IN TO EX. 24" PIPE

CONTRACTOR SHALL VERIFY EXIST. LINES TO DETERMINE IF THEY HAVE BEEN ABANDONED OR STILL ACTIVE AND RELOCATE IF NECESSARY

REQD 2 - 8" D.I. 90° BENDS

12" D.I. INFLUENT PIPE CL 350 @ 0.22% SLOPE

35.5'

32.1'

24" UV INFLUENT BY-PASS

REQD. 10" SDR 21 PVC @ 0.40% SLOPE TO INFLUENT MH

REQD 10"x8" D.I. TEE FL=352.16

24" GRAVITY INFLUENT

REQD. FILTRATION INFLUENT 12" ACTUATED CONTROL VALVE (SEE SHEET C-403 & C-404)

REQD 10" D.I. 90° BEND

BACKWASH/OVERFLOW TO HEADWORKS

8" WASTE SLUDGE FM

EXIST. 8" WAS LINE (VERIFY DEPTH & RELOCATE VERTICALLY AS REQD. TO INSTALL NEW LINES)

REQD. 132 LF - 10" SDR 21 PVC @ 0.40% SLOPE TO INFLUENT MH

YARD HYDRANT

1 1/2" SDR 21 PVC WATER SUPPLY

3"x2" TEE 3"x1 1/2" REDUCER

3" SDR 21 PVC WATER SUPPLY

12" D.I. INFLUENT PIPE CL 350

INV. 12" = 353.13

REQD. MEDIA CLOTH FILTER EFFLUENT LIFT STATION (SEE SHEET C-403 & C-404)

REQD. MEDIA CLOTH FILTER INFLUENT LIFT STATION (SEE SHEET C-403 & C-404)

REQD 8" D.I. CL 350 EFFLUENT FM

REQD 8" D.I. CL 350 BACKWASH \DRAIN PIPE

REQD. 10" D.I. CL 350 @ 0.40% SLOPE

REQD PACKAGED GRANULAR MEDIA FILTER B

2" SDR 21 PVC WATER SUPPLY

REQD 8" D.I. PIPE

REQD 8" D.I. 90° BENDS

REQD 8" D.I. 90° DRAIN BEND

REQD 8" D.I. FM

REQD 8" D.I. FM

REQD 8" D.I. 90° EFF. BEND

2" TEE 2"x1 1/2" REDUCER

REQD PACKAGED GRANULAR MEDIA FILTER A

YARD HYDRANT

39.5'

FILTER WASHDOWN AREA

REQD CANOPY

REQD. AIR COMPRESSOR AND REFRIGERATED DRYER SYSTEM FOR FILTER AIR SUPPLY

ELECTRICAL PANELS (SEE ELECTRICAL PLANS)

7.5'

REQD. FILTRATION EQUIPMENT (SEE SHEET C-406)

1/2" SCH. 40 STEEL AIR PIPE & FITTINGS

YARD HYDRANT

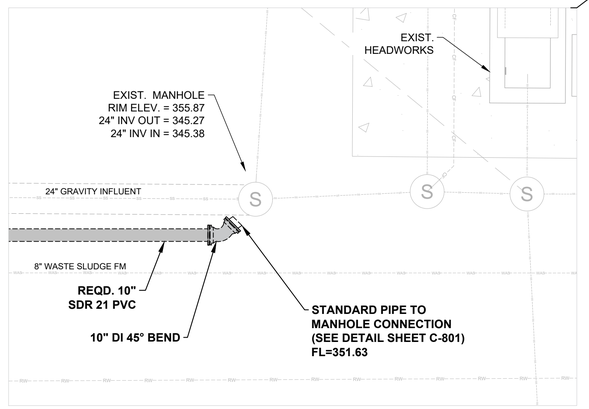
1 1/2" SDR 21 PVC WATER SUPPLY

CONNECT AIR PIPING TO EQUIPMENT PER MANUF. REQUIREMENTS

1 1/2" 90° BEND

FILTER SITE DETAILS

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



MANHOLE CONNECTION

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

5 0 5

SCALE IN FEET

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED PROFESSIONAL ENGINEER No. 36280 07/25/2025 CARMEN D. CHOSE

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021052450

DATE: 2025/07/24

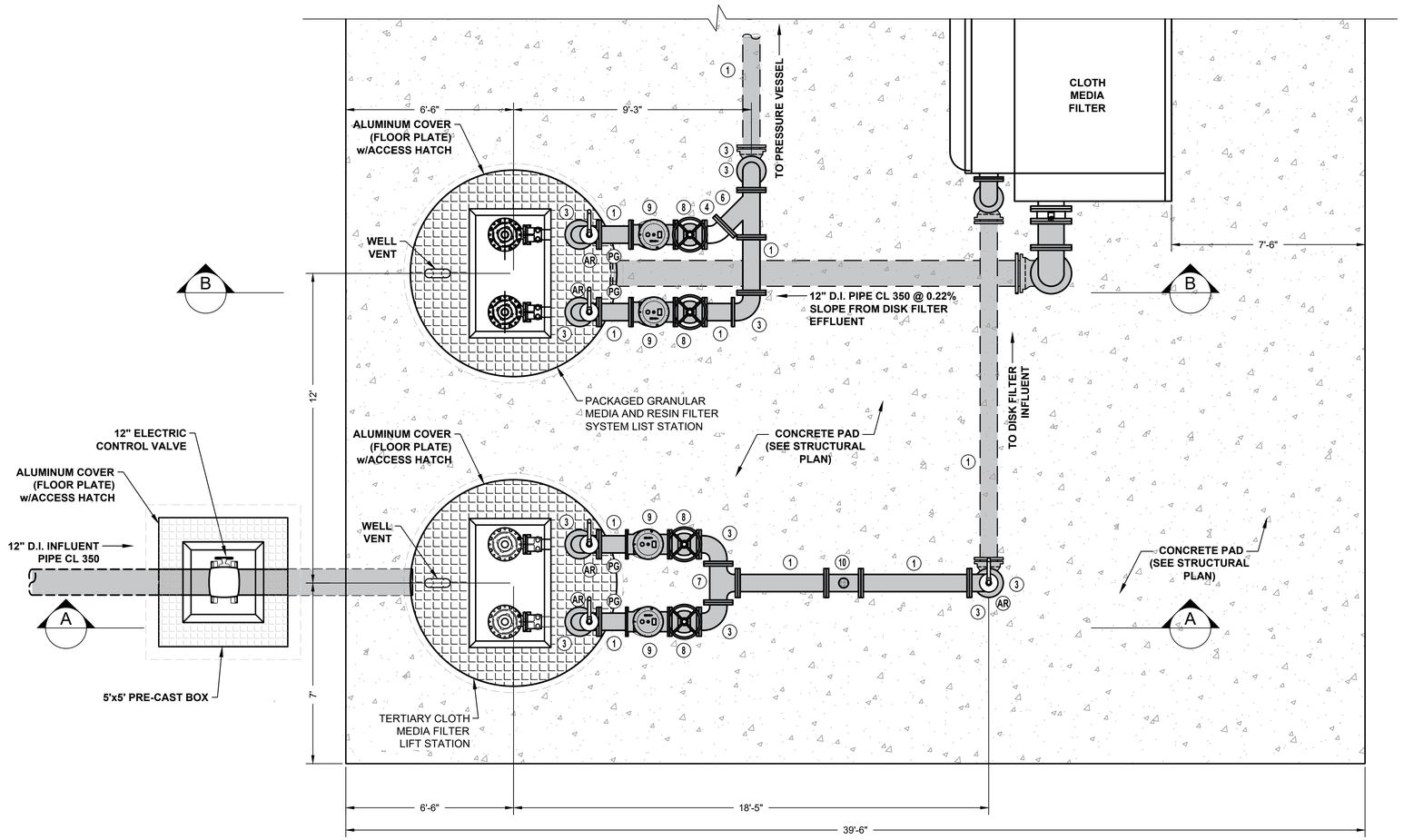
SCALE: AS SHOWN

SHEET NO: C-402

DRAWING TITLE: FILTRATION SITE DETAILS

GENERAL NOTES.

1. **CONTRACTOR SHALL VERIFY DEPTH OF EXIST. 24" BYPASS LINE CONNECTION AS SHOWN ON SHEET C-402 PRIOR TO ORDERING WET WELLS. CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER IF DEPTH OF LINE IS GREATER THAN INDICATED.**
2. ELECTRIC CONTROL VALVE TO BE INSTALLED AS BURIED TYPE VALVE AS PER MANUFACTURE RECOMMENDATIONS FOR WATER PROOF CONTROLS.
3. ELECTRIC CONTROL VALVE BOX SHALL BE INSTALLED WITH 24" THICK GRAVEL BASE WITH MINIMUM 18" CLEARANCE BELOW CONTROL VALVE.



PLAN VIEW

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

EQUIPMENT SPEC SECTION	
02084	VALVES FOR WATER AND SEWER SYSTEMS
11217	PACKAGED LIFT STATION
11251	ELECTRIC VALVE ACTUATORS
11341	MAGNETIC FLOW METER

PIPING MATERIAL INDEX	
(1)	8" D.I. PIPE - LENGTH AS REQUIRED
(2)	8"x6" D.I. ECCENTRIC REDUCER
(3)	8" D.I. 90° BEND
(4)	8" D.I. 45° BEND
(5)	8" D.I. 22.5° BEND
(6)	8" D.I. WYE
(7)	8" D.I. TEE
(8)	8" PLUG VALVE
(9)	8" CHECK VALVE
(10)	8" FLOW METER
(AR)	AIR RELEASE VALVE, VENT BACK TO WET WELL
(PG)	2" DIAMETER GLYCERINE-FILLED PRESSURE GAUGE (0-60 PSI / DISCHARGE) WITH 1/2" TAP AND SHUT-OFF VALVE
(PS)	PIPE SUPPORT

PIPE & FITTING NOTES:

1. ALL M.J. PIPING SHALL BE TYPE 1 RESTRAINED JOINT (SEE "WATER DISTRIBUTION SYSTEMS" SPEC)
2. ALL D.I. PIPE SHALL BE CLASS 350
3. FLOW METER SHALL HAVE A MINIMUM 5 PIPE LENGTH INFLUENT SIDE AND MINIMUM 3 PIPE LENGTH EFFLUENT SIDE.
4. CONTRACTOR SHALL VERIFY FLOW METER MANUFACTURE MINIMUM CLEARANCES AND ADJUST LENGTHS AS REQUIRED.
5. LIFT STATION AIR RELEASE VALVES TO DRAIN BACK TO LIFT STATION.

0 2 4
SCALE: 3/8" = 1'-0"

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

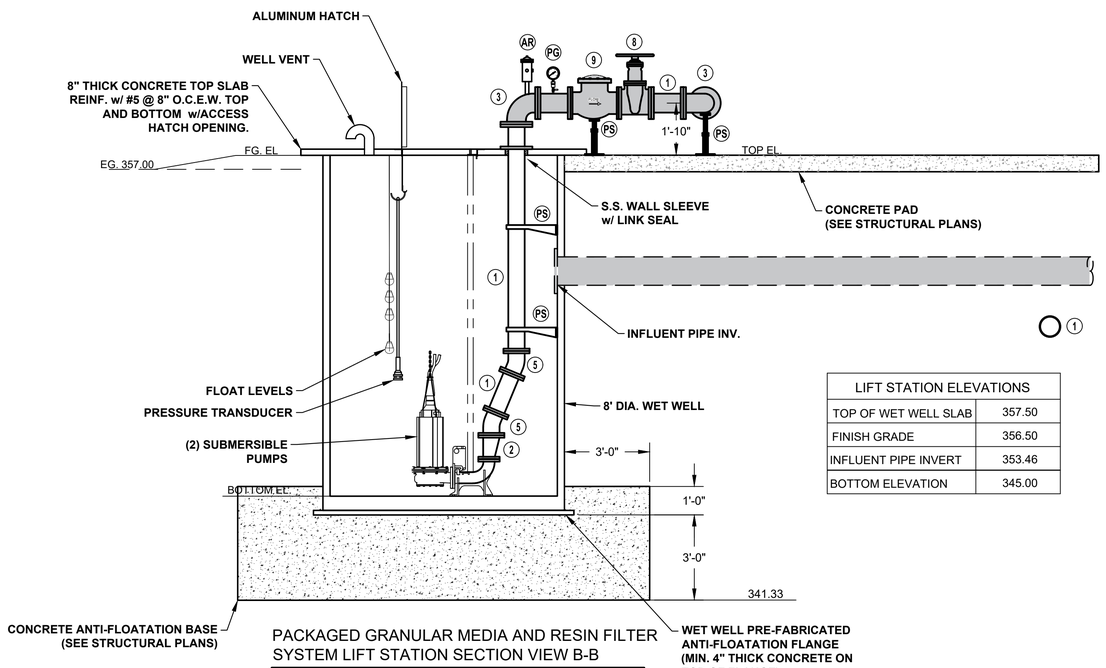
CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0022102458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-403

DRAWING TITLE: FILTRATION SYSTEM LIFT STATION - PLAN VIEWS

GENERAL NOTES.

1. **CONTRACTOR SHALL VERIFY DEPTH OF EXIST. 24" BYPASS LINE CONNECTION AS SHOWN ON SHEET C-402 PRIOR TO ORDERING WET WELLS. CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER IF DEPTH OF LINE IS GREATER THAN INDICATED.**
2. ELECTRIC CONTROL VALVE TO BE INSTALLED AS BURIED TYPE VALVE AS PER MANUFACTURE RECOMMENDATIONS FOR WATER PROOF CONTROLS.
3. ELECTRIC CONTROL VALVE BOX SHALL BE INSTALLED WITH 24" THICK GRAVEL BASE WITH MINIMUM 18" CLEARANCE BELOW CONTROL VALVE.



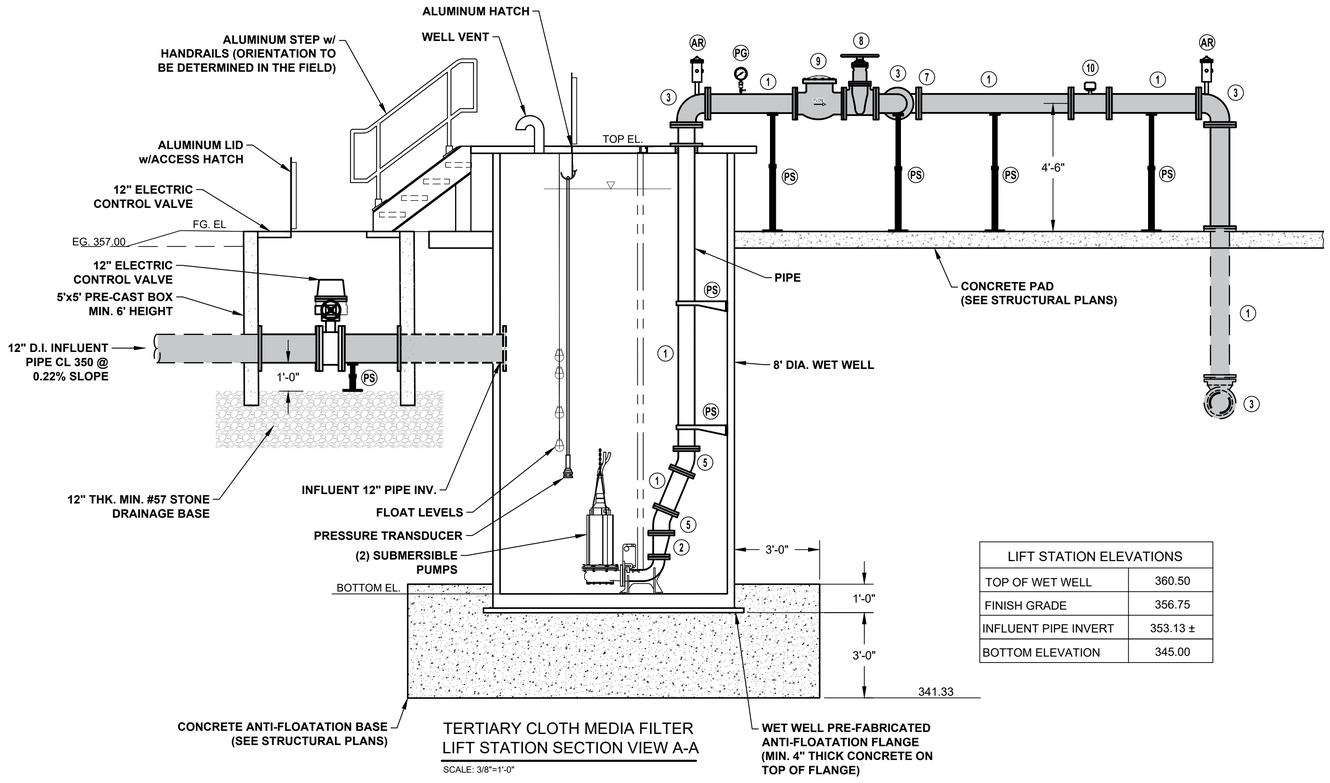
PACKAGED GRANULAR MEDIA AND RESIN FILTER SYSTEM LIFT STATION SECTION VIEW B-B

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

LIFT STATION ELEVATIONS	
TOP OF WET WELL SLAB	357.50
FINISH GRADE	356.50
INFLUENT PIPE INVERT	353.46
BOTTOM ELEVATION	345.00

EQUIPMENT SPEC SECTION	
02084	VALVES FOR WATER AND SEWER SYSTEMS
11217	PACKAGED LIFT STATION
11251	ELECTRIC VALVE ACTUATORS
11341	MAGNETIC FLOW METER

PIPING MATERIAL INDEX	
(1)	8" D.I. PIPE - LENGTH AS REQUIRED
(2)	8"x6" D.I. ECCENTRIC REDUCER
(3)	8" D.I. 90° BEND
(4)	8" D.I. 45° BEND
(5)	8" D.I. 22.5° BEND
(6)	8" D.I. WYE
(7)	8" D.I. TEE
(8)	8" PLUG VALVE
(9)	8" CHECK VALVE
(10)	8" FLOW METER
(AR)	AIR RELEASE VALVE, VENT BACK TO WET WELL
(PG)	2" DIAMETER GLYCERINE-FILLED PRESSURE GAUGE (0-60 PSI / DISCHARGE) WITH 1/2" TAP AND SHUT-OFF VALVE
(PS)	PIPE SUPPORT



TERTIARY CLOTH MEDIA FILTER LIFT STATION SECTION VIEW A-A

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

LIFT STATION ELEVATIONS	
TOP OF WET WELL	360.50
FINISH GRADE	356.75
INFLUENT PIPE INVERT	353.13 ±
BOTTOM ELEVATION	345.00

PIPE & FITTING NOTES:

1. ALL M.J. PIPING SHALL BE TYPE 1 RESTRAINED JOINT (SEE "WATER DISTRIBUTION SYSTEMS" SPEC)
2. ALL D.I. PIPE SHALL BE CLASS 350
3. FLOW METER SHALL HAVE A MINIMUM 5 PIPE LENGTH INFLUENT SIDE AND MINIMUM 3 PIPE LENGTH EFFLUENT SIDE.
4. CONTRACTOR SHALL VERIFY FLOW METER MANUFACTURE MINIMUM CLEARANCES AND ADJUST LENGTHS AS REQUIRED.

0 2 4

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

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021022436
DATE: 2025/07/24
SCALE: AS SHOWN

SHEET NO: C-404

DRAWING TITLE: FILTRATION SYSTEM LIFT STATION - SECTION VIEWS

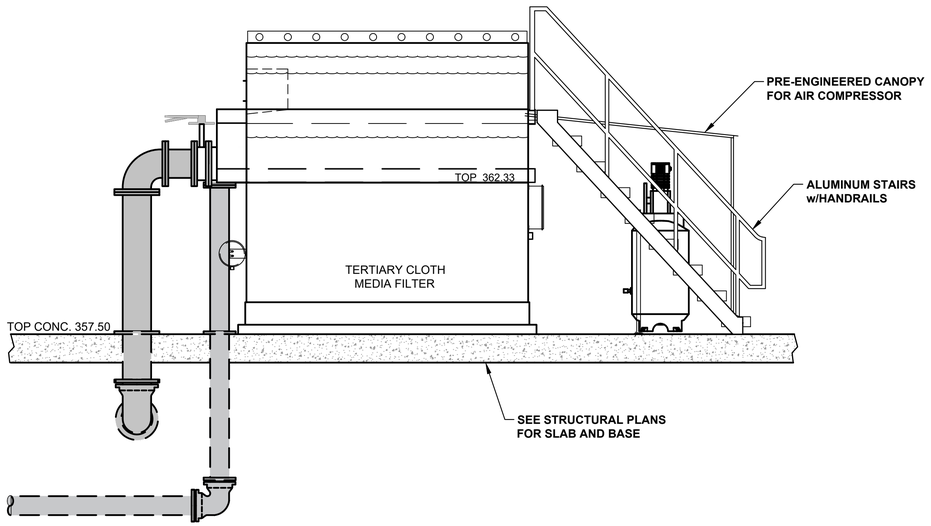
EQUIPMENT SPECIFICATION SECTION	
05511	ALUMINUM STAIRS AND LADDERS
05520	HANDRAILS AND RAILINGS
05530	GRATINGS AND PLATES
13200	TERTIARY CLOTH MEDIA FILTER EQUIPMENT

GENERAL NOTES:

1. ALL FILTER TANK MATERIALS & FASTENERS TO BE TYPE 304 STAINLESS STEEL OR OTHER NON-CORROSIVE MATERIALS.
2. ALL INTERNAL PIPING TO BE MINIMUM SCHEDULE 10 STAINLESS STEEL. ALL CONNECTIONS TO BE ANSI STANDARD 125 LB FLANGES. ALL PIPING AND PIPING CONNECTIONS TO AND FROM FILTER BY OTHERS.
3. FILTER SHALL BE MOUNTED TO CONCRETE FLOOR OR PAD AND ANCHORED WITH STAINLESS STEEL ANCHORAGE.
4. ELEMENT COVERS INCLUDED TO PROVIDE ACCESS TO ELEMENT HOSES DURING ELEMENT REMOVAL AS WELL AS PREVENT SUNLIGHT FROM CAUSING ALGAE GROWTH ON MEDIA.
5. CLEAN & DRY COMPRESSED AIR SOURCE REGULATED TO 85-90PSI REQUIRED TO OPERATE VALVES & AIR SCOUR SYSTEM.

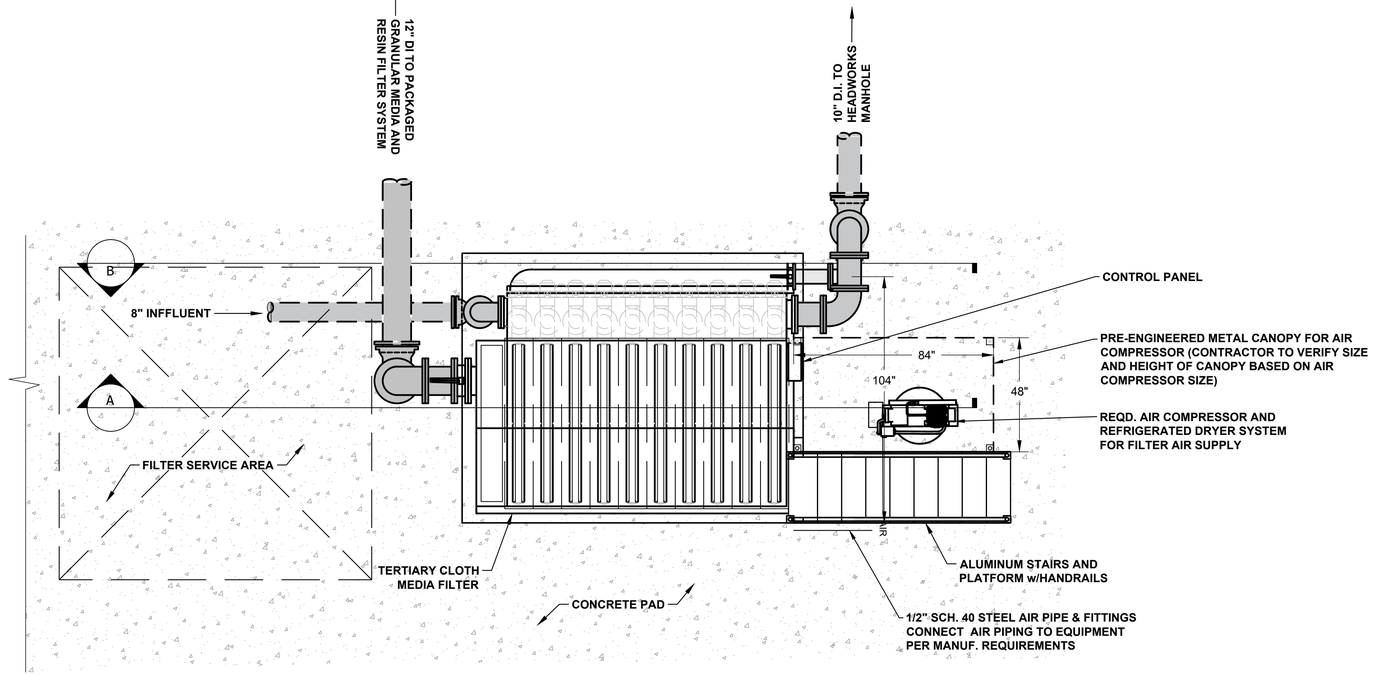
CRITICAL NOTES:

1. FILTER INFLUENT CHANNEL BACKWASH INITIATION FLOAT LEVEL IS SET APPROXIMATELY 2" BELOW THE OVERFLOW WEIR. LEVEL IN THE INFLUENT CHANNEL MAY BE UP TO AND OVER THE OVERFLOW WEIR DURING EXTREME CONDITIONS.



NORTH WEST ELEVATION VIEW

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



PLAN VIEW

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

PRE-ENGINEERED METAL CANOPY NOTES:

1. CANOPY SHALL BE PRE-ENGINEERED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING PRE-ENGINEERED METAL STRUCTURE STAMPED BY AN ALABAMA LICENSED PROFESSIONAL ENGINEER FOR APPROVAL BY OWNER.
3. STRUCTURE SHALL MEET ALL LOCAL AND STATE BUILDING CODES (IBC LATEST EDITION)
4. ROOF COLOR SELECTION SHALL BE AS PRE OWNER SELECTION.

0' 1' 2' 4'

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

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

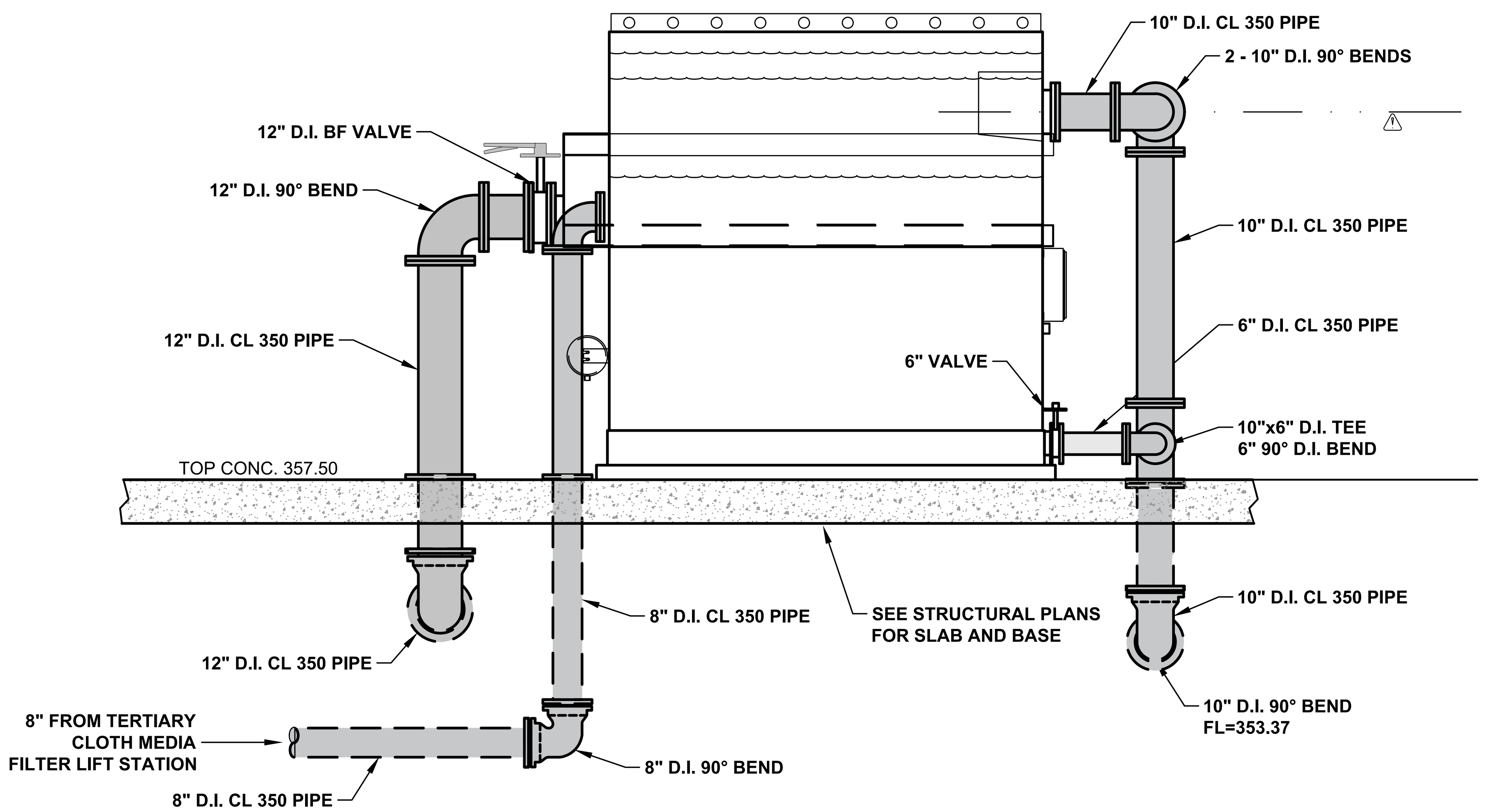
CONTRACT NO. 4 - WALNUT CREEK
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2022102458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-405

DRAWING TITLE:

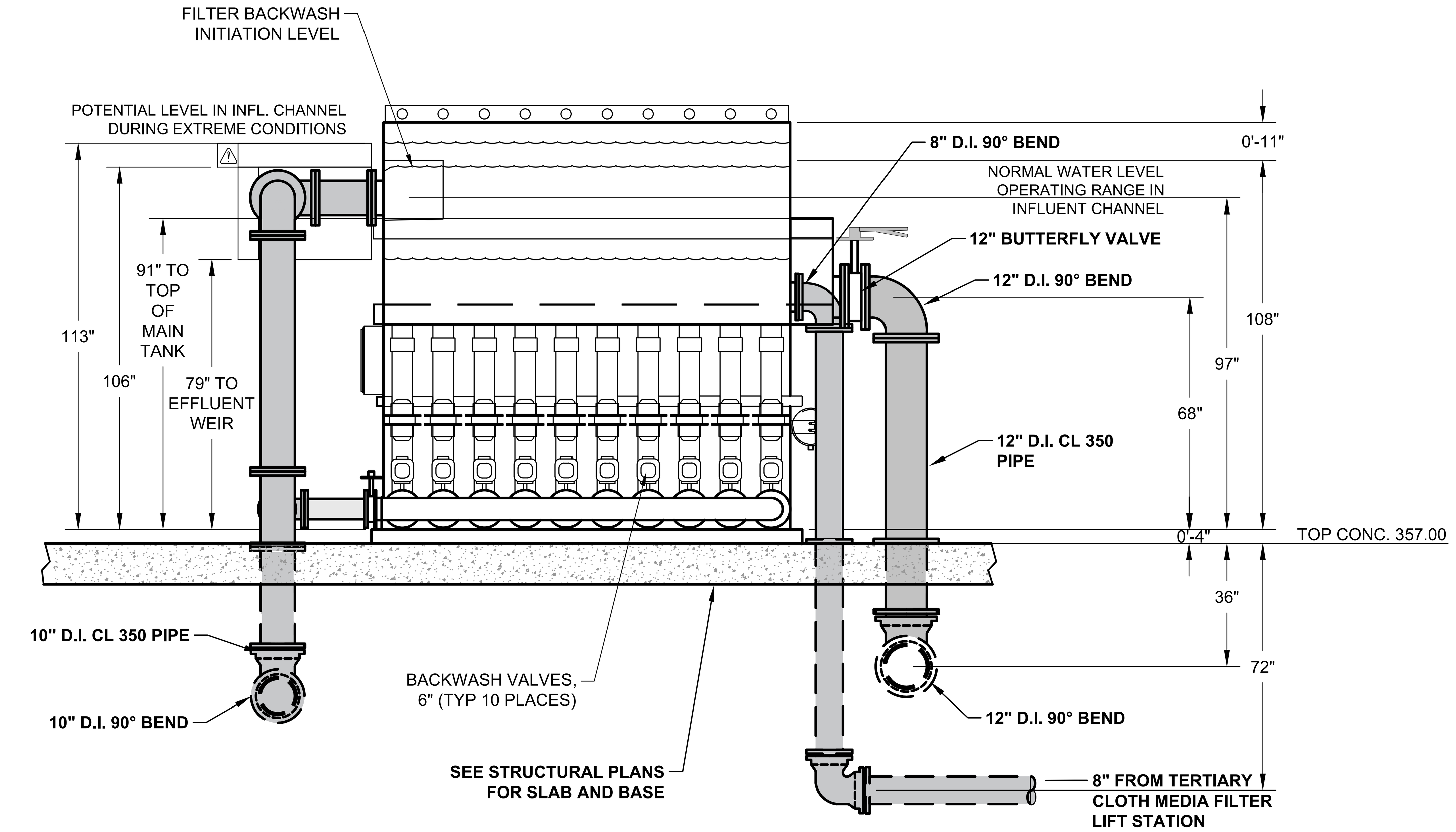
FILTRATION SYSTEM - PLAN & ELEV. DETAILS

EQUIPMENT SPECIFICATION SECTION	
05511	ALUMINUM STAIRS AND LADDERS
05520	HANDRAILS AND RAILINGS
05530	GRATINGS AND PLATES
13200	TERTIARY CLOTH MEDIA FILTER EQUIPMENT



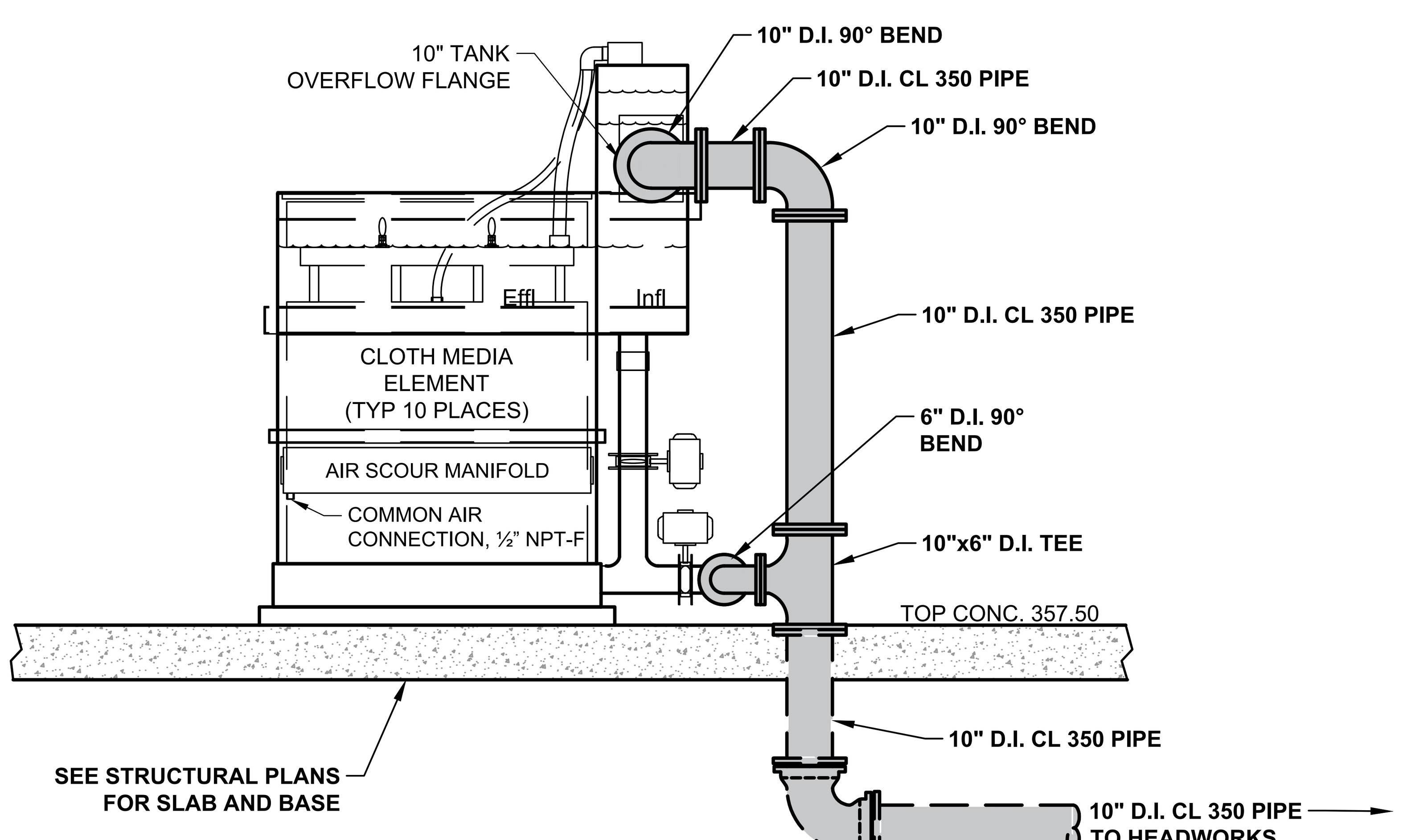
SECTION VIEW A

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



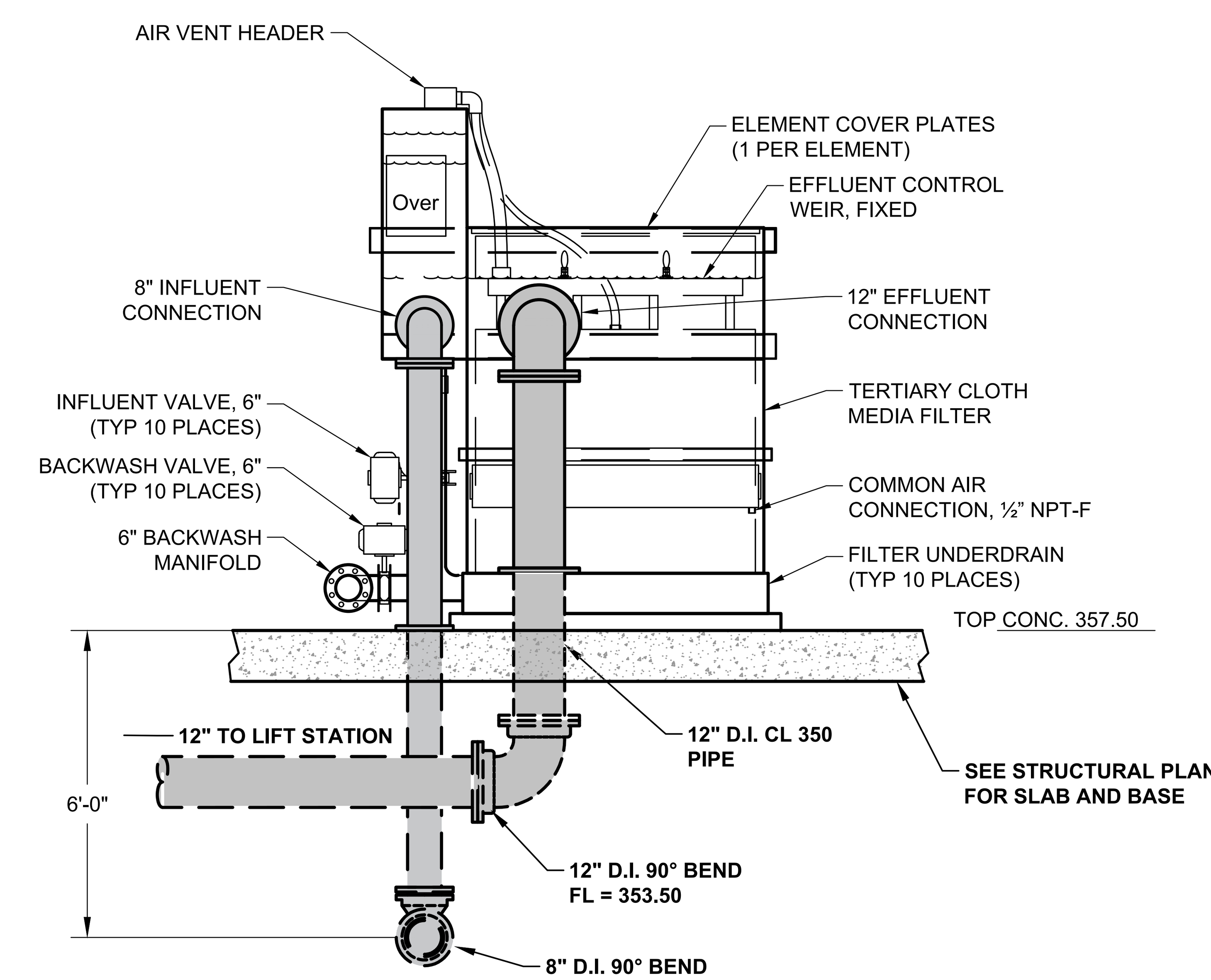
SECTION VIEW B

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



SOUTHWEST ELEVATION VIEW

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



NORTHEAST ELEVATION VIEW

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

0' 1' 2' 4'

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

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL 07/25/2025 ENGINEER CARMEN D. CHOSIE

COA: ECA105

ADDRESS:

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THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK

CITY OF TROY

PIKE COUNTY, ALABAMA

PROJECT NO: R0210224S6

DATE: 2025/07/24

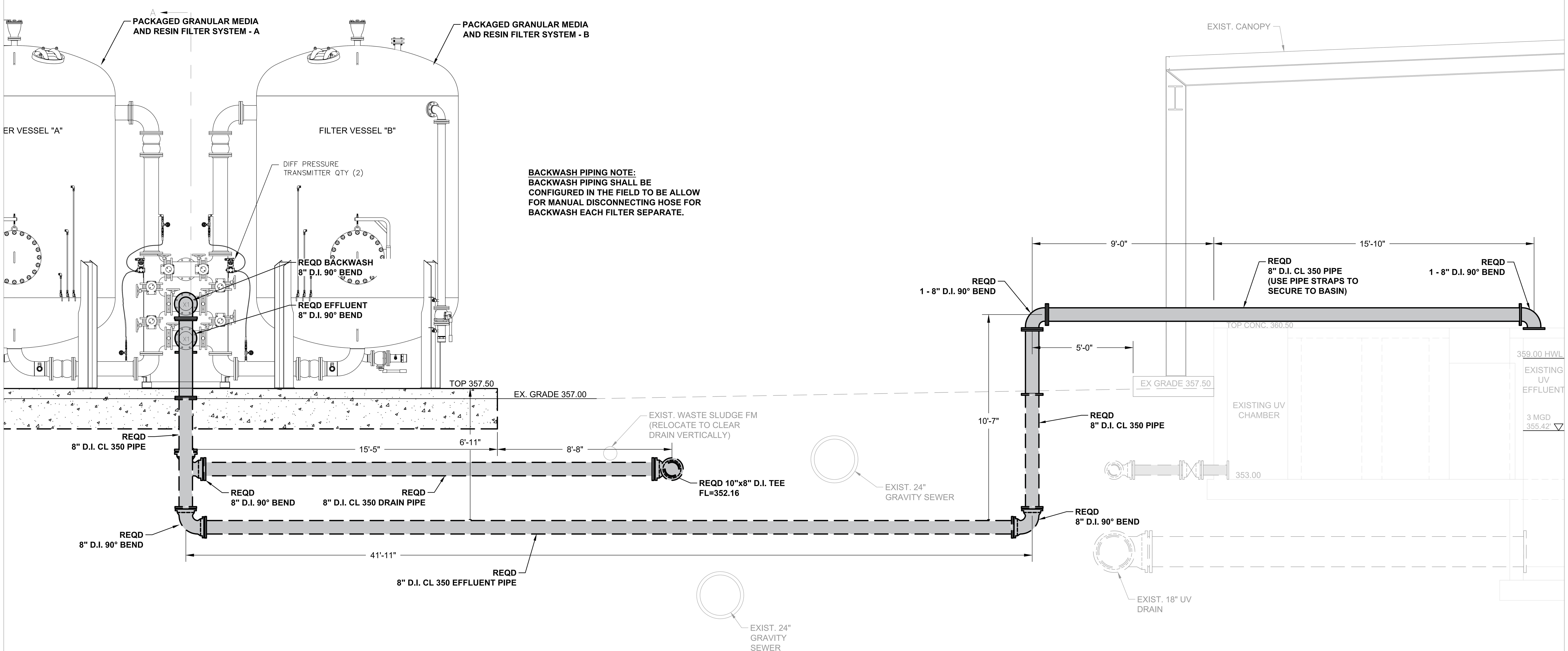
SCALE: AS SHOWN

SHEET NO: C-406

DRAWING TITLE: FILTRATION SYSTEM - SECTION VIEWS

NOTES:

1. EXISTING PIPING AND ELEVATIONS SHOWN ARE BASED ON OWNER SUPPLIED PLANS.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING BELOW GRADE TO CONFIRM LOCATION AND ELEVATIONS.
3. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER TO ANY DISCREPANCIES IN PIPE AND OR FITTING LOCATIONS PRIOR TO ANY PIPE AND FITTINGS BEING ORDERED.



