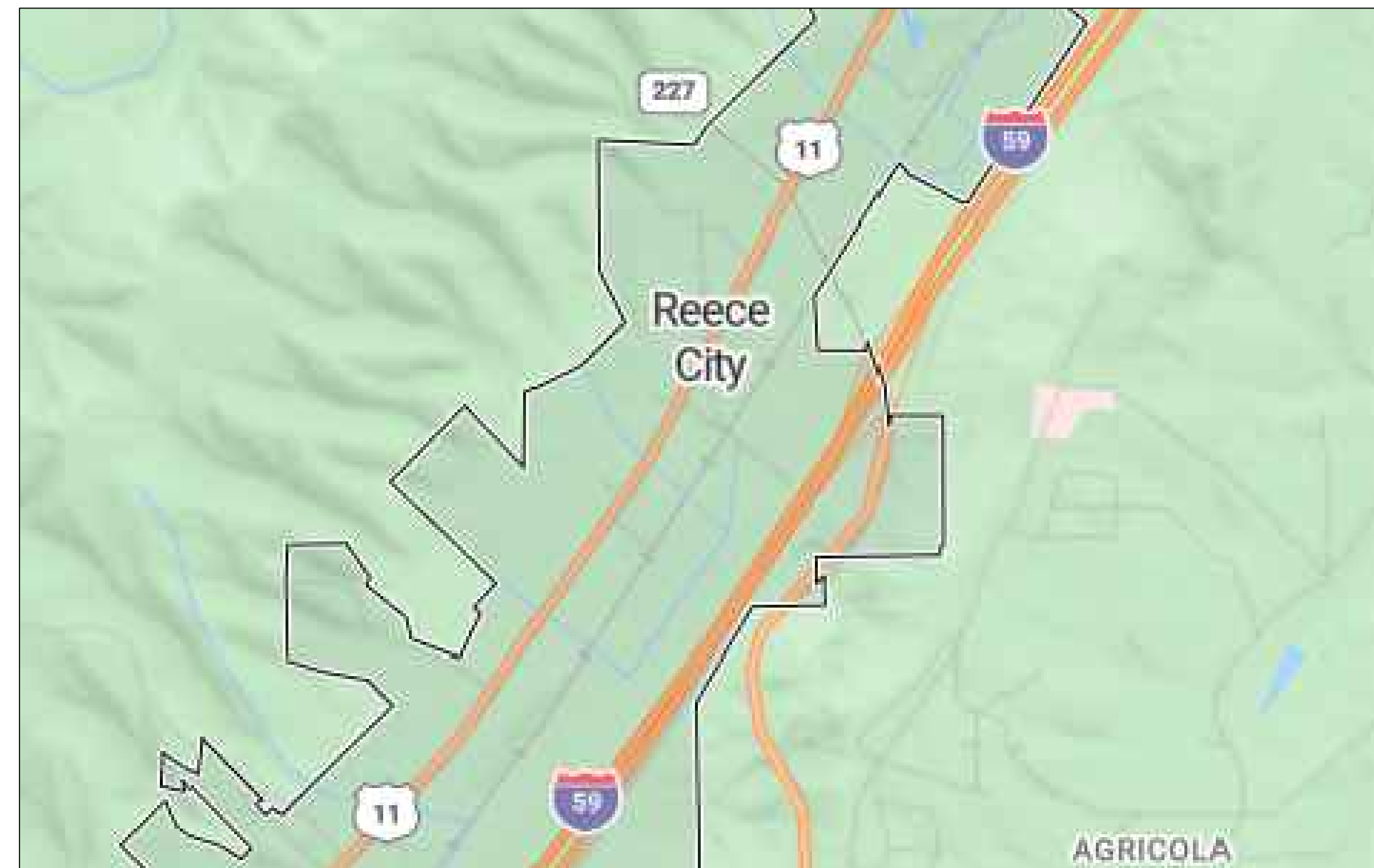


THE TOWN OF
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146



VICINITY MAP
CONTRACT NO. RC24 146
2024

ENGINEER
UTILITY ENGINEERING CONSULTANTS, LLC.
130 S. CREST DRIVE, SUITE 100
HOMWOOD ALABAMA 35209
PHONE (205)951-3838



STRUCTURES

- Unpaved Road or Driveway
- Paved Road or Driveway
- Paved Road with Gutter
- Proposed Bridge, Box Culvert, or Storm Drain with Headwall (Size and Type Structure Noted)
- Existing Bridge, Box Culvert, or Storm Drain (Size and Type Structure Noted)
- Walk Bridge
- Railroad Track Single
- Railroad Track Double
- Outdoor Advertising Sign
- Masonry Wall (Note Type)
- Mailbox (Noted M.B.)
- Clothes Lines and Poles (Noted)
- Well
- Levee or Earth Dam
- Wood Fence
- Hog Wire or Barbed Wire Fence
- Chain Link Fence
- Drop Inlet (Noted)
- Electric Light
- Gas Light
- Pipe in Place (Note Size and Type of Pipe)
- Traffic or Street Sign
- Outbuilding (Dimension to Scale)
- Air Conditioner, Heat Pump, Etc.
- Guardrail
- Pavement Replacement

NATURAL

- Trees (Draw dot to scale of tree)
- Hedges or Shrubbery
- Shrub
- Flower Bed, Garden, or Rock Garden (Noted)
- Lake or Pond
- Swamp, Marsh, Etc.
- Flowing Stream (Arrow indicates direction of flow)
- Dry Ditch or Stream
- Earth
- Rock

MISCELLANEOUS

- Interstate Highway
- United States Highway
- State Highway
- County Highway

SURVEY

- 0 5 10 15
- Center Line Pipe Location
- Land Tie (Center Line P.O.T. Sta., Angle to Center Line from Land Line, and Distance to Corner Noted)
- Right of Way (Type Noted-Acq'd, Req'd, Etc.)
- Permanent Easement
- Property Iron (Size and Type Noted)
- Property Line
- Section Corner or 1/4 Section Corner Iron (Size, Type, and Description Noted)
- 1/4 or 1/4-1/4 Section Line
- Section Line
- Right of Way Monuments (Noted for Existing)
- Construction Limits (Temporary Easement)
- Horizontal Curve (P.C., P.I., P.T. Stations, Length, Tangent, Radius, Central Angle, and Degree of Curve Noted)
- Vertical Curve (V.P.C., V.P.I., V.P.T. Stations, Elevation of V.P.I., Length, and % Grade on Tangents)
- City and Town Limits (Noted)
- Original Lot Lines
- Land Hooks
- Denotes Tract No. For R.O.W. Acquisition Purposes Only

UTILITIES

- Proposed Sanitary Sewer Manhole
- Existing Sanitary Sewer Manhole
- Existing Sanitary Sewer Gravity Line (Tick Upstream Side)
- Existing Sanitary Sewer Force Line (Arrow Indicates Flow)
- Utility Manhole (Note Type in Circle-P, T, Etc.)
- Power Junction Box
- Power Pole
- Light Pole (Note Type)
- High Voltage Transmission Pole or Tower
- Underground Power Conduit
- Overhead Power Lines
- Telephone Junction Box
- Telephone Pole
- Underground Telephone Conduit
- Overhead Telephone Lines
- Combination Pole
- Overhead Telephone and Power Lines
- Guy Pole
- Utility Pole Anchor
- Gas Line Marker (Noted)
- Gas Meter
- Gas Line (Note Diameter of Pipe)
- Valve (Note Gas or Water)
- Water Line (Note Diameter of Pipe)
- Water Meter
- Fire Hydrant
- Air Release Valve
- House Service Connections

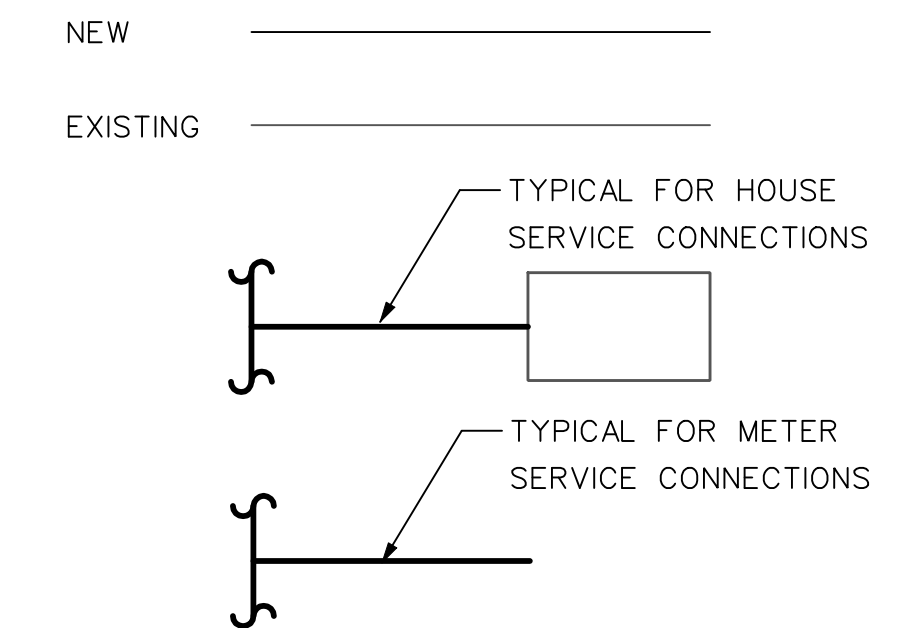
ABBREVIATIONS

- | | | | |
|-----------------------------------------|------------|--------------------------------|------------|
| Acquired | Acq'd | Linear Feet | L.F. |
| Acre | Ac. | Point on Curve | P.O.C. |
| Bench Mark | B.M. | Point of Curve | P.C. |
| Bituminous Coated Corrugated Metal Pipe | B.C.C.M.P. | Point of Intersection | P.I. |
| Brick Residence | Br. Res. | Point of Tangent | P.T. |
| Building | Bldg. | Point on Tangent | P.O.T. |
| Carrying Capacity | C.C. | Property Line | R |
| Cast Iron Pipe | C.I.P. | Railroad | R.R. |
| Center Line | CL | Range | R. |
| Concrete | Conc. | Right of Way | R.O.W. |
| Corner | Cor. | Required | Req'd. |
| Cubic Yard | C.Y. | Reinforced Concrete Pipe | R.C.P. |
| Curb and Gutter | C&G | Sanitary Sewer | San. Sew. |
| Design Flow | D.F. | Section | Sec. |
| Distance | Dist. | Shoulder | Shldr. |
| Double | Dbi. | Side Drain | S.D. |
| Drainage Area | D.A. | Square Yard | S.Y. |
| Ductile Iron | D.I. | Station | Sta. |
| Ductile Iron Pipe | D.I.P. | Storm Sewer | Stm. Sew. |
| Easement | Esmt. | Street | St. |
| Elevation | El. | Tangent to Curve | Tan. to C. |
| Flow Line | F.L. | Township | T. |
| Frame Residence | Fr. Res. | Valley Gutter | V.G. |
| Gallons Per Minute | G.P.M. | Vertical | Vert. |
| Gas Meter | G.M. | Vertical Point of Curve | V.P.C. |
| Gas Valve | G.V. | Vertical Point of Intersection | V.P.I. |
| Headwall | Hdwl. | Vertical Point of Tangent | V.P.T. |
| High Water | H.W. | Vitrified Clay Pipe | V.C.P. |
| Horizontal | Horiz. | Water Meter | W.M. |
| Junction | Jct. | Water Valve | W.V. |
| Junction Box | Jct. Box | Wing Wall | W.W. |
| | | Yard | Yd. |

PIPE FITTING SYMBOLS

- | | |
|---------------------------|---------------------------------------------|
| (A) 90° ELBOW | (L) SIDE OUTLET TEE |
| (B) 90° BASE ELBOW | (M) WYE |
| (C) 90° LONG RADIUS ELBOW | (N) CONCENTRIC REDUCER |
| (D) 90° REDUCING ELBOW | (O) ECCENTRIC REDUCER |
| (E) 45° ELBOW | (P) BLIND FLANGE |
| (F) 22.1/2° ELBOW | (Q) MECHANICAL JOINT PLUG |
| (G) 11.1/4° ELBOW | (R) VICTAULIC COUPLING |
| (H) TEE | (S) MERCER EXPANSION JOINT |
| (J) CROSS | (T) FLANGED COUPLING ADAPTER w/ THRUST TIES |
| (K) 90° SIDE OUTLET ELBOW | (U) GROOVED END IPS PIPE |
| | (V) RETAINER GLANDS |
| | (W) FLARE 90° ELBOW |
| | (X) FLARE CASTINGS |
| | (WF) WALL PIPE |
| | (FP) FLOOR PIPE |
| | (WS) WALL SLEEVE |
| | (FS) FLOOR SLEEVE |

TYPICAL LINE DETAILS

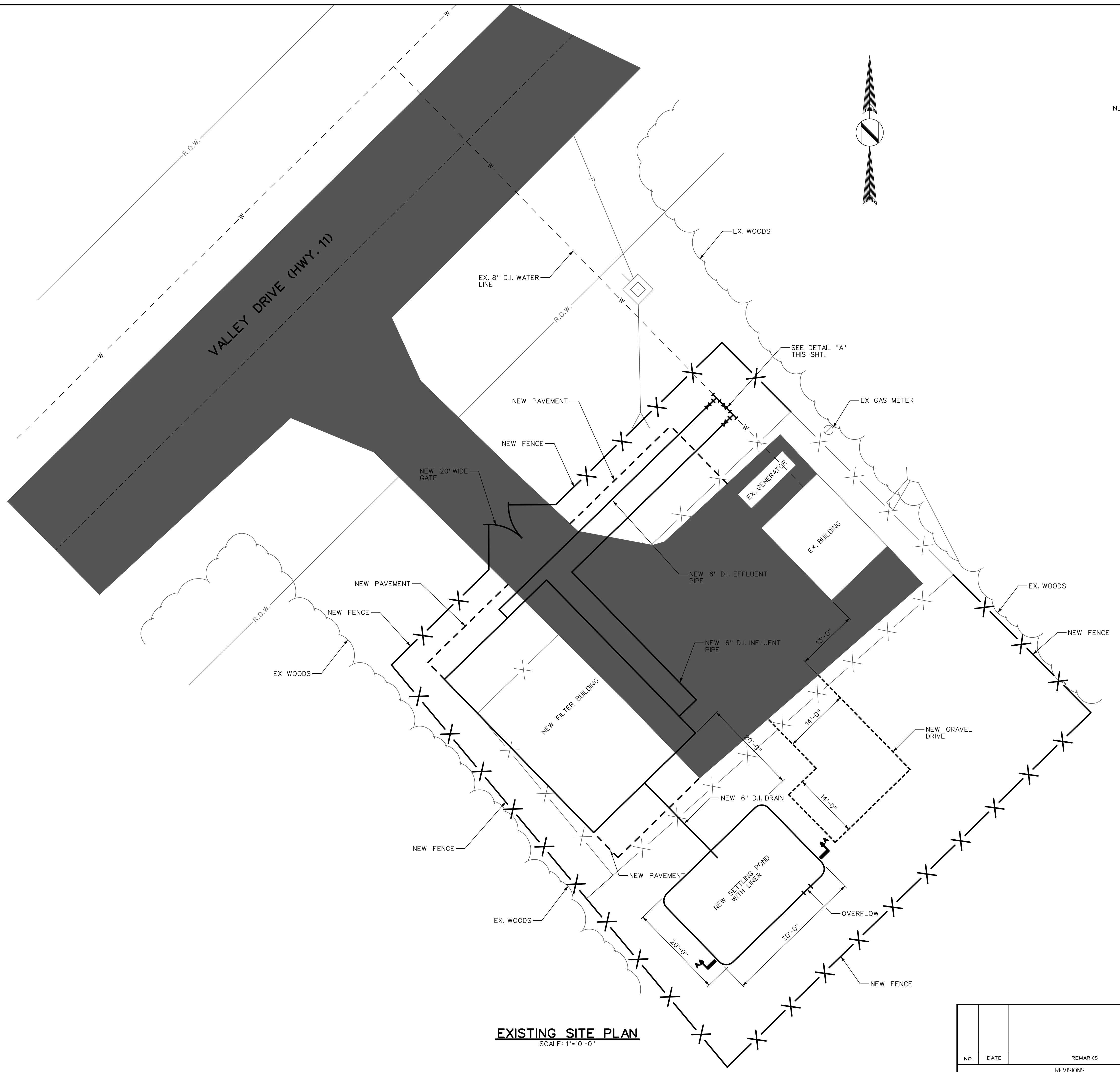


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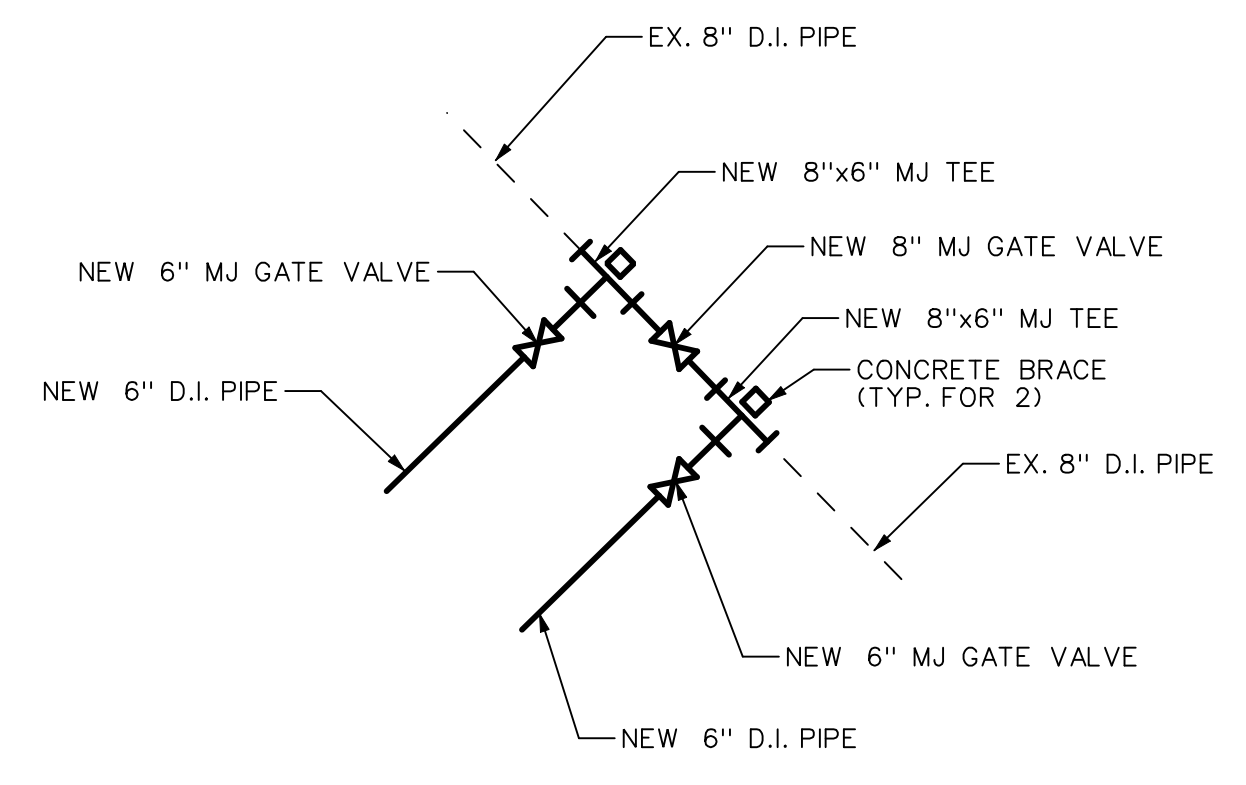
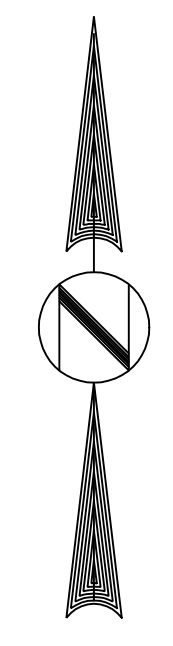
THE TYPE, SIZE, LOCATION AND DEPTH OF ALL PUBLIC UTILITIES ARE SHOWN FROM AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO VERIFY LOCATIONS PRIOR TO CONSTRUCTION. LOCATIONS MAY BE ASCERTAINED BY CONTACTING ALABAMA LINE LOCATION CENTER AT 1-800-292-8525. THE LOCATIONS OF HOUSE SERVICES FOR UTILITIES ARE NOT SHOWN, UNLESS NOTED OTHERWISE.