FILTER SYSTEM - SECTION VIEW

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

0' 1' 2' 4'
SCALE: 3/8" = 1'-0"

NO. | REVISION/SUBMISSION | DATE:

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105
ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

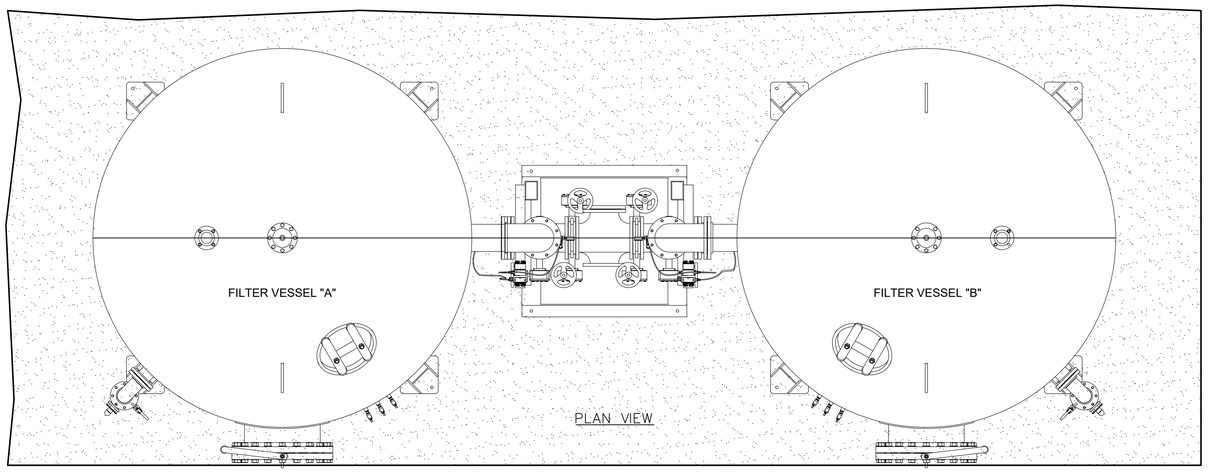
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO.:
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO.: C-407

DRAWING TITLE: FILTRATION SYSTEM - SECTION VIEW

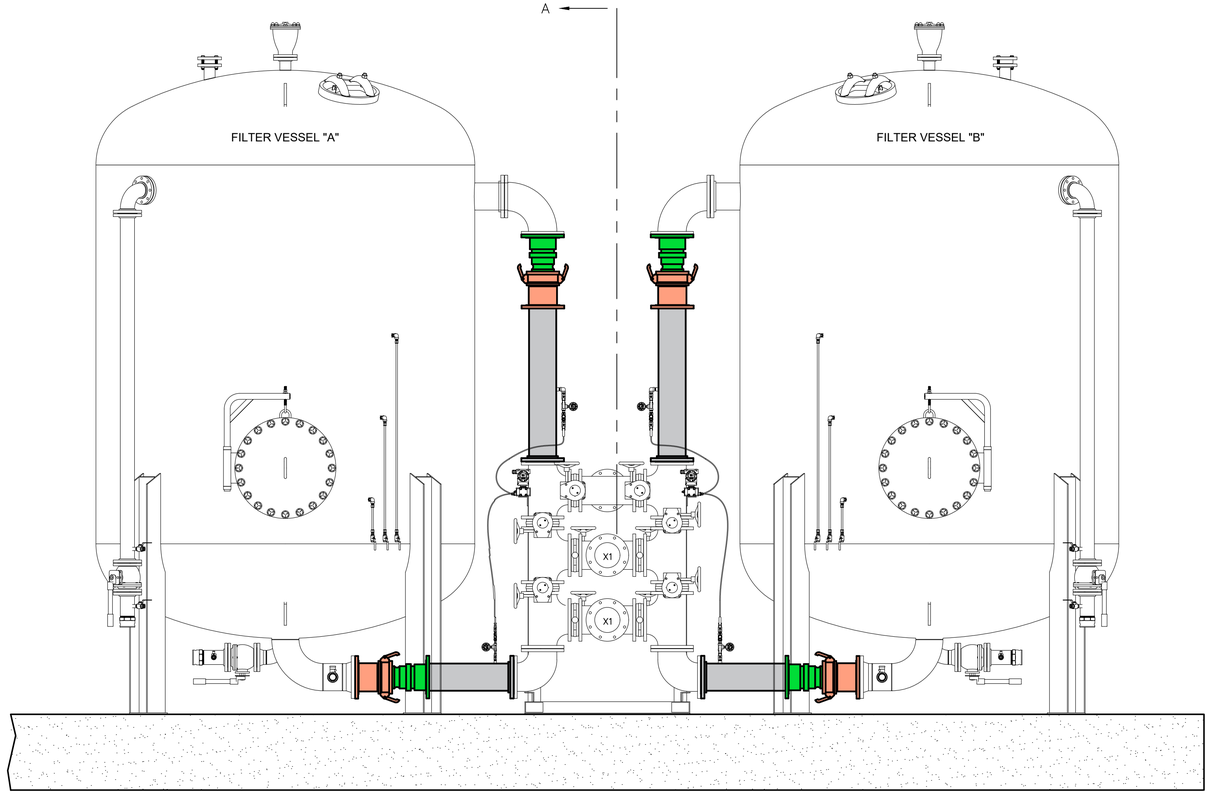
EQUIPMENT SPECIFICATION SECTION	
13250	PACKAGED GRANULAR MEDIA & RESIN FILTER SYSTEM



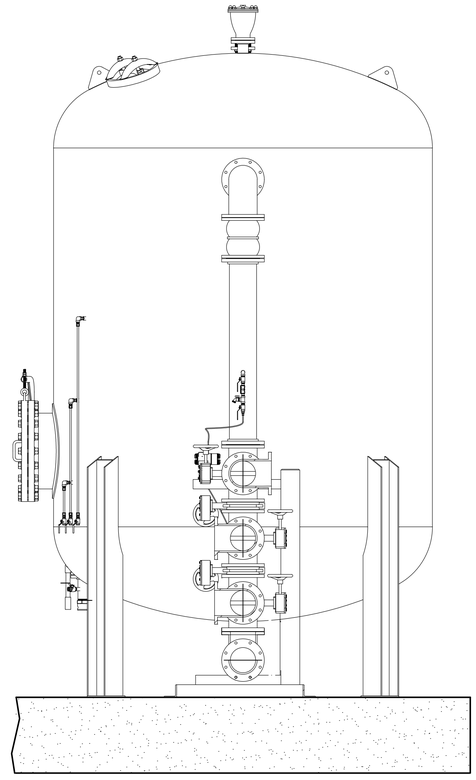
PLAN VIEW

GENERAL NOTES:

1. VALVE OPERATION SEQUENCE TO BE PROVIDED BY MANUFACTURER.
2. ALL SYSTEM PROCESS VALVES TO BE BRAY SERIES 30, CAST IRON w/ HAND WHEEL OPERATOR or APPROVED EQUAL.
3. DIFFERENTIAL PRESSURE TRANSMITTERS TO BE SIEMENS SISTRANS P DS III MOUNTED ON A 3-WAY VALVE MANIFOLD OR APPROVED EQUAL.
4. ALL ELEVATIONS MARKED FROM TOP OF FOUNDATION PAD



FRONT ELEVATION



SECTION A-A

0' 1' 2' 4'

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

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

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THREE NOTCH GROUP

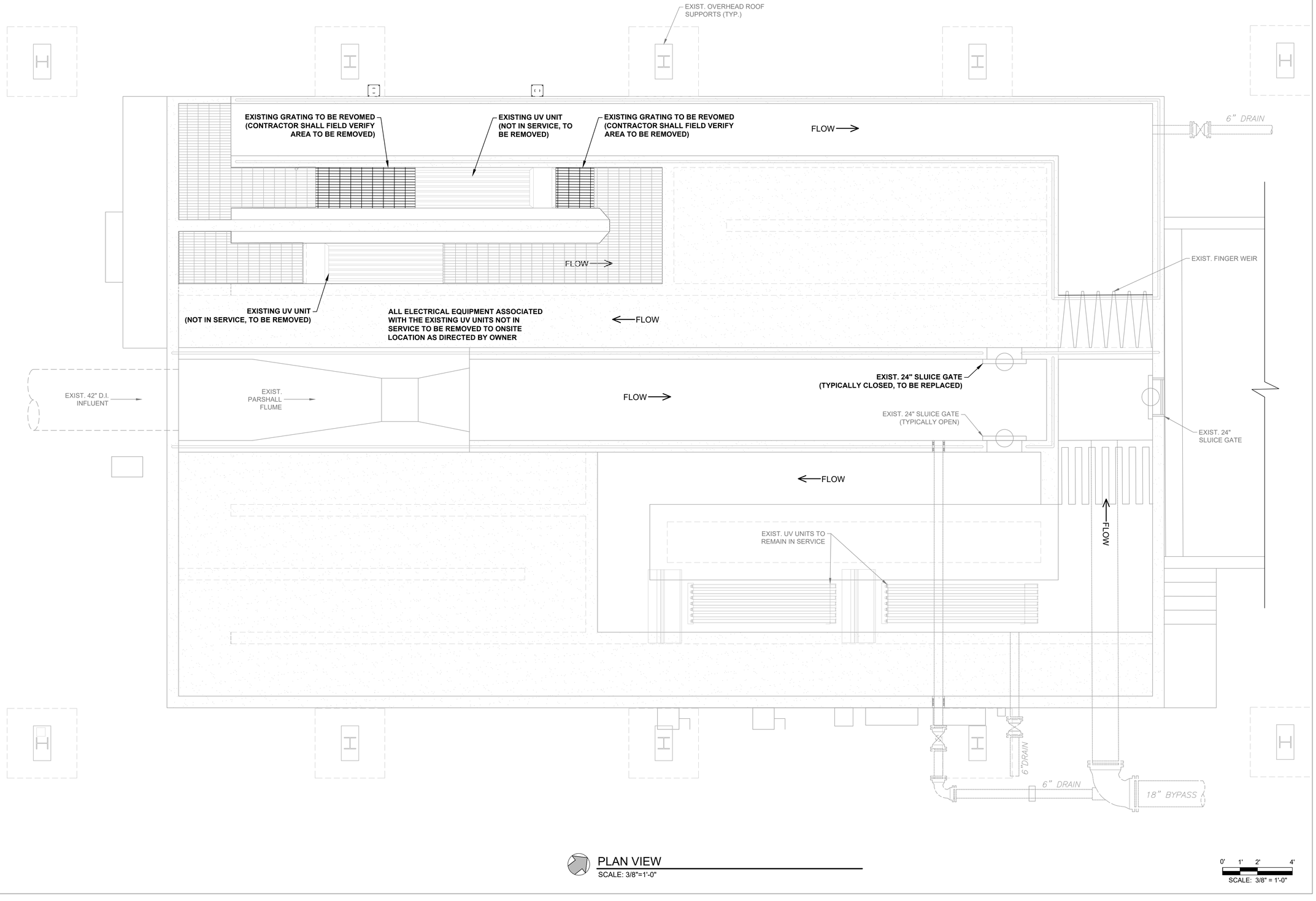
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021002455
DATE: 2025/07/24
SCALE: AS SHOWN

SHEET NO: C-408

DRAWING TITLE: GRANULAR MEDIA & RESIN FILTER SYSTEM DETAILS



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

0' 1' 2' 4'
SCALE: 3/8" = 1'-0"

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSE 07/25/2025

COA: ECA105

ADDRESS:
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(334) 677-9431

THREE NOTCH GROUP

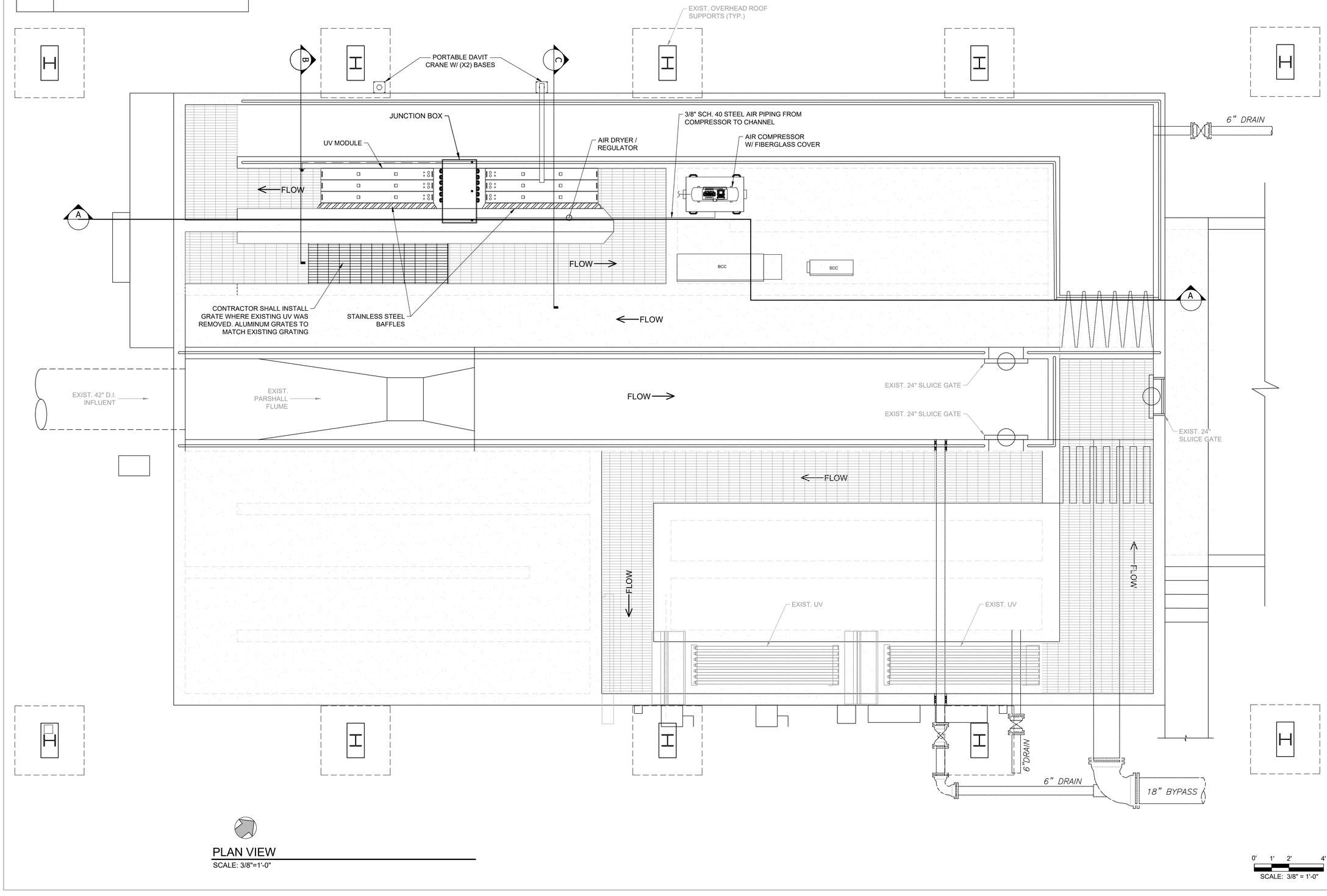
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021002455
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-409

DRAWING TITLE: ULTRAVIOLET SYSTEM - DEMO PLAN

EQUIPMENT SPECIFICATION SECTION	
11345	HORIZONTAL ULTRAVIOLET DISINFECTION SYSTEM



PLAN VIEW

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

0' 1' 2' 4'

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

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

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DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
CITY OF TROY
PIKE COUNTY, ALABAMA

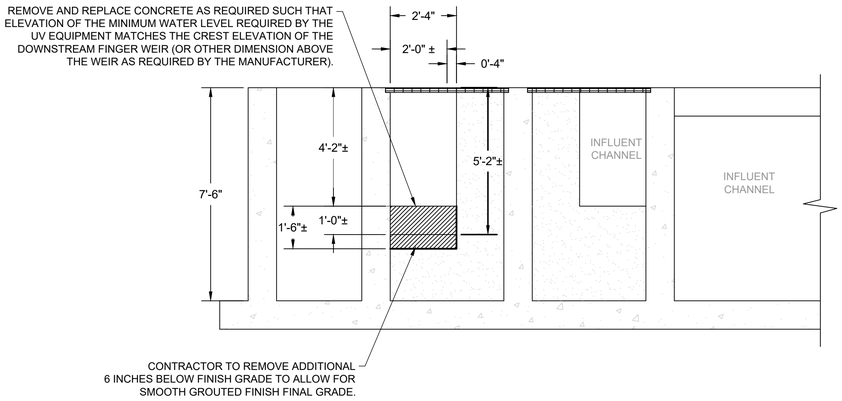
ULTRAVIOLET SYSTEM IMPROVEMENTS

PROJECT NO: 0021022456
DATE: 2025/07/24
SCALE: AS SHOWN

SHEET NO: C-410

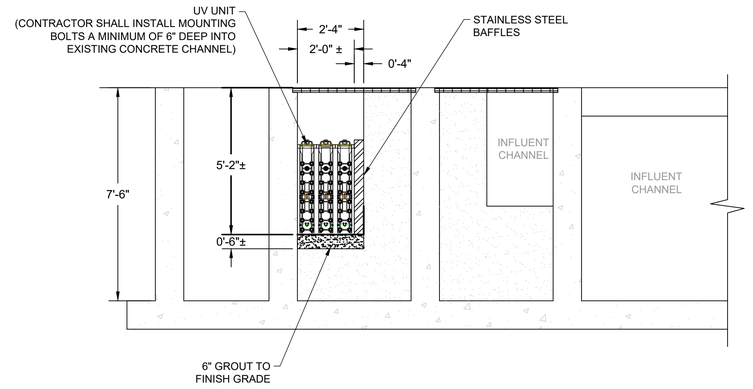
DRAWING TITLE:

EQUIPMENT SPECIFICATION SECTION	
11345	HORIZONTAL ULTRAVIOLET DISINFECTION SYSTEM



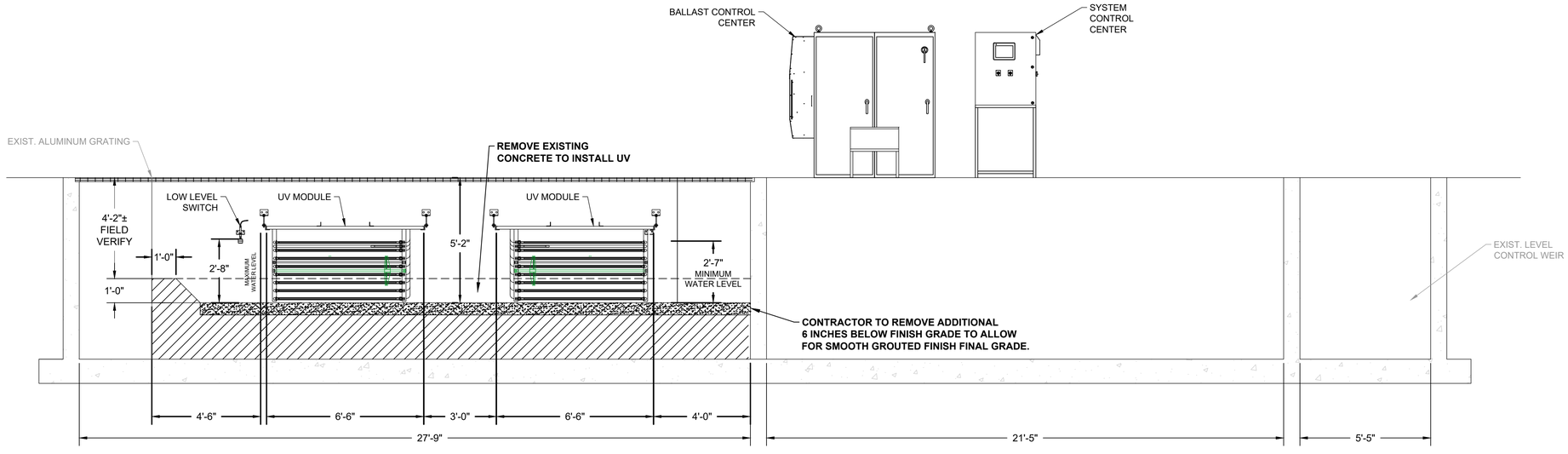
SECTION B-B EXISTING

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



SECTION C-C PROPOSED

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



SECTION A-A

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

0' 1' 2' 4'

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

NO. | REVISION/SUBMISSION | DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED PROFESSIONAL ENGINEER No. 36280 07/25/2025 CARMEN D. CHOSIE

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
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(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0602102345
DATE: 2025/07/24
SCALE: AS SHOWN

SHEET NO: C-411

DRAWING TITLE: ULTRAVIOLET SYSTEM IMPROVEMENTS

EQUIPMENT SPECIFICATION SECTION	
05520	HANDRAILS AND RAILINGS
11251	ELECTRIC VALVE ACTUATORS
11300	SLUDGE DEWATERING SCREW PRESS
11310	PROGRESSING CAVITY PUMPS
11341	MAGNETIC FLOW METER

PIPING MATERIAL INDEX	
A1	2" SDR 21 PVC PIPE
A1A	2" S.S. SCH. 40 PIPE
A8	2" D.I. 90° BEND
A8A	2" S.S. 90° BEND
A9	2" D.I. 22.5° BEND
A10	4"x2" S.S. REDUCER (VERIFY WITH PUMP MANF.)
A16	2" ELEC. CONTROL PLUG VALVE
FM	2" MAGNETIC FLOW METER
PS	PIPE SUPPORT

H — REQD. PRE-ENGINEERED METAL BUILDING FRAME SUPPORT

REQD. SLUDGE PRESS NO. 1

FUTURE SLUDGE PRESS NO. 2

REQD. SLUDGE AUGER

SLUDGE PRESS

SLUDGE PRESS (SEE SHEET C-416)

3" 90° S.S. BEND

1/2" SCH. 40 STEEL AIR PIPE

3" S.S. PIPE

3" 90° S.S. BENDS

AIR COMPRESSOR

3" S.S. PIPE

DE-WATERING POLYMER FEED (SEE SHEET C-417)

275 GALLON IBC TANK with STEEL PALLET

2" SCH. SDR 21 PVC ICB TANK FEED TO POLYMER FEED, VALVES & FITTINGS

1" SDR 21 PVC TANK FEED TO POLYMER FEED, VALVES & FITTINGS

FUTURE DE-WATERING POLYMER FEED

REQD. 2" SCH. 80 PIPE AND FITTINGS TO CONNECT TO SLUDGE PRESS

WATER SUPPLY BOOSTER PUMP

1 - 2" TEE
2 - 2" PLUG VALVE

3" SDR 21 PVC WATER SUPPLY

3" VENTURI MIXER

1 - 3"x2" SERVICE SADDLE
1 - 2" CHECK VALVE
1 - 2" CURB STOP
1 - 2" PRV
1 - CONC. VALVE BOX

17'

TO SLUDGE PRESS

1 - 3"x2" SERVICE SADDLE
1 - 2" CHECK VALVE
1 - 2" CURB STOP
1 - 2" PRV
1 - CONC. VALVE BOX

1 - 2" S.S. VALVE
1 - 2" S.S. 90° BEND
1 - 3"x2" S.S. RED

ASPHALT OPEN CUT PAVEMENT PATCH (MATCH EXIST. BUILDING UP MIN.)

WATER SPIGOT FOR TESTING

1 - 2" x 1 1/2" S.S. TEE
1 - 2" x 1 1/2" S.S. REDUCER
2 - 2" S.S. VALVES

7'-11"

15'-5"

4'-9"

26'-6"

3/4" SDR 21 PVC WATER SUPPLY TO PUMP PRIMER SOLENOID VALVE

EXISTING CHEMICAL FEED BLDG

EXISTING AEROBIC DIGESTER NO. 1

EXISTING AEROBIC DIGESTER NO. 2

EXIST DIGESTER NO. 1

EXIST. AIR DIFFUSERS

FUTURE SLUDGE TRANSFER PUMP

EXIST. CONC. WALKWAY

REQD HANDRAIL

EXIST. ALUMINUM STAIRS AND LANDING

EXIST. STAIRS & HANDRAIL (TO BE REMOVED)

REQD. SLUDGE PROGRESSING CAVITY PUMP

PIPE BOLLARD (TYP. 4)

6'-8"

4' (TYP)

3'

2'-8"

EXIST. ASPHALT PAVING

NOTES:

1. WHERE EQUIPMENT OR PIPING DESIGNATED FOR REMOVAL SERVES TO SUPPORT OTHER EQUIPMENT OR PIPING DESIGNATED TO REMAIN IN SERVICE, THE CONTRACTOR SHALL PROVIDE PERMANENT SUPPORTS IN PLACE OF THE REMOVED EQUIPMENT AND PIPING. WHERE IT IS NECESSARY TO TEMPORARILY REMOVE OTHER EQUIPMENT, PIPING, OR ELECTRICAL WORK IN ORDER TO GAIN ACCESS TO AN ITEM OF EQUIPMENT OR PIPING DESIGNATED FOR REMOVAL, THE CONTRACTOR SHALL RESTORE ALL SUCH EQUIPMENT, PIPING, OR ELECTRICAL WORK TO ITS ORIGINAL CONDITION.
2. THE CONTRACTOR SHALL EXERCISE FULL CARE AND SHALL USE SUCH METHODS AND EQUIPMENT DURING DEMOLITION AS WILL MAINTAIN THE USEFULNESS OF THE VARIOUS MATERIALS AND EQUIPMENT REMOVED AND RESERVE THE INTEGRITY OF ALL REMAINING STRUCTURES AND PORTIONS OF STRUCTURES.
3. ANY DAMAGE DONE TO STRUCTURES OR EQUIPMENT DURING REMOVAL AND ANY PATCHING, PLUGGING OF HOLES, OR REPAIRS NECESSITATED BECAUSE OF REMOVAL OF EQUIPMENT AND PIPING SHALL BE REPAIRED AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE.
4. EXISTING PIPING TO REMAIN. CONTRACTOR TO PROTECT DURING CONSTRUCTION.
5. CONTRACTOR TO VERIFY ALL DETAILS WITH THE EXISTING CONDITIONS.
6. SAWCUT AND REMOVE EXISTING ASPHALT AS REQUIRED TO CONSTRUCT IMPROVEMENTS. PATCH ASPHALT TO A NEW CONDITION. PAYMENT SHALL BE INCIDENTAL TO OVERALL BID ITEM PRICE.

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

0' 1' 2' 4' 6'
SCALE: 1/4" = 1'-0"

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 36280
07/25/2025
CARMEN D. CHOSIE

COA: ECA105

ADDRESS:
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DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

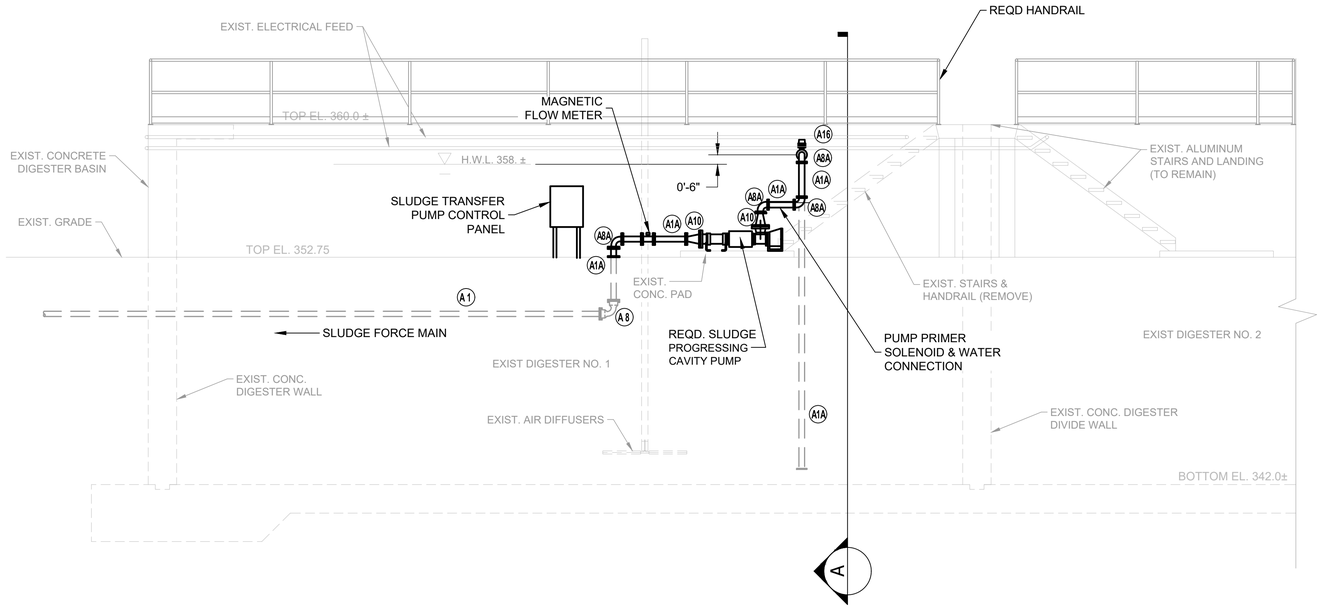
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 1001002408
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO.: C-412

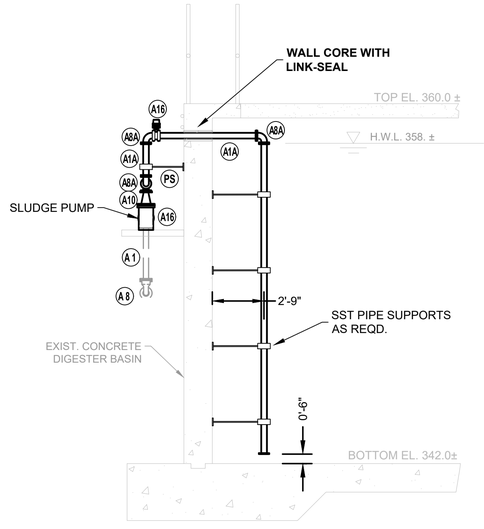
DRAWING TITLE: SLUDGE PUMP AND PRESS - SITE PLAN

PIPING MATERIAL INDEX	
A1	2" SDR 11 PVC PIPE
A1A	2" S.S. SCH. 40 PIPE
A8	2" D.I. 90° BEND
A8A	2" S.S. 90° BEND
A9	2" D.I. 22.5° BEND
A10	4"x2" S.S. REDUCER
A16	2" S.S. ELEC. CONTROL PLUG VALVE
FM	2" S.S. MAGNETIC FLOW METER
PS	PIPE SUPPORT



ELEVATION VIEW

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



SECTION VIEW A-A

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

0' 1' 2' 4' 6'

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

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

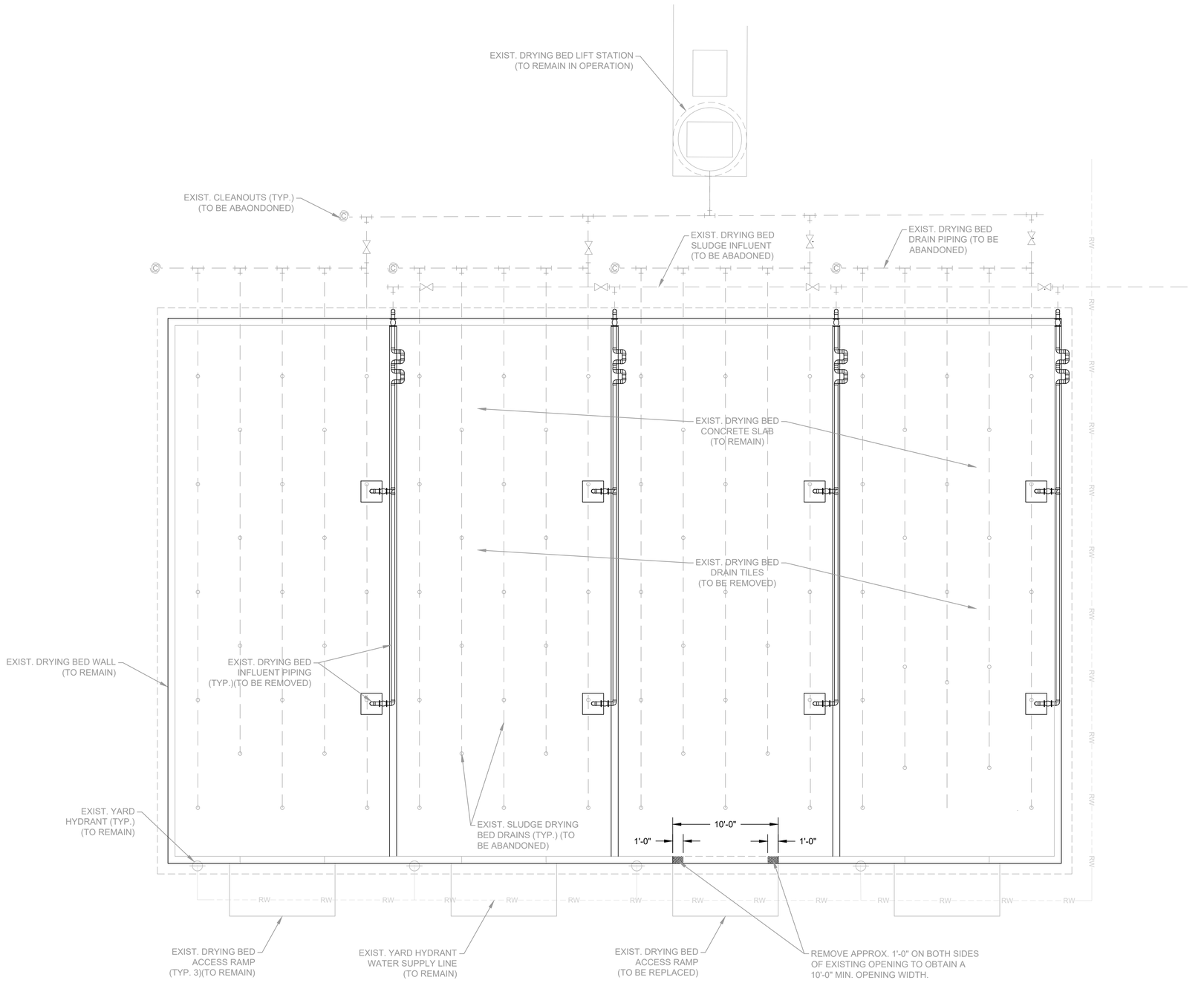
PROJECT NO: 2024102245

DATE: 2025/7/24

SCALE: AS SHOWN

SHEET NO: C-413

DRAWING TITLE: SLUDGE PUMP ELEVATION DETAILS



GENERAL NOTES:

1. ALL EXISTING PIPING, VALVES AND FITTINGS SHOWN ARE TAKEN FROM FIELD SURVEY AND PLANS PROVIDED BY OWNER. CONTRACTOR SHALL FIELD VERIFY ALL UNDERGROUND AND ABOVE GROUND ITEMS PRIOR TO WORK.
2. ALL EXISTING DRYING BED BELOW GRADE PIPING, VALVES AND FITTINGS SHALL BE ABANDONED IN PLACE.
2. ALL EXISTING DRYING BED ABOVE GRADE PIPING, VALVES AND FITTINGS SHALL BE REMOVED.

PLAN VIEW

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

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021002455
DATE: 2025/07/24
SCALE: AS SHOWN

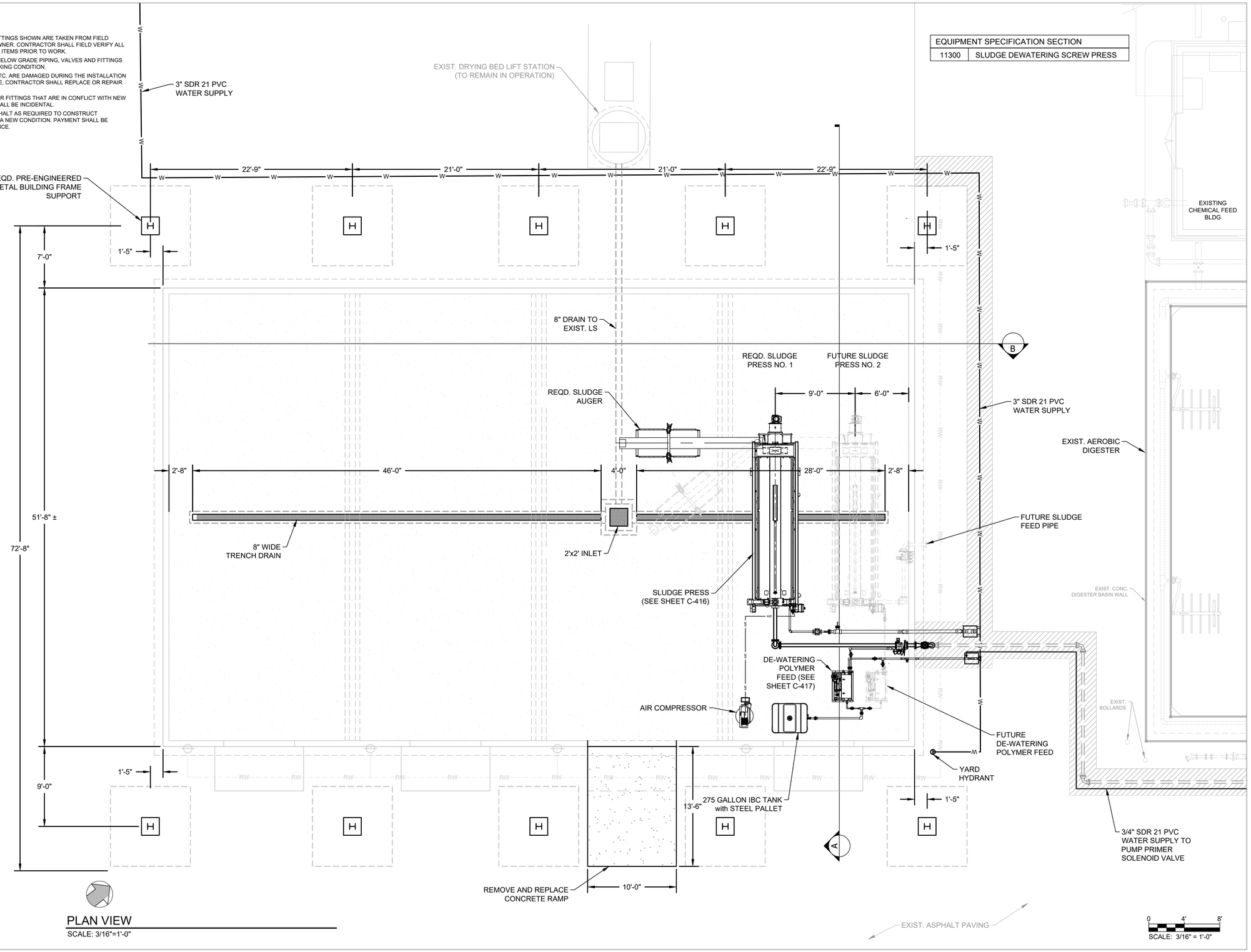
SHEET NO: C-414

DRAWING TITLE: SLUDGE BASIN - DEMO PLAN

GENERAL NOTES:

1. ALL EXISTING PIPING, VALVES AND FITTINGS SHOWN ARE TAKEN FROM FIELD SURVEY AND PLANS PROVIDED BY OWNER. CONTRACTOR SHALL FIELD VERIFY ALL UNDERGROUND AND ABOVE GROUND ITEMS PRIOR TO WORK.
2. ALL EXISTING DRYING BED ABOVE & BELOW GRADE PIPING, VALVES AND FITTINGS SHALL REMAIN IN PLACE AND IN WORKING CONDITION.
3. IF ANY EXISTING PIPE, FITTINGS OR ETC. ARE DAMAGED DURING THE INSTALLATION OF THE PRESS & CANOPY STRUCTURE, CONTRACTOR SHALL REPLACE OR REPAIR AS REQUIRED.
4. RELOCATION OF PIPE, VALVES, AND/OR FITTINGS THAT ARE IN CONFLICT WITH NEW EQUIPMENT, FOOTINGS OR PIPING SHALL BE INCIDENTAL.
6. SAWCUT AND REMOVE EXISTING ASPHALT AS REQUIRED TO CONSTRUCT IMPROVEMENTS. PATCH ASPHALT TO A NEW CONDITION. PAYMENT SHALL BE INCIDENTAL TO OVERALL BID ITEM PRICE.

EQUIPMENT SPECIFICATION SECTION	
11300	SLUDGE DEWATERING SCREW PRESS



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

0 4' 8'
SCALE: 3/16" = 1'-0"

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

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DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

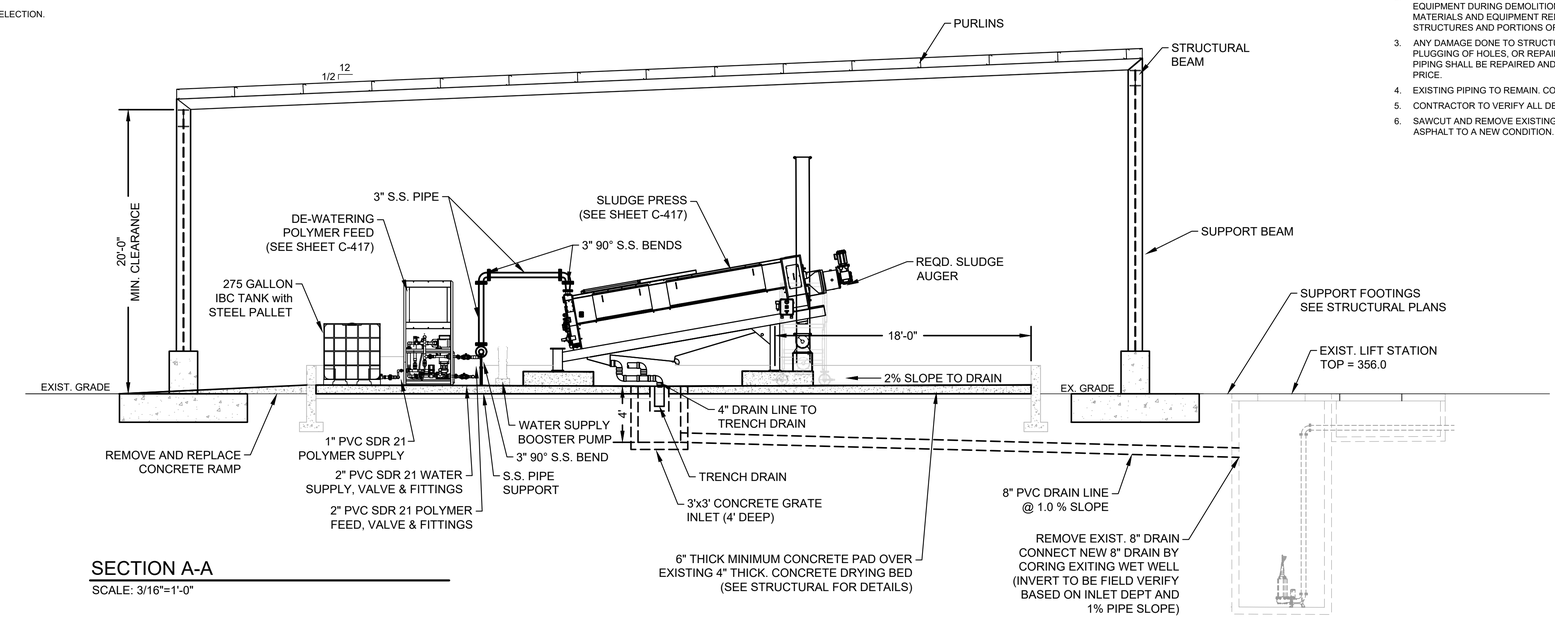
PROJECT NO: 2022102458
DATE: 2026/07/24
SCALE: AS SHOWN
SHEET NO: C-415
DRAWING TITLE: SLUDGE PRESS LAYOUT

PRE-ENGINEERED METAL CANOPY NOTES:

1. CANOPY SHALL BE PRE-ENGINEERED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING PRE-ENGINEERED METAL STRUCTURE SIGNED AND SEALED CALCULATIONS AND PLANS BY AN ALABAMA LICENSED PROFESSIONAL ENGINEER FOR APPROVAL BY OWNER.
3. STRUCTURE SHALL MEET ALL LOCAL AND STATE BUILDING CODES (IBC LATEST EDITION)
4. ROOF COLOR SELECTION SHALL BE AS PRE OWNER SELECTION.

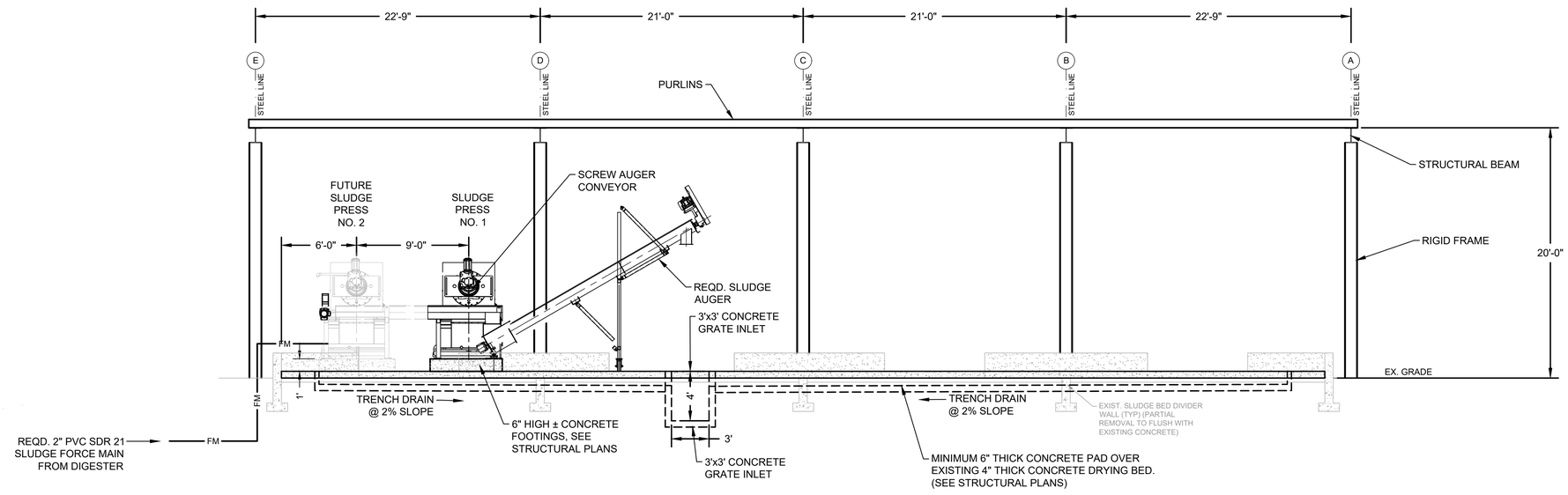
NOTES:

1. WHERE EQUIPMENT OR PIPING DESIGNATED FOR REMOVAL SERVES TO SUPPORT OTHER EQUIPMENT OR PIPING DESIGNATED TO REMAIN IN SERVICE, THE CONTRACTOR SHALL PROVIDE PERMANENT SUPPORTS IN PLACE OF THE REMOVED EQUIPMENT AND PIPING. WHERE IT IS NECESSARY TO TEMPORARILY REMOVE OTHER EQUIPMENT, PIPING, OR ELECTRICAL WORK IN ORDER TO GAIN ACCESS TO AN ITEM OF EQUIPMENT OR PIPING DESIGNATED FOR REMOVAL, THE CONTRACTOR SHALL RESTORE ALL SUCH EQUIPMENT, PIPING, OR ELECTRICAL WORK TO ITS ORIGINAL CONDITION.
2. THE CONTRACTOR SHALL EXERCISE FULL CARE AND SHALL USE SUCH METHODS AND EQUIPMENT DURING DEMOLITION AS WILL MAINTAIN THE USEFULNESS OF THE VARIOUS MATERIALS AND EQUIPMENT REMOVED AND RESERVE THE INTEGRITY OF ALL REMAINING STRUCTURES AND PORTIONS OF STRUCTURES.
3. ANY DAMAGE DONE TO STRUCTURES OR EQUIPMENT DURING REMOVAL AND ANY PATCHING, PLUGGING OF HOLES, OR REPAIRS NECESSITATED BECAUSE OF REMOVAL OF EQUIPMENT AND PIPING SHALL BE REPAIRED AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE.
4. EXISTING PIPING TO REMAIN. CONTRACTOR TO PROTECT DURING CONSTRUCTION.
5. CONTRACTOR TO VERIFY ALL DETAILS WITH THE EXISTING CONDITIONS.
6. SAWCUT AND REMOVE EXISTING ASPHALT AS REQUIRED TO CONSTRUCT IMPROVEMENTS. PATCH ASPHALT TO A NEW CONDITION. PAYMENT SHALL BE INCIDENTAL TO OVERALL BID ITEM PRICE.