NO.	DATE	REMARKS	BY
REVISIONS			

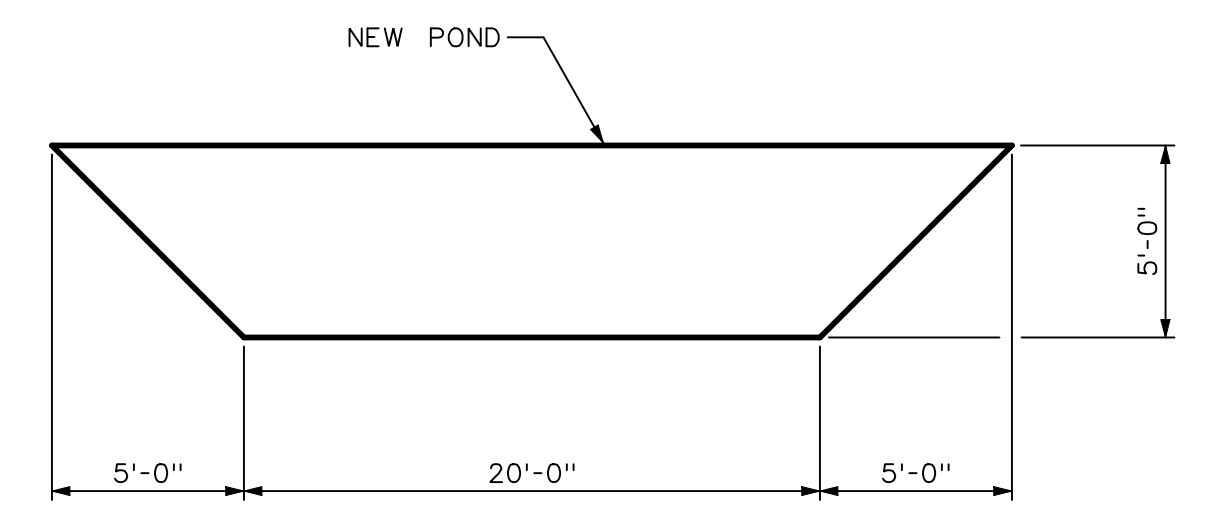
The Town Of REECE CITY, ALABAMA REECE CITY WATER TREATMENT PLANT IMPROVEMENTS DWSRF PROJECT NO. FS010480-02 CONTRACT NO. RC24 146		 Utility Engineering Consultants, LLC <small>138 BERRY CIRCLE SUITE 21 HOUSTON, AL 35090</small>	
DESIGNED DBB	DRAWN LTH		SCALE AS NOTED
APPROVED <i>Don B. Butler</i>		REFERENCE RC24146L002.DGN	JOB NO. RC24 146
STANDARD SYMBOLS			SHEET 2 OF 18



EXISTING SITE PLAN
SCALE: 1"=10'-0"



DETAIL "A"
NO SCALE



SECTION A-A
NO SCALE



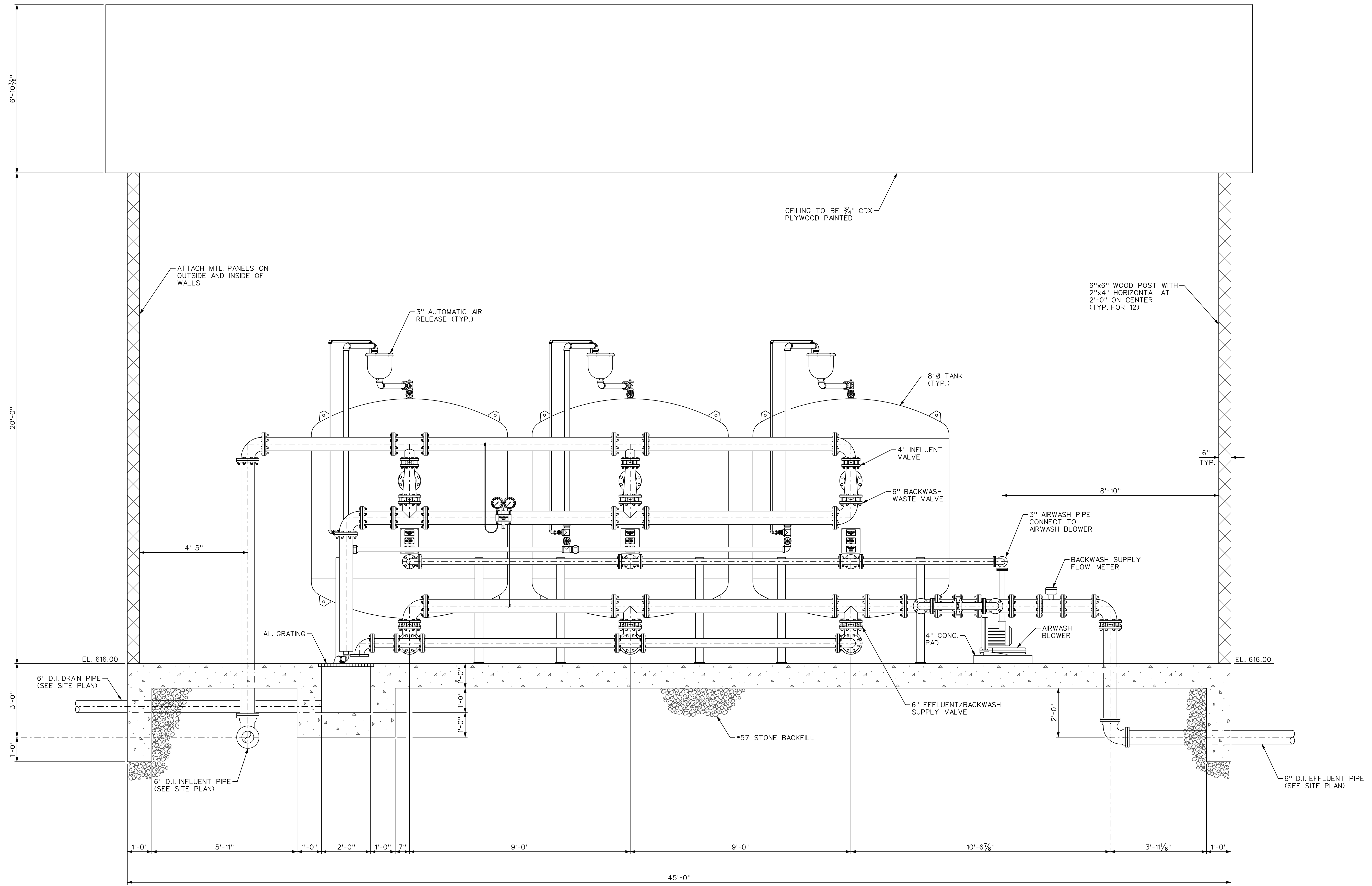
NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146

**EX. SITE PLAN
MODIFICATIONS**

JEC Utility Engineering Consultants, LLC

DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Don & Beth</i>	REFERENCE RC24146L003.DGN	JOB NO. RC24 146	
SHEET 3 OF 18			



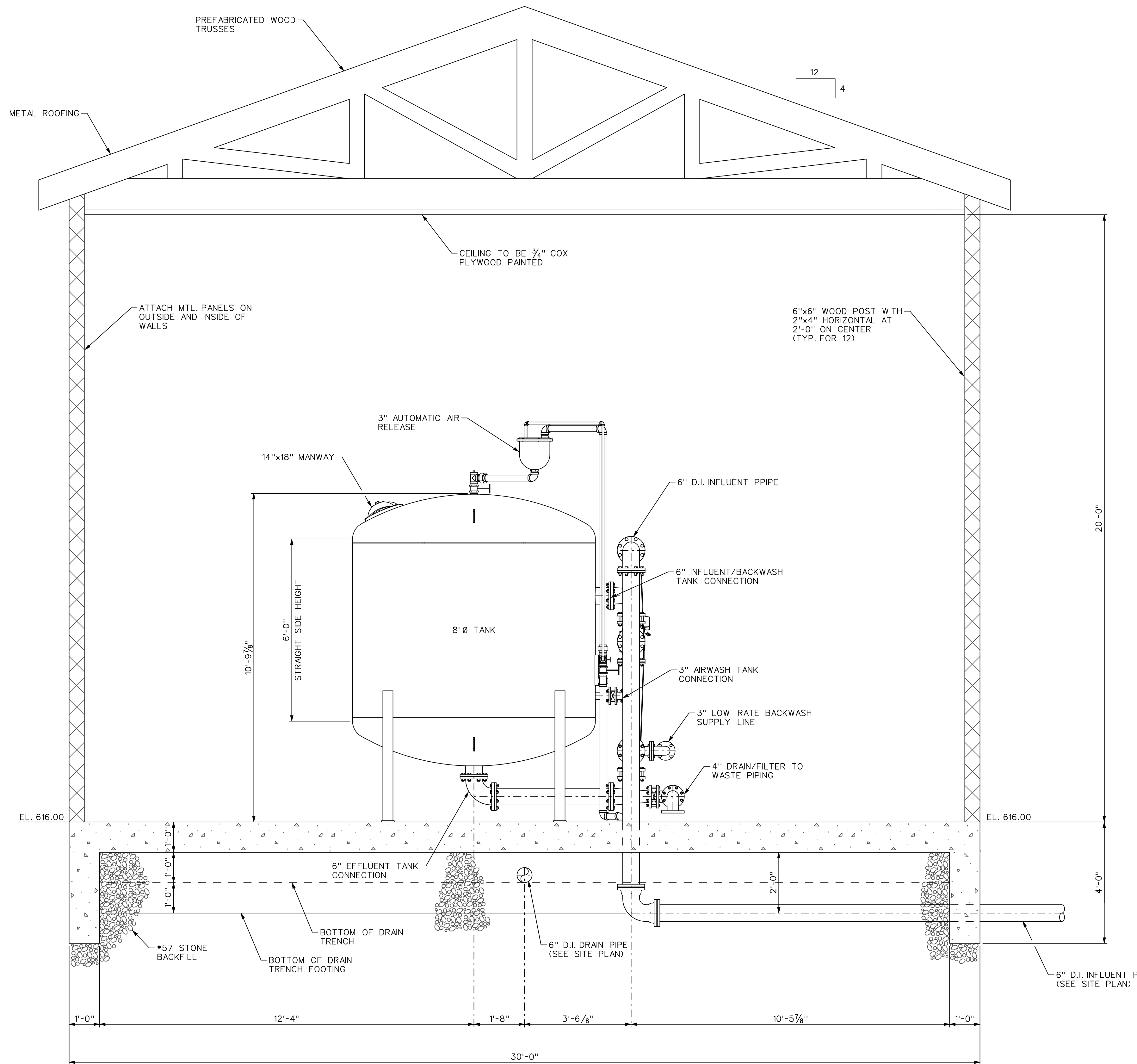
SECTION A
SCALE: 1/4"=1'-0"
SHT. 4



NO.	DATE	REMARKS	BY
REVISIONS			

The Town of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING SECTION "A"
MECHANICAL**

 Utility Engineering Consultants, LLC <small>133 BERRYVILLE ROAD, MOBILE, AL 36688</small>		DESIGNED	DBB	SCALE	AS NOTED	DATE	APRIL, 2025
		DRAWN	LTH	REFERENCE	RC24146L005.DGN	JOB NO.	RC24 146
APPROVED		 Designer		SHEET 5 OF 18			



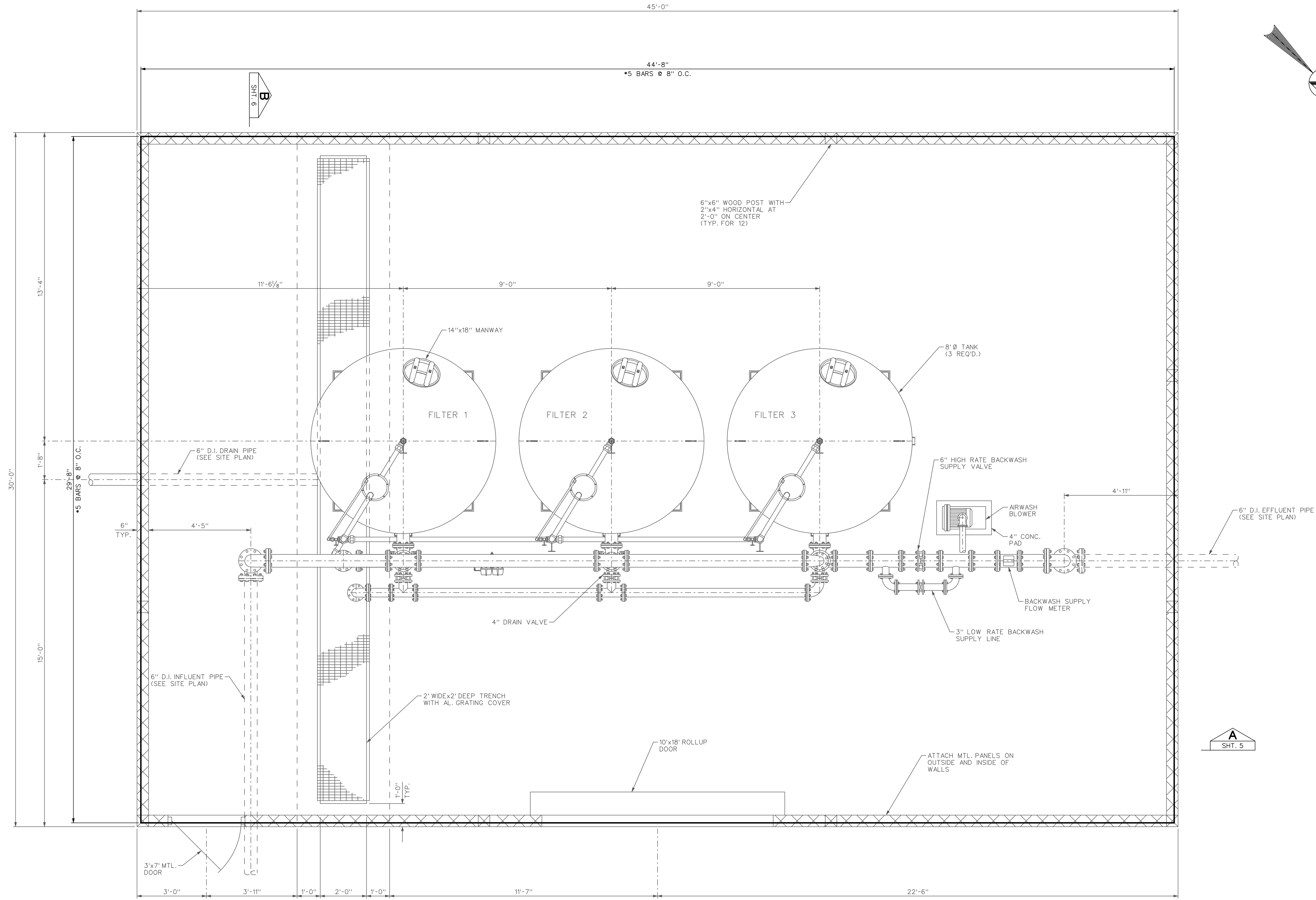
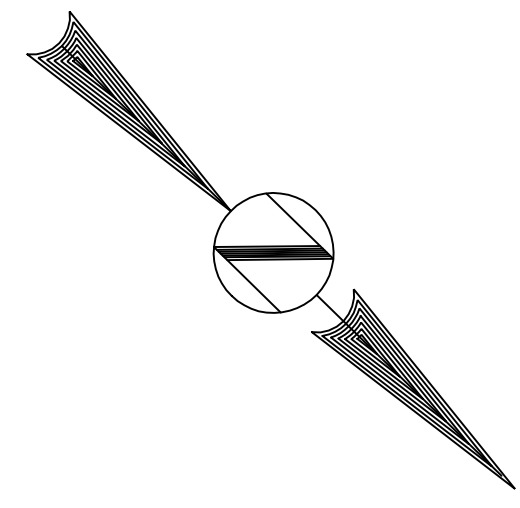
SECTION B
SCALE: 1/4"=1'-0"
SHT. 4



NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING SECTION "B"
MECHANICAL**

		DESIGNED	DBB	DRAWN	LTH	SCALE	AS NOTED	DATE	APRIL, 2025
		APPROVED			REFERENCE	RC24146L006.DGN	JOB NO.	RC24 146	
		SHEET		6	OF		18		



A
SHT. 5

A
SHT. 5

B
SHT. 6

B
SHT. 6

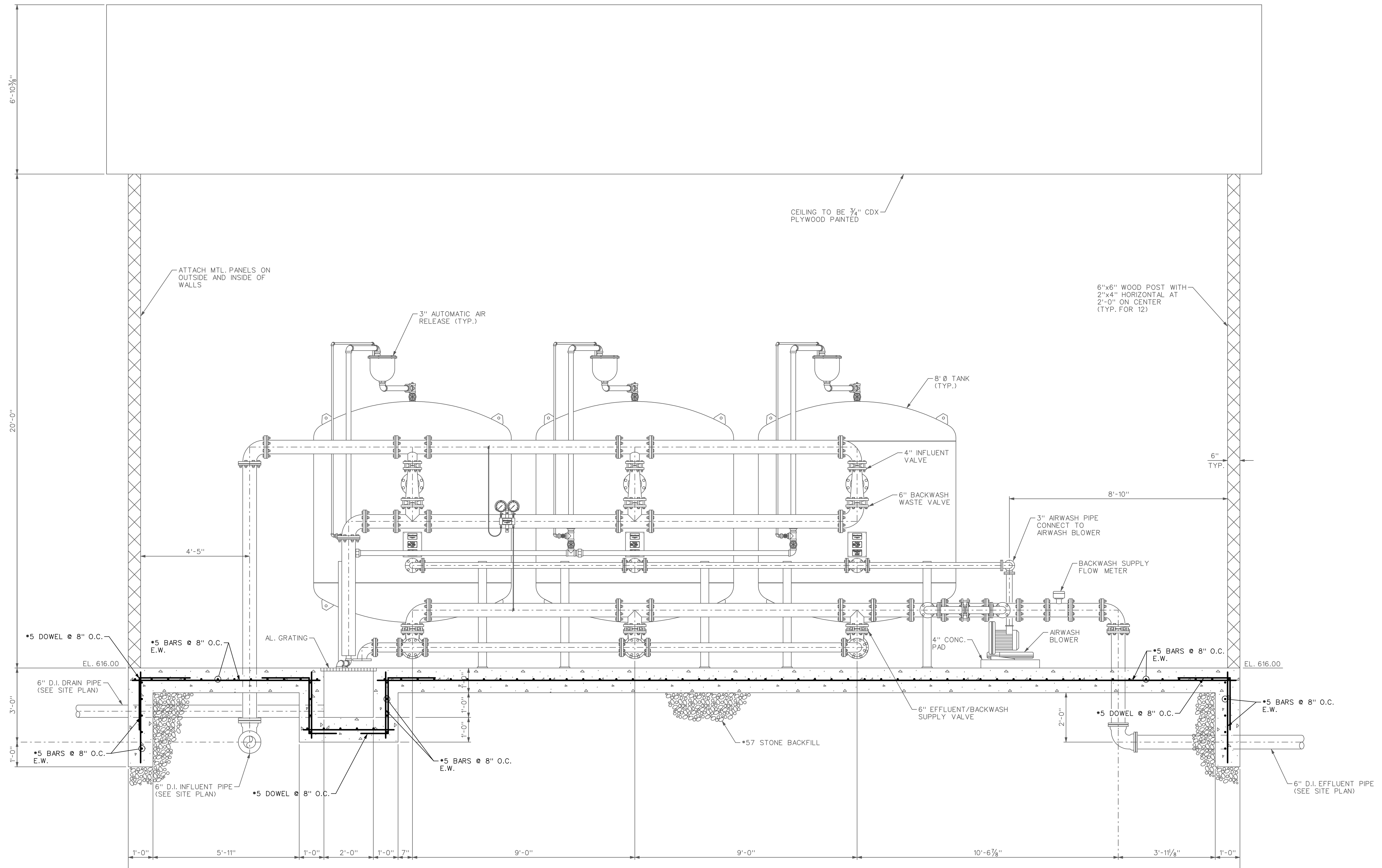
PLAN
SCALE: 1/2" = 1'-0"

NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING PLAN
STRUCTURAL**

		Utility Engineering Consultants, LLC	
DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Don B. Butler</i>	REFERENCE RC24146L007.DGN	JOB NO. RC24 146	
SHEET 7 OF 18			





SECTION A
SCALE: 1/4"=1'-0"
SHT. 4

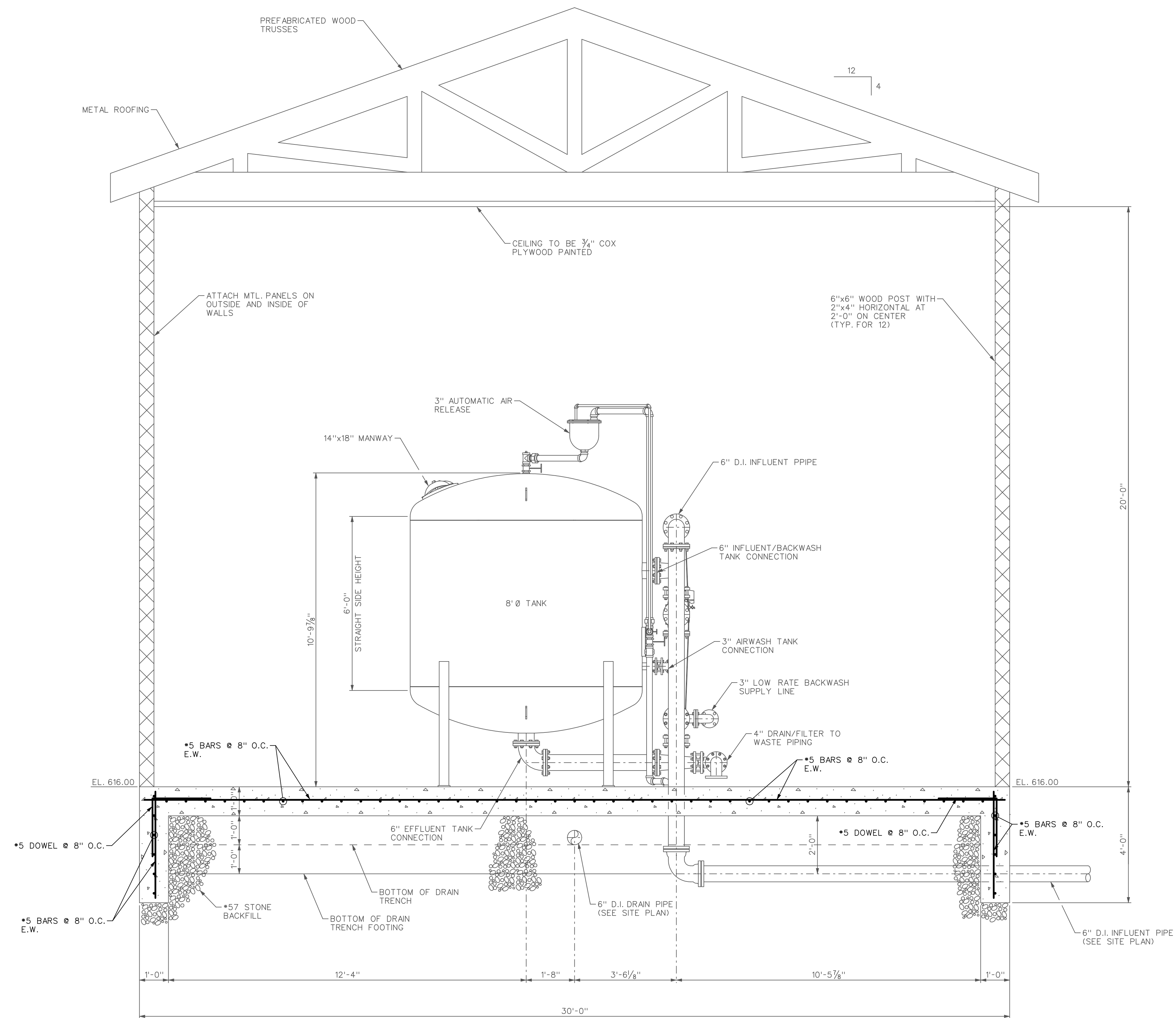


NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING SECTION "A"
STRUCTURAL**

JEC Utility Engineering Consultants, LLC
135 BERRYVILLE ROAD, SUITE 201, HOUSTON, AL 35009

DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Don B. Beckwith</i>	REFERENCE RC24146L008.DGN	JOB NO. RC24 146	
SHEET 8 OF 18			



SECTION B
SCALE: 1/4"=1'-0"
SHT. 4



The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING SECTION "B"
STRUCTURAL**

JEC Utility Engineering Consultants, LLC
135 BERRYVILLE ROAD, SUITE 21, HOUSTON, AL 35009

DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Don B. Beckwith</i>	REFERENCE RC24146L009.DGN	JOB NO. RC24 146	
SHEET 9 OF 18			

NO.	DATE	REMARKS	BY
REVISIONS			

ELECTRICAL REFERENCE SYMBOLS

ELECTRICAL ABBREVIATIONS

(APPLY ONLY WHEN ADJACENT TO AN ELECTRICAL SYMBOL)

CENTRAL SWITCH PANEL	CSP
DUSTTIGHT	DT
EMERGENCY SWITCH PANEL	ESP
EMPTY	MT
EXPLOSIONPROOF	EP
GROUNDED	G
GROUND FAULT	GF
NIGHT LIGHT	NL
PULL CHAIN	PC
RAINTIGHT	RT
RECESSED	R
TRANSFER	XFER
TRANSFORMER	XFR
VAPORTIGHT	VT
WATERTIGHT	WT
WEATHERPROOF	WP
DRINKING FOUNTAIN OUTLET	DF

SWITCH OUTLETS

SINGLE-POLE SWITCH	\$
DOUBLE-POLE SWITCH	\$ ₂
THREE-WAY SWITCH	\$ ₃
FOUR-WAY SWITCH	\$ ₄
KEY-OPERATED SWITCH	\$ _K
SWITCH AND PILOT LAMP	\$ _P
FAN SWITCH	\$ _F
SWITCH AND SINGLE RECEPTACLE	—○S
SWITCH AND DUPLEX RECEPTACLE	—○S
DOOR SWITCH	\$ _D
TIME SWITCH	\$ _T
MOMENTARY CONTACT SWITCH	\$ _{MC}
CEILING PULL SWITCH	Ⓢ
"HAND-OFF-AUTO" CONTROL SWITCH	HOA
MULTI-SPEED CONTROL SWITCH	M
PUSH BUTTON	Ⓞ

RECEPTACLE OUTLETS

SINGLE-RECEPTACLE OUTLET	○
DUPLEX-RECEPTACLE OUTLET	⊖
CLOCK RECEPTACLE	Ⓢ
FAN RECEPTACLE	Ⓢ
FLOOR SINGLE-RECEPTACLE OUTLET	⊖
FLOOR DUPLEX-RECEPTACLE OUTLET	⊖
FLOOR SPECIAL-PURPOSE OUTLET	⊖
SPECIAL PURPOSE OUTLET	⊖

CIRCUITING

CONDUIT EXPOSED	—
CONDUIT CONCEALED IN CEILING, WALL OR UNDER GRADE.	—
CONDUIT CONCEALED IN FLOOR	-----
CONDUIT EXISTING	—EX—
CONDUIT TURNED UP	—○
CONDUIT TURNED DOWN	—●
BRANCH-CIRCUIT HOME RUN TO PANELBOARD.	—

NOTE: ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 - #12 AWG & #12AWG GND. FOR A GREATER NUMBER OF WIRES, INDICATE WITH CROSS LINES, E.G.:



WIREWAYS

CABLE-TROUGH LADDER OR CHANNEL	
WIREWAY	

PANELBOARDS, SWITCHBOARDS, AND RELATED EQUIPMENT

FLUSH-MOUNTED PANELBOARD AND CABINET	
SURFACE-MOUNTED PANELBOARD AND CABINETS	
SWITCHBOARD, POWER-CONTROL CENTER, UNIT SUBSTATIONS (SHOULD BE DRAWN TO SCALE)	
FLUSH-MOUNTED TERMINAL CABINET	
SURFACE-MOUNTED TERMINAL CABINET	
PULL BOX	
MOTOR OR OTHER POWER CONTROLLER	
EXTERNALLY OPERATED DISCONNECTION SWITCH	
COMBINATION CONTROLLER AND DISCONNECTION MEANS	

POWER EQUIPMENT

ELECTRIC MOTOR (hp AS INDICATED)	
POWER TRANSFORMER	
POTHEAD (CABLE TERMINATION)	
CIRCUIT ELEMENT	
CIRCUIT BREAKER	
FUSIBLE ELEMENT	
SINGLE-THROW KNIFE SWITCH	
DOUBLE-THROW KNIFE SWITCH	
GROUND	
BATTERY	
CONTACTOR	

VOLTAGE/PHASE/CYCLES EX: 480/3/60

RELAY	
EQUIPMENT CONNECTION (AS NOTED)	

REMOTE-CONTROL STATIONS FOR MOTORS OR OTHER EQUIPMENT

PUSH-BUTTON STATION, START/STOP WITH LOCKOUT	
FLOAT SWITCH, MECHANICAL	
LIMIT SWITCH, MECHANICAL	
PNEUMATIC FLOW SWITCH, MECHANICAL	
SOLENOID-CONTROL VALVE CONNECTION	
PRESSURE-SWITCH CONNECTION	
THERMOSTAT	

LIGHTING

SURFACE OR PENDANT FIXTURE	TYPE	CEILING	WALL
PC = PULL CHAIN	CIRCUIT NO.		
SURFACE OR PENDANT EXIT LIGHT			
BLANKED OUTLET			
JUNCTION BOX			
RECESSED INCANDESCENT FIXTURES			
SURFACE OR PENDANT INDIVIDUAL FLUORESCENT FIXTURE			
SURFACE OR PENDANT CONTINUOUS-ROW FIXTURE			
			FIXTURE NO. WATTAGE
			—SYMBOL NOT NEEDED AT EACH FIXTURE

ELECTRIC DISTRIBUTION OR LIGHTING SYSTEM, AERIAL

POLE		45/2	CLASS
STREET OR PARKING-LOT LIGHT AND BRACKET			POLE HEIGHT (FEET)
TRANSFORMER			
PRIMARY CIRCUIT			
SECONDARY CIRCUIT			
DOWN GUY			
HEAD GUY			
SIDEWALK GUY			
SERVICE WEATHER HEAD			

ELECTRIC DISTRIBUTION OR LIGHTING SYSTEM, UNDERGROUND

MANHOLE	
HANDHOLE	
TRANSFORMER MANHOLE OR VAULT	
TRANSFORMER PAD	
UNDERGROUND DIRECT BURIAL CABLE (INDICATE TYPE, SIZE AND NUMBER OF CONDUCTORS BY NOTATION OR SCHEDULE.)	

TELEPHONES & INTERCOMS

	TELEPHONE
	INTERCOM

NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146

ELECTRICAL SYMBOL SHEET

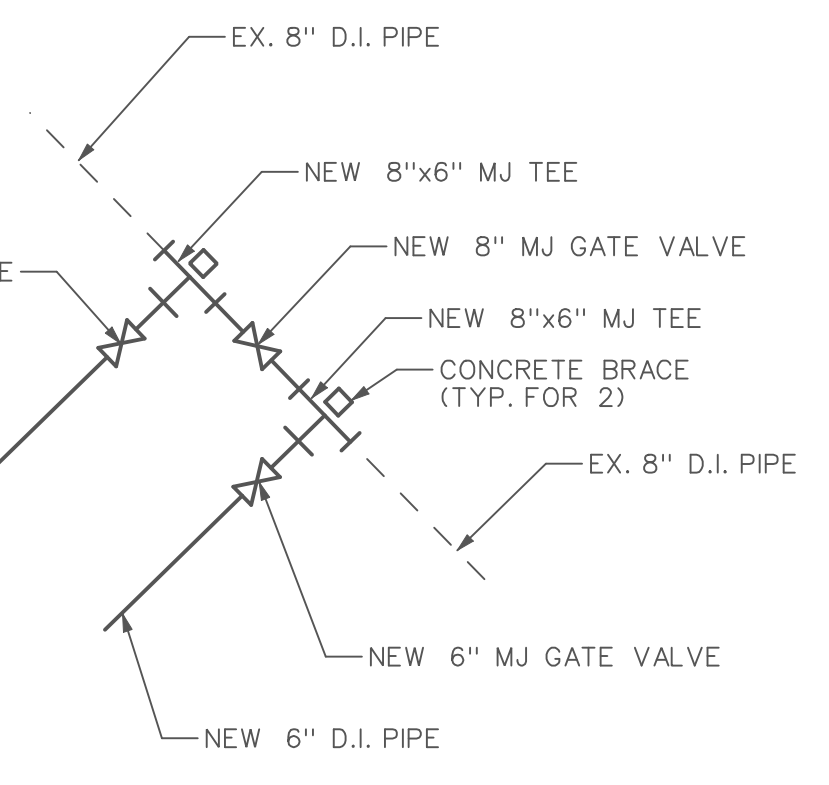
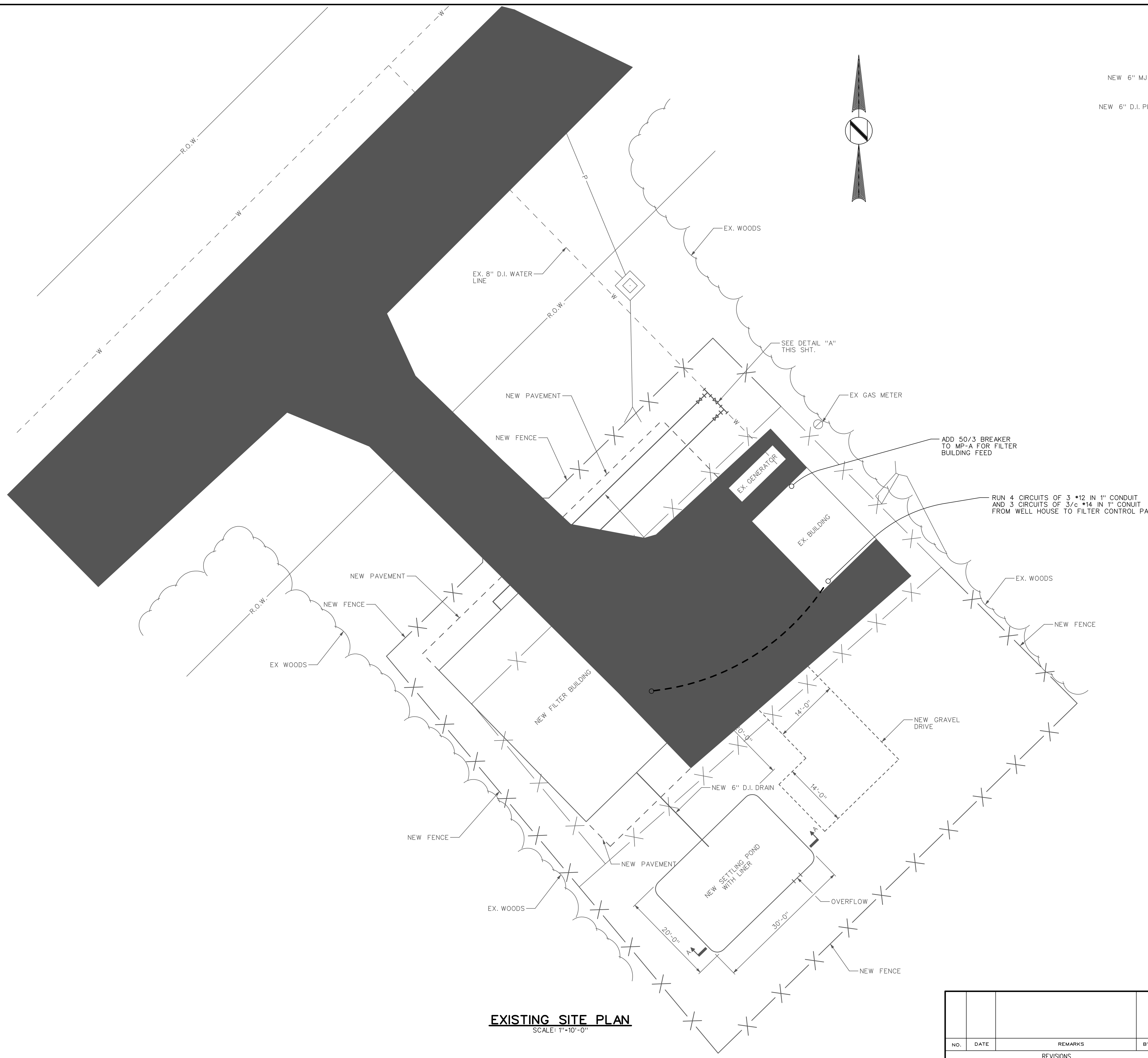
JEC Utility Engineering Consultants, LLC

DESIGNED: DBB, DRAWN: LTH, SCALE: AS NOTED, DATE: APRIL, 2025

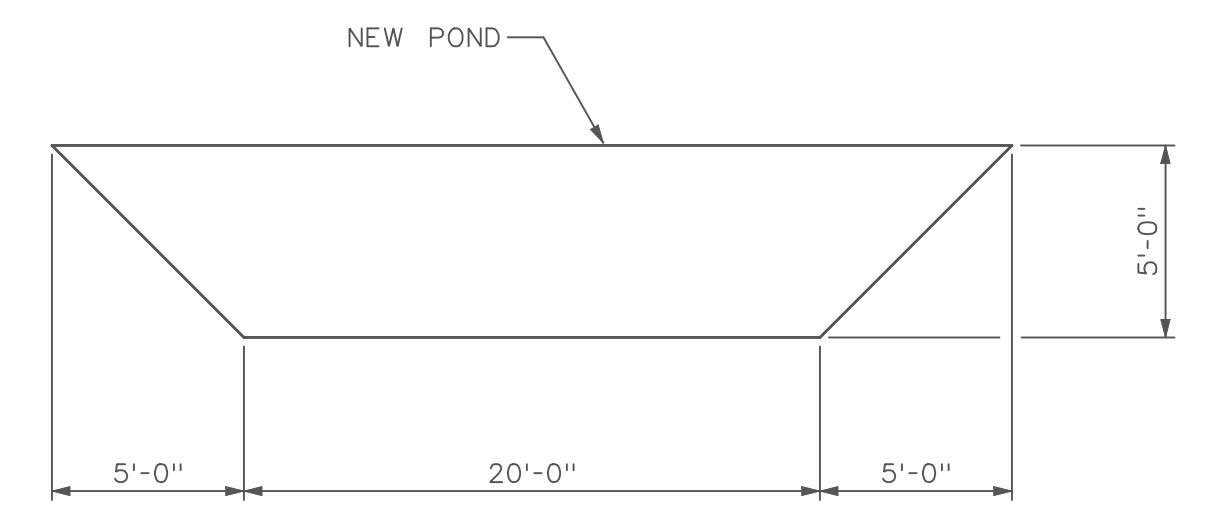
APPROVED: *Due B. Butler*, REFERENCE: RC24146L010.DGN, JOB NO.: RC24 146