SECTION A-A

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



SECTION B-B

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

0 4' 8'

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

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

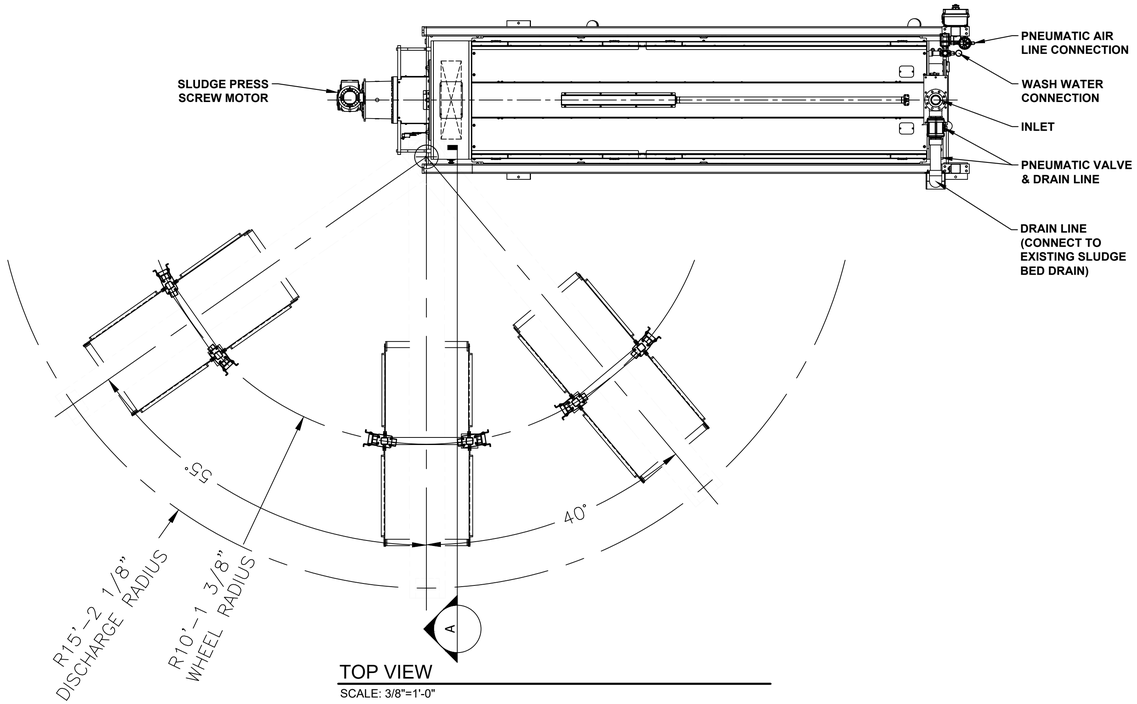
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021022455
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-416

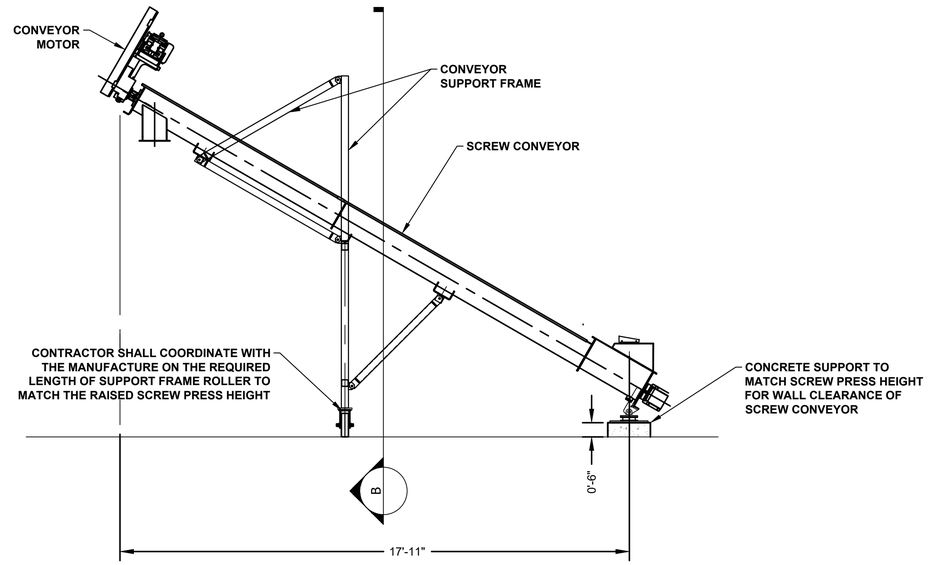
DRAWING TITLE: SLUDGE PRESS LAYOUT



TOP VIEW

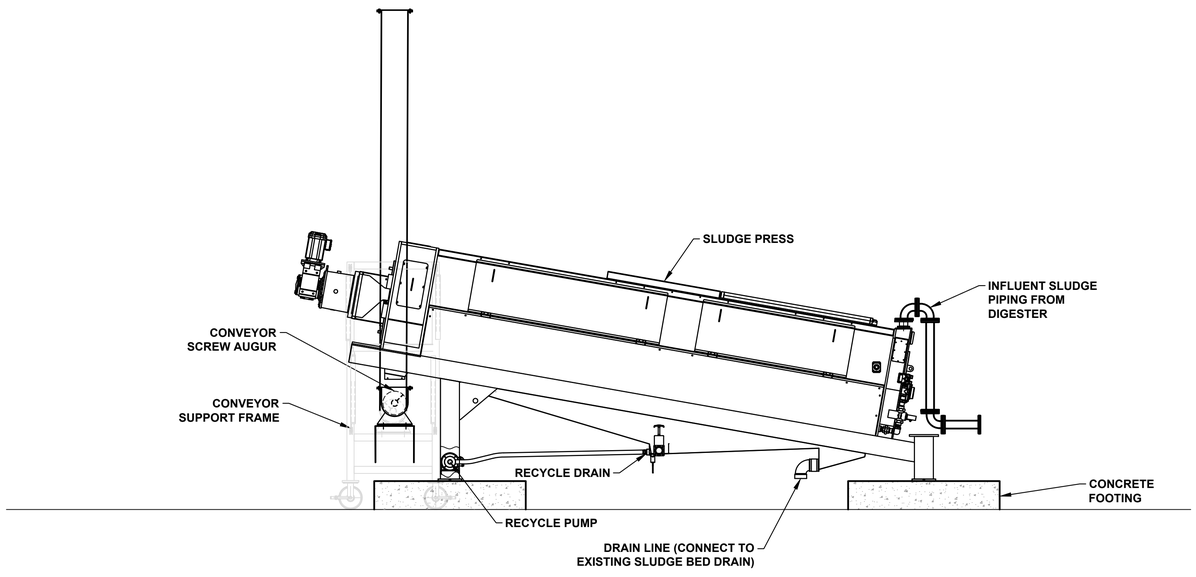
SCALE: 3/8"=1'-0"

EQUIPMENT SPECIFICATION SECTION	
11300	SLUDGE DEWATERING SCREW PRESS



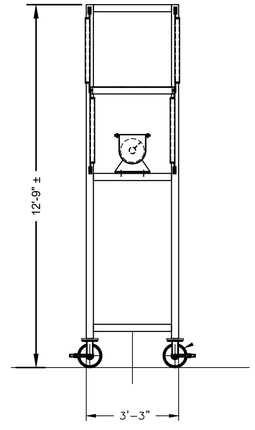
SECTION A-A

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



ELEVATION VIEW

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



SECTION B-B

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

0' 1' 2' 4'

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

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
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(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

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WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

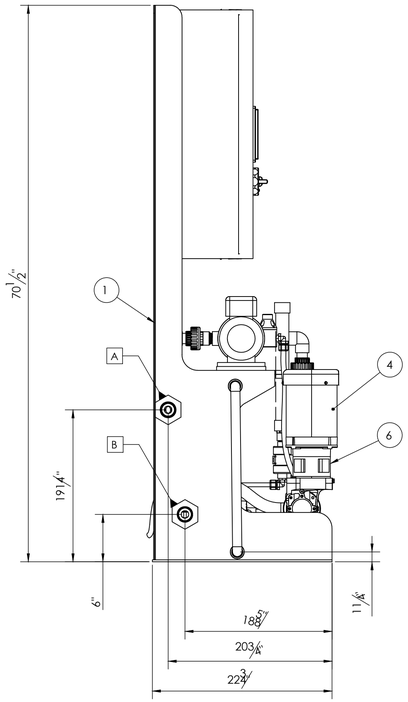
PROJECT NO: 0021022455

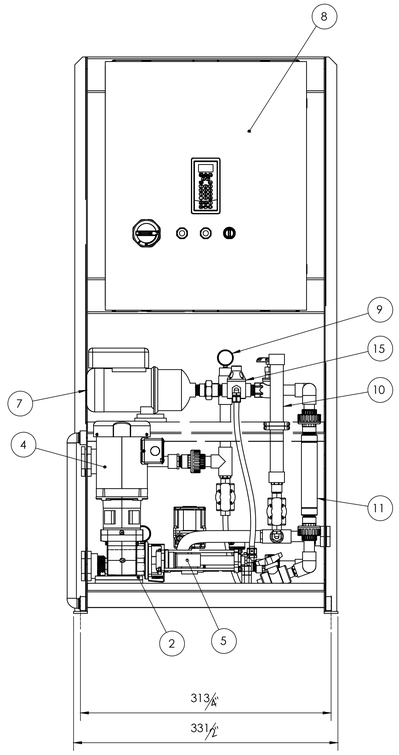
DATE: 2025/07/24

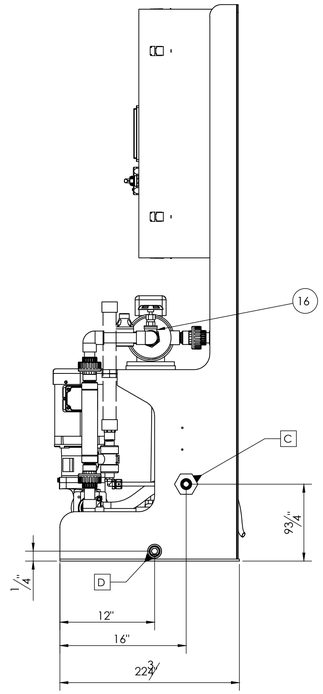
SCALE: AS SHOWN

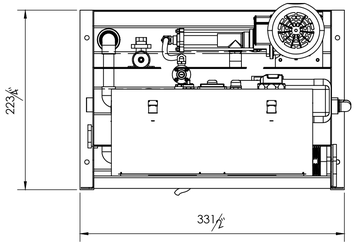
SHEET NO: C-417

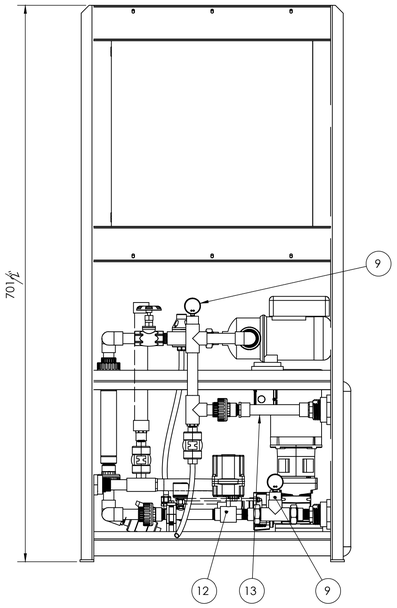
DRAWING TITLE: SLUDGE PRESS DETAILS





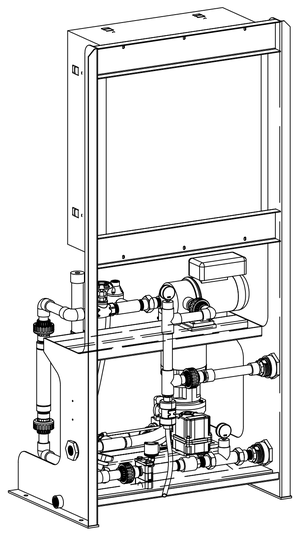


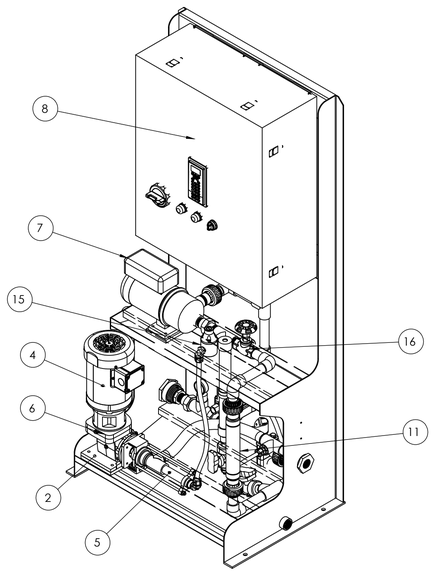




LOCATION	CONNECTION
A	1-1/2" FNPT POLYMER SOLUTION OUTLET
B	1-1/2" FNPT DILUTION WATER INLET
C	1" FNPT NEAT POLYMER INLET
D	1" FNPT PAN DRAIN

ITEM	DESCRIPTION
1	SYSTEM FRAME; 304SS
2	MOUNTING PAD, METERING PUMP
3	IFM SENSOR FLOW PIPE; 1"
4	NEAT PUMP MOTOR (0.5HP, 1800RPM)
5	NEAT PUMP (5GPH @ 100PSI)
6	NEAT PUMP GEARBOX
7	BOOST MIXING PUMP (0.75HP, TEFC)
8	CONTROL BOX
9	PRESSURE GAUGE, 0-100 PSI
10	CALIBRATION COLUMN
11	FLOWMETER
12	ELECTRIC BALL VALVE, 1"
13	STATIC MIXER, 1"
14	FLOW SENSOR
15	BACK PRESSURE VALVE
16	GLOBE VALVE, 1" SS





EQUIPMENT SPECIFICATION SECTION	
11300	SLUDGE DEWATERING SCREW PRESS

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 1922102456
DATE: 2025/07/24
SCALE: NOT TO SCALE

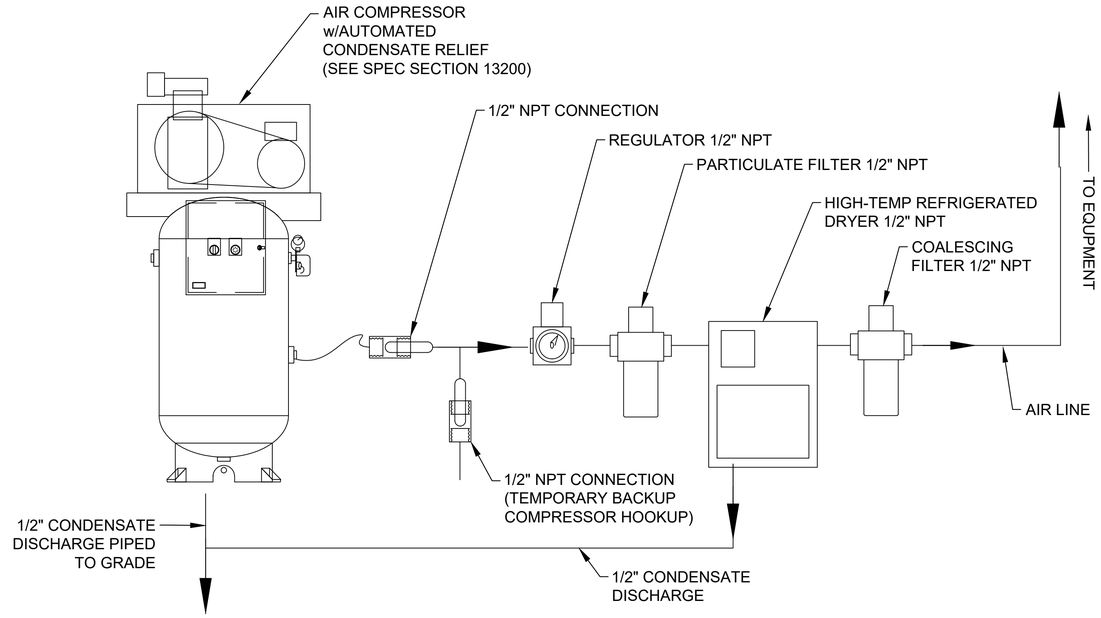
SHEET NO: C-418

DRAWING TITLE: POLYMER FEED DETAILS

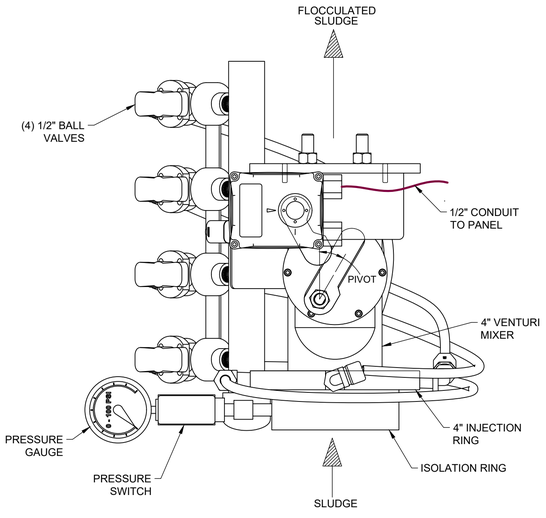
EQUIPMENT SPECIFICATION SECTION	
11300	SLUDGE DEWATERING SCREW PRESS
13200	TERTIARY CLOTH MEDIA FILTER EQUIPMENT

AIR COMPRESSOR GENERAL NOTES:

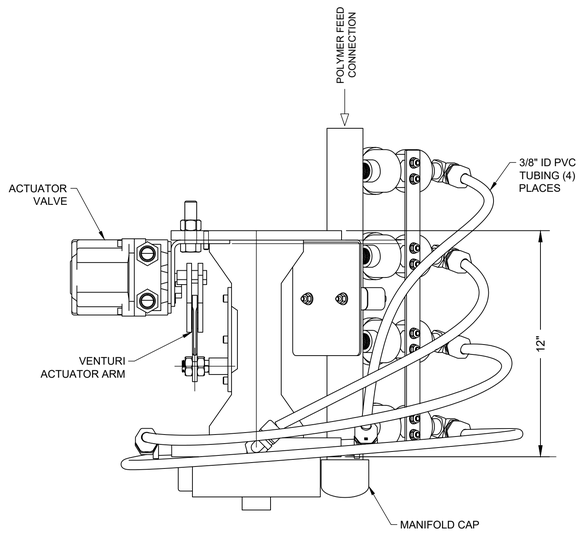
1. ALL FILTER TANK MATERIALS & FASTENERS TO BE TYPE 316 STAINLESS STEEL OR OTHER NON-CORROSIVE MATERIALS.
2. STRUCTURAL STIFFENERS AND SOME TANKAGE COMPONENTS NOT SHOWN FOR CLARITY.
3. TANK SHALL BE MOUNTED TO CONCRETE PAD AND ANCHORED WITH STAINLESS STEEL ANCHORAGE.



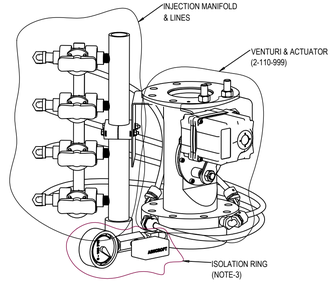
AIR COMPRESSOR AND PIPING DETAIL
NTS



PLAN VIEW 1

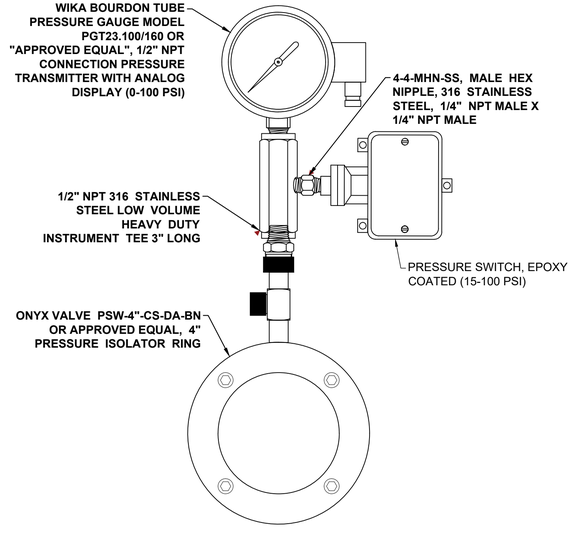


PLAN VIEW 2



ISOMETRIC VIEW

VENTURI MIXER DETAIL
NTS



PRESSURE ISOLATOR RING ASSEMBLY
NTS

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

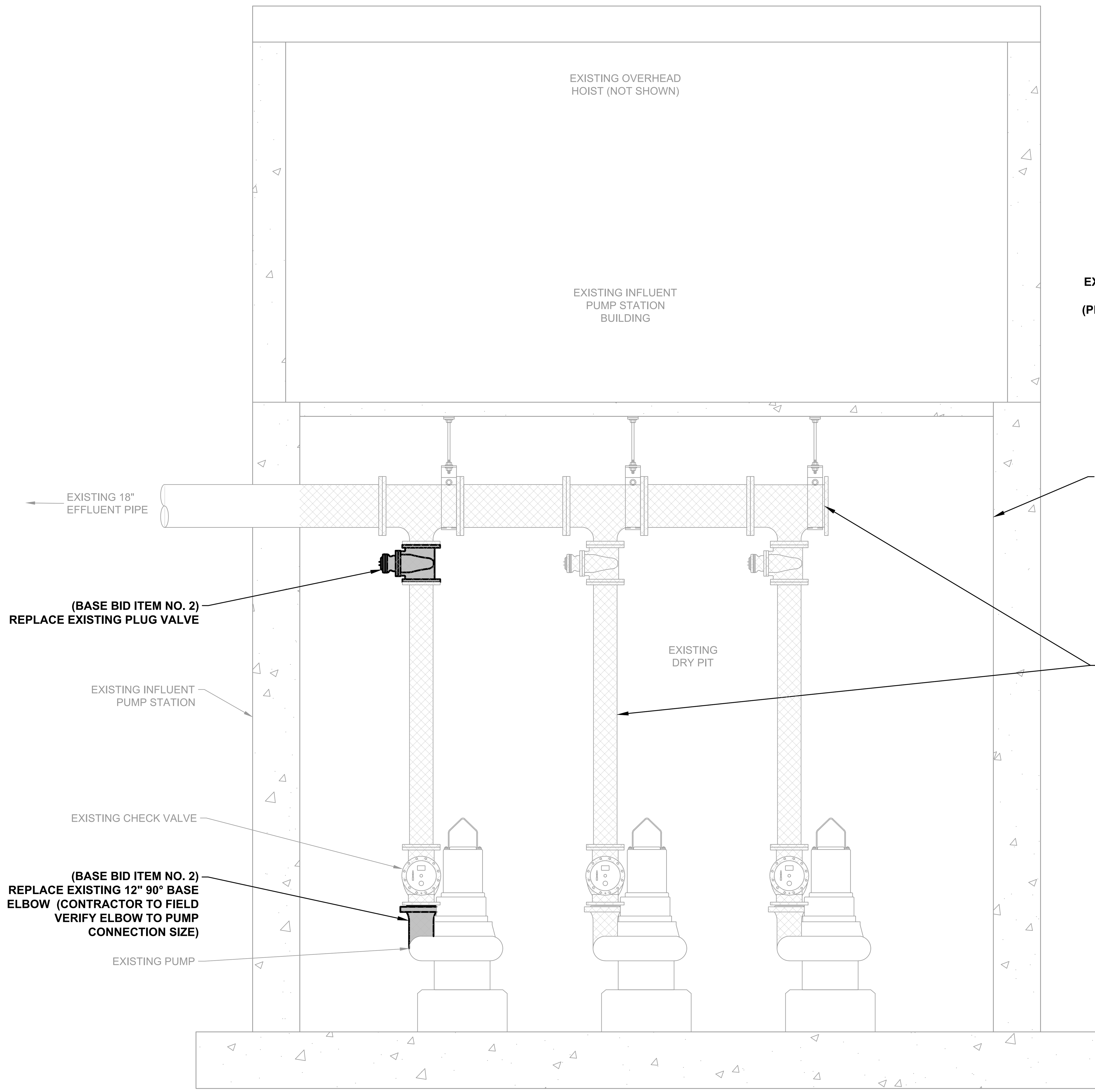
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0021022456
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-419

DRAWING TITLE: POLYMER FEED & AIR COMPRESSOR DETAILS



ELEVATION VIEW

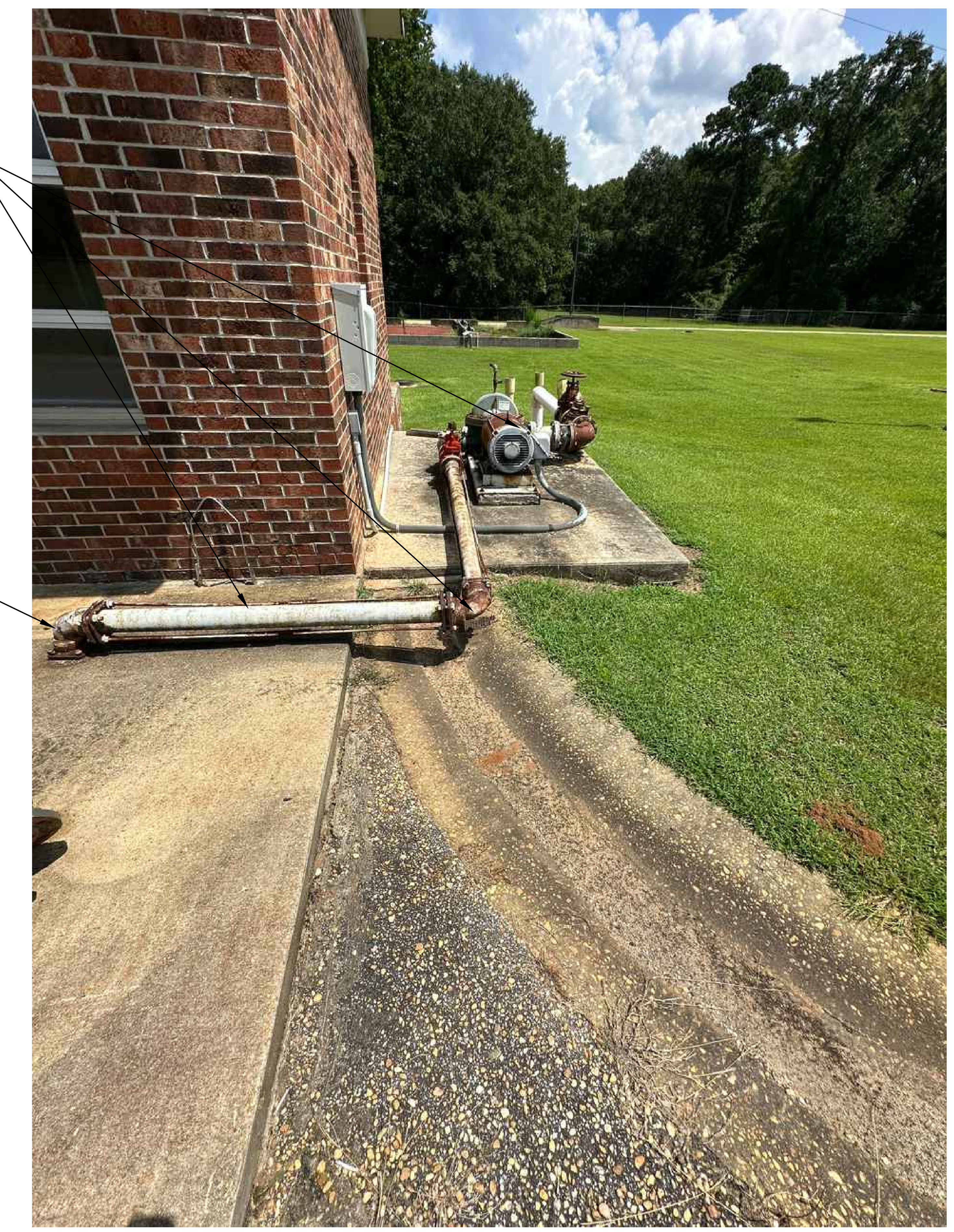


PHOTO VIEW
NTS

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

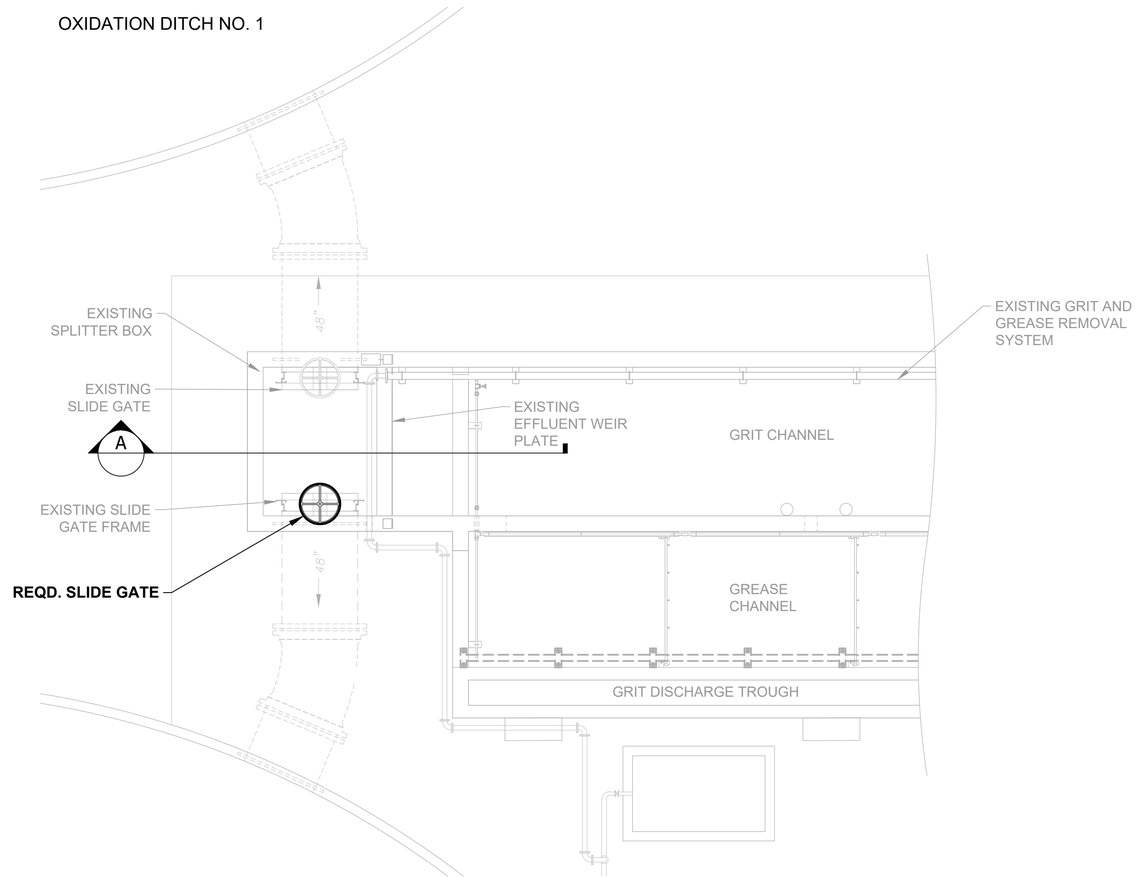
CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R0210025.66
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-420

DRAWING TITLE: INFLUENT LIFT STATION REHABILITATION

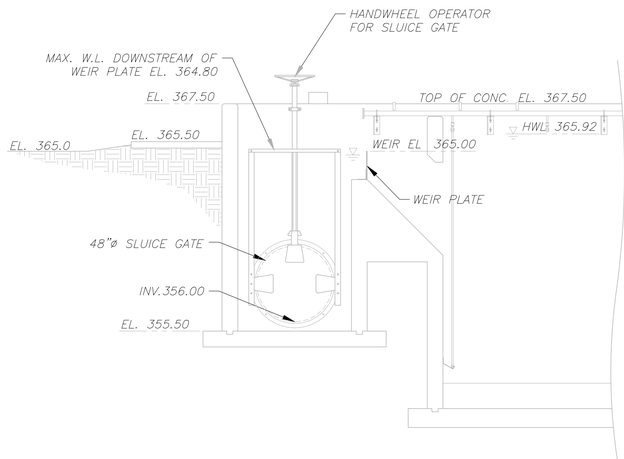
SLUICE GATE NOTES:

1. EXISTING ELEVATION & SLIDE GATE DETAIL ARE FROM ORIGINAL DESIGN PLANS AND MAY NOT REPRESENT EXISTING ELEVATION OR GATE TYPE INSTALLED.
2. CONTRACTOR SHALL VERIFY EXISTING SLIDE GATE INSTALLED FOR THE OXIDATION DITCH NO. 1 AND INSTALL SAME SLIDE GATE INTO THE EXISTING SLIDE GATE FRAME FOR OXIDATION DITCH NO. 2.
3. CONTRACTOR SHALL BYPASS PUMP THE SPLITTER BOX CHAMBER AND PRESSURE WASH AND INSPECT EXISTING GATE FRAME FOR ANY DEFECTS PRIOR TO INSTALLING NEW SLIDE GATE.



PLAN VIEW

SITE PICTURE



SECTION A-A

0' 1' 2' 4' 6'
SCALE: 1/4" = 1'-0"

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 36260
07/25/2025
CARMEN D. CHOSIE

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

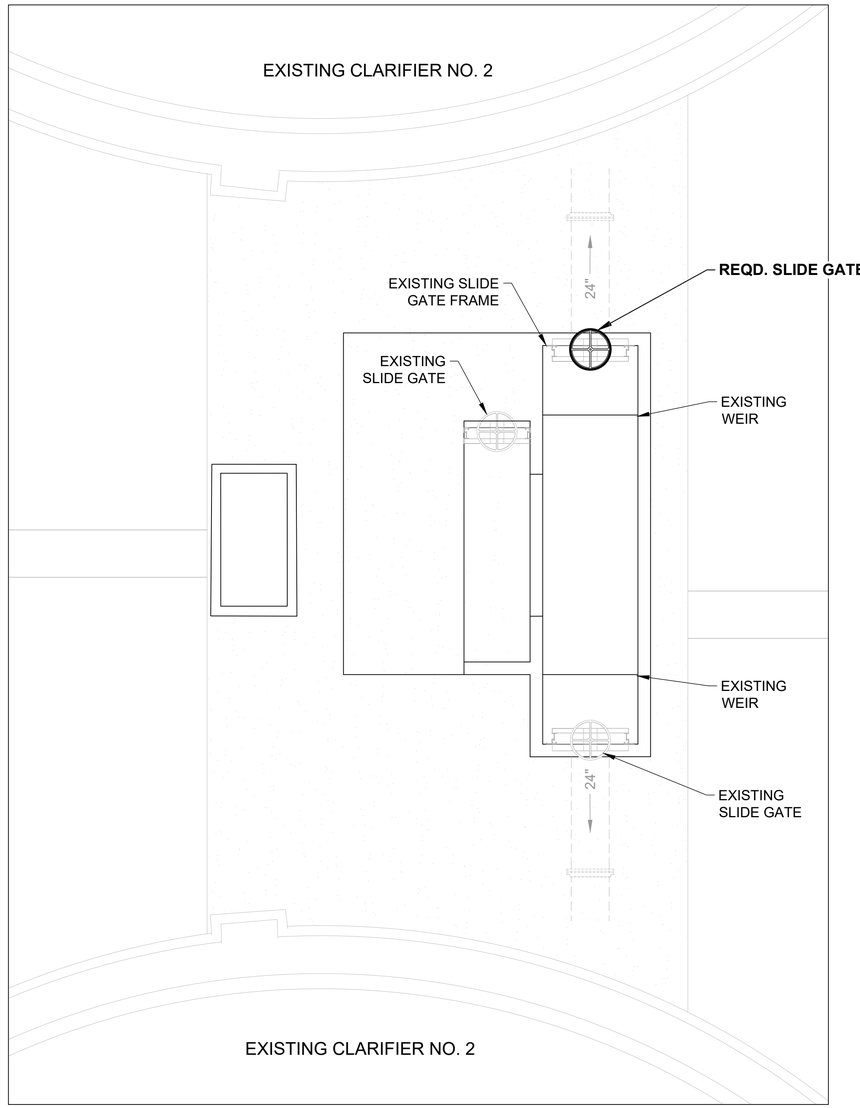
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0622102458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-421

DRAWING TITLE: OXIDATION DITCH SLIDE GATE REPLACEMENT



PLAN VIEW

SITE PICTURE

SLIDE GATE NOTES:

1. CONTRACTOR SHALL VERIFY EXISTING SLIDE GATE INSTALLED FOR THE CLARIFIER NO. 1 AND INSTALL SAME SLIDE GATE INTO THE EXISTING CLARIFIER NO. 2 SLIDE GATE FRAME.
2. CONTRACTOR SHALL BYPASS PUMP OR LIMIT FLOW TO CLARIFIER INFLUENT / EFFLUENT BOX AS NECESSARY TO INSPECT EXISTING GATE FRAME FOR ANY DEFECTS PRIOR TO INSTALLING NEW SLIDE GATE.

0' 1' 2' 4' 6'
SCALE: 1/4" = 1'-0"

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

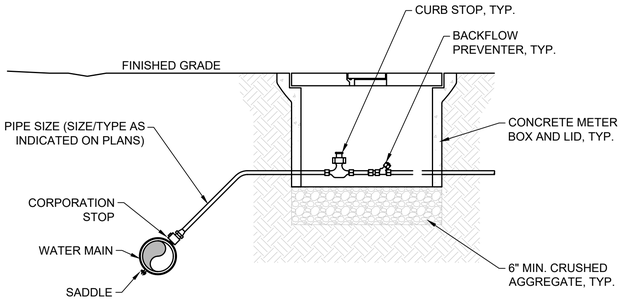
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

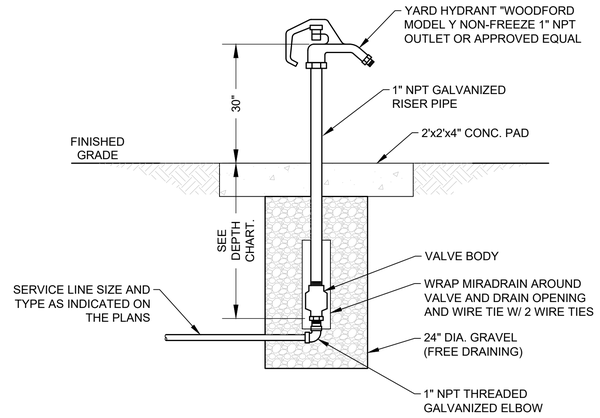
CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0622102458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-422

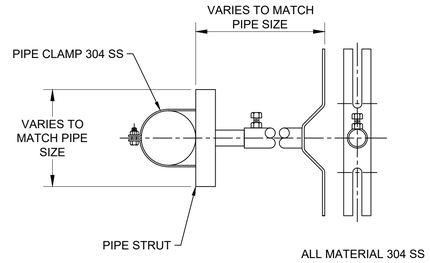
DRAWING TITLE:
CLARIFIER SPLITTER BOX SLIDE GATE REPLACEMENT



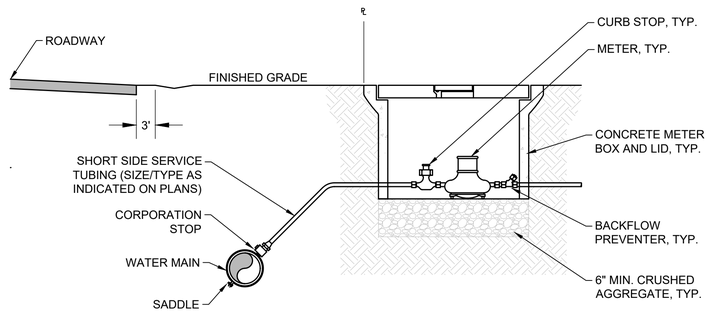
TYPICAL SERVICE CONNECTION ASSEMBLY
NOT TO SCALE



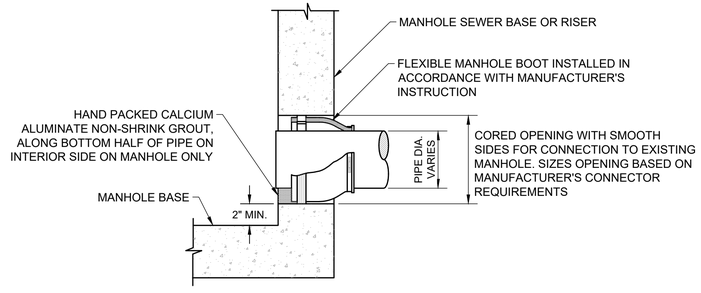
YARD HYDRANT (FROST PROOF)
NOT TO SCALE



TYPICAL WALL PIPE SUPPORT
NOT TO SCALE



TYPICAL SERVICE CONNECTION AND METER ASSEMBLY
NOT TO SCALE

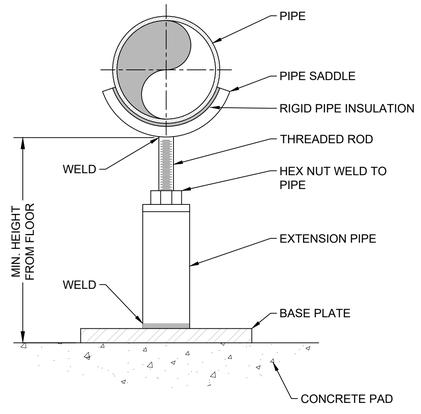


STANDARD PIPE TO MANHOLE CONNECTION BOOT CONNECTION
NOT TO SCALE

DIMENSION TABLE					
PIPE SIZE	SADDLE SIZE	THREADED ROD	BASE PLATE	EXTENSION PIPE SIZE	MIN. HEIGHT FROM FLOOR
4"	1-1/2" x 3/8"	1"-8 NC x 6"	1/4" x 8" x 8"	2" Sch 40	7"
6"	2" x 1/2"	1"-8 NC x 6"	1/4" x 8" x 8"	2" Sch 40	7"
8"	2" x 1/2"	1"-8 NC x 6"	1/4" x 8" x 8"	2" Sch 40	7"
10"	2" x 1/2"	1"-8 NC x 6"	1/4" x 8" x 8"	2" Sch 40	7"
12"	2" x 1/2"	1"-8 NC x 6"	1/4" x 8" x 8"	2" Sch 40	7"
14"	3" x 5/8"	1-1/2"-6 NC x 6"	1/2" x 8" x 8"	3" Sch 40	10"
16"	3" x 5/8"	1-1/2"-6 NC x 6"	1/2" x 8" x 8"	3" Sch 40	10"
18"	4" x 3/4"	2"-4 NC x 6"	1/2" x 8" x 8"	4" Sch 40	10"
20"	4" x 3/4"	2"-4 NC x 6"	1/2" x 8" x 8"	4" Sch 40	10"
24"	4" x 3/4"	2"-4 NC x 6"	1/2" x 8" x 8"	4" Sch 40	10"

NOTES:

1. MATERIAL
   - BASE PLATE: ASTM A36 SHEET STEEL
   - THREADED ROD: ASTM A307 ROLLED THREADS
   - SADDLE: ASTM A36
2. PROVIDE HALF ROUND RIGID INSULATION PROTECTION SHIELD.
3. PIPE SUPPORT SHALL BE PRIMED & PAINTED WITH APPROVED MATERIALS AS SPECIFIED IN SECTION 09900 STANDARD SPECS.



PIPE SUPPORT DETAIL
NOT TO SCALE

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 36280 PROFESSIONAL ENGINEER CARMEN D. CHOSIE 07/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R021022A58
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-801
DRAWING TITLE: STANDARD DETAILS

CONCRETE THRUST BLOCK SPECIFICATIONS AND DIMENSIONS																				
FITTINGS	TEES				90˚BENDS				45˚BENDS				22.5˚BENDS				11.25˚BENDS			
SIZES (IN)	W (FT)	H (FT)	Min. Area (SF)	Min. Vol (CY)	W (FT)	H (FT)	Min. Area (SF)	Min. Vol (CY)	W (FT)	H (FT)	Min. Area (SF)	Min. Vol (CY)	W (FT)	H (FT)	Min. Area (SF)	Min. Vol (CY)	W (FT)	H (FT)	Min. Area (SF)	Min. Vol (CY)
2-4	2.2	0.8	1.8	0.05	3.1	0.8	2.5	0.07	1.7	0.8	1.3	0.04	0.9	0.8	0.7	0.02	0.4	0.8	0.3	0.01
6	2.2	1.8	4.0	0.27	3.1	1.8	5.6	0.38	1.7	1.8	3.0	0.21	0.9	1.8	1.5	0.10	0.4	1.8	0.8	0.05
8	3.5	2.0	7.0	0.52	5.0	2.0	10.0	0.74	2.7	2.0	5.4	0.40	1.4	2.0	2.7	0.20	0.7	2.0	1.4	0.10
10	5.1	2.2	11.0	0.88	7.2	2.2	15.6	1.25	3.9	2.2	8.4	0.68	2.0	2.2	4.3	0.34	1.0	2.2	2.2	0.17
12	6.8	2.3	15.8	1.37	9.6	2.3	22.4	1.94	5.2	2.3	12.1	1.05	2.6	2.3	6.2	0.53	1.3	2.3	3.1	0.27
14	8.6	2.5	21.6	2.00	12.2	2.5	30.5	2.82	6.6	2.5	16.5	1.53	3.4	2.5	8.4	0.78	1.7	2.5	4.2	0.39
16	10.6	2.7	28.1	2.78	14.9	2.7	39.8	3.93	8.1	2.7	21.5	2.13	4.1	2.7	11.0	1.08	2.1	2.7	5.5	0.54
18	12.6	2.8	35.6	3.74	17.8	2.8	50.4	5.29	9.6	2.8	27.3	2.86	4.9	2.8	13.9	1.46	2.5	2.8	7.0	0.73
20	14.7	3.0	44.0	4.89	20.7	3.0	62.2	6.91	11.2	3.0	33.7	3.74	5.7	3.0	17.2	1.91	2.9	3.0	8.6	0.96
24	19.0	3.3	63.3	7.82	26.9	3.3	89.6	11.06	14.5	3.3	48.5	5.98	7.4	3.3	24.7	3.05	3.7	3.3	12.4	1.53

NOTES:

1. BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE ASSUMING 1,500 PSF BEARING CAPACITY OF SOIL COORDINATE ACTUAL DIMENSIONS WITH ENGINEER PRIOR TO INSTALLATION.
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
3. THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE.
4. THESE DETAILS IN NO WAY LIMIT THE SIZE OR LOCATION OF ADDITIONAL BLOCKING WHEN REQUESTED BY THE ENGINEER, OR IF DEEMED NECESSARY BY CONTRACTOR.
5. DEPTH FROM GROUND SURFACE TO TOP OF BLOCKING SHALL BE GREATER THAN HEIGHT OF BLOCKING.
6. ALL FITTINGS SHALL BE WRAPPED WITH VISQUEEN OR POLYWRAP BEFORE CONCRETE IS PLACED, TO PREVENT CORROSION OR BONDING OF THE CONCRETE TO THE BOLTS, FITTING, OR PIPE.
7. CONTRACTOR MAY BE ALLOWED TO INSTALL MECHANICAL JOINT RESTRAINTS INSTEAD OF THRUST BLOCKS WITH APPROVAL BY THE ENGINEER.

CONCRETE THRUST BLOCKING TABLE FOR PIPE

NO SCALE

NO. OF STANDARD (18") UN-CUT PIPE SECTIONS REQUIRED TO BE RESTRAINED IN STRUCTURAL AREAS ASSOCIATED WITH SPECIFIED FITTING							
NOMINAL PIPE SIZE	BENDS				STRAIGHT TEE	DEAD END	VALVE
	11.25°	22.5°	45°	90°			
16"	1	1	2	5	5	8	8
18"	1	1	2	5	5	9	9
20"	1	2	3	6	6	10	10
24"	1	2	3	6	8	12	12
30"	1	2	3	8	10	14	14
36"	1	2	4	9	12	16	16

NO. OF STANDARD (18') UN-CUT PIPE SECTIONS REQUIRED TO BE RESTRAINED IN NON-STRUCTURED AREAS ASSOCIATED WITH SPECIFIED FITTING							
NOMINAL PIPE SIZE	BENDS				STRAIGHT TEE	DEAD END	VALVE
	11.25°	22.5°	45°	90°			
16"	1	2	3	6	9	9	9
18"	1	2	3	7	10	10	10
20"	1	2	3	7	11	11	11
24"	1	2	4	8	12	13	13
30"	1	2	4	10	15	16	16
36"	2	3	5	11	17	17	17

NOTES:

1. TABLE BASED ON DUCTILE IRON PIPE TESTED AT 200 PSI.
2. LENGTHS SHOWN SHALL APPLY TO BOTH SIDES OF THE FITTING.
3. FOR TEES, RESTRAINT ONLY APPLIES TO THE BRANCH LEG.
4. REQUIRED RESTRAINT FOR REDUCERS IS REFLECTED ON THE PLANS.
5. INSTALLATION OF PIPE BY TYPICAL TRENCH DETAIL SPECIFIED.
6. RESTRAINED JOINTS SHALL BE PROVIDED AT ALL HORIZONTAL BENDS, TEES, VALVES, PLUGS OR CAPS AS SHOWN ON THIS TABLE UNLESS SPECIFIED DIFFERENTLY IN THE PLANS.
7. ALL FITTINGS (LESS THAN OR EQUAL TO) 14" DIAMETER SHALL USE THRUST BLOCKS AND RETAINER GLANDS IN LIEU OF RESTRAINED JOINT FITTINGS UNLESS OTHERWISE SHOWN ON THE PLANS.

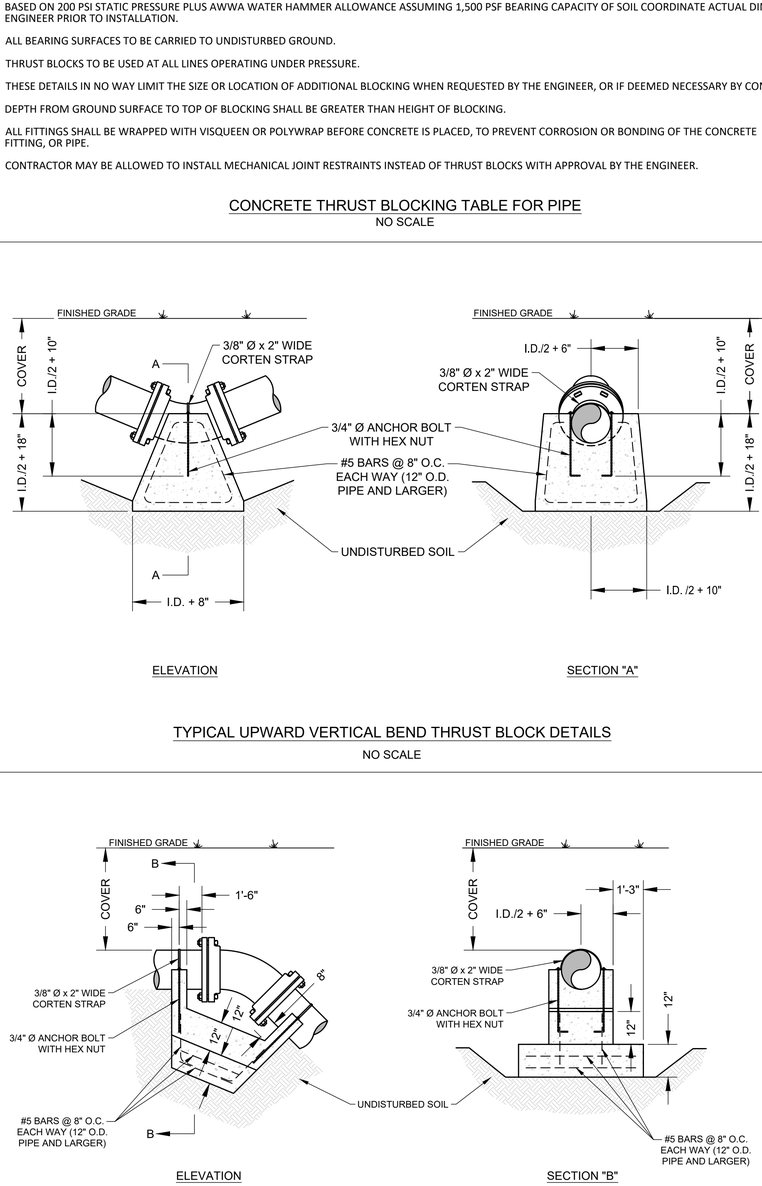
RESTRAINED JOINT LENGTHS TABLES FOR D.I. PIPE IN NON-STRUCTURAL AND STRUCTURAL AREAS

NO SCALE

ELEVATION SECTION "A"

TYPICAL UPWARD VERTICAL BEND THRUST BLOCK DETAILS

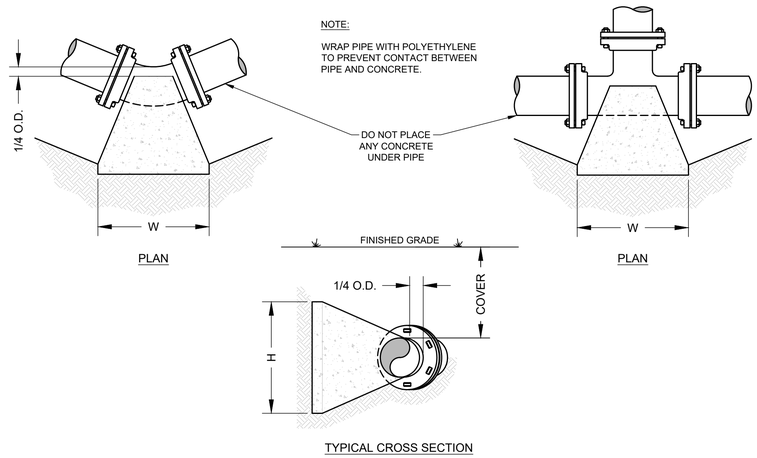
NO SCALE



ELEVATION SECTION "B"

TYPICAL DOWNWARD VERTICAL BEND THRUST BLOCK DETAILS

NO SCALE

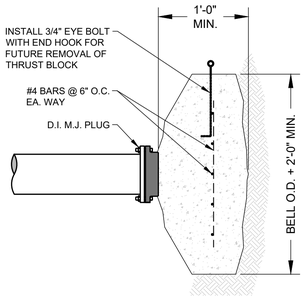


PLAN PLAN

TYPICAL CROSS SECTION

TYPICAL HORIZONTAL THRUST BLOCK DETAILS

NO SCALE



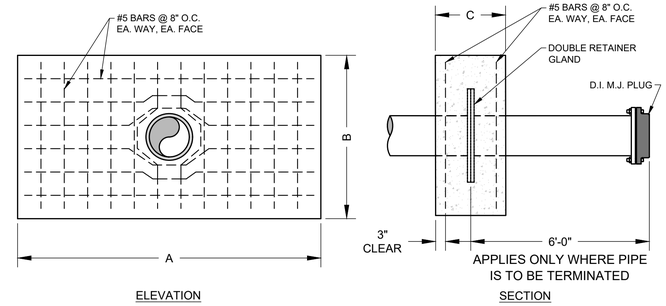
SIDE VIEW

PIPE TERMINATION THRUST BLOCK DETAIL

NO SCALE

NOTE:
CONCRETE TO BE POURED AGAINST UNDISTURBED SOIL.

PIPE DIA.	A	B	C
4" - 8"	6'-0" MIN.	3'-0" MIN.	1'-6"
10" & 12"	8'-0" MIN.	4'-0" MIN.	1'-8"
16" - 24"	10'-0" MIN.	5'-0" MIN.	2'-0"
30" - 36"	12'-0" MIN.	7-0" MIN.	2'-6"



ELEVATION SECTION

TYPICAL LONGITUDINAL ANCHOR DETAIL

NO SCALE

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL 07/25/2025 ENGINEER CARMEN D. CHOSIE

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

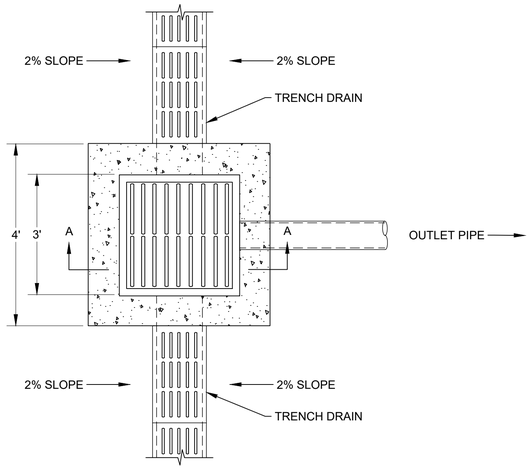
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 8021022A58
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-802

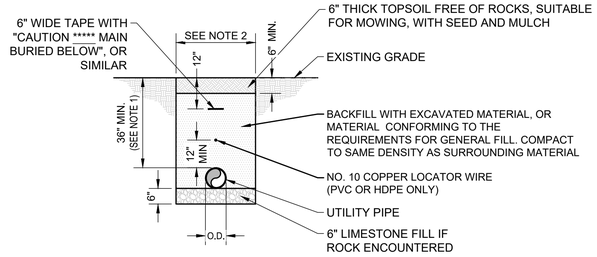
DRAWING TITLE: STANDARD DETAILS



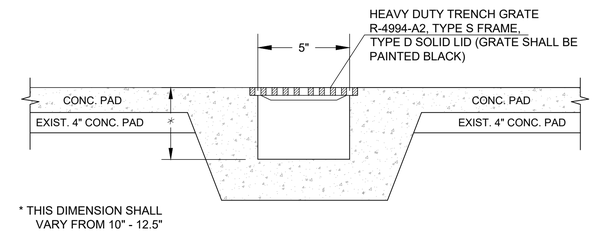
TOP VIEW

NOTES:

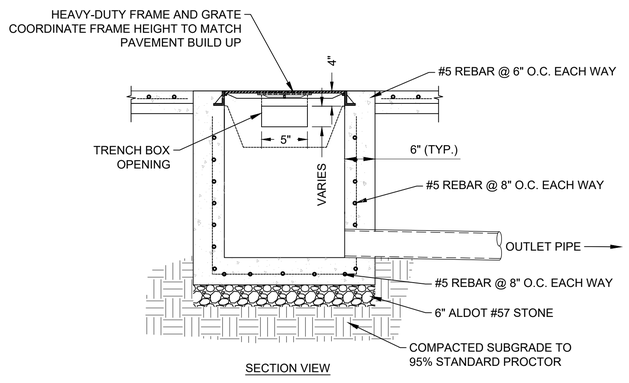
1. MAXIMUM COVER IS 60" UNLESS NOTED IN PLANS OR APPROVED BY THE ENGINEER.
2. MAXIMUM TRENCH WIDTH SHALL NOT EXCEED THE PIPE O.D. PLUS 12" MAXIMUM WIDTH ON BOTH SIDES OF UTILITY PIPE UNLESS NOTED OTHERWISE IN THE PLANS.
3. PAYMENT FOR REQUIRED OFF-SITE FILL SHALL BE LIMITED TO THE MAXIMUM TRENCH WIDTH AS DEFINED IN NOTE #2 ABOVE .
4. FOR ASPHALT DRIVEWAYS, A BINDER LAYER WILL NOT BE USED. WIDTH SHALL BE LIMITED TO THE UTILITY MAIN, PLUS 12" ON EACH SIDE.
5. FOR GRAVEL DRIVEWAYS, A 6" CRUSHED AGGREGATE BASE COURSE SHALL BE PLACED TO MATCH THE ADJACENT SURFACE AND LIMITED TO THE WIDTH OF THE TRENCH.
6. FOR CONCRETE PAVING REPLACEMENT, SUBSTITUTE ASPHALT WITH MIN. 6" OF 3,000 P.S.I. CONCRETE WITH FIBER-MESH. MATCH THICKNESS OF SURROUNDING CONCRETE.
7. THE CONTRACTOR SHALL REPAIR ALL EXCAVATED AREAS, BACKFILLS, EMBANKMENTS, TRENCHES, AND DITCHES WHICH MAY HAVE SETTLED, AT NO ADDITIONAL COST TO THE OWNER UNTIL FINAL ACCEPTANCE OF THE PROJECT AND THROUGHOUT THE WARRANTY PERIOD. ALL SUCH AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONTOURS.



TYPICAL TRENCH DETAIL NON-STRUCTURAL AREAS
NOT TO SCALE

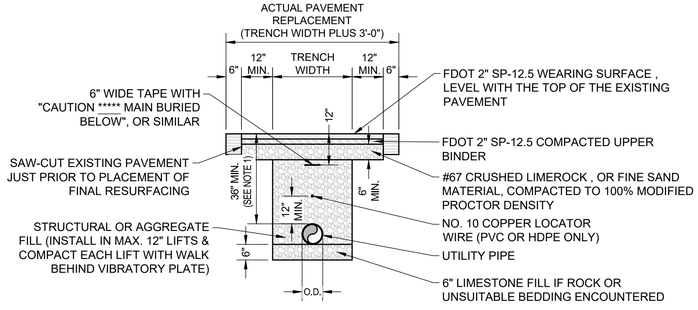


SLUDGE DRYING BED TRENCH DRAIN
NOT TO SCALE



SECTION VIEW

CONCRETE JUNCTION BOX WITH GRATE INLET
NOT TO SCALE



TYPICAL TRENCH DETAIL STRUCTURAL AREAS
NOT TO SCALE

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL 07/25/2025 ENGINEER CARMEN D. CHOSIE

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

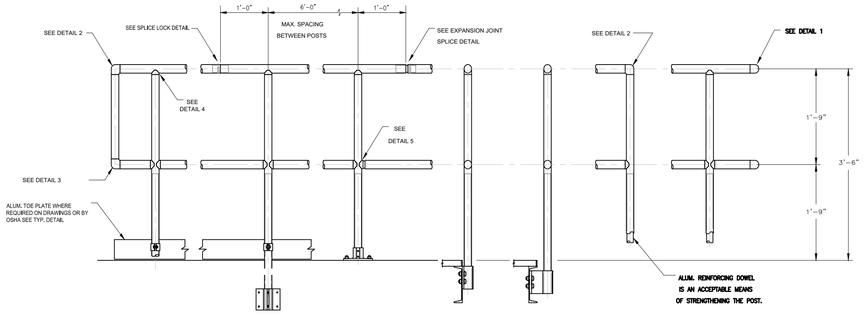
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

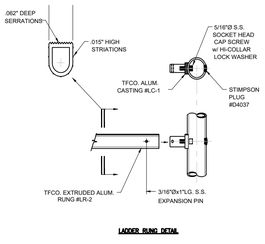
PROJECT NO: 0021022456
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-803

DRAWING TITLE: STANDARD DETAILS

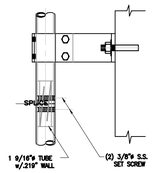


TYPICAL ALUMINUM HANDRAIL

NOTE
FOR EMBEDMENT IN CONCRETE USE CHEMICAL ANCHORS PER SPECIFICATIONS.



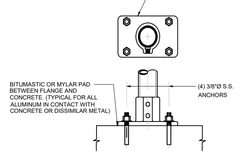
LADDER RUNG DETAIL



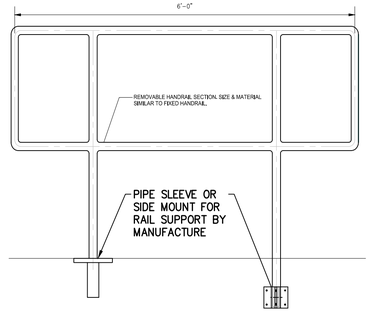
SPLICE DETAIL

SPLICE TO BE USED WHEN PIPE LENGTH EXCEEDS 24 FT. FOR ANODIZED PIPE, 30 FT. FOR MILL FINISH.

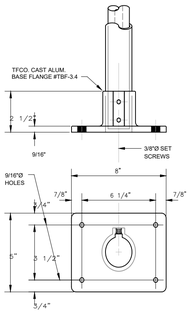
LOCATE SPLICE BELOW SECOND SET OF BRKTS. FROM TOP RUNG.



LADDER BASE FLANGE DETAIL



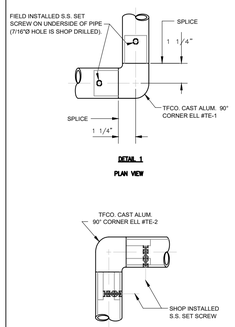
TYPICAL REMOVABLE HANDRAIL



TYPE B MOUNT (4-HOLE)

(COMPLIES WITH SBC & UBC)

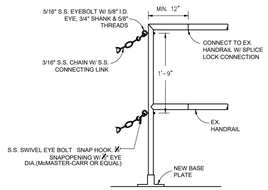
LOCATE SET SCREWS IN BASE FLANGE AT 90° FROM CENTERLINE OF H.R. RUN AND ON SIDE AWAY FROM WALKING SURFACE.



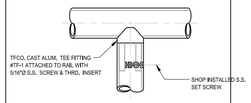
DETAIL 1

PLAN VIEW

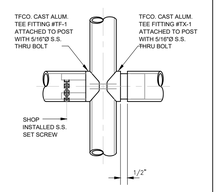
DETAIL 2



DETAIL AT CHAIN GATES
N.T.S.

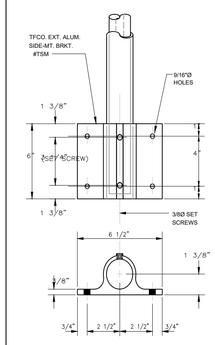


DETAIL 4

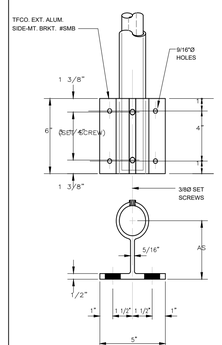


DETAIL 5

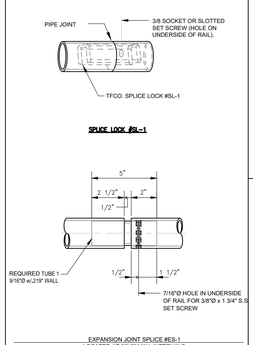
MIDRAIL EXPANSION SPLICE LOCATED AT 60'-0" MAX. INTERVALS



TYPE C MOUNT

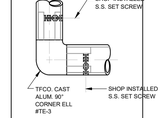


TYPE D MOUNT

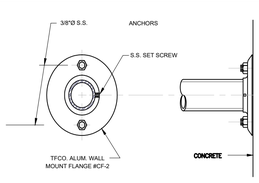


SPLICE LOCK #SL-1

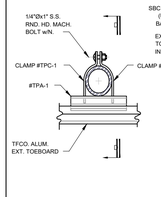
EXPANSION JOINT SPLICE #ES-1
LOCATED AT 60'-0" MAX. INTERVALS

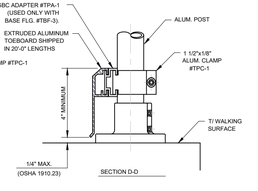


DETAIL 3

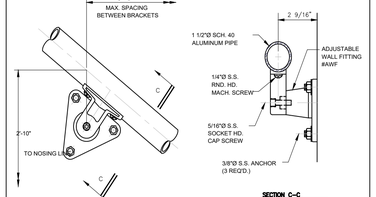


WALL FLANGE DETAIL



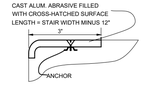


TYPICAL TOEBOARD DETAILS

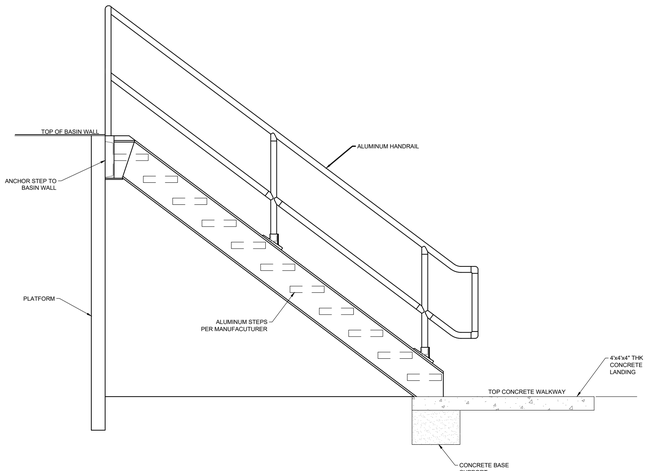


WALL RAIL ELEVATION

SECTION C–C



TYPICAL STEP SAFETY TREAD DETAIL



STAIR DETAIL
N.T.S.

GENERAL NOTES

1. SEE PLAN SHEETS FOR ALL STAIR, WALKWAY AND LANDING LAYOUT CONFIGURATIONS AND ELEVATIONS.

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 36280 PROFESSIONAL 07/25/2025 ENGINEER CARMEN D. CHOSIE

COA: ECA105

ADDRESS:

1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2021022458
DATE: 2025/07/24
SCALE: AS SHOWN
SHEET NO: C-804

DRAWING TITLE: STAIR & RAILING DETAILS

GENERAL ELECTRICAL LEGEND

FIXTURE OUTLET – FLOODLIGHT.

FIXTURE OUTLET – POLE LIGHT FIXTURE – QUANTITY AND ORIENTATION(S) OF LUMINAIRES AS INDICATED ON PLANS.

$ SWITCH OUTLET – S.P.S.T. – 20A – 120–277VAC.

$a SWITCH OUTLET – CONTROLS OUTLET "a", ETC.

$W SWITCH OUTLET – WEATHERPROOF WITH PILOT LIGHT (CLEAR LIGHT ON WITH LOAD ON) – S.P.S.T. – 20A – 120–277VAC – HUBBELL #HBL1221PLC TOGGLE SWITCH WITH #HBL1795 CLEAR BUBBLE WEATHERPROOF PLATE – LABEL FUNCTION WITH ENGRAVED NAMEPLATE.

$X SWITCH OUTLET – MANUAL MOTOR STARTER – TOGGLE TYPE – 2 POLE – SQUARE "D" TYPE K01 WITH ENCLOSURE AS REQUIRED BY APPLICATION – PROVIDE LOCK–OFF HARDWARE.

$3X SWITCH OUTLET – MANUAL MOTOR STARTER – TOGGLE TYPE – 3 POLE – SQUARE "D" TYPE K02 WITH ENCLOSURE AS REQUIRED BY APPLICATION – PROVIDE LOCK–OFF HARDWARE.

PC PHOTOELECTRIC CONTROL – S.P.S.T. – UTILITY GRADE TURN–LOCK TYPE WITH ASSOCIATED TURN–LOCK RECEPTACLE & MOUNTING BRACKET – 120VAC OR 277VAC – 1800VA – TORK 5001M FOR 120V CIRCUIT – MOUNT AT TOP OF EQUIPMENT STAND FACING NORTH AWAY FROM POTENTIAL TRAFFIC/HEADLIGHTS/LUMINAIRES FOR PROPER OPERATION.

DUPLEX / DOUBLE DUPLEX

WALL OUTLET – RECEPTACLE – 20A – 125V – 2P – 3W – GROUNDING – NEMA 5–20R – SINGLE PLATE.

WALL OUTLET – RECEPTACLE – 20A – 125V – 2P – 3W – GROUNDING – "GFI" TYPE – WEATHER RESISTANT – NEMA 5–20R – SINGLE PLATE.

OUTLET INSTALLATION DESIGNATIONS (APPLY TO ALL OUTLETS, DEVICES & EQUIPMENT):

- CM OUTLET MOUNTED TO 5" STAINLESS STEEL CHANNEL BOLTED TO STEEL OR CONCRETE BASE.
- ES EQUIPMENT MOUNTED TO ALUMINUM SUPPORT FRAME – SEE DETAIL "E–ES".
- HR DEVICE SHALL BE HANDRAIL MOUNTED – SEE DETAIL "E–HR".
- SRS PROVIDE SUN/RAIN SHIELD FOR DEVICE/EQUIPMENT – SEE DETAIL "E–SRS".
- VL VERIFY EXACT OUTLET LOCATION WITH OWNER PRIOR TO ROUGH–IN.
- W WEATHER PROOF – OUTLET SHALL BE INSTALLED WITH WEATHERPROOF, IN–USE, CAST COVER.

BRANCH/FEEDER CIRCUIT – CONCEALED IN WALLS OR CEILING.

BRANCH/FEEDER CIRCUIT – EXPOSED ON WALLS OR CEILING.

BRANCH/FEEDER CIRCUIT – CONCEALED IN FLOOR SLAB OR DIRT FILL.

BRANCH/FEEDER CIRCUIT – HOMERUN – CAN BE USED WITH OTHER BRANCH/FEEDER TYPES.

BRANCH/FEEDER CIRCUIT MODIFIERS:

- ——— : 2#12 & 1#12G UNLESS NOTED OTHERWISE.
- ———// : 3#12 & 1#12G, ETC. UNLESS NOTED OTHERWISE (TICK MARKS INDICATE CONDUCTOR QUANTITY NOT INCLUDING GROUND WIRE).
- ——10—— : 2#10 & 1#10G UNLESS NOTED OTHERWISE (NUMBER INDICATES WIRE AWG).
- ——CDS—— : CABLING AS DIRECTED BY SUPPLIER IN CONDUIT(S) SIZED AT 150% OF N.E.C. MINIMUM SIZE.

SIZE CONDUIT PER N.E.C. UNLESS INDICATED OTHERWISE.

- RP–A — CONNECTED PANEL.
- (1) NSV **** 20/2 BKR(S)
  - **** — INDICATED BREAKER AMPACITY AND NUMBER OF POLES – BREAKER SHALL BE 20/1 IF THIS INFORMATION IS OMITTED OR NOTED OTHERWISE IN HOMERUN MARK.
  - BKR(S) — BREAKER TYPE – BREAKER SHALL BE OF STANDARD TYPE IF THIS INFORMATION IS OMITTED OR NOTED WITH ONE OF THE FOLLOWING DESCRIPTIONS BELOW:
    - GFI GFI–TYPE (5mA TRIP).
    - GFIE GFI–EPD TYPE (30mA TRIP).
    - LOFF WITH LOCK–OFF HARDWARE.
    - LON WITH LOCK–ON HARDWARE.
  - NSV — INDICATES THAT A CIRCUIT SHALL BE CONNECTED TO A "NEW, SPARE OR VACATED" BREAKER OF RATED TYPE AND AMPACITY IN EXISTING PANEL AS SHOWN ABOVE.
  - 1 — TOTAL QUANTITY OF BREAKERS.

J FLOOR OR SURFACE–MOUNTED OUTLET – JUNCTION BOX.

P PAD–MOUNTED POWER PULL BOX – SEE DETAIL "E–PB1".

I PAD–MOUNTED INSTRUMENTATION PULL BOX – SEE DETAIL "E–PB1".

CONCRETE–ENCASED DUCTBANK – SEE DETAIL "E–DR".

FLEXIBLE CONNECTION TO EQUIPMENT.

BRANCH CIRCUIT – RISER DOWN OR GENERAL CONDUIT STUB–OUT.

POWER DISTRIBUTION EQUIPMENT.

LIGHTING PANEL – SURFACE MOUNTED.

T1 TRANSFORMER – POWER.

DISCONNECT SWITCH – NONFUSED.

DISCONNECT SWITCH – FUSED.

MOTOR STARTER.

DISCONNECT SWITCH – INTEGRAL TO EQUIPMENT.

DISCONNECT SWITCH – NONFUSED – WITH AUXILIARY CONTACTS (OPENS WHEN SWITCH IS OPENED).

M MOTOR OUTLET – SIZE AS SHOWN.

MOTORIZED VALVE/GATE ACTUATOR.

EQUIPMENT STAND – WITH CONCRETE PAD – SEE DETAIL "E–ES" – MOUNT ANY UTILIZATION EQUIPMENT (PANELBOARDS, CONTROL STATION, RECEPTACLES, SWITCHES, ETC.) PER DETAIL "E–ES".

FE FLOW ELEMENT.

FS x4 FLOAT SWITCH(ES) – "x4" INDICATES QUANTITY OF FLOAT SWITCHES – SEE DETAIL "E–SUBC".

LS LEVEL SWITCH OR LIMIT SWITCH.

PT SUBMERSIBLE PRESSURE TRANSDUCER.

TT TEMPERATURE TRANSDUCER.

SV SOLENOID VALVE.

TQ TORQUE SWITCH.

ZS PROXIMITY/POSITION SWITCH.

FIT FLOW INDICATING TRANSMITTER.

LIT LEVEL TRANSMITTER.

PIT PRESSURE TRANSMITTER.

WWJB WETWELL JUNCTION BOX(ES) – SEE DETAIL "E–WWJB".

CONTROL STATION – SEE DETAIL "E–CS".

HT HEAT TRACE – 120V–1ø – PROVIDE CIRCUIT(S) AS INDICATED – PROVIDE HEAT TRACE & INSULATION FOR ALL EXPOSED PIPING AS DIRECTED BY CIVIL ENGINEER – LOCATE ASSOCIATED THERMOSTAT IN EXTERIOR, EASILY ACCESSIBLE LOCATION – WHERE MULTIPLE CIRCUITS ARE INSTALLED IN AN AREA, PROVIDE CONTACTOR (TO BE CONTROLLED BY SINGLE THERMOSTAT) FOR AUTOMATIC ON/OFF CONTROL – FIELD–COORDINATE ALL LOCATIONS – SEE SPECIFICATION SECTION 16850.

--G-- BARE SUPPLEMENTAL GROUND WIRE – #4/0G IF NOT INDICATED OTHERWISE – INSTALLED A MINIMUM OF 24" BELOW GRADE AND 24" MINIMUM FROM STRUCTURES WHERE POSSIBLE.

SUPPLEMENTAL GROUNDING SYSTEM – GROUND ROD – 3/4" x10'–0" COPPER–CLAD – TOP DRIVEN A MINIMUM OF 24" BELOW GRADE.

SUPPLEMENTAL GROUNDING SYSTEM – GROUND CONNECTION – CADWELD WHERE BELOW GRADE OR CONCEALED.

SUPPLEMENTAL GROUNDING SYSTEM – CAST GROUND PLATE ASSEMBLY (ERICO OR EQUAL) – CAST FLUSH WITHIN CONCRETE WITH FLEXIBLE BARE COPPER GROUND WIRE CONNECTIONS VIA COMPRESSION LUGS TO EQUIPMENT.

SUPPLEMENTAL GROUNDING SYSTEM – GROUND CONNECTION – TO EQUIPMENT OR STRUCTURE AS FOLLOWS (UNLESS NOTED OTHERWISE):

- GEQ #4/0 BARE COPPER GROUND WIRE – BOND TO EQUIPMENT/MOTOR/PANEL/TRANSFORMER, ETC.
- GES #2 BARE COPPER GROUND WIRE – BOND TO EQUIPMENT STAND.
- GHR #2/0G BARE COPPER GROUND WIRE – BOND TO HANDRAIL & WALKWAY STRUCTURE USING CAST GROUND PLATE & FLEXIBLE JUMPER – SEE DETAIL "E–MMG"..
- GS #4/0 BARE COPPER GROUND WIRE – BOND TO STRUCTURE/REBAR/WIRE MESH REINFORCEMENT.
- GP #2 BARE COPPER GROUND WIRE – BOND PIPE FLANGE.

A / E–1 DETAIL DESIGNATOR – WHERE "A" INDICATES UNIQUE DETAIL MARK AND "E–1" INDICATES SHEET NUMBER WHERE DETAIL IS LOCATED (TYPICAL).

E–**** DETAIL DESIGNATOR – REFERENCE MARK (WHERE "****" REPRESENTS A UNIQUE IDENTIFIER CONSISTING OF LETTERS & NUMBERS) – SEE DETAIL SHEETS CONTAINED WITHIN THIS SET OF ELECTRICAL DRAWINGS FOR THE CORRESPONDING DETAIL.

DETAIL DESIGNATOR NOTES:

1. DETAIL DESIGNATORS FOUND WITHIN THIS SET OF DRAWINGS ARE TYPICAL (ARE FOR GENERAL REFERENCE ONLY) AND ARE NOT INTENDED TO MARK EVERY INSTANCE WHERE DETAILS ARE APPLICABLE.
2. DESIGN DETAILS REPRESENT THE CHARACTER AND NATURE OF WORK REQUIRED THROUGHOUT THE PROJECT. ALL ASSOCIATED WORK SHALL BE IN ACCORDANCE WITH THE DESIGN DETAILS WHETHER THE DETAILS ARE SPECIFICALLY REFERENCED OR NOT.

GENERAL ABBREVIATIONS:

- (EX) EXISTING TO REMAIN.
- (EX–R) EXISTING TO BE REMOVED – REMOVE ALL ASSOCIATED ELECTRICAL EQUIPMENT, DEVICES, CONDUIT AND WIRING CONNECTIONS TO OTHER ELECTRICAL ITEMS UNLESS SHOWN OTHERWISE.
- (EX–RL) EXISTING TO BE RELOCATED – REMOVE ALL ASSOCIATED ELECTRICAL EQUIPMENT, DEVICES, CONDUIT AND WIRING AT EXISTING LOCATION. RELOCATE ITEM TO NEW LOCATION SHOWN ON ELECTRICAL PLANS. EXTEND AND RECONNECT EXISTING CONDUIT, WIRING, ETC. TO NEW LOCATION AS REQUIRED UNLESS SHOWN OTHERWISE.
- (EX–RP) EXISTING TO BE REPLACED – EXTEND AND RECONNECT EXISTING CONDUIT AND WIRING TO REPLACED ITEM.

ELECTRICAL ABBREVIATIONS:

A	AMPERES.	NSV	NEW, SPARE OR VACATED.
AIC	AMPERES INTERRUPTING CAPACITY.	OC	ON CENTER.
AFF	ABOVE FINISHED FLOOR.	P	POLES.
AL	ALUMINUM.	PF	POWER FACTOR.
ATS	AUTOMATIC TRANSFER SWITCH.	ø	PHASE.
AWG	AMERICAN WIRE GAUGE.	PVC	POLYVINYL CHLORIDE.
C	CONDUIT.		
CU	COPPER.	SLD	SINGLE LINE DIAGRAM.
EC	EMPTY CONDUIT. OR ELECTRICAL CONTRACTOR	SS	STAINLESS STEEL.
		UL	UNDERWRITERS LABORATORY.
FPN	FUSE PER NAMEPLATE.	UNO	UNLESS NOTED OTHERWISE.
G	GROUND CONDUCTOR.	V	VOLTS.
KVA	KILOVOLT–AMPERES.	W	WIRES.
KW	KILOWATT.		
LV	LOW VOLTAGE.	CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
MCM	THOUSAND CIRCULAR MILS.		
MV	MEDIUM VOLTAGE.	CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED.
N	NEUTRAL.		
NEC	NATIONAL ELECTRICAL CODE.	OFOI	OWNER FURNISHED, OWNER INSTALLED.
NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION.	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED.
NIC	NOT IN CONTRACT.		

TYPICAL CIRCUITRY DESIGNATIONS:

2 SETS OF 4#3/0 & 1#3G – 2 1/2"C

- 2 SETS — QUANTITY OF PARALLEL SETS OF THE PHASE/NEUTRAL CONDUCTORS, GROUND CONDUCTOR AND CONDUIT SPECIFIED.
- 4#3/0 — QUANTITY OF PHASE/NEUTRAL CONDUCTORS (PER SET).
- 1#3G — PHASE/NEUTRAL CONDUCTOR WIRE GAUGE.
- 2 — QUANTITY OF GROUND CONDUCTORS (PER SET)
- 1/2"C — GROUND CONDUCTOR WIRE GAUGE.
- CONDUIT SIZE.

MULTI–CONDUCTOR CONTROL 600V TRAY CABLE DESIGNATIONS:

(2) 4C#14 W/G – 1 1/4"C

- (2) — QUANTITY OF MULTI–CONDUCTOR CABLES OF THE TYPE SPECIFIED WITHIN THE SPECIFIED CONDUIT.
- 4C — QUANTITY OF CONDUCTORS IN EACH CABLE SHEATH (NOT INCLUDING GROUND).
- #14 — WIRE GAUGE.
- W/G — "W/G" = WITH ADDITIONAL INTEGRAL GROUND CONDUCTOR WITH GREEN INSULATION IN EACH CABLE SHEATH.
- 1 1/4"C — CONDUIT SIZE.

TWISTED, SHIELDED INSTRUMENTATION CABLE DESIGNATIONS:

(2) #16TSP – 1"C

- (2) — QUANTITY OF INSTRUMENTATION CABLES IN THE SPECIFIED CONDUIT.
- #16 — WIRE GAUGE.
- TSP — "TSP" = TWISTED SHIELDED PAIR.
- 1"C — CONDUIT SIZE.

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL: ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

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THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2022102468
DATE: 20250725
SCALE: AS NOTED

SHEET NO: E-101

DRAWING TITLE: ELECTRICAL LEGEND

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ELECTRICAL DEMOLITION NOTES

1. THE ELECTRICAL PLANS INDICATE GENERAL SCOPE OF DEMOLITION WORK TO BE ACCOMPLISHED UNDER THIS CONTRACT. IT IS NOT THE INTENT OF THESE PLANS TO DETAIL ALL ELECTRICAL ITEMS THAT MUST BE REMOVED. THE ELECTRICAL CONTRACTOR SHALL REFER TO ALL OTHER DEMOLITION PLANS IN THIS SET OF DRAWINGS FOR ADDITIONAL INFORMATION RELATED TO EXTENT AND SCOPE OF DEMOLITION WORK. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. VERIFY ALL REQUIREMENTS AT JOB SITE PRIOR TO BID.
2. EXISTING SALVAGEABLE MATERIALS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE DELIVERED TO OWNER'S DESIGNATED STORAGE FACILITY. ANY MATERIALS REMOVED THAT THE OWNER DOES NOT WISH TO RETAIN SHALL BE DISPOSED OF BY THE CONTRACTOR.
3. NO EXISTING ELECTRICAL ITEMS SHALL BE REMOVED WITHOUT PRIOR WRITTEN CONSENT OF THE OWNER. THE EXISTING PLANT SHALL BE KEPT OPERATIONAL THROUGHOUT THE CONSTRUCTION PROCESS UNTIL THE NEW PLANT IS IN SERVICE.
4. ALL EXISTING ELECTRICAL EQUIPMENT, CONDUIT, WIRING, DEVICES, ETC. THAT BECOME OBSOLETE WITHIN THIS PROJECT SHALL BE DEMOLISHED COMPLETELY (OTHER ITEMS SHALL REMAIN IN SERVICE) UNLESS NOTED OTHERWISE.
5. ALL EXISTING FEEDER CIRCUITRY MADE OBSOLETE BY THIS PROJECT SHALL BE DEMOLISHED COMPLETELY EXCEPT WHERE EXISTING CONDUIT CONCEALED WITHIN WALLS IS TO BE REUSED. SEE ELECTRICAL DEMOLITION NOTE 3.
6. WHERE NEW LIGHTING, RECEPTACLES, INSTRUMENTS, EQUIPMENT, DEVICES OR CIRCUITRY IS SHOWN WITHIN THESE PLANS, EXISTING DEVICES OR CIRCUITRY THAT BECOMES OBSOLETE AS A RESULT SHALL BE DEMOLISHED.
7. REFER TO OTHER ELECTRICAL AND CIVIL PLANS FOR ADDITIONAL DEMOLITION WORK TO BE PERFORMED.
8. COVER ALL UNUSED EXISTING OUTLET BOXES WITH BLANK COVERS.
9. ALL EXISTING ELECTRICAL PULLBOXES ASSOCIATED WITH DUCTBANKS MADE OBSOLETE BY THIS PROJECT SHALL BE DEMOLISHED COMPLETELY. WHERE DEMOLITION OF PULLBOXES OR DUCTBANKS IS REQUIRED PRIOR TO DISCONNECTION OF ASSOCIATED LOADS (SUCH AS FOR CONSTRUCTION OF STRUCTURES, ETC.), CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARILY EXTENDING & RECONNECTING EXISTING CIRCUITRY AS REQUIRED. EXISTING OBSOLETE ELECTRICAL DUCTBANKS SHALL BE DEMOLISHED WHERE WITHIN FIVE (5) FEET OF FOOTPRINT INDICATED FOR NEW CONSTRUCTION. EXISTING ELECTRICAL DUCTBANKS OUTSIDE THIS AREA SHALL BE DEMOLISHED TO 36" BELOW GRADE AND BACKFILLED. DUCTBANKS DEEPER THAN 36" BELOW GRADE AND OUTSIDE THE FOOTPRINT AREA OF NEW STRUCTURES MAY BE ABANDONED. REMOVE ALL ELECTRICAL EQUIPMENT, DEVICES, CONDUIT AND WIRING TO INCLUDE FEEDERS AND CONTROL/INSTRUMENTATION WIRING CONNECTIONS TO OTHER BUILDINGS AND STRUCTURES.

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMPS			MOUNTING HEIGHT	MOUNTING TYPE	REMARKS
				WATTS	LUMENS	TYPE			
F	HOLOPHANE	PSLED-P4-40K-66-KS-***-WL-04-43-PSLEDUBV-FAO WITH RIGHT ANGLE TENON MOUNTING ARM	120	123	17,485	LED	TOP OF COLUMN	KNUCKLE ON WALL-MTD TENON BRACKET	FINISH TO MATCH STRUCTURE
Y	LITHONIA COLUMBIA DAY-BRITE	DSX1-LED-P5-40K-T4M-RPA-DDBXD	120	138	17,893	LED	MOUNT TO STRAIGHT ALUMINUM DARK BRONZE POLE - POLE HEIGHT SHALL MATCH HEIGHTS OF NEAREST EXISTING LIGHT POLES(S) (CONTRACTOR TO FIELD MEASURE PRIOR TOO SUBMITTING SHOP DRAWINGS) - SEE DETAIL "E-LP1"		

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. ALL LAMPS SHALL BE 4000K WITH A MINIMUM CRI OF 80 UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL COORDINATE ALL FIXTURE MOUNTING PROVISIONS WITH THE ASSOCIATED STRUCTURE/CEILING TYPE(S) PRIOR TO ORDERING FIXTURES.
3. ALL FIXTURES AND BALLASTS/DRIVERS SHALL BE RATED FOR OPERATION IN AMBIENT TEMPERATURES UP TO 55 DEGREES CELSIUS.
4. TO ENSURE PROPER COORDINATION AND LONG TERM SUPPORT FOR THE OWNER, ALL LIGHTING FIXTURES SHALL BE PURCHASED THROUGH MANUFACTURER'S REPRESENTATIVES AND DISTRIBUTORS LOCATED WITHIN ONE-HUNDRED & FIFTY (150) MILES OF THE PROJECT SITE. SUBMITTALS RECEIVED THAT DO NOT COMPLY WITH THIS REQUIREMENT WILL BE REJECTED WITHOUT REVIEW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS CAUSED BY NON-COMPLIANCE WITH THIS REQUIREMENT.