SHEET 10 OF 18



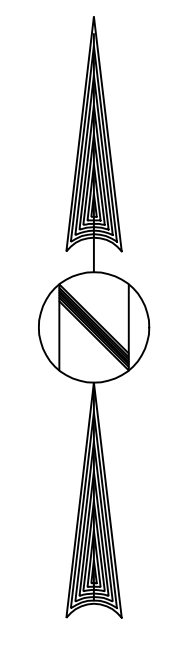


DETAIL "A"
NO SCALE



SECTION A-A
NO SCALE

EXISTING SITE PLAN
SCALE: 1"=10'-0"

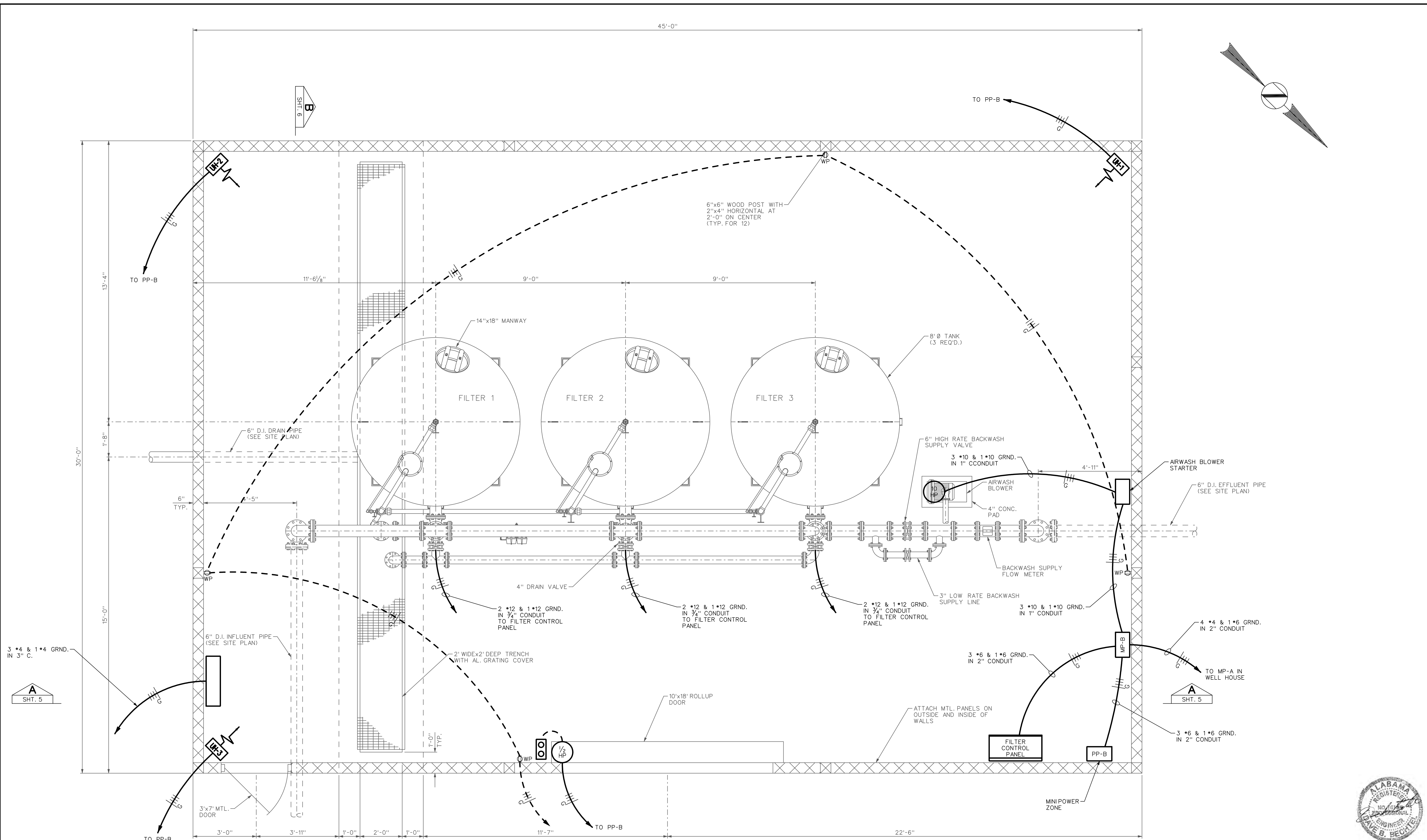
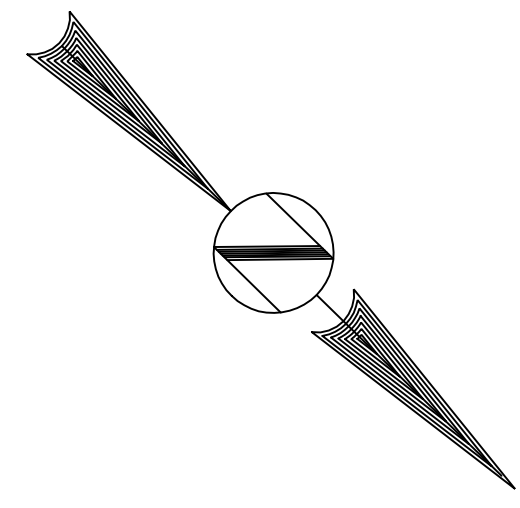


NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146

**EX. SITE PLAN
NEW ELECTRICAL**

	Utility Engineering Consultants, LLC		<small>135 GREENSBORO HIGHWAY, AL 35009</small>
	DESIGNED DBB	DRAWN LTH	SCALE AS NOTED
APPROVED <i>Don & Butch</i>	REFERENCE RC24146L011.DGN	JOB NO. RC24 146	DATE APRIL, 2025
SHEET 11 OF 18			



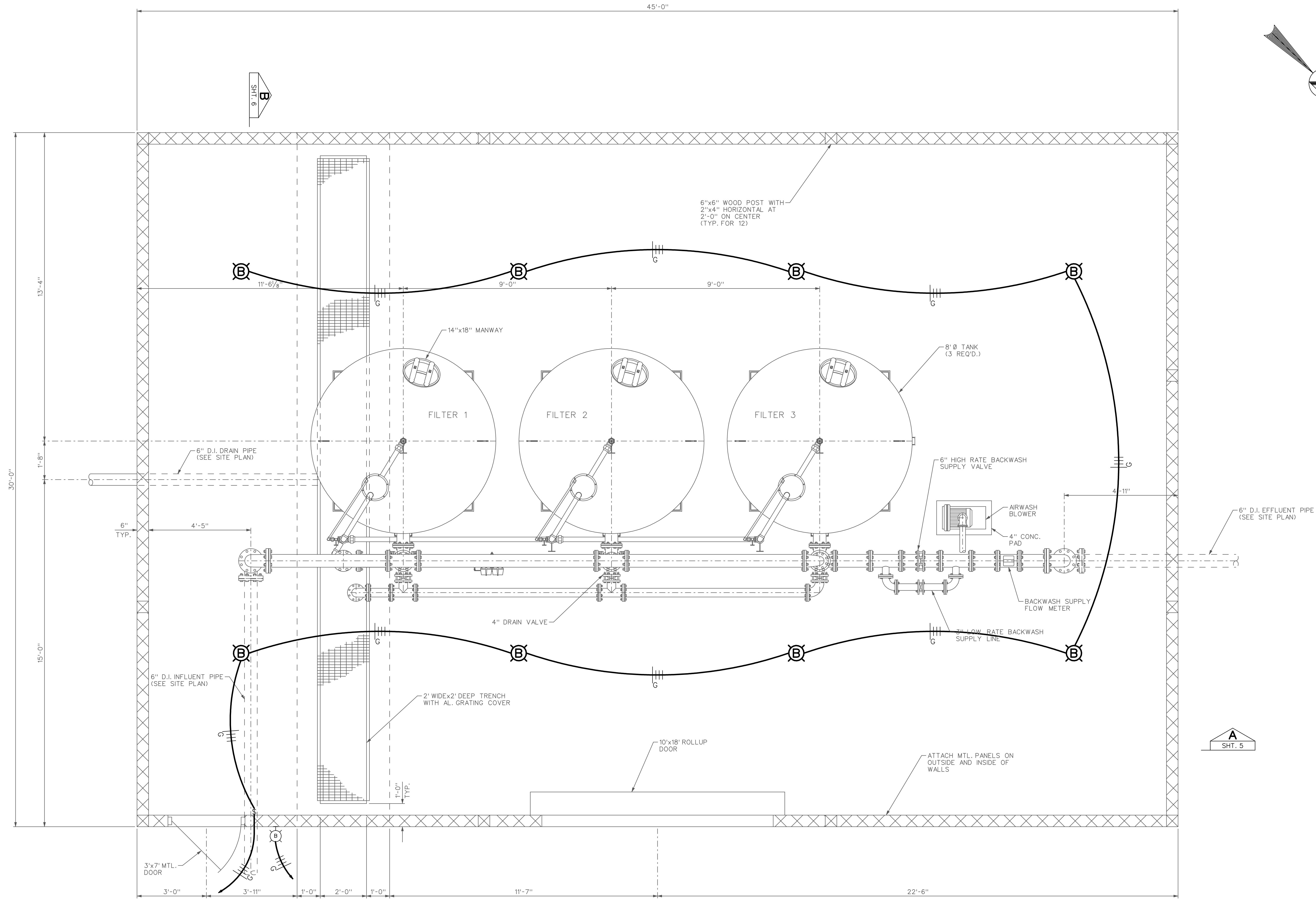
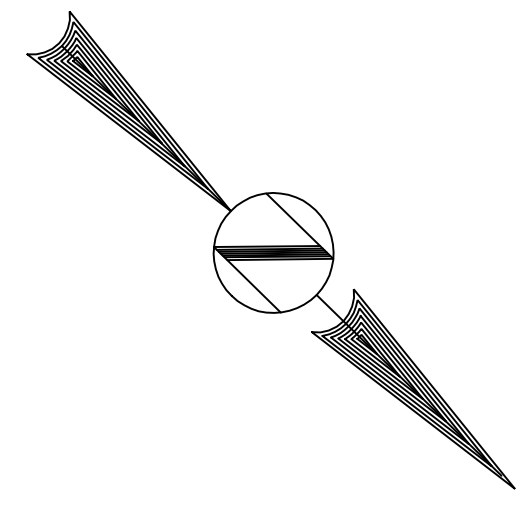
PLAN
SCALE: 1/2" = 1'-0"

NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING PLAN
POWER**

Utility Engineering Consultants, LLC		SCALE	DATE
		LTH	AS NOTED
DESIGNED	DRAWN	REFERENCE	JOB NO.
APPROVED		RC24146L012.DGN	RC24 146
SHEET 12 OF 18			

133 0000000000
STATE OF ALABAMA
REGISTERED PROFESSIONAL ENGINEER
STATE B. BECKLEY



A
SHT. 5

A
SHT. 5

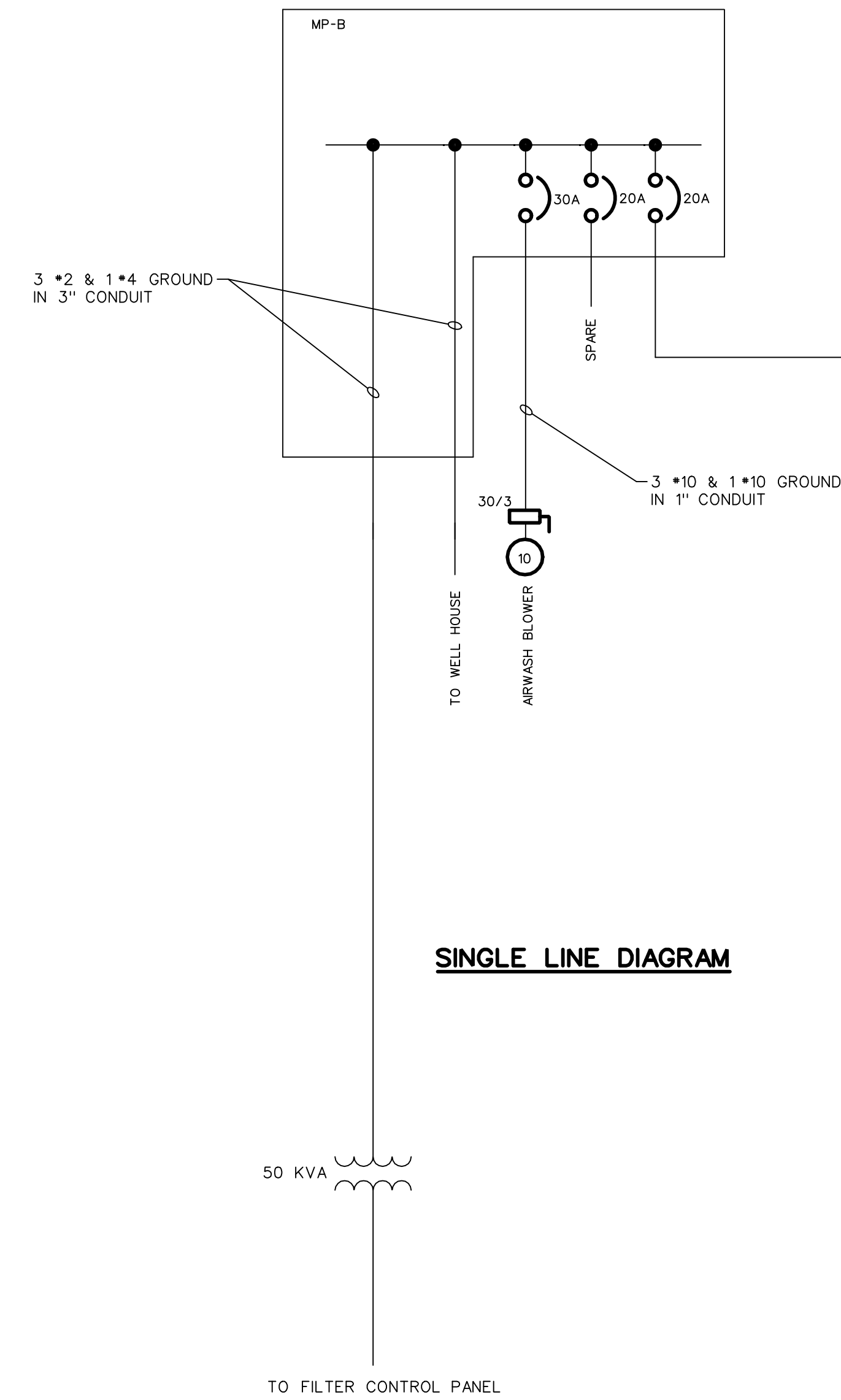


PLAN
SCALE: 1/2" = 1'-0"

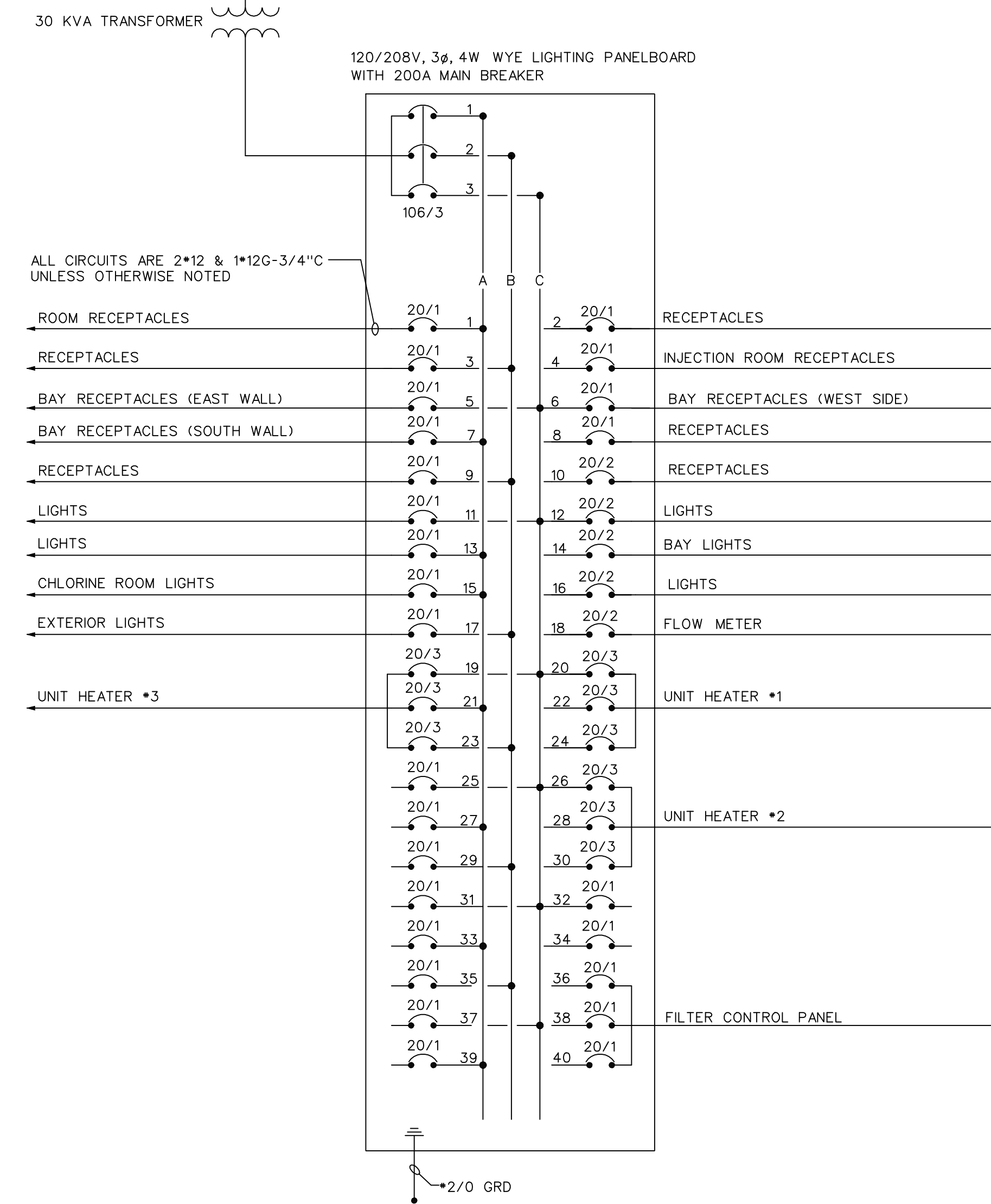
NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING PLAN
LIGHTING**

	Utility Engineering Consultants, LLC		<small>13150 UNIVERSITY BLVD HOUSTON, TX 77050</small>	
	DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Don B. Beckel</i>	REFERENCE RC24146L013.DGN	JOB NO. RC24 146	SHEET 13 OF 18	