GENERAL ELECTRICAL NOTES

1. SPECIAL ATTENTION IS CALLED TO THE FACT THAT THE REQUIRED WORK IS AT OPERATING FACILITIES, AND AS SUCH, NO UNNECESSARY SHUTDOWNS WILL BE ALLOWED. ANY NECESSARY SHUTDOWNS SHALL BE APPROVED IN WRITING BY THE PLANT MANAGER A MINIMUM OF TWO (2) WEEKS IN ADVANCE. TEMPORARY/PORTABLE PUMPING PROVISIONS (AND OTHER TEMPORARY PROVISIONS AS REQUIRED FOR OPERATION OF THE EXISTING SYSTEMS) SHALL BE PROVIDED BY THE CONTRACTOR IF OWNER–MANDATED MAXIMUM SHUTDOWN PERIODS ARE ANTICIPATED OR ARE POSSIBLE.
2. ELECTRICAL PLANS & DETAILS INDICATE TYPICAL WIRING REQUIREMENTS FOR PROCESS EQUIPMENT. VERIFY EXACT WIRING REQUIREMENTS & ALL DEVICE LOCATIONS WITH APPROVED MANUFACTURERS SHOP DRAWINGS PRIOR TO ROUGH–IN. NO ADDITIONAL COMPENSATION WILL BE PAID FOR MINOR CIRCUITRY ADJUSTMENTS REQUIRED TO COMPLY WITH MANUFACTURERS INSTALLATION DETAILS.
3. CONTRACTOR SHALL VISIT THE SITE OF THE WORK PRIOR TO SUBMITTING BID TO EXAMINE CAREFULLY LOCAL CONDITIONS AND DIFFICULTIES TO BE ENCOUNTERED. ANY DISCREPANCY BETWEEN PLANS AND EXISTING CONDITIONS SHALL IMMEDIATELY BE CALLED TO THE ATTENTION OF THE ENGINEER.
4. ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH NEC.
5. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MOUNTING OF ALL INSTRUMENTATION DEVICES (EXCLUDING THOSE PRE–INSTALLED ON SKIDS BY THE MANUFACTURER). SEE INSTALLATION DETAILS ON CIVIL & ELECTRICAL DRAWINGS AND PROVIDED BY SUPPLIERS. COORDINATE ALL REQUIREMENTS WITH SUPPLIERS PRIOR TO ROUGH–IN.
6. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AND WIRING MADE OBSOLETE BY THIS RENOVATION AND DISPOSE OF AS DIRECTED BY THE ENGINEER.
7. THIS CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR NECESSARY TO EXTEND CIRCUITS AND MAKE RECONNECTIONS TO ANY ACTIVE ELECTRICAL DEVICES ON WHICH THE BRANCH CIRCUIT IS INTERRUPTED BY THIS ALTERATION. CARE SHALL BE TAKEN TO INSURE THAT EXISTING PANEL AND FEEDER RATINGS ARE NOT EXCEEDED.
8. WET OR PROCESS AREAS (FOR USE IN DETERMINING TYPES OF MATERIALS REQUIRED PER ELECTRICAL SPECIFICATIONS) SHALL BE DEFINED AS ALL AREAS WITHIN THE PROJECT SCOPE EXCEPT THE FOLLOWING:
   A. OFFICES, RESTROOMS, BREAK ROOMS, ELECTRICAL ROOMS AND OTHER SIMILAR, ANCILARY, NON–PROCESS, AIR–CONDITIONED SPACES.
9. ALL INDICATING TRANSMITTER DEVICES (FLOW TRANSMITTERS, LEVEL TRANSMITTERS, ETC.) LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE INSTALLED WITHIN SUN/RAIN SHIELDS PER DETAIL "E–SRS". CONTRACTOR SHALL PROVIDE SUN/RAIN SHIELDS (INCLUDING INSTRUMENTS FURNISHED BY EQUIPMENT SUPPLIERS). CONTRACTOR SHALL COORDINATE WITH INSTRUMENT SUPPLIER(S) PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING 120V AND ANALOG SURGE PROTECTION DEVICES AT ALL INSTRUMENTS LOCATED IN EXTERIOR ENVIRONMENTS. CONTRACTOR SHALL COORDINATE WITH INSTRUMENT SUPPLIER(S) PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
    A. SURGE PROTECTION DEVICES AT 2–WIRE INSTRUMENTS SHALL BE DEHN DEHNPIPE SERIES (IP67 STAINLESS STEEL DEVICE WITH 10kA TOTAL NOMINAL DISCHARGE CURRENT PER LINE) (NO EQUAL ALLOWED).
    B. SURGE PROTECTION DEVICES AT 4–WIRE INSTRUMENTS SHALL BE DEHN BLITZDUCTOR XT SERIES (FOR THE ANALOG SIGNAL) PLUS DEHNGUARD SERIES (FOR THE POWER INPUT) COMBINED INTO ONE OVERALL NEMA 4X ENCLOSURE WITH VIEWING WINDOW. SPD'S SHALL BE 10kA DISCHARGE CURRENT PER LINE FOR ANALOG, 15kA DISCHARGE CURRENT PER LINE FOR 120V POWER).
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING IDENTIFICATION/LABELING FOR ALL NEW OR MODIFIED INSTRUMENTS, UTILIZATION EQUIPMENT (PUMPS, BLOWERS, ETC.), CONTROL DEVICES, CONTROL PANELS, STARTERS, POWER PANELS, ETC. (REGARDLESS OF WHICH ENTITY PROVIDES THE EQUIPMENT) PER DETAILED REQUIREMENTS OF SPECIFICATION SECTION 16075.
12. ENTIRE ELECTRICAL INSTALLATION WITHIN HAZARDOUS AREAS AS DEFINED BY NFPA 820 SHALL COMPLY WITH ALL APPLICABLE NEC REQUIREMENTS FOR CONDUIT SEALS, RACEWAY TYPES, MATERIAL/DEVICE TYPES, ETC. PLANS DO NOT ATTEMPT TO INDICATE CODE–REQUIRED LOCATIONS OF EACH CONDUIT SEAL. CONDUIT SEALS SHALL BE PROVIDED AT EACH CONDUIT TERMINATION IN HAZARDOUS AREAS AND WHERE CONDUITS PASS FROM HAZARDOUS TO NON–HAZARDOUS AREAS PER CODE REQUIREMENTS. ALL DISCONNECT SWITCHES, RECEPTACLES, LIGHT SWITCHES, CONTROL STATIONS, J–BOXES, INSTRUMENTS, ETC. THROUGHOUT THIS AREA SHALL BE INSTALLED FULLY OUTSIDE HAZARDOUS (CLASSIFIED) LOCATIONS UNLESS SPECIFICATIONS SHOWN OTHERWISE. ALL CONDUITS PASSING THROUGH HAZARDOUS (CLASSIFIED) LOCATIONS (BUT NOT TERMINATING WITHIN HAZARDOUS LOCATIONS) SHALL BE UNBROKEN, WITH NO COUPLINGS, ETC. WITHIN THE HAZARDOUS AREA. REFER TO DETAILS "E–HAWW" & "E–HAOC" FOR GENERAL DEFINITIONS OF HAZARDOUS AREAS.

ADDITIVE ALTERNATE BID ITEMS SUMMARY

1. ADDITIVE ALTERNATE BID ITEM NO. 1: INSTALL NEW GENERATOR, FEEDERS, ATS–A, ATS–B, AND ASSOCIATED CIRCUITRY, ETC. AS INDICATED ON PLANS (SEE SHEET E,103, E–104, E–105, E–106, E–301, & E–302). NOTE THAT THESE PLANS GENERALLY SHOW THE REQUIREMENTS INCLUDED IN ADDITIVE ALTERNATE BID ITEM NO. 1.

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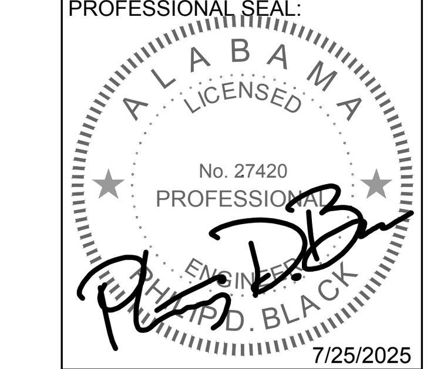
NO. | REVISION/SUBMISSION | DATE:

PROFESSIONAL SEAL:



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THREE NOTCH GROUP

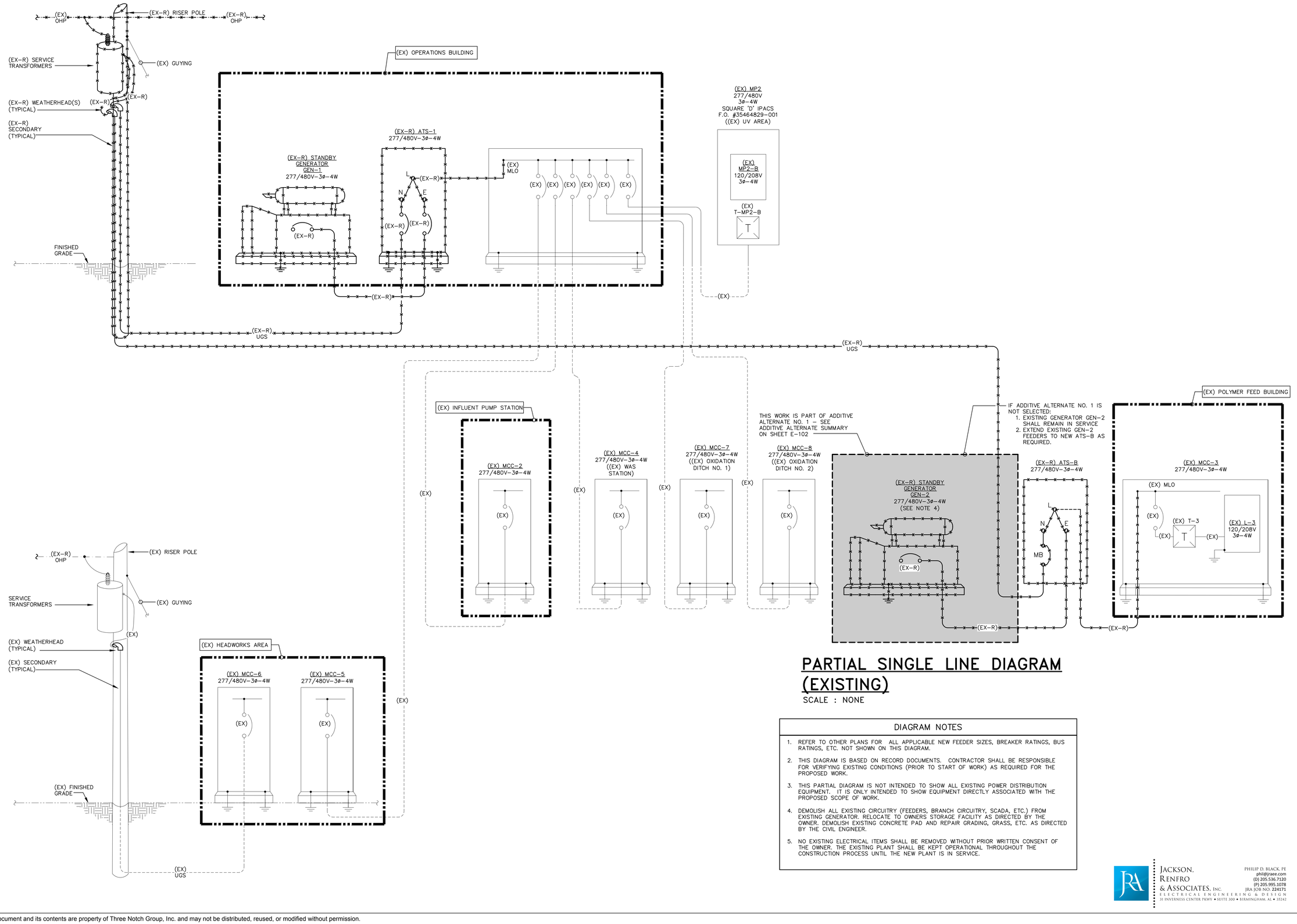
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R021022458
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-102

DRAWING TITLE: ELECTRICAL NOTES AND FIXTURE SCHEDULE



PARTIAL SINGLE LINE DIAGRAM (EXISTING)

SCALE : NONE

DIAGRAM NOTES

1. REFER TO OTHER PLANS FOR ALL APPLICABLE NEW FEEDER SIZES, BREAKER RATINGS, BUS RATINGS, ETC. NOT SHOWN ON THIS DIAGRAM.
2. THIS DIAGRAM IS BASED ON RECORD DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS (PRIOR TO START OF WORK) AS REQUIRED FOR THE PROPOSED WORK.
3. THIS PARTIAL DIAGRAM IS NOT INTENDED TO SHOW ALL EXISTING POWER DISTRIBUTION EQUIPMENT. IT IS ONLY INTENDED TO SHOW EQUIPMENT DIRECTLY ASSOCIATED WITH THE PROPOSED SCOPE OF WORK.
4. DEMOLISH ALL EXISTING CIRCUITRY (FEEDERS, BRANCH CIRCUITRY, SCADA, ETC.) FROM EXISTING GENERATOR. RELOCATE TO OWNERS STORAGE FACILITY AS DIRECTED BY THE OWNER. DEMOLISH EXISTING CONCRETE PAD AND REPAIR GRADING, GRASS, ETC. AS DIRECTED BY THE CIVIL ENGINEER.
5. NO EXISTING ELECTRICAL ITEMS SHALL BE REMOVED WITHOUT PRIOR WRITTEN CONSENT OF THE OWNER. THE EXISTING PLANT SHALL BE KEPT OPERATIONAL THROUGHOUT THE CONSTRUCTION PROCESS UNTIL THE NEW PLANT IS IN SERVICE.

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PROFESSIONAL SEAL:
ALABAMA LICENSED
No. 27420 PROFESSIONAL ENGINEER
PHILIP D. BLACK
7/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

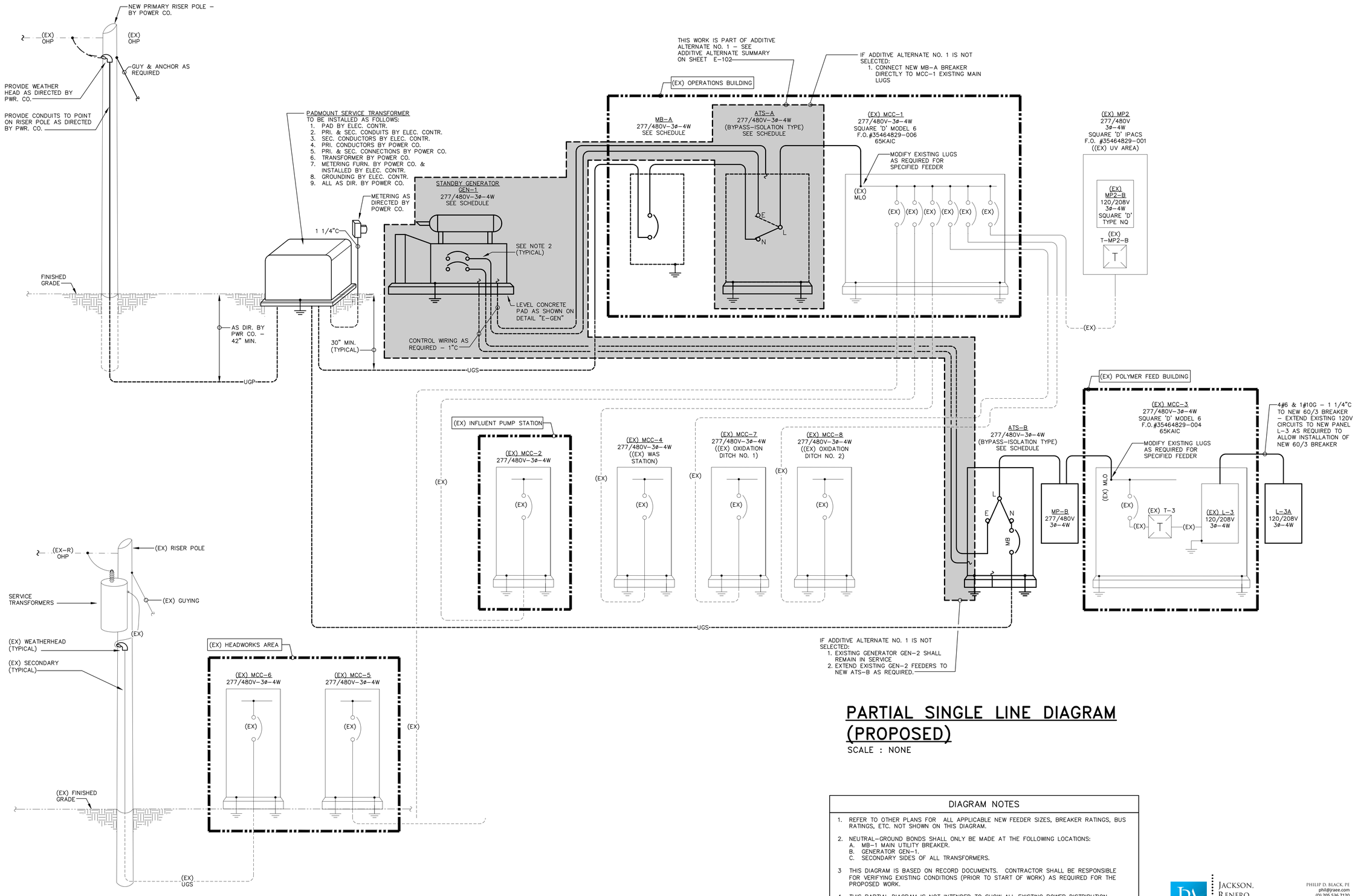
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2402.1022458
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-103

DRAWING TITLE: PARTIAL SINGLE LINE DIAGRAM (EXISTING)



PARTIAL SINGLE LINE DIAGRAM (PROPOSED)

SCALE : NONE

DIAGRAM NOTES

1. REFER TO OTHER PLANS FOR ALL APPLICABLE NEW FEEDER SIZES, BREAKER RATINGS, BUS RATINGS, ETC. NOT SHOWN ON THIS DIAGRAM.
2. NEUTRAL-GROUND BONDS SHALL ONLY BE MADE AT THE FOLLOWING LOCATIONS:
   A. MB-1 MAIN UTILITY BREAKER.
   B. GENERATOR GEN-1.
   C. SECONDARY SIDES OF ALL TRANSFORMERS.
3. THIS DIAGRAM IS BASED ON RECORD DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS (PRIOR TO START OF WORK) AS REQUIRED FOR THE PROPOSED WORK.
4. THIS PARTIAL DIAGRAM IS NOT INTENDED TO SHOW ALL EXISTING POWER DISTRIBUTION EQUIPMENT (I.E. 120V PANEL, ETC.). IT IS ONLY INTENDED TO SHOW EQUIPMENT DIRECTLY ASSOCIATED WITH THE PROPOSED SCOPE OF WORK.

JACKSON, RENFRO & ASSOCIATES, INC.
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JRA JOB NO. 224171

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL: ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

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CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2022102458
DATE: 2025/07/25
SCALE: AS NOTED
SHEET NO: E-104
DRAWING TITLE: PARTIAL SINGLE LINE DIAGRAM (PROPOSED)

MAIN BREAKER SCHEDULE - MB-A

PANEL TYPE:	SQUARE 'D' TYPE QED SWITCHBOARD	AIC RATING:	42KAIC (MINIMUM)
VOLTAGE:	277/480V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	1200/3 MAIN BREAKER	LOCATION:	ELECTRICAL ROOM NO. 1
FED FROM:	UTILITY	FEEDER:	4 SETS OF 4-350MCM - 3 1/2"C

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	ATS-A (N)	277/480	3		879.0		1200/3	-	4 SETS OF 4-350MCM & 1#3/0G - 3 1/2"C	

TOTAL CONNECTED LOAD:	989.9	KVA
	1,237.4	AMPS
TOTAL DEMAND LOAD:	875.4	KVA
	1,094.3	AMPS
TOTAL COMPUTED LOAD:	879.0	KVA
	1,098.8	AMPS

1. MAIN BREAKER SHALL BE PROVIDED WITH INTEGRAL 240KA (PER PHASE) SURGE PROTECTION DEVICE AND ETHERNET POWER METER (SQUARE 'D' #PM5563 OR EQUAL WITH ETHERNET CARD)
2. MAIN BREAKER SHALL BE ELECTRONIC TRIP LSIG TRIP.
3. PROVIDE ARC-FLASH REDUCTION MAINTENANCE SWITCHES FOR ALL BREAKERS RATED 1200A OR GREATER PER NEC 240.87 REQUIREMENTS.
4. MAIN BREAKER SHALL BE SERVICE-ENTRANCE RATED.

PANELBOARD/EQUIPMENT SCHEDULE(S) KEYED NOTES LEGEND

KEYED NOTE	DESCRIPTION
GFIE	INDICATED BREAKER SHALL BE GFI–EPD TYPE (30mA TRIP).
VC	CONTRACTOR SHALL VERIFY REQUIRED BREAKER & CIRCUITRY REQUIREMENTS OF INDICATED CIRCUIT WITH EQUIPMENT SUPPLIER PRIOR TO SUBMITTING SHOP DRAWINGS OR ROUGHING IN CONDUITS.

PANELBOARD SCHEDULE - L-3A

PANEL TYPE:	SQUARE 'D' TYPE NQ	AIC RATING:	10KAIC (MINIMUM)
VOLTAGE	120/208V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	100 AMP - MLO	LOCATION:	POLYMER FEED BUILDING
FED FROM:	L-3	FEEDER:	SEE SINGLE LINE DIAGRAM

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	-	20/1	RELOCATED EXISTING CIRCUIT	500	A			20/1	-	16
2	-	20/1	RELOCATED EXISTING CIRCUIT	500	B			20/1	-	17
3	-	20/1	RELOCATED EXISTING CIRCUIT	500	C			20/1	-	18
4	-	20/1	SLUDGE PRESS CANOPY LIGHTS	924	A			20/1	-	19
5	-	20/1	SLUDGE PRESS CANOPY REC.	600	B			20/1	-	20
6	GFIE	20/1	SLUDGE PRESS HEAT TRACING	800	C			20/1	-	21
7	VC	30/1	POLYMER FEED SYSTEM	1,200	A			20/1	-	22
8	-	20/1	PRESS AIR DRYER AND SOL. VALVE	100	B			20/1	-	23
9	GFIE	20/1	POLYMER FEED HEAT TRACING	800	C			20/1	-	24
10	GFIE	20/1	SLUDGE PUMP HEAT TRACING	800	A			20/1	-	25
11	GFIE	20/1	SPARE		B			20/1	-	26
12	-	20/1	SPARE		C			20/1	-	27
13	-	20/1	SPARE		A			20/1	-	28
14	-	20/1	SPARE		B			20/1	-	29
15	-	20/1	SPARE		C			20/1	-	30

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL.

PH. A	PH. B	PH. C			
3,424	1,200	2,100	TOTAL CONNECTED LOAD:	6.7	KVA
				18.7	AMPS
			TOTAL DEMAND LOAD:	6.7	KVA
				18.7	AMPS
			TOTAL COMPUTED LOAD:	7.6	KVA
				21.0	AMPS

GENERATOR SCHEDULE - GEN-1

KW RATING:	1250KW/1562.5KVA (MINIMUM) - SEE NOTE 1	SKVA RATING (AT 35%V. DIP):	
VOLTAGE:	277/480V-3P-4W	SOUND ATTENUATION:	CRITICAL SILENCER
FUEL TYPE:	DIESEL	LOCATION:	EXTERIOR

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	SWITCH SIZE: SWITCH AMPS	SWITCH SIZE: F-TRON AMPS	WIRE AND COND. SIZE
1	ATS-A (E)	277/480	3		879.0		1200/3			4 SETS OF 4-350MCM & 1#3/0G - 3 1/2"C
2	ATS-B (E)	277/480	3		295.4		600/3			2 SETS OF 4-350MCM & 1#1G - 3"C

TOTAL CONNECTED LOAD:	1,345.7	KVA
	1,682.2	AMPS
TOTAL DEMAND LOAD:	1,169.6	KVA
	1,462.0	AMPS
TOTAL COMPUTED LOAD:	1,174.5	KVA
	1,468.1	AMPS

NOTES:
1. SEE GENERATOR MINIMUM SIZING SUMMARY BELOW.
2. ATS-A AND ATS-B BREAKER(S) SHALL BE LSI-TYPE (WITHOUT GROUND FAULT TRIP BUT WITH GROUND FAULT DETECTION/ ALARM).
3. PROVIDE ARC-FLASH REDUCTION MAINTENANCE SWITCH FOR ATS-A BREAKER PER NEC 240.87.

GENERATOR MINIMUM SIZING REQUIREMENTS

1. THE GENERATOR SUPPLIER SHALL SUBMIT A SIZING REPORT SHOWING THAT THE GENERATOR SYSTEM VOLTAGE DIP WILL BE LESS THAN 20% FREQUENCY DIP WILL BE LESS THAN 10%, AND RESULTING THDV WILL BE LESS THAN 8%, WITH GENERATOR RUNNING WHEN STARTING/RUNNING THE FOLLOWING LOADS:
   - STEP 1: 494KVA OF BALANCED 3ø LINEAR BLOCK LOAD (WITH MISC. FVNR, RVSS, AND VFD STARTERS)
   - STEP 2: 261KVA OF BALANCED 3ø NON–LINEAR 20% THDI BLOCK LOAD
   - STEP 3: ONE (1) 75HP PUMP WITH 6–PULSE VFD
   - STEP 4: TWO (2) 40HP MIXERS WITH RVSS STARTERS WITH 400% CURRENT LIMIT; TWO (2) 7.5HP BLOWERS WITH 6–PULSE VFD
   - STEP 5: TWO (2) 40HP MIXERS WITH RVSS STARTERS WITH 400% CURRENT LIMIT; TWO (2) 7.5HP BLOWERS WITH 6–PULSE VFD
2. GENERATOR KW & ALTERNATOR SIZES/TYPES SHALL BE PROVIDED BY MANUFACTURER AS REQUIRED TO SATISFY THESE MINIMUM REQUIREMENTS.

AUTOMATIC TRANSFER SWITCH SCHEDULE - ATS-A

KAIC / WCR RATING:	42KAIC (MINIMUM)	NORMAL FED FROM:	MB-A
VOLTAGE:	277/480V-3P-4W	NORMAL FEEDER:	SEE MAIN BREAKER SCHEDULE - MB-A
AMP RATING:	1200 AMP	EMERGENCY FED FROM:	GEN-1
LOCATION:	ELECTRICAL ROOM NO. 1	EMEGENCY FEEDER:	SEE GENERATOR SCHEDULE - GEN-1

LOAD SIDE FEEDER DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	WIRE AND COND. SIZE
MCC-1	277/480	3		879.0		4 SETS OF 4-350MCM & 1#3/0G - 3 1/2"C

EMERGENCY			NORMAL
989.9 KVA	TOTAL CONNECTED LOAD:		989.9 KVA
1,237.4 AMPS			1,237.4 AMPS
875.4 KVA	TOTAL DEMAND LOAD:		875.4 KVA
1,094.3 AMPS			1,094.3 AMPS
879.0 KVA	TOTAL COMPUTED LOAD:		879.0 KVA
1,098.8 AMPS			1,098.8 AMPS

NOTES:
1. ATS SHALL BE 4-POLE, BYPASS-ISOLATION TYPE, CONFIGURED FOR PROGRAMMED/OPEN TRANSITION.
2. PROVIDE PRE-TRANSFER SIGNAL CONTACT/MOTOR LOAD DISCONNECT CONTACT (TO CLOSE 60 SECONDS BEFORE A PLANNED TRANSITION BETWEEN SOURCES).
3. ATS SHALL BE FRONT AND RIGHT-SIDE ACCESSIBLE ONLY.
4. THIS WORK IS PART OF ADDITIVE ALTERNATE NO. 1 - SEE ADDITIVE ALTERNATE SUMMARY ON SHEET E-102.

THIS WORK IS PART OF ADDITIVE ALTERNATE NO. 1 – SEE ADDITIVE ALTERNATE SUMMARY ON SHEET E-102

AUTOMATIC TRANSFER SWITCH SCHEDULE - ATS-B

KAIC / WCR RATING:	30KAIC (MINIMUM)	NORMAL FED FROM:	UTILITY
VOLTAGE:	277/480V-3P-4W	NORMAL FEEDER:	2 SETS OF 4#4/0 - 2 1/2"C
AMP RATING:	600 AMP	EMERGENCY FED FROM:	GEN-1
LOCATION:	EXISTING POLYMER BUILDING	EMEGENCY FEEDER:	SEE GENERATOR SCHEDULE - GEN-1

LOAD SIDE FEEDER DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	WIRE AND COND. SIZE
MP-B	277/480	3		295.4		2 SETS OF 4-350MCM & 1#1G - 3"C

EMERGENCY			NORMAL
355.8 KVA	TOTAL CONNECTED LOAD:		355.8 KVA
444.8 AMPS			444.8 AMPS
294.2 KVA	TOTAL DEMAND LOAD:		294.2 KVA
367.8 AMPS			367.8 AMPS
295.4 KVA	TOTAL COMPUTED LOAD:		295.4 KVA
369.3 AMPS			369.3 AMPS

NOTES:
1. SERVICE-ENTRANCE RATED WITH WITH INTEGRAL 400A/3P MAIN UTILITY BREAKER.
1. ATS SHALL BE 4-POLE, BYPASS-ISOLATION TYPE, CONFIGURED FOR PROGRAMMED/OPEN TRANSITION.
2. PROVIDE PRE-TRANSFER SIGNAL CONTACT/MOTOR LOAD DISCONNECT CONTACT (TO CLOSE 60 SECONDS BEFORE A PLANNED TRANSITION BETWEEN SOURCES).
3. ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL.

PANELBOARD SCHEDULE - MP-B

PANEL TYPE:	SQUARE 'D' I-LINE SERIES	AIC RATING:	30KAIC (MINIMUM)
VOLTAGE:	277/480V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	600 AMP - MLO	LOCATION:	EXISTING POLYMER BUILDING
FED FROM:	ATS-B	FEEDER:	SEE AUTOMATIC TRANSFER SWITCH SCHEDULE - ATS-B

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	MCC-3	277/480	3		183.9		400/3	-	2 SETS OF 4#3/0 & 1#3G - 2 1/2"C	
2	SLUDGE PRESS CP NO. 1	480	3		53.2		125/3	-	3#1 & 1#6G - 1 1/2"C	VC
3	FUTURE SLUDGE PRESS CP NO. 2	480	3		52.2		125/3	-		VC
4	SLUDGE PRESS AIR COMPRESSOR	480	3	5			20/3	30/3	3#10 & 1#10G - 3/4"C	
5-7	SPARE	277/480	3				20/3	-		
8-12	SPACES	277/480	3				-/-	-		

TOTAL CONNECTED LOAD:	355.8	KVA
	444.8	AMPS
TOTAL DEMAND LOAD:	294.2	KVA
	367.8	AMPS
TOTAL COMPUTED LOAD:	295.4	KVA
	369.3	AMPS

NOTES:
1. PROVIDE INTEGRAL 240KA (PER PHASE) SURGE PROTECTION DEVICE.
2. ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL.

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025
COA: ECA105

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CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2021022456
DATE: 2025/07/25
SCALE: AS NOTED
SHEET NO: E-105

DRAWING TITLE: ELECTRICAL SCHEDULES

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EXISTING SCADA RTU-A NEW POINT LIST AND CONTROL & INSTRUMENTATION WIRING SCHEDULE

HOMERUN MARK	TO	EQUIP. ID NO.	EQUIPMENT DESCRIPTION	PARAMETER	POINT TYPE	TAG	WIRING	SHEET	REMARKS
50-V-101	RTU-A	50-V-101	FILTER EQUIPMENT CONTROL VALVE	ALARM	DI	50-V-101-YA	(1) 12C#14 - 1"C	E-401	
				H/O/A SWITCH POSITION INDICATION	DI	50-V-101-HS			
				POSITION CONTROL - OPEN	DO	50-V-101-ZCO			
				POSITION CONTROL - CLOSE	DO	50-V-101-ZCC			
				POSITION STATUS - OPEN	DI	50-V-101-ZIO			
				POSITION STATUS - CLOSED	DI	50-V-101-ZIC			
50-FIT-102	RTU-A	50-FIT-102	FILTER EQUIPMENT INFLUENT FLOW TRANSMITTER	FLOW INDICATION	AI	50-FIT-102-FI	(1) #16TSP - 3/4"C	E-401	
50-CP-110	RTU-A	50-CP-110	CLOTH MEDIA FILTER INFLUENT LIFT STATION CONTROL PANEL	LOSS OF POWER ALARM	DI	50-CP-110-JA	(1) 12C#14 - 1"C	E-402	
				LEVEL ALARM - HIGH	DI	50-CP-110-LAH			
		50-P-111	CLOTH MEDIA FILTER INFLUENT LIFT STATION PUMP NO. 1	ALARM	DI	50-P-111-YA			
				ON/OFF STATUS	DI	50-P-111-YI			
		50-P-112	CLOTH MEDIA FILTER INFLUENT LIFT STATION PUMP NO. 2	ALARM	DI	50-P-112-YA			
				ON/OFF STATUS	DI	50-P-112-YI			
50-CP-120	RTU-A	50-CP-120	CLOTH MEDIA FILTER EFFLUENT LIFT STATION CONTROL PANEL	LOSS OF POWER ALARM	DI	50-CP-120-JA	(1) 12C#14 - 1"C	E-402	
				LEVEL ALARM - HIGH	DI	50-CP-120-LAH			
		50-P-121	CLOTH MEDIA FILTER EFFLUENT LIFT STATION PUMP NO. 1	ALARM	DI	50-P-121-YA			
				ON/OFF STATUS	DI	50-P-121-YI			
		50-P-122	CLOTH MEDIA FILTER EFFLUENT LIFT STATION PUMP NO. 2	ALARM	DI	50-P-122-YA			
				ON/OFF STATUS	DI	50-P-122-YI			
50-CP-130	RTU-A	50-CP-130	CLOTH MEDIA FILTER CONTROL PANEL	ALARM	DI	50-CP-130-YA	(1) 4C#14 3/4"C	E-401	
				LEVEL ALARM - OVERFLOW	DI	50-CP-130-LAO			
50-PIT-210	RTU-A	50-PIT-210	GRANULAR MEDIA AND RESIN FILTER SYSTEM - A PRESSURE TRANSMITTER	PRESSURE INDICATION	AI	50-PIT-210-PI	(2) #16TSP & 1#14G - 3/4"C	E-401	
		50-PIT-220	GRANULAR MEDIA AND RESIN FILTER SYSTEM - B PRESSURE TRANSMITTER	PRESSURE INDICATION	AI	50-PIT-220-PI			
90-GEN-100	RTU-A	90-GEN-100	GENERATOR GEN-1	ON/OFF STATUS	DI	90-GEN-100-YI	(1) 8C#14 - 1"C	E-302	
				MINOR ALARM	DI	90-GEN-100-YAH			
				MAJOR ALARM	DI	90-GEN-100-YAHH			
				FUEL LEVEL ALARM - LOW	DI	90-GEN-100-LAL:F			
90-ATS-110	RTU-A	90-ATS-110	ATS-A	NORMAL POWER AVAILABLE INDICATION	DI	90-ATS-110-JNI	(1) 8C#14 - 1"C	E-302	
				EMERGENCY POWER AVAILABLE STATUS	DI	90-ATS-110-JEI			
				NORMAL/EMERGENCY SWITCH POSITION STATUS	DI	90-ATS-110-ZI:NE			
				ATS PRE-TRANSFER WARNING CONTACT	DI	90-ATS-110-ZI:PT			

NOTES:
1. THIS SCHEDULE ONLY SHOWS NEW SCADA I/O POINTS. EXISTING I/O POINTS FOR THIS EXISTING PANEL ARE NOT SHOWN ON THIS SCHEDULE. EXISTING CONTROL PANEL IS TO BE MODIFIED BY OWNER (NIC) AS REQUIRED TO INCORPORATE NEW I/O.

EXISTING SCADA RTU-C NEW POINT LIST AND CONTROL & INSTRUMENTATION WIRING SCHEDULE

HOMERUN MARK	TO	EQUIP. ID NO.	EQUIPMENT DESCRIPTION	PARAMETER	POINT TYPE	TAG	WIRING	SHEET	REMARKS
55-CP-100	RTU-C	55-CP-100	UV CHANNEL NO. 1 SCC	NETWORK	EN- N	55-CP-100-N	(1) GEL-FILLED CAT6 CABLE -1"C	E-403	SEE C & I NOTE 5

NOTES:
1. THIS SCHEDULE ONLY SHOWS NEW SCADA I/O POINTS. EXISTING I/O POINTS FOR THIS EXISTING PANEL ARE NOT SHOWN ON THIS SCHEDULE. EXISTING CONTROL PANEL IS TO BE MODIFIED BY OWNER (NIC) AS REQUIRED TO INCORPORATE NEW I/O.

EXISTING SCADA RTU-E NEW POINT LIST AND CONTROL & INSTRUMENTATION WIRING SCHEDULE

HOMERUN MARK	TO	EQUIP. ID NO.	EQUIPMENT DESCRIPTION	PARAMETER	POINT TYPE	TAG	WIRING	SHEET	REMARKS
65-CP-100	RTU-E	65-CP-100	SLUDGE PRESS CONTROL PANEL	NETWORK	EN- N	65-CP-100-N	(1) 4-STRAND - MULTIMODE (50uM) OM4-RATED - INDOOR/OUTDOOR RATED FIBER OPTIC CABLE - 1 1/4"C	E-405	SEE C & I NOTE 5

NOTES:
1. THIS SCHEDULE ONLY SHOWS NEW SCADA I/O POINTS. EXISTING I/O POINTS FOR THIS EXISTING PANEL ARE NOT SHOWN ON THIS SCHEDULE. EXISTING CONTROL PANEL IS TO BE MODIFIED BY OWNER (NIC) AS REQUIRED TO INCORPORATE NEW I/O.

CONTROL & INSTRUMENTATION WIRING SCHEDULES LEGEND & NOTES

LEGEND:
"DI" - DISCRETE INPUT POINT
"DO" - DISCRETE OUTPUT POINT
"AI" - ANALOG INPUT POINT
"AO" - ANALOG OUTPUT POINT

NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS & INFORMATION.
2. ALL CONTROL CABLING (IDENTIFIED WITH "*C#14" OR SIMILAR DESIGNATIONS) SHALL BE 600V MULTI-CONDUCTOR TRAY CABLE PER SPECIFICATION REQUIREMENTS.
3. ALL INSTRUMENTATION CABLING (IDENTIFIED WITH "TSP" OR "SHD" DESIGNATIONS) SHALL BE 300V TWISTED, OVERALL-SHIELDED TRAY CABLE.
5. ALL NETWORKED POINTS LISTED ARE REPRESENTATIVE ONLY. EQUIPMENT SUPPLIERS OF PANELS/EQUIPMENT CONNECTED TO SCADA SYSTEM VIA NETWORK CONNECTIONS SHALL PROVIDE REGISTER LISTS OF ALL AVAILABLE POINTS TO THE SCADA INTEGRATOR AND CIVIL ENGINEER PRIOR TO PREPARATION OF SHOP DRAWINGS. SCADA INTEGRATOR SHALL PROVIDE PROGRAMMING/HMI FOR ALL NETWORKED POINTS CHOSEN BY THE CIVIL ENGINEER.

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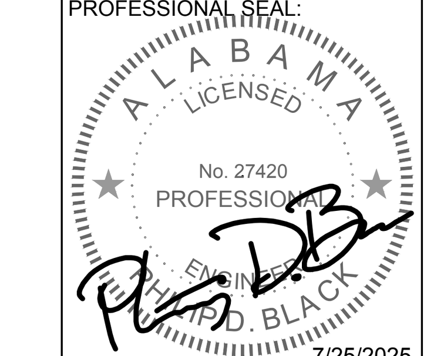
PROFESSIONAL SEAL:



7/25/2025

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WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R021022458
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-106

DRAWING TITLE: CONTROL AND INSTRUMENTATION SCHEDULES

INSTRUMENT SCHEDULE

INSTRUMENT NAME	INSTRUMENT TYPE	INSTRUMENT ID	SHEET	ASSOCIATED SPECIFICATION SECTION	FURNISHED BY	PROVIDE 2-WIRE SURGE PROTECTION DEVICE	PROVIDE 4-WIRE SURGE PROTECTION DEVICE	PROVIDE SUNRAIN SHIELD	NOTES
FILTER EQUIPMENT INFLUENT FLOW TRANSMITTER	ELECTROMAGNETIC FLOW METER WITH REMOTE TRANSMITTER	50-FIT-102	E-401	11341	CONTRACTOR		X	X	

NOTES:
1. SEE INSTRUMENTATION & EQUIPMENT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL EQUIPMENT MOUNTING HARDWARE REQUIREMENTS WITH INSTRUMENT MANUFACTURERS.
3. SEE PLANS FOR ADDITIONAL REQUIREMENTS.
4. RANGES AND/OR MOUNTING HEIGHTS OF ALL INSTRUMENTS/DEVICES LISTED ABOVE SHALL BE AS DIRECTED BY CIVIL ENGINEER.
5. THIS SCHEDULE DOES NOT INCLUDE INSTRUMENTS FURNISHED WITH PROCESS EQUIPMENT (FILTER EQUIPMENT, SLUDGE PUMP, SCREW PRESS, ETC.) REFER TO EQUIPMENT SPECIFICATIONS FOR REQUIREMENTS FOR THESE TYPES OF INSTRUMENTS.

SEPARATELY ENCLOSED CONTROL PANELS SCHEDULE

NAMEPLATE DESCRIPTION	EQUIPMENT ID	UNIT DESCRIPTION	"FED FROM" EQUIPMENT	MOUNTING/ENCLOSURE	LOCATION	FURNISHED BY	INSTALLED BY	ASSOCIATED SPECIFICATION SECTIONS	ASSOCIATED ELEM. DIAG.	MINIMUM KAIC RATING
CLOTH MEDIA FILTER INFLUENT LIFT STATION CONTROL PANEL	50-CP-110	480V CONTROL PANEL	(EX) MCC-1	SEPARATE NEMA 4X ENCLOSURE	CLOTH MEDIA FILTER EQUIPMENT STAND	LIFT STATION SUPLIER	CONTRACTOR	11217 & 16480	N/A	22KAIC
CLOTH MEDIA FILTER EFFLUENT LIFT STATION CONTROL PANEL	50-CP-120	480V CONTROL PANEL	(EX) MCC-1	SEPARATE NEMA 4X ENCLOSURE	CLOTH MEDIA FILTER EQUIPMENT STAND	LIFT STATION SUPLIER	CONTRACTOR	11217 & 16480	N/A	22KAIC
CLOTH MEDIA FILTER CONTROL PANEL	50-CP-130	120V CONTROL PANEL	(EX) MP2-B	SEPARATE NEMA 4X ENCLOSURE	CLOTH MEDIA FILTER EQUIPMENT STAND	FILTER SUPPLIER	CONTRACTOR	13200 & 16480	N/A	10KAIC
UV CHANNEL NO. 1 SCC	55-CP-100	120V CONTROL PANEL	(EX) MP2-B	SEPARATE NEMA 4X ENCLOSURE	EXISTING UV AREA	UV SUPPLIER	CONTRACTOR	11345 & 16480	N/A	10KAIC
UV CHANNEL NO. 1 BCC	55-CP-200	480V CONTROL PANEL	(EX) MP2	SEPARATE NEMA 4X ENCLOSURE	EXISTING UV AREA	UV SUPPLIER	CONTRACTOR	11345 & 16480	N/A	22KAIC
SLUDGE PRESS CONTROL PANEL	65-CP-100	480V CONTROL PANEL	MP-B	SEPARATE NEMA 4X ENCLOSURE	SLUDGE PRESS EQUIPMENT STAND	SLUDGE PRESS SUPPLIER	CONTRACTOR	11300 & 16480	N/A	22KAIC

NOTES:
1. SEE SPECIFICATIONS SECTION 16480 ("MANUFACTURED CONTROL PANELS") FOR ADDITIONAL REQUIREMENTS.
2. THIS SCHEDULE IS NOT INTENDED TO IDENTIFY ALL CONTROL PANELS REQUIRED FOR PROJECT (SUCH AS HVAC PANELS, ETC.), BUT IDENTIFIES MAJOR PANELS ONLY. REFER TO PLANS & SPECIFICATIONS FOR ADDITIONAL CONTROL PANEL REQUIREMENTS.

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK
7/25/2025

COA: ECA105

ADDRESS:
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DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

JACKSON, RENFRO & ASSOCIATES, INC.
ELECTRICAL ENGINEERING & DESIGN
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JRA JOB NO. 224171

PROJECT NO: 0022102458
DATE: 2025.07.25
SCALE: AS NOTED
SHEET NO: E-107

DRAWING TITLE: CONTROL AND INSTRUMENTATION SCHEDULES

(EX) CLARIFIER NO. 2

(EX) CLARIFIER NO. 3 (NOT IN USE)

(EX) CLARIFIER NO. 1

(EX) OXIDATION DITCH NO. 2

(EX) OXIDATION DITCH NO. 1

(EX) HEADWORKS

(EX) RTU-B 120V-1ø (APPROXIMATE LOCATION)

(EX-R) UTILITY POLE

DEMOLISH EXISTING GENERATOR, ATS, ETC. IN ELECTRICAL ROOM AND ASSOCIATED FUEL TANK ON EXTERIOR OF BUILDING – SEE SINGLE LINE DIAGRAM – REMOVE EXISTING GENERATOR INTAKE/EXHAUST LOUVER(S) AS DIRECTED BY CIVIL ENGINEER

PROVIDE NEMA 4X S.S. J-BOX(ES) AS REQUIRED TO TRANSITION FROM VERTICAL CONDUIT RUN UP EXTERIOR WALL OF BUILDING TO HORIZONTAL CONDUIT RUN ALONG STRUCTURE WITHIN BUILDING – SEAL PENETRATION(S) PER SPECIFICATION REQUIREMENTS

(EX) WAS STATION

(EX) MAINTENANCE BUILDING

A E-302 (EX) OPERATIONS BUILDING AND GENERATOR

GROUNDING AS DIRECTED BY POWER CO.