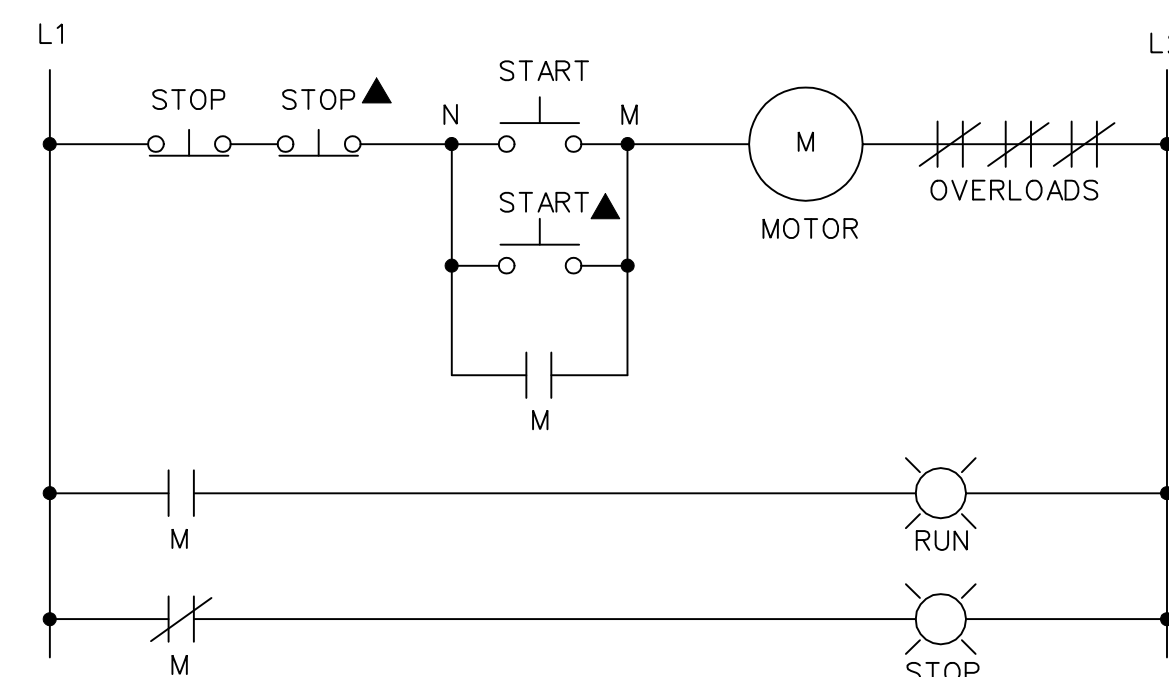


SINGLE LINE DIAGRAM



**LIGHT/RECEPTACLE PANEL
SINGLE LINE DIAGRAM
(LP-1)**

ALL WIRING:
2 - *12 & 1 - * 12 GRND IN 3/4" CONDUIT
(UNLESS NOTED OTHERWISE)



TYPICAL MOTOR DIAGRAM

▲ - REMOTE STATION

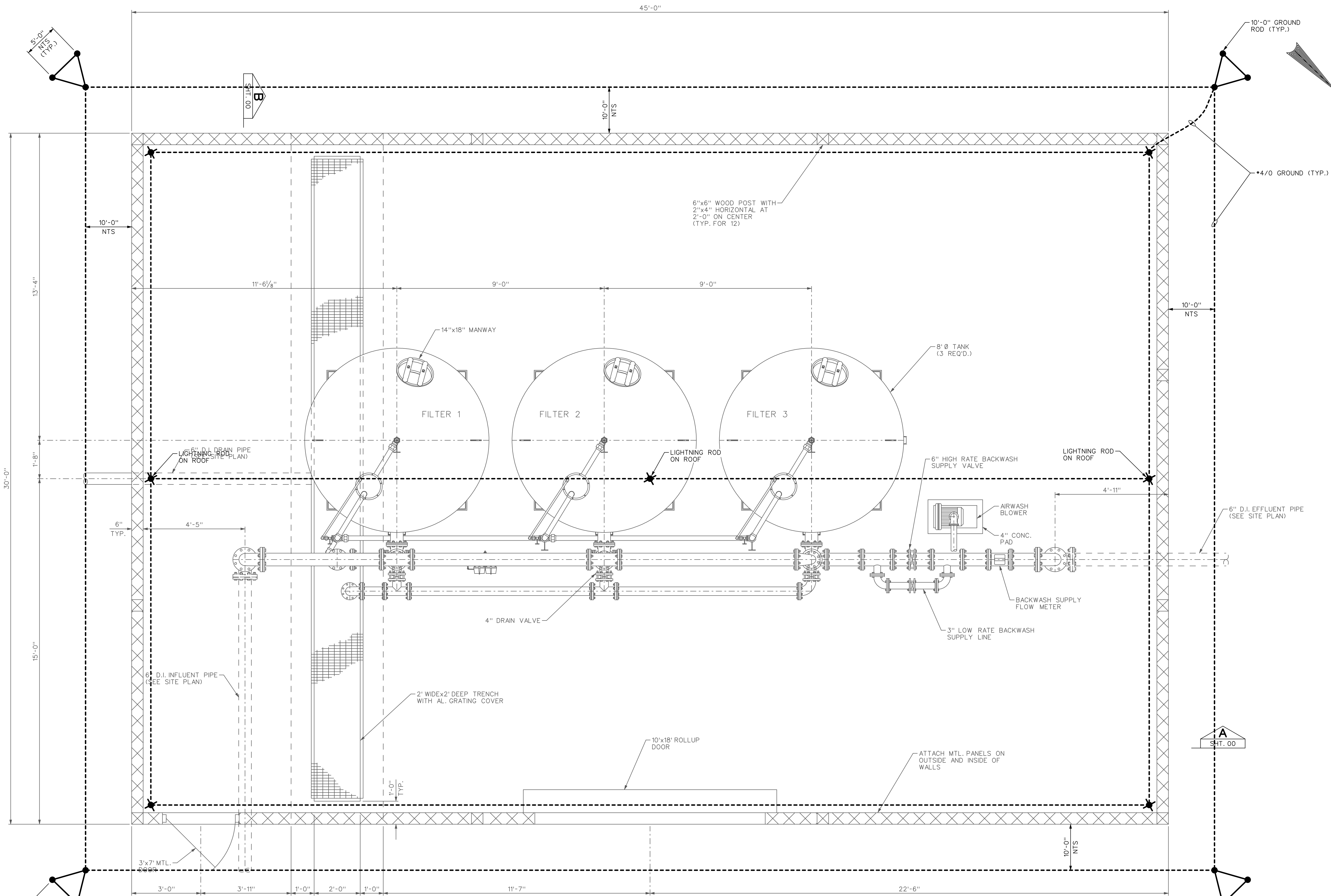


NO.	DATE	REMARKS	BY
REVISIONS			

The Town Of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146

Utility Engineering Consultants, LLC <small>125 GLEN CIRCLE SUITE 211 HOPEWELL, AL 36309</small>		DESIGNED	DRAWN	SCALE	DATE
		DBB	LTH	AS NOTED	APRIL, 2025
APPROVED	REFERENCE	JOB NO.			
<i>David B. Bechtel</i>	RC24146L015.DGN	RC24 146			
SHEET 15 OF 18					

**SINGLE LINE DIAGRAM
AND SCHEMATICS**



A
SHT. 00

A
SHT. 00

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

NO.	DATE	REMARKS	BY
REVISIONS			

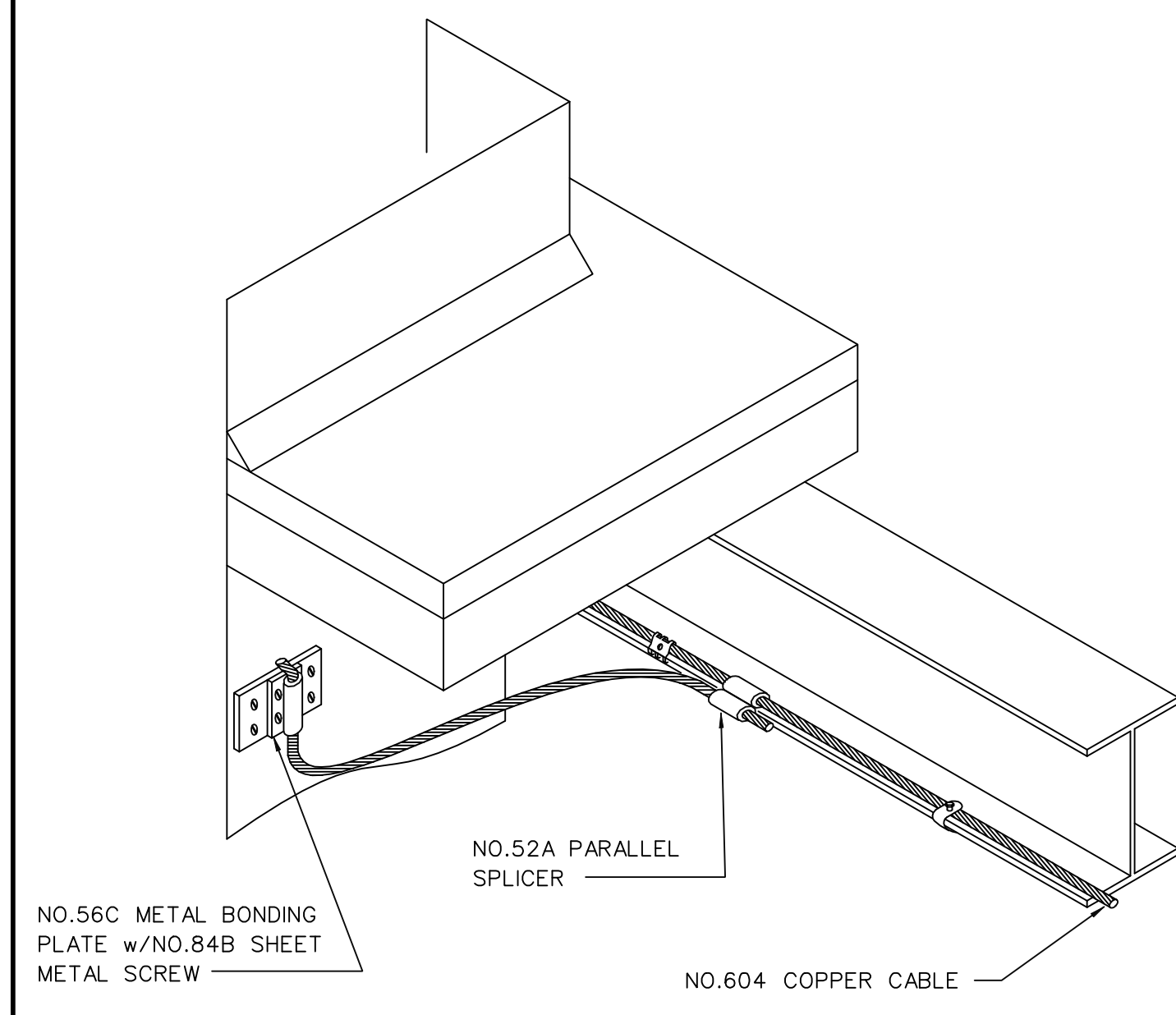
The Town of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT
PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146
**PROPOSED FILTER
BUILDING PLAN
LIGHTNING PROTECTION**



**Utility
Engineering
Consultants, LLC**

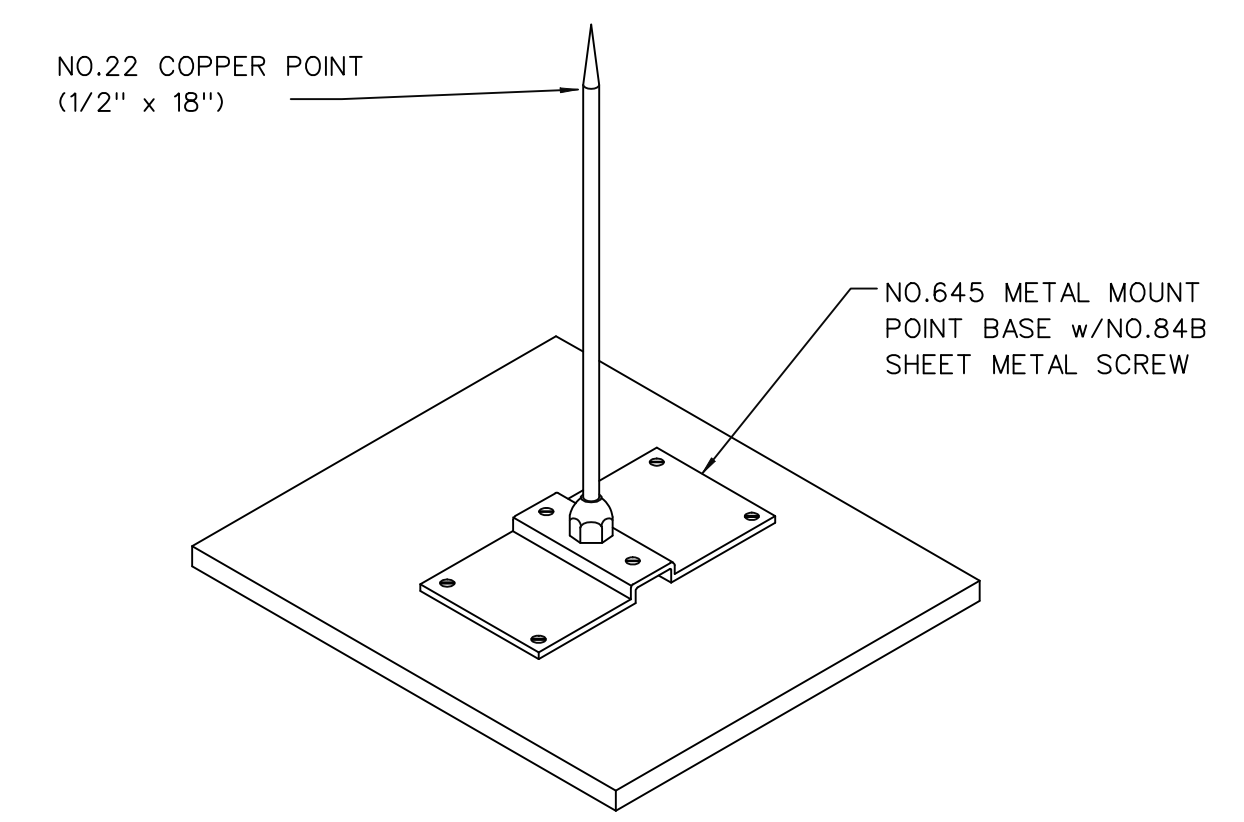


DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Due B. Beckel</i>	REFERENCE RC24146L016.DGN	JOB NO. RC24 146	
SHEET 16 OF 18			



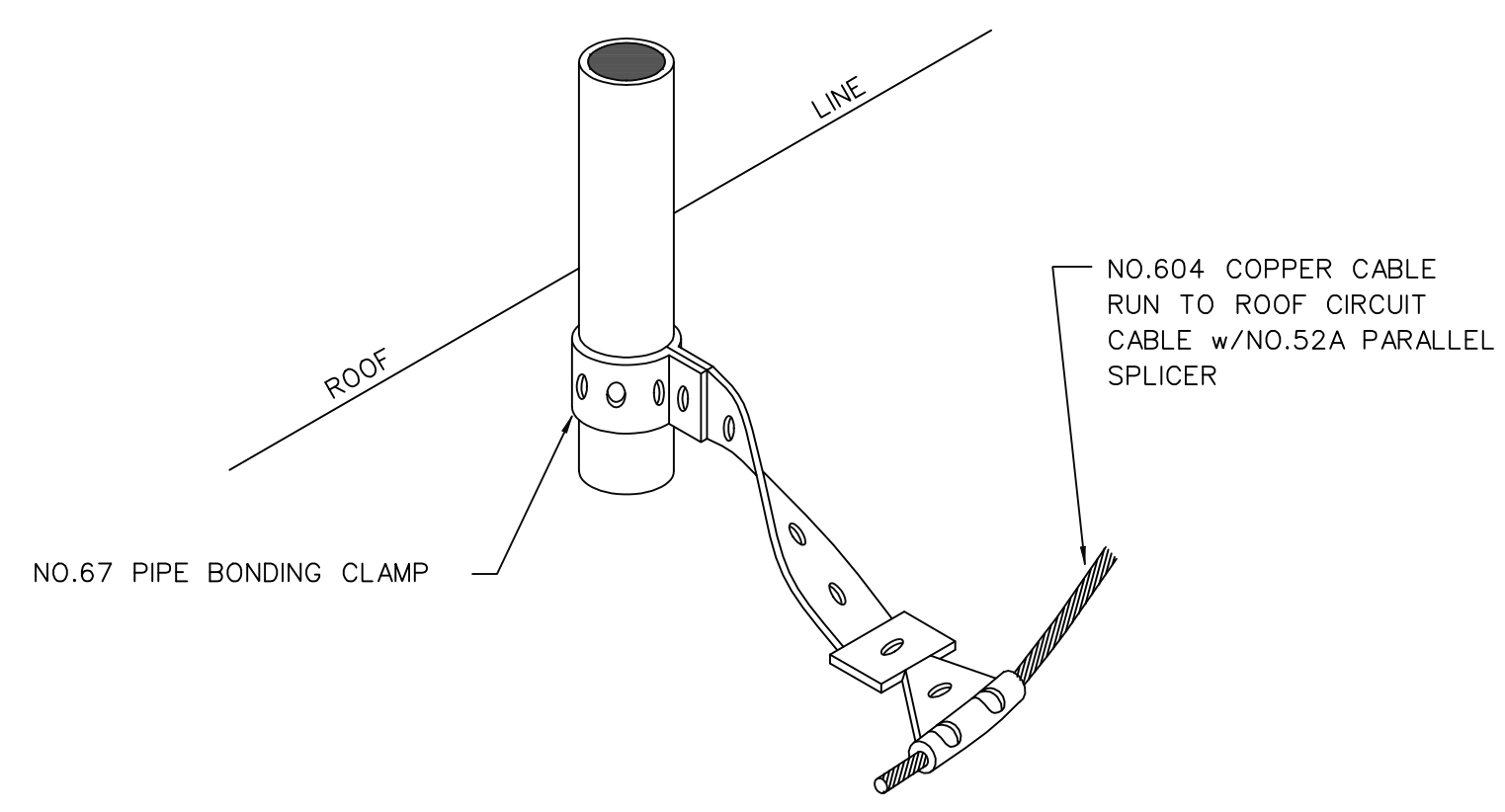
TYPICAL ROOF EQUIPMENT BOND

NO SCALE



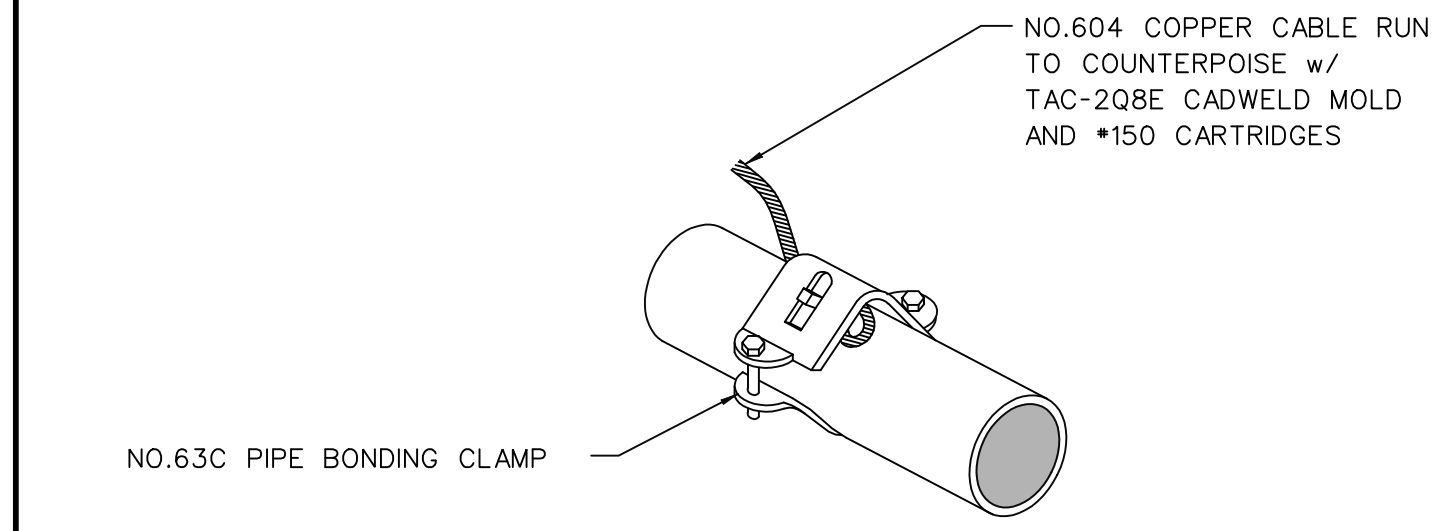
TYPICAL ROOF EQUIPMENT AIR TERMINAL

NO SCALE



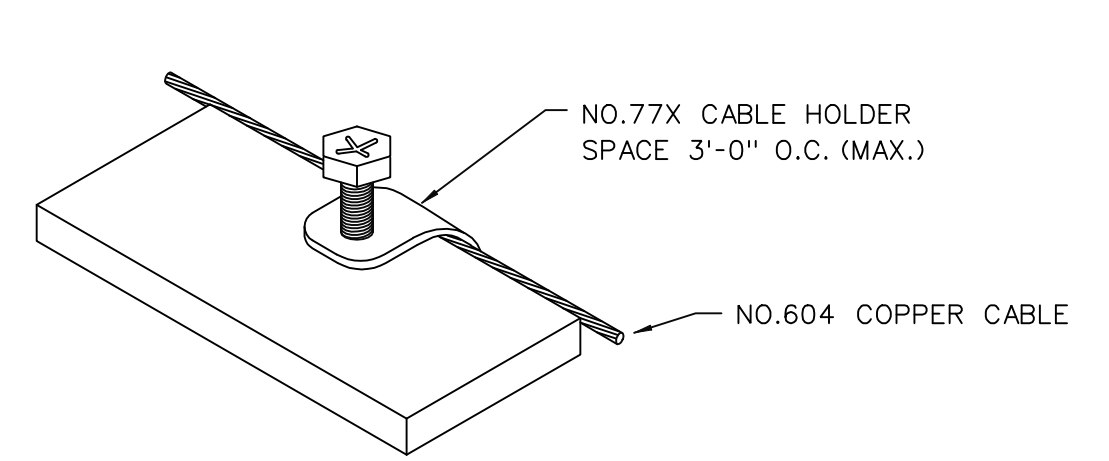
TYPICAL VENT THRU ROOF BOND

NO SCALE



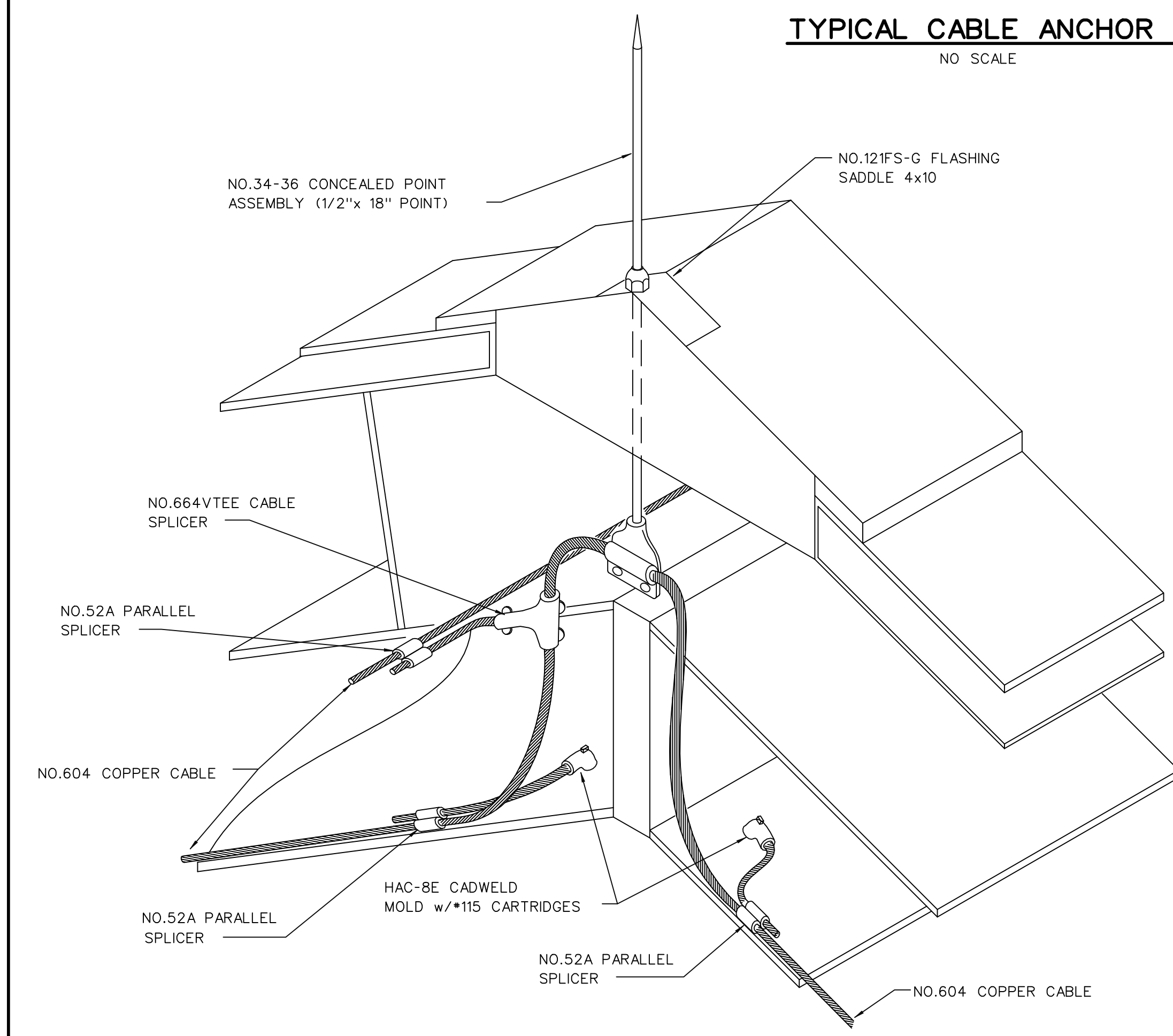
TYPICAL WATER AND GAS PIPE BOND

NO SCALE



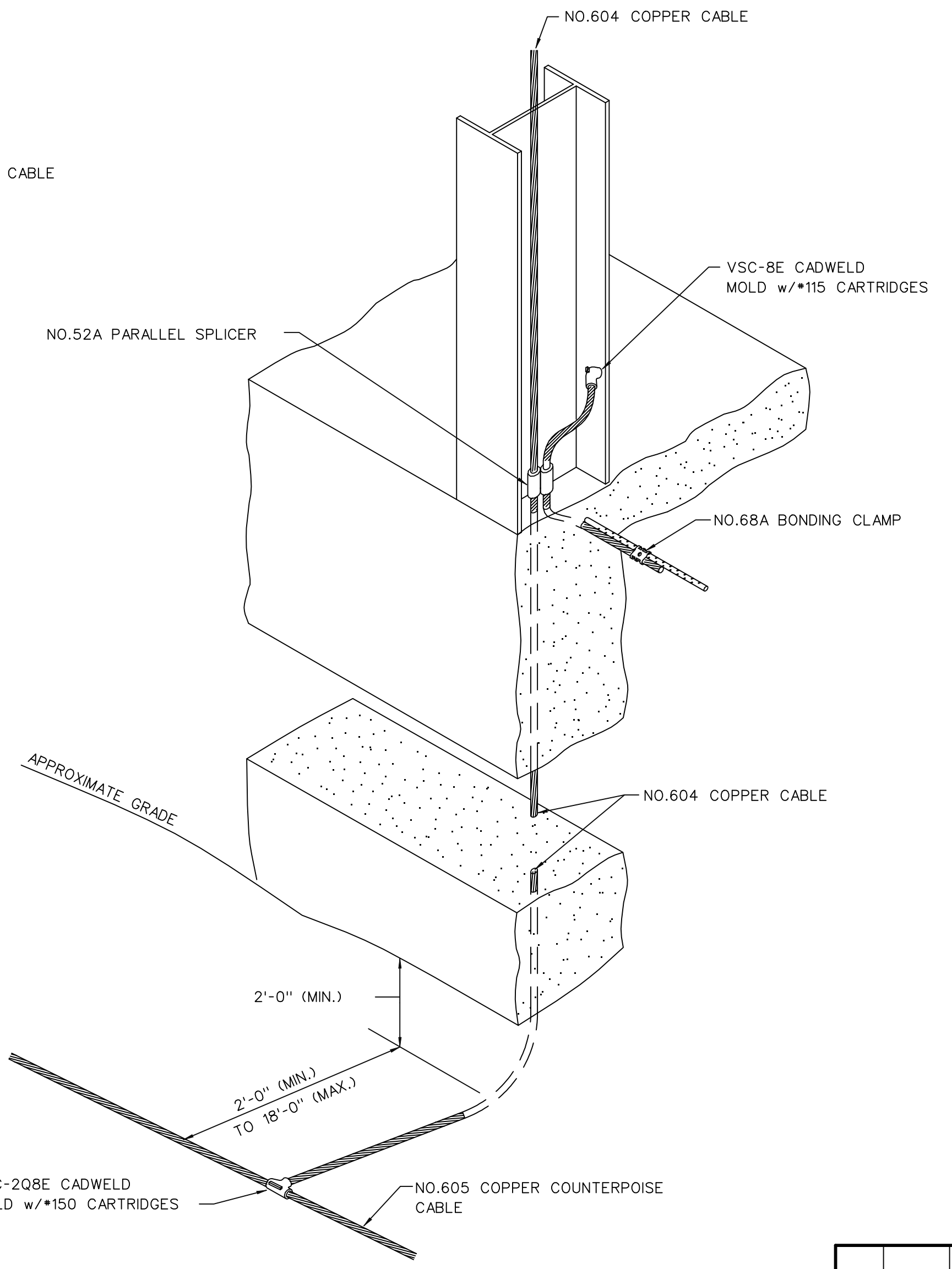
TYPICAL CABLE ANCHOR

NO SCALE



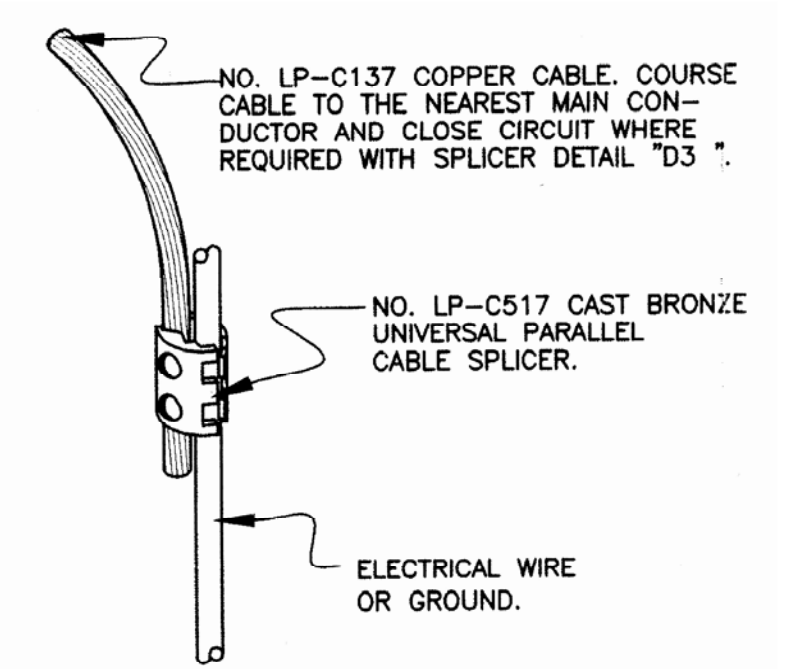
TYPICAL AIR TERMINAL

NO SCALE



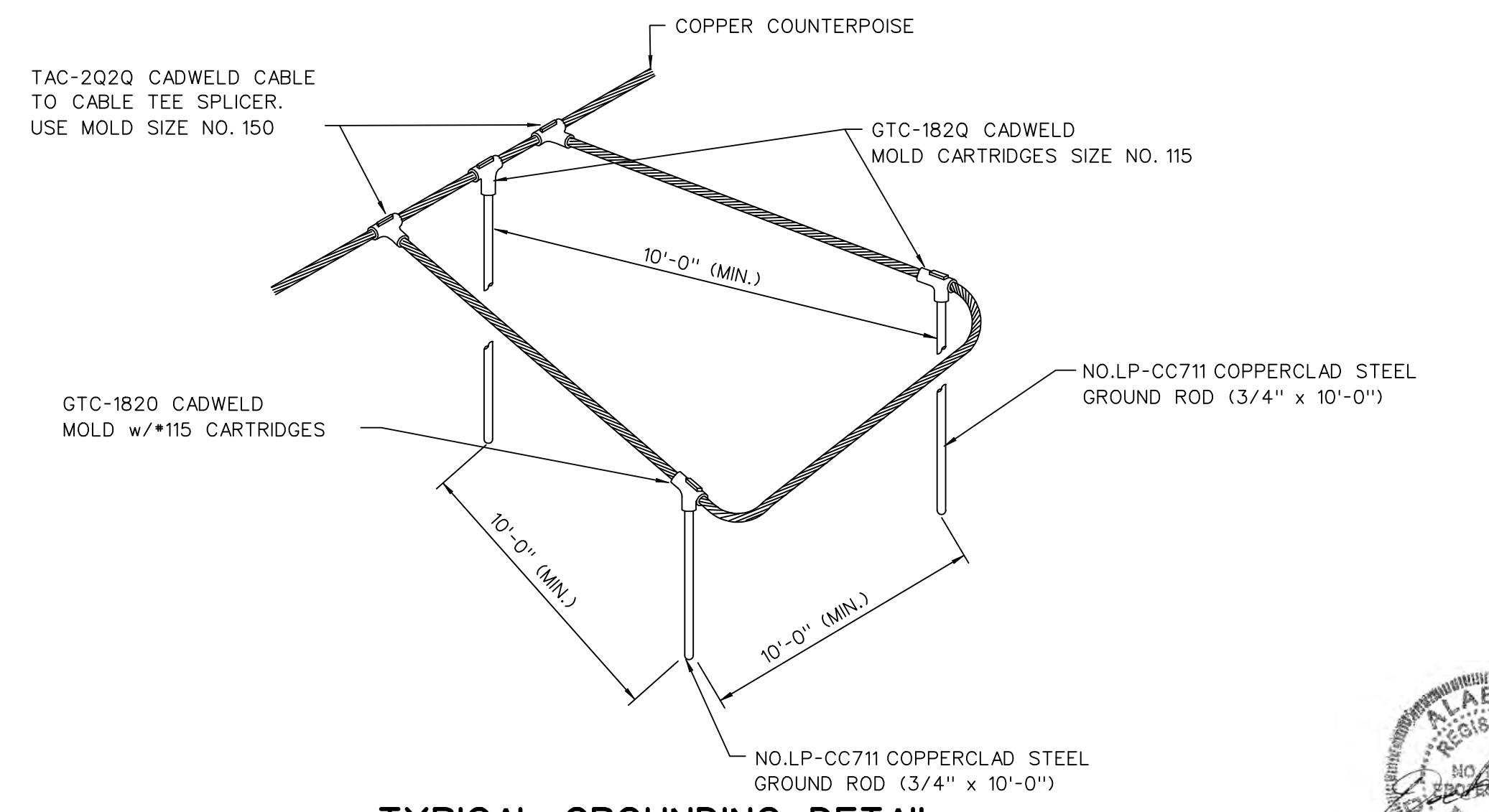
TYPICAL DOWNLOAD TO GROUND

NO SCALE



ELECT. GROUNDING CONN.

NOT TO SCALE



TYPICAL GROUNDING DETAIL

NO SCALE

GENERAL INSTALLATION NOTES	
1	ARRESTERS ARE REQUIRED ON ELECTRICAL SERVICE PANEL, DATA AND TELEPHONE LINE ENTRANCES BY THE ELECTRICAL CONTRACTOR OR BY VARIOUS UTILITY AGENCIES.
2	TELEPHONE AND/OR ELECTRICAL SERVICE ENTRANCE GROUNDS SHALL BE INTERCONNECTED TO ONE LIGHTNING PROTECTION GROUND OR WATER PIPE.
3	METAL BODIES OF INDUCTANCE LOCATED ABOUT THE ROOF SUCH AS: METAL FLASHING, GRAVEL STOPS, ROOF DRAINS, SOIL PIPE VENTS, INSULATION VENTS, LOUVERS AND DOOR FRAMES SITUATED WITHIN 6'-0" OF A LIGHTNING CONDUCTOR OR BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM.
4	NO BEND OF A CONDUCTOR SHALL FORM A FINAL INCLUDED ANGLE OF LESS THAN 90° NOR SHALL HAVE A RADIUS OF BEND OF LESS THAN 8".
5	CONDUCTORS SHALL INTERCONNECT ALL AIR TERMINALS AND SHALL FORM A TWO-WAY PATH FROM EACH AIR TERMINAL HORIZONTALLY OR DOWNWARD TO CONNECTIONS WITH GROUND TERMINALS.
6	ALL LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED NOT MORE THAN 3'-0" MAXIMUM SPACING.
7	GROUND RODS SHALL BE DRIVEN TO A MINIMUM DEPTH OF 10'-0" BELOW GRADE AND 2'-0" AWAY FROM FOUNDATION WALL.
8	CONNECTIONS TO GROUND LOOP CONDUCTOR SHALL BE MADE AT A POINT NOT LESS THAN 18" BELOW GRADE AND 2'-0" AWAY FROM FOUNDATION WALL.
9	AIR TERMINALS SHALL BE PLACED AT ALL UNPROTECTED OUTSIDE CORNERS AND LOCATED INTERMEDIATELY ON 20'-0" MAXIMUM SPACING AROUND THE ROOF PERIMETER OR RIDGE AND WITHIN 2'-0" OF OUTSIDE EDGE.
10	FOR SAKE OF CLARITY, WE HAVE NOT LABELED EACH INDIVIDUAL ITEM OF LIGHTNING PROTECTION MATERIALS ON THE ROOF PLAN. WE HAVE SHOWN INSTALLATION DETAILS AND HAVE CALLED OUT EACH OF THESE DETAILS ON THE ROOF PLAN ONLY AT RANDOM LOCATIONS.
11	BOND ALL METALLIC PIPES INCLUDING WATER, FIRE, GAS, SEWER, STORM, ETC. WHICH ENTER THE STRUCTURE TO THE NEAREST DOWNLEAD, GROUND ROD OR GROUND LOOP.
12	BARE COPPER LIGHTNING PROTECTION MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM ROOF OR SIDING OR OTHER ALUMINUM SURFACES AND VICE VERSA, ALUMINUM LIGHTNING PROTECTION MATERIALS SHALL NOT BE INSTALLED ON COPPER ROOFING OR COPPER SIDING OR OTHER COPPER SURFACES.
13	THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN A NEAT AND INCONSPICUOUS MANNER SO THAT ALL COMPONENTS WILL BLEND IN WITH THE APPEARANCE OF THE BUILDING.
14	ACTUAL JOB-SITE CONDITIONS MAY NECESSITATE SLIGHT ALTERATIONS IN AIR TERMINAL AND GROUND ROD LOCATIONS.
15	MIDROOF AIR TERMINALS SHALL BE PLACED ON 50'-0" MAXIMUM SPACING.
16	THE DESIGN LAYOUT AND INSTALLATION DETAILS SHOWN HEREON SHALL MEET THE REQUIREMENTS OF UNDERWRITERS' LABORATORIES STANDARD 96A FOR MASTER LABELED LIGHTNING PROTECTION SYSTEMS. THE ACTUAL MASTER LABEL WILL BE DELIVERED UPON COMPLETION OF INSTALLATION.
17	THE LIGHTNING PROTECTION INSTALLATION SHALL COMPLY IN ALL RESPECTS TO LIGHTNING PROTECTION INSTITUTE STANDARD 175. THE INSTALLATION SHALL BE MADE BY OR UNDER THE SUPERVISION OF AN L.P.I. CERTIFIED MASTER INSTALLER. THE COMPLETED INSTALLATION WILL RECEIVE SYSTEM CERTIFICATION SUBMITTAL FORM LPI 176.
18	THE DESIGN LAYOUT AND INSTALLATION DETAILS SHOWN HEREON SHALL MEET THE REQUIREMENTS OF NATIONAL FIRE PROTECTION ASSOCIATION STANDARD #780, CURRENT EDITION.