NEW PADMOUNT SERVICE TRANSFORMER

GENERATOR GEN-1

(EX) RTU-A 120V-1ø (APPROXIMATE LOCATION) (SEE NOTE 1)

PROVIDE NEMA 4X S.S. J-BOX(ES) AS REQUIRED TO TRANSITION FROM VERTICAL CONDUIT RUN UP EXTERIOR WALL OF BUILDING TO HORIZONTAL CONDUIT RUN ALONG STRUCTURE WITHIN BUILDING – SEAL PENETRATION(S) PER SPECIFICATION REQUIREMENTS

E-DR NEW CONCRETE-ENCASED DUCTRUN (TYPICAL)

UGS

UGP

NEW PRIMARY RISER POLE

(EX) OHP

(EX-R) RISER POLE

(EX-R) UGS – SEE ELECTRICAL DEMOLITION NOTE 9 ON SHEET E1-02 (TYPICAL)

(EX-R) STANDBY GENERATOR SEE SINGLE LINE DIAGRAM

(EX-R)

(EX-R) OHP

(EX) RTU-F 120V-1ø (APPROXIMATE LOCATION)

(EX) INFLUENT PUMP STATION

(EX-R) OHP

(EX) POST AERATION BASIN

– E-403 (EX) UV SYSTEM

(EX) MP2 277/480V-3ø-4W

(EX) MP2-B 120/208V-3ø-4W

VERIFY THAT EXISTING OVERHEAD POWER SERVICE TO CLARIFIER NO. 3 AREA IS NO LONGER IN SERVICE – COORDINATE WITH POWER CO. TO HAVE EXISTING OBSOLETE POWER LINES/POLES DEMOLISHED PRIOR TO START OF WORK (TYPICAL)

(EX-R) UTILITY POLE

– E-401 FILTRATION SYSTEM

E-PB1 NEW ABOVE-GRADE PULLBOXES (TYPICAL)

(EX) POLYMER FEED BUILDING

B E-302

– E-405 – E-406 SLUDGE PRESS

– E-404 (EX) DIGESTERS

NOTES THIS SHEET ONLY

1. IT APPEARS THAT THERE ARE MULTIPLE SCADA RTU'S IN THE OFFICE BUILDING. COORDINATE WITH OWNER FOR THE EXACT LOCATION OF THE RTU THAT THEY WISH TO UTILIZE FOR NEW I/O TO THE FILTER EQUIPMENT AREA.

OVERALL SITE ELECTRICAL PLAN

SCALE : 1" = 30'-0"

30 0 30

SCALE IN FEET

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JRA JOB NO: 224171

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

COA: ECA105

ADDRESS:

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(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

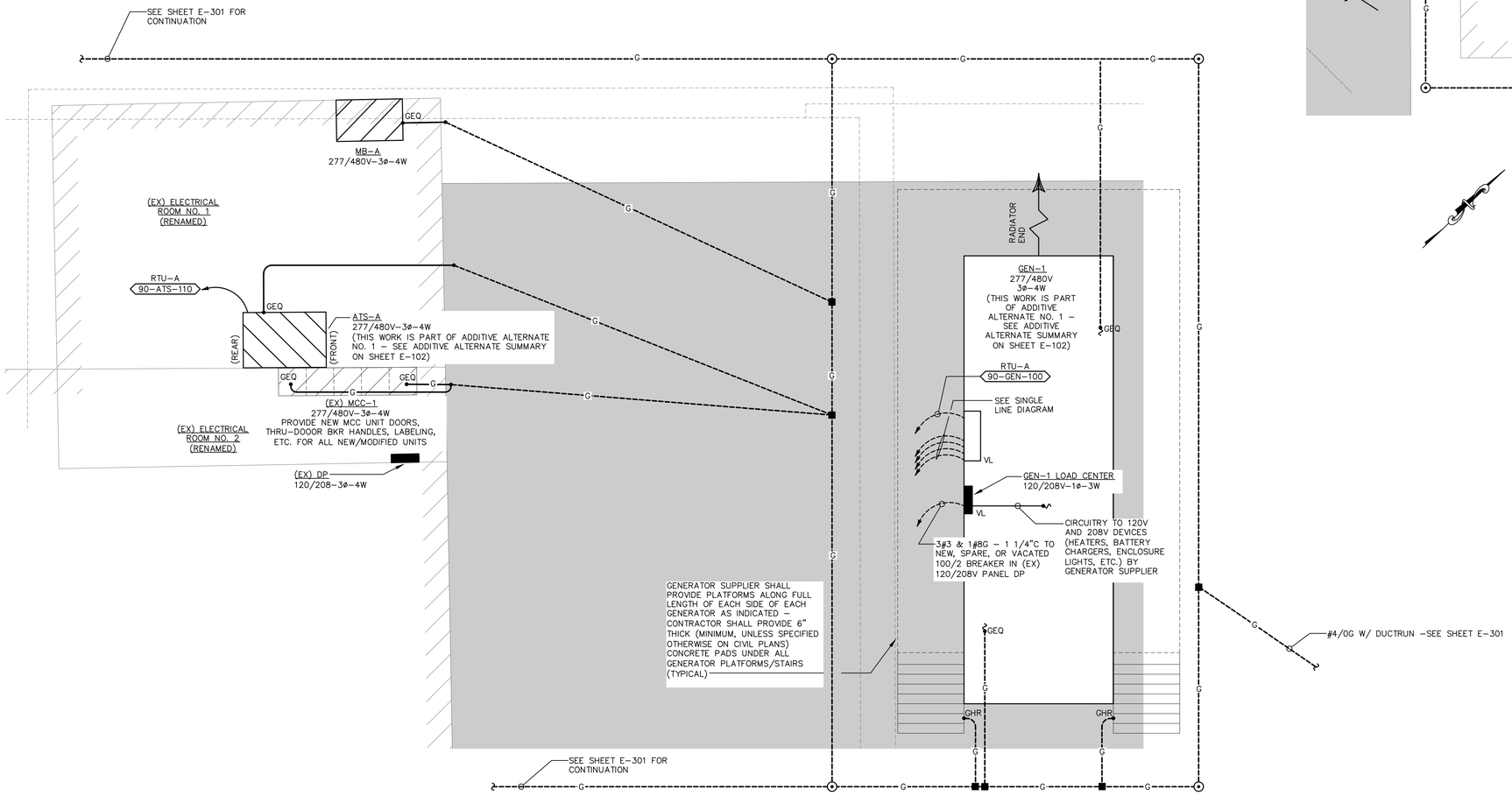
PROJECT NO: 2021022456

DATE: 2025/07/25

SCALE: AS NOTED

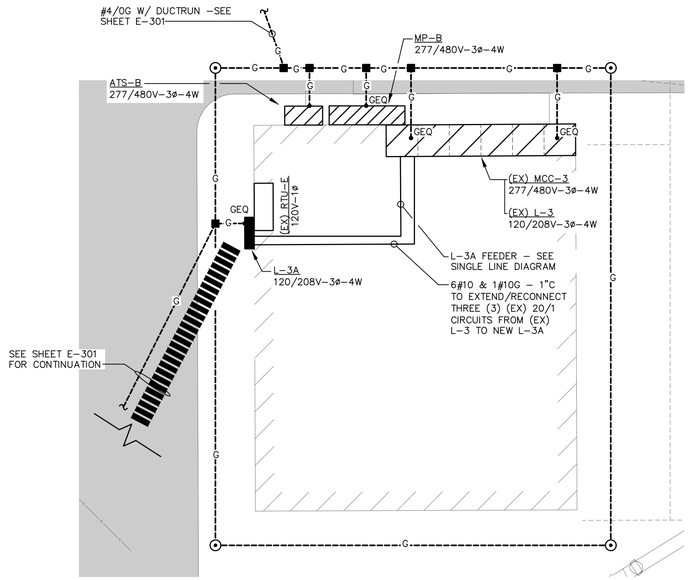
SHEET NO: E-301

DRAWING TITLE: OVERALL SITE ELECTRICAL PLAN



(EX) OPERATIONS BUILDING AND GENERATOR ELECTRICAL PLAN

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



(EX) POLYMER FEED BUILDING ELECTRICAL PLAN

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

DATE:

NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

COA: ECA105

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CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R021102A48
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-302

DRAWING TITLE: LARGE SCALE ELECTRICAL PLANS

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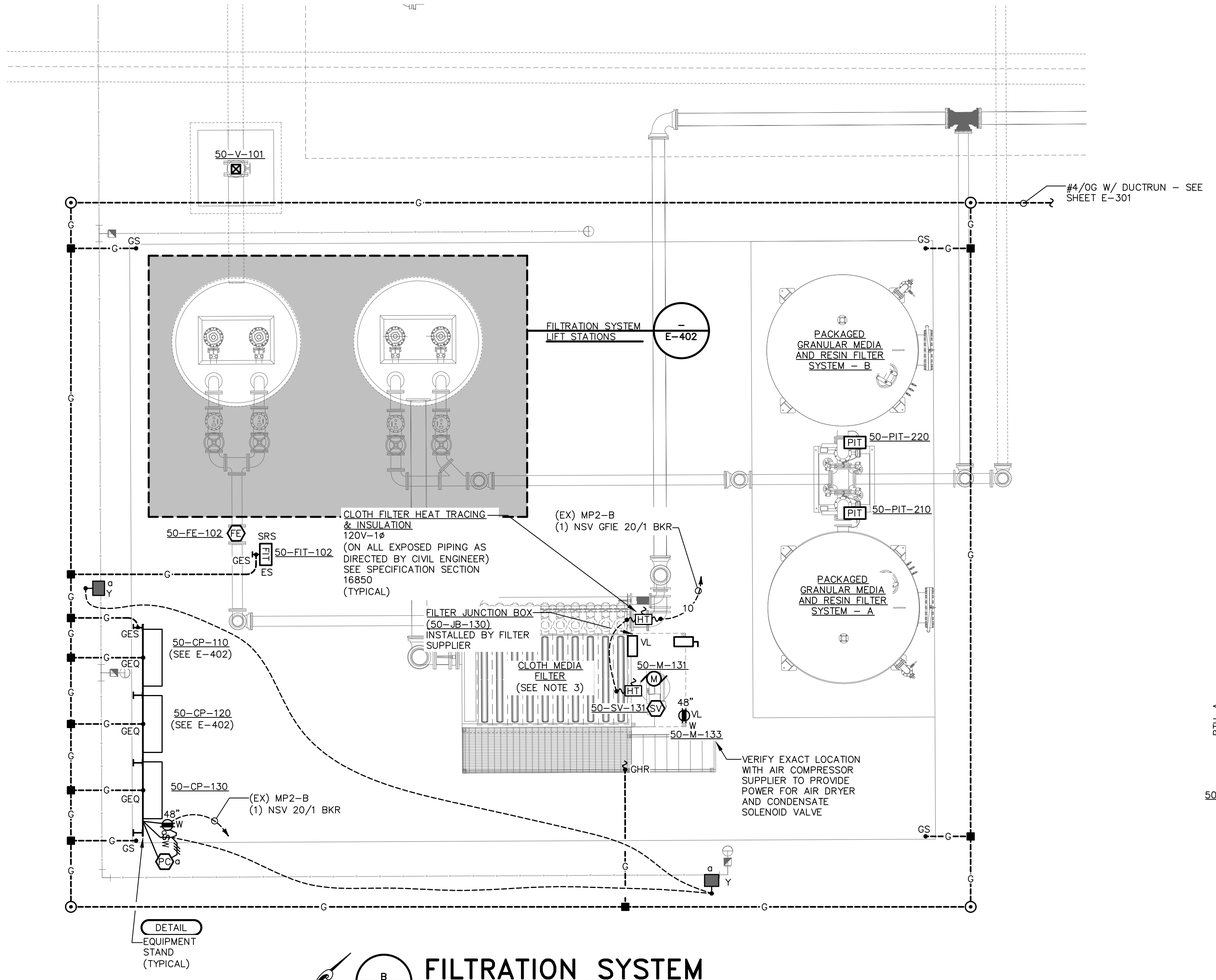


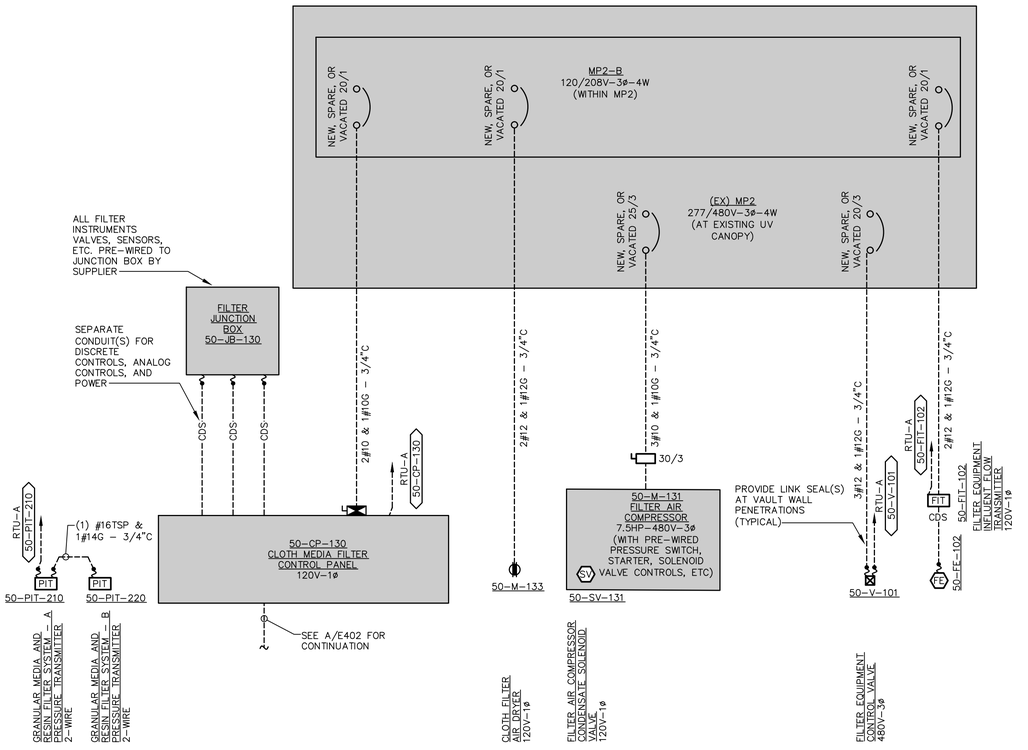
B E-401

FILTRATION SYSTEM OVERALL ELECTRICAL PLAN

SCALE : 1" = 5'-0"

PLAN NOTES

1. THIS PLAN IS INTENDED TO SHOW GENERAL ELECTRICAL EQUIPMENT/DEVICE LOCATIONS ONLY. REFER TO ASSOCIATED ASSOCIATED WIRING DIAGRAM AND SINGLE LINE DIAGRAM FOR ALL SITE CIRCUITRY REQUIREMENTS, PUMP HP'S, STATION VOLTAGES, ETC. NOT INDICATED ON THIS PLAN.
2. VERIFY EXACT LOCATIONS OF INSTRUMENTS, PUMPS, CONTROL PANELS, MOTOR DISCONNECT SWITCHES, EQUIPMENT STAND, ETC. WITH SUPPLIER TO ROUGH-IN.
3. ALL FILTER EQUIPMENT VALVES, FLOATS, LEVEL SENSORS, ETC. SHALL BE PRE-WIRED TO THE FILTER JUNCTION BOX BY THE FILTER SUPPLIER (NOT BY THE ELECTRICAL CONTRACTOR). MISCELLANEOUS PRE-WIRED FILTER INSTRUMENTS, DEVICES, ETC. ARE NOT INTENDED TO ALL BE SHOWN ON THESE DRAWINGS.



A E-401

FILTRATION SYSTEM WIRING DIAGRAM

SCALE : NONE

DIAGRAM NOTES

1. THIS IS A TYPICAL DIAGRAM THAT INDICATES GENERAL PROCESS EQUIPMENT CIRCUITRY, & MISCELLANEOUS WIRING REQUIREMENTS. IT IS NOT INTENDED TO SPECIFY ALL REQUIRED CIRCUITRY FOR THE PROJECT. SEE PLANS FOR SITE-SPECIFIC QUANTITIES OF DEVICES & EQUIPMENT. PROVIDE ALL INTERCONNECTIONS/CIRCUITRY AS REQUIRED FOR A COMPLETE INSTALLATION.
2. EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITHIN SHALL BE AS DIRECTED BY CIVIL ENGINEER.
3. ALL INTERCONNECTING CIRCUITRY BETWEEN SEPARATE EQUIPMENT, DEVICES, ETC. SHALL BE ROUTED UNDERGROUND (RATHER THAN EXPOSED OR ABOVE GRADE) WHERE POSSIBLE. TO PREVENT TRIP HAZARDS AND TO PROVIDE A NEAT & WORKMANLIKE INSTALLATION.

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NO.	REVISION/SUBMISSION	DATE:

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COA: ECA105

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THREE NOTCH GROUP

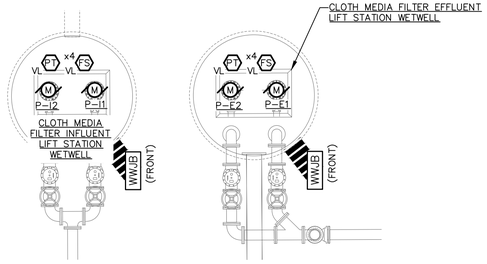
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2022102458
DATE: 20250725
SCALE: AS NOTED

SHEET NO: E-401

DRAWING TITLE: FILTRATION SYSTEM ELECTRICAL PLAN



B
E-402

FILTRATION SYSTEM LIFT STATIONS ELECTRICAL PLAN

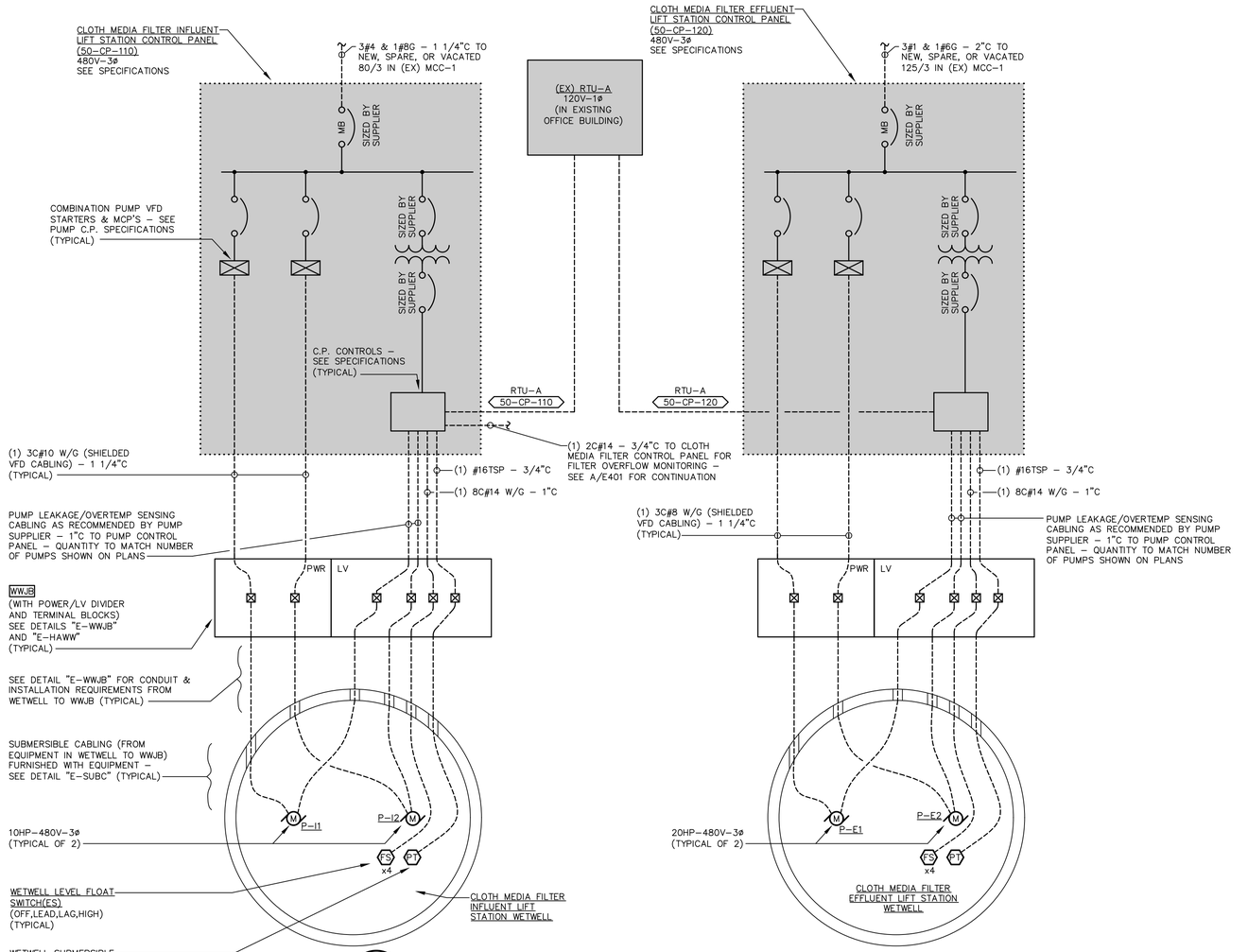
SCALE : 1" = 5'-0"

PLAN ABBREVIATION LEGEND

FS	WETWELL LEVEL FLOAT SWITCHES – "x#" REPRESENTS THE QUANTITY OF FLOAT SWITCH(ES) – VERIFY MOUNTING AND EXACT LOCATION WITH CIVIL ENGINEER PRIOR TO ROUGH-IN – SEE PUMP STATION WIRING DIAGRAM.
P-I1	CLOTH MEDIA FILTER INFLUENT LIFT STATION PUMP NO. 1 – SUBMERSIBLE – SEE PUMP STATION WIRING DIAGRAM FOR RATINGS.
P-I2	CLOTH MEDIA FILTER INFLUENT LIFT STATION PUMP NO. 2 – SUBMERSIBLE – SEE PUMP STATION WIRING DIAGRAM FOR RATINGS.
P-E1	CLOTH MEDIA FILTER EFFLUENT LIFT STATION PUMP NO. 1 – SUBMERSIBLE – SEE PUMP STATION WIRING DIAGRAM FOR RATINGS.
P-E2	CLOTH MEDIA FILTER EFFLUENT LIFT STATION PUMP NO. 2 – SUBMERSIBLE – SEE PUMP STATION WIRING DIAGRAM FOR RATINGS.
PT	WETWELL LEVEL (PRIMARY) SUBMERSIBLE PRESSURE TRANSDUCER – VERIFY MOUNTING AND EXACT LOCATION WITH CIVIL ENGINEER PRIOR TO ROUGH-IN – SEE PUMP STATION WIRING DIAGRAM.
WWJB	WETWELL JUNCTION BOX.

PLAN NOTES

1. THIS PLAN IS INTENDED TO SHOW ELECTRICAL EQUIPMENT/DEVICE LOCATIONS ONLY. REFER TO ASSOCIATED PUMP STATION WIRING DIAGRAM AND SINGLE LINE DIAGRAM FOR ALL SITE CIRCUITRY REQUIREMENTS, PUMP HP'S, STATION VOLTAGES, ETC.
2. VERIFY EXACT LOCATIONS OF WETWELL LEVEL SENSING DEVICES, WETWELL JUNCTION BOX(ES), ETC. WITH OWNER & CIVIL ENGINEER PRIOR TO ROUGH-IN.



A
E-402

FILTRATION SYSTEM LIFT STATIONS WIRING DIAGRAM

SCALE : NONE

WIRING DIAGRAM WIRING LEGEND

———	WIRING BY PANEL SUPPLIER
- - - - - - -	FIELD WIRING BY CONTRACTOR

DIAGRAM NOTES

1. THIS IS A TYPICAL DIAGRAM THAT INDICATES GENERAL PUMP STATION PROCESS EQUIPMENT BRANCH CIRCUITRY WIRING REQUIREMENTS ONLY. IT IS NOT INTENDED TO SPECIFY REQUIRED LIGHTING/RECEPTACLE CIRCUITRY, FEEDER CIRCUITRY FOR THE PROJECT ETC, SEE PLANS FOR SITE-SPECIFIC QUANTITIES OF DEVICES & EQUIPMENT. PROVIDE ALL INTERCONNECTIONS/CIRCUITRY AS REQUIRED FOR A COMPLETE INSTALLATION.
2. EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITHIN WETWELL SHALL BE AS DIRECTED BY CIVIL ENGINEER.
3. ALL INTERCONNECTING CIRCUITRY BETWEEN SEPARATE EQUIPMENT, DEVICES, ETC. SHALL BE ROUTED UNDERGROUND (RATHER THAN EXPOSED OR ABOVE GRADE) WHERE POSSIBLE.
4. NEW ELECTRICAL INSTALLATION WITHIN WETWELL AREA AS DEFINED BY DETAIL "E-HAWW" AND BY NFPA 820 SHALL COMPLY WITH ALL APPLICABLE NEC REQUIREMENTS FOR CONDUIT SEALS, RACEWAY TYPES, MATERIAL/DEVICE TYPES, ETC. SEE GENERAL ELECTRICAL NOTE NO. 14.

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:
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THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

FILTER SYSTEM LIFT STATIONS ELECTRICAL PLANS

PROJECT NO: 2021022468
DATE: 20250725
SCALE: AS NOTED

SHEET NO: E-402

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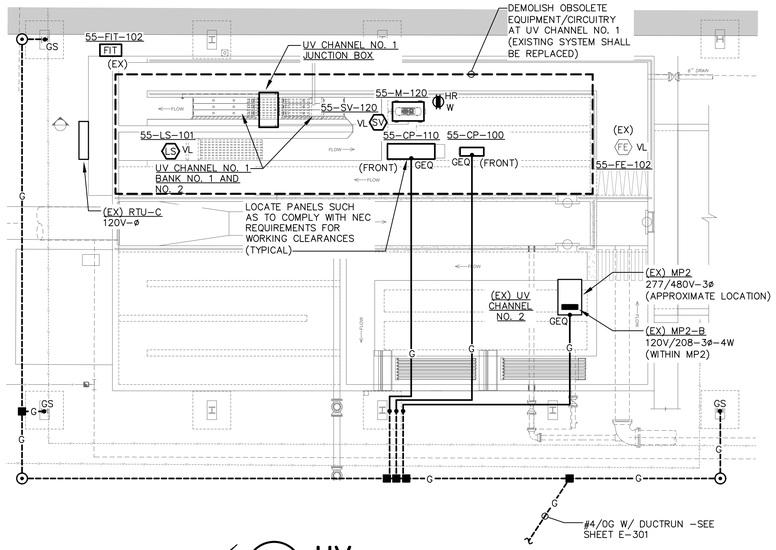
JRA JOB NO. 224171



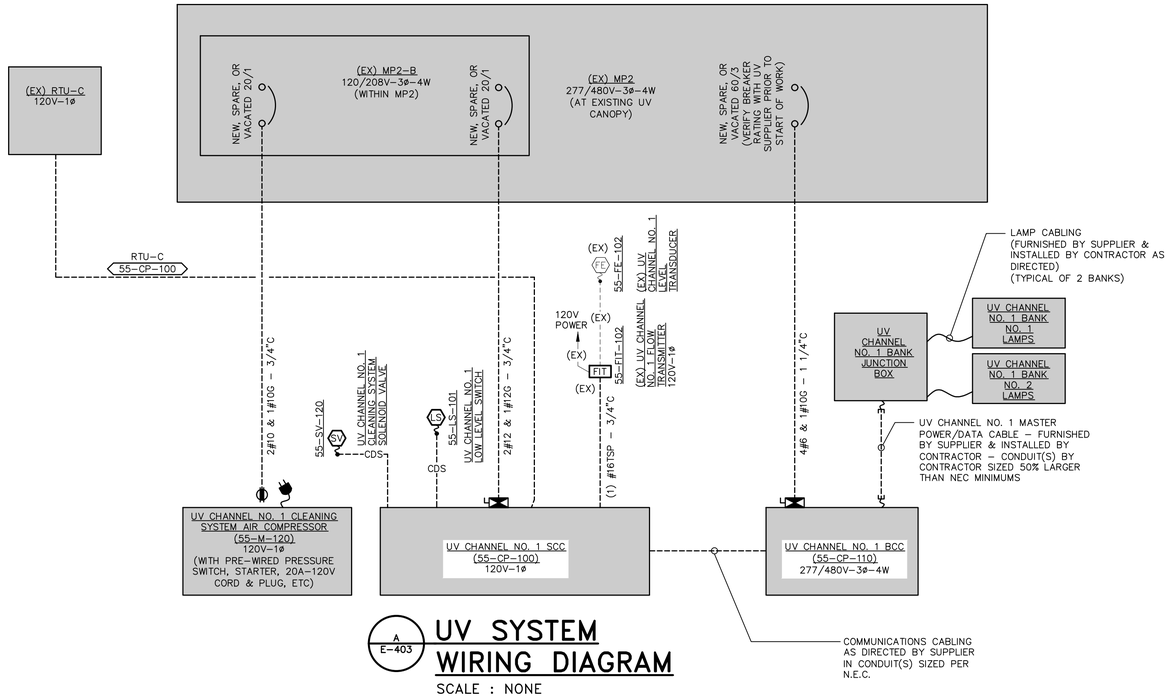
B E-403

UV ELECTRICAL PLAN

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

NOTES THIS PLAN ONLY

1. THIS PLAN IS INTENDED TO SHOW GENERAL ELECTRICAL EQUIPMENT/DEVICE LOCATIONS ONLY. REFER TO ASSOCIATED ASSOCIATED WIRING DIAGRAM AND SINGLE LINE DIAGRAM FOR ALL SITE CIRCUITRY REQUIREMENTS, PUMP HP'S, STATION VOLTAGES, ETC. NOT INDICATED ON THIS PLAN.
2. VERIFY EXACT LOCATIONS OF INSTRUMENTS, MOTORS, CONTROL PANELS, MOTOR DISCONNECT SWITCHES, EQUIPMENT STAND, ETC. WITH SUPPLIER TO ROUGH-IN.



A E-403

UV SYSTEM WIRING DIAGRAM

SCALE : NONE

DIAGRAM NOTES

1. THIS IS A TYPICAL DIAGRAM THAT INDICATES GENERAL PROCESS EQUIPMENT CIRCUITRY, & MISCELLANEOUS WIRING REQUIREMENTS. IT IS NOT INTENDED TO SPECIFY ALL REQUIRED CIRCUITRY FOR THE PROJECT. SEE PLANS FOR SITE-SPECIFIC QUANTITIES OF DEVICES & EQUIPMENT. PROVIDE ALL INTERCONNECTIONS/CIRCUITRY AS REQUIRED FOR A COMPLETE INSTALLATION.
2. EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITHIN SHALL BE AS DIRECTED BY CIVIL ENGINEER.
3. ALL INTERCONNECTING CIRCUITRY BETWEEN SEPARATE EQUIPMENT, DEVICES, ETC. SHALL BE ROUTED OVERHEAD OR UNDERGROUND (NOT ON TOP OF FLOOR SLAB). TO PREVENT TRIP HAZARDS AND TO PROVIDE A NEAT & WORKMANLIKE INSTALLATION.

DATE:

NO. | REVISION/SUBMISSION

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

COA: ECA105

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THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

JACKSON, RENFRO & ASSOCIATES, INC.
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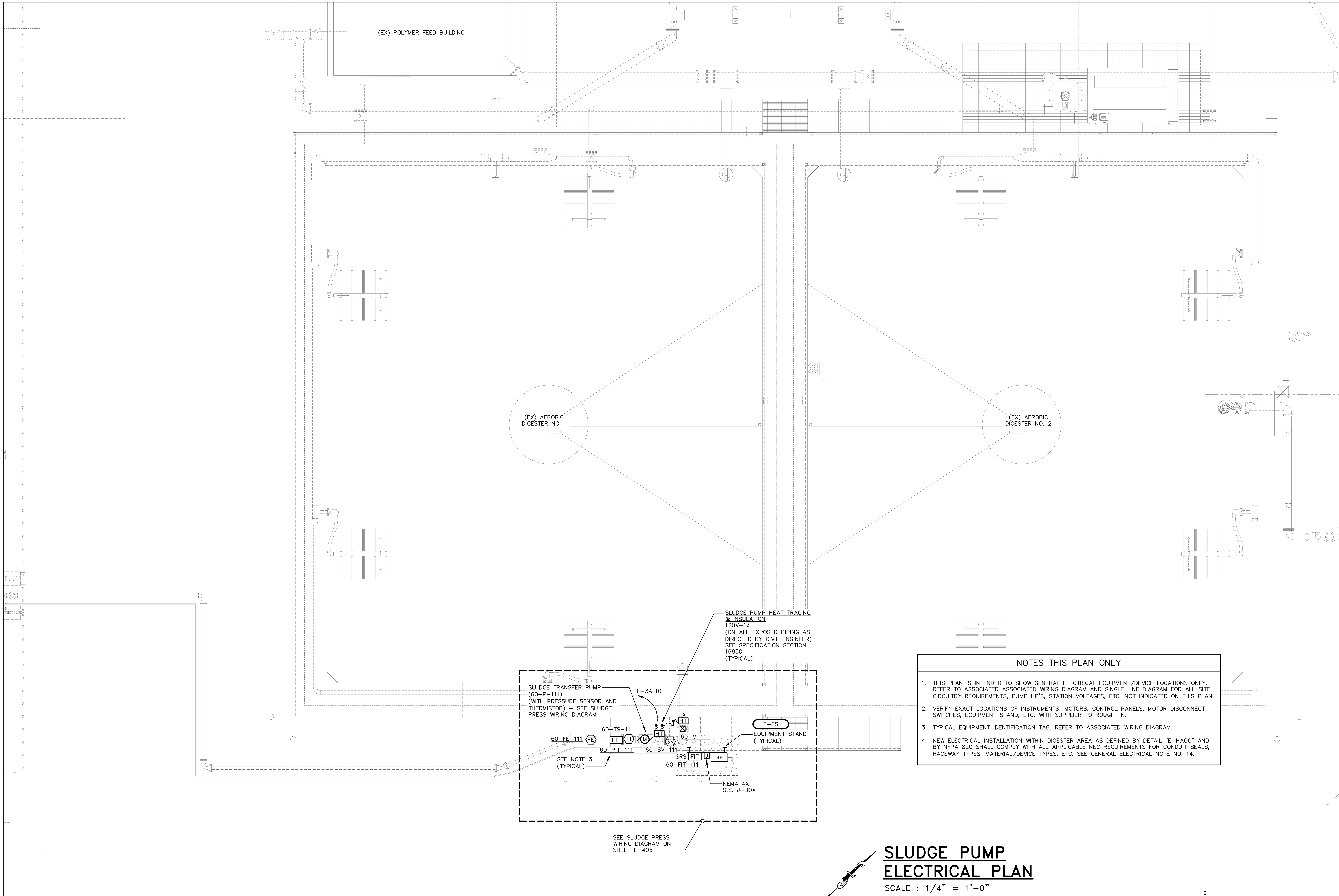
JRA JOB NO. 224171

PROJECT NO: 0021/002456
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-403

DRAWING TITLE: UV ELECTRICAL PLAN



SLUDGE PUMP ELECTRICAL PLAN

SCALE : 1/4" = 1'–0"

NOTES THIS PLAN ONLY

1. THIS PLAN IS INTENDED TO SHOW GENERAL ELECTRICAL EQUIPMENT/DEVICE LOCATIONS ONLY. REFER TO ASSOCIATED ASSOCIATED WIRING DIAGRAM AND SINGLE LINE DIAGRAM FOR ALL SITE CIRCUITRY REQUIREMENTS, PUMP HP'S, STATION VOLTAGES, ETC. NOT INDICATED ON THIS PLAN.
2. VERIFY EXACT LOCATIONS OF INSTRUMENTS, MOTORS, CONTROL PANELS, MOTOR DISCONNECT SWITCHES, EQUIPMENT STAND, ETC. WITH SUPPLIER TO ROUGH–IN.
3. TYPICAL EQUIPMENT IDENTIFICATION TAG. REFER TO ASSOCIATED WIRING DIAGRAM.
4. NEW ELECTRICAL INSTALLATION WITHIN DIGESTER AREA AS DEFINED BY DETAIL "E–HAOC" AND BY NFPA 820 SHALL COMPLY WITH ALL APPLICABLE NEC REQUIREMENTS FOR CONDUIT SEALS, RACEWAY TYPES, MATERIAL/DEVICE TYPES, ETC. SEE GENERAL ELECTRICAL NOTE NO. 14.

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NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL: ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

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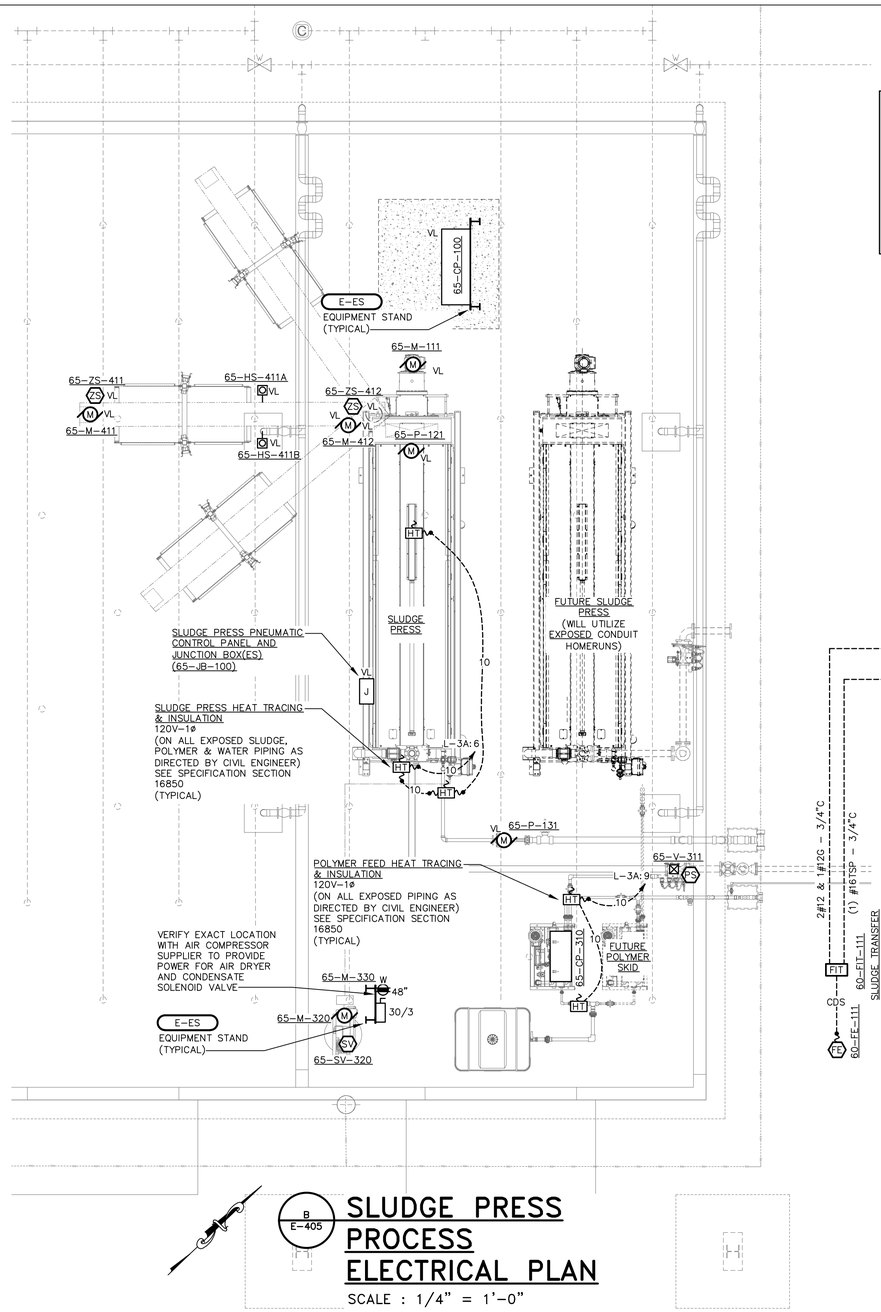
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R021022458
DATE: 2025/07/25
SCALE: AS NOTED
SHEET NO: E-404

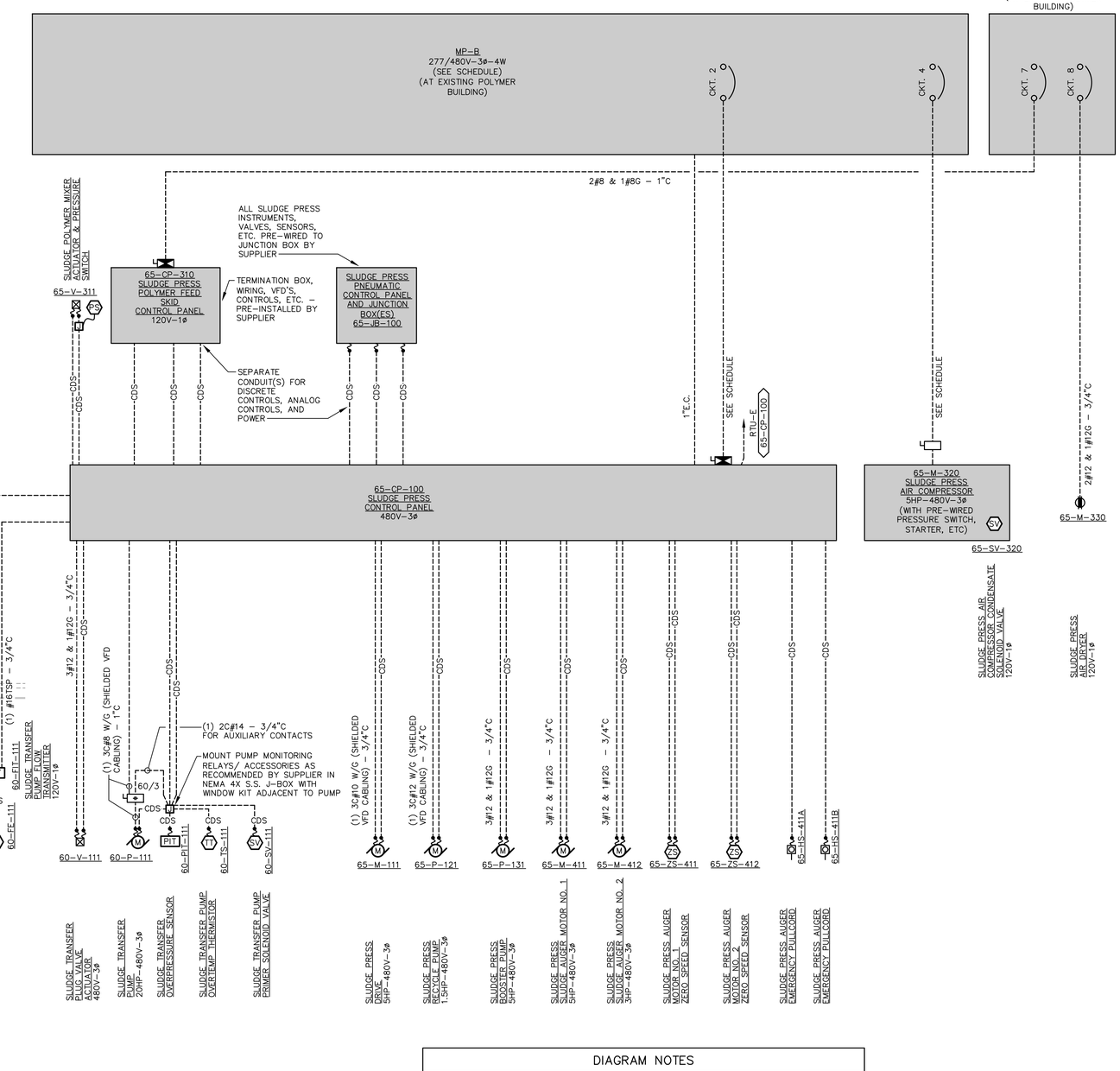
DRAWING TITLE: SLUDGE PUMP ELECTRICAL PLAN



B E-405

SLUDGE PRESS PROCESS ELECTRICAL PLAN

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



A E-405

SLUDGE PRESS CONTROL PANEL WIRING DIAGRAM

SCALE : NONE

NOTES THIS PLAN ONLY

1. THIS PLAN IS INTENDED TO SHOW GENERAL ELECTRICAL EQUIPMENT/DEVICE LOCATIONS ONLY. REFER TO ASSOCIATED ASSOCIATED WIRING DIAGRAM AND SINGLE LINE DIAGRAM FOR ALL SITE CIRCUITRY REQUIREMENTS, PUMP HP'S, STATION VOLTAGES, ETC. NOT INDICATED ON THIS PLAN.
2. VERIFY EXACT LOCATIONS OF INSTRUMENTS, MOTORS, CONTROL PANELS, MOTOR DISCONNECT SWITCHES, EQUIPMENT STAND, ETC. WITH SUPPLIER TO ROUGH-IN.

DIAGRAM NOTES

1. THIS IS A TYPICAL DIAGRAM THAT INDICATES GENERAL PROCESS EQUIPMENT CIRCUITRY, & MISCELLANEOUS WIRING REQUIREMENTS. IT IS NOT INTENDED TO SPECIFY ALL REQUIRED CIRCUITRY FOR THE PROJECT. SEE PLANS FOR SITE-SPECIFIC QUANTITIES OF DEVICES & EQUIPMENT. PROVIDE ALL INTERCONNECTIONS/CIRCUITRY AS REQUIRED FOR A COMPLETE INSTALLATION.
2. EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITHIN SHALL BE AS DIRECTED BY CIVIL ENGINEER.
3. ALL INTERCONNECTING CIRCUITRY BETWEEN SEPARATE EQUIPMENT, DEVICES, ETC. SHALL BE ROUTED UNDERGROUND (RATHER THAN EXPOSED OR ABOVE GRADE) WHERE POSSIBLE. TO PREVENT TRIP HAZARDS AND TO PROVIDE A NEAT & WORKMANLIKE INSTALLATION.
4. SUPPLIER MAY ELECT TO PRE-WIRE SOME OF THE FIELD DEVICES/EQUIPMENT SHOWN ON THIS DIAGRAM THRU J-BOX(ES) 65-JB-100. CONTRACTOR SHALL COORDINATE INSTALLATION WITH SUPPLIER PRIOR TO ROUGH-IN.