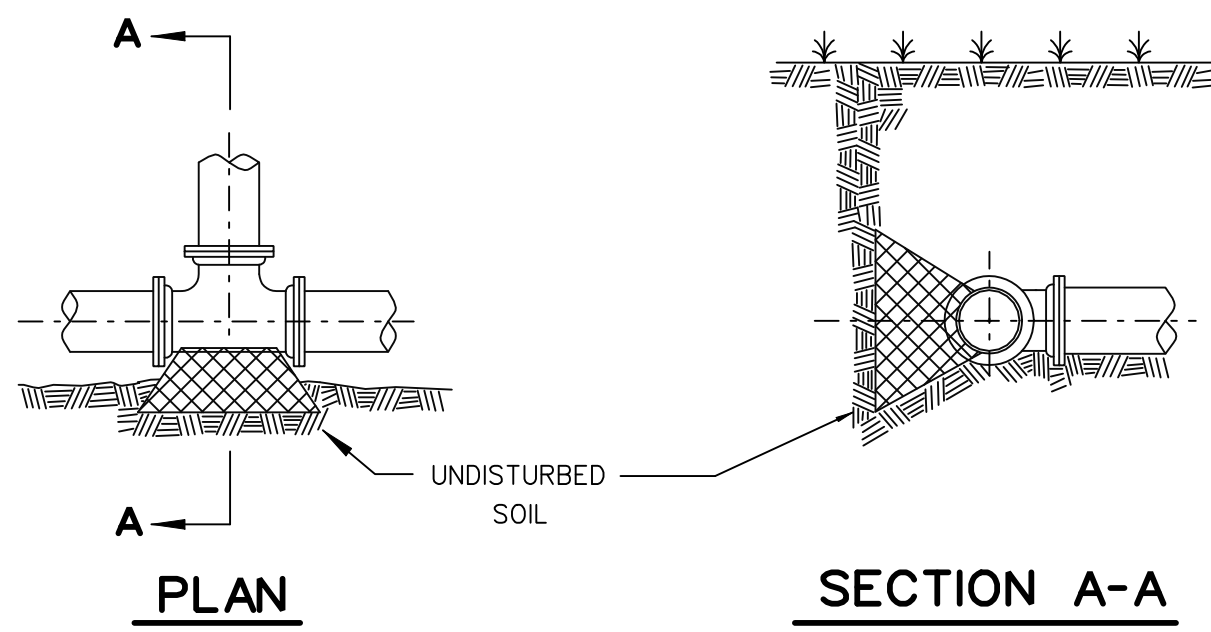
NO.	DATE	REMARKS	BY

The Town Of
REECE CITY, ALABAMA
 REECE CITY WATER TREATMENT PLANT IMPROVEMENTS
 DWSRF PROJECT NO. FS010480-02
 CONTRACT NO. RC24 146
PROPOSED FILTER BUILDING PLAN LIGHTNING PROTECTION

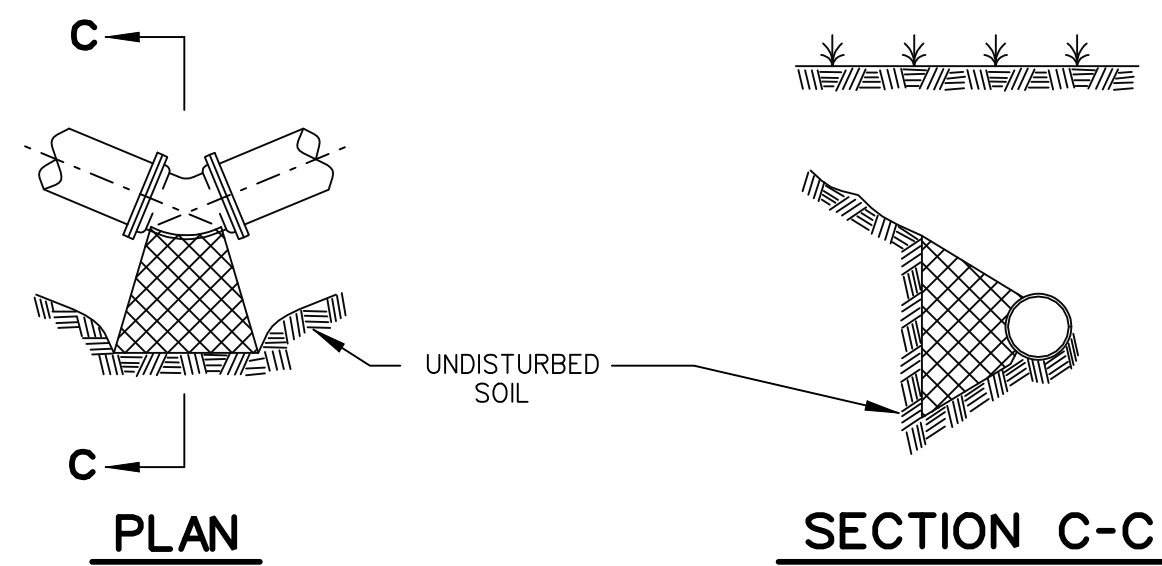
JEC Utility Engineering Consultants, LLC
 135 GERRYVILLE HOMEWOOD, AL 35090

DESIGNED DBB	DRAWN LTH	SCALE AS NOTED	DATE APRIL, 2025
APPROVED <i>Don B. Butler</i>	REFERENCE RC24146L017.DGN	JOB NO. RC24 146	

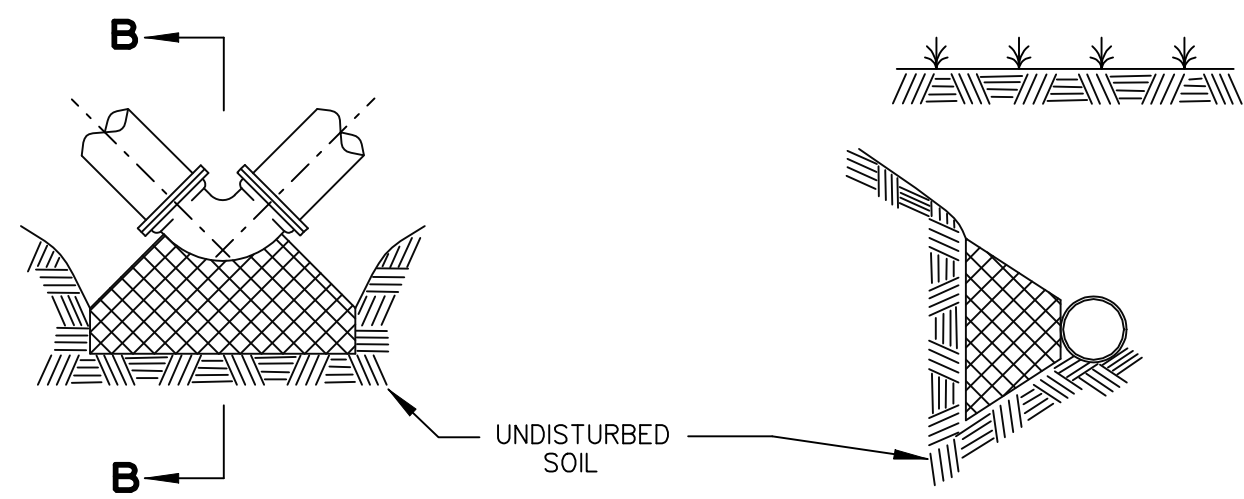
SHEET 17 OF 18



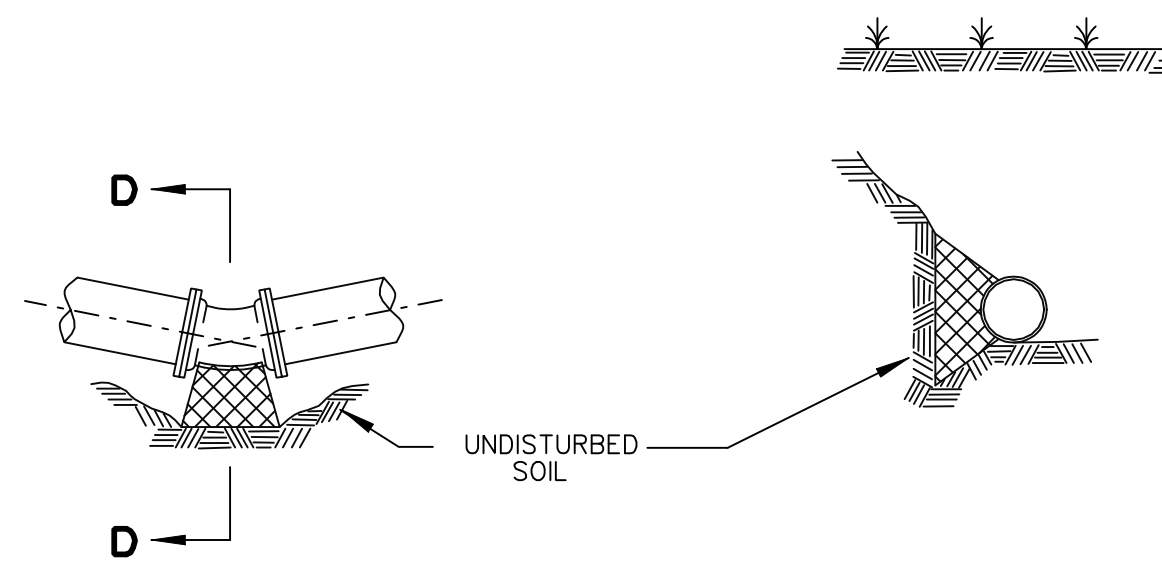
TEES



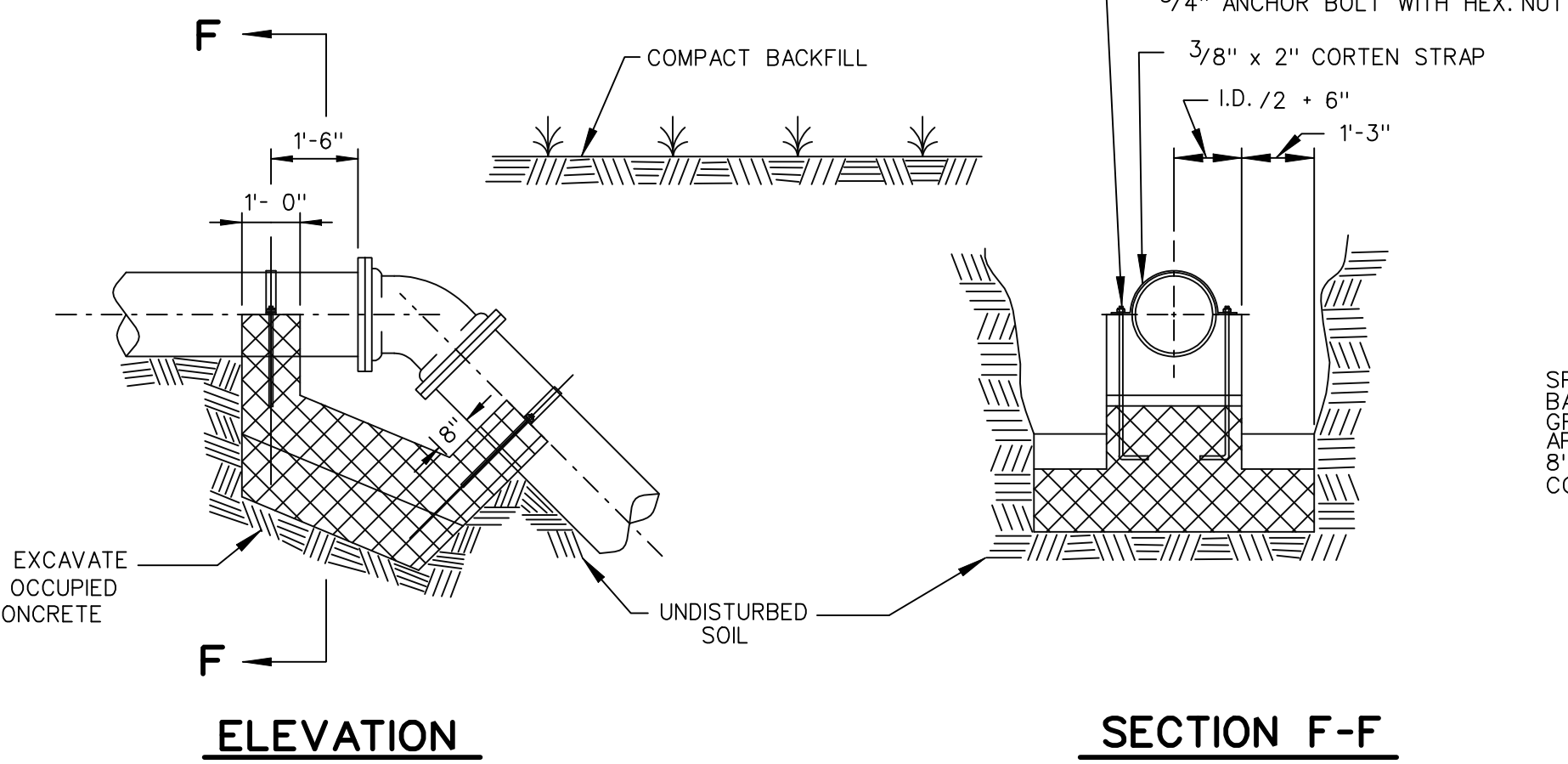
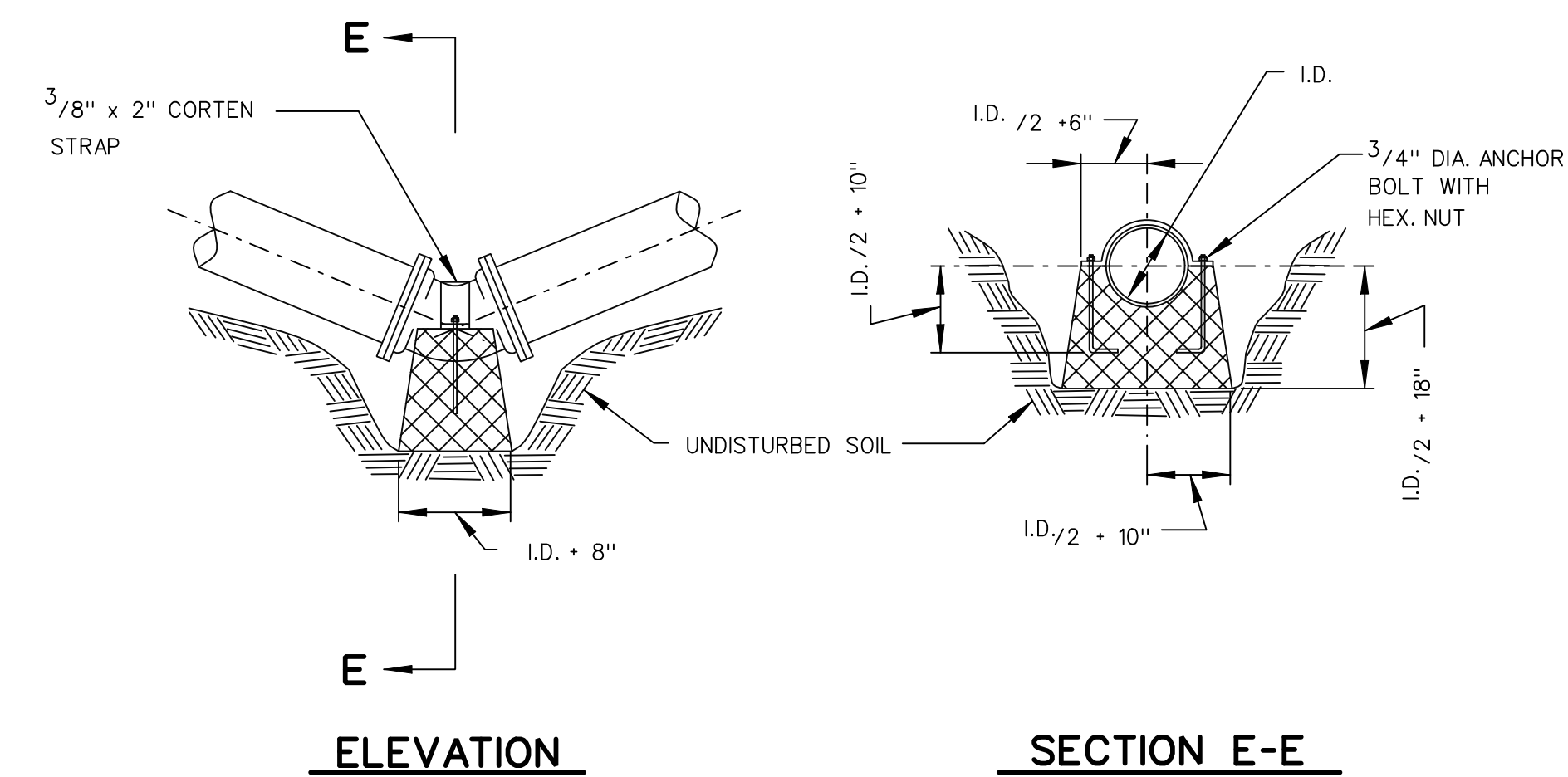
45° BENDS