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(D) 205.536.7120
(P) 205.995.1078
JRA JOB NO. 224171

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL: ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

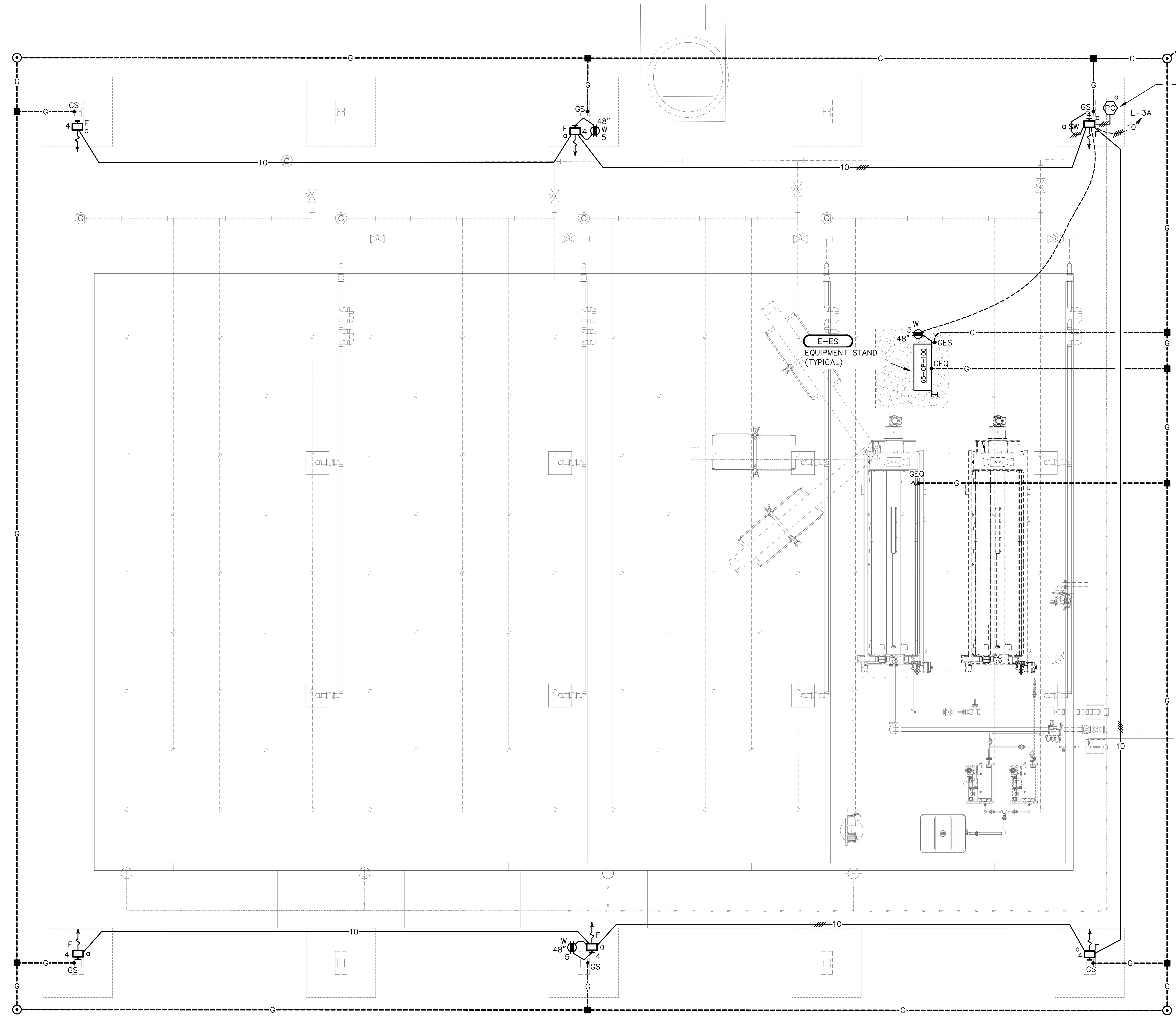
THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0102102456
DATE: 2025.07.25
SCALE: AS NOTED
SHEET NO: E-405

DRAWING TITLE: SLUDGE PRESS PROCESS ELECTRICAL PLAN



SLUDGE PRESS LIGHTING AND RECEPTACLE PLAN

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

NO. | REVISION/SUBMISSION | DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK

7/25/2025

COA: ECA105

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THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R0210224580

DATE: 2025/07/25

SCALE: AS NOTED

SHEET NO: E-406

DRAWING TITLE: SLUDGE PRESS LIGHTING AND RECEPTACLE PLAN

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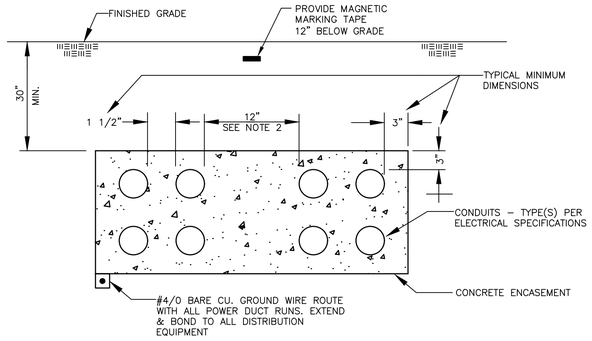


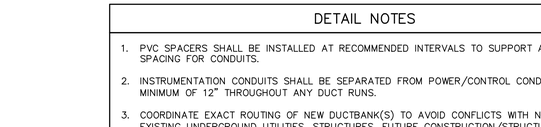
E-DR

DETAIL "E-DR" TYPICAL DUCT RUN SECTION

SCALE : NONE

DETAIL NOTES

1. PVC SPACERS SHALL BE INSTALLED AT RECOMMENDED INTERVALS TO SUPPORT AND MAINTAIN SPACING FOR CONDUITS.
2. INSTRUMENTATION CONDUITS SHALL BE SEPARATED FROM POWER/CONTROL CONDUITS BY A MINIMUM OF 12" THROUGHOUT ANY DUCT RUNS.
3. COORDINATE EXACT ROUTING OF NEW DUCTBANK(S) TO AVOID CONFLICTS WITH NEW OR EXISTING UNDERGROUND UTILITIES, STRUCTURES, FUTURE CONSTRUCTION/STRUCTURAL AREAS (AS DIRECTED BY CIVIL ENGINEER), ETC. PRIOR TO ROUGH-IN.
4. WHERE NEW DUCTRUNS CROSS (OR ROUTE WITHIN) EXISTING PAVED OR HARDSCAPED AREAS, CONTRACTOR SHALL NEATLY CUT, TRENCH & PATCH AS DIRECTED BY CIVIL ENGINEER OR OWNER.
5. WHERE NEW DUCTRUNS CROSS (OR ROUTE WITHIN) AREAS WITH EXISTING LANDSCAPING (GRASS, SHRUBBERY, ETC.), LANDSCAPING SHALL BE REPLACED TO MATCH EXISTING TO OWNER'S SATISFACTION. NEW DUCTRUNS SHALL BE CAREFULLY ROUTED OUTSIDE OF "DRIPLINES" OF EXISTING TREES THAT ARE BEING MAINTAINED AS REQUIRED TO AVOID DAMAGE TO ROOT SYSTEMS UNLESS DIRECTED OTHERWISE.



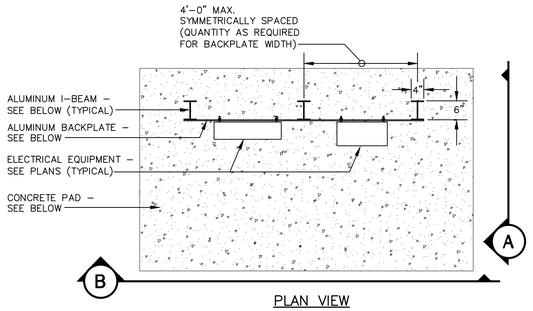
E-CL

DETAIL "E-CL" TYPICAL CIRCUIT LABEL

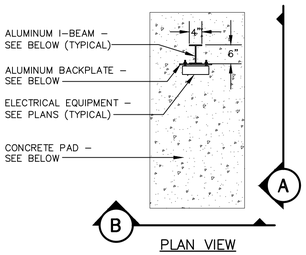
SCALE : NONE

NOTES THIS DETAIL ONLY

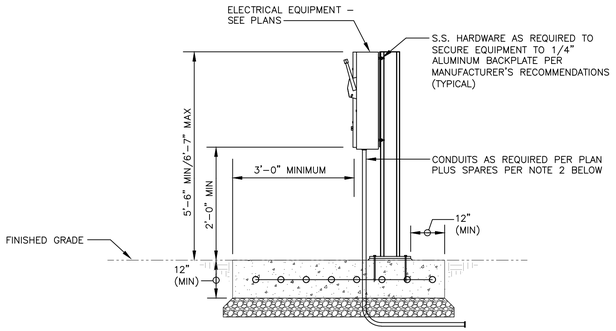
1. CIRCUIT LABEL TYPES SHOWN ABOVE SHALL BE USED TO IDENTIFY ALL CIRCUITS WITHIN PULLBOXES, HANDHOLES, VAULTS JUNCTION BOXES LARGER THAN 4-11/16", APPROXIMATELY EVERY 50 FEET WITHIN CABLE TRAYS (INCLUDING AT MAJOR CABLE TRAY JUNCTIONS AND BREAKOUT LOCATIONS) AND AT OTHER SIMILAR LOCATIONS. SEE SPECIFICATIONS FOR LABELING REQUIREMENTS IN OTHER AREAS.
2. CIRCUIT NUMBERS SHALL BE IDENTIFIED FOR ALL CIRCUITS FED FROM LIGHTING OR POWER PANELBOARDS.
3. "FROM", "TO" & "FOR" TEXT SHOWN ABOVE ARE FOR EXAMPLE PURPOSES ONLY. NAMES/NUMBERS SHALL BE ADJUSTED TO MATCH ASSOCIATED CIRCUITS/CABLES.
4. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



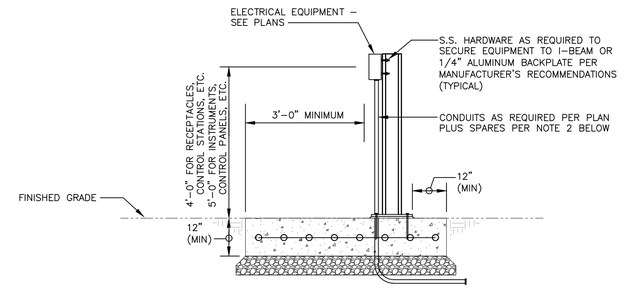
PLAN VIEW



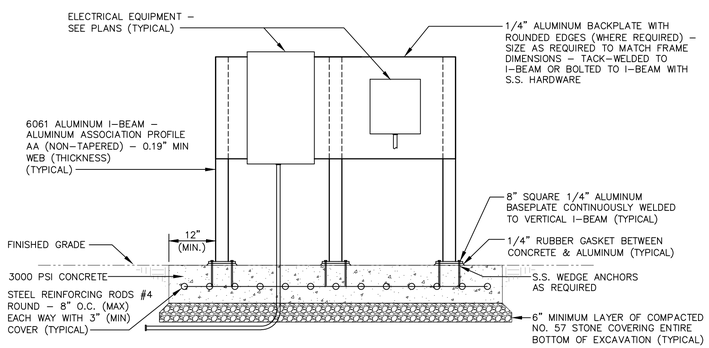
PLAN VIEW



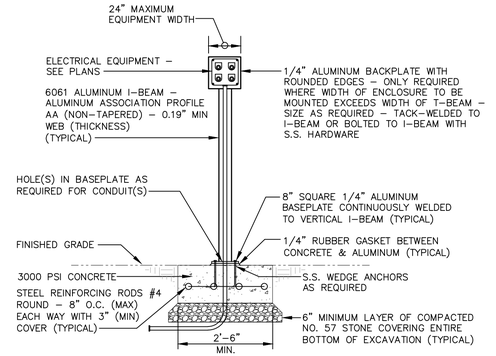
A PROFILE VIEW



A PROFILE VIEW



B FRONT VIEW



B FRONT VIEW

NAME:	RP-A
RATING:	120/208V-3ø-4W
FED FROM:	PP-A CIR. 4 (IN MAIN ELEC. ROOM)

E-EDL

DETAIL "E-EDL" ELECTRICAL DISTRIBUTION EQUIPMENT LABEL

SCALE : NONE

DETAIL NOTES

1. PANEL NAMES & RATINGS LISTED ABOVE ARE FOR EXAMPLE PURPOSES ONLY. NAMES & RATINGS SHALL BE ADJUSTED TO MATCH ASSOCIATED EQUIPMENT.
2. THE INTENT OF THIS DETAIL IS TO DEMONSTRATE GENERAL ELECTRICAL IDENTIFICATION REQUIREMENTS FOR ELECTRICAL DISTRIBUTION AND UTILIZATION EQUIPMENT. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS REGARDING LOCATIONS, CONTENT, MATERIALS, ETC..

E-ES

DETAIL "E-ES" EQUIPMENT SUPPORT

SCALE : NONE

DETAIL NOTES

1. ALL DIMENSIONS SHOWN ARE TYPICAL.
2. PROVIDE TWO (2) 1"E.C. FROM ALL DISTRIBUTION PANELS, LIGHTING PANELS, PLC'S AND CONTROL PANELS ROUTED BELOW CONCRETE PAD TO NEAREST PULLBOX OR ACCESSIBLE STUB OUT LOCATION (NOT UNDERNEATH CONCRETE/ROCK/STRUCTURE/ETC).

DATE:
NO. REVISION/SUBMISSION

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THREE NOTCH GROUP

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PIKE COUNTY, ALABAMA

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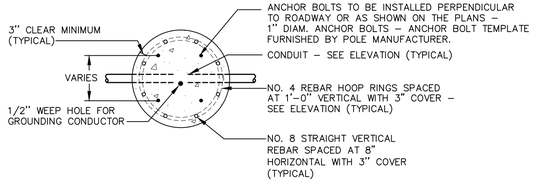
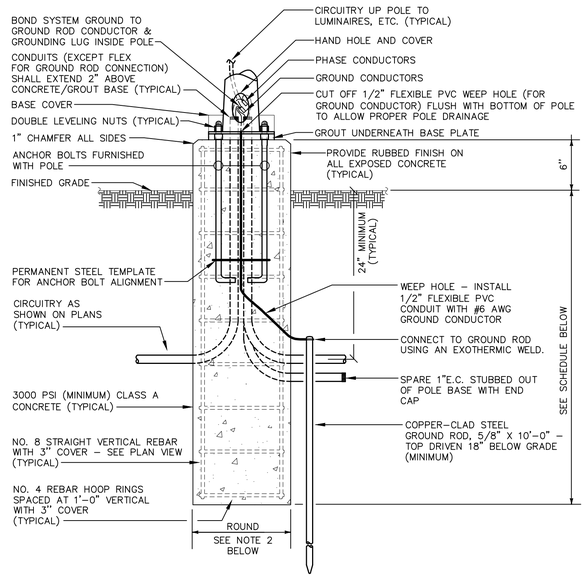
JRA JOB NO: 224171

PROJECT NO: 6021022458
DATE: 20250725
SCALE: AS NOTED
SHEET NO: E-801
DRAWING TITLE: ELECTRICAL DETAILS



PLAN VIEW



ELEVATION

E–LP1

DETAIL "E–LP1" EXPOSED LIGHT POLE BASE

SCALE : NONE

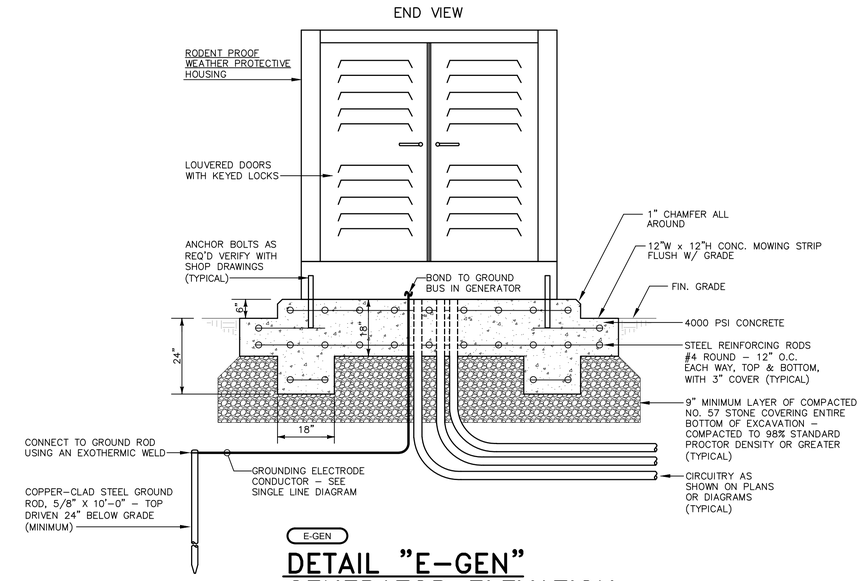
DETAIL NOTES

1. THIS CONTRACTOR SHALL CONFIRM SOIL CONDITIONS PRIOR TO BID OR INSTALLATION. IF SOIL CONDITIONS/TYPES ARE DIFFERENT THAN THE SPECIFIC TYPES INDICATED BELOW, OR THE POLE HEIGHTS ARE IN EXCESS OF THOSE LISTED BELOW, OR THE BASIC WIND SPEED FOR THE PROPOSED POLE LOCATION (PER ASCE 7 BASIC WIND SPEED MAPS) IS IN EXCESS OF 100MPH, OR THE COMBINED E.P.A. OF ALL LUMINAIRES/ARMS/ACCESSORIES INSTALLED ON A POLE IS IN EXCESS OF 5.5 S.F., THE CONTRACTOR SHALL RETAIN A QUALIFIED STRUCTURAL ENGINEER (LICENCED IN THE STATE OF THE PROJECT) TO PROVIDE A PROJECT–SPECIFIC STRUCTURAL DESIGN FOR THE PROPOSED POLE BASE(S), AND SHALL INCLUDE ALL COSTS (FOR THE DESIGN AND THE REQUIRED POLE BASES) IN THE BID.
2. MINIMUM POLE BASE DIAMETER SHALL BE THE GREATER OF THE FOLLOWING:
   A. ANCHOR BOLT CIRCLE DIAMETER PLUS 8" (TO PROVIDE MINIMUM 4" COVER OVER ALL ANCHOR BOLTS).
   B. 20" DIAMETER.
   C. DIAMETER AS REQUIRED BY SOIL CONDITIONS OR BY POLE SUPPLIER.
3. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES OR OBSTRUCTIONS TO AVOID CONFLICTS PRIOR TO INSTALLATION OF LIGHT POLE BASE(S).
4. POLE SHALL BE RATED TO WITHSTAND THE WIND SPEED SPECIFIED FOR THE SPECIFIC PROJECT SITE LOCATION PER LATEST VERSION OF ASCE 7 BASIC WIND SPEED MAPS OR APPLICABLE LOCAL BUILDING CODE REQUIREMENTS (WHICHEVER IS MORE STRINGENT), WITH 1.3 GUST FACTOR WITH ALL LUMINAIRES & ACCESSORIES INSTALLED.

POLE BASE DIMENSIONS

POLE HEIGHT	MINIMUM BASE DEPTH (BELOW GRADE) (SEE NOTE 1 ABOVE)			BASE DIAMETER
	CLAYEY SOILS (CL, ML, CH, MH)	SANDY SOILS (SW, SP, SM, SC, GM, GC)	GRAVELY SOILS (GW, GP)	
0 – 15 FT.	6'–0"	5'–0"	4'–6"	SEE NOTE 2 ABOVE
16 – 20 FT.	7'–0"	5'–6"	5'–0"	SEE NOTE 2 ABOVE
21 – 25 FT.	8'–0"	6'–0"	5'–6"	SEE NOTE 2 ABOVE
26 – 30 FT.	8'–6"	7'–0"	6'–6"	SEE NOTE 2 ABOVE
31 – 35 FT.	9'–0"	7'–6"	7'–0"	SEE NOTE 2 ABOVE
36 – 40 FT.	10'–0"	8'–0"	7'–6"	SEE NOTE 2 ABOVE
41 – 45 FT.	10'–6"	8'–6"	8'–0"	SEE NOTE 2 ABOVE
46 – 50 FT.	11'–0"	9'–0"	8'–6"	SEE NOTE 2 ABOVE

END VIEW



E-GEN

DETAIL "E–GEN" GENERATOR ELEVATION

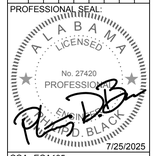
SCALE : NONE

DETAIL NOTES

1. ALL DIMENSIONS SHOWN ARE TYPICAL AND MINIMUM. ADDITIONALLY, CONTRACTOR SHALL SIZE CONCRETE PAD SUCH THAT THE TOTAL PAD WEIGHT (AT AN ASSUMED CONCRETE DENSITY OF 150 LBS/CUBIC FOOT) IS A MINIMUM OF 1.5 TIMES THE TOTAL GENERATOR SET WEIGHT (INCLUDING ENCLOSURE(S), ACCESSORIES, FUEL, OIL, ETC.).
2. PROVIDE VIBRATION ISOLATORS, SPRING & PAD TYPE, QUANTITY AS RECOMMENDED BY THE GENERATOR SET MANUFACTURER TO MOUNT GENERATOR SET. ISOLATORS SHALL INCLUDE SEISMIC RESTRAINTS IF REQUIRED BY SITE LOCATION.

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:



COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

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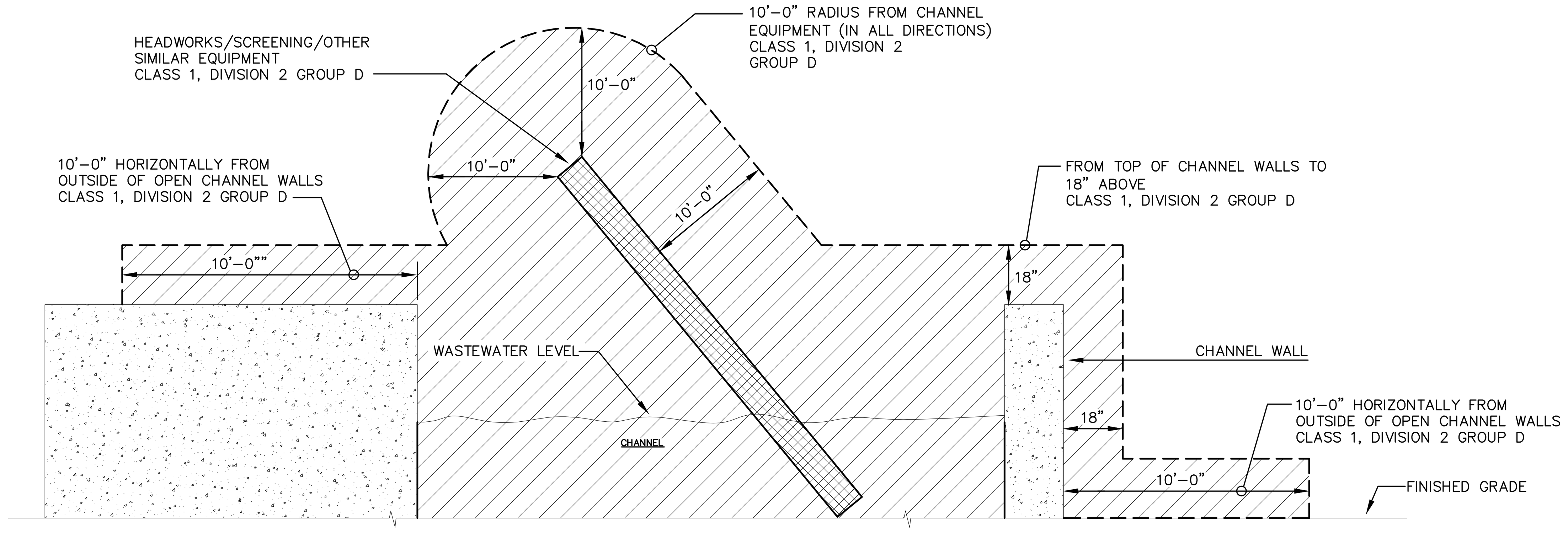
JRA JOB NO: 224171

PROJECT NO: 6021102458
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-802

DRAWING TITLE: ELECTRICAL DETAILS



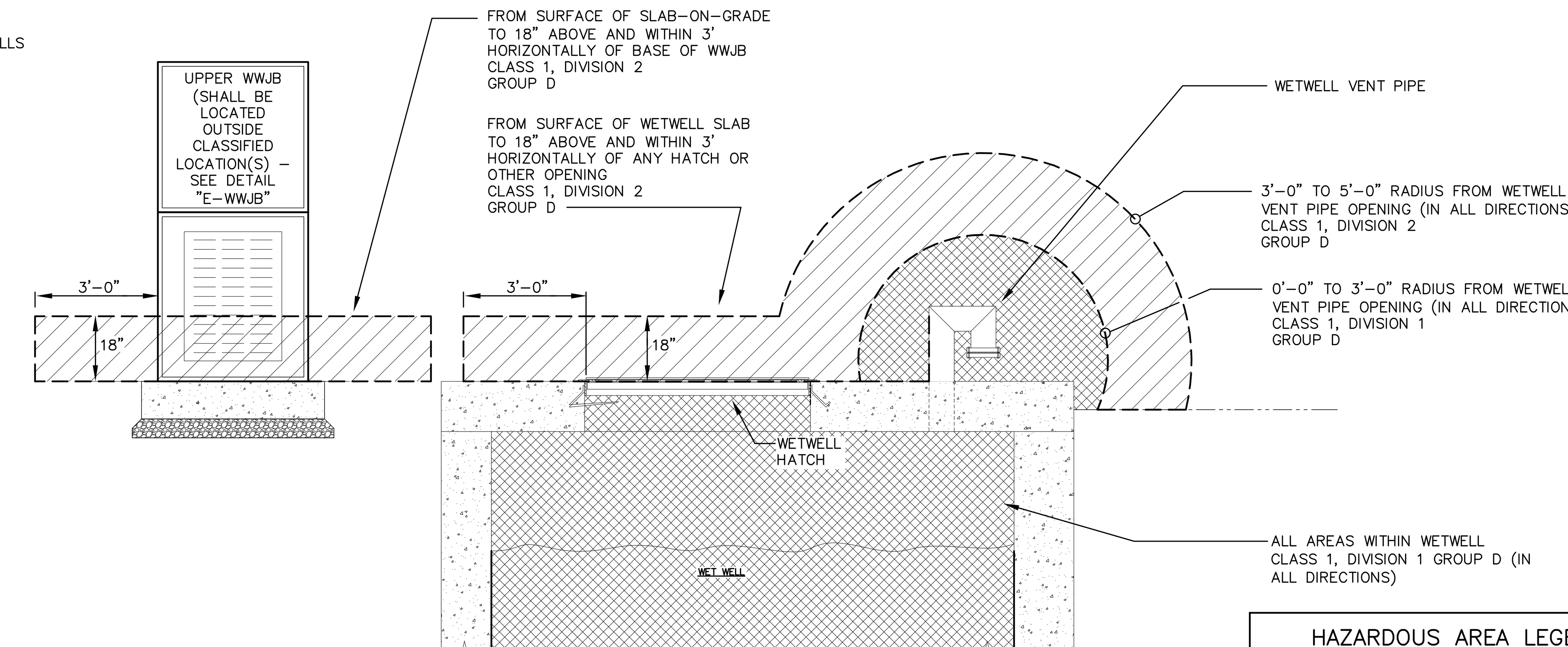
E-HAOC

DETAIL "E-HAOC" HAZARDOUS AREA CLASSIFICATION FOR OPEN WASTEWATER CHANNELS & HEADWORKS EQUIPMENT

SCALE : NONE

HAZARDOUS AREA LEGEND
CLASS 1, DIVISION 1, GROUP D AREA
CLASS 1, DIVISION 2, GROUP D AREA

DETAIL NOTES
1. ALL EQUIPMENT, DEVICES, CIRCUITRY, ETC, SHALL BE KEPT OUT OF HAZARDOUS AREAS UNLESS SPECIFICALLY SHOWN OTHERWISE. ENTIRE ELECTRICAL INSTALLATION WITHIN HAZARDOUS AREAS AS (DEFINED ON PLANS OR BY NFPA 820) SHALL COMPLY WITH ALL APPLICABLE NEC REQUIREMENTS FOR INSTALLATION, CONDUIT SEALS, RACEWAY TYPES, MATERIAL/DEVICE TYPES, ETC. GENERAL PROJECT INTENT IS TO MINIMIZE EQUIPMENT/DEVICES/CIRCUITRY LOCATED WITHIN HAZARDOUS AREAS.



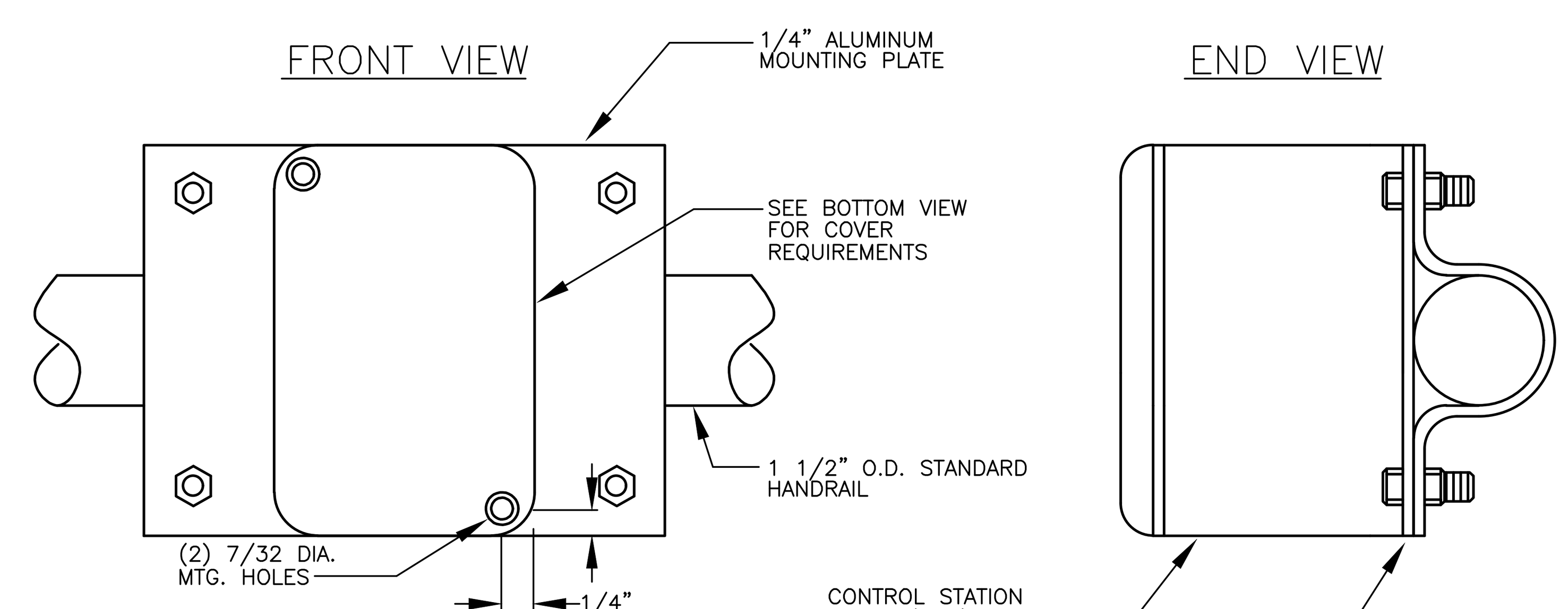
HAZARDOUS AREA LEGEND
CLASS 1, DIVISION 1, GROUP D AREA
CLASS 1, DIVISION 2, GROUP D AREA

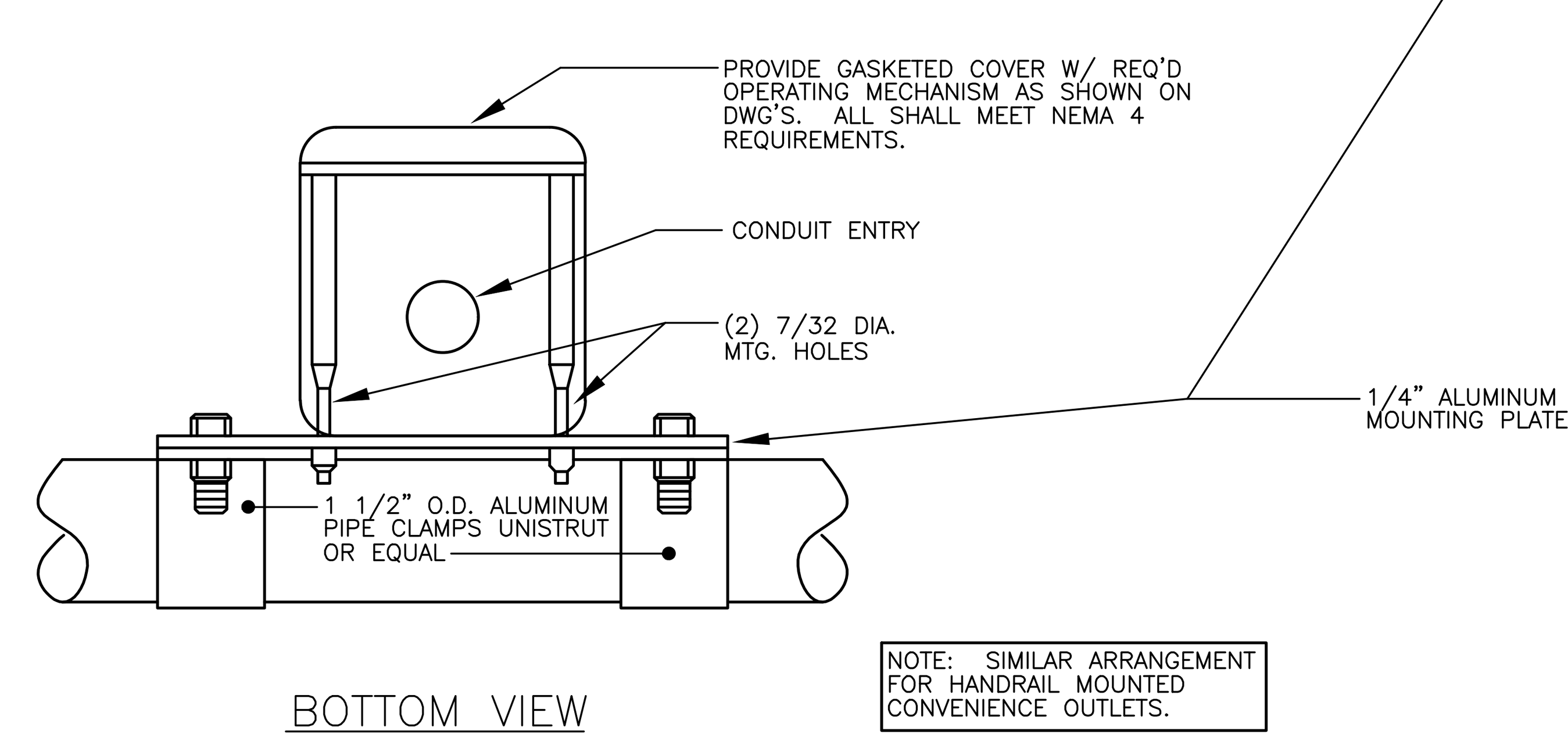
E-HAWW

DETAIL "E-HAWW" HAZARDOUS AREA CLASSIFICATION FOR ENCLOSED WASTEWATER WETWELLS

SCALE : NONE

DETAIL NOTES
1. ALL EQUIPMENT, DEVICES, CIRCUITRY, ETC, SHALL BE KEPT OUT OF HAZARDOUS AREAS UNLESS SPECIFICALLY SHOWN OTHERWISE. ENTIRE ELECTRICAL INSTALLATION WITHIN HAZARDOUS AREAS AS (DEFINED ON PLANS OR BY NFPA 820) SHALL COMPLY WITH ALL APPLICABLE NEC REQUIREMENTS FOR INSTALLATION, CONDUIT SEALS, RACEWAY TYPES, MATERIAL/DEVICE TYPES, ETC. GENERAL PROJECT INTENT IS TO NOT REQUIRE CONDUIT SEALS (PER DETAIL "E-WWJB")
2. WHERE MULTIPLE HAZARDOUS AREA ZONES OVERLAP, THE MORE STRINGENT ZONE CLASSIFICATION SHALL APPLY.





NOTE: SIMILAR ARRANGEMENT FOR HANDRAIL MOUNTED CONVENIENCE OUTLETS.

E-HR

DETAIL "E-HR" NEMA 4 HANDRAIL MOUNTING

SCALE : NONE

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PROFESSIONAL SEAL: ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

COA: ECA105

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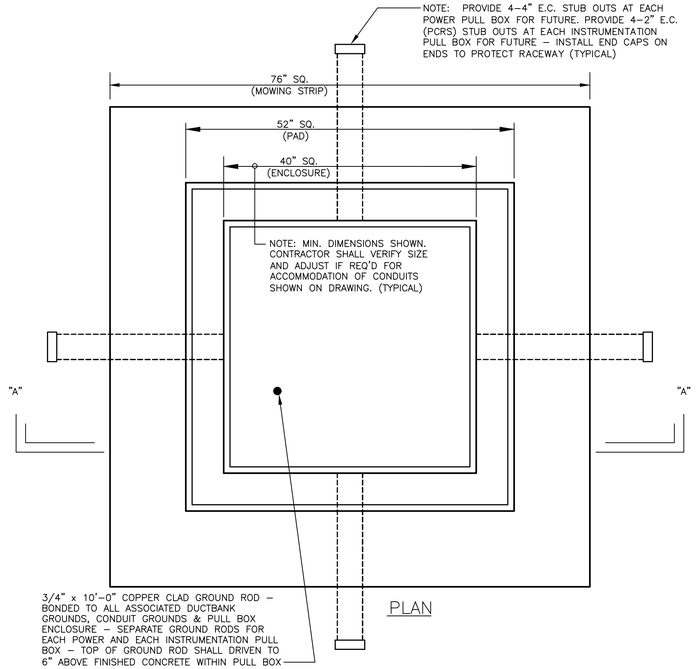
THREE NOTCH GROUP

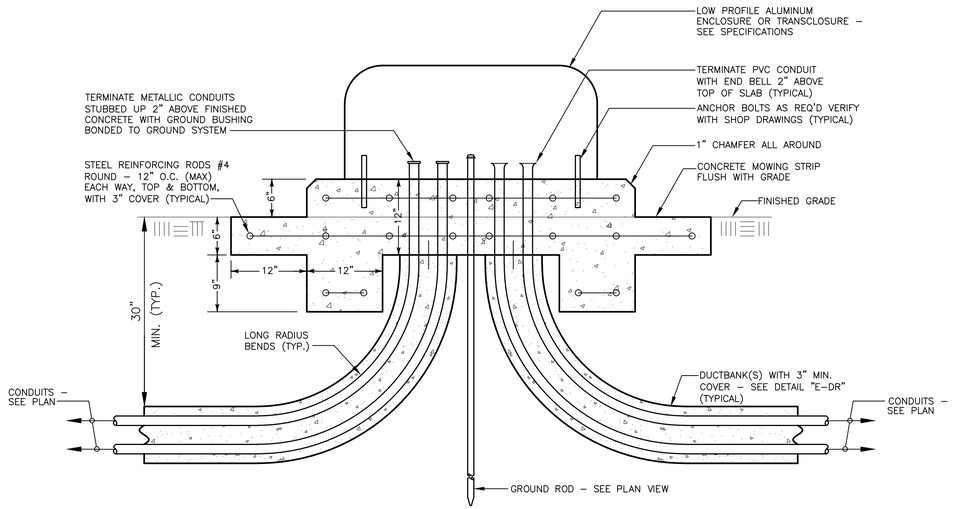
FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: R0210222458
DATE: 2025/07/25
SCALE: AS NOTED
SHEET NO: E-803
DRAWING TITLE: ELECTRICAL DETAILS



PLAN



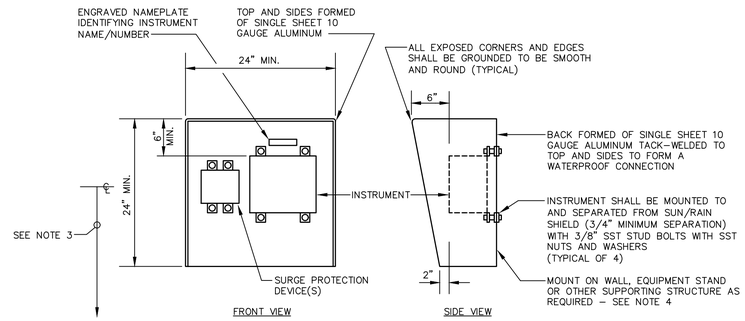
SECTION "A"–"A"

NOTE: MINIMUM PULL BOX DIMENSIONS SHOWN. PROVIDE LARGER AND/OR ADDITIONAL PULL BOXES AS REQUIRED TO ACCOMMODATE CONDUITS AND WIRING.

E–PB1

DETAIL "E–PB1" PULL BOX

SCALE : NONE



FRONT VIEW SIDE VIEW

E–SRS

DETAIL "E–SRS" INSTRUMENT SUN/RAIN SHIELD INSTALLATION DETAIL

SCALE : NONE

DETAIL NOTES

1. SUN/RAIN SHIELDS SHALL BE FURNISHED FOR ALL ELECTRONIC INSTRUMENTS THAT WILL BE EXPOSED TO SUN OR RAIN (OR WHERE OTHERWISE SPECIFICALLY NOTED).
2. DIMENSIONS SHOWN ABOVE ARE MINIMUM. SUN/RAIN SHIELDS SHALL BE SUFFICIENTLY SIZED TO ACCOMODATE INSTRUMENT PLUS ASSOCIATED SURGE PROTECTION DEVICE(S), POWER SUPPLIES, AND OTHER SIMILAR DEVICES.
3. CENTERLINE OF INSTRUMENT SHALL BE LOCATED AT APPROXIMATELY 60" ABOVE GRADE/FLOOR LEVEL.
4. WHERE SUN/RAIN SHIELD IS SHOWN TO BE MOUNTED AT HANDRAIL(S) WITH LESS THAN 60" OF FRONTAL CLEARANCE (FOR PROPOSED INSTRUMENT), PROVIDE TWO (2) SETS OF VERTICAL 316 STAINLESS STEEL UNISTRUT FRAMES FROM "BACK" SIDE OF BOTH RAILS OF HANDRAIL SYSTEM AS REQUIRED TO OFFSET SUN/RAIN SHIELD BEHIND HANDRAIL SYSTEM, SUCH THAT FRONT OF SUN/RAIN SHIELD DOES NOT PROTRUDE INTO WALKWAY PAST INSIDE OF HANDRAIL, TO "BACK" SIDE OF SUN/RAIN SHIELD.

NO.	REVISION/SUBMISSION	DATE:

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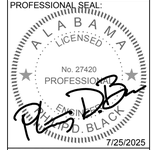

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PIKE COUNTY, ALABAMA

PROJECT NO: 6021102458
DATE: 20250725
SCALE: AS NOTED

SHEET NO: E-804

DRAWING TITLE: ELECTRICAL DETAILS

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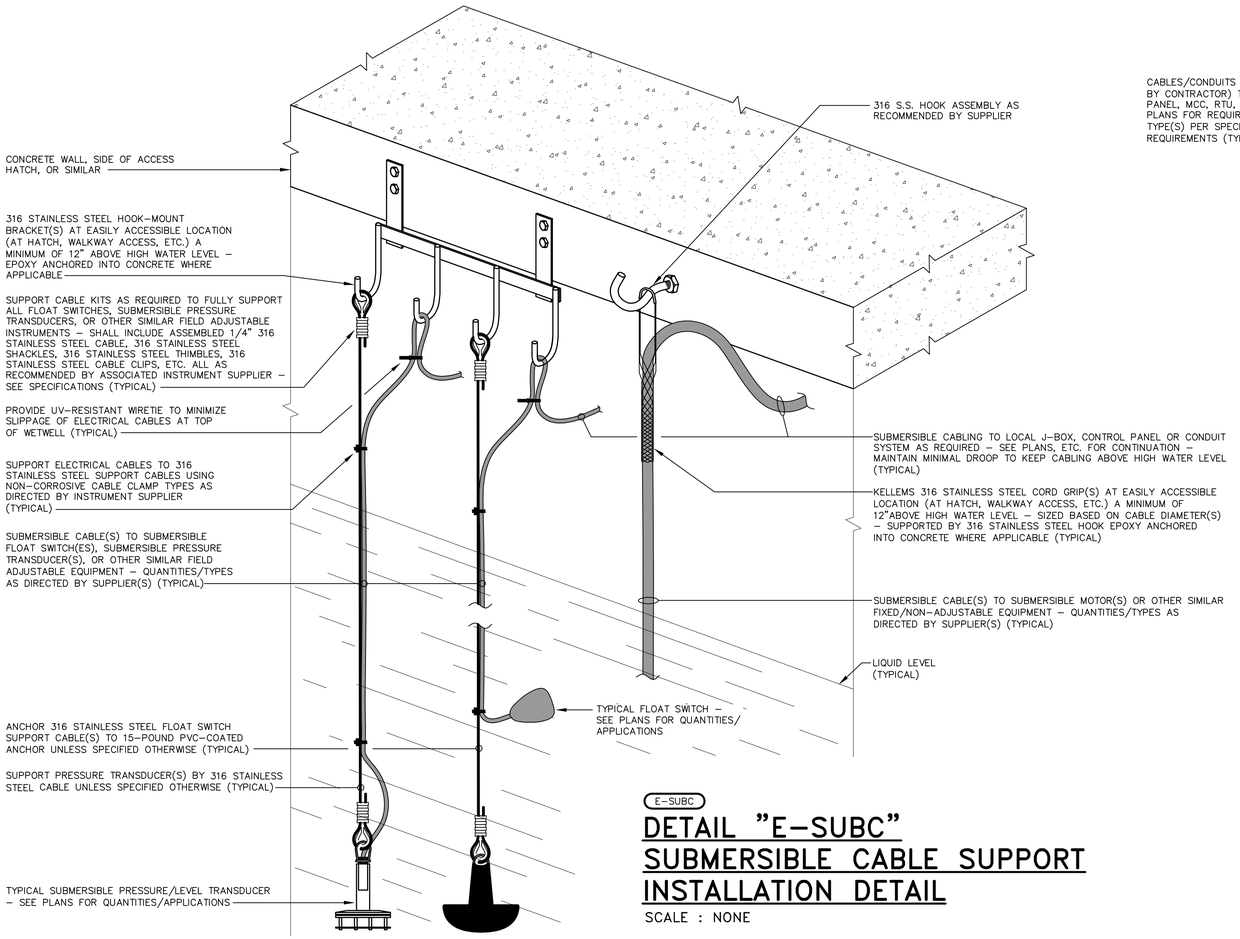
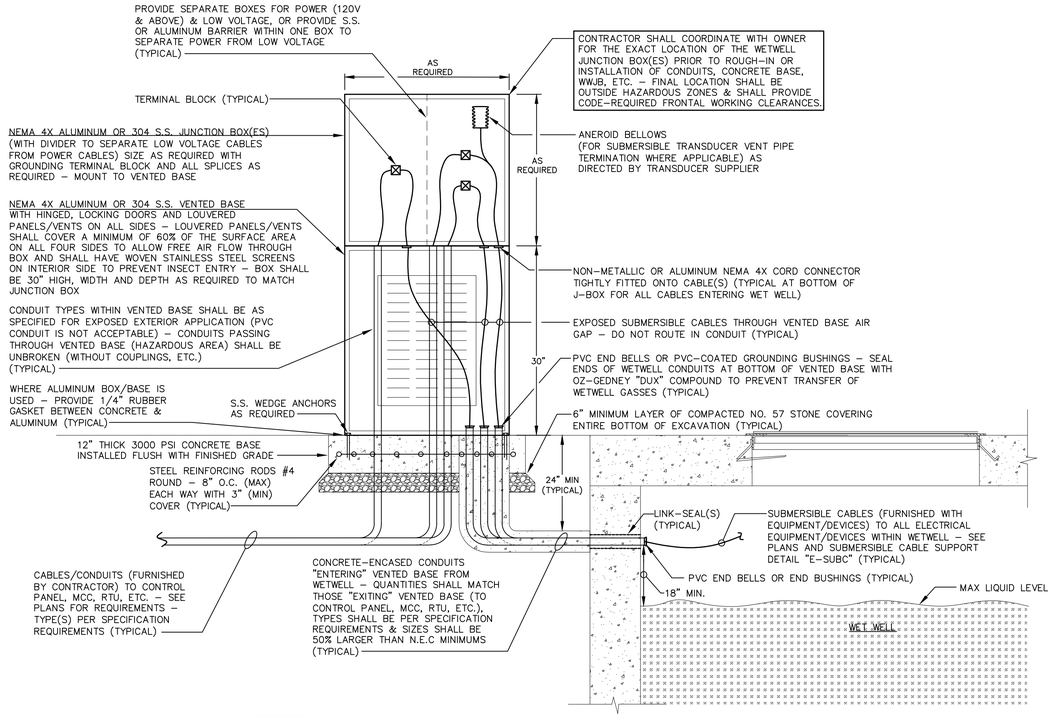


E-SUBC

DETAIL "E-SUBC"
SUBMERSIBLE CABLE SUPPORT INSTALLATION DETAIL

SCALE : NONE



E-WWJB

DETAIL "E-WWJB"
WET WELL JUNCTION BOX

SCALE : NONE

DETAIL NOTES

1. ENTIRE ELECTRICAL INSTALLATION WITHIN HAZARDOUS AREAS AS DEFINED BELOW, BY DETAIL "E-HAWW", AND BY NFPA 820 SHALL COMPLY WITH ALL APPLICABLE NEC REQUIREMENTS FOR RACEWAY TYPES, MATERIAL/DEVICE TYPES, ETC. CONTRACTOR SHALL COORDINATE EXACT WETWELL JUNCTION BOX LOCATION(S) TO BE OUTSIDE OF THESE HAZARDOUS AREAS:
   - 1.1. THE FOLLOWING AREAS SHALL BE CONSIDERED CLASS I, DIVISION I, GROUP D AREAS:
     - A. AREAS WITHIN WASTEWATER PUMPING STATION WET WELLS AND VALVE VAULTS.
     - B. AREAS WITHIN 3' OF ANY WASTEWATER WET WELL OR VALVE VAULT VENTILATION OUTLET (SUCH AS PIPE VENT).
   - 1.1. THE FOLLOWING AREAS SHALL BE CONSIDERED CLASS I, DIVISION II, GROUD D AREAS:
     - A. AREAS UP TO 18" ABOVE TOP OF WASTEWATER WET WELL SLABS AND WITHIN 3' HORIZONTALLY OF HATCHES OR OTHER OPENINGS.
     - B. AREAS WITHIN 5' OF ANY WASTEWATER WET WELL VENTILATION OUTLET BUT MORE THAN 3' AWAY.
2. THIS DETAIL IS TYPICAL ONLY. PROVIDE QUANTITIES/ARRANGEMENTS OF WET WELL JUNCTION BOXES AS REQUIRED BY APPLICATION.
3. EXACT HEIGHTS OF ALL LEVEL SENSING TRANSDUCERS & FLOAT SWITCHES SHALL BE AS DIRECTED BY CIVIL ENGINEER.
4. ALL LEVEL SENSING TRANSDUCERS SHALL BE LOCATED WITHIN WETWELL AS DIRECTED BY EQUIPMENT SUPPLIER.
5. CONTRACTOR SHALL PROVIDE ALL FIELD CONNECTIONS AS DIRECTED BY THE EQUIPMENT/DEVICE SUPPLIERS.

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA LICENSED No. 27420 PROFESSIONAL ENGINEER PHILIP D. BLACK 7/25/2025

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING-ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 0024102048
DATE: 2025/07/25
SCALE: AS NOTED

SHEET NO: E-805

DRAWING TITLE: ELECTRICAL DETAILS

JACKSON, RENFRO & ASSOCIATES, INC.
ELECTRICAL ENGINEERING & DESIGN
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PHILIP D. BLACK, PE
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(P) 205.995.1078
JRA JOB NO: 224171

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE BETWEEN ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DRAWINGS:

   A. ANY DISCREPANCIES OR CONFLICTS BETWEEN DRAWINGS OF DIFFERENT DISCIPLINES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. CONTRACTOR SHALL NOT PROCEED WITH SHOP DRAWING PREPARATION OR ANY CONSTRUCTION UNTIL THE ARCHITECT HAS GIVEN DIRECTION OF RESOLUTION FOR THE DISCREPANCY OR CONFLICT.

   B. NOT ALL OPENINGS AND OTHER COMPONENTS THAT ARE REQUIRED HAVE BEEN SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE AND VERIFY THE LOCATIONS AND SIZES OF CHASES, INSERTS, OPENINGS, SLEEVES, FINISHES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS AT FLOORS, WALLS, AND ROOFS BETWEEN DRAWINGS OF DIFFERENT DISCIPLINES.

2. IN THE CASE OF INCONSISTENCIES BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT, A BIDDER WILL BE DEEMED TO HAVE INCLUDED IN ITS BID THE BETTER QUALITY OR GREATER QUANTITY OF THE WORK INVOLVED UNLESS THE BIDDER ASKED FOR AND OBTAINED THE ARCHITECT'S WRITTEN CLARIFICATION OF THE REQUIREMENTS BEFORE SUBMISSION OF BID.

3. ALL DIMENSIONS SHOWN TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS, AND DETAILS. DO NOT SCALE THE DRAWINGS.

4. THE DETAILS PROVIDED ON SHEETS LABELED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE DRAWINGS IN AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS, UNLESS NOTED OTHERWISE.

5. ALL OF THE CONTRACTOR'S PROPOSED SUBSTITUTIONS ARE CONSIDERED CHANGE ORDERS AND SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND/OR APPROVAL PRIOR TO ANY PERTINENT WORK OR FABRICATION.

6. CONSTRUCTION METHODS, PROCEDURES AND SEQUENCES ARE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL TAKE ALL THE NECESSARY MEANS TO MAINTAIN AND PROTECT THE STRUCTURAL INTEGRITY OF ALL CONSTRUCTION, NEW AND EXISTING, AT ALL STAGES INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

   A. BRACE ALL BASEMENT-TYPE WALLS RETAINING EARTH UNTIL RESTRAINING SLABS/FLOORS HAVE BEEN INSTALLED AND REACHED REQUIRED DESIGN STRENGTH.

   B. BRACE/SHORE ALL WALLS AS REQUIRED TO MAINTAIN STABILITY DURING CONSTRUCTION.

   C. SHORE EXISTING FLOORS, WALLS, AND/OR ROOFS AS REQUIRED DURING DEMOLITION OF ANY PORTION OF EXISTING STRUCTURE UNTIL NEW SUPPORT FRAMING HAS BEEN INSTALLED.

7. ALL STRUCTURAL MEMBERS, AS SHOWN, HAVE BEEN DESIGNED TO CARRY IN PLACE DESIGN LOADS ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ANY LOADS AND FORCES IMPOSED DURING CONSTRUCTION, TRANSPORTATION, ERECTION, AND HANDLING. THE CONTRACTOR SHALL INSURE THAT CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN LIVE LOADS INDICATED ON THE STRUCTURAL DRAWINGS AND THAT THESE LOADS ARE NOT IMPOSED ON THE STRUCTURAL MEMBERS PRIOR TO THE TIME THAT CONCRETE REACHES THE FULL SPECIFIED DESIGN STRENGTH. STEEL MEMBERS AND THEIR CONNECTIONS ARE FULLY BOLTED AND / OR WELDED AND ALL OTHER FRAMING MEMBERS AND THEIR CONNECTIONS ARE IN PLACE.

8. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO ANY PERTINENT WORK OR FABRICATION. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE NOTED ON THE SHOP DRAWINGS.

9. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL CONSTRUCTION JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILED ON THE SHOP DRAWINGS FOR REVIEW.

10. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED.

SHOP DRAWINGS/SUBMITTALS:

1. SHOP DRAWING SUBMITTAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE PROJECT CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) AND SHALL FOLLOW INDUSTRY GUIDELINES AND STANDARDS.

2. ALL QUESTIONS, CLARIFICATIONS, OR MODIFICATIONS OF THE CONTRACT DOCUMENTS SHALL BE CLEARLY DOCUMENTED AND INDICATED ON THE SHOP DRAWING TRANSMITTAL OR COVER SHEET. ITEMS SHALL NOT BE CONSIDERED APPROVED UNLESS SPECIFICALLY ADDRESSED BY MBA IN THE REVIEW COMMENTS.

3. ALL SHOP DRAWINGS ARE TO BE NEWLY PREPARED. REPRODUCTIONS OF CONTRACT STRUCTURAL DRAWINGS FOR USE AS ERECTION DRAWINGS WILL NOT BE PERMITTED. SHOULD SHOP DRAWING SUBMITTALS CONTAIN ANY REPRODUCTIONS OF CONTRACT STRUCTURAL DRAWINGS, THEY WILL BE REJECTED AND RETURNED WITHOUT ENGINEER REVIEW.

   A. MBA MAY CONSIDER TRANSFERRING COMPUTER FILES, IN THE FORMAT CREATED, OF THE PLAN SHEETS TO PROJECT SUBCONTRACTORS TO ASSIST IN DEVELOPING SHOP DRAWINGS ON A CASE BY CASE BASIS. A SIGNED FILE TRANSFER AGREEMENT WILL BE REQUIRE PRIOR TO RELEASE OF MBA FILES.

4. CONTRACTOR TO REVIEW ALL SHOP DRAWING SUBMITTALS AND STAMP WITH APPROVAL PRIOR TO SUBMISSION TO ARCHITECT/ ENGINEER. ***SHOP DRAWINGS RECEIVED BY ARCHITECT/ENGINEER THAT HAVE NOT BEEN REVIEWED AND COORDINATED BY THE CONTRACTOR WILL BE RETURNED WITHOUT ARCHITECT/ENGINEER'S REVIEW***. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRECTING DIMENSIONS WHICH PERTAIN TO FABRICATION PROCESSES OR CONSTRUCTION TECHNIQUES PRIOR TO SUBMITTAL AND FOR COORDINATION OF WORK OF ALL TRADES.

5. CONTRACTOR MAY PROVIDE REVIEWED AND APPROVED SUBMITTALS IN AN ELECTRONIC .PDF FORMAT FOR ENGINEER REVIEW AND APPROVAL. IN LIEU OF ELECTRONIC SUBMITTALS, CONTRACTOR MAY PROVIDE NO MORE THAN FOUR PAPER COPIES OF EACH STRUCTURAL SHOP DRAWING SUBMITTAL TO THE ENGINEER. THE STRUCTURAL ENGINEER WILL REVIEW AND RETURN TWO OF THE COPIES TO THE ARCHITECT. ADDITIONAL COPIES REQUIRED BY THE CONTRACTOR SHALL BE MADE BY THE CONTRACTOR AFTER THE REVIEW PROCESS.

6. MBA REVIEW OF SHOP DRAWING SUBMITTALS IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. REVIEW AND/OR APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR DEVIATIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS OR FOR ERRORS/ OMISSIONS IN THE SHOP DRAWINGS.

7. RESUBMITTED SHOP DRAWINGS SHALL HAVE CHANGES AND/OR ADDITIONS CLEARLY INDICATED. REVIEW OF RESUBMITTED SHOP DRAWINGS IS LIMITED TO THE ITEMS REQUIRING CORRECTION ON THE PREVIOUS SUBMITTAL.

EQUIPMENT NOTES:

1. CONTRACTOR SHALL COORDINATE BETWEEN DRAWINGS TO VERIFY ALL EQUIPMENT WEIGHTS, LOCATIONS, AND/OR PENETRATIONS. THIS INFORMATION SHALL BE PROVIDED TO SUBCONTRACTORS PERFORMING DELEGATED DESIGN AND SHALL BE IDENTIFIED ON THE CORRESPONDING SUBMITTAL.

2. EQUIPMENT LOADS CONSIDERED IN THIS DESIGN ARE SHOWN ON PLANS THUSLY (1400#). THE STRUCTURAL ENGINEER SHALL BE NOTIFIED AND ALLOWED TO MODIFY THE DESIGN AS REQUIRED IF FINAL EQUIPMENT WEIGHTS ARE HEAVIER OR THE EQUIPMENT LAYOUT DIFFERS FROM THE APPROXIMATE LAYOUT SHOWN ON THE PLAN.

3. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S CERTIFIED DRAWINGS, SPECIFICATIONS AND/OR OTHER REQUIREMENTS FOR ATTACHING THE EQUIPMENT TO THE STRUCTURE. IF STRUCTURAL MEMBERS CONFLICT WITH ATTACHMENT, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED AND ALLOWED TO MODIFY THE DESIGN AS REQUIRED TO ACCOMMODATE THE MANUFACTURER'S REQUIREMENTS.

INTERFACE WITH EXISTING STRUCTURE:

1. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING AT THE INTERFACE CONNECTIONS TO THE NEW STRUCTURE.

2. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL SHORING REQUIRED TO PROTECT THE EXISTING STRUCTURE.

3. AFTER DEMOLITION AND GENERAL SURVEY WORK HAS BEEN COMPLETED, AND PRIOR TO FABRICATION OF STRUCTURAL ELEMENTS, THE CONTRACTOR WILL VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS. THE ARCHITECT AND STRUCTURAL ENGINEER SHALL BE NOTIFIED AND ALLOWED TO EXAMINE THE AS-BUILT CONDITIONS OF THE EXISTING STRUCTURE TO DETERMINE IF ASSUMPTIONS REGARDING THE INTERFACE AT THE EXISTING STRUCTURE WERE CORRECT. MODIFICATIONS, IF REQUIRED, WILL BE MADE AT THAT TIME.

4. DESIGN OF CONNECTIONS AND ADDITIONS TO THE EXISTING BUILDING ARE BASED ON ORIGINAL STRUCTURAL DRAWINGS. DESIGN OF CONNECTIONS AND ADDITIONS TO THE EXISTING STRUCTURE ARE BASED UPON AVAILABLE PROVIDED INFORMATION AND/OR ASSUMPTIONS MADE BY THE STRUCTURAL ENGINEER.

CONCRETE:

1. CONCRETE CONSTRUCTION AND QUALITY ASSURANCE SHALL BE IN ACCORDANCE WITH CURRENT ACI STANDARDS.

2. CONCRETE SCHEDULES

	ITEM	28 DAY COMPRESSIVE STRENGTH
A.	WATER CONTAINMENT STRUCTURES	4000 PSI NORMAL WEIGHT
B.	ALL OTHER CONCRETE	3000 PSI NORMAL WEIGHT

3. CONCRETE COVER OVER REINFORCING (UNO)

A.	UNFORMED SURFACE IN CONTACT WITH EARTH:	3 IN.
B.	UNFORMED SURFACE OVER VAPOR BARRIER:	2 IN.
C.	FORMED SURFACES EXPOSED TO EARTH OR WEATHER	
	#6 AND LARGER	2 IN.
	#5 AND SMALLER	2 IN.

4. CONCRETE AT SLABS ON GRADE SHALL HAVE A NOMINAL MAXIMUM COARSE AGGREGATE SIZE OF 3/4 INCH. ADJUST PORTIONS OF COMBINED COARSE, INTERMEDIATE AND FINE AGGREGATES TO PROVIDE A COARSENESS FACTOR OF 60 TO 75%.

5. ALL REINFORCING SHALL CONFORM TO THE LATEST REVISION OF ASTM SPECIFICATION A615, GRADE 60 AND BE DETAILED IN ACCORDANCE WITH THE LATEST REVISION OF ACI STANDARD 315.

6. NO REINFORCING BAR SHALL BE WELDED IN ANY MANNER, UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.

7. CONTINUOUS FOOTING REINFORCING BARS SHALL BE LAPPED 30 BAR DIAMETERS, BUT NOT LESS THAN 1'-0".

8. GRADE BEAM, ELEVATED BEAM, AND ELEVATED SLAB REINFORCING BARS SHALL BE SPLICED ONLY AS SHOWN ON THE DRAWINGS, EXCEPT THE REINFORCING DESIGNATED AS "CONTINUOUS" SHALL HAVE A CLASS "B" LAP SPLICE (PER ACI 318). LAP SPLICES OF CONTINUOUS REINFORCING SHALL BE MADE OVER SUPPORTS FOR BOTTOM BARS AND FOR INTERMEDIATE BARS AND AT MID-SPAN FOR TOP BARS. AT EXTERIOR SUPPORTS, TOP AND BOTTOM BARS SHALL BE HOOKED AND INTERMEDIATE BARS SHALL EXTEND TO WITHIN 2" OF EXTERIOR FACE.

9. COLUMN AND WALL VERTICAL REINFORCING BARS SHALL BE LAPPED WITH A CLASS "B" SPLICE. WALL HORIZONTAL REINFORCING BARS SHALL BE LAPPED WITH A CLASS "B" TOP SPLICE AT SPLICE POINTS. PROVIDE CORNER BARS FOR WALLS.

10. PROVIDE FULL EMBEDMENT FOR ALL DOWELS. IF NOT OTHERWISE SPECIFIED, DOWEL SIZE AND SPACING SHALL BE THE SAME AS MAIN REINFORCING.

11. CONSTRUCTION JOINTS IN CONCRETE BEAMS AND SLABS SHALL BE AT OR NEAR MIDSPAN. ALL CONSTRUCTION JOINTS TO BE KEYED.

12. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN WALLS AND BEAMS, UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

13. CONDUIT, PIPES, AND SLEEVES SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTER, NOT HAVE AN OUTSIDE DIAMETER GREATER THAN 1/3 THE OVERALL THICKNESS OF THE SLAB, WALL OR BEAM IN WHICH THEY ARE EMBEDDED, AND SHALL HAVE A MINIMUM COVER OF 1 1/2 INCH FOR CONCRETE EXPOSED TO EARTH OR WEATHER AND 3/4 INCH FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER.

14. PIPING AND CONDUIT SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED.

15. THE CONTRACTOR SHALL SUBMIT, FOR REVIEW, SHOP DRAWINGS FOR ALL REINFORCING BARS INCLUDING DETAILS AT ALL OPENINGS AND ASSOCIATED ADDED REINFORCEMENT AS SHOWN ON TYPICAL DETAILS.

SITE AND FOUNDATION:

1. THE DESIGN OF FOUNDATIONS AND RELATED COMPONENTS IS BASED ON THE GEOTECHNICAL ENGINEERING REPORTS PREPARED BY CDG, INC., PROJECT NO. R021022458, DATED 09/18/24.

2. ALLOWABLE SOIL BEARING PRESSURES (PSF):

   ALL FOUNDATIONS & SLABS 2000 - FIELD VERIFIED BY GEOTECH

3. EXCAVATE, WHERE REQUIRED, TO BUILDING AND STRUCTURE SUBGRADE.

4. PROOF-ROLL THE AREA UNDER THE BUILDING, PLUS 5'-0" ON ALL SIDES, WITH A LOADED DUMP TRUCK TO LOCATE ANY SOFT AREAS. A GEOTECHNICAL ENGINEER IS TO BE PRESENT DURING THIS OPERATION. ANY SOFT AREAS DETECTED ARE TO BE UNDERCUT AND REPLACED WITH ENGINEERED FILL.

5. ACCEPTABLE FILL MATERIAL SHALL BE FREE OF ORGANICS, AND HAVE A P.I. OF LESS THAN 25, L.L. OF LESS THAN 50 AND A MAXIMUM DRY DENSITY OF GREATER THAN 100 PCF. DRAINAGE FILL SUPPORTING SLABS SHALL MEET THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.

6. FILL, WHERE REQUIRED, IS TO BE PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 98% STANDARD PROCTOR (ASTM D-698), WITHIN ±2% OF OPTIMUM MOISTURE CONTENT.

7. PROVIDE 6" MINIMUM OF COMPACTED CRUSHED STONE FILL BENEATH BASE SLABS AND SLABS ON GRADE AT ALL STRUCTURES. GEOTECHNICAL ENGINEER SHALL VERIFY IF ADDITIONAL STONE IS REQUIRED DUE TO SITE CONDITIONS.

PRE-ENGINEERED METAL BUILDING:

1. THE DESIGN, MANUFACTURE, QUALITY ASSURANCE AND ERECTION OF THE PRE-ENGINEERED METAL BUILDING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MBMA METAL BUILDING SYSTEMS MANUAL.

2. THE PRE-ENGINEERED METAL BUILDING MANUFACTURER IS RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE PRE-ENGINEERED METAL BUILDING. ALL DESIGN DRAWINGS FOR THE PRE-ENGINEERED METAL BUILDING SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF ALABAMA.

   A. MBA ENGINEERS, INC. IS NOT RESPONSIBLE OR LIABLE FOR THE PRE-ENGINEERED METAL BUILDING DESIGN.

3. THE FOUNDATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE BASED UPON PRELIMINARY AND/OR ASSUMED LOADING AND ARE SHOWN FOR BID PURPOSES ONLY. WHEN THE PRE-ENGINEERED METAL BUILDING MANUFACTURER HAS BEEN SELECTED, AND THE FINAL DESIGN FOR THE METAL BUILDING IS COMPLETED, THE PRE-ENGINEERED METAL BUILDING ENGINEER SHALL FURNISH FINAL BUILDING REACTIONS AND NECESSARY DETAILS TO FOUNDATION ENGINEER FOR REVIEW AND MODIFICATION OF THE FOUNDATION DESIGN, IF REQUIRED.

4. THE PRE-ENGINEERED METAL BUILDING MANUFACTURER SHALL DESIGN AND FURNISH ALL ANCHOR BOLTS FOR THE METAL BUILDING COLUMNS. COORDINATE WITH THE STRUCTURAL DRAWINGS FOR CONCRETE STRENGTHS AND EMBEDMENT RESTRICTIONS.

5. THE PRE-ENGINEERED METAL BUILDING AND COMPONENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE GRAVITY AND LATERAL DESIGN LOAD REQUIREMENTS OF THE PROJECT BUILDING CODE. IN ADDITION, THE FOLLOWING DESIGN REQUIREMENTS SHALL ALSO APPLY:

   A. DESIGN METAL BUILDING FRAME FOR 20 PSF LIVE LOAD (WITHOUT REDUCTION) AND 5 PSF COLLATERAL LOAD.
   B. LIMIT LATERAL DEFLECTION OF METAL BUILDING FRAME TO L/240.
   C. DESIGN FOR ALL ARCHITECTURAL DEAD LOADS. COORDINATE WITH ARCHITECTURAL DRAWINGS TO ESTIMATE THESE LOADS.
   D. DESIGN FOR ANY MECHANICAL UNITS OR FANS. COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

TENSION LAP SPLICE LENGTH

BAR SIZE	f'c = 3000 PSI				f'c = 4000 PSI			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	A	B	A	B	A	B	A	B
#3	22"	28"	17"	22"	19"	24"	15"	19"
#4	29"	37"	22"	29"	25"	32"	19"	25"
#5	36"	47"	28"	36"	31"	40"	24"	31"
#6	43"	56"	33"	43"	37"	48"	29"	37"
#7	63"	81"	48"	63"	54"	70"	42"	54"
#8	72"	93"	55"	72"	62"	80"	48"	62"
#9	81"	105"	62"	81"	70"	91"	54"	70"
#10	91"	118"	70"	91"	79"	102"	61"	79"
#11	101"	131"	78"	101"	87"	113"	67"	87"

DESIGN CRITERIA:

1. GOVERNING CODE:

   A. INTERNATIONAL BUILDING CODE, I.B.C. 2021

2. GRAVITY DESIGN LOADS:

   A. DEAD

      1. DESIGN DEAD LOADS ARE BASED ON THE SELF WEIGHT OF CONSTRUCTION MATERIALS SHOWN IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. ANY ALTERNATE MATERIALS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER TO REVIEW.

   B. LIVE:

      1. TYPICAL FLOOR 100 PSF
      2. ROOF 20 PSF

   C. SNOW

      1. GROUND SNOW LOAD (Pg) = 5 PSF
      2. SNOW EXPOSURE FACTOR (Ce) = 1.0
      3. SNOW LOAD IMPORTANCE FACTOR (Is) = 1.1
      4. THERMAL FACTOR (Ct) = 1.2

3. LATERAL DESIGN LOADS:

   A. WIND

      1. DESIGNED PER ASCE 7-16
      2. ULTIMATE WIND SPEED = 125 MPH
      3. RISK CATEGORY = III
      4. BUILDING CATEGORY = OPEN
      5. EXPOSURE CATEGORY = C

   B. EARTHQUAKE

      1. SEISMIC RISK CATEGORY = III
      2. SEISMIC IMPORTANCE FACTOR (Ie) = 1.25
      3. MAPPED SPECTRAL RESPONSE ACCELERATIONS
         A. Ss = 0.102
         B. S1 = 0.067
      4. SOIL SITE CLASS = D
      5. DESIGN SPECTRAL RESPONSE ACCELERATIONS
         A. Sds = 0.108
         B. Sd1 = 0.107
      6. SEISMIC DESIGN CATEGORY = B

SPECIAL INSPECTIONS:

1. THE OWNER SHALL EMPLOY A QUALIFIED TESTING AGENT/ENGINEER TO PROVIDE SPECIAL INSPECTIONS. SPECIAL INSPECTORS SHALL SUBMIT RESUME OF EXPERIENCE AND QUALIFICATIONS OF ALL INDIVIDUALS PERFORMING WORK TO THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO ANY WORK BEING PERFORMED. SPECIAL INSPECTIONS SHOULD BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2021 ED. AND AS INDICATED IN THE SPECIFICATIONS.

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA
No. 27458
PROFESSIONAL
07/22/25
ENGINEER
JOHN S. LINDSEY, III

COA: ECA105

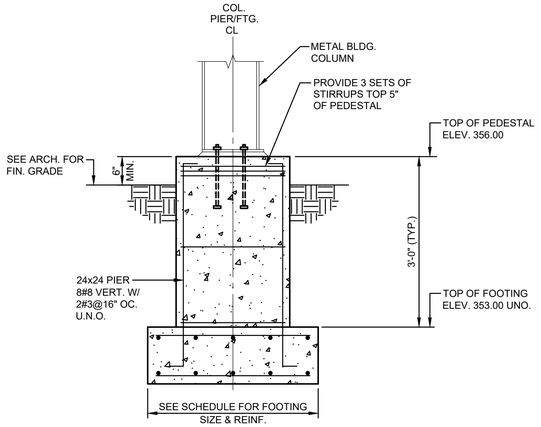
ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

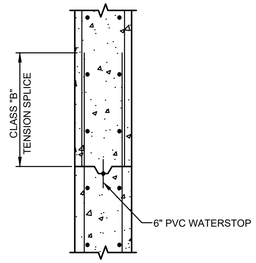
FINAL DRAWING - ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

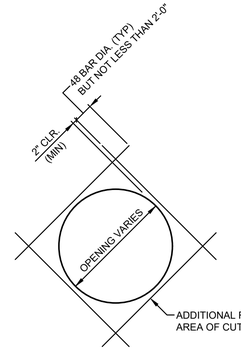
PROJECT NO.: R021022458
DATE: 2025/07/22
SCALE: AS SHOWN
SHEET NO.: S-101
DRAWING TITLE: GENERAL NOTES



TYPICAL EXTERIOR PRE-ENGINEERED BUILDING COLUMN FOOTING DETAIL

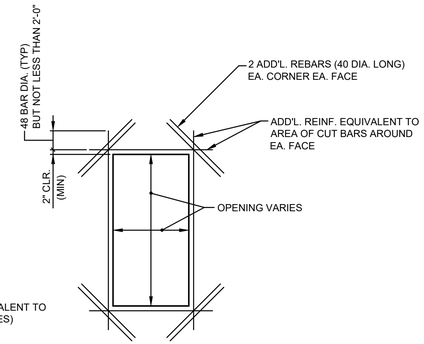


TYPICAL WALL & FOUNDATION SLAB CONTROL JOINT DETAIL



CIRCULAR OPENING

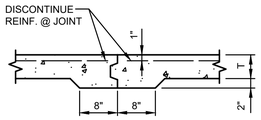
NOTE:
MAX. OPENING SIZE
36" DIA.



RECTANGULAR OPENING

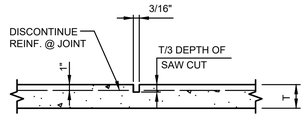
NOTE:
MAX. OPENING SIZE
36" DIA.

TYPICAL DETAILS OF ADDITIONAL REINFORCING AROUND OPENINGS IN CONC. SLAB & WALLS



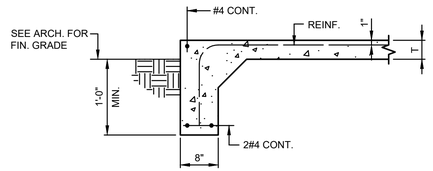
TYPICAL KEYED CONSTRUCTION JOINT

NOTES:
1. T = SLAB THICKNESS (SEE PLAN)
2. SEE PLAN FOR LOCATION OF JOINTS



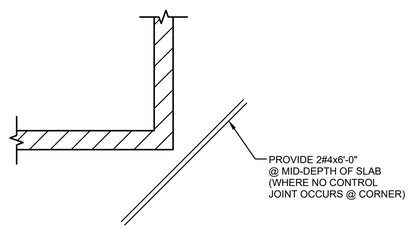
TYPICAL SAWED CONTROL JOINT

NOTES:
1. USE SAWS, BLADES AND SKID PLATES BY SOFF-CUT INTERNATIONAL OR EQUAL.
2. SEE PLAN FOR JOINT LAYOUT OR PROVIDE @ 12'-0" OC. MAX. EA. WAY.
3. START CUTTING SAWED JOINTS AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT RAVELING OR DISLODGING OF AGGREGATES. THIS WILL TYPICALLY BE FROM 1 HOUR IN HOT WEATHER TO 4 HOURS IN COLD WEATHER AFTER COMPLETING FINISHING OF SLAB IN THAT JOINT LOCATION.
4. EXTEND SAWED JOINT TO THE SLAB BOUNDARIES AND ABUTMENTS, INCLUDING COLUMNS, DRAINS AND OTHER PENETRATIONS IN THE PATH OF A DEFINED JOINT. IMPLEMENT METHODS AND TIMING OF THE SAW CUT BEYOND THE LIMITS OF THE SOFF-CUT SAW REACH TO PROVIDE A CONSISTENT DEPTH OF CUT WITH MINIMAL RAVELING OF JOINT EDGES.
5. T = SLAB THICKNESS (SEE PLAN).

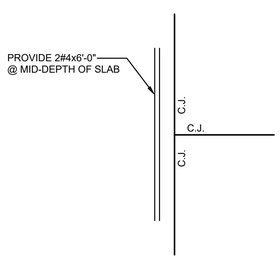


TYPICAL TURNDOWN SLAB DETAIL

NOTE:
T = SLAB THICKNESS (SEE PLAN)

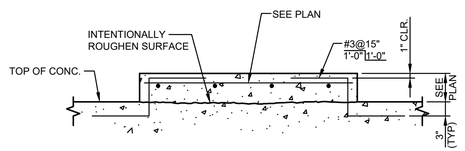


@ RE-ENTRANT CORNERS

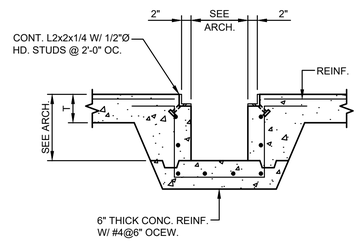


@ DISCONTINUOUS CONTROL JOINTS

TYPICAL ADDITIONAL REINFORCING @ SLAB ON GRADE



TYPICAL MECHANICAL HOUSEKEEPING PAD AND TOPPING SLABS



TYPICAL TRENCH DRAIN DETAIL

NOTES:
1. SEE ARCH. DWGS. FOR LOCATIONS.
2. T = SLAB THICKNESS (SEE PLAN).

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA
No. 27458
PROFESSIONAL
07/22/25
ENGINEER
JOHN S. LINDSEY, III

COA: ECA105

ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

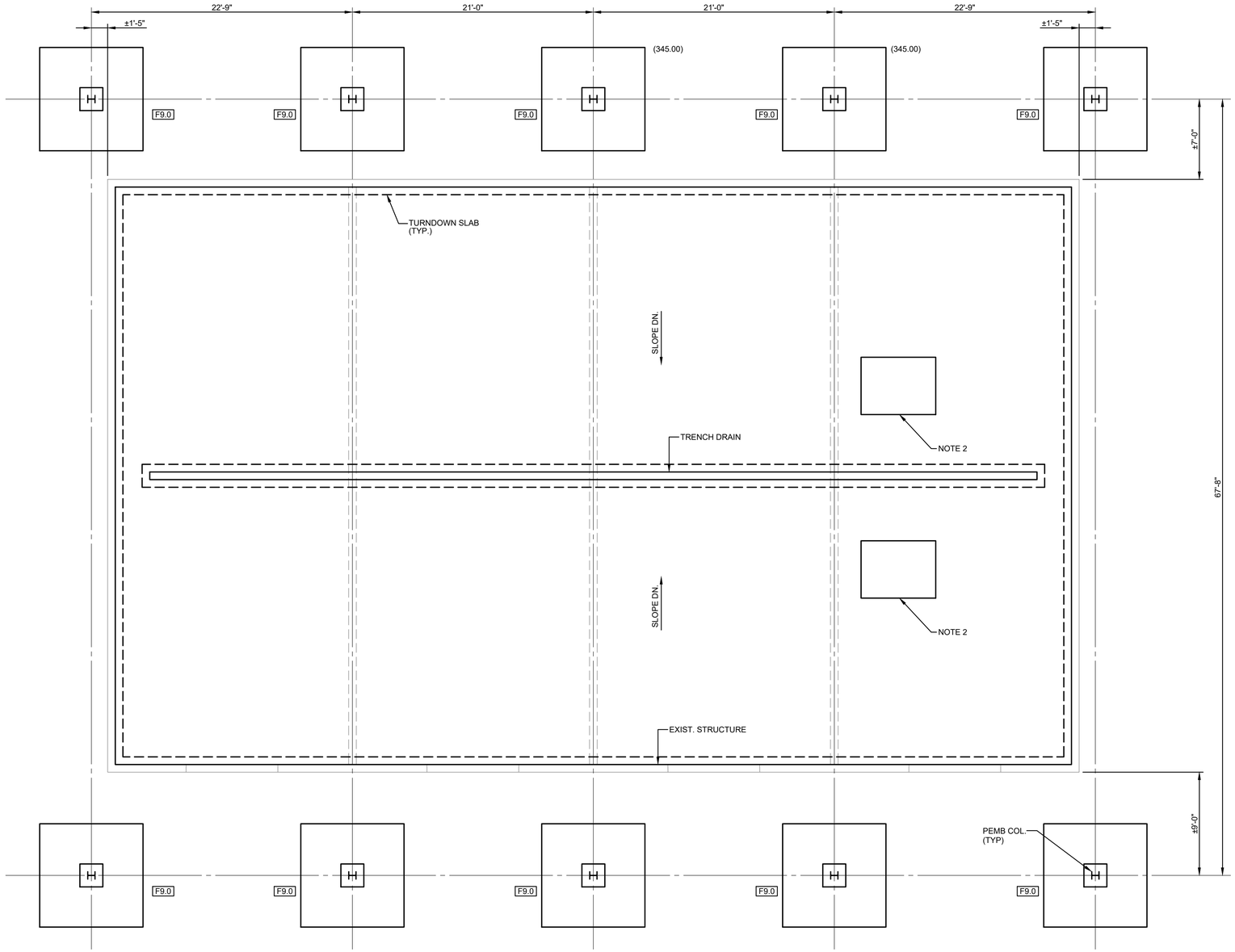
FINAL DRAWING - ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 1042.1002A0
DATE: 2025.07.22
SCALE: AS SHOWN

SHEET NO: S-102

DRAWING TITLE: TYPICAL DETAILS



FOUNDATION PLAN

3/16" = 1'-0"

FLOOR CONSTRUCTION:
6" CONC. SLAB REINF. W/ #4@12" OCEW. TOP

NOTES:
1. TOP OF FOOTING ELEV. 353.00 & TOP OF PEDESTAL ELEV. 356.00. GC. FIELD VERIFY TOP OF PEDESTAL ELEVATION IS 6" ABOVE GRADE MINIMUM.
2. PROVIDE 6'-6"x5'-0"x1'-0" SUPPORT PAD EA. END OF SLUDGE PRESS. REINF. W/ #5@12" OCEW. TOP & BOTT.

FOOTING SCHEDULE

MARK	SIZE: WxLxT	REINFORCING
F9.0	9'-0"x9'-0"x24"	9#8 EW. TOP & BOTTOM

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CONTRACT NO. 4 - WALNUT CREEK
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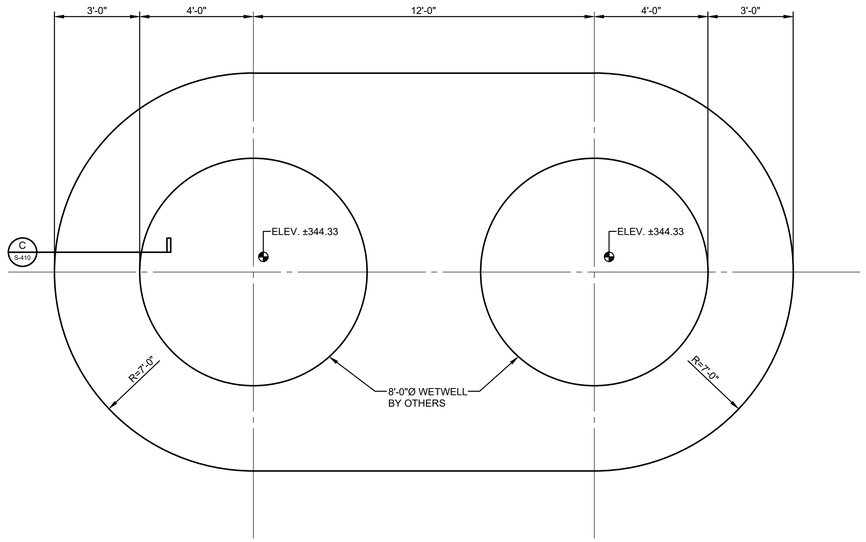
CITY OF TROY
PIKE COUNTY, ALABAMA

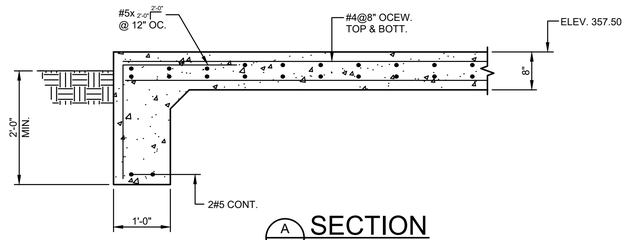
PROJECT NO: 2022102246
DATE: 2025/07/22
SCALE: AS SHOWN
SHEET NO: S-305
DRAWING TITLE: SLUDGE PRESS FOUNDATION PLAN



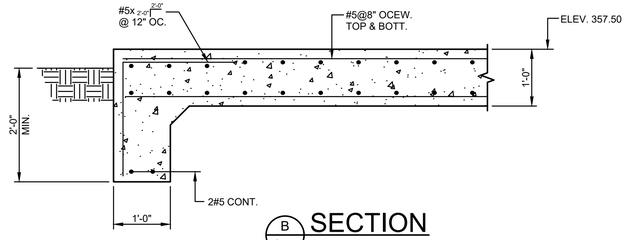
FOUNDATION & FLOOR PLAN

3/8" = 1'-0" TOP OF SLAB ELEV. ±345.33 COORD. W/ WETWELL MANUF.

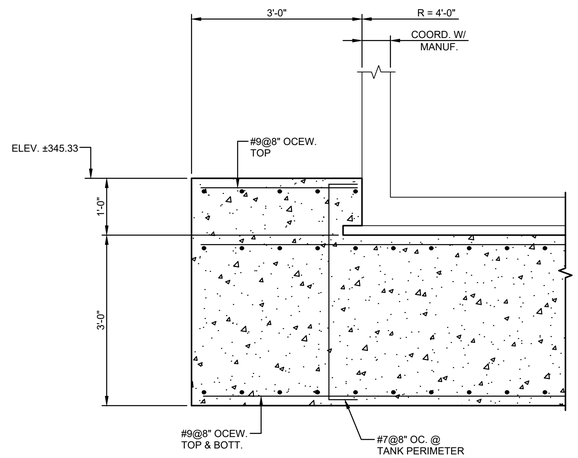
FLOOR CONSTRUCTION:
36" CONC. SLAB ON DRAINAGE FILL.
REINF. W/ #9@8" OCEW. TOP & BOTT.



A S-410 SECTION
3/4" = 1'-0"



B S-410 SECTION
3/4" = 1'-0"



C S-410 SECTION
3/4" = 1'-0"

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

DATE:
NO. REVISION/SUBMISSION

PROFESSIONAL SEAL:
ALABAMA No. 27458 PROFESSIONAL ENGINEER 07/22/25 NOKE S. LINDSEY, III

COA: ECA105

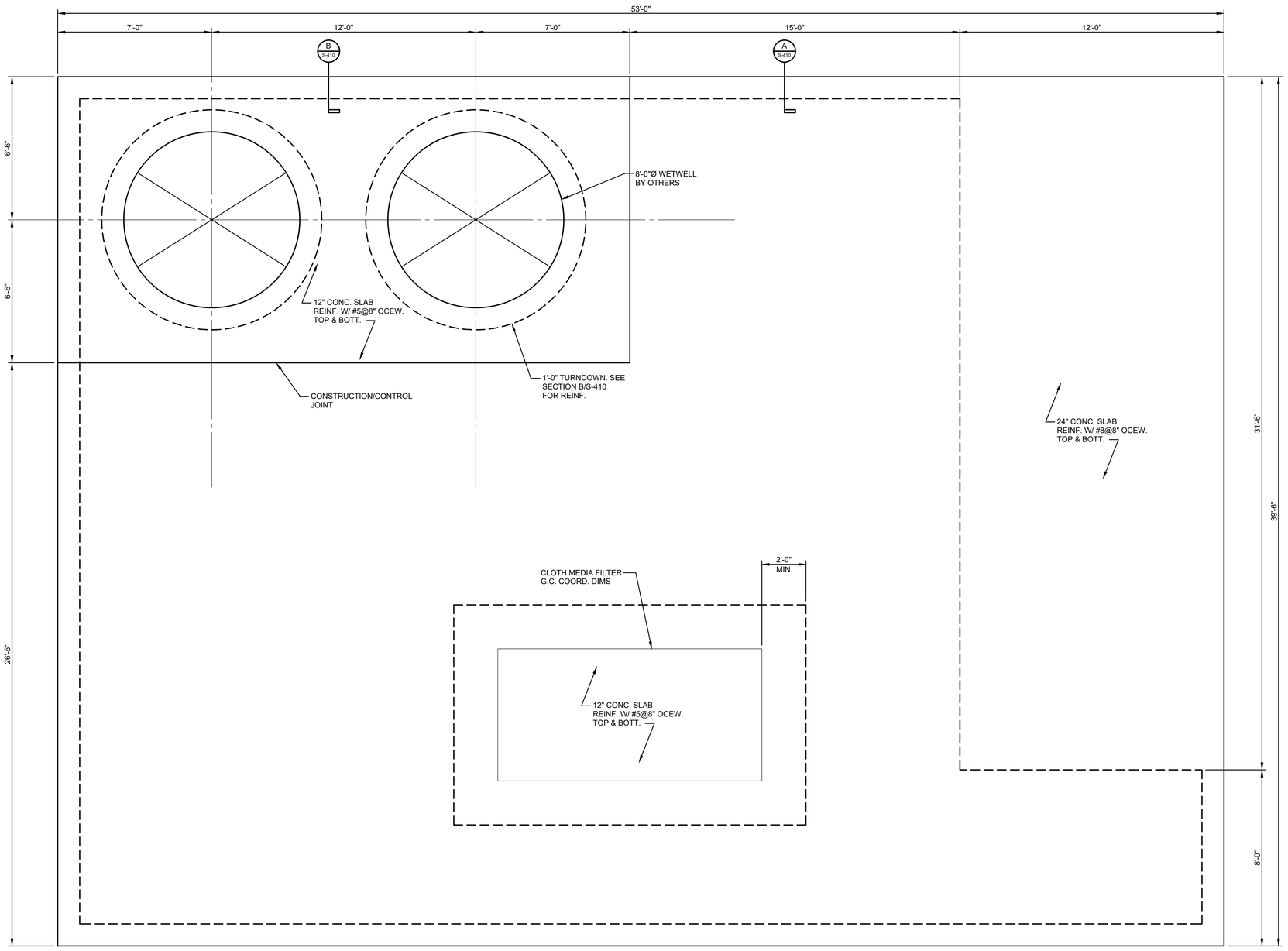
ADDRESS:
1962 WEST MAIN STREET
DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING - ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2021052A8
DATE: 2025/07/22
SCALE: AS SHOWN
SHEET NO: S-410
DRAWING TITLE: FILTRATION SYSTEM PLAN & SECTION



N

FOUNDATION & FLOOR PLAN

3/8" = 1'-0"

TOP OF SLAB ELEV. 357.50

FLOOR CONSTRUCTION U.N.O.:
8" CONC. SLAB ON DRAINAGE FILL.
REINF. W/ #4@8" OCEW. TOP & BOTT.

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

NO.	REVISION/SUBMISSION	DATE:

PROFESSIONAL SEAL:

ALABAMA No. 27458 PROFESSIONAL ENGINEER 07/22/25 JOKE S. LINDSEY, III

COA: ECA105

ADDRESS:

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DOTHAN, AL 36301
(334) 677-9431

THREE NOTCH GROUP

FINAL DRAWING - ISSUE FOR BIDDING

CONTRACT NO. 4 - WALNUT CREEK
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CITY OF TROY
PIKE COUNTY, ALABAMA

PROJECT NO: 2021022456
DATE: 2025/07/22
SCALE: AS SHOWN
SHEET NO: S-411
DRAWING TITLE: FILTRATION SYSTEM PLAN & SECTION