90° BENDS

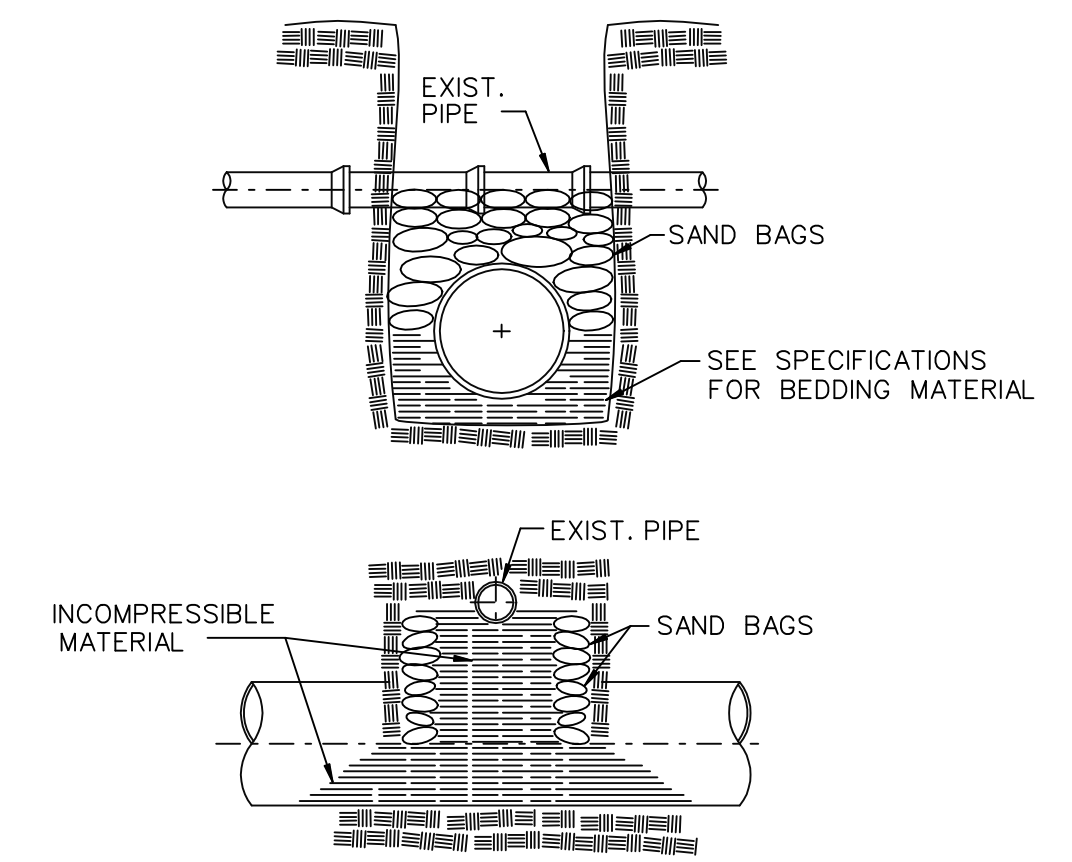


22 1/2° BENDS



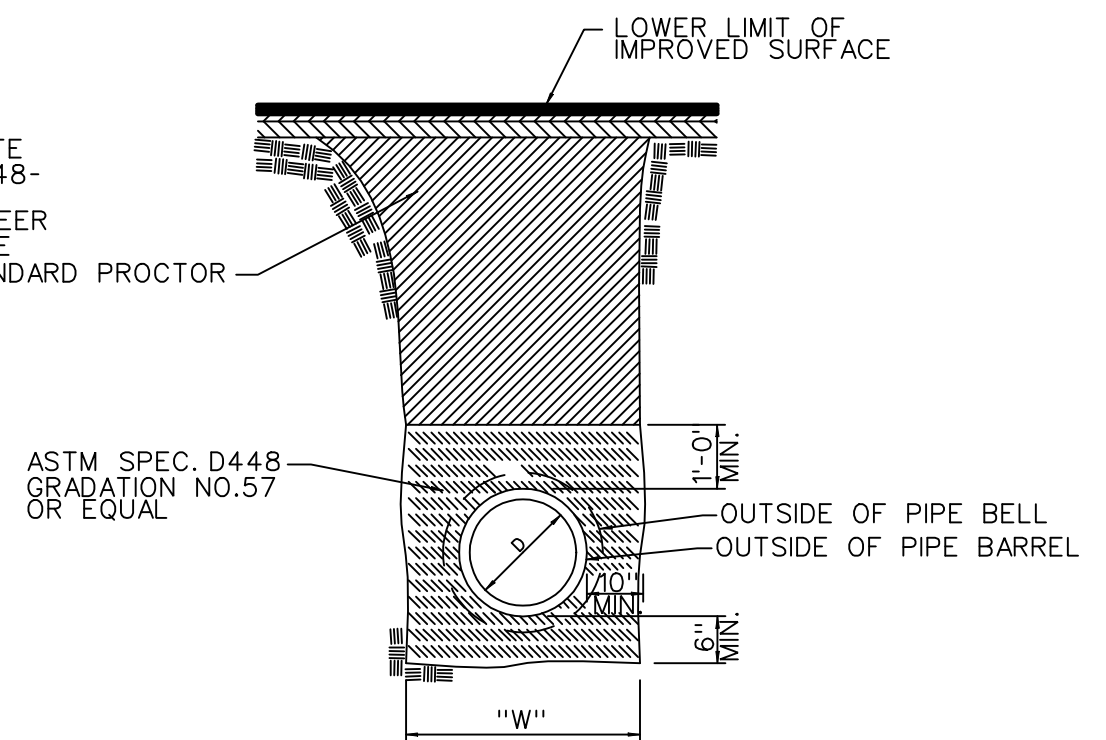
DETAILS OF TYPICAL CONCRETE BRACING & VERTICAL BENDS

NOTE:
EXISTING UTILITIES MAY BE REPLACED WITH ONE LENGTH OF CAST IRON PIPE IN LIEU OF DETAIL BELOW.



TYPICAL METHOD OF PROTECTING UTILITIES OR OTHER PIPE CROSSINGS WHERE NOT LOCATED UNDER PAVING
NOT TO SCALE

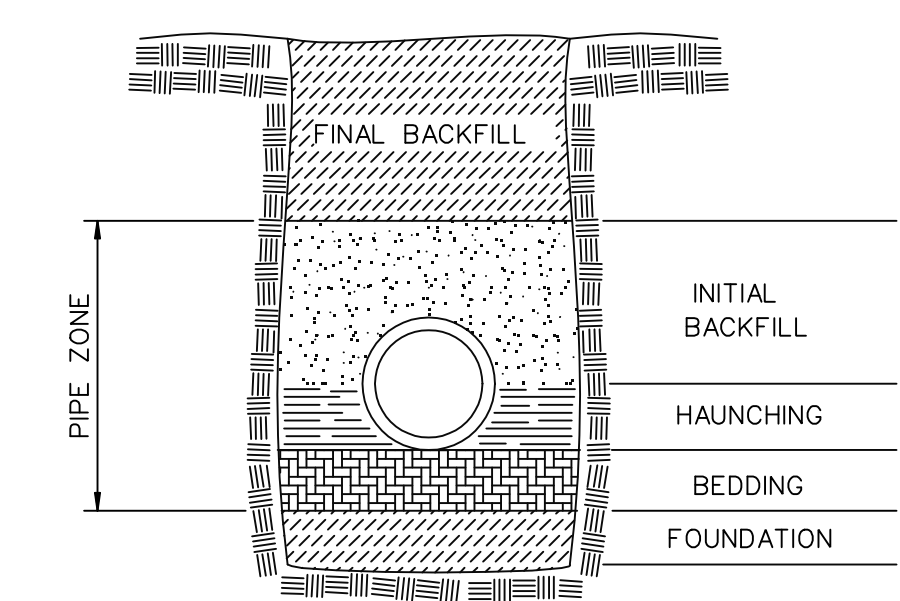
SPECIAL STONE AGGREGATE BACKFILL ASTM SPEC. D448- GRADATION NO. 57 OR AS APPROVED BY THE ENGINEER 8" LOOSE LIFTS SHALL BE COMPACTED TO 95% STANDARD PROCTOR



PIPE BEDDING DETAIL UNDER PAVEMENT
NOT TO SCALE

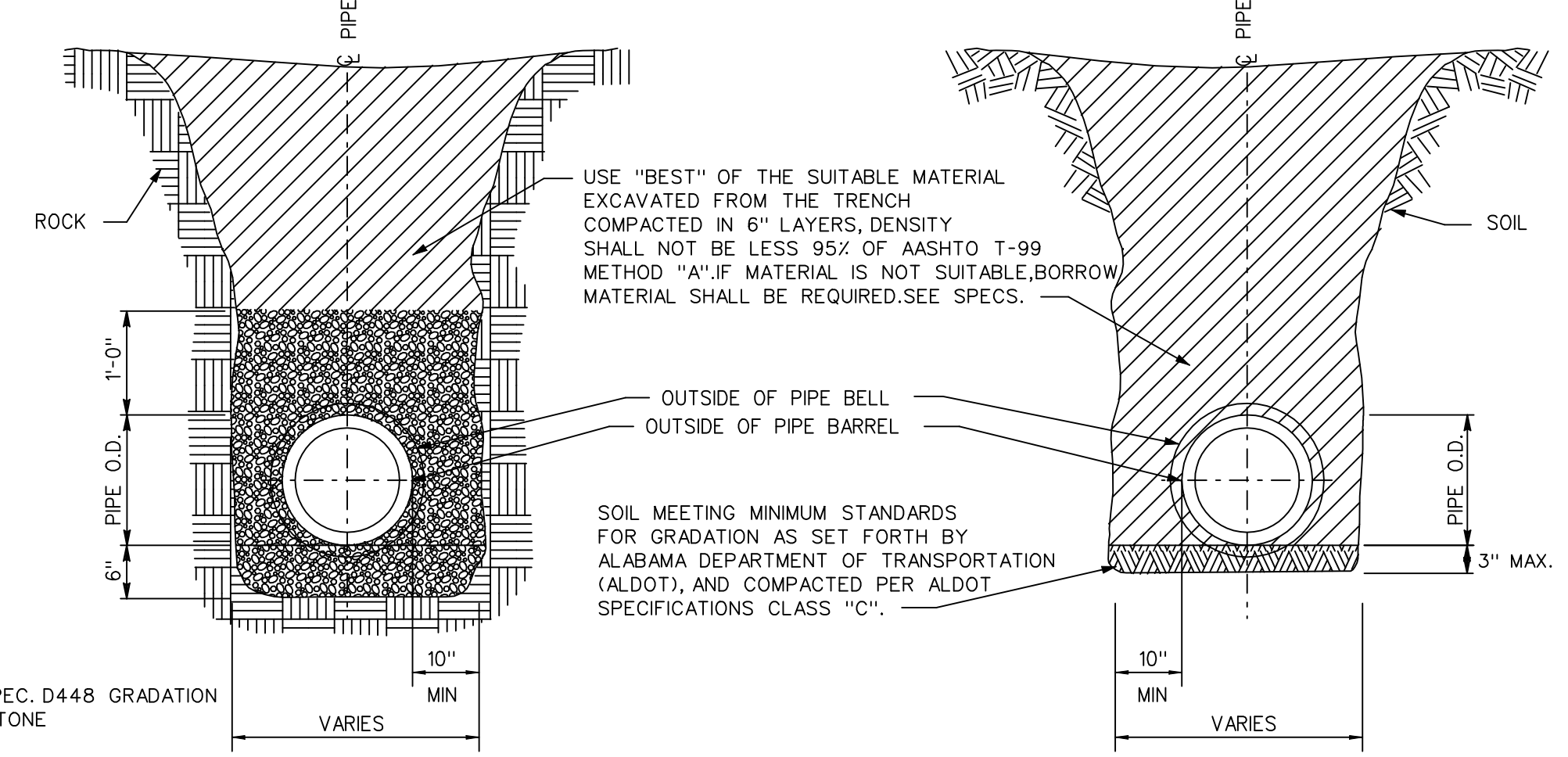
FITTING SIZE	TEE, WYE, PLUG, OR CAP		90° BEND PLUGGED CROSS		PLUGGED ON RUN				BEND ANGLE							
	A	V	A	V	A	V	A	V	45°		22 1/2°		11 1/4°			
4	2	1/4	2	1/4	2	1/4	2	1/4	1.5	1/4	1	1/4	1	1/4		
6	3.5	1/4	3.5	1/4	3.5	1/4	3.5	1/4	2	1/4	1.5	1/4	1	1/4		
8	5	1/2	6	1/2	5	1/2	6	1/2	3.5	1/4	2	1/4	1.5	1/4		
10	7.5	1/2	9.5	3/4	7.5	1/2	9.5	3/4	5.5	1/2	3	1/4	2	1/4		
12	10	3/4	15	3/4	10	3/4	15	3/4	7.5	1/2	4	1/2	3	1/4		
14	15	3/4	18	1	15	3/4	18	1	10	3/4	6	1/2	4	1/2		
16	20	1	24	1	20	1	24	1	15	3/4	7.5	1/2	6	1/2		
18	25	1	30	1 1/2	25	1	30	1.5	20	1	10	3/4	7.5	1/2		
20	30	1 1/2	36	2	30	1.5	36	2	25	1	15	3/4	10	3/4		
24	45	2	54	3	45	2	54	3	30	1 1/2	20	1	15	3/4		
30	50	3	60	4	50	3	60	4	37.5	2	25	1	20	1		
36	60	4	72	5	60	4	72	5	49	3	30	1 1/2	25	1		
42	70	5	84	6	70	5	84	6	56	4	35	2	30	1 1/2		
48	80	6	96	7	80	6	96	7	65	5	45	3	40	2		
54	90	7	108	8	90	7	108	8	75	5	60	4	50	3		

HORIZONTAL BENDS LEGEND
A = MINIMUM BEARING AREA OF THRUST BLOCKS IN SQ. FT.
V = MINIMUM CONCRETE VOLUME OF THRUST BLOCKS IN CUBIC YDS.

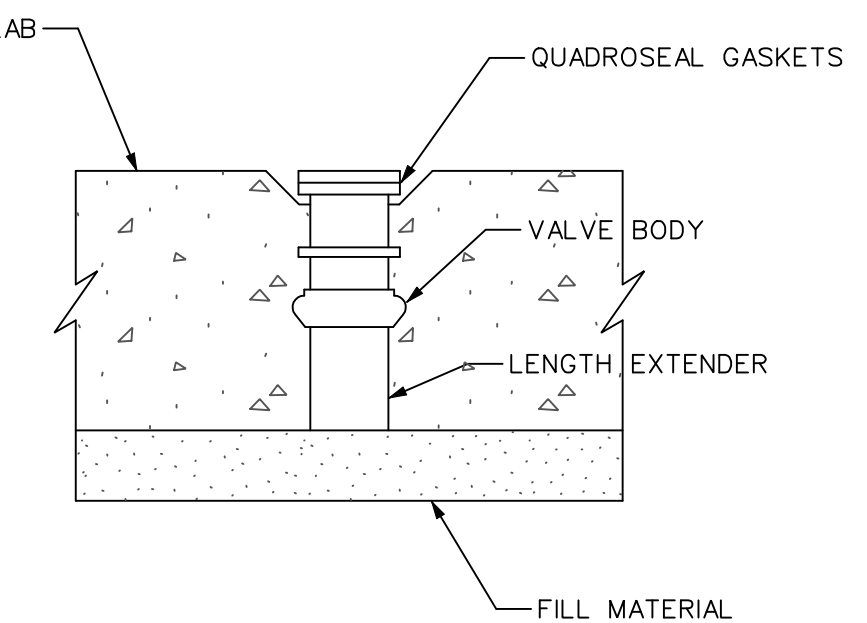


PIPE INSTALLATION TERMINOLOGY
NOT TO SCALE

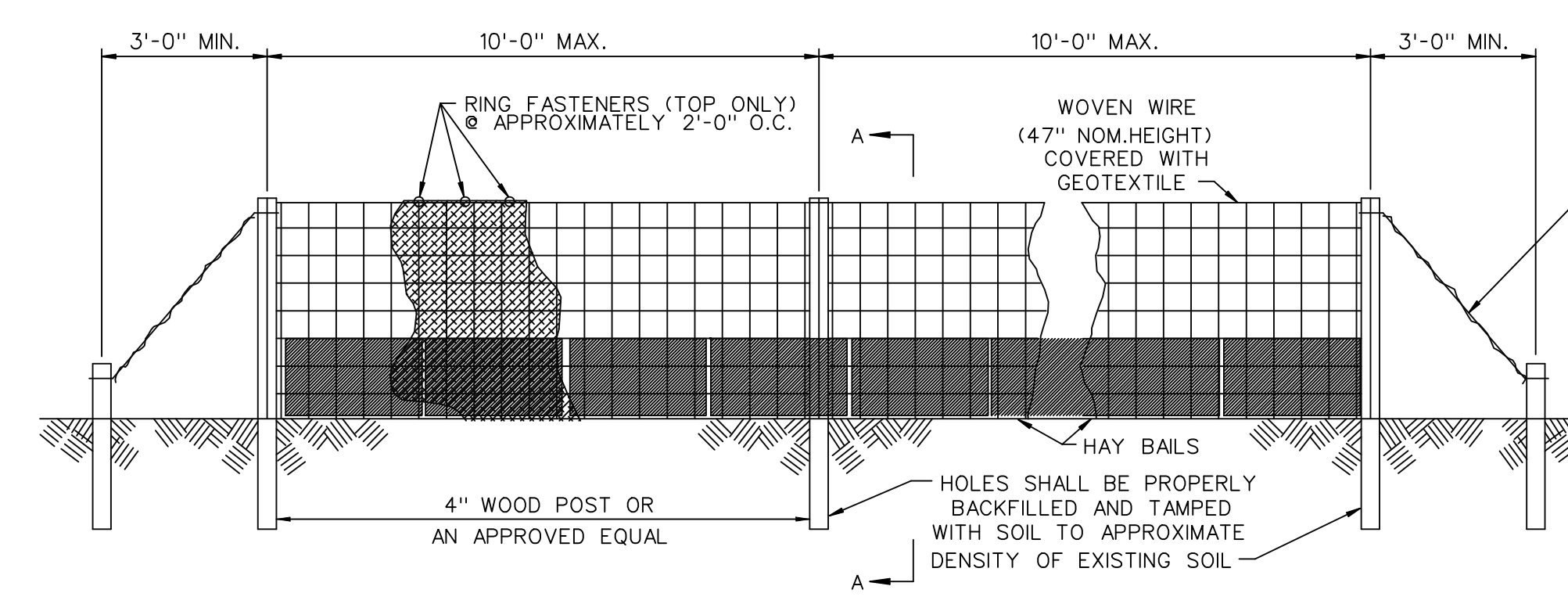
TYPICAL CONCRETE BRACE FOR HORIZONTAL FITTINGS



ROCK WATER MAIN TRENCH BACKFILL
N.T.S.
SOIL WATER MAIN TRENCH BACKFILL
N.T.S.

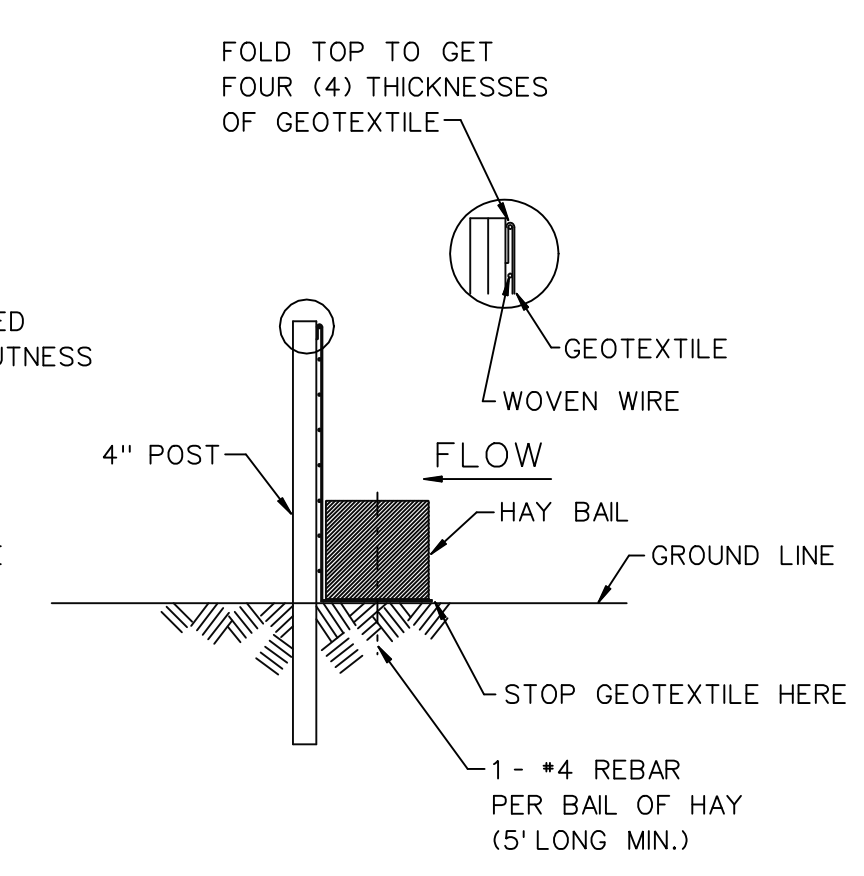


FLOOR-TYPE PRESSURE RELIEF VALVE DETAIL
NO SCALE



GENERAL NOTES:
(1) EROSION CONTROL FENCING SHOULD BE LOCATED ALONG EDGE OF CLEARING LIMITS ADJACENT TO ALL STREAMS AND CHANNELS.
(2) THIS DETAIL IS A MINIMUM REQUIREMENT.
(3) GEOTEXTILE FABRIC SHALL BE WOVEN STYLE *2125 AMOCO FABRIC AND FIBERS COMPANY.

SILT FENCE DETAIL
NOT TO SCALE



SECTION "A-A"

NO.	DATE	REMARKS	BY
REVISIONS			

The Town of
REECE CITY, ALABAMA
REECE CITY WATER TREATMENT PLANT IMPROVEMENTS
DWSRF PROJECT NO. FS010480-02
CONTRACT NO. RC24 146

PIPE BRACE AND MISCELLANEOUS DETAILS

Utility Engineering Consultants, LLC

DESIGNED: DBB
DRAWN: LTH
SCALE: AS NOTED
DATE: APRIL, 2025

APPROVED: [Signature]
REFERENCE: RC24146L018.DGN
JOB NO.: RC24 146

SHEET 18 OF 18